

THE PIG *multiple*



valuing the Danish pig

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Abstract

Like perhaps no other domesticated animal, the pig has had the greatest impact on Danish society and culture. The role of pork as a integral part in many important Danish holiday meals and traditional dishes cannot be understated. Furthermore, the production of Danish pigs is one of the largest agricultural exports of Denmark, and is considered to be amongst the best in the world.

Despite this, the general perception of pork is declining in Denmark, and many consider the products to be of low value. Especially foodservice professionals such as chefs, are increasingly turning their backs on Danish pork. But what is the cause of this perception and what can be done to turn this trend around? Before these questions can be answered, we first need to understand what makes the pig valuable for different actors.

The aim of this project is therefore to understand the different enactments that constitutes value in regard to the Danish pig. This was achieved through interviews with different actors and observations in both piggeries and at industry workshops. These actors varied from farmers and chefs to CEO's and consultants within the pig industry. Furthermore, opponents of the production were represented by Animal Protection Denmark (APD).

This thesis was initially inspired by a meeting with the Danish Food and Agriculture Council (L&F), where a new campaign focusing on increasing the value of Danish pork, specifically within foodservice in Denmark, was presented.

Our interviews and observations revealed the field to be immensely complex with actors enacting and perceiving the pig in widely different ways. Drawing upon theoretical inspiration from esteemed scientists such as Annemarie Mol, Frank Heuts and John Law, this research seeks to understand the multiplicity of the pig and its enactments, expressed within the field. Within our analysis, central themes, impacting the enactments of the pig, such as efficiency, world leadership and craftsmanship, were discovered and explored further.

As a final note, this research does not seek to provide concrete answers on how to increase the perceived value of the Danish pig, but rather to seek to understand why and how the pig is enacted differently by the actors.

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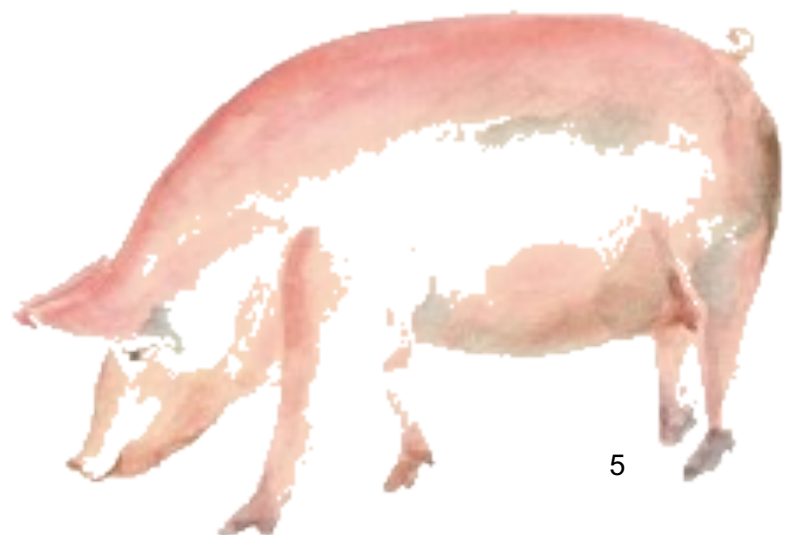
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1.0	Introduction.....	6
1.1	Structure of the project.....	6
1.2	Collaboration with the Danish Food and Agriculture Council	7
1.3	State of the art.....	8
1.4	Professional relevance and motivation	10
2.0	Research question and Delimitation	11
2.1	Delimitation.....	11
2.1.1	Industry, foodservice and the consumers	12
2.2	Problem outline	15
2.3	Research question.....	15
3.0	The story of the Danish pig	17
3.1	The early years of Danish pig production (1887-1914)	17
3.2	Modernisation of the pork production (1914-1970)	18
3.3	The modern state of the Danish pork sector (1970-2018)	19
4.0	Overview of central actors of the industry	20
4.1	Danish Crown.....	20
4.1.1	Organisation of Danish Crown.....	21
4.2	The Danish Food & Agriculture Council	22
4.3	Pork production in Denmark	23
4.3.1	Types of pork production in Denmark.....	23
4.3.2	Statistics of the Danish pork production	24
4.3.3	Pig population in Denmark 1990-2016.....	24
4.3.4	Danish pork & live animal export (2000-2016).....	24
4.3.5	Domestic consumption of pork	25
5.0	The Complex pig.....	29
5.1	The cultural importance of pork in Denmark.....	29
5.2	Complex symbolism and 'Frikadelle gate'.....	30
5.3	The intelligent pig	32
5.4	Gastronomical importance.....	33
5.5	Food safety and mass production in the pig industry.....	34
	Error! Bookmark not defined.	
6.0	The scientific standpoint	37
6.1	Actor Network Theory.....	37
6.2	Literature search.....	39
7.0	Our journey into the field.....	41
7.0.1	Presentation of informants	41
7.1	Meeting with L&F	44
7.1.1	Initial brainstorm.....	44
7.1.2	Exploring the Danish lab idea	45
7.2	Meeting the field	46
7.2.1	The field.....	47
7.2.2	Approach to the field.....	47
7.2.3	Observation	48
7.2.4	Observation guides.....	48

7.2.5 Snowballing	49
7.2.6 A divided industry.....	50
7.3 Initial theoretical approach	51
7.3.1 Generating the best evidence	51
7.3.2 Situational analysis	53
7.3.3 Using Situational analysis	55
7.3.4 Preparing to enter the field	58
7.4 First field trip	59
7.4.1 Understanding the field.....	62
7.4.2 Interview strategy	63
7.4.3 Practical planning of interviews	66
7.4.4 Reflections on the field.....	69
7.5 Revisiting theory	70
7.5.1 Multiplicity	71
7.5.2 The body multiply.....	72
7.5.3 Multiplicity in the field	74
7.6 Second field trip.....	75
7.6.1 Focus group interview	78
7.6.2 Our focus group.....	79
7.6.3 Focusing on value	80
7.7 Theoretical approach	80
7.7.1 Valuing in practice	81
7.7.2 Final reflections on our journey	85
8.0 Analysis: The pig-multiple.....	87
8.1 The Animal.....	88
8.1.1 The Animal: Monetary register	88
8.1.2 The Animal: Handling register	93
8.1.3 The Animal: History time register.....	97
8.1.4 The Animal: Naturalness register	102
8.1.5 The Animal: Sensual value register	108
8.2 The Product	113
8.2.1 The Product: Monetary register	113
8.2.2 The Product: Handling register.....	116
8.2.3 The Product: Historical time register.....	118
8.2.4 The Product: Naturalness register.....	120
8.2.5 The Product: Sensual register.....	121
8.3 The Symbol	123
8.3.1 The Symbol: Monetary register	124
8.3.2 The Symbol: Handling register	126
8.3.3 The Symbol: Historical time register	130
8.3.4 The Symbol: Naturalness register.....	133
8.3.5 The Symbol: Seduction	136
9.0 Discussion	139
9.1 Efficiency, value and ethics	140
9.2 World leader	148

9.2.1 World leader multiple	151
9.3 Craftsmanship.....	157
9.3.1 Craftsmanship and care.....	158
9.3.2 Craftsmanship and the right to produce	161
9.3.3 Creating shared value and innovative solutions.....	162
10.0 Limitations	166
11.0 Conclusion	166
12.0 Future research	171
13.0 Literature list	172



1.0 Introduction

Denmark is a lovely country of wide beech trees, salty shores and wavering hills and valleys as Adam Oehlenschläger wrote it in Danish national anthem in 1819 (Oehlenschläger, 1819). The natural bounty that Danes have been able to reap from these shores and valleys throughout history, has in many ways defined both the nation and the Danish people as one of farmers and fishermen, living with and of the land (Engberg and La Cour, 1993). This legacy is still visible, especially when looking at the sheer volume of food produced and exported from the Danish soil each year. It becomes even more impressive when the size of the country and its population is taken into consideration. The Danish farming sector manages to produce food for more than 30 million people - an impressive six times the population of the country and is further underlined by the fact that 60% of the country is cultivated (Løvenbalk Hansen, 2017). However, in recent years the Danes seems to have turned their backs on much of the Danish agriculture sector. As the efficiency of the industry has grown, so has the feeling that agriculture has become increasingly divorced and divided from the Danish society as a whole. It used to be that everybody knew a farmer, now no one does. In no other sector is this more apparent than the Danish pig production. Here the apparent divide is increasingly outspoken and fronts are drawn, in what resembles a full scale war on words. This was recently demonstrated by targeted messages such as the "cage pig - no thank you" campaign, by Animal Protection Denmark, focusing on the perceived lack of animal welfare in the industry. The imagery is clear. The country seems to be facing a deep divide where industry and producers are digging trenches on one side, while foodservice and Animal Protection Denmark are digging their own trenches on the other. In between; a warzone of accusations, opposing facts and deeply rooted misunderstandings.

It is becoming increasingly more important to understand the multiple enactments and perceptions of the Danish pig as well as the value it holds and the value it seems to have lost. Consequently, this project seeks to investigate the different perceptions of what constitutes a valuable Danish pig. Through several interviews with farmers, chefs, NGO's, industry as well as observations in piggeries and at workshops, this study seeks to create understandings and identify commonalities as a way to build bridges instead of trenches, so that we can once again agree that Denmark is a lovely country.

1.1 Structure of the project

This research paper is divided into several main parts, easily navigated by the use of numbering; Overview/story of the industry, The complex pig, Our journey, Analysis and

Discussion, Conclusion. The divisions is created to increase the readability of the paper, and to allow the reader to form a working overview.

Firstly, the historical context of the Danish pig production, as well as the structure and impact of the industry is presented. This allows the reader to explore the context of the field and to give a sense of the scope of the sector.

Secondly, the project elaborates on several of the inherent complexities of the Danish pig as well as the Danish pig industry as a whole. This part is focused on showcasing the different roles in which the pig is perceived both as a cultural, symbolic, ethical and gastronomic entity, thus underlining the multiplicity of the pig.

Thirdly, we describe the journey of the study somewhat chronologically, as we embarked on it during the data collection and within the writing process. Through the use of narrative descriptions, we seek to illustrate any initial impressions of encountering the field, as well as the challenges experienced in working with such a controversial subject. Also, this part describes our methodological considerations as well as our theoretical reflections, as an interwoven part of our journey.

In the fourth part, relevant theory is utilised to unfold the empirical data on the basis of the observations and interviews conducted in the field. Additionally, the analysis section outlines the results uncovered during our fieldwork as relevant findings are presented in the context of multiplicity.

Finally, the fifth part discusses dominating themes uncovered within the analysis. Here we will discuss and compare relevant observations, as well as introduce literature to rationalise the findings in order to further elaborate on the challenges and perspectives faced by the Danish pig production, by drawing conclusions and suggesting future research.

1.2 Collaboration with the Danish Food and Agriculture Council

This project was initially based on a meeting at the Danish Food and Agriculture Council (Landbrug & Fødevarer) in this project abbreviated to L&F, with our main gatekeeper senior consultant, Andreas Buchhave. In this initial meeting, we were presented with a concrete problem currently faced by the industry i.e. a drop in the perceived value of danish produced pork meat. This meeting inspired us to focus the project on Value within the danish pig production. However, it is important for us to emphasise that this paper is not meant as a commissioned work for L&F but rather that we were inspired by the problem presented by L&F.

All though we have received information and funding from the L&F, we have at no point been instructed in what to or how to conduct our research. Though we have not signed any agreements with L&F we do realise that our close collaboration with the sector has a potential

impact on the way we conducted our study. Some of the more obvious ways in which the project has been impacted by L&F, has been in our delimitation of our field of interest. During our first meeting with Andreas Buchhave we were presented with the problem of the decrease in value of pork in the context of foodservice, a context that we have chosen to keep as a main focus of our research. Andreas also acted as gatekeeper to materials, statistics and other information released by Landbrug og Fødevarer, that might not have been obtainable without this close collaboration.

Furthermore, many of the informants we have been in contact with, such as Jesper Jæger from Tullip and Henrik Billmann from Friland have in no small part been due to our collaboration with L&F. Additionally, through our collaboration with L&F we have been invited to take part of meetings and workshops conducted by the industry, providing us with a unique insight into how the industry functions, and the inherent challenges and problems that lies within.

During the process of writing this project it became important for us to reflect on the role that our collaboration with L&F had on our project. Not only in the way it shaped our initial focus of the project but also in how it has impacted our perception of the field.

To counteract any concerns, we had regarding creating a one-dimensional view of the field due to our close collaboration with L&F and the industry, we sought to gather empirical data outside of the actors presented to us by L&F. This was achieved by contacting actors outside of the sphere of interest of L&F, some in direct opposition to many of the actors in the industry, such as chefs and the Animal Protection Denmark (Dyrenes Beskyttelse) abbreviated to APD. These voices are presented to act as a counterweight to the information received from L&F and other actors within the pig industry.

Ultimately it isn't possible for us to completely write off the influence our close collaboration with the industry had on how we have chosen to approach the field, as well as who and what we have chosen to focus our project around.

No stakeholders, including L&F have at any point been granted editorial rights to either data collection or analysis, nor have they requested any final say in the paper. This ensures that both data collection and use of data remains independent. However, the fact that they have been supporting us economically in conducting our field trips as well as supplying us with data, needs to be disclosed in order to provide full transparency.

1.3 State of the art

This project is concerned with the perception of value within the Danish pork production and foodservice, both the concept of value and the pork industry has been heavily researched, however the focus on the perception of value within the pork industry, in relation to multiplicity

as a central theory, have not been explored before. In this section, we will present some of the relevant research and literature that has been conducted prior to our own, in order to demonstrate the novelty of our research as well as acknowledging previous research conducted within our field.

The current state of the art research, as found during our data collection can be divided into three distinct categories.

The first one focusing on the consumer and their relationship with the industry and how this relationship influence their choice to purchase animal products. This category could roughly be defined as animal welfare impact on the perceived value of animal's product. The articles found did not necessarily focus on pigs, however was still somewhat relevant to our research. The article *"Good taste in the meat, good taste in the mouth"* (Thorslund et al., 2016) explores how animal welfare is linked to quality in a product, by the consumers in three different european countries. This study does not concern itself with value in a broad sense but is rather focused on the importance of animal welfare for the consumer. Other similar articles represent such as *"Measuring the consumer benefits of improving farm animal welfare to inform animal welfare labeling"* (Kehlbacker, Bennett and Balcombe, 2012), *"Citizens, Consumers and farm animal welfare: A Meta-analysis of willingness-to-pay studies"* (Clark et al., 2015) and *"Consumer preference for pig welfare - Can the market accomodate more than one level of pork welfare?"* (Denver, Sandøe and Christensen, 2015) all touch upon how consumers perceive value in the context of animal welfare, but unlike our paper, the focus is squarely on the relationship between the consumer and the industry, thus not considering the industry itself. Other studies further elaborates on the consumer perception, such as (Krystallis et al., 2009, Latvala et al., 2012) increasingly focusing on self reported intentions for consumption patterns in relation to pork, and meat consumption but does not actively seek to investigate the realistic implementations of these intentions.

The second category of relevant state of the art research was focused on consumer preference and opinion about quality and satisfaction of both pork and beef products. The research article *"Consumers expected quality and intention to purchase high quality pork meat"* (Papanagiotou, Tzimitra-Kalogianni and Melfou, 2012) focused on uncovering the possible differences and similarities between perceived quality and the intention of buying pork. Other research worked with customers value and quality perception of meat products included; *"Sensory and consumer evaluation of pork loins from crossbreeds between Danish Landrace, yorkshire, Duroc, Iberian and Mangalitza"* (K. Straadt, D. Aaslyng and Christine Bertram, 2012), *"European citizen and consumer attitudes and preferences regarding beef and pork"* (Verbeke et al., 2009) and Consumer perception of pork eating quality as affected

by quality attributes and end-point cooked temperature (Moeller et al., 2008). Each of these studies explored the sensory and qualitative attributes perceived by consumers. Potentially, this aspect of value could prove very relevant for informing on value creation on the plate, but represents a focus outside the scope of our paper.

The final category of state of the art research relevant to our field regards value perception and multiplicity. This paper seeks to understand the multiplicity of perceptions of value within the Danish pig industry, through a qualitative study of some of the different actors in the industry. Consequently, we acknowledge some of the other studies that has worked with value and multiplicity before us. The three main scientific works that this paper derives its inspiration and theoretical understanding from is *“The Body multiple”* by Annemarie Mol (Mol, 2002), *“What is a good Tomato? A case of valuing in practice”* by Frank Heuts and Annemarie Mol (Heuts and Mol, 2013) and *“Notes on fish, ponds and theory”* by John Law (Law, 2012). Where the first research is specifically focused on the multiplicity inherent in the practice of treating disease in a hospital, the two others are focused on understanding the practice of producing food products, and successfully infuses the theory of multiplicity with an applicable set of guidelines, for assessing value in food items. Laws study of Norwegian Salmon farms, focused on understanding the practice of the industry and musing over the potential theoretical methods of analysis that could have been undertaken. In Heuts and Mols study about the value of tomatoes, the focus of the study was in many ways quite similar to our approach, and we make it no secret that we are greatly inspired by this study, and its potential for informing on value in relations to the pig. However, due to the fact that there is a huge difference between the tomato industry and pig industry, in both scope and complexity, our two studies are able to stand apart, thus representing separate complexities.

On a final note, there are of course many other studies relevant to our project than the ones mentioned in this section, due to the size and complexity of the field we are studying, and in order to keep this section relatively brief we have decided to focus on the three categories presented here.

1.4 Professional relevance and motivation

The perception of the value of pork in an industry, such as that of the Danish pig production encompasses many different but interconnected aspects, which is relevant and interesting to investigate from an Integrated Food Studies (IFS) perspective.

Many different variables influence the Danish pig industry, such as health, animal welfare and policy concerns, that would make it ideal to approach and research with the skills acquired throughout the different multidisciplinary courses of this education.

It was the IFS method of working with Problem Based Learning (PBL), that initially prompted

our gatekeeper at L&F to be interested in a collaboration, as it was believed that our unique vantage point could shine a new light on the challenges facing the industry. Generally, L&F is already working on understanding why the perception of pork is in decline in Denmark, and had therefore conducted statistical surveys and research beforehand.

However, we theorised that the organisation lacks an understanding of why people were perceiving pork negatively, as well as their own role in maintaining this perception.

Researching what impacts the perception of one of the largest industries in Denmark, was a unique opportunity to work in close collaboration with the industry and at the same time put the skills and knowledge acquired through our education to use out in a real world setting.

Analysing the challenges and issues that are present when producing food on an enormous scale, as the Danish pork production, gives an insight into the complexity associated with both agriculture and foodservice. This experience of conducting research in collaboration with a large industry, will contribute in developing competencies that we can bring with us into our professional life.

2.0 Research question and Delimitation

2.1 Delimitation

This research paper is conducted on the basis of fieldwork carried out within Denmark, conducting multiple interviews and observations. The focus of this study has been on researching the complex and multiple elements of value creation in relation to the Danish pig. This included applying a snowballing method, for identifying important actors within the Danish pig industry, as well as relevant outside actors to further elaborate on the overall value creation. When conducting fieldwork in a large and very complex field there are many potentially relevant subjects that could be investigated, such as end-consumer preferences for pork, practical value creation within the everyday handling process or the increasingly complex anecdotal and symbolic value creation that occurs daily as part of discourses and communications about pigs.

Although researching these aspects could potentially prove relevant and provide the field with added context, it was deemed to fall outside of the scope and focus of this particular paper.

Furthermore, many aspects such as consumer preferences for pork, has already been investigated to some degree, and information from these studies were scrutinised and applied in the extent it was appropriate. Additional efforts could be made in the future to generate other data, but this was not deemed achievable within the scope of this paper. In order to counter for bias or misrepresentation of data, several sources have been included, in order to reflect the multiple reality of information regarding the Danish pigs.

As a result of the complexities and inherent multiplicities of some of the central concepts of the paper, such as *animal welfare* it has not been possible to delimitate or comprehensively discuss all the central aspects of this paper. Certain themes, such as *naturalness*, *efficiency* or even *welfare*, could potentially be further investigated in the context of multiplicity, and provide a deeper understanding of the underlying processes undertaken when assessing value. As animal welfare does not translate into a universal definition, several understandings will be presented, but not elaborated on in detail.

However, within this paper common phrases such as animal welfare, exclusively refers to the living conditions of Danish pigs unless else stated. Many other central themes identified may also hold multiple meaning, but have been adapted in their most commonly known definition, as expressed by our informants.

Additionally, since consumption is relayed in reference to consumers, consumer choices and consumer preferences, it could prove beneficial to conduct an in depth analysis of the Danish consumer, to further elaborate on the basis for value assessment of food items. However, due to the limited scope of this paper, foodservice experts i.e. chefs and other food-professionals acts as informants on the consumers behalf, as this study acknowledges foodservice as an indicator for existing and future consumption patterns, representing a large part of the Danish consumers.

Finally, two observations were carried out at piggeries i.e. one conventional and one organic. As this study did not allow for additional observations, the producers observed and interviewed are acknowledged as experts in the daily handling of the pigs within their specific production methods. This study acknowledges that there can be several fragments within industry, meaning that industry cannot necessarily be construed as a homogeneous field. As this paper will focus on the perception and creation of value, the interviewed farmers will, in addition to farmers present at “Nu er det nok!” in Horsens and relevant information obtained from L&F, represent the practical aspects of the Danish pig industry as a whole.

2.1.1 Industry, foodservice and the consumers

Due to the size of the overall Danish pig production industry, it is important to differentiate between the different aspects of industry. The phrase *industry*, will be applied in its broadest sense, covering a diverse range of actors involved in the Danish pig production, including processing, production, farming, sales, development and all other relevant actors involved in the industry. Opposingly, the phrase *production* will employ a more constricted definition, mainly referring to the actual farms, farmers and other actors directly involved in rearing and producing the pigs.

Likewise, in this paper, the phrase *foodservice* will be used to illustrate the collected restaurant, café, canteen and catering platform. As part of collaborating with L&F and whilst interviewing multiple sources, the collective common name was utilised continuously by organisations and restaurants themselves. Moreover, throughout our research, foodservice is frequently used as a collective term for the all business involved in serving food outside of a private home, as well as a commonly used phrase by organisations working with food and restaurants. Consequently, foodservice appears to be a preferred common phrase used by a wide range of professional actors (Landbrug&Fødevarer, 2015, DyrenesBeskyttelse, 2017, Mikkelsen, 2017, Landbrug&Fødevarer, 2017, fødevarefortælling, 2016, DanmarksStatistik, 2017, Økologisklandsforening, 2018).

The overall rationale, for narrowing our scope to foodservice actors, as opposed to concentrating on the end consumer stems from two distinct considerations.

Firstly, the initial problem as defined by L&F, specified a wish for an added focus on foodservice, as this segment has professional relevance for L&F as an organisation. However, during our journey, L&F did offer funds for an end-consumer survey if this would have benefited our project. This was rejected due to the overall scope of the assignment.

Secondly, as part of the outline of the project, an extensive delimitation process was undertaken to determine the scope of our study. An active choice was made to use interviews and reports concerning chefs and other foodservice professionals to inform on consumer attitudes. Importantly, informants from foodservice was referred to as food-experts, as they are experts within defining and analysing the needs and wishes of their guests.

Overall, food trends and consumer desires are influenced by a wide range of factors. Within creating movements and trends, chefs often hold a crucial role, as restaurants acts as incubators for new perspectives on food (Bomkamp, 2017). Many food movements start in fine dining, and trickle down through the supply chain, eventually becoming common practices (Bomkamp, 2017).

As exemplified by the New Nordic food movements, foodservice can act as trailblazers, meaning that food movement can develop in restaurants, and then later affect the consumers in non-foodservice venues such as supermarket and retail. Importantly, the consumer or guest represented by foodservice and the consumer in retail, are not necessarily identical. Generally, foodservice represents a higher ratio of early adopters, meaning that many movements can be identified early, if investigating foodservice as an incubator for opinions and tendencies, as top-down influences (Bomkamp, 2017).

According to (Manniche and Sæther, 2017) many foods undergo a diffusion, from niche productions such as restaurants, into a more commonly accepted selection. Remarkably, new tendencies also allow for increased influence in reverse i.e. bottom-up influences. Usually many food trends trickle down from restaurants, but an increasing number of food trends appears to be results of restaurants reacting to growing consumer demands, thus creating foodservice trends in reverse (Sax, 2014, Tufvesson, 2017). By paying attention and knowing the impact bottom up influences, especially via social media, restaurants are reacting to consumer demands, defusing food preferences into their menus. According to Tufvesson, 2017) a shift in evolution of food influences have caused a continuous loop of influences where food trends will either start at the top in fine dining and trickle down to make their way into casual dining restaurants and retail, or start from a consumer demand, thus causing leading actors in foodservice to become the early adapter. Whichever influence would to be the case for consumption patterns of Danish pork, foodservice appears as a effective tool to either map tendencies originating from the chefs, or tendencies responded to by the chef. Consequently, foodservice becomes an indicator of future food trends, and can be used to inform of underlying reasons for consumption patterns.

2.2 Problem outline

The initial problem, as presented by industry and L&F, revolved around the apparent dwindling consumption of pork, thus affecting the revenue stream of the Danish pig producers, and possibly threatening the livelihood of the farmers. However, we see multiple underlying problems, worthy of researching. Where the industry has an inherent monetary interest, when referring to value creation i.e. boosting sales and securing revenues for producers, we as researchers can assume a deeper and more objective approach to value creation. To a researcher, the problem of lowered consumption of pork, invites for a deeper more holistic investigation into the complex enactments that cannot simply be solved by quick fixes, branding or sales strategies. Luckily, the notion of exploring the increased complexity, has started to echo throughout the food industry, thus changing the problem from simply luring people into consuming higher quantities or more expensive pork products, into an investigation into why pork is losing value, and what constitute value for the Danish pig.

2.3 Research question

How is value determined in relation to the Danish pig?

- How does different enactments of the Danish pig affect the perception of the overall industry?
- What role does central actors play in influencing the perception of the Danish pig?
- Where in lies the challenges for evolving the Danish pig?

Part 1



3.0 The story of the Danish pig

The pork production is one of Denmark's largest food sectors producing just over 30 million pigs every year. This huge amount of pork meat represents much more than what can be sold in the domestic market, which is why around 90% of the meat produced gets exported (Landbrug&Fødevarer, 2017). The large export of both pork and live pigs has made the Danish pig a well known product around the world, in particular England, Poland, Germany and China which are the top four largest importers (Landbrug&Fødevarer, 2017). These countries are interested because there are several positive attributes contributed to Danish pigs, such as high food safety, animal welfare, effective growth rate, state certifications on organic production and high reliability factor.

Denmark is also home to one of the world's largest pig production and processing companies in the world, Danish Crown. Danish Crown has around 25.000 employees and a yearly turnover of around 62 billion DKK (Danishcrown, 2018). It is quite remarkable that a relatively small country, such as Denmark, has been able to become one of the world leaders of the pig production industry. To understand how Denmark became such a large player within the pork production it is necessary to look back on the last 100 years of Danish agriculture history that shows how the industry went from small farms of only a few animals to the huge conventional farms producing thousands of animals each year.

3.1 The early years of Danish pig production (1887-1914)

One central aspect that makes Danish pork production and farms stand out compared to most other farms and producers around the world, is the way in which the industry is organised. The pork production was like many other areas within Denmark, shaped by the idea of smaller producers coming together to create cooperative owned industries such as dairies, factories and butchers.

The first cooperative owned butchers were created in the end of the 1800's the purpose with these institutions was to ensure that the farmers could trade collectively and reduce competition between individual farmers. The systematisation of the Danish pork production opened a whole new market in England, where by pooling the production of several pig farmers it became economically feasible to export large quantities of bacon to the British islands. The company responsible for this new export adventure, was the DBC or Danish Bacon Company. This export shaped the industry of the time and defined the ideals for the Danish pigs, since English customers wanted bacon with less fat than the traditionally pigs produced at the time. Many farmers wanted to get their share of the emerging market and choose to reorganize their farms into producing pigs (Spink, 1977).

Even though these cooperatively owned butchers were in strong competition with the privately owned butchers, the amount of cooperatives went from just 26 in 1900 to 44 in 1914. In the same period the share of pigs being butchered in cooperative slaughterhouses rose from 50% to 85% of the total slaughtered animals in Denmark, as well as with the vast majority of Danish farmers having joined a cooperative (Danmarkshistorien.dk, 2018).

3.2 Modernisation of the pork production (1914-1970)

The productivity of the farmers rose alongside the increase of cooperatives that sprung up during the early years of the 1900, with the total value of the products going from 100 million DKK, to 3.5 billion DKK in the first 50 years of the 20th century. This increase in productivity was in large part due to the huge demand for processed products such as sausages and canned ham, in emerging markets of a ravaged post war Europe. Although the cooperative butchers were responsible for producing vast quantities of meat to both the domestic market and the European market, neither the technology nor the organisational work were very advanced, and most of the slaughtering was being done manually (Tüchsen, 2014).

However, as the demand for processed meat and the need to use all parts of the pigs rose, so did the need for mechanisation of the slaughter process. The administrative work of buying and selling the products was likewise streamlined in organisations outside of the cooperative butchers. Further optimisation of the Danish meat sector became increasingly more important due to competition outside the country combined with a decrease in the price of meat (Danmarkshistorien.dk, 2018).

These outside factors instigated an increase in domestic competition, as Danish cooperative butchers and farmers began internally competing. To mitigate this challenge, a proposal was made to unify the cooperatives into one large concern by fusing the many different cooperatives together. Although initially there was some opposition against the proposal, the first fusion happened in 1968 and in the following years several similar fusions occurred all over the country among other slaughterhouses and farms. The fusion of the cooperatives created a need to create large industrial butchers to accommodate the increase in pigs being processed, thus resulting in large slaughterhouses being constructed around the country, each specialised in producing certain products (Danmarkshistorien.dk, 2018).

While the pork processing sector was constantly changing, the animals used in the production continued to be of the Danish Landrace pig. However, this race, just like the rest of the industry, also underwent improvements through vigorous and meticulous breeding programs. It is a point of great pride in the Danish industry that pig farmers managed to breed pigs who not only grow faster and taste better but also managed to produce pigs with additional ribs and thereby increase the amount of bacon on each pig.

However, in the 1970's increasing complains about the quality of the Danish pork as well as issues with productivity and pigs with diarrhea due to new types of feed, opened up for discussions about interbreeding the Danish landrace with other breeds of pigs. The Danish Landrace pig was considered to be in need of being reinvigorated. A controversial decision was then made to introduce the English Yorkshire race into the Danish breeding system, a decision that managed to mitigate the threat to the industry (Tüchsen, 2014).

3.3 The modern state of the Danish pork sector (1970-2018)

The sector continued to change as technologies allowed pig farms to become larger and more effective. The number of Danish farms decreased, while the production kept increasing. The same happened with the cooperative butchers as they began to buy out and take over each other. After a long period of fusions, buyouts and takeovers of different cooperatives up through the 1980-90, one big collective Danish pork producer was effectively created as a result of the takeover of Steff-Houlberg by Danish Crown in 2001, giving them almost complete ownership over the entire sector (Danmarkshistorien.dk, 2018). Danish Crown then sought to continue its expansion, this time internationally, by in 2010 reorganized its structure from a cooperative to a joint stock company.

The Danish pork production has gone through a long and arduous journey from humble beginnings to one of the world leaders within their sector, a position they have reached in large parts due to the quality of the meat and the guarantee of the DANISH standard. The DANISH standard ensures the buyer high quality products, food safety and deliverance guarantee. This guarantee is validated by the legislations of the Danish state as well as the industries own requirements for the product, and is an important factor in creating trust among many domestic as well as foreign customers (Pigresearchcentre.dk, 2017).

As a result of the structural changes in the Danish pig production the whole production is undergoing a transformation from producing pork products, to producing live pigs. Many producers have undertaken the task of producing live piglets and sows as opposed to slaughter sows. Statistics indicate a dramatic rise in the number of live pigs produced for export, while the quantity of pigs for slaughter and processing are dropping domestically.

Trend in Pigmeat Export

Products

Tonnes	1996	2006	2015	2016
By-products	155,834	261,123	301,648	298,326
Live pigs and sows	41,896	173,490	394,868	375,440
Canned meat	117,387	67,468	55,790	51,663
Bacon	121,484	100,238	68,113	54,066
Carcasses pigs/sows	41,978	70,092	73,950	87,204
Cuts	679,559	1,120,666	1,056,916	1,039,877
Sausages	56,661	32,817	34,834	35,626
Total	1,214,800	1,825,893	1,986,120	1,942,203

1,000 DKK	1996	2006	2015	2016
By-products	1,031,406	1,619,806	2,769,387	3,039,656
Live pigs and sows	545,846	2,234,513	5,307,265	6,030,182
Canned meat	2,332,567	1,527,760	1,420,244	1,320,185
Bacon	2,703,786	2,265,645	1,409,620	1,072,516
Carcasses pigs/sows	490,580	732,606	657,351	848,264
Cuts	13,067,741	19,119,356	16,410,350	16,818,669
Sausages	1,041,888	741,013	916,598	965,985
Total	21,213,815	28,240,699	28,890,815	30,095,456

(Figure 1, Trends in Pig meat Export) Danish Agriculture and Food Council, (2016)

4.0 Overview of central actors of the industry

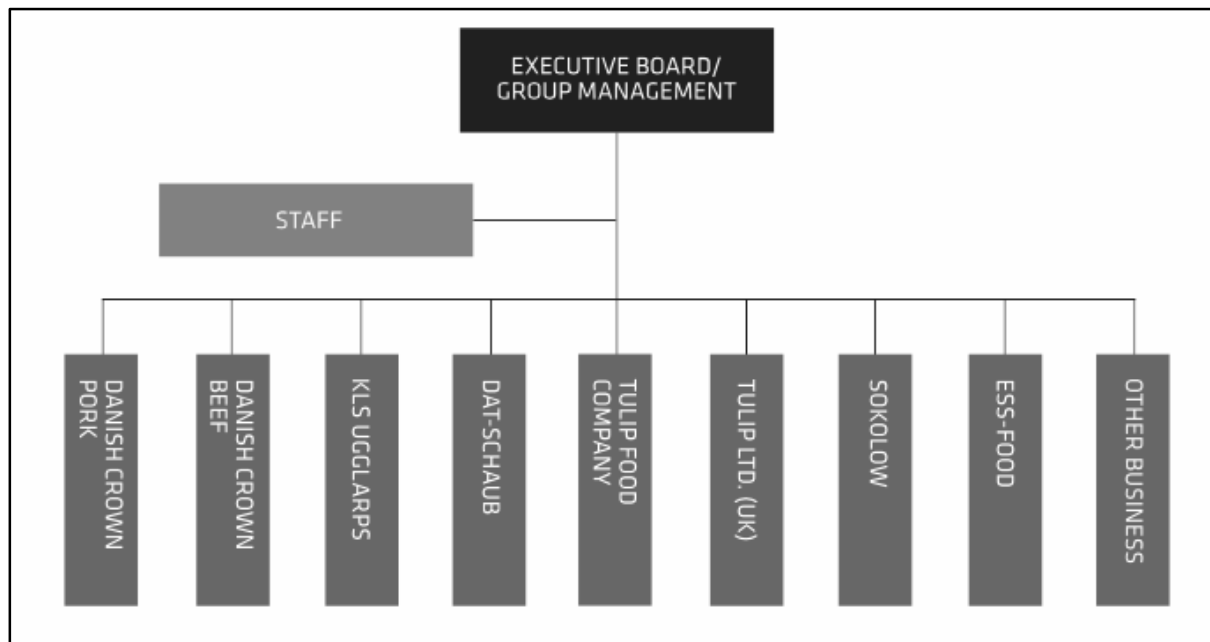
4.1 Danish Crown

Danish Crown is now one of the biggest companies in Denmark, and although pork meat plays a large and important role in the company, the company actually works with all kinds of fresh and processed meats. According to Danish Crown's own homepage, the company is responsible for the world's largest exports of pork and is Europe's largest producer of pig meat as well as being Europe's biggest supplier of processed pork. Although the company is based in Denmark, it has production in many European countries, especially in Eastern Europe as well as in China, which incidentally is also one of the biggest importers of the company's products. Danish Crown is responsible for 24% of all Danish food export, 4% of the total Danish product export and has a market in more 130 countries all over the world (danishcrown.dk, 2017). Danish Crown is organised as a joint stock company, however it is

still owned by the cooperative “Danish Crown AmbA”, with a board of directors elected from the shareholders and employee representatives, who serve their roles in two year terms.

4.1.1 Organisation of Danish Crown

Danish Crown is not merely a single company but rather the main organisation that includes several subsidiary companies, each responsible for a specific area of the company (See figure 2).



(Figure 2, Organization of Danish Crown,) danishcrown.dk (2017)

Danish Crown pork represents the part of the concern responsible with the slaughtering and processing of pigs produced and bought by the company, and has departments in both Germany and England as well as in Denmark. Danish Crown Beef on the other hand represents the slaughterhouses specialised with the working with processing cattle.

The subsidiary company *Friland* specialises in the production of both organic pork and beef meat, with and added emphasis on a high animal welfare throughout the production. Friland has worked in close cooperation with Animal Protection Denmark, to formulate a code of practice that guarantees high animal welfare that all their producers have to uphold. There are roughly around 800 farmers supplying animals to Friland and the farmers are represented in the company's board of directors in proportion to the revenue of the production branch.

The Tulip Food Company is food production and processing company, responsible for producing many popular Danish foods such as bacon, cold cuts, canned meat and ready-to-eat meals. Tulip is therefore in many ways the outwards face of Danish Crown in Denmark

that the consumers see, since they produce many of the products that Danes eat on a daily basis. However, it is not only domestically that the brand Tulip is recognised as its canned products is exported all over the world.

Although Danish Crown is not the only meat production company in Denmark it is by far the largest and the most influential, as can be seen by its many subsidiaries, the influence of the company spreads far beyond the borders of Denmark. The size and importance of the company both economically and socially through the jobs the company creates. The most important player representing not only Danish Crown, however the whole food sector, both in political issues but also in the public sphere is the Danish Food and Agriculture Council.

4.2 The Danish Food & Agriculture Council

As the largest interest group representing the Danish food and farming industries, the Danish Food & Agriculture Council (L&F) wields substantial influence in the political landscape of Denmark. The Council represent an important economic sector of Danish production as it represents roughly 24% of the countries collective export, equivalent to roughly 160 billion DKK (Lf.dk, 2017).

L&F is a result of the merging of five organisations in 2009. The five organisations originally were Danish Agriculture, the Danish Bacon and Meat Council, the Danish Agricultural Council, the Danish Dairy Board and Danish Pig Production.

The council currently represent more than 30.000 farmers, from a variety of productions all over Denmark. Furthermore, with roughly 190.000 workers as well as 300 food and agricultural business such as Arla, DLG, Danæg, Danish Crown and Friland. According to L&F themselves, they are the only interest organisation that represents the entire food value chain from farm to table. Besides offering services to the industry, the council also handles the professional interests of its members such industrial, innovation and regulatory policy framework. The organisation is also responsible for promoting Danish agriculture and food products in the international market, and is actively engaged in the EU Common Agricultural Policy (CAP). They are also well known to be the first to respond when their members are being criticized for either animal welfare concerns or food safety, and are vocal in the defence of the sector. Furthermore, the Council is the owner of the agricultural innovation and research center SEGES, which is responsible for development and implementation of new technologies and communication of agricultural related research. The center is split into several different sections, each responsible for a specific area within agriculture and marketing.

4.3 Pork production in Denmark

The production of pork meat is a very large industry in Denmark and one of the largest food production sectors in the entire country, as well as one of the most important exports. Overall, Danish Crown is the dominating actor, but smaller companies such as Tican Pork, also rear and produce pigs in the country.

The overall innovative approach to food production, has earned Denmark a formidable reputation internationally, meaning that while we might not produce huge quantities of food in a global context, we are able to create innovative and sustainable solution (fødevarefortælling, 2016). This applies to the Danish pork industry as well, where decades of investment in technology, and traceability have made Denmark a world leader in food production (fødevarefortælling, 2016). An example of this, is the creation of the Danish Standard, a certification scheme, allowing producers to easily communicate the efforts within food safety and efficient sustainable production. The Danish Standard, is widely regarded as one of the most comprehensive standardisations of pork in the world, this adds to the highly regarded image of Danish food production, as a testament to the Danish production standards, in countries like USA and China (fødevarefortælling, 2016, Seges, 2017). As an example, Danish pig producers are amongst a handful of international producers allowed to export to Chinese market, just as Friland, is the only foreign organic meat producer allowed to certify its products with the Chinese organic label (fødevarefortælling, 2016).

4.3.1 Types of pork production in Denmark

The different pork productions in Denmark can roughly be divided into three broad categories; *conventional*, *organic* and *free-range*. Other specialist production methods also exist, however these three are to be considered as the main ones.

The conventional pig production is by far the largest of the three categories and the one with the fewest requirements for the animal's welfare and feed. It is required by law that a conventional pig has at least 0,65 m² in its pig pen, farmers are allowed to fixate the sows and there is no requirement for them to have outside access. Tail-docking of the pigs are allowed, however not as a part of a routine. Consequently, most conventional pigs are without full tails. In regard to feed there is no specific legal requirements and they are allowed to be fed GMO feed (Foedevarestyrelsen.dk, 2018).

In the organic pig production, pigs are required to have at least 1,3 m² in its pen, and at no point are they allowed to be fixate just as it is a requirement that they have outdoors access at all time. Piglets are reared outdoors in the fields, and are later moved into stables, with outdoor access. Tail docking isn't allowed and at least 95% of their feed has to be organic.

Organic pigs are also castrated, however according to a recent change in rules, castration must take place under local anaesthesia (Foedevarestyrelsen.dk, 2018).

The free-range production places itself in between conventional and organic production. Free-range pigs are born on the fields, and moved to stables at the earliest after 5 weeks. There is no specific requirement of their feed, and this ensures that the products are generally cheaper than organic. Generally, free-range subscribes to most the same demands and requirements as organic production e.g. hay in the stables, strict rules for the use of medicine etc. but the pigs are allowed conventional fodder (Foedevarestyrelsen.dk, 2018).

4.3.2 Statistics of the Danish pork production

The numbers and statistics presented in this paper are based on the information made available by L&F, who does a comprehensive analysis of the industry every year. The numbers cover the amount of pigs being slaughtered in the country as well as the export of both pig meat and live animals to the rest of the world. The statistical data available covers the last 26 years of Danish pork production from 1990 to 2016.

4.3.3 Pig population in Denmark 1990-2016

The size of the Danish pig herd has increased from 9.5 million to around 12.5 million within the last twenty six years, an increase of about 24%. The majority of this increase occurred in the 1990's, and the population has been relatively stable since 2001, with the population of pigs fluctuating from 13.7 to 12.4 million in the years between 2001 and 2016 (Danish Agriculture and Food Council, 2002, Danish Agriculture and Food Council, 2017). Within the same period, the number of specialised farms in the production of pigs fell drastically from 31,898 in 1991 to 3,294 in 2016, a decline of around 90% in a twenty year period. To compensate for the fall in the number of farms, the size of the individual pig farmers herd rose appropriately in the years between 1991 and 2016. The number of pig farmers with herds of 3000 heads of pigs or less fell from 30,090 to 12,200, at the same time the number of farmers with herds of more than 3000 heads rose from 804 to 2187 (Danish Agriculture and Food Council, 2002). In 2016 around 41% of herds had 3000 or more heads of pigs per farmer (Danish agriculture and food council, 2017).

4.3.4 Danish pork & live animal export (2000-2016)

The Danish pig export is divided into two categories, the first, meat, includes all parts of the slaughtered animals and the second, live pigs, includes both weaners, sows, breeding pigs

and slaughter pigs. The five biggest categories of meats for export are bacon, canned meats, cuts, whole carcasses and by-products.

In 2000 Denmark exported 1,376,000 tonnes of pork products to the rest of the world.

In 2016, the Danish export to the rest of the world rose to around 1,986,000 tonnes pork products, an increase of around 13% since 2000. The two largest categories of products being sold are still cuts and by-products with a net weight of 1,039,877 tonnes of cuts and 298,326 tonnes of by-products, representing an increase of 10% growth in the export of cuts and a 35% increase in export of by-products. The market share of these numbers was divided between the EU and 3rd world countries, with 60,7% in the EU and 39,3 in 3rd world countries. The amount of live pigs exported from the country in 2016 was around 13,5 million pigs, an incredible increase, since the export has grown to almost ten times in size compared with the export from 2000 (Danish Agriculture and Food Council, 2017).

4.3.5 Domestic consumption of pork

Overall, Danes still consume large quantities of pork, both when eating at home, and in restaurants. Pork is increasingly seen as a cheaper option than other meats such as beef, and prices have been steadily dropping, making pork one of the cheapest meat choices (Lassen, 2002). Statics show that lowering of consumer prices on pig meat is ongoing.

Consumer Prices of Pigmeat in Denmark					
DKK/kg	Tenderloin	Cuts from loin	Bellies	Cuts from ham	Minced pigmeat
1st quarter	51.30	47.56	46.64	58.93	38.35
2nd quarter	54.70	52.63	53.86	57.05	37.98
3rd quarter	53.95	48.25	50.16	58.84	39.33
4th quarter	54.89	43.96	44.47	60.23	37.97
Total year 2016	53.63	47.99	48.75	58.68	38.39
Total year 2015	54.88	48.10	49.44	61.04	39.23

Source: GfK, ConsumerScan

(Figure 3, Consumer Prices of Pig meat in DK) Danish Agriculture and Food Council, (2016)

There are many different ways to measure how much meat a country consumes, and with regards to the Danish consumption the numbers vary greatly depending on the source. According to Animal Protection Denmark, the average Dane consumes more than 100kg/meat

per year, making Denmark one of countries that consumes the largest quantity of meat per capita (DyrenesBeskyttelse, 2017) (see figure 4).

Roughly, this measurement is calculated by adding the country's production with its import and subtracting the export.

However, according to the Danish Agriculture and Food Council, this way of measuring is misleading, since the production numbers are made up of the weight of whole animal carcasses which includes large amounts of inedible products like bones, cartilage and meats not suitable for human consumption (Danish Agriculture and Food Council, 2016).

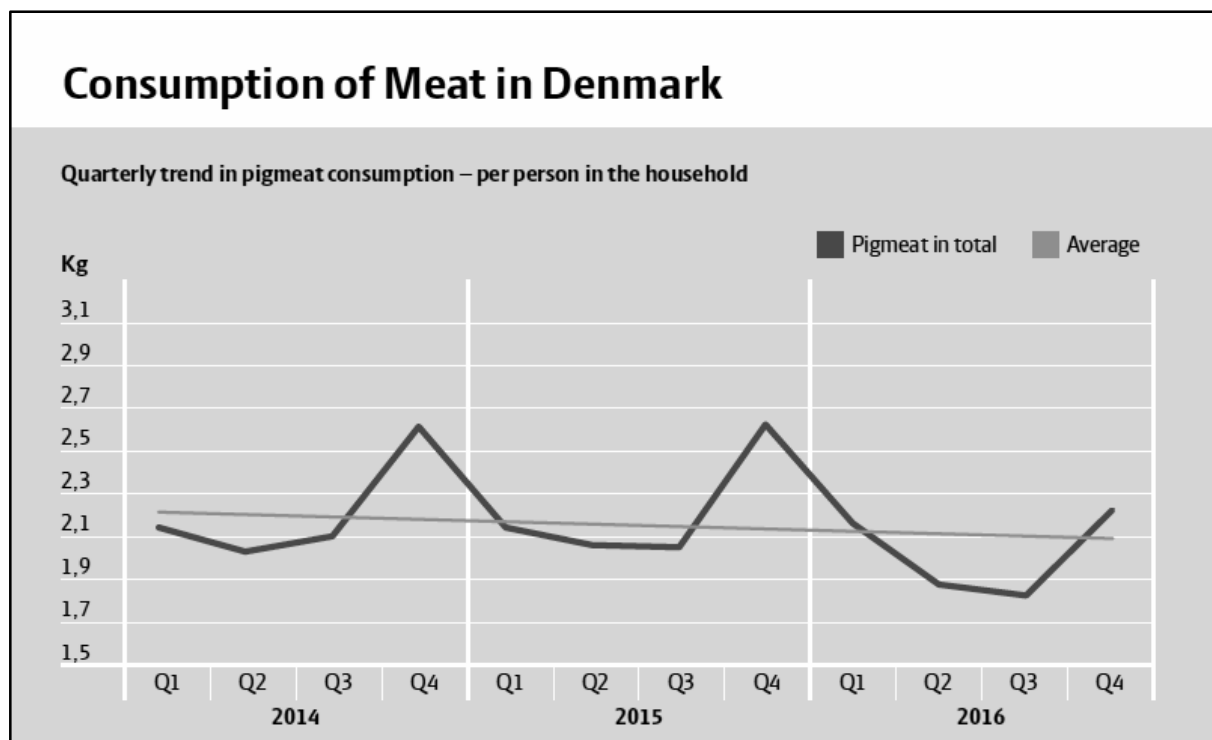
Consumption of Meat in the EU						
Kg per capita	2006			2016		
	Pigmeat	Beef	Poultry	Pigmeat¹⁾	Beef¹⁾	Poultry¹⁾
Austria	55.9	18.1	19.0	47.4	18.2	18.0
Belgium / Lux.	40.2	17.4	23.0	39.2	14.9	21.0
Denmark	55.1	26.5	20.0	50.6	26.5	34.0
Finland	33.4	19.0	16.0	34.0	18.9	22.0
France	34.0	26.7	24.0	32.5	24.7	27.0
Germany	54.7	12.6	17.0	51.6	13.7	20.0
Greece	29.1	18.4	18.0	27.6	14.4	23.0
Ireland	45.5	21.5	29.0	39.5	19.2	33.0
Italy	39.2	25.3	18.0	37.4	18.6	21.0
Netherlands	43.3	19.0	22.0	53.1	19.0	23.0
Portugal	42.4	18.5	30.0	43.3	16.6	40.0
Spain	58.2	15.3	30.0	52.4	12.7	31.0
Sweden	37.5	24.0	16.0	38.1	26.3	23.0
UK	24.3	20.9	29.0	23.6	18.3	32.0
Cyprus	99.2	8.1	41.0	67.6	8.6	47.0
Czech Rep.	43.2	9.4	23.0	44.6	7.2	20.0
Estonia	34.9	13.7	19.0	43.8	6.9	26.0
Hungary	46.2	3.9	26.0	44.1	3.8	34.0
Latvia	30.8	8.5	22.0	42.0	5.6	22.0
Lithuania	41.6	7.6	25.0	52.8	6.7	29.0
Malta	32.1	22.0	25.0	32.4	21.3	31.0
Poland	51.3	4.9	22.0	52.7	4.7	26.0
Slovakia	32.4	4.7	20.0	40.5	4.0	20.0
Slovenia	29.1	20.3	21.0	30.9	19.9	27.0
Bulgaria	0.0	15.6	19.0	26.6	4.8	25.0
Romania	0.0	11.6	17.0	31.6	6.0	29.0
Total EU-27	41.3	17.4	22.0	40.7	15.3	26.0
Croatia	42.5	-	13.0	40.2	20.3	17.0

¹⁾ Provisional figures
Source: GIRA

(Figure 4, consumption of Meat in Europe) Danish Agriculture and Food Council, (2016)

As these examples demonstrates, it can be difficult to determine the exact consumption of meat in Denmark, therefore all numbers provided in this section cannot be guaranteed to be 100% accurate, but does indicate, regardless of the source, that the Danish meat consumption is very high, and that pork is losing market shares when compared to beef and chicken.

In the 2006 the per. capita consumption of pork meat in Denmark was 55,1 kilograms. This was more than both beef and poultry combined, which compared with an average consumption of 41,3 kilograms in the rest of Europe placed Denmark among the top six biggest consumers of pork. In 2016 the per. capita consumption of pork fell to 50,6 kilograms with the beef consumption staying exactly the same as ten years ago. However, the poultry consumption almost doubling from 20 to 34 kilograms in the same period (Danish Agriculture and Food Council, 2017). This does not represent an abnormality, rather a trend in a decline in consumer interest in pork products, throughout Denmark. Statics also reveal that consumption of pork products fluctuate throughout the year, and peaks around Christmas.



(Figure 5, Consumption of Meat in Denmark) Danish Agriculture and Food Council, (2016)

Part 2



5.0 The Complex pig

In Denmark, we have a long and complex relationship with both the pig as animals and the production associated with them. Our relationship with the pigs originated from wild boars that were hunted in the Danish forests (Nationalmuseet, 2018). Later, the role of the pig changed significantly from when they were domesticated and living off the village waste and to present day Denmark, where the pig represents one of the country's most important exports (Denmark.dk, 2018).

Perhaps, it is this long historical connection between the pig and the Danes that has elevated this animal into a position of cultural and national significance for Denmark. Pork has ingrained itself into the daily meal of many Danes for decades and as previously mentioned, Denmark is one of the countries with the highest consumption of pork per capita (Landbrug&Fødevarer, 2017b).

However, the pig has become increasingly culturally complex and represents, now more than ever, a multitude of things, to a multitude of people from a multitude of vantage points. In the following sections, we will seek to explore this complex nature of our relationship with the pig, by shining a light on some of the contentious aspects of the pig. The purpose of this is to support the notion that the pig is a complex concept with many different and unique issues and considerations, which makes it a difficult subject to research.

5.1 The cultural importance of pork in Denmark

"Pork has been the mainstay of Danish cuisine for hundreds of years, as a completely dominating part of the Danish household" (Boyhus, 1998) and within the Danish food culture, pork based dishes still continue to play a substantial role in many traditions (Boyhus, 1998). The history of the pig dates back several thousand years, and as long as we have known pigs, it has been used for consumption (Nationalmuseet, 2018). Traditional Danish dishes like the highly celebrated and loved 'Flæskesteg' (pork roast) was considered one of the most important pieces of meat in the 1800s and is today still regarded as a popular dish for many celebratory occasions, such as Christmas (Boyhus, 1998). On an everyday basis 'Leverpostej' (the Danish liver pate) – is a regular staple in the Danish lunch culture and 'Frikadeller' (special Danish meatballs) are still a popular dish for Danes of all ages, both at the weekly dinner table, as well as a specialty food for holidays (Fagt et al., 2015, Jakobsgaard, 2016). Pork is immensely intertwined into traditional Danish culture, and one need not look far to find pork based food choices all over the country. Nowhere is this truer than at the country's most iconic and arguably oldest street food stalls i.e. 'Pølsevognen' - the hot dog stands. Here people from all walks of life can stand shoulder to shoulder and enjoy a quick, and often pork based,

lunch. These stands still primarily serve pork products such as sausages and pork roast. Although the stands are challenged by changes in eating habits and culture, resulting in approximately only one hundred remaining in the country, the culture lives on (VisitDenmark, 2018).

Likewise, the Danish bacon is famous all over the world, but nowhere more so than at home, where it is almost considered a staple by many consumers. Historically, bacon is the instigator of the Danish pork adventure, and part of the national identity. Bacon was the gateway product to a profitable English market and played an instrumental part in forming the first cooperative slaughterhouse in 1897, inspired by the cooperative movement of the dairy farms (Boyhus, 1998). Since then, Danish pork has become a mammoth national economic success, representing countless jobs, income and playing its part in the shaping of a national identity (Boyhus, 1998, Denmark.dk, 2018, Landbrug&Fødevarer, 2017b).

Setting aside the massive influence of the pig on Danish culture, it is safe to say that the Danish pig, and therefore the pork-based-food culture in Denmark is facing a upheaval. As an example, only 14% of Danes consider pork to be a healthy product (Foodculture, 2015). Increasingly, a younger generation of Danes is rejecting pork as part of their daily diet, when cooking at home (Landbrug&Fødevarer, 2015).

Surveys carried out by “Danmarks Tekniske Universitet” (DTU) indicate that amongst younger generations, pork based dishes are becoming less popular and is decreasingly considered part of the food culture, whilst older generations consistently favour traditional pork based foods (DTU-Fødevareinstituttet, 2015). Contradictingly, the younger generations are more likely to choose pork based dishes, as a 2017 survey shows that 32% of young people, chose a pork dish the last time they ate out (Landbrug&Fødevarer, 2017a).

5.2 Complex symbolism and ‘Frikadelle gate’

The apparent relationship between pork products and the traditional Danish food culture has within the last couple of years been the root of some controversy, conflicts and clashes. Much of this food related controversy is related to the culture of immigrants and refugees originating from countries with a large Islamic culture base (Jakobsgaard, 2016). The world is becoming increasingly globalised. As a result, people from countries with different beliefs, norms and cultures are brought together. Therefore, a certain degree of conflict is inevitable. The Islamic and western cultures have been involved in an increasingly polarized state of conflict (The Conversation, 2014). The most obvious clash between cultures is that of the Islamic belief that the pig is ‘Haram’ i.e. that the pig is forbidden due to a variety of reasons described by the

Quran. The reasons are generally ranging from the overall biology and hygiene of the animal to the way pigs are slaughtered and consumed (Islam.RU, 2013).

However, going back in ancient Danish history and mythology, the symbolism of the pig has also differed and been controversial. In old Norse mythology, the pig symbolised life, prosperity and wealth. In Valhalla, the famous pig Særimner had a never-ending supply of delicious meat, feeding the entire hall, while magically turning whole again in the morning, ready to repeat the feast (Jensen, 2000). During that period, the pig symbolised wealth and was hailed for its life-giving abilities to sustain the Gods with food.

Opposingly, the Bible displays an abundance of negative symbolism and associations toward the pig. Here, the pig is described as a vessel for demons, and the swineherd was personified as the lowest in a society (Jensen, 2000). The symbolism of the herd of swine, and the subsequent stature as low class, is also the revolving symbolism of the famous Danish fairy tale “The swineherd” – where the keeper of pigs symbolised the person in the kingdom that is the least suited to marry the princess. In more recent history, the pig has been viewed as both a luxury commodity, where “Flæskestegen” was the most valuable piece - and as a dirty animal, roaming the streets of the city, mainly consumed by lower class people, and actively working as a garbage disposal for the households (Boyhus, 1998, Jensen, 2000). These shifting associations have caused the pig to symbolise an abundance of different things from “Svineheldig” – *lucky as a pig* to “Svinestreg” – *a dirty trick*, a profoundly immoral act. Today, the scale seems to tip towards the latter, with many Danes associating the pig with negative symbolism.

Today, the reluctance to consume pork have led to cultural clashes when rules and regulations fail to ensure a compromise that are suited for all involved. In recent years, the conflict has been especially prevalent in public foodservice, such as hospitals and schools, but also famously in certain kindergartens, where some politicians and parents considered it an attack on Danish values, when the canteens opted for not serving pork products in these institutions (Vejrup-Nielsen, 2016). According to Jakobsgaard (2016), the pig has a complex and conflicting property as exemplifies our separate cultural backgrounds and reminds us of how we differ from one another. This is supported by Vejrups-Nielsen (2016), who describes the pig’s divisive properties as a classic example of how groups use opposing views to create identity. In the specific case from Randers in Jutland, the values attributed to pork have been heavily politicised resulting in municipalities and institutions across the country taking different stances on the issue. In the so-called “Frikadellegate”, politicians debated legislation designed to force kitchens in kindergartens to occasionally serve pork for lunch, while providing non-pork eating children with another alternative, as opposed to avoiding pork all together. The conflict quickly made national and international news with news segments and articles

spreading all the way to Australia and the USA (Vestergaard, 2016). Following the debate, the municipality of Randers decided on January 2016, with a one-vote margin, to make it compulsory for all public institutions and kindergartens to offer pork products during lunch. The legislation has widely been criticised for being divisive and bigoted towards both Islamic and Jewish culture (Stiften.dk, 2016).

5.3 The intelligent pig

The pig is very intelligent, and is even considered smarter than dogs, dolphins or even three year old children (ModernFarmer, 2014, Marino and Colvin, 2015). Part of the inherent complexity of the pig as an agricultural animal, revolved around the cognitive abilities of the animal. Some research suggests that pigs process complex cognitive abilities that would place them in the same category as other animals we generally consider intelligent (Marino and Colvin, 2015). A considerable reason for choosing not to consume pork meat or to choose not to consume mass produced pigs could be explained by the fact that some consumers regard pigs as intelligent, aware, emotionally and socially sophisticated beings, not suitable for consumption or mass production (Greenwood, 2017).

Further adding to the complexity of the pig, is the fact that pigs are actively used in medicine as stand-ins for humans and human body parts. The pig is considered a so-called 'model animal' due to the large resemblance it bears to humans in regard to anatomy, cognitively and genetically (Vaaben, 2014). The similarities between pigs and humans might not be the first thing that springs into mind when looking at a pig, but according to Lene Koch (2010), the pig bears a striking resemblance to humans when it comes to intestines, skin, genetics and even digestion. Conflictingly, in medicine, the pig acts as both a problem and a solution to societal problems such as antibiotic resistance. The pig is part of the problem due to the intensive production requiring antibiotics, and a part of the solution due to the 8000 pigs used for medical experiments in Denmark (Lene Koch, 2010, Vaaben, 2014). Other examples of the pig complexity include the creation of a 'chimera embryos' i.e. organism that contains cells from two different species, in this case a human and a pig (Blakemore, 2017). The embryo was created as part of the study of laboratory grown organs for organ transplantation. Other studies, also related to transplant technology have explored pig lungs and tested the ability of these in regard to filtering human blood (Blakemore, 2017). According to Niu et al. (2017), head of an Aarhus based research program that centers around appropriating pig organs for human transplantation, the pig is a complex but ultimately perfect specimen for research in Denmark due to the large and established pig production. Additionally, as pigs are already being utilized for mass production, pigs are easier to justify using as transplant subjects than other animals in the eyes of the public (Vaaben, 2014).

5.4 Gastronomical importance

The pig is one of the few domesticated animals that do not have any other purpose than consumption. Where other animals provide milk, wool or eggs the pig only delivers meat (Boyhus, 1998). Perhaps this is part of the reason for the pig being the most consumed meat in the world (FAO, 2017).

In Asia, pork dishes traditionally and currently dominate the local gastronomic with many different interpretations depicted in different cultures. Domestically, pork meat has in recent years been increasingly considered a lower value food, not suitable for guests, but rather consumed privately during the week (Fagt et al., 2015, Foodculture, 2015, Lassen, 2002, Mikkelsen, 2017).

However, gastronomically it is hard to overestimate the cultural importance of pork in Denmark. The diversity of the pig makes it ideally suited for many dishes such as stews, sausages and roasts. The artisanal culture that has shaped and defined the gastronomy surrounding the pig, is far from dead, but chefs and craftsmen are increasingly vocal about their expectations to the product. The Danish chef Søren Gericke called the pig a “*gastronomic lighthouse*” and explained the vast possibilities of pork products. However, the pig is also a divider. Gastronomically, it is not the animal itself that causes conflict, but namely the value inherent in the production method and the products created. According to Christian Puglisi there is nothing wrong with the pig as a product, on the contrary, but the production method and mass production of products creates a product of low value (Politikken, 2018). At the two Restaurants ‘Grisen’ and ‘Guldkroen’ in Copenhagen, traditional dishes such as ‘Flæsketegssandwich’, ‘Bøfsandwich’ and ‘Pølsemix’ are proving popular, despite the controversy surrounding pork meat. According to Umut Sakarya, creator and former owner, the explanation for the success is an ironic distance to all the complexity and controversy that surrounds the pig.

“The pig is very Danish. There is something humorous and trashy associated with the pig” Umut Sakarya (Vinkkbh, 2015)

Umut further explains that there absolutely is an artisan quality to the menu, as everything is honest, homemade and without any additives and thereby recognisable to the consumer, giving them a more honest experience (Vinkkbh, 2015).

Some surveys reveal the Danes increasingly, favours beef or chicken when eating out or serving dinner for guests, and subsequently devalues the pig as “not fancy” (Fagt et al., 2015, Landbrug&Fødevarer, 2015, Samvirke, 2010). Some also point to the notion that the pig

represents traditional foods, and that the reputation of being unhealthy actively discourages them from seeking gastronomic experiences containing pork meat (Foodculture, 2015).

5.5 Food safety and mass production in the pig industry

Modern Danish pig farming have evolved significantly from the old ways, when they used to roam the city streets and is now one of the most efficient productions in the world. As an example, piggeries in countries like Holland, actually take up significantly less space than a Danish farm. The main reason for this is that the Danish pig farms have actually evolved to embrace a high level of circular economy, growing much of their own food, disposing of their waste and producing specialty feeds on site. While Dutch farms have developed in another direction and are importing the vast majority of the feed needed (Willems et al., 2016). Internationally, Danish pork is well known for being produced at top industry standards and of having a very high food safety, partly due to the implementation of the Danish standard certification (Seges, 2017). According to former Minister of Food and Agriculture, Dan Jørgensen, the Danish standards are so well developed, that other countries have much to learn by studying the Danish production (Foodculture, 2014). In the article, the Minister describes how the Danish standards for animal welfare are so far-reaching that the Danish conventional pig production essentially adheres to international standards for organic production, and that the Danish production is constantly innovating to raise the bar even further (Foodculture, 2014).

Domestically however, the perception is not as favourable as it only requires a single food scandal or controversy to drastically impact the perception of the industry amongst the Danes. Organizations with a large following, such as Animal Protection Denmark (APD) argue that Denmark still has much work to do in order to ensure decent living and production conditions for the vast majority of the 30 million pigs produced yearly in Denmark. According to a report developed as a collaboration between APD and the Danish NGO 'Danmarks Naturfredningsforening' (Danish Society for Nature Conservation), 37% of the Danish pig productions received admonitions from Danish authorities for not adhering to rules regarding animal welfare (DyrenesBeskyttelse, 2017). Furthermore, it is estimated that 97% of the Danish pigs have had tails cut in conflict with Danish legislation that prohibits routine tail docking in conventional and organic pigs (DyrenesBeskyttelse, 2017).

Opposingly, the Danish pig farms and agriculture in general have developed from a primitive system in the 1800s into one of the most highly technologically advanced systems in the world (Boyhus, 1998, Denmark.dk, 2018, Fødevarepartnerskabet, 2017). The level of technology and innovation allows the Danish pig industry to produce huge quantities of products while simultaneously ensuring high food safety (Fødevarepartnerskabet, 2017).

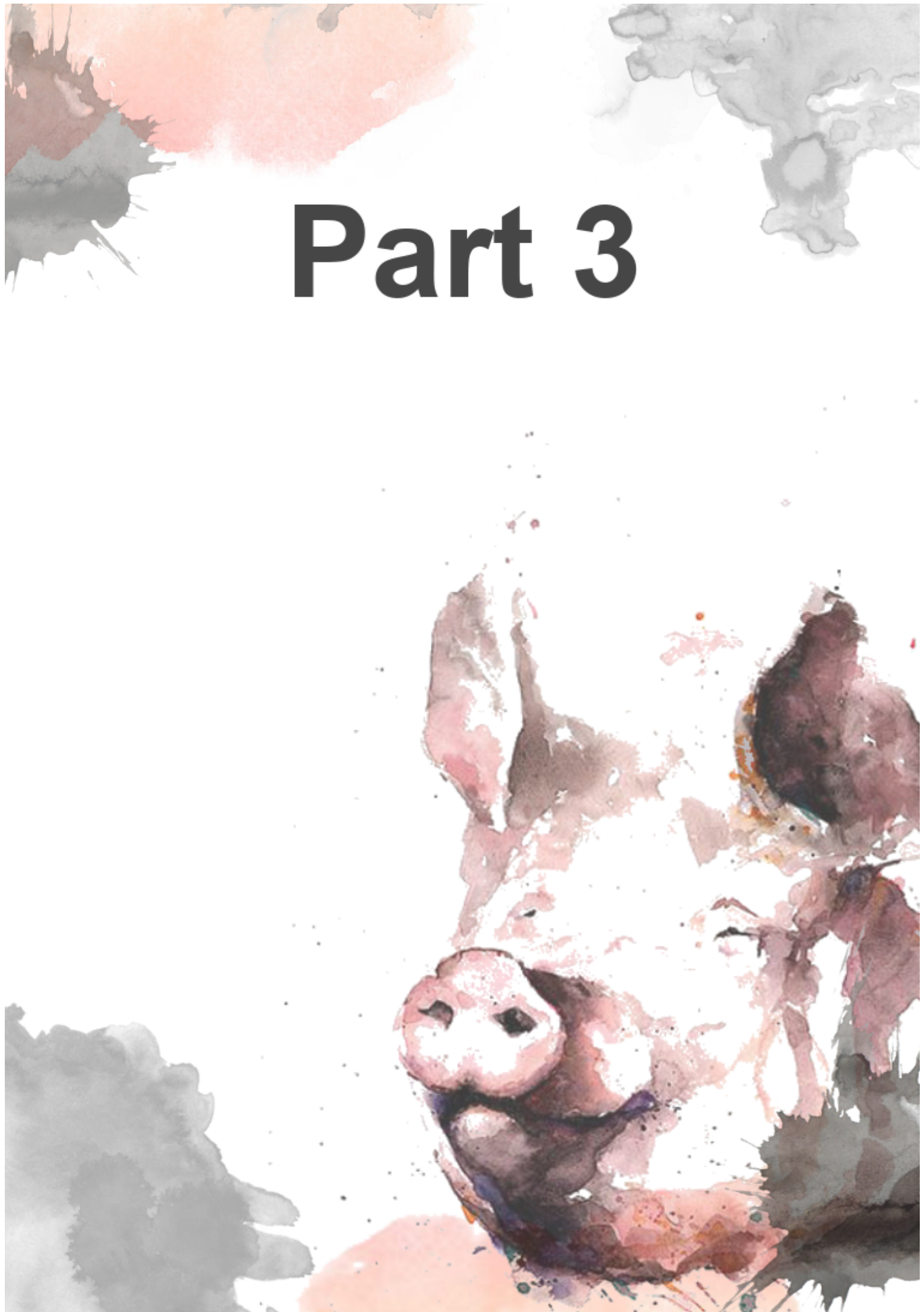
A modern farm is a powerhouse of information where the farmer can easily monitor how the pigs eat, defecate and even adjust the specific ingredients in the feed to counter issues such as diarrhea and ulcers. The farmer can also regulate temperature of the individual pigpens and quickly isolate any pig that may show signs of disease or sickness (Munk, 2017).

However, according to critics, the efforts of the pig sector to push towards a constantly more effective and economical pig has created several issues for the industry, namely the impression that conventionally produced pork is of low quality and unhealthy due to the use antibiotics and the presence of MRSA (Methicillin Resistent Staphylococcus Aureus) within the animals (DyrenesBeskyttelse, 2017, Foodculture, 2015, Lassen, 2002, Munk, 2017).

This general scepticism in regard to Danish production is not limited to the domestic consumer but has the potential to hurt the whole Danish export, if the international markets fail to accept the story of a superior Danish production in general (Eriksen, 2017).

MRSA has been around since the 1960's where it was first identified in the UK. Initially, detections mainly occurred in hospitals and was not connected to animals (sis.dk, 2016). The first types of MRSA in animals in Denmark were detected in 2005 and today a large part of the Danish pig population is estimated to be contaminated by the bacteria (Bredsdorff, 2017). According to the Danish Veterinary and Food Administration (Fødevarestyrelsen), MRSA can be found in 40% of Danish pork products, but does not pose a significant risk to consumers (MiljøogFødevareministeriet, 2017, Fødevarestyrelsen, 2017). Despite the assurances of the official agencies in Denmark, many consumers and experts view the spread as a major issue that actively causes consumers to opt out of eating Danish pork and subsequently contributing to the narrative of pork as being and unhealthy and low quality product (Abrahamsen, 2016).

Part 3



6.0 The scientific standpoint

Before describing how we embarked on our journey into our field of study, it is important to create an understanding of our scientific point of departure. Within the explored field of this paper, several understandings and interpretations of the nature and reality of the same object i.e. the Danish pig, are presents. We consider this field to be immensely complex, and in order to accommodate for this complexity, we attempt to include a variety of different actors and actants in the field. As our point of departure, we will be assuming the theoretical standpoints of Actor Network Theory (ANT).

6.1 Actor Network Theory

Actor Network Theory (ANT) as developed by Bruno Latour, Michel Callon and John Law subscribes to a deeply context based and systematic treatment of a given object and its corresponding parts. Today this type of approach to a field represents a well-established institution within Science and Technology Studies (STS). Within ANT it is argued that the world is not well-defined and homogenous, but consists of a multitude of heterogeneous networks (Latour, 1999). Accordingly, ANT does not consider pure social relations, to have any dominating influence, but places the material/non-human as equally important as the human actors. Thereby ANT is distinguished from many other STS and sociological network theories for its diverse material/nonhuman approach. The strengths of the theory lie in its ability to explain, how science, technologies and controversies are shaped and plays out in a complex interaction between a wide array of the different heterogeneous actors (Latour, 1996). Since this theory presents different ways for the researcher to work, we will present those elements of the theory, that we intend to use in our research of the Danish pork industry.

As ANT does not limit influences on social relations, actor or even human influence, it argues that any actant or actor that stabilise or destabilise a network, is therefore relevant. ANT is not a traditional theory as it does not offer comprehensive explanations of the world and why things occur. Consequently, ANT does not deal with the classic question of *why e.g. why is something taking place*, but instead seeks to answer the question of *how* something is happening (Latour, 1999). Practically, this means that ANT per definition does not seek to an answer to questions such as “what is the Danish pig industry?” but rather *how*, the industry works, how the Danish pig is enacted, ordered, what constitutes stability and how this stability can fall apart. According to Callon (1984), ANT seeks to explore the relational practices of several involved actors, by explaining how they are ordered, and describe as well as how they interact in so-called networks. As demonstrated by Callon (1984), non-human objects, - in his study of scallops, these are equally influential. An important condition for the use of this theory

is that all these different actors, are not treated on the basis of their nature as either human or nonhuman, since this difference isn't essential in the manner in which these actors influence each other. Actors and actants should therefore instead be understood on the basis of their ability to act in a broad sense. In other words, their ability to influence other actors and networks and subsequent behaviour (Law, 2009). This important distinction provided by ANT, underscore the importance of materiality and the role of nonhuman elements in any network. (Latour and Woolgar, 1979)

As a result of this notion, the principal of *general symmetry seeks to influence* our initial approach to the field. According to Callon and Law (1997), the social aspects and the material aspects does not represent different values within an analysis thereby creating asymmetry. Conversations, texts, techniques, physicality and discourses does indeed differ, however in ANT it is essential that we initiate a study by assuming that all elements could potentially be of equal importance.

Therefore, ANT entails the notion that researchers should reject any preconceptions that there should exist notable distinctions between classifications of possible actors, human or nonhuman. According to Callon (1984), focus should instead be on the process of the construction of networks and enactments.

Consequently, within the theory of ANT the world exists as a series of heterogeneous interactions and practices through which humans and nonhumans are possible actors (Latour and Woolgar, 1979, Latour, 1999).

Essential to these networks is the so-called translation process, that in ANT is depicted as a series of *black boxes*. As described by Callon, the concept a *black box* is essential to ANT as it communicates a simplification of processes, agreed upon by all within a network. In ANT, the concept most often refer to the unquestioned acceptance of an objective truth, that does not need explanation or debate. Due to the complexity of networks, there is an inherent need for simplification and consensus provided by these black boxes (Callon, 1986). As explained by (Law, 2009) ANT does not seek to create total and comprehensible exemplifications of networks, but merely offers examples, cases, and stories through description of elements of how things work and of how relations and enactments are ordered and experienced.

Subsequently, ANT is to be perceived as an exploration of the messy practices of relations and materiality of our network (Latour, 1999, Law, 2009).

Furthermore, by illustrating the multiplicities of reality via interconnected enactments of networks, ANT demonstrates that reality is only made possible through relational networking and negotiations (Latour, 1999). This allows for ANT to explain the world by understanding the combinations and interactions of elements that make it work, as opposed to dividing theories into what is right and wrong. ANT does therefor not strive to uncover the "order of

things,” but seeks merely to describe a multiple and complex social world, by exploring the heterogeneous networks and lack of consensus within it (Van der Duim et al., 2013). Ultimately, ANT it is not an interconnected theory, but functions as an approach to aid researcher in developing a perceptive that allows for the exploration of often unexplored complex elements and the motivating assumptions behind.

6.2 Literature search

While planning for this project, an initial literature search was carried out. Due to the complexity of the field, and the extensive amount of previous research carried out, we were able to uncover large quantities of data relevant to our project. The overall purpose of the literature review was to find relevant published studies regarding the Danish pig production sector, and general information about value perception and understanding.

As our initial focus revolved around the idea of an experiencecenter and shared value approaches, studies and data involving consumption and attitudes towards the Danish pig were prioritised. Other themes that were deemed to be potentially relevant in explaining and understanding the industry of the pig sector, were selected and revised in order to build contextual knowledge. These studies included general knowledge of the industry, as well as studies concerned with animal welfare, consumer trends and the historic role of the pig in Denmark.

The search database [EBSCO] was selected as the primary database as this is a wide reaching and comprehensive database comprising of multiple topic specific databases, such as [SCOPUS], [SocINDEX] and [Business Source Premier (BSP)]. Supplementing literature search was done using [google scholar] and due to the contemporary and wide spanning interest in the topic from the overall population, newspapers and web articles provided an insight into how different groups perceived problems of the industry. Hence, anecdotal sources such as interviews and trade journalism, was reviewed and treated as potential sources. Since our project focused on the *Danish* pig production, European and Danish sources were prioritised, as well as international sources seeking to describe the Danish industry.

Additionally, chained searches were carried out on more than one occasion, as relevant studies provided the research with additional relevant sources. Practically, this was done by examining literature lists of relevant studies. One resource linked us to another, which linked to another and so on as to create a chain of relevant literature, as we explored the field. This strategy proved very effective, but also required extensive reading to determine the relevance of chained studies.

Figure 6 is included to create an overview over the terms used during our initial literature search. The searches were made using a 3-block search strategy, and was compiled of relevant keywords and search terms.

Block 1	Block 2	Block 3	Filters / others
Pork*	Consumption	Denmark	2010-2018, European countries, Full text Pdf
Consumption	Attitude*	Pork*	Full text Pdf, 2010- 2018 -american - asian -salmonella
Pork*	Consumption*	Attitude*	Full text Pdf, 2010- 2018, +China

(Figure 6, Search blocks and search terms)

The purpose of providing an overview over our initial literature search is to give a contextual insight into how different texts and relevant literature was identified.

Due to the abundance of literature surrounding our field from many different actors, often with their own agenda, all literature was closely scrutinised in order to ensure a fair and evenly weighted paper. In order to ensure the relevance of the paper, contemporary information, statistics and studies were preferred. As part of the ongoing work on this project, other similar literature searches were carried out, following the same guidelines.

7.0 Our journey into the field

We have chosen to call this section of the paper *our journey into the field* as it represents our metaphoric travels through how we encountered our informants and how we decided on working with our data. Instead of presenting our theory and methodology in separate chapters, we will instead present them in the manner in which they became relevant and applicable to our study. Presenting our approach in this manner, we hope that it can serve dual purposes. Firstly, it allows us to tell the story of how this study was undertaken, the journey that laid the ground for the collected data and the progression undertaken as we emerged deeper into the field. Secondly, this narrative approach serves to create transparency of our theoretical and methodological choices to the reader, as it illustrates the selection process of both data and the scope of the project. Each narrative will be clearly marked, as it is intended to guide the reader in our journey. This research bases its empirical data on two extended field trips to Jutland, consisting of observations and interviews, as well as several interviews conducted in and around Copenhagen. These observations and interviews are supported by data gathered from academic sources, such as scientific journals, as well as articles and relevant news material. Generally, we will strive to showcase the chronology of the fieldwork as we experienced it, though when elaborating on certain methodological considerations and approaches, this chronology may deviate in favour of structural considerations.

7.0.1 Presentation of informants

In the following section, we will present the different informants as we encountered them during the course of our research. This is in part to demonstrate our *explorative approach* to the field as well as our use of the *snowballing method* of gathering data, both of which are concepts we will elaborate on in the upcoming sections.

However, before presenting how we initiated our research, we will need to elaborate on the reason for selecting our informants that have been included in the dataset.

To fully explore the complexity of our field of research, as well as familiarise ourselves with the many different perceptions on what is *the good pig*, we decided to interview a broad range of actors within the field. Overall, the different actors can roughly be divided into five different groups based on their area of expertise: *Pig experts*, *Industry experts*, *foodservice experts*, *Innovation experts* and *outsiders*.

For a detailed list of the actors interviewed see (Appendix D).

- **The pig experts** were the different farmers we meet throughout our research each of whom had knowledgeable insights regarding the actual workings and practices of the industry and could offer us their unique insight into the sector.

- **The *industry experts*** represented the second layer of the industry, where the farmers had insight into the practice of working with pigs, the industry experts in Danish Crown, Tulip and L&F had expert knowledge regarding the workings of the business aspect of pig production, including sales, branding and developing the products.
- **The *foodservice experts*** include the professionals working with the products that the industry produces, namely the chefs and cooks. The people interviewed were selected due to the in depth knowledge of the foodservice sector, and the insights they offered into the mind of the consumers in regard to consuming pork outside the 'cooking at home sphere'. In general, the foodservice experts are experts in their consumers, and offers an unrivalled insight into the practical and everyday valuing of pork by consumers with in foodservice, as well as being well informed on overall consumption trends and patterns, in order to meet future demand.
- **The *innovation experts*** are the group of actors working with improving and innovating the agriculture sector and food production in particular, such as the Agrotech and Food Innovation House. These actors provided insight into a more conceptual part of the production, working with food and innovation on multiple levels.
- **The *outsider group*** of informants are somewhat removed from the previous groups as they don't work directly with either pigs or products. This group is represented by the APD who has an interest in changing the industry. However, it also includes people representing other ways of innovation such as Danfoss Universe and Experimentarium or Visit Denmark, which is not directly linked to pork production, however we believed they might be able to inspire the industry, and offer fresh perspectives.

Not all of these informants turned out to be of equal importance to our research. Each one has contributed in some way to our general understanding of the field, as well as to the process of determining the focus of the project. Before being interviewed, each informant was offered anonymisation in the research, but no such wishes were expressed by any of the informants. Consequently, we decided to name all who make up our choir of voices by name and professional function.



Top left: Pricing of pork in supermarkets.

Top right: The headquarters of The Danish Agriculture and Food Council.

Center left: Initial messy mapping.

Center right: "Burgis - nej tak" campaign.

Bottom left: "Nu er det nok" Meeting in Horsens.

7.1 Meeting with L&F



Our first meeting with our gatekeeper Andreas Buchhave chief consultant at L&F, took place at Axelborg the headquarters of the L&F. Axelborg is a massive building located in central Copenhagen and is the workplace of a multitude of people, all working with different aspects of the Danish food production and agriculture. After announcing our presence to the secretaries, we were told to wait for Andreas to come and pick us up. After waiting a few minutes Andreas greeted us and showed us to a sleek looking conference room where one of his colleagues was already waiting for us. After a short chat about the nature of our study and why we wanted to collaborate with L&F in our master thesis, we were presented with several projects they were working with at the time. Overall, we were told that we could have our pick, but it quickly became clear that if we wanted to work with a project that really had potential to have and actual impact, we should look at what Andreas defined as the decline of value of pork within foodservice. We both gravitated to the idea of the possibility of creating a project that would do more than just gather dust, and decided to engage with this problem formulation as the initial focal point of our project. Together with Andreas we discussed several approaches to the field, there was one aspect which especially resonated with both of us namely the idea of Denmark as an innovation lab for new products and methods within the pork industry. This idea shaped our initial approach to the field and the first focus of our data collection was to research, where and how food and agricultural innovation occurred in Denmark. Andreas agreed to support our study by providing us with access to documents and knowledge, and by funding the expenses of field trips. Furthermore, Andreas would aid us in establishing contact with actors within the industry that might otherwise be difficult to contact.

7.1.1 Initial brainstorm


As a means to open up our understanding of the field, we conducted a brainstorming exercise where we put all of our preconceptions and thoughts about the Danish pig onto paper. This exercise aided us in visualise the challenges of the field of study, as well as emphasised the strengths that we associated with the industry. In order to document our brainstorm, we choose to create a crude map that showed the thoughts and preconceptions we had before entering the field. (See appendix C22) In this map what we identified as challenges to the brand/value of the pig was colour coded red and the strengths associated with the brand/value of the pig was colour coded blue. It is important to note that these considerations were mainly based on our preconceptions and previous knowledge at the time. The inclusion of this map in our project is simply to showcase our point of departure before entering the field. The map

also includes a rough overview of our initial thoughts of how we would approach the field methodologically, as well as what stakeholders and actors initially identified as relevant.

7.1.2 Exploring the Danish lab idea

After the first meeting with our gatekeeper at L&F we did not have a clear direction of how to develop our project and only a general theme of the value perception of pork and the vague idea presented to us of a Danish innovation lab. The Danish innovation lab could be a space where the industry could meet and interact, face critics and seek to innovate. Consequently, researching the lab idea further appealed to us since exploring a field of study that had not previously been researched would allow us to apply a multidisciplinary approach to the field, where we could include elements of design theory.

Our first steps towards understanding and defining this concept of the thought behind a Danish lab was to explore how and where current food innovation and value creation occurred in Denmark. This research let us to contact with Rikke Pape special consultant at Danmarks Tekniske Universitet (DTU). DTUs new food branch of their innovation house “Skylab” was in development and after a brief email correspondence we were able to arrange an initial interview. The DTU Skylab had previously been focused on innovative engineering and mechanical solutions, but with the addition of the new food branch the lab will be able to create innovation within the actual food sector.



At the time of our meeting with Rikke, Skylab was still under construction. After a short guided tour around the construction site, she explained how it would eventually come together when the construction phase was done. We sat down with Rikke to gain more information about her thoughts and expectations for the new lab. Although she had many thoughts about the potential of Skylab, nothing specific had been agreed upon, and future structuring was very much dependent on the DTU students, and their wished for future usage. According to Pape, it was important that the lab reflected both the students and DTU's approach. We were told that DTU wasn't the only place where innovation within the food sector was being promoted and Rikke urged us to contact Agrotech in Aarhus, as this facility was amongst the most established food labs in the country. Although the lab was still far from being finished, interviewing Rikke Pape and experiencing the potential of an actual lab dedicated to innovating the food industry generated optimism that our idea of the potential of a Danish lab. However, exactly how a Danish lab could assist in addressing the issues related to the value of Danish pork was still not clear.

As part of our initial project outline and planning, it was decided that more information needed to be accumulated, informing on the Danish pig production and the overall issues regarding value creation. If the Danish Lab idea, was to be construed as a useful tool, it was imperative to first lay out the problem, assess the complexity of value creation for the Danish pig, in order to inform on possible solutions. In other words, although the Danish Lab idea resonated with us at an early stage, it was deemed imperative that we map out and investigate the complexity of the problem of value creation for the Danish pig, before seeking to construct a solution. Hence, the Danish lab idea was kept alive and investigated separately, while the main study purpose was an investigation of how value is generated for the Danish pig. With that in mind, we started to explore the field of the Danish pig.

7.2 Meeting the field

Our first actual meeting with the pork sector occurred more by happenstance than actual planning. During our research, we subscribed to several industry newsletters and accidentally stumbled upon a workshop being facilitated by the Organisation of Danish pig farmers called “Nu er det nok!”. The workshop was created as a response to a campaign led by Animal Protection Denmark titled “Cage pigs - no thank you”. The stated goal of the workshop was to create a strategy to counter the negative impacts the campaign had on the industry (Appendix: B6). This was also our first impression on the apparent divide that exists between the different actors within the industry. This was further emphasized when we asked Andreas if he could help gain access to the conference. We were surprised to learn that this was the first he had heard of the workshop. However, he still managed to arrange for us to participate and observe the workshop. Accompanied by a representative from L&F we travelled, via, train to Horsens where the workshop was being conducted.

The workshop took place in a large building belonging to Danish Industry, roughly around a hundred people were present, mostly pig farmers, but also a few representing other areas of the industry. The workshop was facilitated by a consultant group who presented three different approaches to how the industry should react to the “cage pig” campaign.

Here the division inherent in the sector became massively apparent as we experienced first hand the difficulties the farmers had with agreeing on a strategy. Some refused the idea that the industry had any challenges, thus refusing to change their practices, other farmers acknowledged that the industry had to react in a constructive way and that the status quo within production was no longer acceptable. At the same time, it was clear that many of the farmers believed that Animal Protection Denmark, and to

some extent many consumers, was uninformed and generally unable understand what they were talking about when they criticised the pig industry. This meeting gave us an abundance of insights in how to approach the general field of study.

7.2.1 The field

The term field refers to the overall confinement of the study. In some field studies, such as that presented by John Law in his study of the Norwegian salmon (Law, 2012), a very specific field is investigated. This narrow focus allows for in depth observation of practices and behaviour and can therefore inform on a specific practice, such as farming salmon. In our study of value creation within the pig industry, the field is much wider. It could have been possible to explore the practices of a pig farmer in depth, and through that exploration inform on the enactment of the pig in that particular setting, as well as the pigs enactments of their own situation. However, we wanted to demonstrate the complexities and multiple enactments of the pig in a broader sense. In this study, the field covers many, but not all, aspects of the Danish pork industry in a multi sided approach.

The informants represent production, product development, foodservice and multiple other aspects of the Danish pig production industry. By exploring various voices, we are able to identify numerous complexities and through those demonstrate the multiplicity of the pig.

According to Kvale (2008), it is not always possible to cover all angles, meaning that there is always a risk of leaving some aspects of the field out. In this case it is not the objective to cover all voices within the industry, but merely to demonstrate that there is infact a multitude of enactments present, that ads to the complexity of the pig.

7.2.2 Approach to the field

Upon undertaking this project in collaboration with L&F, we were introduced to large amounts of quantitative data. Statistics depicting pork meat consumption, export and even attitudes towards certain products were plentiful and had been developed by the industry over many years (Landbrug&Fødevarer, 2015, Landbrug&Fødevarer, 2017c, Landbrug&Fødevarer, 2017a, Landbrug&Fødevarer, 2017b, Lassen, 2002, Mikkelsen, 2017, Samvirke, 2010).

However, it quickly dawned on us, that while L&F had accumulated piles of data on the effects and results of declining pork consumption, there was little data to suggest how to navigate the inherent complexity of the pig. At the same time there seemed to be a lack of understanding of how the field was perceived by actors outside of the field.

In order to accommodate for what we saw as absent in the data, we decided it would be necessary to conduct observations and interviews, not only with actors inside the industry, but also with outsiders who might perceive the issues in a different way.

7.2.3 Observation

Participating, observing and questioning are different ways of collecting data while doing participant observation (Kawulich, 2005).

However, it is essential that one does not forget to remove oneself from the setting and try to immerse oneself in the data to start analysing and writing about it. To achieve this, the researcher should make accurate observation field notes during the early stages of the research process. Mapping out the physical environment and the sociocultural behaviour observed is an important part of a successful observation. According to Kawulich (2005), *“Observations are not data unless they are recorded into field notes”*. The researcher should describe the physical setting as detailed as possible, by only using the sense of sight and leaving out personal interpretations or judgments. Through the process of writing this project we have observed and participated in a wide arrange of different fields, some of which forced us to rethink our approach to our data collection. One such case was the workshop observations. Here it was not possible to create field notes within the actual observation, as we were actively participating. It would therefore have broken our connection with our informants if we started documenting our findings as we saw them.

Notes therefore had to be created immediately after the observation had ended. Using a technique where both researches wrote field notes, and then combined them, we were able to comfortably ensure that notes were as accurate as possible.

7.2.4 Observation guides

Since the nature of the different areas observed throughout our data collection differed greatly, it was decided that two different approaches should be undertaken when recording the data. The fields where observations were conducted could be divided into two separate categories, the first being passive observation and the second active observation. In the passive observation, we as researchers did not directly interact with the field, but instead simply observed what occurred in the field. We are of course aware that when conducting observations, it is not possible to have no impact on the field, since our mere presence there can potentially affect how the informants act in the field.

For the active observations, a second observation guide was created after we were invited to several events and workshops by different interest groups within the industry. Since we were expected to contribute to these events the passive observation guides could not be used in these situations. The new observation guide created for those specific events focused much more on the knowledge and strategies being developed and the opinions being expressed, rather than the physicality of the field in which the observations were conducted. In these observation guides the essence of the field were condensed into important themes and the

actors present during the observation. Practically, one observation often allowed us to gain access to other relevant actors, with whom future observations or interviews could be arranged.

7.2.5 Snowballing

As a natural choice of our explorative approach we opted for a data collection strategy, inspired by the Snowballing Technique. According to Dudovskiy (2010), the snowballing data collection technique is ideal for collecting data within large organizations and companies as it can be difficult to establish a working overview of the entire organisation. *The exponential discriminative snowball interviewing and sampling technique or Chain-referral technique* allowed us to explore relevant stakeholders we may not have otherwise been introduced to using other sampling/interviewing methods. Practically, the method took point of departure, in an initial interview with Rikke Pape of DTU. As previously mentioned, Rikke works with innovation of food, and is in the midst of co-creating the DTU Skylab. Via Rikke, we gained access to Agro Tech in Aarhus, where other stakeholders referred us to other actors, and so on and so forth. As explained by Etikan et al. (2016), the Snowballing method is not as uncontrolled as its name implies. During the process, we as researchers were greatly involved in managing and mapping the connections and information. Accordingly, much attention was paid to ensure that the sequence of referrals and interviews remained within the pre-proposed limitations and that informants were deemed relevant to the study. In accordance with literature describing the method, we found the Snowballing method, was well suited for studies like this, where the subject can be considered sensitive or hard to investigate (Etikan et al., 2016). In the case of our collaboration with L&F, this organisation represents the majority of the Danish pork producing industry. Snowballing allowed us to access and focus on exploring the specifics of the production, structuring our primary data collection on interviewing CEOs and stakeholders within this industry.

According to Dudovskiy (2010), the snowballing effect of the method enables researchers to benefit from the already existing networks of informants, essentially taking advantage of other people's networks.

Within the pork industry, we benefited greatly from utilising the existing network of our informants as it helped us create a useful overview of the industry. We also found that the use of this technique aided us in establishing our own professionalism as interviews previously carried out with influential informants, such as the Henrik Bilmann, the CEO of Friland, would cause other informants to want to participate. This was particularly helpful in securing interviews with informants who rank high within the industry, and that would otherwise have

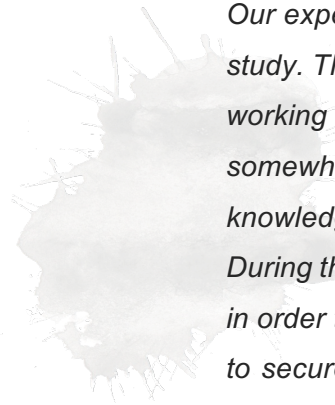
been unable to set aside time for an interview. As described by Etikan et al. (2016) and Dudovski, (2010), any choice of method, including the snowball data collection method has some disadvantages that one needs to take under consideration.

Firstly, recruiting informants within a particular network can lead to oversampling from a certain group, creating an echo chamber effect. As explained, within our studies, this was countered by interviewing people from both inside and outside the organisation.

Additionally, within complex and possibly controversial areas of the pig production, such as the actual conventional piggeries, informants may be hesitant to provide names of co-workers or peers. Requiring them to provide this information could lead to ethical concerns, refusing to collaborate or provide useless data (Dudovski, 2010).

In some cases, it is possible that the use of a broader mixed method strategy to further elaborate on an interview would have provided different data. The overall goal of this project was to demonstrate many different multiplicities, meaning that as there technically could be no wrong answers. The carried interviews therefore represent a snapshot of voices, illustrating the overall complexity of the Danish pig, as seen by the professionals who actually work with production and value creation.

7.2.6 A divided industry



Our experience at the “Nu er det nok!” workshop extended our insight into our field of study. This was our first experience with actors directly involved in the daily practice of working with pigs. Where our understanding of the field had previously been based on somewhat nebulous preconceptions and literature research, we now had first hand knowledge of the people engaged in the field and their concerns with the industry. During this workshop, we tried to engage with as many of the farmers as possible, both in order to get their perception of the challenges facing their industry, but also in order to secure contact information so we could arrange for more in depth interviews and hopefully be able to visit their farms.

The lesson learnt from this workshop was that we saw a need for the industry to join together and show a common sense of direction. As it stood now the division within the industry seemed problematic and destructive. However, it was not only the internal division within the sector that was made clear during our observation. The overall perception of the consumer and the disregard they showed towards their understanding and perception of the industry, proved to be the source of much debate. This inspired us to elaborate on our Danish lab idea and expand the concept to be more than just a laboratory that created value for the industry through innovation. Since what we experienced to be lacking at the workshop was an understanding

and appreciation of why the industry was presented in a such a negative light by many actors outside the industry. The farmers and industry people at the workshop were focused on proving the critics of their industry wrong, rather than appreciating the validity of their critics concerns. The Danish innovation lab could act as a potential common platform where actors, both within the industry and outside, could meet on common ground and discuss their perception of the industry and the challenges it was facing, instead of seeking out public conflicts. However, creating such a space requires an understanding of not only the needs and concerns of the actors within the industry but also of the actors outside of the industry.

7.3 Initial theoretical approach

On our way home from our first official meeting with the pig industry at the workshop in Horsens, we discussed how to approach both the information gathered through our observations as well as the extensive materials we had received from our contacts at L&F and initial literature search. We therefore decide on using Adele Clarke situational analysis as the framework of our project in order to organise our data as well and create a sense of direction on where our project should go from here.

7.3.1 Generating the best evidence

In a study like this one, containing a substantial amount of collected data in the form of interviews and observations, a systematic analysis of the data is essential to the production of high-quality research. As detailed by Green et al. (2007), studies that provide a detailed account of the data analysis process adds to the overall validity of the study, by providing the reader with valuable insights into how conclusions are reached.

Moreover, studies that explain arguments attached to relevant data and theory produce the strongest evidence, also increasing the validity of the study (Green et al., 2007).

Figure 7. depicts the four overall steps needed to generate high quality evidence.

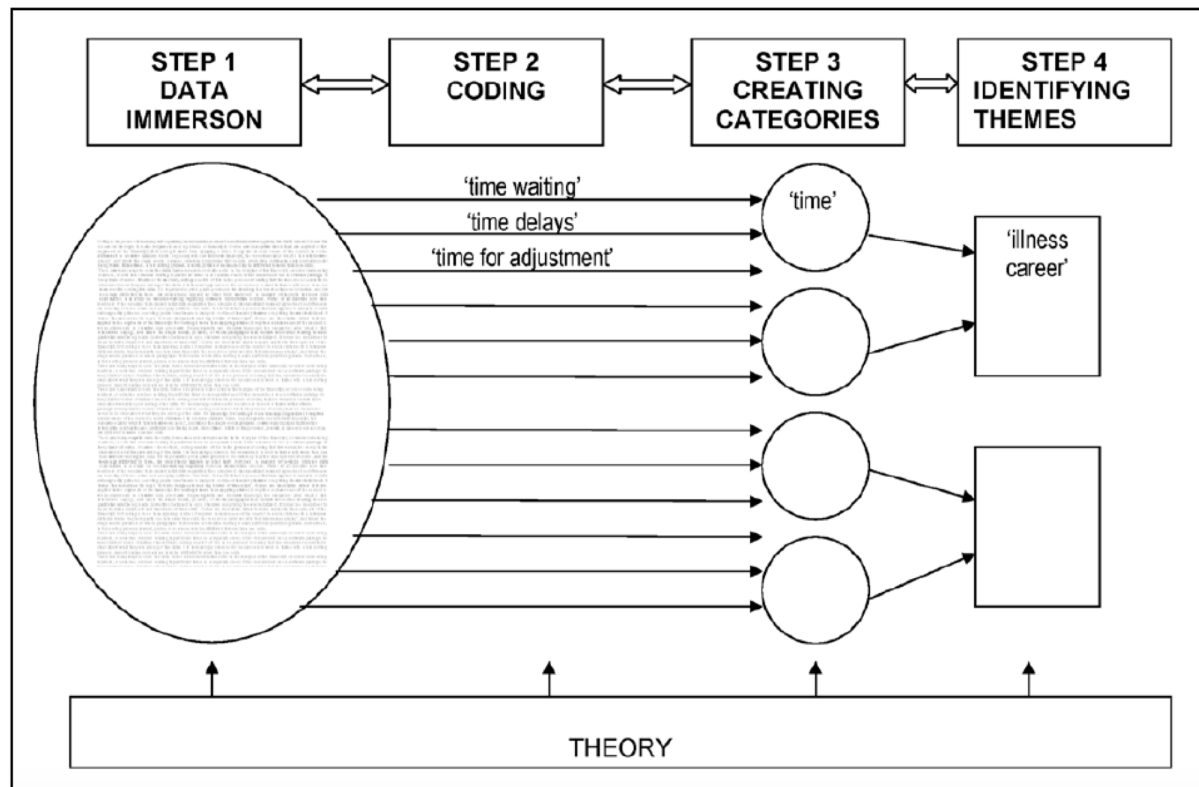


Figure 7: Four steps of data analysis to generate evidence., (Green et al., 2007)

This study applies situational analysis as a central method for structuring data and as an analytical tool in creating categories for further analysis. According to Clarke, the researcher is free to use a variety of items including post-its and whiteboards, in order to shape maps that allow for the ordering and creation of meaning in complex fields (Clarke, 2005, Mathar, 2008) (Appendix: C21).

Furthermore, the method can aid the researcher in creating a workable overview the collected data, which in this study proved especially relevant as multiple interviews and observations were conducted.

The four steps of data analysis to generate evidence, complements central point of Situational Analysis, as both approaches argue for the continuous revisiting of data, ordering and creation of categories in order to internally validate the analytical process. Practically, this means returning to maps, transcriptions and data in order to substantiate the use of theories and the validate the general path of the study (Green et al., 2007). Following the four steps, the first step allows for *immersion* of the dataset. This step calls for the repeated reading and re-reading of interview transcripts and contextual data in detailed examination of what is actually being said. By immersing yourself into the data, thoughts and ideas about the possibilities of analysis starts to form. The second step involves the *coding* of data. By applying coding to each interview transcript, the researcher is able to determine meaning and begin to label or

elevate the single words and phrases. This phase turns information relating to each particular point being made into possible central points, by continuously revisiting previously coded transcripts in order to verify that the code still applies by adding new information (Green et al., 2007). Within Situated Analysis, a similar process is undergone by be continuously revisiting and reordering of maps, adding information and creating new maps (Mathar, 2008). The third step revolves around the *creation of categories*. Central to this part is the notion that data often contain contradictions and exemptions in need of sorting. By generating a justification for data collected by observations or interviews, categories can provide new relations and insights not previously identified (Green et al., 2007). The fourth and final step, is that of *identification of themes* or interpretation. This part is especially important as it transforms data from descriptive to explanatory, meaning it offers insight into the underlying motives and rationales of the data. By identifying themes as opposed to the simpler categories we are able to produce stronger evidence (Green et al., 2007).

According to Green et al. (2007), a high-quality paper finds themes by linking the categories with theory, eventually offering some explanation for patterns that might have emerged at the descriptive level. By using situational analysis consistently and methodically throughout this study, we aim to do just that.

7.3.2 Situational analysis

Situational analysis is a theory developed by Adele Clarke, and originated partly from a critique of Grounded Theory but also because Clarke saw a potential in the practical application of the theory. Grounded Theory is therefore used as the main “root” while forming Situational Analysis, and other theoretical inspiration were used to critique, enrich and form the theory as we know it today. To get a basic understanding of the theory, it is essential to go back into the history, starting with Grounded Theory (Clarke 2005).

Epistemological background of Situated Analysis

Grounded Theory (GT) was initially presented by Barney Glaser and Anselm Strauss and was developed as an analytical tool to ensure more analytical and systematic framework for qualitative research (Glaser, Strauss and Strutzel, 1968).

GT is commonly known to have two distinct approaches depending on which of the theories founders one subscribes to. On one side, Glaser's critical-rationalist thinking known as “*emperistical*” or the approach of Strauss, that encompass a more pragmatic and interactionary version (Glaser, Strauss and Strutzel, 1968). Appreciating the difference between the two approaches is imperative when working actively with GT, since the difference between the two approaches differs in both their ontological and epistemological positions.

According to Glaser, GT must take on an ontological position of critical realism when answering questions concerning the reality and understanding. This position states that reality and what can be seized, is emphasised to ensure that GT resides in the available data (Howard-Payne, 2015). Contrastingly, the ontological stance of Strauss departs in a notion that is founded in a pragmatic relativism that considers “facts” to be restricted to the consensus. According to Strauss, this consensus is established in a particular period, thereby restricting the ability for the consensus to encompass multiple outlooks and complexities of a given situation or phenomenon (Corbin and Strauss, 1990).

Situated Analysis somewhat follows the version of Grounded Theory, as argued by Strauss. According to Clarke, this version is rooted in pragmatism and has always looked towards the postmodern (Mathar, 2008). Clarke’s reasoning is, that by assuming that “truth is enacted” by the social and material context of the researchers, one has to appreciate how these contexts are subject to change over time. The pragmatic approach to scientific reasoning argues for a focus on the practical consequences in situations where truth can be found (Mathar, 2008). Furthermore, Clarke details that situational analysis, is needed for GT to be expanded in order to represent the clutter or messiness of collected data (Clarke, 2003). With situational analysis, the goal is to achieve added reflexivity, but also to represent contradictions, connections and themes in relation to each other.

Because Clarke creates few and quite vague limits for how a situated analysis can be applied, there is a large amount of autonomy when using this analytical method, making it appropriate for many different types of data collection (Mathar, 2008). This is especially true due to the methods focus on context, which in practice means each individual data set is viewed as unique. Its therefore required that there is made room for an empirical driven approach to the data, which will allow the researcher to acknowledge the particularities of their field, without necessarily committing the method to account for the main analytical tool in the study. Practically, this means that the researcher is somewhat free to use visual methods in the shape of different maps, to order and create meaning in even the most complex field, with great autonomy.

One of the main strengths of working scientifically with Situational Analysis is the ability to identify and give voice to otherwise silent actors, present or absent in the field. The inclusion of such actors in the mapping exercise allows for the researcher to have analytical reflections, while constructing the maps. The researcher can employ relevant knowledge and academia in regard to the field they research. This allows for the researcher to adequately design the data collection, as opposed to expecting the data to speak on its own (Clark, Friese and Washburn, 2016).

7.3.3 Using Situational analysis

Whilst Clarke developed situational analysis as a practical theory, it very much employs central elements of GT, as well as multiple other theoretical inspirations including *Social Worlds Theory* (Strauss, 1978), *Actor Network Theory (ANT)* (Latour, 1996) and the *Foucauldian discourse analysis* (Foucault, 1990). In regard to GT, Adele does not denounce the central aspects of this theory, but rather seek to formalise a practical application of central concepts. As previously mentioned, the mapping techniques of Situational Analysis provides us with practical instruments that allows for combining analyses of discourses, actions, structures, contexts, historic knowledge and the present understanding. The practicality of the mapping exercises allows for the structuring and investigation of complex situations and themes (Clarke, 2003). According to Glaser and Holton (2007), GT makes it imperative that researchers demonstrate theoretical sensitivity and are able to conceptualise, systematise, make abstract connections and visualise data to convincingly create new knowledge. In the maps and categories, Clarke remains reliant on several central principles such as theoretical sensitivity, theoretical sampling, coding and creating memos (Clarke, 2003). Different versions of maps are utilized as the foundation for analysis.

Structuring data using Situated Analysis

Within this project, the use of Situated Analysis during the initial data collection has been a welcome way to approach the field and structure the complexity of the dataset. Situational analysis is a useful tool to create an overview of the field, and due to the complex nature of the Danish pig industry and the overall agriculture sector, the use of maps helped provide an understanding of the field and the relationship between actors. Clarke argues, that maps can be used to explore new ideas and to assist the researcher to interpret and delve deeper into the data (Clarke, 2003).

Furthermore, the use of the situated analysis method allowed for the expansion of the field to include actors that initially didn't seem to play a role in the research. Accordingly, Situational Analysis also aided in opening up the concept of Multiplicity, as it allowed for multiple complexities to be analysed and mapped simultaneously. This quality was seen as an imperative function of the theory, since the field in certain areas was very divided, while in other areas it appeared to be closely connected. In certain instances, the method also allowed for a better understanding of what was relevant for the project and what could be delimited in order to sharpen the focus.

As a result, the continued use of this method has made a significant and relevant impact on the project, by opening up new interpretations of the field. It is therefore necessary to present

how the method was applied in the production of this project, in order to give an insight into the working methods.

Situated analysis and maps

"The locus of analysis here is the situation. The goal is to first descriptively lay out, as best one can, all of the most important human and nonhuman elements in the situation of concern of the research broadly conceived. In the median sense, the questions are: who and what are in this situation? Who and what matters in this situation? What elements 'make a difference' in this situation?" (Clarke & Friese, 2007 s. 372)

Adele Clarke presents several different ways to visualise and map the collected data, in this study we have focused on using the initial first three steps of the method, "messy-map", "ordered-map" and "relational map".

These maps were used to guide us through the initial chaos of collecting our data within a very large and complex field. By ordering data into categories and themes, situational analysis provided an enhanced understanding of the complex and interconnected relationships in the field. Practically, this meant that several maps were constructed and revisited, while data was being collected. In this process, several tools were used, such as physical whiteboards, as these made it easy to change the position of actors as new relations and connections were discovered. In addition to the physical boards and post-its, a digital program i.e. the "Realtime-board" (Realtimeboard.com, 2016) was used to digitalise the maps and store them for future use, while simultaneously providing new ways to structure and interpret the data. This digital platform also allowed for the constant revisiting and restructuring of the maps.

Messy maps

The initial map created was the messy-map where all relevant elements of the field, were listed and written on a whiteboard in a quite chaotic and messy manner, acting as a brainstorm exercise.

According to Clarke, these maps should continuously be revisited, updated, discarded and recreated, giving them the ability to foster new knowledge and to see connections one was not previously aware of. The messiness of this map acts to keep the field open, as too much order inhibits the open interpretation of data (Mathar, 2008). These maps also allowed us to define the different types of ontological elements present in the field both human and non-human. In this process, we sought to present a variety of different actors, practices, discourses and locations that we initially believed to be relevant for the overall understanding of the state of the Danish pig production. This map was not created solely based on opinions, but rather on a combination of preconceptions and state of the art knowledge.

Ordered maps

Because of the messiness of the previous mapping exercise, it was important to apply a sense of structure and order to the huge amount of data. The next step in the process is therefore the creation of the ordered maps and is to be considered incredibly important in order to make structure and conceptualize raw data from the messy maps. In this map, central themes and groups were applied accordingly to the predefined categories presented (Clarke, 2005). The categories presented includes; human actors, organisations, non-human actors and discourses. We purposely did not seek to limit ourselves in how the different elements were presented, which resulted in some categories being similar or showing up twice under different themes. The work with categorising and ordering the data contributed to giving us a better understanding of the complexity of the field as well as formulating our problem statement. According to Clarke, these ordered maps are to be used as tools to keep a general overview of different elements present in the field. The mapping exercise is therefore not meant to overcome the messiness, but simply to be more practical for the researcher to work with (Clarke, 2003). Ordering the maps therefore allows the researcher to be in a constant state of comparison of the data (Clarke, 2003).

Relational maps

The third type of map, *Relational Maps*, lay out the dominant positions and seeks to identify potential relations, or the lack of (Clarke, 2003). Clarke considered the technique of relational mapping as the essential part of the situated analysis since it is in this exercise the relationship between the different actors gets explored. By creating multiple relational maps, and reworking them, it is possible to analyse connections between actors, actants, discourses and etc. that might not have been apparent.

Furthermore, this analytical map invites the researcher to reflect on the observed relations both silent and outspoken. The process includes concentrating on one element and visually drawing the connections between different elements, whilst specifying the interrelational properties of the elements (Clarke, 2003). This process is carried out systematically, one at a time, from several elements on the map to illustrate multiple connections, and the nature of these. According to Clark this should be done for every single element present in the map, however for this paper we chose to focus on the elements that fit into our delimitation of the field (Clarke, 2003). This method is used to fully capitalise on the mapping exercise and to get a visualisation of the different relations in the field.

It is important to note that one of the key aspects when working with situated analysis is to continually revisit the maps that has been created, and if need be, create new maps as the researchers focus and understanding of the field is improved.

First mapping exercise

During the course of this project we conducted the mapping exercise several times. By presenting these maps the reader will gain an insight into our work process and illustrate how the focus of the project has changed during our research.

The first time we worked with creating situational maps was very early in the process of writing this paper. It was just after our observation at the workshop in Horsens, but before we conducted our first field trips and most of our interviews. The maps were based upon the data gathered from various online sources, our observations at the workshop, and the initial talks we had with L&F, as they explained what they were working with and how we could work together with them. Due to this fact the initial messy map and subsequent ordered map was very unfocused, which reflected our relative limited understanding and knowledge about the field (Appendix: C7, C8). The actors that we identified as important included politicians and consumers.

However, we would later delimitate the field from these actors as our focus shifted towards foodservice and pig producers. The realisation that our knowledge about the field was relatively limited resulted in us choosing not to create relational maps, as we didn't have enough data on the field for that to make sense.

7.3.4 Preparing to enter the field

Working with the first two maps of situational analysis, gave us a rough overview of the field we had observed to date as well as the actors in our field that we still needed to contact. It became apparent to us that in order to gain a deeper insight into our field of research we would be required to conduct in depth interviews with many different actors both inside and outside the industry. To accommodate for this realisation, we decided to prepare for an extended field trip to Jutland, since this is the area where the majority of the industry is located. By getting in contact with farmers we had met at the workshop in Horsens, as well as by emailing industry people from both Tulip and Friland, we were able to secure interviews and observations with enough people that we were required to spend an entire week in Aarhus to allow enough time to interview everyone.

The Danish lab idea had at this point, due to our observations in Horsens, evolved into an experience/information platform, where the industry and the consumers could meet on equal footing. Our expectations with this platform was to explore a space where the industry could show of how they conducted their business, while at the same time giving space to consumers and food professionals to voice their concerns with the industry.

This meant that we wanted to see what experience other industries have had with creating value through cooperation with consumers. This led us into contact with Universe (formally Danfoss Universe) - an entertainment park that promotes the education of natural science to young children through play. This park was initially created by Danfoss, which is a global thermostat producer in Denmark, in part to promote natural science, but also in order to promote their company brand and values.

7.4 First field trip

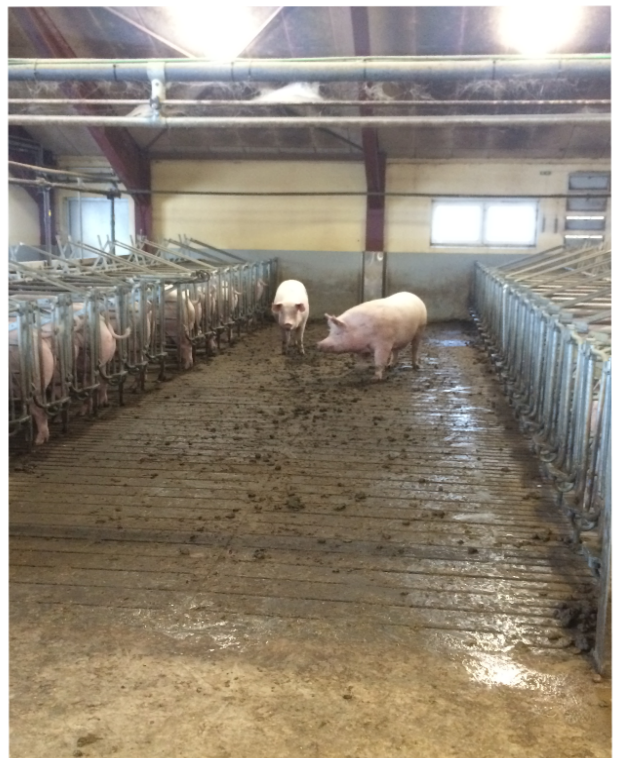
Our first field trip to Jutland was incredibly packed with interviews and observations. Luckily, our collaboration with L&F had provided us with a car and the option to stay at a hotel in central Aarhus, allowing us to be more efficient. We had arranged two meetings at Agrotech in Skejby the first day of our trip. Our first meeting was with Arne Grønkær from the “Månegris” project. The “Månegris” project was initially instigated by the previous Food and Agriculture minister Dan Jørgensen, in an effort to revitalize and improve the Danish pig industry through innovation and new technologies. Our second meeting was with Søren Madsen, who is in charge of the daily running and events at Agrotech. Agrotech is a research and innovation house that supplies a number of different services to the food and agricultural industry, such as analysis, product development and counselling.

The second day of our field trip we had arranged with one of the farmers from the workshop in Horsens, to conduct an interview and an observation at his conventional piggery. His name was Peter Madsen and he runs a midsized piggery together with his father, just a short drive south of Aarhus, where they produce around 55,000 pigs every year. After having lunch with him and a few of his farmhands we changed into jumpsuits and headed into the actual farm where Peter guided us through the piggery, showing us everything from the sows and their piglets, to how the feeding machines function (Appendix: B4). After the observation and interview, and with the smell of the piggery still strong in our noses, we drove to Innovation House to meet with the CEO, Gyda Bay. Here we had arranged to conduct an interview with her specifically about the visions and functions of the new innovation house. We talked about the general purpose, and explored what role the innovation house could play in creating value for different areas of the Danish food sector.

The third day we travelled to the headquarters of Tulip and Danish Crown in Randers, to interview the CEO of Friland, Henrik Billmand, about what challenges and advantages the organic pork production is facing. Friland is a subsidiary company of Danish Crown and is one of the largest collections of organic pig producers in the

world. Securing an interview with him provided us with a great understanding of organic production in Denmark. After the interview, we went directly to another meeting, in the same building with Jesper Jæger a senior marketing and innovation manager at Tulip, the company responsible for product production and development, within Danish Crown. Through him we gained an insight into the considerations that went into creating new products and the challenges they are facing with engaging their customers and foodservice.

On the fourth and final day of our field trip, we drove all the way from Aarhus to the island of Als, a trip that takes around three hours to meet with the Jonas Luttermann, the operational manager of Universe. We had arranged a meeting with him in order to explore and gain inspiration to our experience platform / Danish lab idea. He gave us a guided tour around the park even though it was closed down during the winter (Appendix: B5). This tour provided us with a lot of inspiration of how the industry might be able to connect with the consumer, in a more inclusive fashion.



Top left: Tulips/Danish Crowns headquarter in Randers.

Top right: Conventional pig production

Center left: Conventional pigs

Center right: Conventional pigs interacting with modern pens.

Center left: Frilands Christmas pig.

Center mid: Danfoss Universe

Bottom left: Conventional suckling piglets

7.4.1 Understanding the field

According to Kvale (2008), subjective understandings and meanings can affect the methodology, including the type of questions asked during interviews as well as the themes selected for an interview guide. It also affects the interpretation of observed actions and enactments at a pig farm or within other aspects of the pig industry. In our case, not working with pigs previously might have aided us to ask different questions, exposing different complexities and multiplicities.

Throughout the project, situational analysis was used to immerse us into the complexities of the field, whilst leaving room for the continuous progression of our conceptions and knowledge. One interview after another, the general knowledge of the field expanded, rendering questions to be stricken from guides, clarifying complexities and creating a greater understanding for projects and value creation.

For example, the interview guide was subject to continuous clarification and revision to accommodate new information, knowledge and specific context clarifications. As a case in point, *The Månegris Project* – was initially estimated to be an innovative and important undertaking, with the ability to enact serious change to the overall pig industry. After interviewing Arne Grønkjær of DTU, the project manager on the project, this turned out not to be the case. Due to tight interview schedule, hasty revisions were made on the side of a muddy field, in order to avoid unnecessary questions regarding that particular project in the following interview with a conventional pig farmer. Overall, these revisions were often carried out to secure professionalism, as new knowledge gained from previous interviews created the basis for new questions as well as the elimination of previous questions.

General field notes

This study revolves around a descriptive and holistic approach in order to provide a contextual understanding of the intricate and complex subject of value creation in the Danish pig industry. However, due to the substantial complexity and enormity of the overall subject of pork production, a selective delimitation was carried out to secure validity within the limited scope of this project.

Furthermore, this paper will focus on a qualitative approach to the research field. The empirical data mainly consist of interviews with relevant stakeholders within the field as well as observations and data provided from the industry and independent sources. Numbers, figures and statistics provided by the L&F, as well as other relevant sources contributes and compliments the gathered data. In general, the qualitative data will be supplemented with quantitative data in many forms, further detailing the complexity of this particular field of study.

7.4.2 Interview strategy

The many interviews conducted during this project required extensive planning and preparation to accurately relay the information from our many informants. Many of our informants were located close to Aarhus, meaning that interviews were often planned and prepared in advance. Practically, this meant that interviews often had to be carried out in close succession to each other, to accommodate the informants. On more than one occasion, interviews were carried out back to back, but at different locations, leaving limited time to adjust interview guides. Due to these hectic data collection periods, pre-constructed interview guides were used as a tool to ensure that all the relevant questions were asked and to write down last minute changes. It was therefore deemed important to have a strong theoretical foundation when designing the interview guides.

Seven stages of interview

We utilised the seven stages of an interview as described by Kvale (2008), as a general framework in preparation for carrying out interview. This framework aided us greatly to insure a professional approach, and assisted in handling the burden of managing such a large number of informants. Within this project the seven stages were carried out as follows:

1. Thematising

Initially, we created the formulation of the general purpose of the investigation. Mapping exercises were carried out to create a workable overview of the potential subject for further investigation, working with the overall guiding questions provided by Kvale (2008): the *why* and the *whats*. According to Kvale (2008), the *why* and *what* of the investigation should be addressed before the question of *how* i.e. the method is decided. In our project, the *why* refers to the purpose of the paper i.e. creating value or changes in the Danish pig industry, whereas the *what* refers to collection of voices informing on the complexity of the Danish pig. Several themes were discovered and after careful deliberation, certain themes were accepted into a general framework for the initial data collection. Interviews were selected as primary tool for data collection. As described by Kvale (2008), the *how*, is referred to as selecting an appropriate tool or method to explore the multiple opinions, views and enactments of the field.

2. Designing the interviews.

Careful planning of the interview guide was carried out while adjusting the different stages of the interviews. Due to the complexity and controversial nature of certain elements of our study, ethical considerations had to be discussed. Some informants, such as a conventional pig producer, might hold reservations in participating, making it important that we structure the

interview in a respectful yet explorative fashion. Moreover, contingencies were planned to counter for informants who could potentially prove to be unable or not willing to reflect on the concept of value creation in relation to the Danish pig.

To facilitate a calm and comfortable mood each interview started out with 5-10 minutes of small talk, where we told something about our project and asked non-personal questions, to break the ice.

3. Interviewing.

The interview guides worked as a framework for questioning, essentially helping us to remember complex questions and themes we wanted explored. We discovered it was important to reflect on the interpersonal relation of the interview situation. Within the planning we therefore took great care to secure an objective interview atmosphere. One key element was to carry out the interview at a location chosen by the informant. According to Kvale (2008), this can be an instrumental step in insuring a calm and safe sharing space, as some informants can be hesitant about sharing personal views or feelings. Conduction of interviews on location made it easier to secure the interviews, as it took into account the schedules of our informants. One interview was conducted partly over lunch, to accommodate a busy work schedule of the farmer. Others were conducted at workplaces, offices or conference rooms, while another interview was carried out at Rødovre public library, as this was the preferred location by the informant. As described by Kvale (2008), accommodating the individual informants wishes can help ease the burden and provided the informant with a noninvasive interview set up in a familiar space. We are confident that this approach aided us in receiving honest and truly reflective answers that enlightened the general questions of value related to the Danish pig, in accordance with good interview practices (Kvale, 2008).

4. Transcribing the interviews.

This step involves translating the verbal information recorded from the interviews into written text that can be used in the paper. According to Kvale (2008), an interview is essentially just a face to face conversation. However, by applying the process of transcription to the direct conversation, the conversation evolves from an abstract exchange of words, into a fixed written dialog, that can be analysed and studied. For the purposes of this study, accurate meaning condensed transcriptions was a priority due to the limited timespan and the number of interviews. According to Kvale (2008), the transcription process is an important part of the interviewing method, as it translates oral conversations into text. In the written form, an interview can be revisited (Kvale, 2008). The need to constantly revisit the interviews and use one interview to develop on the next interview, meant that we transcribed all interviews as fast as possible after having conducted the interview.

5. Analysing the data.

Here we decided on the appropriate modes of analysis for the interviews. As explained by Clarke (2005), there is much value in creating visuals when structuring and analysing data. Situational analysis was therefore applied from the very beginning of this project and continued to be an instrumental part of structuring data. Moreover, situated analysis also aided in further scrutiny of the data, allowing us to discover new connections, themes and enactments. According to Clarke (2005), it is imperative that any qualitative study uses methods equipped to capture the complexity of a dataset. In this study, this was further underlined by the inherent complexity of the topic. Situational analysis therefore did not merely provide a method for structuring the data in a practical and visual fashion, but also proved to be instrumental in opening up the multiplicity of the data. By exploring discourses, complexities, stakeholders and actors with the use of simple techniques, the enactments and world views came to life, in a visual sense that allowed us to explore them further.

6. Verifying data.

According to Kvale (2008), validating and generalising data, involves reflecting upon findings from this study that can be used to inform on a general situation.

As described by Kvale (2008), the researcher must attempt to offer an argument as to the validity of the findings. Great attention was paid to providing a voice to sources both inside and outside the L&F organisation. The opinions and insights offered by the informants represent a snapshot of the pig industry, and while this might evolve and change over time, it informs on a present reality. However, although multiple understandings were welcomed, it was deemed important that interviews could be somewhat representative of the actual industry.

By using literature and data provided by L&F as well as literature obtained via a columned literature search strategy, a general assessment could be made regarding the truthfulness of certain statements. Similarly, data from L&F was scrutinised and contrasting data sets, such as Animal Protection Denmark "Sådan ligger landet", was introduced to provide an opposing conclusion of the agricultural facts (DyrenesBeskyttelse, 2017b).

Overall, it is not possible to assess one universal truth when interpreting statistics from the Danish agriculture, but statements with no basis in reality could theoretically be discarded. Within our data collection we identified no false testimonials, and in general we found that informants were both truthful and critically reflective of their own organisations. According to Kvale (2008), it is often impossible for qualitative research to be truly generalised, as it holds little or no value for the qualitative method objectives. Nevertheless, validation can also be interpreted as a study results ability to be transferred to other relevant situations (Kvale, 2008).

In the case of the pig project, analysis made it possible to uncover independently described themes and comparable arguments, statements and opinions within several of the interviews, and as an added strength, the selection process, prioritised management level informants such CEO's, managers and owners. It can be argued that informants at management level, in some cases are best suited, as they are able to inform on behalf of the organisation or company they represent. In other studies, such as investigating the practices of a pig farm other qualities than management level could be equally or more important. According to, Kvale (2008), if you want to know something about something, you need to ask someone. What we wanted to know about was the value creation within a large and complex Danish pig industry, which is why we interviewed actors in charge and involved with the industry.

7. Reporting the findings.

This step is essentially creating the written part of the project, reporting the findings of the investigation. This part also includes devolving methods and considerations that ensures impartial results. Due to the collaboration with L&F and the need for this paper to stand independently, some considerations to the collaboration was done (See section 1.2).

7.4.3 Practical planning of interviews

Prior to carrying out the interviews, interview guides were created in order to aid the knowledge gathering, as several interviews would be carried out within in a restricted time period. Within this project, two main data collection periods where planned. As much of the main industry is located in Jutland, field trips were planned and carried out, using the city of Aarhus as a base. The two field trips in Jutland both lasted four days, and yielded numerous interviews that were important for representing the different aspects of the field of study. The second field trip was planned shortly after the primary one, as a way to include sources that had been suggested as a result of the snowballing method, or to accommodate informants who were unable to participate in the primary round of data collection. For the purpose of this project, all interviews were conducted face to face in order to ensure validity as it gives us, as interviewers, a better understanding of the informant and allowing us to respond to their bodily expressions (Kvale, 2008). In the case of complex questioning, and questions that calls for informants to reflect and evaluate something as multi sided as value, face to face interviews are preferred as it allows for interviewers to explore information more holistically and with a greater feeling for the mood of the interview as each interview yielded new knowledge, and subsequent new questions, interview guides where refined and adjusted immediately before each interview was carried out. The first time this was conducted was after our meeting with Arne Grønkjær. Information about the sector and the challenges with innovating the pig industry, were used as a point of departure when interviewing the pig farmer Peter Munk Nielsen the following day.

This meant that the semi structured interview strategy was especially well suited, as it allowed for improvised questions and on-the-go adjustments, while at the same time allowing stakeholders to answer and interpret many of the same questions as other stakeholders had been presented with.

The interview guides had a space set aside for follow up questions and other relevant comments from the stakeholder. This allowed each subject to individually elaborate or explore areas of pig production they found especially relevant, independently of the predetermined knowledge and restrictions of our formulated questions.

Practically, all interviews were recorded with the permission of the informants, and the digital interview guides were designed in a way, allowing for effective meaningful condensed transcriptions to be written directly within the document, providing a structured overview of each interview.

Interview guide

Before conducting any interviews, a literature search and a mapping exercise was carried out. Several themes, conflicts and complexities were identified and categorized for further investigation. Categories identified in this process, later formed the basis for the initial interview guides. According to Kvale (2008), different interviewers, using the same interview guide, may generate different answers to the same questions, due to varying levels of knowledge about the interview topic. We countered for this problem by acting as backups for each other during the interview, ensuring that our collective knowledge was always represented. The interview guide contained an initial part, asking the informant to describe his or her own background and connection to the subject of value creation. The interview guide has spaces set aside for elaborating comments, as well as a part where relevant quotes could be noted. According to Kvale (2008), ensuring accurate transcription is paramount to a successful interview, especially if there is any doubt as to the correct rendition of the information. As described by Kvale (2008), providing informants with informed consent is highly applicable in high-risk studies, however becomes less relevant in low-risk field reports and interviews.

Still, all subjects were advised that the nature of the final project could change, and emphasis was placed on the efforts taken to ensure an objective and precise transcription of the interview.

Semi-structured interviews

According to Kvale (2008), the general setting of the interview stage should be friendly, and casual in order to encourage the informants to accurately describe points of view, opinions and thoughts.

The first part of each interview was set aside for small talk themed questions e.g. personal information, education, background for project etc. in order to make sure the participants would feel at ease and to eliminate any nervousness. This section proved very important, as some informants expressed some concern about answering questions about controversial aspects of the pig production. Others conveyed some apprehension toward the usage of the interview and generally needed to feel at ease before being able to appropriately reflect on the value creation problem statement.

Generally, we found that name dropping i.e. informing participants of the various other informants we had agreements with while at the same time, affirming a certain level of confidentiality outside the usage of this project, helped ease the tension and allowed for higher quality interviews. According to Kvale (2008), it is imperative that a subject feels secure and comfortable in order to gain truthful and reflective answers.

However, access to informants were not always easy. In certain cases, such as when we contacted APD, our association with L&F became an issue since they were not interested in being associated with that particular organisation. In other cases, we were viewed with some suspicion due to our status as university students, as was the case when we participated in a “Nu er det nok” in Horsens, as they feared how we would present the industry in our report.

Additionally, the ongoing decision to adjust interview guides and encouraging some improvisation within the interviews also created a comfortable atmosphere ensuring the quality of the interviews. In many ways, this personalised interview method enabled interaction between the interviewer and the participant and greatly expanded the scope of our own knowledge. It also allowed for the continuous improvement of interviews.

Transcription and translation

In order to insure an accurate transcription of the interviews, audio recordings of the interviews were transcribed as quickly as possible. By recording each interview, we were provided with an easy-to-hear recording that could then be transcribed into written text. According to Kvale (2008), there are not any specific rules that need to be followed when transcribing taped interviews. However, it is important to explain how and why the transcription is conducted in a certain way (Kvale, 2008). Since we chose to divide the task of transcription of the interviews between the two researchers, it was important to decide upon the framework of how the interviews were transcribed beforehand, in order to ensure a uniformity between the transcriptions.

Different forms of transcriptions come with their own strengths and potential challenges. Choosing the right form of transcription is therefore dependent on what information is required of the research (Kvale, 2008). A verbatim transcription can be beneficial if you seek to gain an insight into the linguistic style and social interaction of an informant (Kvale, 2008). However,

such transcriptions are often extremely time consuming to both transcribe and analyse. Since we were interested in the opinions of the sector that the informants represented, rather than their own personal views, we choose to work with condensed transcriptions of our interview. A meaning condensed transcription, focuses on documenting only what is deemed important for the research and by singling out specific quotes of the informant. Opinions and information is condensed into bullet points by the transcriber. Within each interview, informants were asked to reflect on their perception of value within the Danish pig industry. Doing the transcription process special attention was paid to the contexts in which the informant relayed information.

According to Kvale (2008), meaning condensation can serve to analyse extensive and complex interviews, as it conveys natural meanings and concepts. Within this project, meaning condensation was applied to all oral interviews, while also preserving numerous quotes to allow for even clearer communication of main points.

Preparing the interviews for future analysis was both time consuming and somewhat challenging due to the fact that all interviews were carried out in Danish and needed translation into English as part of the requirements of this candidate program. For this project, both interviewers have extensive working knowledge of the English language, ensuring a high-quality translation, with minimal loss of context due to language barriers. All translations were carefully scrutinised and compared to the original oral recordings to ensure no loss of meaning between the original and the translated interview. As emphasised by Kvale (2008), a correct translation is imperative as it holds the key to interpret meanings and opinions. Translations were carried out with the consensus of the informants and special attention was paid to ensuring correct reporting of central concepts and to the use of idioms. Several phrases where idioms were used to illustrate complex arguments, was translated by identifying a similar idiom with in the English language.

Example: “To fluer med et smæk” – “Two birds with one stone” – in other cases, the context of the idiom was relayed to represent the underlying meaning on the phrase.

7.4.4 Reflections on the field

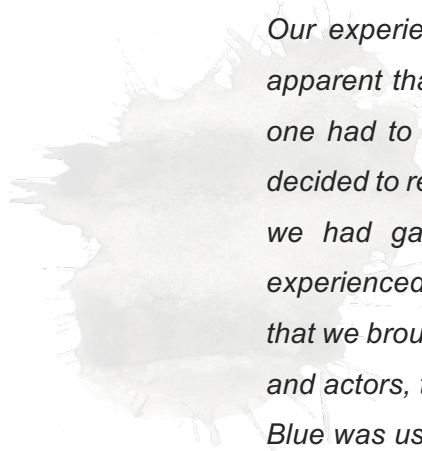
The first field trip to Aarhus represented a changing point in both our understanding of the field of research, as well as our approach to our research. Our understanding of the pig had previously only been based on what we had read, as well as what we had been told by the informants we had interviewed. However, going into the field and experiencing the reality of the pigs we were trying to describe, gave us a unique insight into the life of the animals, as well as the work that lies inherent in the production for the farmer. This experience was a valuable counterbalance to the interviews we had with the industry experts at Tulip and

Friland, whose perception to the industry to a large degree was grounded in the production and branding of the pig after they had become products. This realisation that the pig, in a manner of speaking, existed in multiple different states, depending on the perception of the actors, somewhat shaped our research and became an important consideration when evaluating the of value of the Danish pig.

Our interviews with the actors at Agrotech and Innovation House gave us an understanding of the status quo within how the industry had previously tried to create value within the sector. Currently an agriculture experience platform in Denmark does not exist, however both Agrotech and the Innovation House displayed significant interest in finding alternative ways of creating value within the industry.

After our field trip, we realised that we needed to contact actors outside of the production in order to challenge the information we had received from the farmers and the industry. We therefore arranged for a meeting with Ilse Lærke Kristensen, Head of communications at *Animal Protection Denmark* and Birgitte Dam, one of the agency's chief veterinarian consultants, in order to give room for outside voices to present their perceptions of the industry.

7.5 Revisiting theory



Our experiences from our field trip challenged our view of the field, as it became apparent that in order to appreciate how the value of the Danish pig was perceived, one had to accept the multiplicity inherent in the pig and in the field. We therefore decided to revisit our relational maps, and on the basis of them and the new information we had gathered create new ones that reflected this multiplicity that we had experienced. We coded the maps using three colours. Green represented old concepts that we brought into the map from the old map and Yellow represented new discourses and actors, the map neatly showed how our understanding of the field had moved on. Blue was used to highlight certain actors and discourses that we had seen and heard as being of particular interest (Appendix: C9, C10).

To further elaborate on this, we used Clarke's relational mapping exercise as a tool to understand the relationship between the different actors we found in the field. This exercise led us to divide the field into three different constructions in which we saw the Danish pig as being enacted, namely as an 'animal' a 'product' and a 'symbol'. Our research now focused heavily on the inherent multiplicity of the pig (Appendix: C11, C12, C13, C14).

7.5.1 Multiplicity

As our study progressed, it became apparent that the complexity of the Danish pig was a substantial and relevant part of the problem, in creating and defining value. The extensive data collection undergone as part of the process of writing this paper revealed a complexity that made it imperative to address the multiplicity of the Danish pig. As a result, this paper seeks to analyse the different understandings and realities associated with the Danish pork production - both why and how the perceptions differ.

Our overall theoretical framework therefore draws inspiration from Annemarie Mol's interpretation of multiplicity in particular the descriptions of multiplicity of "*The Body multiple*" (Mol, 2002) and '*What is a good tomato? A case of valuing in practice*' - another study that practically applies the principles of Multiplicity to an item of consumption i.e. a tomato (Heuts and Mol, 2013).

Within her theoretical framework, Mol has created a new terminology to describe this complexity. The term *Ontological Multiplicity* describes how ontologies or realities can be relational in practice, and how these realities do not only change over time, but can coexist together simultaneously. By investigating the everyday diagnosis and treatment of the disease atherosclerosis, Mol sought to uncover how atherosclerosis was enacted and described. The investigation reveals that within a hospital many other practices conjoin to create a complex and multiple ontology of the disease such as location, machines, discourses or various treatment. This multiplicity results in alterations in the ontology of the atherosclerosis, affecting how it is measured, observed and ultimately treated going forward. According to Mol, this multiplicity does not simply imply division or complexity, but also greatly influences the enactment and discourses of the disease (Mol, 2002). In relation to an item of consumption, such as the Danish pig, Mols multiplicity can be applied by appropriating certain aspects of the field and selecting the relevant terms to apply. Within Mols own attempt to apply multiplicity to the valuing of a tomato, thirteen interviews were conducted to showcase valuing of a tomato in different enactments and to illustrate where these enactments interfered with each other (Heuts and Mol, 2013).

Ontologies and multiplicity

The use of *ontology* as a central part of the theory of *being* in Science-Technology-Studies (STS), is what allowed researchers, to address methods that were used in the different sciences simultaneously. In the Body Multiple, Mol ties medical anthropology, sociology, philosophy and STS to demonstrate the multiplicity of disease ontology. The overall concept is that there are not only more ways of knowing an object, as there are many ways in which an object can be practiced or interacted with. These stages in which an object can be

practiced, preformed, carried out or enacted, constitutes a different version of the observed object (Mol, 2002). Thereby, the object is no longer solely a singular “one” but is in fact multiply objects as perceived by different actors i.e. the object *multiple*. The overall notion is that there is no right or wrong reality, but that it can in fact be considered multiple (Mol, 2002).

This notion stands in direct contradiction to what Mol describes as the Euro-American tradition of ontology, in which different actors can have their individually perceived version of reality, while reality itself is actually a singular entity that only the actors themselves perceive differently. This breaks away from the mono-reality view of the ontological background of the theory, and is further outlined in the plural form of the term ontologies, which in the traditional sense would be considered contradictory (Mol, 2014).

7.5.2 The body multiply

In ‘The Body Multiple’, Mol explores how a particular disease is understood and experienced in very different ways by the actors involved in the treatment process. She applies the word *enact* to describe how different actors are affected and experience the specific disease, even if they themselves do not suffer from its affliction. The research was conducted over a period of several years where she observed how the disease could manifest itself in multiple different situations and relations between different actors.

As an example, Mol observed that when a patient entered the hospital and met with the resident doctor, the disease was enacted through their experience of pain, discomfort and difficulty with moving around. To the patient, this could result in a sensation of either fear, an inability to work or even perform simple tasks, such as walking their dog, leaving them feeling immobilized.

Opposingly, the doctor had a completely different experience when presented to the disease, since he was not able to feel or relate to the patients discomfort himself. Therefore, the disease was enacted as the patient explained their symptoms and he studied the patient's legs and subsequently interpreted their rendition of the pain. The doctor's observations and the patient's explanation of the experienced pain, combined with a medical knowledge and experience, ensured a diagnosis of some sort which needs to be administered and processed in a specific way. The disease is then again enacted when the hospitals experts in diagnosis of disease tissue and the pathologist receives samples of the patient's tissue. The atherosclerosis has now travelled from the patient's experience of discomfort to the doctor's interpretation and diagnosis of the disease, to the physical thickening of the cells intima observed by the pathologist under the microscope (Mol, 2002).

The purpose of Multiplicity is not simply to explain how different actors in a situation perceive the same object, but rather to describe how it becomes manifested through the interaction

between different practices and enactments. According to Mol (2008), the purpose is not to seek to understand the objects as the focal point of the research, but rather as things that can be manipulated by different actors, both human and nonhuman, through their practices and enactments. It is in this interaction that the multiple realities i.e. the multiplicity of the object occurs and informs the complexity and reality of an object.

Additionally, Mol explains that it is possible for different enactments of the same phenomenon or concept to exist side by side with each other, even if they are contradicting. In Mols hospital study, the disease travelled wherever the relevant actors interacted with each other, be they patient, doctor or pathologist and through these interactions a way to treat the disease is discovered.

The way in which an object or a concept is enacted and thereby comes into being and potentially disappear, depends upon how it has been handled or manipulated.

Accordingly, an object can be enacted differently depending on the situation yet still relate to each other and ensure that the object can be studied from multiple angles (Mol, 2002).

As previously demonstrated, Mol focuses on how a disease becomes enacted between patients and hospital staff in the confined setting of a hospital in order to describe the central concepts behind multiplicity. Using relevant themes and terminology, our own study seeks to apply her concept of multiplicity to the way in which the Danish pig is enacted among different actors within the pig sector. Here we acknowledge the complexity inherent within the Danish pig and the importance and role that the pig plays in relation to different actors.

As an example, the farmers perceive the pig differently than other actors as it represents both their main source of income as well as a significant investment and for many of them a way of life that their families has had for generations. For interest groups such as the L&F the pig represents both their members and the economic potential that the sector represents for the country as a whole. To other actors, such as food professionals, the pig might again represent something completely different. In 'What Is a Good Tomato? A Case of Valuing in Practice' Heuts and Mol explores different enactments of the valuing of a tomato, actively demonstrating the inherent multiplicity, of a generally mundanely perceived food item (Heuts and Mol, 2013). It is our intention to analyse the Danish pig using similar methods.

To further emphasis the pig as a multiple entity inspiration has also been drawn from "*notes on fish, ponds and theory*" by John Law (Law, 2012). In this text Law loosely theorises on the role of Actor Network Theory in understanding a Norwegian salmon farm. Although Law's study, does not apply to our own directly, his regular reference to the notions of Mol and in particular the use of her terminology, in describing the *salmon multiply* enables us to draw upon his results in dealing with another item of consumption. In his story, Law comments:

“Thus, as we have seen, the solid salmon has been replaced successively by the salmon as hazard; the salmon as state-regulated entity; the salmon as saleable flesh; and the salmon as sentient being.” (Law, 2012).

Noticeably, a similar comparison to the notion of the Danish pig, is not far-fetched, nor is it unfeasible as the Norwegian salmon actually shares a range of similarities with the Danish pig such as its emergence as a national symbol, controversies surrounding production and its dominating role in Norwegian food production.

Furthermore, Law demonstrates how the salmon is indeed the salmon *multiple* by observing the way the fish is enacted differently by different actors and in different situations.

The salmon could potentially be seen as a hazard to its surrounding environment due the chemicals used in delousing the fish. Similar conflicts have occurred in the pig production where the pig has represented a hazard to the environment, due the pollution of its manure or even the spread of disease such as Methicillin-Resistant *Staphylococcus Aureus* (MRSA) - a controversial health related issue (Hartstein, 1995). This enactment occurs simultaneously with the enactment of the pig as an item of consumption - regulated and observed by the state laws, or when the pig is being presented as a food object in restaurants or kitchens.

Within our analysis we will showcase examples of how the pig is enacted in different ways, and illustrate how the pig-multiple affects the industry and the communication surrounding it. Additionally, we will investigate how these transformations occur when the pig interacts with the different actors, such as chefs and farmers. The complexity of the pig ensures that as an item of consumption, or as a concept, it cannot be considered singular due to its multiple nature. In reality, it is in fact both fluid and diverse through the interactions with both human and non-human actors and discourses. The countless different enactments of the pig results in there not being a single “true” understanding of what the pig is but rather multiple, equally valid realities of the pig existing at the same time. Through researching these enactments, it will be possible to better understand the current state of the enactments of the Danish pig and the challenges that the industry is facing in its effort to increase the value of the sector, whilst securing a sustainable approach to the future of the Danish pig.

7.5.3 Multiplicity in the field

Our decision to approach our research with Mol’s understanding of multiplicity required us to include more outside voices to truly represent the complexity and multiplicity of the pig. The voices that we in particular saw as absent in our data, was the people working in foodservice namely the Chefs and Cooks at restaurants who work with pork as a part of their daily practice. By contacting chefs within our own personal network, we were able to arrange a focus group

in Aarhus. This of course required us to go on a second field trip. In order to get the most out of our trip to Aarhus, we decide to get into contact with some of the people we did not manage to speak with on our last trip.

During our search for chefs interested in participating in our focus group we managed to get into contact with Søren Gericke, a well known Danish television chef, who was eager to share his thoughts and professional insights regarding the Danish pig. Although known for being somewhat eccentric, he was extremely passionate and well prepared in the way he viewed and reflected upon the Danish pig, and its multiplicity. Due to the fact that he had previously worked with supermarkets and foodservice to promote meat, he offered a unique insight into value creation of food products.

After our interview with Gericke, we were invited to participate in a workshop at L&F headquarters, where actors from inside the industry were invited to discuss the challenges facing the Danish pig in foodservice. Similar to the “Nu er det nok” workshop, it was hosted by an outside consultant agency who facilitated the discussion between the actor’s present (Appendix: B7).

As we experienced in Horsens, the discussion was somewhat one sided as there were no dissenting voice, that represented how the pig was enacted for other actors. This echo chamber effect, emphasised the need to collect additional voices from sources not usually heard within the industry and prompted us to return to Aarhus to interview informants that we had missed in the first round.

7.6 Second field trip

The second field trip to Jutland was just like our first, completely packed with observations and interviews. Just like the first time, we used Aarhus as our base of operations.

We had arranged to conduct a focus group interview with a number of chefs and restaurant owners in and around Aarhus, as well as with a representative from AB catering. The people present at for the focus group included Christian Bøjlund, chef and owner of Frederiksgade 42 & St. Pauls Apothek, Rune Lund Sørensen, chef and owner of restaurant Hærværk and Organic Chef of the year 2017, Søren Kristensen, chef and head of kitchen at Frederiksgade 42, Lars Olsen sales consultant at AB catering and Mads Schriver chef and owner of Restaurant Sårt. The purpose with interviewing this group of actors was to represent the food experts who are working with pork products in their restaurants.

On the second day of the trip we had arranged to go to Kolding, to interview Rone Stockholm head of Danish Crowns artisanal product line of pork products “krogmodnet”

at their aptly named meat innovation facility “Guldrummet” or The Golden Room. “Guldrummet” was located inside a large meat packaging and distribution factory, and as Rone showed us, is only a very small part of the Danish Crown industry. Rone and his colleagues work with generating value in meat products through artisanal craftsmanship and by offering special services to a small group of renowned chefs that has been handpicked by Danish Crown. (Appendix: B1). After the meeting, we went and visited Niels Schelde Jensen, an organic pig producer who had a farm just a few kilometres west of Kolding. According to Niels they produce around 10.000 organic pigs a year, which is roughly equivalent to around 10% of the total organic pig production in Denmark (Appendix: B3).

Unlike our experience with the conventional farm where we had to change out of our clothing in order to be allowed inside the farm, we just drove directly from his farm and into the field where he kept his pigs. Out in the field we saw sows waddle around in the dirt, looking out from their shelter with a small horde of tiny pink piglets running close to their tail, and looking fearfully towards us as we came nearer. The apparent idyll was however somewhat broken as we spotted the corpses of tiny piglets stacked at the side of the dirt road leading between the shelters. On the third day, we went and spoke with Sanne L. Vinther, the CEO of the Arla Fund at Arla’s headquarters in Viby outside Aarhus. We had contacted her in order to get an insight into how Arla via the Arla Foundation had worked with rebranding themselves and their products, since we had heard comparisons between Arla and Danish Crown from several of our informants. It was the Arla “Madleje” in particular that we found interesting since these are camps designed for school children to get them interested in food and cooking while at the same time letting them see where their food comes from.



Top left: Visiting Guldrummet

Top right: Organic piggery.

Center left: Artesian processing

Center middle: Organic pig

Center right: Pork at Foodexpo

Bottom left: Organic pigs, outside

Bottom right: Søren Gericke

7.6.1 Focus group interview

Working with focus groups as a tool for creating qualitative data provides the researcher with a method to collect data from a large group of actors simultaneously, and at the same time allow for new data to emerge through debate between the informants in the group. A focus group should be made up of different individual informants with a specific or unique view of the issue or topic being discussed (Anderson and Arsenault, 2004). A successful focus group should consist of around five to eight people who are brought together and facilitated by a moderator to ensure the discussion stays on topic and to explore the informant's feelings, perceptions and ideas (Denscombe, 2014). The setting of a focus group interview provides a group to reflect on the different questions and issues presented by the researcher or interviewer. In our case, the chefs all worked with pork in one way or another, prompting them to voice very specific foodservice related opinions and analysis. By interviewing them in a focus group setting, the debates and negotiations created well thought out answers and reflective analysis when they have to argue their point of view to their colleagues. It also allowed for informants to take their time in forming an answer, that might have been missed had it been a one-on-one interview.

Besides putting different actors together in a room to discuss certain themes and topics, a focus group also creates a more natural environment for the informants to explain their positions than of a traditional focus group (Krueger and Casey, n.d.).

According to Denscombe (2014), there are some distinctive characteristics associated with focus groups. A prop or other stimulus for the interview to evolve around can help to trigger a discussion between the informants. Additionally, a person that moderates the interview, usually the researcher, and who takes on a more neutral role in the discussion than they would in a regular interview situation. In this sense, the collective view or consensus is given more weight than the individual aggregated view.

Rationale for creating focus groups

The purpose of using focus group interviews in a scientific paper is as a tool to collect useful data in a social setting, and to help the researcher to understand the specific concerns and challenges of a topic from the viewpoint of the informants participating in the interview (Khan, 1991). A focus group should be used in situations where they feel like there is a lack of substantial information available for the researcher, or when the nature of the study requires the insight and perception of a group of actors who might be difficult to engage. The data provided via focus groups can give a rich and detailed insight into the thoughts, perceptions and feelings of an informant in their own words (Steward and Shamdasani, 1990). Focus groups can be particularly beneficial for research focused on understanding an informants

reasoning and pattern of thinking since, through discussion with other actors, can be forced to elaborate on their opinions and concerns (Kitzinger, 1997).

Focus groups are of course not always relevant for all studies and can be difficult to use since they take up more time to arrange and conduct than regular interviews. It can also be difficult to conduct a focus group if the topic of discussion is difficult for the informants to talk about, if it can result in a hostile discussion or if they don't have enough information about the topic.

7.6.2 Our focus group

We had arranged for the focus group to take place at restaurant Frederiksgade 42, as the owner Christian Bøjlund, who was also participating in the focus group, had been kind enough to make it available. All the informants we invited, with the exception of Lars Olsen, were professional chefs who either owned their own restaurants or worked as head chefs. Their opinion on what is valuable for them in regard to the Danish pig was very relevant for our research since they represented a group of actors we had not heard much from, and whom has extensive knowledge of the consumers. Lars Olsen, on the other hand works as a consultant for AB catering and his inclusion into the focus group allowed him to ground the ideas of the chefs with the reality of the retail industry.

In preparation to the focus group we had created three A3 posters with different questions concerning the different enactments of the pig; the animal, the product and the symbol. The purpose of the three posters was to act as the prop and focal point of the discussion of the focus group, as described by Denscombe (2014). Before presenting the poster to our informants, we asked each of them to write down their own preconceptions and ideas about the industry. The reason we asked our informants to do this exercise before initiating the actual focus group was to allow them to reflect upon their own perceptions of the Danish pig before they were influenced by other participants opinions.

We then presented the first poster concerning the animal which had questions was designed to get the informant to reflect on how they perceived the production methods in Denmark and their opinions about animal welfare and health and safety (Appendix: C5).


The second poster was concerned with the pig as a food product and included statements concerning different aspects about the pork that we would like them to reflect upon (Appendix: C4). The final poster focused on the enactment of the pig as a concept/symbol and included statements to get them to reflect on what they believed the the pig represented (Appendix: C6). During the focus group one research member acted as the primary moderator of the interview, while the other researcher took on a more passive role of observing the group and taking notes and pictures to document the process.

7.6.3 Focusing on value

Upon finishing our second and final field trip, it was decided that even though we could have conducted even more interviews, we had enough information to convincingly represent some of the different voices and perceptions of the different groups of actors associated with the Danish pig and value creation within foodservice. Whilst working with the gathered information, we had developed a working understanding of the complexity of the field and the concept of value. The increasingly complex concept of value within the sector, such as that of foodservice and the pig industry, caused us to move away from our initial idea of working with the Danish lab and experience platform. Instead, to focus solely on the perception of value and the enactments of the Danish pig. Our reasoning for focusing on the multiple enactments of the value of pig, are primarily due to size of the topic. The Danish pig proved to be a monstrously complex entity. This complexity meant that we had to realise that it was necessary to acquire a deeper understanding of how value was perceived and enacted before it made sense to explore new avenues to create value. Consequently, the notion of a Danish innovation lab, would be paused in order to further explore the multiplicity of the pig.

As we decide to investigate the perception of value within the industry, we realised that it would be necessary for us to somewhat rethink parts of our original perception of value. Where we had initially focused on the decline in value of the Danish pig, the information that we had gathered indicates that the value of the pig was enacted in different ways depending on the actor, promoting a more in depth analysis of the pig *multiple* and the enactments of value.

7.7 Theoretical approach



We were now faced with the realisation that we needed to move away from finding a practical solution to the issue of the pig's value decline. We decided to revisit our old relational maps, and on the basis of them and the information from the field trip create new ones that reflected the different enactments of value that we had experienced. The creation of our third map turned out to be much more extensive than the previous two since this map summarised all the information and impressions we had received from the field (Appendix: C15). As we ordered the information from our messy map into our ordered map, we marked themes that we had heard expressed from many of the actors we interviewed such as trust, value and divide, by colour coding them red (Appendix: C16). After this we created three relational maps, one for each enactment of the pig that we had identified, in order to see how they related to the different actors and discourses in the field (Appendix: C17, C18, C19). The creation of these maps

showed us how the different aspects of the pig became enacted out in the field, and how actors determined when the pig was valuable.

7.7.1 Valuing in practice

In our work with the concept of value we choose to draw upon inspiration from the valuation study of tomatoes “*What is a good Tomato? A case of valuing in practice*” by Frank Heuts and Annemarie Mol. The study focused on the value assessment of tomatoes both within the tomato grower industry as well as for the casual amateur grower. For the purpose of this paper, we focused on the value assessment within the tomato grower industry, as this is the most relevant to our own field of study.

The study focused on how the value of a tomato was dependent on specific aspects and attributes of the tomato, a fact that very much is comparable to how pork products in many instances are evaluated (Heuts and Mol, 2013). Heuts and Mol (2013), describes how the perception of a “good tomato” is performed in accordance with the assessment, appreciation, adaptability and improvement of the tomato. According to the study, there are five different registers of valuing that should be considered when assessing the value of tomatoes; *monetary, handling, historical, naturalness and sensual*.

Monetary register

The monetary relates to the financial cost and worth of the tomatoes. Initially, this is perhaps the most obvious register of value for a product since money is often a central consideration when assigning value. When growing tomatoes or producing any livestock or plant product, money plays a large role in the practice of producing, since everything from fertiliser, manpower, machines and the energy necessary for production has a monetary cost associated to it. The efficiency of the tomato, to use less fertiliser, to grow faster or be easier for the producer to handle saving time, will constitute a valuable attribute for the producer.

However, this is not the only aspect in which monetary aspects plays a role in the value of a tomato. Aspects, such as international trade relations can also impact the value of tomatoes if other countries are either having a bad or good harvest. These geographical changes impact how much the growers will be able to get for their tomatoes, when they sell them to stores. The interesting thing here is that the *good* within the monetary register is not equivalent between all actors, since the growers see it as a negative when they have to sell their products at a low price. Opposingly, it is considered a positive thing for the consumer to be able to buy cheap tomatoes. In this register, the idea of expensive and cheap clashes together in the notion of what is good (Heuts and Mol, 2013).

In the case of our study, the monetary register considerations explained by Mol and Heuts (2013), proved very applicable to other agricultural items, such as the pig. Generally, the ability of the pigs to be raised efficiently, meaning that the pigs grow as fast as possible, while requiring as little feed as possible, is a major register of value for a pig farmer. This is due to the feed and production volume being an important parameter for monetary turnover within the industry. Likewise, other considerations such as the overall cost of machines, labour and medicine, also influence the production. The fact that Denmark is far from the only country in Europe that produces large amount pigs every year also influences the value of the pig as competition from other countries increase.

Handling register

According to Heuts and Mol (2013), a second register of valuing is concerned with the notion of the handling of the products. This register is of particular importance to the tomatoes due to their delicate and fragile nature, as fresh tomatoes can be easily crushed and perish if they're not handled carefully.

However, as described by Mol (2013), the industry responsible for transporting and packaging the tomatoes are not able to cater to the specific requirements needed to handle the tomatoes optimally. Attributes that gives value to the tomato in this particular setting is hardness and firmness that allows for them to be transported without being ruined in the process. However, as the growers explain, even the hardest tomato will eventually go bad if left untreated for too long. According to the growers, it is in this treatment that processing factories are introduced to insure prolonged value. In these factories, the tomatoes are either made into paste or sauce, bottled and canned, making their previous valuable asset of being firm, inconsequential. Oppositely, when it comes to the handling of fresh tomatoes, the value associated with the properties of the tomato, varies greatly. Firmness in a tomato might be a positive thing for the consumer making a sandwich, whereas a juicy tomato might be more appreciated when making a salad. Consequently, the value register varies both depending on where in the production chain the tomatoes are, as well as what the product is used for by the end consumer (Heuts and Mol, 2013).

Although there are obvious differences between how vegetables and animals are handled, the register of value could still be relevant in the case of pig production. Central attributes which makes it easier for the farmer to handle the animals, could prove valuable when handling pigs. This value register varies greatly when handling live animals or the raw pork product when turning it into different products, since attributes, such as convenience, taste or health, vary depending on the end consumer, and might not apply to the live animal.

Historical time register

The third way in which value is registered is in its historical time. In their validation study Mol and Heuts (2013), refers to a consumer reminiscing about the taste and quality of the “good” tomatoes from the informant’s childhood. This tendency of prescribing value to an object or product from a person's past is very much connected with the positive emotions that one associate with childhood. However, Mol and Heuts (2013), states that when interviewing tomato growers, many of the growers take great pride in breaking with old traditions and coming up with new and innovative production methods. Here the growers mention how they had previously received complains about their tomatoes being watery and tasteless. These complaints resulted in a challenge for the industry to improve and innovate the product. The changes in the industry involved both reconsidering the quality of their seeds, removing the use of pesticides and rebranding the tomatoes as tasty. Although many of these new changes relied on innovative technologies, some changes also required the grower to look back at the history of their industry to gain inspiration from past traditions. As described by Mol (2013), some of the old traditions include using bumble bees for pollinating the plants and non-pesticide methods of fighting of unwanted bugs that would otherwise destroy the plants. As a result, the notion of the “good” tomato is dependent on the framing and the context in which it is produced, historically (Heuts and Mol, 2013).

In relation to the Danish pig, this register of the historical context in which the animal is enacted, could be a central point of pride for the farmers, as well as with the food professionals working with pork products. Given the history of the industry to utilise new technologies, as well as developing upon the animals through extensive breeding programs, value could potentially be assigned. However, this could also prove one of the reservations that many food professionals hold towards the industry. Since it is possible that some chefs have concerns regarding the validity of the industry and lacks trust in both the quality of the products being produced by the industry, as well as the way in which the animals were being treated. These reservations could prove instrumental for either devaluing, or up-valuing the pig as a product, especially is the overall notions is that the pig was better in the old days.

Naturalness register

According to Heuts and Mol (2013), the fourth register of value is the concept of naturalness. In this register, the tomato is a good tomato when the product has not been interfered with through processing or by adding additives. Here Mol and Heuts (2013), describes how Heinz, one of the largest sauce and ketchup companies in the world, brand their products as being natural by telling their customers that their products are not made - but grown. To some, this can be counterintuitive, due to the huge amount of processing and handling required before

the tomatoes goes from freshly grown vegetables to bottles of ketchup. The company tries to achieve this through the use of television commercials, leaflets and marketing campaigns, in the hope of downplaying the processing practices required of their industry. The value of naturalness in the tomatoes is not only limited to the way in which the products are processed, but also in the way in which they are grown. This notion is illustrated by a belief that the organic tomatoes has a higher value product, due to the fact that there is no use of pesticides or Genetically Modified Organisms (GMO) in their production. In this specific case, the good tomato becomes equal to the natural register, and therefore illustrates a belief that products produced in a natural way are more valuable (Heuts and Mol, 2013). Likewise, the register of naturalness value in the context of the Danish pig could indeed prove an issue for foodservice. Here the perceived naturalness or cleanness of the products could play an integral role in the concept and business strategy of the canteen or restaurant. A lack of perceived naturalness both in the production of the pigs and in the pigs, themselves, due to the extensive breeding programs and industrialisation, could be something that both chefs and consumers could perceive negatively.

Sensual register

The fifth and final valuing registers is concerned with the sensual. Here value is drawn by observing the industry or consumer and observing the product. Mol (2013) describes how the first sense that a good tomato has to seduce is the visual sense. In other words, how it presents itself and does it look appetising? Does it have the right colour and size? Does it have any blemishes or soft areas that might suggest that the tomato is going off and becoming mouldy? In this example, the good tomato represents a tomato that will present itself nicely in the food it is used, but it also indicates to the consumer whether or not the tomato will be good for eating.

However, looks can indeed be deceiving and a tomato that looks visually good might turn out to be tasteless if it has been grown for the sole purpose of looking good rather than tasting good. According to Heuts and Mol (2013), the sensory senses can therefore influence the consumer in competition with each other, since they register different attributes of the tomato. Just as a tomato might look appealing, due to large amount of water in the vegetable, but this property will also make it somewhat tasteless. For the tomato to be considered good in the sensual register it will therefore have to appeal to all senses at the same time, actively seducing the consumer with the sum of attributes (Heuts and Mol, 2013). Within Danish pig products, the sensory value in the products can vary depending on the processing methods applied and the overall expectations. As with the tomato, it is therefore possible that there could be conflicting sensory indicators, negatively or positively affecting the value. The Danish pig represents a myade of different inherent values, hence the sensual register will be applied

with a broader purpose than it is the case of the tomato. In order to achieve value, the Danish pig must somewhat seduce the consumer, the farmer and foodservice. The use of the sensual register therefore somewhat sums up the overall properties of the Danish pig, as well as encompass the narrower sensual appeals of visual cues. In other words, the sensual register will in this paper be used to sum up the collective seductive properties of the Danish pig, thus acting as micro summary of each enactment.

7.7.2 Final reflections on our journey

As we experienced researching the different enactments of value within the Danish pig sector, it proved to be a long and difficult journey. From our very first meeting with our gatekeeper at L&F headquarters in Axelborg, the scope and focus of the project underwent several changes. Where the initial problem we were presented with seemed to revolve around increasing the monetary value of pig within the food sector, we found that our explorative research primarily focused on what is valuable in relation to the pig, and on how to understand the multiplicity of the pig as it was enacted differently by multiple actors.

We have been in contact with a wide array of different actors and they provided us with many interesting perspectives and considerations. It proved imperative to follow the data and allow for actors to voice their concerns and opinions, in order to understand and handle the complexities of the pig.

Without the engagement of our choir of voices, we would never have been able to fully appreciate and investigate the multiplicity inherent in our field. The decision to sideline the Danish lab concept came relatively late in our research process, after we had conducted a number of interviews with innovation experts, many of whom were completely removed from the pig production field. However, we do not consider the time spent on gathering this information as wasted as it did aid us in reflecting on ways to further understand and facilitate value. It is also important to note that even though we choose not to prioritise an in-depth discussion of the prospects of creating and experience/innovation lab focused around agriculture, in this paper, we will briefly touch upon this aspect again in our final chapter concerning future studies, as the overall concept could prove valuable in the future.

Finally, by presenting our journey through the field, from our first meeting in the field to our last field trip, as well as the theoretical considerations, we had during the different stages of the project, we hope to showcase added transparency in our data collection and handling. As it is with many explorative studies, the journey is indeed part of the final project, and this study is no exception.

Part 4



8.0 Analysis: The pig-multiple

As a central part of this analysis, a framework of three categories will be used to structure the further analysis of the Danish pig in the context of multiplicity. According to Mol, the inherent complexities and multiplicity of an item, creates a multi sided ontology. In the text '*Mind your plate*', Mol (2002) describes the use of the term *ontonorms* contained in Dutch eating, not as a complex theoretical discussion, but rather as a methodological tool, allowing the reader to grasp the multiplicity of materialities and issues as potentially good and bad at the same time i.e. the *item multiple* (Mol, 2013).

Correspondingly, Law (2012) demonstrates this idea by observing a salmon farm, and creating different enactments of the salmon depending on the context of which the salmon is found, e.g. a hazard, a product, an animal etc. The categorisation or observations of the salmon multiple, act as inspiration for the overall framework of our analysis. Similarly, as Law and Mol (2012), we observed the Danish pig as it was perceived in different enactments. This analysis will therefore consist of three main parts depicting the pig-multiple as *The Animal*, *The Product* and *The Symbol*.

As a result of the vast number of interviews conducted, many central and often opposing points were identified, and discussed whilst analysing. The choice to use this style of analytical approach, opens up the analysis by displaying the differences expressed by our choir of voices in a multiple context. The multiplicity inherent in the analysis, serves to further underline the complexity of the field, thus creating a more holistic view of the Danish pig industry.

At the start of each section we will briefly elaborate on the relevant category identified in the relational mapping exercise. As Law (2012) identifies several relevant categories in which the perception of the salmon varies, so will we argue that the pig varied depending on the context of enactment.

In other words, these categories represent the pig-multiple, as demonstrated by our data and represents how the complexity of the field is enacted by the different actors.

Within each category, the multiplicity of value will act as a framework for analysing the Danish pig, and the valuing of this item even further. As described by Heuts and Mol (2013) in *What Is a Good Tomato*, asserting value to an item of consumption is not merely a matter of passing judgement, but rather a complex understanding of the *item multiple* and the many different registers of value that follows. Based on the five registers (*monetary, handling, historic, naturalness and sensual*) established by Heuts and Mol (2013), a similar exercise will be undertaken to investigate value creation within the Danish pig, in relation to the three overall enactments, and using the registers of value. In our analysis, the fifth register i.e. sensual will

be utilised to analyse the overall sensual qualities of the enactment across the different registers, acting as a sum up of the value registers. Before each enactment, a brief introduction will outline the confines of the category, to guide the reader and to underline the differences between the enactments.

8.1 The Animal

In the first category, the focus is on how aspects of the pig as a living, breathing creature, impacts how it is enacted by the different actors in the field. The nature of the pig as a living creature causes different actors to enact the pig in widely different ways depending on their own personal perceptions and the relationship with the animal/animals. As an example, the farmer has an inherent interest in the general welfare of the pig, whereas chefs might never find themselves facing the living animal, but find themselves heavily impacted by customers and their own preconceptions of animal welfare. This category encompasses some of the major points of criticisms facing the Danish pig industry, such as castration, mass production, tail docking and overall trust in agriculture. These controversies within the industry occurs in the context, where the pig becomes multiple and is enacted as both a living animal within the industry with the sole purpose to be slaughtered, but also as an animal, with cognitive abilities and rights.

8.1.1 The Animal: Monetary register

When initially undertaking this project, the collaboration with L&F resulted in the organisation sharing large quantities of data with us. Documents distributed each week describe the kilogram by kilogram value of live Danish pigs being exported to be fattened up (Appendix: C3), making it imperative that pigs reach a certain weight before the pigs can move on in the system. In many aspects, weight directly corresponds to value, with prices regularly being determined by the weight of the animal. For a large portion of the farmers, a valuable pig therefore is a pig that adheres to the weight standards. It is not simply a case of *the heavier the better*, rather a case of staying within a preassigned weight scale. Throughout several years, the modern Danish domesticated pig has been extensively bred as a mixture of three different breeds to ensure a homogenous pig, that grows faster, eats less and is physically larger and longer. The pigs are bred to reduce the prevalence of serious illnesses, including digestive illnesses and diarrhea - a condition that is a recurring problem within the industry. Furthermore, the pigs are also bred to farrow (give birth) to more piglets, as many farmers are specialised in breeding piglets that will later be fattened and slaughtered elsewhere. In the current system, a valuable pig can therefore be described as a productive pig, in the sense that the volume of piglets and the volume of meat (kilograms) equals monetary value for the

farmer. This optimised pig creates new challenges that require constant innovation and new structural solutions.

“Each stall contains a sow and roughly around 15-18 piglets. The floor is made of grills to allow the manure to seep through. In one corner is there a small box with heating lamps where the piglets can heat themselves. There is a feeding trough in one end that is connected to the automatic feeding system that feeds the sows every day at designated times.” Peter Munk (Appendix: B4)

Conventional pig producer Peter Munk explains how many segments within the overall production system are created in a way that allows for one farmer to breed the pigs, and then unload them onto another farmer who has the right stables and is specialised in fattening the pigs up for slaughter. According to Munk, this specialisation allows for producers to be much more efficient, and to maximise their profits while minimising expenses.

Opposingly, organic pig producer Niels Schelde Jensen finishes the pigs at the farm, as he perceives the total control with the whole process to be more valuable. We learn that as an organic producer, Niels receives a higher price per kilogram for this product, and according to him, it pays to ‘finish the job’, as the organic farmers is subjected to stricter regulations. This means that pigs with tail bites, marks or low weight are devalued upon sale. For Niels, a valuable pig, in term of monetary value becomes a pig that might adhere to some scaled weight parameters, but also some overall visual and welfare estimations as well as a strict certification e.g. organic. Many of these parameters, also applies to conventional producers, but by focusing on breeding piglets, producers such as Peter Munk, passes on the job of caring and raising the grown pigs to a specialist producer, thus saving time and money, however also accepting a lower price per produced pig. Many pigs are exported to Poland and Germany, mainly due to a cheaper production cost. However, cheap and efficient production also affects the price paid by the industry. Pigs are produced and unloaded at such a volume that prices are negotiated daily based on supply and demand.

“The production system is made in the way that the pigs keep coming, and then we sell them the price that they bring home.” Henrik Billmann (Appendix: A4)

Within this way of producing pigs, lies the inherent element of supply and demand, meaning that prices generally go up when demand is high, or supply is low. A valuable pig therefore becomes a pig that is in short supply, but in high demand. Due to the overall structure of the Danish pig production, supply is stable, allowing prices per kilogram to remain relatively low, with little fluctuation.

While conducting the interviews and observations, the monetary or economic aspect of the pig was verbalised on numerous occasions by the pig producers. The overall notion is that numerous investments in technology, feed and housing, as observed in the two site visits, all has some monetary aspects. Improved feeding systems, save time and efforts, subsequently saving staff hours. Improved housing facilities improves the overall conditions for the pigs, thus allowing for more pigs to be produced in less time. As observed at the conventional farm, creating a high-tech farm efficiently reduces the amount of work associated with raising the pigs. In an industry, where the price of the finished product is under constant pressure, ensuring low production costs appears to be one very important tool in ensuring an economical sustainable production, especially for conventional farmers.

“It is obviously nicer to raise pigs this way (free range/organic), it leaves you feeling better, but it is also more work, and farmers are generally always looking for the easiest way around problems” Niels Schelde Jensen (Appendix: B3)

Niels Schelde Jensen, describes how his organic farm, which produces roughly 10.000 pigs a year, is a small producer when compared to larger conventional ones, but has a strong economic foundation due to the higher prices he receives for his finished product. In this particular case, the valuable pig is an organic pig, as the organically certified pig fetches a higher price for the finished product. However, the organic production is more labour intensive and less efficient and organic farming requires far more physical work. Furthermore, many of the practical solutions are less than ideal in regard to work load for the workers in the industry. An example of a less than ideal situation for both workers and animals involves the piglets. According to Henrik Billmann of Friland, there is more “waste” at an organic farm, meaning that more piglets die due to exposure.

At our organic farm visit, we observed multiple dead piglets, and Niels explained how it is part of the work to routinely collect the dead piglets, and discard them. At Friland, Billmann explains that the higher than conventional death rate is a result of the organic pigs being from the same bred as the conventional ones. As previously mentioned, the Danish pig had been bred to farrow an increasing number of piglets, leaving roughly 30% to perish in organic farms. Generally, the organic farms are ill equipped to secure the survival of the entire litter. Furthermore, organic farms do not take any measures to prevent the large sows from rolling over and crushing the piglets, whereas conventional farms fixate sows upon giving birth. Although controversial in an animal welfare context, the fixation of sows and subsequent distribution of piglets ensure a significantly lower death rate amongst conventional piglets, thereby better ensuring the monetary value of the large litters. Survival of piglets thereby becomes an important monetary value register. This is further underscored by the fact that

both organic and conventional productions are seeking to drastically lower the death rate of piglets, to improve animal welfare, but also to secure the investment. According to Henrik Billmann, organic production is increasingly challenged, as it does not have the same levels of development and innovation as the conventional farms.

“Increased Organic development can create a better pig, if the market grows - pigs especially for organic production. Now, it is the same pig for everybody. It is not ideal for organic production” Henrik Billmann (Appendix: A4)

According to Arne Grønkjær of the Moon pig project, the massive focus on technology is important for the future of the pig production. Ongoing technological innovation has created a hyper efficient system that has the ability to produce large volumes of pigs, at very little cost. This efficiency translates directly into the monetary register, allowing farmers to produce more pigs, at a lower price thereby increasing productivity and increasing potential exports. This increased productivity is mostly apparent within conventional farming, but is also utilised within organic production, and will continue to play a vital part of optimising production.

“Technology will surely improve even more, to the benefit for us as a business but also creating improved conditions for the pigs and the people working with the pigs” Peter Munk (Appendix: A7)

While Peter Munk describes the technological evolution positively, equalling an efficient pig production with a good one, other actors have different opinions in the value creating effect of a hyper-efficient production system. There seems to be an increasing notion within foodservice professionals, that the story surrounding an increasingly efficient production system, makes it harder to convince consumers of the quality of the product. As described by Søren Gericke, there is nothing wrong with being efficient at producing a product, but if the general perception becomes that this production is achieved by sacrificing quality, welfare and common sense, the consumers value the product lower.

“That is because they are thinking how much can we produce fast and cheap. But it is the wrong way to think. People are buying Ecco and Gucci clothing - that is produced in huge numbers as well... and that's fine it's because it is a question of doing it right...” Søren Gericke (Appendix: A13)

As described by Søren Gericke, a major part of the devaluing of the Danish pig, is the element of mass production and efficiency. He describes how the animal is bred and raised in a hyper

efficient way, leaving consumers to resent the inhumane production facilities and the story that accompanies the living animal. The monetary value is affected by the perception of a production system that has gone too far, become too efficient, too much like a factory, intent on reducing the production cost at the expense of the animal. According to Gericke, to foodservice, and therefore also the consumer, the valuably produced pig is a pig that has been treated well, or at least better than many conventional pigs. This point of view is further supported by the chefs we interviewed as part of the focus group, and illustrates how the streamlined production, designed to reduce cost, can also reduce the monetary value of the pig, as a consequence of the treatment of the living animal.

At “Nu er det nok!”, several producers expressed willingness to improve conditions and production methods, at the expense of higher production cost, but expressed scepticism to whether or not consumers would be willing to absorb the added cost of increased welfare for the animal.

“We want to be the best in the world, produce the best quality, have the highest welfare etc. - but is the world ready to pay for it? - we need to be careful that we don't improve so much that it drives us out of business” Pig producer, Nu det nok, Horsens (Appendix: B6)

This notion illustrates yet another example of the monetary value register, as the pig here becomes a valuable animal if consumers are willing to pay a higher price to ensure the welfare of the animal, while the pig is still alive. According to the chefs, the valuable story that improved animal welfare creates, is important in the restaurants. When consumers consume the product the story is valuable, but within the industry, the added cost is only considered realistic, if consumers are also willing to pay a higher price once the animal is slaughtered. Hence, the valuable pig, in the eyes of the production, appears to be a combination of an efficient pig, that is treated well, with an appealing story that convinces consumers to accept a price premium. According to Søren Gericke, consumers also have to appreciate some of the hard work, that farmers have already put into ensuring a better production.

“The industry has many advantages with both productivity, effectivity and sustainability... you have to remember to appreciate what they have done it's really quite amazing” Søren Gericke (Appendix: A13)

However, at “Nu er det nok”, we experienced first-hand that although the pig producing industry, self-proclaimed, has come a long way on all parameters, the improvements of the past does not create any value for the pig in current time. Many of the advancements that aids the industry in being cleaner, more efficient and more sustainable, are now considered the

new minimum standard, and many consumers are requesting even more advancements. Arne Grønkjær explains that technology has moved so fast, that people forget how the production once was, and consumers do not assign much value to already established practices, not even if they represent significant improvements.

8.1.2 The Animal: Handling register

An important aspect for many actors directly involved in raising the animals, revolved around the practical handling the live animals. The concept of handling is rather broad, and could potentially cover anything from the day to day handling of the animals, to how they were transported. According to APD, there are vast problems within the Danish pig production with handling and animal welfare, actively causing the devaluing of the Danish pig, in the eyes of consumers and foodservice.

“The industry has a whole variety of animal welfare problems including transporting live pigs to Germany and Poland, to the fact that we do not treat the pigs humanely in our own stables” Ilse Lærke Kristensen (Appendix: A5)

Ilse Kristensen points out that part of what creates value for the Danish pig has to do with the general way the pig is handled by the industry. Ilse Kristensen argues, that for the Danish pig, it is in fact a case of the pig being *less* valuable, because it is being handled poorly. The handling covers the overall conditions that the pigs endures whilst being raised, including logistic issues such as animal transport. According to APD, a valuable pig is a pig that has had a natural life in a production that does not solely seek to produce pigs more efficiently. Consequently, the pig becomes valuable by increasing the overall welfare of the animal, allowing it to carry out its natural behaviour. In general, Ilse Kristensen is sceptical towards the overall goal of the Danish industry, as the industry works within a limited framework, making it difficult to provide sufficient welfare initiatives for the animals. As part of the efforts to improve the conditions for the handling of Danish pigs, APD recently launched the campaign “Burgis – nej tak” (DyrenesBeskyttelse, 2017).

The campaign was controversial when released, causing multiple pig producers and L&F to lash out at APD, for deliberately seeking to cause division (Landbrug&Fødevarer, 2017a).

According to Karen Hækkerup; *APD deliberately seeks to create a trench war instead of a constructive collaboration*. L&F claims that the campaign not only misrepresents the reality of the Danish production, but also fails to acknowledge that the Danish production is amongst the best in the world at securing animal welfare and handling the pigs.

At 'Nu er det nok, a large portion of the attending farmers displayed similar disdain for the imagery of the campaign, citing: *"The cage pig campaign is fake news, it is simply not true what they are saying"* and *"It will be hard to get everybody on board, Animal Protection Denmark, is ignorant and will never cooperate with us, no matter what"* (Appendix: B6)

Central to the dispute is a fundamental disagreement about what constitutes value within handling of the Danish pig. Producers and critics simply seem to live in different worlds and perceives the pig from a multitude of different angles. Overall, the pig farmers and L&F firmly agree that the Danish production is far superior to rival productions as a result of years of innovation and development, to create a leading production system.

"In Denmark, we have a very strong system. And our pigs are very happy, very effective and since they eat less and grow fast, perfect for production. This is both due to the type of pig but also due to the way in which we take such good care of the animals" Peter Munk (Appendix: A7)

The pig producers, describe the effective handling, the overall happiness and breeding of the pigs, as registers that has created a valuable pig. For the producers, factors such as good breeding development, easy handling in regard to feeding, and a smart and happy pig, is a valuable pig. Upon observing a conventional piggery, the overall perception was that there was a dominating focus on adhering to current rules and regulations as well as adequately meeting the basic needs of the pigs. Basic needs, such as sufficient feed, enough heat or cooling and practical solutions for the overall comfort of the pigs, can be managed with innovative technological solutions. Many of these technological solutions, such as the automated feeding machines we observed, allows producers to more efficiently meet the basic needs of the pigs. This level of specialisation partly builds upon the fact that the pig is very smart, and can be somewhat accustomed or trained to interact with the technology of the stables. As described by Peter Munk: *Specialisation is the best way to handle the pigs. It keeps them happy, the production cost low, and makes the stables more efficient and creates better welfare* (Appendix: A7). The notion here is that a smart pig is a valuable pig, as it is easier to handle in the daily production, allowing the farmer to more efficiently care for the animal. This notion is also supported by organic farmer Niels Schelde Jensen.

"Pigs are smart animals, making them easy to manage. This is a great advantage in any production, organic or conventional" Niels Schelde Jensen (Appendix: B3)

According to several farmers, pigs are indeed very smart animals. However, not in the traditional human way, but in the animal way, meaning that it is very easy to handle and train

for the farmer. To many farmers, the pig gains value when it is easy to handle on a day to day basis, as many automated processes ensure all pigs are treated equally, get the same amount of food, light, air etc. As a result, the intelligence of the pig adds value to the handling register, as it allows production to efficiently meet the physical needs of the pigs such as food, water, air, heat and sleep. One example of this systemisation was observed at the conventional piggery: *The pens are designed so that the pigs can activate them themselves, saving the farmer time, but also allowing the pig to choose where it wants to be. However, the gates dos automatically lock during feeding, in order to ensure that all the pigs get fed and that larger pigs do not eat food from the smaller pig's trough (Appendix: B4).*

Opposingly, APD does not recognise this as valuable handling or even animal welfare, but rather as a way to make the raising of the pigs less labour intensive for the farmer, without adding much animal welfare to the process. According to APD, an increasing group of consumers, chefs and food professionals take the opposite stance, criticising the handling of the pigs, as being too efficient at the expense of the pig's wellbeing. When asked to verbalise their perception of the overall handling and animal welfare of the Danish pigs our focus group generally described a deeply rooted disbelief in the pig industry, and their claim of being the world's best at producing pigs.

"Nobody trusts the industry. It's like when a big oil company campaigns with slogans like: 'We protect the oceans' - We simply do not trust it!" Mads Schriver (Appendix: A3)

"No matter how you twist and turn the story, no matter how rational the explanation is - it is still not nice to witness tail docking, small cages, castrations etc." Christian Bøjlund (Appendix: A3)

According to APD, the deeply rooted idea that industry is the world's best, solely due to the fact that it adheres to a set of rules, is part of the overall issue. Again, the value of the handling appears to be a central part of the disagreement. When the main goal is to *just* follow the rules, and nothing more, the result is that the pig becomes valuable if it fits into a certain system, physically and mentally. However, this does not actually constitute good handling, but is merely an indicator for efficiency and an increasingly industrialised production system, according to APD. Being part of the system, can cause farmers to find it increasingly difficult to assess handling practices within their own industry, leaving them to react negatively when their practices are criticised or questioned.

“The farmers can do some good things for both climate and welfare, but only within the existing framework of the industry. And that's why the farmers get angry when they hear us talk because they feel like they are doing a good job taking care of his pigs, but the consumer disagree” Birgitte Dam (Appendix: A5)

Within the debate of the legality of the caged pig campaign, this reaction was displayed in public, by farmers, producers and L&F. Actors within the industry widely sought to debunk the claims made by the campaign, calling it misleading. L&F attested that the campaign was created to create tension and division (Landbrug&Fødevarer, 2017a), while Danske Svineproducenter (Danish pork producers) in a newspaper debate accused APD for being factually wrong, and misrepresenting the Danish pig industry in order to create controversy (Mortensen, 2017).

When confronted with the effects of the caged pig campaign, CEO of Friland Henrik Billman, described how the campaign generally did not affect the organic or free-range production, as it primarily took aim at the conventional production, although the organic and free-range production in fact face some of the same issues as the conventional production. According to Billman, the campaign targeted a weakness within the industry, explaining why many reacted strongly.

“The cage pig campaign is not factually incorrect, but the tone is not very productive” Henrik Billmann (Appendix: A4)

As described by both Billmann and Niels Schelde Jensen, there are many aspects of organic production that are not perfect, like tail bites and piglet mortality rates. According to Niels Schelde Jensen *“Organic pigs have more problems with tail bites due to one simple reason: They have tails!”*. Arne Grønkjær explains that overall piglet mortality is a major economic and welfare problem within the Danish pig production, as well as in foreign productions. Piglet mortality varies greatly between farms and ranges from 10-20% in conventional farms up to 30% in organic farms. For many farmers, as it was with the monetary register, a valuable handled pig is then a case of the piglet simply surviving, putting additional stress on handling of the animal within the first 48 hours after farrowing. It would seem that the organic or free-range farmer, accepts a higher mortality rate, as a consequence of the free-range farrowing, as well as a higher prevalence of scrapes, cuts and bites. According to APD, many of these problems are a result of the organic and free-range production not being perfect, far from it, but the overall handling and animal welfare is to be considered better than in the conventional production.

“The organic pigs have tail bites, mostly because they actually have tails to bite. Even in organic farms there are too many pigs in the stables, and this needs to be addressed in the future, but the overall sum of animal welfare is still higher than in conventional piggeries”
Birgitte Dam (Appendix: A5)

As described by the focus group, the pig, regardless of farming method, generally only has one function, to be slaughtered. There is no by-product such as milk, wool or eggs, meaning that increasingly, the craftsmanship associated with the pig lies in how it is handled.

8.1.3 The Animal: History time register

The Danish pig is enabled as part of a timeline that allows for it to be differentiated from its past to now, and to the possible future. Temporal aspects such as population distribution and technological development appears to have had a notable effect on the valuing of the Danish pig. Also, there is a notable disagreement to which extent the value of the pig is actually decreased or increased as a result of the current production. No one seems to argue that the perception of the value of the pig is not currently challenged, just as most interviewees express some desire to somehow develop upon production. However, the day to day valuing of the pig differs greatly depending on the informant.

“The pig is behind on points. The consumers think everything used to be better, but they need to realise that the production today is ten times better than a few years ago” Pig producer, Nu det nok, Horsens (Appendix: B6)

At “Nu er det nok!” producers expressed great frustration toward the assumption that the quality of the production and production methods have become inhumane. Many expressed outrage by this claim, steadfastly stating that if people only knew how bad it used to be, they would be ashamed of the criticism the farmers had to face today. Technological advancements, such as automatic feeding machines, improved ventilation and better waste management, all contribute to what the farmers call *“improved animal welfare conditions and a more sustainable overall production”*

Additionally, Peter Munk described how vast improvements over the last decades has enhanced the overall sustainability and welfare on the piggeries.

“So much has changed within the production, we are heaps better at taking care of the pigs today, more efficient and more sustainable. Comparing the production 50 years, even 20 years ago, to today is like comparing apples to oranges - the only thing they have in common is that they are both fruit” Peter Munk (Appendix: A7)

Consequently, many producers register value in a historic timeline, by differentiating between how conditions have improved from past to present. Thereby, to the farmer, the production today and subsequently the Danish pig, is more valuable due to improved conditions.

Within foodservice, this timeline is expressed somewhat differently. Amongst the chefs there was a firm belief that industry had actively moved away from several good practices in order to achieve efficiency. Here the timeline was actively used to differentiate between how conditions for the animal were considered better in the past, before the production became massively industrialised. As described by Christian Bøjlund, the whole terminology surrounding the production has changed from describing smaller local farms, to describing centralised factories.

“It is interesting to notice that many have stopped describing it as farming, but use the word production instead” Christian Bøjlund (Appendix: A3)

According to statistics, the overall distribution of pigs in smaller farms have plummeted over the last decades. In the early 1990's around 60.000 piggeries where registered in Denmark (DanmarksStatistik, 2018). According to another rapport by Seges (2017), the number of piggeries are expected to continue to decline, as fewer - but larger production facilities produce roughly the same amount of pigs as before, but more efficient, and in increasingly larger farms. Historically, the number of piggeries are halved every 10 years, and this development are expected to continue forwards to 2026. By then, an estimated 1500 piggeries will remain in the country, producing the same quantity of pigs as today. Currently, there are fewer than 3000 piggeries that rear the total of 30 million pigs produced yearly in Denmark (Seges, 2017). In terms of value creation and historic value for the foodservice segment, this development represents the exact opposite of what seems to be required for the pig to be valuable, according to the chefs. The current reality of a hyper efficient production, makes it harder to tell a convincing story to consumers, thus actively inhibiting foodservice in seeing the pig as a valuable commodity on their menu. When fewer producers produce more, the risk of generalising the production increases. The overall story of the industry becomes dominating, as opposed to the individually defined productions.

“Today, It seems like with the Danish pork industry, we are always talking the lowest common denominator. Everyone gets judged by the farmer who cuts tails, delivers pigs with cuts and wounds and everyone becomes part of the bad story - even the ones that are probably doing a good job. Years ago, you knew a farmer that could tell you a different story, but today no one knows a farmer.” Søren Kristensen (Appendix: A3)

Demonstrated by the answers delivered in the focus group and at “Nu er det nok”, there is vast disagreement to how to perceive the historic progress that the Danish pig producers have undergone. To many producers, the Danish pig has become increasingly valuable, as it has been developed from a traditional farm animal, into an animal that fits into an efficient production facility.

This allows for farmers to care for the animals more efficiently, thus ensuring their welfare. The prime issue associated with this newer dynamic, is that it appears problematic to actively communicate the advantages and the future development in a way that would allow the consumer to appreciate this newer style of production.

“We need to move away from always defending ourselves, and instead start talking about our visions for the future, all the things we are working on!” Pig farmer, Nu er det nok, Horsens (Appendix: B6)

Others expressed great confidence in the overall production, but worried that the misconceptions and apparent divide between producer and consumer could cause unrest in the near future, as opposition towards the production grows. As one farmer explained: *“It is not enough that we know that we are the best at this. We need the trust and support of Denmark, otherwise we have no right to exist.” (Appendix: B6)*

The general perception was that consumers, chefs and public voices opposing the production, are misinformed and have no basis for knowing details about the actual production and how it differs from past productions. According to the producers, this divide often causes misinterpretations, and allows organisations, such as APD, to communicate unsubstantiated fears and myths to the public.

Many producers did however agree that production had moved to become increasingly closed off to the public, causing these misunderstandings to thrive in certain segments. Some farmers expressed that they were extremely frustrated by this development, while others attempted a more productive approach to the problems.

“Look at how we did things 20 years ago - so many things have changed - in 20 years we will be able to say we improved even more. But! - the consumer needs to see and be included in this vision, it all about the future. We gain nothing by clinging to the past, and we will get no credit for all the improvements we have already made” Pig farmer, Nu er det nok, Horsens (Appendix: B6)

As an attempt to bridge the apparent divide between producer and consumer, a strategy of more openness was proposed. This would create value by allowing consumers to “*peek behind the curtain*” creating added transparency in the production. Although added transparency remains a priority for APD, the organisation does not agree with the overall premise that the Danish pig production is simply misunderstood and challenged by myths and misunderstandings. As elaborated by Birgitte Dam, the industry is facing some concrete and indisputable problems as a result of the recent years increased industrialisation. Production has simply become more inhumane and too efficient. According to Birgitte Dam, the divide, acts as a convenient argument that is enforced by the producers and L&F, and allows the industry to somewhat victimise themselves. By claiming to be misunderstood they are actively allowing farmers to continue producing without working actively with improving animal welfare.

“L&F likes to tell us that there is a huge gap between the production and the consumer. It is a way they want to frame the issues, it makes it easier to not focus on the issues at hand” Ilse Lærke Kristensen (Appendix: A5)

Consequently, APD feels like the divide between farmers and consumers cannot explain the declining value of the Danish pig alone. Instead the historic development undergone by production, causes consumers to actively reject Danish pork products due to inhumane conditions and not as a result of misunderstandings. As a result, the Danish pig has lost value when compared with previous versions of the pig, in the eyes of the consumer and foodservice. At “Nu er det nok!”, farmers were generally proud of their achievements and did not appear to be uncomfortable with their production methods. Accordingly, many expressed pride and some surprised when confronted with the views of some consumers and APD. According to Jesper Jæger of Tulip, this response is not surprising, as the pig producers represent a completely different worldview, observing the production from within and from an everyday practical vantage point.

“The farmers believe that they are treating the pigs good, and they don't understand why the people in Copenhagen do not see it the same way as them” Jesper Jæger (Appendix: A6)

This characterisation is supported by Søren Gericke, as he emphasises that it is not simply of matter of consumers and producers disagreeing, and producers being inhumane or immoral. Instead the current divide illustrates the multiplicity inherent in the Danish pig and that the reluctance to make further changes to production, does not seem to stem from an unwillingness to secure the animal welfare the pigs, rather than a nonconformity in what constitute animal welfare on a conceptual plan.

“Because they don't want to change their ways, they believe they are already doing the best anyone can do. Take tail docking, no one cuts the tails of pigs in an attempt to cause the pigs pain, it is the opposite. But the consumers disagree, so farmers should have some new ways of creating innovation for the future” Søren Gericke (Appendix: A13)

Though APD describes it as a convenient excuse, the apparent divide between the production and the consumers does appear to isolate the opposing vantage points.

Historically, production and consumer has never been further apart. The vast majority of consumers do not have access to a piggery, and they have no easy way of actively inspecting a Danish pig production. Practically this means that many associations are shaped on the basis of past experiences or the lack thereof. Consumers who have first-hand knowledge of past production methods, might be more positively inclined, whereas younger consumers with no knowledge or whom has only been exposed to negative imagery, tend to be negatively inclined. Previous access might therefore effect how you assign value to the pig, today.

Within our observations, we were granted access to two productions, without any noticeable constrictions or problems achieving access. At Peter Munks farm, we were allowed to observe without any restrictions, causing us to get an in depth insight in the workings of a conventional piggery. Same situation was true when visiting Jens Schelde Nielsen. There were no restrictions for photographing, or documenting all aspects of the production, even visually unpleasant ones like accumulating piles of dead piglets.

However, not everybody has the unrestricted opportunity to experience pig production first hand. Even though Peter Munk expressed that all visitors are welcome at his farm, it is practically not possible to grant consumers unhindered open access to working farms, in the same way it has been in the past.

“Recently, the farmers are always made out to be the bad guys, because they are an easy target. Many young people have never been to a real farm! People need to be able to see the different phases of the real production, with their own eyes, today that is very hard” Søren Gericke (Appendix: A13)

Today, farms are often placed away from residential dwellings, and larger cities. Hence, many consumers are today actively removed from the realities of production. This has been amplified by the general tendency for increased urbanisation of the population in Denmark. Research documents a considerable migration away from rural areas, where one would traditionally be exposed to agriculture, towards urban areas with little or no agriculture (Christensen, 2017).

This creates a situation where many consumers essentially become tourists in their own food production system, with limited conceptual and procedural knowledge of the production.

This situation is not unique to the Danish pig production, but affects virtually all aspects of agriculture. However, according to some producers the pig production is further challenged, due to the fact that the system has gradually become increasingly isolated due to the risk of disease and contamination. These factors all add to a situation where the consumers are faced with a very limited transparency, making them reliant on outside information. According to the focus group, this is a major issue, as the industry historically has been perceived as untrustworthy.

“The pork industry has created a situation where we don't believe the story, because it has been a lie for so many years. Even when the small producer shows pictures of free range and high quality, we are sceptical, because we don't trust it, and we cannot always see if for ourselves” Rune Lund Sørensen (Appendix: A3)

8.1.4 The Animal: Naturalness register

According to APDs yearly report, “Sådan ligger landet”, the Danish pig production is removing itself further and further from good practices and natural ways of agriculture. The report describes multiple issues, such as unnatural treatment of animal, a skewed focus in efficiency and blatant disregard for animal welfare, as present within the agricultural sector (DyrenesBeskyttelse, 2017b). APD shows a production that allows for different kinds of unnatural practices, in order to achieve added efficiency and quantity of reared animals.

“The premise that creating more value for Danish pig products is good, is not something that we are interested in working with. Animal protection Denmark generally finds the whole production inhumane and unnatural” Ilse Lærke Kristensen (Appendix: A5)

The overall premise, that the Danish pork production has removed itself too far away from the natural way, is not a new debate. In a 1973 campaign, illustrated by artist Mikael Witte, the

naturalness of the Danish pig was questioned with a poster accusing the Danish pigs for being full of penicillin. The campaign made national news when agricultural interest groups sued the artist for slandering, as the poster resembled the official advertisement from the Danish pig producers (DanmarksNaturfredningsForening, 2012). The artist won the court case and the right to his poster (see appendix C20), and thereby illustrated his viewpoint that the Danish pig was unnatural and unfit for consumption, as it was filled with medicine. According to Danmarks Naturfrednings Forening (2012), *The Danish society for nature conservation* (DSNC), the Danish pig producers should have payed attention back in the 1970s, but instead they carried on and have now moved even further away from the natural product, in the eyes of many. Overall, the focus group agreed that there is very little value for the consumers and for foodservice in the current conventional Danish pig, on a natural value register.

“The pig has become a laboratory animal, put together by breeding etc., it has become unsexy” Søren Kristensen (Appendix: A3)

Repeatedly, the Danish pig is being described as a unnatural creature that has been perverted by industry or as Søren Gericke described in our very first conversation over the phone: *“Goddammit, the Danish pig is a national treasure that has been mistreated grossly by industry!” (Appendix: A13)*. The notion that the pig has been perverted, turned into something else than its natural state, appears to act as a very strong devaluing factor toward all aspects of the Danish pig industry. Whether it is the controversial MRSA scandal, the overall antibacterial usage, animal welfare aspect or the breeding of longer and heavier pigs that farrow an increasing number of piglets, the controversies surrounding the naturalness of Danish pig are complex and multiple.

The notion of unnatural conditions is demonstrated by the sizable opposition to, what some consider, the inhumane production conditions, recently verbalised in the “Burgris – nej tak” campaign (DyrenesBeskyttelse, 2017a). For many, including the interviewed chefs, animal welfare becomes somewhat equal to the naturalness of the production, and an active part of the craftsmanship involved in production.

Other factors, such as medicine and food safety, are all important, but animal welfare seems to remain the main focal point when assessing the value of the naturalness of the pig. The notion is, because the value of the pig is already perceived as being very low, the assigned value becomes subsequently lower, causing consumers to expect the treatment of the animal to be poor.

“The caged pig campaign was very unpleasant, it is hard to understand because it is so far from the natural way. But I don't think it matters towards the cheap bulk product because it is so cheap. We also eat cheap questionable candy and we don't seem care where that comes from or how it is made. Maybe if the cost of pig was higher, then more maybe people would care” Søren Gericke (Appendix: A13)

As a value register, the naturalness of the pig appears to be challenged by current discourses surrounding the pig. At “Nu er det nok!”, many farmers acknowledged this debate, but questioned its validity, as many believed the pigs were very natural. Some again expressed concern about the transparency of the overall production, and contemplated if added transparency could provide a more nuanced and honest register for naturalness.

“The consumers are not ready to see the pig, and on top of that: if we are not comfortable showing the pig - then we have a real problem! The consumers need to be able to peak behind the curtain, see what's going on” Pig farmer, Nu er det nok, Horsens (Appendix: B6)

The idea that transparency can create value is echoed through the industry. However, a main issue appears to be that farmers and consumers does not agree on what constitutes a natural pig's life. As part of our observations of the conventional pig farm, owner Peter Munk showed us every aspect of the production. While having lunch at the farm, Peters dad, the former owner of the farm, proudly stated: *“We create food products, so of course people should see what we do!” (Appendix: A7)*. This largely mirrored the attitude of Peter himself, and was indeed reflected by this willingness to show and explain all aspects of his production. In relation to animal welfare, and the natural value register, one detail is especially telling for the overall reasoning in regard to a natural animal life, at this particular farm.

According to national guidelines, conventional piggeries must provide the pigs with materials that the pigs can *play* with. These materials must adhere to numerous regulations such as being an organic substance like wood, be present on the floor so the pig can get to it, be something the animal can sniff and bite, be something that the animal can investigate and be something the animal can manipulate e.g. move or flip (Fødevarestyrelsen, 2017). Fødevarestyrelsen (The Danish Food and Health Administration), has numerous suggestions indicating what could constitute a play item, including large wooden objects, ropes, natural compost or wood balls. At the observed farm, the piggeries were equipped with a technical solution that had been approved by regulations on numerous occasions. Here the play item consisted of a single wooden stick, wedged into a metal tube, just barely touching the floor, providing the pig with very little actual stimulation, but meeting the minimum criteria for the

regulations. According to Peter Munk, the regulations are overly precautionary and the pigs do not need a “play item” at all. The implemented solution made it possible to adhere to the rules. His stance is that this particular rule was an excellent example of unnecessary rules being implemented by people with very little knowledge of actual pig farming, projecting misguided notions of natural life onto the farmers.

Organic pig productions must also provide the pigs with “play items”, but since the pigs must also have access to outside areas, this task appears to be easily solved by covering certain areas of the outside areas with wooden chips that the pigs can investigate, manipulate and sniff. Whilst observing the two piggeries we saw no pigs engaging with any of the two solutions. In the case of the farmers it appears that the natural value register is less important within production, than it appears to be for the chefs, their guests and organisations, such as APD. Within production, the notion is that some aspects of naturalness are overstated and somewhat a burden in need of a technical solution. These technical solutions can help fix potential issues of welfare for the animals. This appeared to be true for both the organic and conventional productions. As described by Arne Grønkjær, there is indeed massive interest in developing natural methods and technology for the conventional and organic piggeries, a development that the Månegris project actively supports.

“Work is being done on more natural solutions, such as herbal disinfection, creating a more natural way to disinfect the pigs, limiting the use of classic synthetic disinfectants” Arne Grønkjær (Appendix: A1)

Technological fixes might be valuable, as they allow farmers to adhere to the rules, but they seem to create very little natural value for consumers and chefs. Some expressed anger in rules being designed as to allow farmers to adhere to them by creating quick fixes and bare minimum solutions.

“My thought immediately go to the mink farms. The pig production has become so unnatural that it needs to be sealed off from the public, hidden away and you can't come and see the animals, because they fear we won't like what we see - Oh wait, yes you can come see farm number 4, because that is our special show farm. That's the one we can show you” Christian Bøjlund (Appendix: A3)

According to Henrik Billmann, the massive scepticism towards the conventional production and the notion that this type of production is unnatural is part of the reason for the success of organic pig production in Denmark.

“I think consumers associate organic production with something that is a bit closer to nature...The organic story is easier to tell and easier to understand for the consumer. It is not perfect, but it is more natural, more respectful for the animal's natural life.” Henrik Billmann (Appendix: A4)

According to Billmann, organic production is far from perfect, but it provides the animal with a story that consumers and chefs alike are more likely to connect with and accept. Organic farms are required to provide open air areas for the pigs, and farrowing sows must be outside in open air. This allows for consumers to experience the production with their own eyes. Events such as ‘Sofari’ and ‘Åbent landbrug’ - arranged by L&F also invites consumers to visit numerous piggeries, thus creating added transparency. Sofari attracts thousands of visitors every year, and allows consumers to peak behind the curtain at an organic or free range farm (Landbrug&Fødevarer, 2017b).

However, according to APD, consumers are not provided with access to the piggeries with the most severe production problems, causing L&F to paint a picture of the natural production conditions that does not reflect reality. APD advises visitors to be vigilant and ask questions and to remember that the farm they visit does not necessarily reflect the overall conditions of the 98% of Danish pigs, that are produced conventionally (DyrenesBeskyttelse, 2017c). Organic production presents chefs and consumers with a more appealing story, imagery and concept that allows for value creating on the natural register. As explained by Niels Schelde, seeing the actual animals on the field changes the perception of many consumers.

“We have a lot of positive comments from visitors and people who are passing by. They get surprised that you can actually see the pigs on the field, and they really like it” Niels Schelde Jensen (Appendix: B3)

According to Billmann, *“The solution is not to make it all organic - that would not work” (Appendix: A4)*. Organic production cannot meet the massive demand for pigs’ meat for export, and many consumers foreign and domestic, are not willing to pay the added price for organic or free-range meat, meaning that the industry as a whole would suffer if forced to produce organic products. This is seconded by Arne Grønkjær.

“A large part of the countries that import pork from Denmark, is not particularly interested in welfare and environmental improvement” Arne Grønkjær (Appendix: A1)

Consequently, value creating for the producers and consumers appears to be conflicting. For chefs and the consumers, naturalness and the appealing story of the natural animal life is seen as a very important parameter, whereas examples demonstrate how, despite of what is often communicated, the industry sees the naturalness as somewhat of a challenge, that can be managed with technology, to avoid loss of productivity. Furthermore, industry is painfully aware of the marked dynamics and consumers unwillingness to pay extra for their product. This causes them to fear, that lowering production quantity or efficiently in order to achieve a more natural production would cause the Danish industry to lose valuable revenue from export markets not interested in paying a price premium for more natural products. At APD, they believe value would be achieved if the industry sought to rediscover the roots and naturalness lost in our current pig production, instead of trying to keep status quo. According to Birgitte Dam, the industry needs to accept that business as usual, is no longer an option in the eyes of the consumers, and that natural value cannot be created with strictly technical solutions and 'bare minimum' solutions.

"It's a logical conclusion that if the pigs we produce shall have a higher welfare, then there isn't room to produce as many as we do now. Because that's the whole premise of our production right now, that it only takes 30 min to take care of a pig over its whole life" Birgitte Dam (Appendix: A5)

While APD, does not call for a ban or a complete dismantling of the Danish pig production, they are very sceptical towards the general direction of the industry as a whole. According to Ilse Kristensen, the industry might not change due to consumer pressure tomorrow, but it will in 10 or 20 years when a majority (and not a minority like today) of consumers demand a change in production.

"The premise that creating more value for current Danish pig production is a good thing, is not something that we are interested in working with. Dyrenes Beskyttelse generally find the whole existing conventional production inhumane and unnatural, and they (farmers) needs to work really hard, and fast, in order to change their ways." Ilse Kristensen (Appendix: A5)

As described by APD, the existing production of conventional pigs is not something the organisation finds natural or desirable. The overall premise, that smaller changes can fix important issues, is generally rejected, and APD calls for a massive overhaul of the entire sector, to create a production that is more natural and equipped produces pigs with high animal welfare. It does not however appear to be a question of completely ending all pork

consumption, but instead accepting a new paradigm, where less but better meat is the goal, ensuring high level of animal welfare for the pigs. As previously mentioned APD and Friland, has an existing partnership where compromises and innovative solutions insures an acceptable product, clearly marked with the ADP sign of approval.

“To many consumers the conventional - mass produced pig symbolizes everything that is wrong with the perverted food industry. They can't find the soul in the production and therefore they seek better alternatives, less meat but better meat. If you do not give them a choice of better meat, it will end up being - no meat! Birgitte Dam (Appendix: A5)

Consequently, contrary to what many in industry might believe, ADP does necessarily favour the complete termination of the Danish pig production. However, current production methods are described as inhumane, outdated and produced on an misguided premise. As explained by Ilse Kristensen, the industry will have to make strategic decisions to provide pigs with vastly better conditions, in order to be ready for the future demands that consumers will undoubtedly seek to implement. Furthermore, as with the collaboration with Friland, production must strive to secure a more natural life for the pigs, thus creating added value on the natural register, as a main goal of production changes.

8.1.5 The Animal: Sensual value register

It appears that when creating value, the ideal pig must appeal to multiple senses, as well as your conscious, at the same time. Scandals surrounding production, as well as less than expected improvements, all contribute to the continued devaluation of the pig, emphasising the notion that it is a low value product, due to the overall story, including the handling of the live animal.

“Because everything about the product indicates that it is low value, it is treated and used like a low value product The valuing of pork indicates that it is low quality meat. Its way to cheap, and it justifies treating it poorly” Søren Kristensen (Appendix: A3)

According to the food professionals, the life of the animal is becoming increasingly important as it serves to justify the whole product. Other products are apparently less sensitive to the facilities surrounding the production, but with Danish pigs, the rearing and upbringing holds tremendous value when seeking to seduce the consumer. The valuable pig needs to be able to seduce with the story surrounding its life, even when it is slaughtered and consumed in a restaurant or canteen. In many ways, the rearing actively becomes part of the overall

craftsmanship that seduces the consumer or the chef. Within our interviews we experienced how the food professionals were far from seduced by the Danish pig.

“The overall quality of the product and production of the animal have dipped too low! You can’t in good conscience serve medium cooked pork, because people would get afraid for their safety. It reflects some major issues in the treatment of the animal” Rune Lund Sørensen (Appendix: A3)

Consequently, the sum of the life Danish pigs seems to have a great influence on its sensual register. According to many of our informants, the ideal pig is a pig that showcases a better story than just the bare minimum. Within our research we identified several attempts to create a product that rose above the basic bulk product, by applying multiple sensual aspects to the animal. Speciality pigs such as ‘Bornholmer grisen’ (DanishCrown, 2018a), ‘Antionious grisen’ (TulipFoodCompany, 2018), and recently the ‘Genz gris’, are all attempts at creating added value by added significance to the rearing and life story of the animal.

As an example, the Antionious pig was the first so-called speciality pig registered in Denmark. Named after a pig rearing order of saints from the 1300 century. The Antionious pigs are reared with 30% more space in the stables and promises the consumer better welfare. Likewise, Bornholmer grisen focuses primarily on the overall eating quality as well as added respect for the natural behaviour of the pig. As described by Danish Crown themselves, this creates a better meat quality, as well as added animal welfare.

In the case of the Danish pig, the storytelling actively seeks to tell a more appealing story of the animal welfare of the reared pigs by emphasising certain aspects of production. However, in our focus group they were not convinced by the efforts, instead agreeing that the industry generally has a credibility issue: *“we simply do not trust the story they try to tell us”* (Appendix: A3). According to food expert, Orla Zinck, the chefs are right to express mistrust in the industry, as it is a known fact that the branding efforts often fail to represent the reality of production (Ishøy, 2013). Zinck explains that for producers the goal is to create an image of an idyllic farmhouse, to distract the consumer from an inconvenient truth. They seek to communicate a romantic notion of how the animals are treated, but in reality, it only differs marginally from the conventional (Ishøy, 2013). Several articles seem to paint a similar picture of the previous branding efforts designed to seduce consumers. According to an article investigating the differences between the different types of specially pigs, they are very similar to conventional pigs, whereas the certified productions, such as organic production or free-range production, provides a more substantial alternative to conventional produced pork (Samvirke, 2010). The notable difference seems to be important for chefs and foodservice, as it makes it easier to seduce their guests with a good story.

“The Danish “brand” means more in the front of desk (end-consumer) segment than the back of desk segment (food professionals). Organic and specialty pigs are more important in the back of desk segment than whether or not the meat is Danish. For foodservice, the overall story is important” Jesper Jæger (Appendix: A6)

The chefs, also found that numerous stories have proved to be untrue. *“They (the pork industry) have created a situation where we don't believe the story, because it has been a lie for so many years.”* (Appendix: A3). As this analysis was written, a massive food scandal involving this exact problem was starting to build in the Danish Media. Currently, ‘Genz grisen’ – a specialty pig, that as with the other examples, focuses on animal welfare and subsequent better meat quality, is undergoing criminal investigating for deliberately misleading consumers and chefs. Genz grisen promised improved animal welfare and more respect for the natural life of the pig, and imposed a price premium to ensure these values. Additionally, Genz grisen promised that only specially approved producers would be allowed to produce this superior product. The case is still pending court ruling, but The Danish Food Administration argues that inspections revealed that around 80% of the pigs where conventional reared pigs, with no added welfare aspects at all. To make matters worse, the vast majority of inspected producers were unaware that they were producing pigs for Genz pigs at all (Kongsgaard, 2018). As exemplified by the current case and the overall observed complexity of the Danish pig, scandals like the Genz case have a large impact when consumers and foodservice attaches value to the pig. For foodservice, the story of the hyper efficient pig has become a added burden, especially when the improved story proves untrue. As the chefs explain: *“somehow this efficiency and mass production is a burden for the pig to a larger degree than other animals.”* (Appendix: A3).

Consequently, to achieve any seductive registers, the pig needs to actually be seductive, the story needs to seduce and the overall story and quality of the rearing needs to be part of a seductive tale. As part of our project, we visited Guldrummet, in Kolding. Guldrummet is part of Danish Crown, who describes it as a *“special butcher’s division, located at DCs terminal in Kolding, that has been developed in collaboration with some of the best chefs, from some of the best restaurants in Denmark.”* (DanishCrown, 2018b). Guldrummet is an attempt to create a seductive story, a creative innovative space where butchers can rethink and innovate different types of meat. While visiting Guldrummet, we were given an extensive tour of the facilities, and saw how many different kinds of meat where processed and matured. Rone Stockholm Kruse, the head butcher at Guldrummet, explained how Danish Crown is actively working with creating value for pork via innovation and experimentation:

“Guldrummet is a project created by Danish Crown to try to sell high-end products to high-end restaurants. In collaboration with the chefs, we can experiment and create new cuts, products and styles. We provide really high-quality meat from here” Rone Stockholm Kruse (Appendix: B1)

The official website Danish Crown describes it as *“a playground for the best chefs in Denmark. A place where chefs can rethink meats and cuts to achieve the highest quality and taste” (DanishCrown, 2018b).*

While visiting, we observed how Guldrummet's selection of meat differs from pork to beef and even mutton, and we were shown multiple cuts that the butchers are working on.

However, upon entering, we also realise that Guldrummet, is sharing its space with a distribution centre, and is only occupying a small corner of the unassuming building in which it is placed. One of the only indications that this place is more than just a meatpacking facility is the two large coolers with high quality meat hanging, maturing and seasoning. One door has the Guldrummet Logo on it, but this is one of the only signs that innovation is taking place here. When asked about Guldrummet, the focus groups expressed some scepticism as to whether or not Guldrummet could provide any real value to Danish pork. Stating that: *“Guldrummet is a big fail, not because their products are bad, but because no one gets excited by their story” (Appendix: A3).*

As we observed the butchery, our guide receives a phone call. It turns out that Michelin and TV chef Thomas Rode is a regular customer at Guldrummet. After some back and forth over the phone, where Rone and Thomas appears to be discussing different cuts and what they need to be used for, and how Rode would like them cut and what specific properties the meat must have, the phone ends with the following comment: *“Oh, you I thought you wanted pork, but it's beef you want? Yes okay, well that makes much more sense, that we can easily do for you!” (Appendix: A1)*

This situation is quite telling for Guldrummet, it seems that chefs are seduced not by pork but by beef. Rone explains to us that they are working a lot with innovating pork, and that pork really has the ability to surprise the chefs – if they can convince them to buy it. Part of the problem, according to Rone, is that chefs know that their guest, are sceptical towards pork, because it does not always appeal to them from a sensory point of view. Beef, on the other hand, is very appealing to watch and comes with a much better story. According to Rone, many chefs struggle with seeing the value in pork, as it has become quite controversial for

some. When asked how they manage to overcome the controversial story, Rone explained that Guldrummet does not receive pork from conventional piggeries, instead that have a collaboration with local small scale producer that offers a better story and superior rearing of the animals. In Guldrummet's case, the butchers seem to find little value in the seductive capabilities of the Danish pig, unless it comes from a smaller producer, who can tell a different story about the life of the animal. The fact that Guldrummet, a division of Danish Crown does not seem to endorse the story underlining the vast majority of the Danish production, is a point that has been made consentingly by the chefs we have interviewed.

However, within the focus group, there was also a realisation that there is a large gap between chefs and other consumers, and even a gap between the chefs.

"These chefs represent top 5% of Danish consumers, sadly I sell so much crap - on a daily basis. For many in foodservice, price is absolutely everything, taste comes second and look a very distant third" Lars Olsen (Appendix: A3)

Consequently, the Danish pig, seems to fail to seduce with its naturalness, especially if the pig is reared at a conventional piggery, but rather competes on price and quantity. In order to seduce guests, chefs therefore turn towards specialty pig, organic or turn away from pork, in search of a more seductive story or a more seductive animal.

Overall, the look of the live animal might not seem all that important when analysing the live animal, but there are some sensory attributes that comes into play, long after the animal has been slaughtered. As the vast majority of the Danish pigs is of the same race, that has been developed especially for industry. A race that creates value due to a series of technical registers, consumers have been accustomed to a certain visual standard of the meat, and the animal supplying the meat. As explained by the focus group, the sensory attributes of the live animal also affect the overall perception of the product. Where chefs and other food professionals might express a high level of interest in creating more diversity within the races of Danish pigs, the guest consuming the meat in the restaurants are quite conservative.

"There is also the problem, that the consumer does not want to eat a product that does not look exactly as what they are used to. If you try to sell pork rinds with little hair follicles on them or brown marks people think they look disgusting. We might want races, and diversity, but the consumer will have to be convinced" Rune Lund Sørensen (Appendix: A3)

As explained by the chefs, the seductive value of the live animal is therefore a combination of an appealing story, but also recognisable attributes, that will allow guests and consumers to safely consume pork products. The life of the animal transcends into the product, impacting

the seductive capabilities of the product. In relation to the animal, it is clear that the divide mentioned by farmers and chefs alike, is more of a fracture, than an actual divide. It is not simply a matter of opposing sides, but multiple registers and enactments working with or against each other, seducing or deterring the consumers, farmers and chefs.

8.2 The Product

Within this category, the multiplicity of the animal *post* slaughtering is analysed. Here the animal is no longer a living creature, but a product, processed for human consumption. Although animal welfare still plays a fundamental role for actors enacting the pig, it is traditionally the characteristics and qualities of the product that represents an added emphasis to actors in the culinary scene. The transformation of the pig from an animal into a commodity, allows attributes, such as perceived health, perceived quality and even emotional arguments, such as traditions and culture, to become increasingly dominating. Actors such as butchers, chefs and product developers, like Tulip, might enact the pig according to welfare parameters influencing the quality of the meat as this is directly affecting their work. Many different concerns and enactment of the pig, are unique to the perception of the pig as a product, but transcends categories to affect the general enactments and understanding of the multiplicity of the pig.

8.2.1 The Product: Monetary register

When the Danish pig becomes a food product the different value registers change and the enactments of new actors plays a larger role in defining what is it that makes the pig valuable. The Danish pig production has become increasingly efficient, resulting in a fitting saying: *the only thing that is wasted when a pig is slaughtered, is its scream*, and some joke that the industry is even trying to find a use for that. As a product, the pig is therefore valuable in the sense that it is very versatile and efficient. Not only is the pig effective, but according to Søren Gericke, it is also quite unique in the sense that as he puts it; *“the pig is a hardy animal it can withstand industry and still keep its quality”* (Appendix: A13). The ability of the pig to withstand industrialisation has made it into a very valuable product.

However, it is also one of the qualities that most clearly shows the multiplicity of the product as enacted by different actors. The notion that simply being productive in terms of creating a high quantity of pork products, is a value register in and of itself, was opposed by the chefs.

“Instead of accepting that consumers are sick of mass production and the images that comes with it - farmers have tried to optimise and produce even more” - Rune Lund Sørensen (Appendix: A3)

According to the chefs, the narrow minded focus on productivity, has eroded their trust in the product and caused a decrease in value, as products in large quantity reduces the willingness to pay a premium for the product.

Consequently, this forces the industry to lower their prices by increasing productivity, creating a lower production cost for the finished product. This results in a spiralling effect of constantly increasing productivity thus further devaluing the product in the eyes of the consumer and foodservice. Described as a *race towards the bottom* this is neither in the best interest of the consumer nor the industry, since it creates added pressure, while producing products that are ultimately undesirable for many Danes.

At “Nu er det nok!” a focal point of the discussion revolved around how to react to the “cage pig” campaign from the Animal Protection Denmark. Some farmers refused to acknowledge the enactment of their products by the chefs and consumers and instead argued for ways to continue their production with minimal changes. Other farmers agreed that change was necessary in order to address the concerns of the consumers, but feared that the consumers would be unwilling to pay the added price premium for products produced in a smaller production.

“We want to be the best in the world, produce the best quality, have the highest welfare etc. - but is the world ready to pay for it? - we need to be careful that we don't improve so much that it drives us out of business.” Pig producer, Nu er det nok, Horsens (Appendix: B6)

This reflection indicates a willingness to make changes to the industry, but also a concern for the customers willingness to pay. This is further exacerbated as several informants told us that they felt that many of the best quality pork products produced in Denmark are sold to other countries, such as England and Germany.

Furthermore, as described by the industry, there is a demand for cheap bulk products, and foodservice is not a homogeneous mass that is only seduced by products with a high level of animal welfare. Consequently, some bulk products are very popular amongst chefs and food professionals. In some way, the cheap product therefore represents the good product to some.

“Ideas and good intentions are nice, but the reality is that canteens needs to save money every day, and here price is the most important quality of a product!” Lars Olsen (Appendix: A3)

Dismantling the bulk production does not appear to be a sustainable way to address the issues facing the industry, since this would result in the disenfranchisement for the customers who

are dependent on the availability of cheap pork products, as well as the farmers producing the products.

Creating more value within the actual products is one strategy applied to tackle the threats the industry is facing. As observed, creating artisanal products can infuse products with additional value benefiting the food industry as a whole. As mentioned earlier, "*Guldrummet*" acts as an innovation lab, where meat is treated to longer curing process in order to distil value into the product. The products processed at "*Guldrummet*" are solely sold to restaurants that Danish Crown has approved, giving the products and added sense of value due to this exclusivity. Consequently, the idea is that many of the concerns regarding the value of the product such as ethical considerations, can be sidestepped by artisanal processing. Artisanal processing, has the potential to remove the product further from the living animal and refines it into an animate product, potentially reducing the importance of the life of the living animal.

"Gourmet processing actually sidesteps other qualities such as organics, you know very little about the production methods of your Parma ham" *Pig producer, Nu er det nok, Horsens (Appendix: B6)*

Consequently, the valuable product becomes a product that is able to distract the consumer from the underlying production, much like *Parma* ham from Italy and *Iberico* pork from Spain. However, the notion of simply being able to sidestep production problems by artisanal processing, did not resonate with the focus group. According to the chefs, the connotation that pork products are cheap and of low quality, makes it hard for chefs to simply *dress up* pork and compete with other products in the restaurant, such as beef. There is a need for a grander and more focused intervention from the industry as a whole if this perception is to be turned around. As explained by Christian Bøjlund; "*The pigs rank so low in the product hierarchy, that it needs a grand gesture to elevate it*" (Appendix: A3).

As demonstrated, the monetary register for the pig as a product is quite contentious. There are many different aspects that come into play when discussing the perceived value of pork products, and neither producers nor foodservice professionals appear to agree on a course of action. Again, the value registers that apply to the industry seems to be somewhat of a contradiction on the monetary value aspects of the foodservice. This is true despite the fact that foodservice has a reputation for being price sensitive. Some chefs also expressed that the monetary value of pork often stems directly from the low price of the product, making it a valuable object to put on the menu, if the consumers were willing to eat it.

8.2.2 The Product: Handling register

Many of the interviewees mentioned that the way in which pork is handled and presented in supermarkets, directly affects the perception of the product, even when served in a restaurant or a canteen. As the value of pig products is actively reduced in the eyes of the consumer when pork products are presented by supermarkets. Here pork is handled as a low quality product, constantly on sale represented by the use of yellow discount stickers. As Søren Gericke noted in our interview, it is a question of pride and respect for the product that is lacking when it gets enacted as a low value product in the supermarket;

“We need pride in the product and the consumer. But also make sure that the detail service has pride in the product. You can see it in the way they handle the meat as well. In the supermarket they just throw it all into one big pile.” Søren Gericke (Appendix: A13)

Handling the products with a sense of pride confers a palpable sense of value to the consumer buying the product, which will affect their perception of the pig as a whole. In this sense, the product is valuable or good when it is handled with respect and a sense of pride. However, this requires that the industry, and for that matter the product, is to be worth respecting. Once again, interviewees dwelled on the industry's focus on productivity that has allowed the markets to be flooded with cheap meat, continuing the devaluating spiral.

“A large part of the problem, is that the producers have optimised quantity over quality to try to survive in a market that are increasingly rejecting their product” Rune Lund Sørensen (Appendix: A3)

This was further elaborated on by the focus group *“there is a sexy part of the fridges in a supermarket, and pork is not in that part. It is crammed in the unsexy part” (Appendix: A3).* Furthermore, this is reflected in the way in which the products are presented to the consumer through the packaging, that more often than not is cheap plastic containers or vacuum-packed cuts, with little presentation of the product. Here, the handling appears to add to the devaluation of the product. According to the chefs, the presentation of pork in supermarkets directly influences the value of the product in restaurants.

“In general, pork has an increasingly negative brand that can be hard to convince guests to choose on a menu. However, often when it is part of a fixed menu, people are often pleasantly surprised.” Christian Bøjlund (Appendix: A3)

At Tulip, Jesper Jæger agreed with the overall premise of devaluation due to handling. *“We haven't done enough to care for the pig's reputation.” (Appendix: A6)*. Showing an awareness in the industry that there is a need to do something to turn the consumers perception around. According to Jæger, he felt the industry is facing another big issue; *“The pig lacks confidence!” (Appendix: A6)* As explained by Jæger, within the industry there is also a lack of pride and confidence in the products created, creating a need to review how other industries have succeeded in creating pride in their products. According to several of our informants, Arla is one such company to look towards for inspiration. Arla has successfully rebranded certain products, and created added value. Through their Arla Unika product range, Arla have positioned part of the production as *gourmet*, thus affecting the overall perception of their entire product range, in the eyes of many chefs.

However, according to Billmann, copying Arla's approach to value creation does not present a clear route for the industry to increase the perception of their products, as Danish Crown simply does not have the same authenticity when it comes to developing brands as Arla.

“The Danish meat industry and Danish Crown are 50 years behind Arla, when it comes to developing brands” Henrik Billmann (Appendix: A4)

Furthermore, meat is increasingly harder to “brand”, as it involves the actually killing of the animal, whereas Arla's products leave the animal alive, making the story easier to tell. Again, for the pig, the handling of the live animal is an increasingly important part of the notion of craftsmanship, whereas Arla applies craftsmanship to the creation of cheese, yogurt and other processed products. As previously mentioned, we observed that “Guldrummet” actually only a small part of the industry located in a little corner of a larger distribution center in Kolding. Even though many of the informants, especially the ones within the industry, spoke very positive about “Guldrummet”, it seemed that only few resources were dedicated to it, indicated that it was not a big priority of Danish Crown, thus rendering it unable to create value on a large scale.

Furthermore, according to producers, creating value within the products through handling or gourmet or artisanal processing, as seen with Arla, does not address the underlying problems that consumers have with the product i.e. animal welfare and overall production methods.

“A gourmet solution does not face the problems in production, the consumer cannot be fooled by fancy products” Pig producer, Nu er det nok, Horsens (Appendix: B6)

Creating high value products seem to be only a small part of the solution to create more value within the handling register. Large part of the value register for the products lies within how

the consumer and foodservice professionals feel towards, and are able to trust the story told about the handling of the animal.

“To me, the problem can be summed up by one word: Trust. As a chef, I have zero trust in the Danish pork industry, and I think that this is true for many consumers as well. We simply do not trust the story they are trying to tell us” Rune Lund Sørensen (Appendix: A3)

The industry therefore needs to work on how they communicate their business practices to the consumer. As explained by the chefs, many lack a basic trust in the product and the story of the whole Danish industry. Without a proper story to complement the value creation of gourmet processing the consumers won't be interested in the product. This notion is backed by Søren Gericke.

“It is not only about the money it is about the perception. Why should I pay more for the same product? People can't relate to the price difference” Søren Gericke (Appendix: A13)

In terms of handling value, the potential buyers need more than just storytelling for them to be interested in the product. The handling register for the product, is a complex issue that requires respect and pride throughout the process of producing the product, both when it is a living creature and when it is processed into a product. In this sense, the pig is good when time and care is put into the handling and creation of good products, and when this effort is convincingly demonstrated to the consumer.

8.2.3 The Product: Historical time register

Many traditional Danish dishes are based on pork products, such “leverpostej” and “frikadeller”, leaving consumers with memories of the past. Simultaneously, many religious and cultural occasions in Denmark are commemorated and defined by the consumption of pork products, such as pork roast. Due to its connection with the Danish traditions and culture, it has also provided the product with a notion of being traditional and old fashioned. According to L&F the association of pork being old fashioned is turning young people away from the product (Landbrug&Fødevarer, 2015).

As with the animal, the product also operates on a timeline where pork was once a stable part of many Danish meals, partly due to its availability and relative affordability compared to other meats. This connection to the past results in pork being viewed by some as a good product, as it reminds us of our connection to our childhood and past experiences.

However, this connection also represents an ambiguity, since the pig also represents old fashioned ideas and a lack of innovation and modernity. These negative associations to old fashioned products are present as an indicator of value for the overall product.

As Søren Gericke told us over the phone before our interview; *“The pig is a national treasure and it has been horribly neglected”* (Appendix: A13). This somewhat summarises the pig’s role in Danish culture and illustrates how the pig in his eyes is being misrepresented, both by industry and the consumer. The enactment of the pork, as an old fashioned product, is not wholly negative. A handful of products have successfully reinvented themselves as *retro*, as illustrated by the recurrence and success of Meyers “Flæskestegssandwich”. By mixing a traditional Danish staple, such as “Flæskestegssandwich” with a recognisable brand and using quality products, Meyer has been able to change many people's understanding and perception of and otherwise low quality product. Meyer’s success demonstrates that it is possible to circumvent the prejudice people have towards pork if it is presented and treated in a manner that people can appreciate. During our focus group interview, it was mentioned that one of the reasons many people, in particular younger people, felt a disconnect with pork products, was due to the negative connotation with the product due to previous bad experiences.

“People have some associations to how they have tasted pork before, and that’s not necessarily a good thing. If mum could not cook, you associate pork with dry meat and horrible food” Rune Lund Sørensen (Appendix: A3)

In this sense, the value of the pork product is not only put on a collective timeline shared by all actors, but is rather put on an individual timeline that can be affected in both a positive or negative direction. Value is therefore enacted in multiple different ways depending on past experiences, leaving foodservice in a unique position to change people's perception of the pig by presenting pig products in a new and different way.

However, as stated during the focus group; *“The pig is considered a simple everyday food”* (Appendix: A3), making it difficult for restaurants to excite their customers with pork dishes.

“In our restaurant, pork will always lose if you try to compare it to the champions of meat like beef - it will win, but when you place it in the loser club with turkey or chicken - then people find it interesting” Christian Bøjlund (Appendix: A3)

Not all chefs agreed that pork could only be valued as simple. As Søren Gericke mentioned; *“The pig is just like the potato. Everybody can cook a potato, but when you serve them a unique potato, they all go OHH. This is how a potato can also taste”* (Appendix: A13). According to Gericke, by creating good dishes out of pork it is possible to surprise the

consumers by circumventing their expectations of the product they consider old fashioned. Here the good product becomes a product that can surprise and seduce consumers, by being old and new simultaneously, much like the “flæskestegssandwich”.

The historical value register within the product seems to continuously look both backwards and forwards at the same time. Previously, to some, the product was better as the farms had more differentiated production and the consumer could relate to the industry and the product. Foodservice and the consumers, are increasingly glorifying the past, while producers seem to acknowledge that the products of the past were flawed, and the present product has a much higher value for the consumers. This fractured view on the timeline, is part of the essence of multiplicity, as all views exist simultaneously. Furthermore, from a historical register, the pork product is also multiple, as it is simultaneously challenged by the association of being old fashioned, but also carried forward by the positive associations of traditional food.

8.2.4 The Product: Naturalness register

Concerning the naturalness value register in the product, again, much of the focus seems to be on the naturalness of how the animal was treated and cared for while alive, rather than as a product. Overall, naturalness aspects of the product, seem to be less important for the foodservice segment, as they often prepare whole cuts, with minimal processing. As with other registers, animal welfare proved to transcend into the finished product when assessing the value of naturalness. In this sense, the pig product becomes valuable when it is from either organic or “friland” production, since this ensures that the animal has been reared according to certain specific rules. In conventional production however, the sense of value and naturalness is minimised due to the way in which the animals are produced. Amongst the chefs, cases, such as the MRSA and salmonella scandals that have been linked to practices within the pig industry, actively devalued conventional pork product. The outbreak of these diseases causes the product to seem unsafe and requires it to be cooked and treated in a certain way, in order for it to be safe to consume. This enactment of the pig product as being diseased and hazardous, was discussed both the chefs and the butchers in “Guldrummet” as a major challenge. For many, pork products need to be completely cooked through in order for it to be safe to eat. However, both the chefs and butchers interviewed, agreed that this isn't necessarily the case;

“The overall quality has dipped too low.. You can not serve pink (medium cooked) pork, because people get afraid. We can at our restaurant, but we also cater exclusively to a high end clientele” Rune Lund Sørensen (Appendix: A3)

As mentioned, in order for foodservice to be able to sell pig products that have been cooked in a different manner than what people are used to, it requires the customers to consider the product natural and safe. As Lars Olsen mentioned during our focus group; *“The overall story of the mass produced pig is why many consumers have negative connotation toward pork meat”* (Appendix: A3). This distrust towards the naturalness and safety of the production creates something consumers do not wish to associate themselves with. Some organisations such as APD, strongly argue that the Danes need to reassess their meat consumption, due to external factors such as animal welfare issues, and unnatural production methods, but also due to other factors such as health. Furthermore, the focus on the environmental consequences of consuming large amounts of meat, also places pork as a unnatural and possibly damaging food item, that needs to be reduced or made better, safer and more environmentally friendly.

Consequently, the notion that Danish pork is unnatural and therefore unsafe, stands in stark contrast to the international acclaim Danish meats hold, where Danish pork is considered a guarantee for safe meat. Nonetheless, part of the devaluing of the naturalness of the Danish pork, lies in the mistrust the Danish consumers express towards the pork product and the industry producing it.

“Name one other product on earth where we continue to create a bad product that consumers do not trust, that is surrounded by health scandals and that consumers ultimately do not want -without thinking: maybe we should rethink this” Rune Lund Sørensen (Appendix: A3)

8.2.5 The Product: Sensual register

Overall, the pig, as a product, has two ways to which it can be appealing and seduce the consumer. Firstly, through the taste and look of the product, and secondly through the creation of an appealing story that consumers are willing to accept. Pork is most often presented to the consumer in an already processed format. Within foodservice, this processing is mostly expressed via pre-cut pieces, whereas consumers often see packaged and processed pork products such as cold cuts, marinated meats and ham. Most pig products are processed before the consumer sees the product, making it harder to communicate a sense of traditional craftsmanship in the product creation, without convincing storytelling.

“The craftsmanship is harder to sell in a pig, than a cheese. For the pig, the craftsmanship is the breeding, the welfare and the upbringing.” Lars Olsen (Appendix: A3)

During our research, one of the concepts used to describe this storytelling was the idea of the *Danish brand*. The Danish brand, is inherently not only used within the pig industry, but in everything produced in Denmark. Consequently, “*Made in Denmark*” represents a valuable brand for some consumers and chefs as the notions of *made in Denmark*, becomes important and often sidesteps many other sensoric factors. During our interview with brand specialist Eva Thybo from Visit Denmark, she pointed out the uniqueness of the Danish brand; “*As opposed to many other countries, the Danish brand is the sum of Denmark, our sustainability, easy living, high standards, happiness, the good life etc. - it is the whole story*”. (Appendix: A2)

This is true in many aspects of the Danish brand, including tourism, consumption items and in this case, the pig. The sum of the brand accurately showcases the story behind the product and the values associated with the product produced in Denmark. It provides a sensual value, or diminishes the value, depending on the story. As elaborated by Thybo; “*Quality, creativity is the overall Danish way - is our strongest international brand*” (Appendix: A2). In this context, the sensual value register is showcased by the products ability to seduce the consumer through its use of the Danish brand, by associating “Danish” with quality and innovation. While Thybo, is an expert in managing the brand of “Denmark” internationally, she believes that many of the same factors can be applied to food production.

The products sense of value, and its ability to seduce the consumer is derived from a combination of the previous value registers i.e. *the sum of values*. As previously mentioned, the price of the product directly affects the value of the product, not only in a strictly financial sense, but also in the way that it makes the product less appealing to chefs and consumers alike. When the product is enacted as cheap, it makes it available to more consumers, but simultaneously turns certain people away from the product, as it is perceived as low value. As explained by Jesper Jæger at Tulip, the change in valuing of pork, can be explained by the association that pork is a cheap product, that does no longer seduce us.

“Pork is an everyday product, where beef is for celebration. As we get more and more money, there is more to celebrate.” Jesper Jæger (Appendix: A6)

The lack of focus on making the products appealing in a sensoric sense was pointed upon by Søren Gericke during our interview; “*I want it (Pork products) to be designed properly. Just like I want design in furniture, I want design in my food... The problems need to be designed away.*” Søren Gericke (Appendix: A13)

As seen, imbuing the product with the values associated with certain occasions, such as Christmas and Easter, the product becomes more appealing, as indicated by rising sale figures before major holidays (Landbrug&Fødevarer, 2017). In this sense, the product can seduce the consumer to be an integrated part of the Danish cultural identity and heritage. In Gericke's opinion, the pig still rules Christmas, as the most popular item at the traditional Christmas lunch, and as a staple of Christmas eve.

Finally, the seductive capacity of the naturalness register revolves around the story of how the product has been created. This register becomes the indicator of quality in the rearing of the animal, as well as how the product can seduce chefs and consumers, as indicated by the success of both organic production and free range varieties. Both productions appeal to the consumer through their storytelling in relation to the live animal, as well as the processing of products. Within our focus group, very little attention was paid to the perceived naturalness of the finished products. Chefs mostly ignored attributes such as additives, nutritional content and overall processing, something traditionally important when assessing the naturalness of a food product (Heuts and Mol, 2013). Instead the chefs focused primarily on the rearing of the animals, and the seductive capabilities of an honest story. Issues of naturalness in relation to safety, all stemmed from the choices made in conventional production, thus indicating that production method affects all aspects of the product. By showing an alternative to the conventional production, the organic farmers are able to seduce chefs by showing how their pigs are produced. Via storytelling, they can create an image that appears to be more authentic and appealing to chefs and their guests.

Overall, the sensual register only represents how the product tastes and looks to a certain degree. Consequently, the seductive capabilities of the pig seem to be determined by how it is perceived by consumers and the story surrounding the whole journey.

8.3 The Symbol

This final category, illustrates the multitude of various perceptions, stories and enactments encountered within this study. As demonstrated earlier in this study, the complex and often controversial nature of the pig creates a multitude of attitudes towards the Danish pig, that has the possibility to transcend all other categories. It could be argued that this category has an obvious potential for multiple internal divisions, somewhat making it *the pig symbol multiple*. As with the previous two categories, the examples analysed within this category reflect what was observed and heard in the field as well as some external literature. This leaves the possibility for countless other enactments to be added as part of another study. For the purpose of this study, the symbol category primarily informs on the added complexity inherent in the Danish pig, and aids to explain the behaviors and perceptions. Some associations and

symbols, have been found in literature, and is widely represented within the field, while other, are not directly mentioned by interviewees, however deemed important nonetheless, due to an abundance of literary data. As with previous categories, there are registers that can somewhat represent all categories simultaneously and enactments can have multiple overlaps. However, in the symbol enactment, the emphasis is put strictly on the symbolic value creation, not the actual real life item.

8.3.1 The Symbol: Monetary register

One of the first symbolic enactments we came across, was the pig industry as a economic symbol. The pig seems to be construed as a very valuable symbol that represents the affluence of the Danish agriculture and the whole country of Denmark. By many, the pig industry is considered a substantial force alongside other large Danish food industries such as Arla, Chr. Hansen, DLG and Carlsberg. Each have earned a formidable reputation for creating countless domestic jobs and generating tax revenues. The notion that the Danish pig industry was construed as a powerhouse of monetary value was something we encountered across many of our interviews. Informants often expressed fascination or resentment with the size of the industry, and refereed to Denmark and Danish Crown as an absolute world leader in food production and pork position.

In our very first meeting with L&F, we were told that we if we wanted to contribute to a field that was both dynamic and constantly developing, and where we could make an actual impact, we should choose to focus on investigating concepts related to the value of the Danish pig, as the Danish pig is to be considered the crown jewel of Danish agriculture. The fact that Denmark is amongst the most efficient in the world to rear and produce pigs and pork products provides the industry with a sizeable contribution to the trade balance, thus improving our overall national economy (Landbrug&Fødevarer, 2018). L&F thereby strengthens the symbolic value of the pig as a monetarily valuable consumption item. Importantly, it is not the physical pig itself that represents the value in this context, even though the pig and the products drives the revenue stream. Instead it is the symbolic representation of the entire pig industry, as the pillar of the Danish economy, that holds value.

“The Danish pig industry is one of the very best the world, it generates so much money and value, not just for themselves, but to all of us” Søren Gericke (Appendix: A13)

The pig industry is responsible for massive amounts of export each year, generates high revenue and in relations to the export, these numbers are rising. The statistics provided by L&F generally support the notion that not only is the industry incredibly large, it is also a very

important industry for the country (Landbrug&Fødevarer, 2017).

Furthermore, the industry is widely being praised for its role in creating jobs all over the country. The pig's symbolic role and value as a central drive within job creation, was something we first came across during our observation at the conventional piggery. Here, Peter Munk showed us the amount of technology required in running the farm. The technological solutions included everything from automatic feeding machines, lighting and even the innovative utilising of the animal's manure in the heating system of the pig pens. As explained by Peter Munk; *"The farm is completely self-sufficient, and we try to waste as little as possible, we managed even to find a use for the manure."* (Appendix: B4)

In order to maintain the Danish pig industry, and further develop it, countless sub-industries have emerged, representing innovative engineering that is perhaps not immediately obvious to most people not associated with the industry. Thereby creating value even outside of the primary production, acting as a symbol of the value associated with these industries. Furthermore, Peter also noted; *"Our pig farm is more than just a producer of pigs it is also an important actor within the community, and many people are in one way or another engaged in what we do here."* (Appendix: A7).

However, while the pig industry and its symbolic status as a juggernaut of Danish agriculture and food production might indicate that it has some importance for the Danish economy, some argue that this importance is subsiding. An article by DSNC, questions the symbolic and monetary value of the Danish pig. According to DSNC, the collected production of pigs in Denmark reached roughly 25.000.0000 pigs in 2003. Back in 2003, the vast majority were slaughtered and processed by Danish slaughterhouses (DanmarksNaturfredningsForening, 2014). Currently, around one third of the now 30.000.000 pigs reared in Denmark, are exported to be finished or slaughtered in countries like Germany or Poland. DSNC estimates that more than 23.000 full time positions have been lost due to the export of jobs to countries where wages are lower. According to DSNC, the slaughterhouses alone account for a loss of 33% of their former workforce (DanmarksNaturfredningsForening, 2014). In recent years, this tendency has caused waves of criticism as Danish Crown have closed several slaughterhouses as part of a strategy to make the industry more profitable (Politiken, 2014). Additionally, slaughterhouses are not the only place where jobs are lost. As demonstrated earlier, the amount of pig farms is also in rapid decline. Practically and symbolically, this indicates that the industry no longer has the dominant role as a cornerstone in job creation. The reality is that pig farming is an increasingly compiled industry, that has undergone massive restructuring in order to keep production costs low. Operating a modern pig farm is incredible expensive, due to requirements for technology, as well as buildings, land and of course animals themselves. Many productions are required to produce on a scale that is profitable,

meaning that the majority of farmers are heavily in debt to local banks. This tendency does not only adhere to Danish pig farmers, rather than Danish farmers in general, causing them to be indebted for more than 350 billion DKK, making them the most indebted farmers in Europe (Sørensen, 2018).

As explained by the farmers at “Nu er det nok”, as well as Peter Munk, many farmers feel like they are totally controlled by their financial stakeholders, effectively tying them to their industry.

“On the other hand, we are also very much in the pocket of the bank since its very expensive to buy a farm” Peter Munk Nielsen (Appendix: A7)

Symbolically, the financial state of the Danish pig industry can therefore either be seen as a devaluing factor or a valuing factor.

Some seek to dispel the notion that Danish agriculture has a large part to play in Danish economy, stating that in general *“Danish agriculture means despairingly little to Danish economy”* (Kjeldsen-Kragh, 2014), whilst others boost the overall industry, calling it *world class* and absolutely essential. Consequently, the pig symbolises an industry that is either incredibly profitable, that produces and exports products for billions of DKK, that creates dependency for countless sub industries or it symbolises an outdated industry that needs to be restructured and redeveloped, or even dismantled in order to create real value.

Ultimately, the symbolic pig registers with extensive multiplicity on the monetary value, with actors disagreeing on the overall status of the symbol. Arguably, the pig is a valuable symbol when it creates tax revenue through exports and jobs for Denmark, both directly and subsequently. Opposingly, industry seems to be going through structural changes, resulting in the pig industry becoming physically removed from Denmark and for the people working with the living pigs. This move away from Denmark causes discrepancy towards the value of the pig production as a symbol, and is perhaps best illustrated in a quote from Arne Grønkjær: *“It used to be that everybody knew a farmer- now no one does” (Appendix: A1).*

8.3.2 The Symbol: Handling register

The overall brand of the pig, and thereby in extension the symbolism of the pig, is presented differently by different actors. When we initially started our collaboration with L&F, an extensive campaign to rebrand the Danish pig had just been released. The purpose was to change the negatively associated word *“svin”* for the more positive word *“gris”*, (both meaning *pig* in Danish) allowing L&F to create a more positive verbal handling of Danish pig. The overall idea is to change the way Danes refer to the pig, to avoid negative associations in the everyday language. According to L&F the point of the rebranding strategy is to distance pork products

from its past of being untrendy or undesirable. The main thrust of the campaign is however, not addressing the underlying issues of why pork is being considered as low quality, but is instead concerned with changing the traditional terminology associated with the low value i.e. *svin*.

According to APD, this represents clever branding, and there is a growing concern over how the industry refuses to acknowledge the perception of the consumer;

“The future is not more of the same for less money, that is a race to the abyss. The future is to think of food as a better quality and a better story and then of course less of it.” Ilse Kristensen (Appendix: A5)

The renaming strategy from L&F, shows that the industry is trying to remove the pig product from its past associations by giving it a new name, in the hope that it will change how the product is enacted by the consumer. While this might very well prove effective on many parameters, it is hard to change perceptions of major issues, such as the development of an increasingly efficient production system, by simply changing the name of the animal. Upon undertaking the campaign, the industry as a whole had just been targeted by the very effective and aggressive campaign by APD - damaging the overall reputation of the producers. Both L&F's rebranding campaign and APD's cage pig campaign, illustrates how the value of the pig is influenced by how it is handled symbolically and how the verbal presentation affects the value in different ways. According to L&F all communication should now use the word “gris”, to allow for increasingly positive associations. According to L&F, “Svin” symbolises something dirty and derogatory, while “gris” has a softer, more likable association. Surveys carried out by L&F indicates that many consumers, in particular young people, have increasingly negative association the word “svin” (Landbrug&Fødevarer, 2015).

The younger generation increasingly associate “svin” as being used as a swear word and as a shorthand to describe something being unclean and filthy. Through their rebranding campaign L&F seeks to reappropriate the public discourse surrounding the pig, thus allowing for a more favorable verbalisation of the products, while at the same time possibly distancing consumers from the negative stories surrounding the pig industry.

While writing this analysis an unfortunate video was accidentally leaked by L&F themselves. In the video, intended only for internal communication, L&F outlines the rebranding campaign by informing collaborative partners of the new naming strategy, using branding and market research techniques. The video was heavily criticised and ridiculed on social media and public radio. The general opinion was that it was an embarrassing misfire from L&F, as the video failed to address any actual issues within production, and only offered symbolic quick fixes. The rebranding campaign illustrates how the handling of the pig as a symbol influences the

perceived value of the entire production. For the industry, the symbolic pig is enacted as being more valuable when it is handled in a way that removes the negative connotations associated with the word “svin”. However, as the case with the video showed, if the transition from one word to another is not handled with care, the strategy could backfire and instead portray the pig as something in need of covering up with creative branding. Ultimately, the video illustrates part of the problem as described by the chefs.

“The industry has tried to rebrand and retell the story many times, but what they need to do is to address the issues, then the good story will follow” Christian Bøjlund (Appendix: A3)

In contrast to the L&F rebranding campaign, the APD campaign succeeded in generating increased focus the methods used in Danish pig production. The campaign uses the phrase “burgrise” or *cage pigs*, as a homage to the successful “burhøns” or cage chicken campaign that removed almost all caged eggs from supermarkets in Denmark. By using similar symbolism APD capitalises on the negative feelings that people have towards caged chickens, thus creating a very easily recognisable symbolic representation of the Danish pig production. The main focus of the campaign was large ad posters in all major cities, combined with an online petition demanding that production of cage pigs is made illegal (Dyrenesbeskyttelse.dk, 2017). The campaign received widespread criticism from the pig industry that felt misrepresented. Additionally, the industry and L&F argued that the campaign was factually incorrect, as there are no caged pigs in Denmark. According to APD, the phrase “burgris” should not necessarily be taken literally, but merely symbolises the general decline in animal welfare within the industry.

The “Nu er det nok!” workshop, was organised as a direct response to the campaign as many of the pig farmers felt that the public discourses had been side tracked and grossly misrepresented the factual condition within production.

“The cage pig campaign is fake news, it is simply not true what they are saying.” Pig producer, Nu er det nok, Horsens (Appendix: B6)

The massive opposition from the industry, as well as accusations of fake news resulted in the CEO of APD; Britta Riis, clarifying that the campaign was meant to be taken with a pinch of salt, and not as a factual representation of pigs in cages.

According to APD, the animal welfare issues are in fact very real, and the campaign is meant to kickstart a serious discussion. The campaign had a major impact on the perception and

symbolic representation of the industry. One of the chefs even used the same symbolism when describing the industry; *“This is like caged eggs! - deep down - people know, but there needs to be social pressure to change habits”* Rune Lund Sørensen (Appendix: A3)

Although the campaign was somewhat exaggerated, there were also many truths. When we visited the conventional piggery, we observed many of the practices touched upon in the cage pig campaign, such as castration and a high mortality rate among piglets. Many problems appeared to occur almost exactly like the campaign claimed. Also, even though there are no caged pigs in Denmark, the symbol of the pig in a cage effectively captures the overall associations that many get when viewing pig pens, complete with steel bars and concrete floors. To APD, a valuable symbolic pig, is there for a pig that consumers can relate to, and a the symbolic placement in a cage proved very effective.

For the farmers, the biggest problem with the campaign was the accusatory tone of the campaign, which was thought to be counterproductive and divisive. This was confirmed by Henrik Billmann during our interview; *“The cage pig campaign is not factually incorrect, but the tone is not very productive”* (Appendix: A4).

The two campaigns illustrate how the pig, as a symbol, can change in both value and perception, depending on how it is enacted and presented by different actors. It also shows that a large part of how value is perceived is dependent on how the pig is handled and presented - both symbolically, verbally and physically. What is particularly interesting is that both L&F and APD appears to be well aware of the value associated with using certain terminology to describe the pig. L&F argues that Danes should use the word “gris” instead of “svin” because of the more positive associations.

Likewise, in the “Burgrise” campaign, APD also choose to utilise the positive associations related to the word “gris” instead of “svin” - a word traditionally used when referring to pigs within production. Symbolically, both organisations understand the importance of the symbolic associations.

Accordingly, L&F wants to emphasise the pig as part of a pleasant production, while APD appears to use the positive association to illustrate the industry is mistreating the positively associated “gris” and not the dirty, unclean and generally negatively associated “svin”, thus prompting people to feel compassion for how the animals are treated.

8.3.3 The Symbol: Historical time register

“You should look at how we made food back in the day... And get some inspiration. The pig doesn't have to be old fashion food, it needs to be something that the young people want too. Many actually like the old dishes, but you don't have to associate it with the olden days. Nobody cares! Instead, make so it fits the time and make it into something they can relate to” Søren Gericke (Appendix: A13)

According to Søren Gericke, the Danish pig has countless symbolisms attached to it. One of the main reasons the Danes have turned their back on the Danish pig is that it symbolises something old-fashioned and out of date. A lot of the observed symbolic register associated with the pig revolves around ‘*mormor mad*’ – old fashioned meal favourites from our grandparent's era.

“My grandmother was a horrible cook, but did not fuck up pork fillet in cream sauce - it's so easy - but today that's why it is not sexy” Søren Kristensen (Appendix: A3)

Again, the pig find itself on a timeline. Just as the animal and the product was enacted and defined by its relation to the past and the present, so is the symbolic importance of the pig. This notion of the pig symbolising something that once was, instead of something to be, could be devaluing it in the eyes of the younger consumers. According to the focus group chefs, there is nothing wrong with the old-style dishes, but it is a struggle to translate old fashion food into something worth spending time and money on at a restaurant.

“Pork fillet on the menu? Could we try to avoid it. It does not make me feel good, its old fashioned and boring - but maybe that's exactly why we as chefs need to work with it” Christian Bøjlund (Appendix: A3)

According to Boyhus (1998), the Danish pig has always been plagued by its complex symbolism. Today the pig – and its meat - symbolises something every day like, something un-extraordinary, something common or something mass-produced. But that was not always the case. The pig has only really symbolised agriculture and mass production in the last 100 years (Boyhus,1998). Prior to this, pigs were reared privately and often within the cities. As touched upon earlier, because the pig is one of the only animals that only offers up its meat and no extra features such as pulling power (like horses), eggs (like chickens) or milk (like cows) the pig has always been associated with its meat. According to Boyhus (1998), the different symbolic associations with the meat has differed greatly over time.

Historically, pork was considered a feast, with roast and big cuts being served at special occasions. In Denmark, the most famous is undoubtedly 'Flæskestegen'. Before the 1800s the roast had been reserved for the richest in society, but as the middle class rose in the early 1800s, so did their lust for pork roast. 'Flæskestegen' was considered the finest of the roasts, and only served on special occasions, and symbolised wealth, feasts and celebrations (Boyhus, 1998).

As indicated by the focus group: *"Today, the pig is considered a simpler everyday food"* (Appendix: A3), the pig has simply lost its symbolic value as a celebratory food, in large portions of the population. According to the chefs, this is partly due to the overall association or symbolism of the pork, not necessarily the physical product.

"The valuing of pork indicates that it is low quality meat. Its way to cheap, and it justifies treating it poorly, think of it poorly and associate it with low quality" Søren Kristensen (Appendix: A3)

This corresponds with current statistics, and paints a picture of a younger generation that no longer associates the pig with a feast, and rejects the historic context as old fashioned, boring and low quality.

Additionally, an abundance of surveys demonstrates how consumers increasingly associate pig meat with unhealthy eating, as consumers rate pork very poorly on health parameters (DanmarksNaturfredningsForening, 2012,) (DTU-Fødevareinstituttet, 2015,) (Fagt et al., 2015, Foodculture,) (2015, Landbrug&Fødevarer, 2015, Lassen, 2002). Many of these associations and symbolisms associated with the Danish pig are newer constructions that has not historically been important. However, today's negative associations, such as *unhealthy*, are increasingly important and are actively discouraging younger consumers from creating positive associations towards pork meats.

"I don't know why Danes have turned their back on pork. The pig is better both in taste and health and it's easy to cook. Especially, if you follow the "Karoline" recipes, then the pork does not get dry or boring or unhealthy. There are a lot of good healthy recipes with pork. You know why that is? It is because they were very skilled those girls doing those recipes, very skilled. You need to bring some of that back!" Søren Gericke (Appendix: A13)

The apparent decline of the positive symbols or associations of pigs, is not an all-consuming implosion of younger generations view on pig meat. As demonstrated earlier, "Flæskestegen" is very popular whether it be the hipster trendy "Flæskestegs-sandwich" at Roskilde Festival,

causing young festival goers to be queuing for hundreds of meters, or as the centre of a feast around holidays such as Christmas. A survey carried out by L&F also indicates, that when eating out, younger Danes still consume pork (Landbrug&Fødevarer, 2017). According to the focus group, this might have something to do with the “*bacon effect*”. The presence of bacon transcends historic symbolism and sidesteps other regards, such as animal welfare. Historically, bacon has always held a special symbolic status, and it appears that younger and older generations still hold positive associations towards bacon, thus creating positive associations towards this specific product despite of its reputation for being fatty and unhealthy.

The historic symbolism of pork being something that “*we used to eat*”, something that “*our grandparents ate*”, appears to be deeply rooted. According to multiple surveys, the symbolic meaning of pork as a celebratory food has been challenged by the introduction of new meal habits, that allows for more food choices and less work (Fagt et al., 2015, Landbrug&Fødevarer, 2015, Landbrug&Fødevarer, 2017, Samvirke, 2010).

According to Samvirke (2010), the majority of Danes, both young and old, prefer beef when eating out or entertaining guests at home. Evidently, beef has overtaken pork as the symbol of “the feast”. Instead, the pig has become a symbol of agriculture turned bad. Historically, stories of the hyper efficient pig production might have created value in the 1950s and up to the 90s, when many Danes were impressed with the productivity of the Danish agriculture as a whole, and praised the sheer volume of produced food (Simonsen, 2017). This is not to indicate, that there has not always been opposing views on the productivity of Danish Agriculture. According to DSNC, there has always been outspoken voices criticising both the environmental and animal welfare aspects of Danish Agriculture. However, for many, the agriculture and domesticated animals like the pig, symbolised the strength and resourcefulness of Danish industry, much like Lego or Maersk are beacons of national pride today. According to Søren Gericke, the pig is enacted as a fall guy for all that is wrong with the food production system, thus becoming a symbol of a system the consumers cannot mirror themselves in or does not agree with or understand.

“Today, it is very easy to make the pig symbol of everything that wrong with the world, but it does not have to be like that, because the pig is amazing! It was amazing yesterday, and is amazing tomorrow. But symbolically, it is in a real crisis with the consumer.” Søren Gericke (Appendix: A13)

Accordingly, the consumers are not the only ones actively disassociating themselves with the pig industry, thus breaking with years of tradition. According to Peter Munk, the industry has a problem with attracting younger farmers to the conventional production. Munk experiences,

that many see pig farming as a symbol of the past, something old school and non-sustainable. Farming in general, has become a symbol of something that used to be, something that older generations have done before us. Multiple articles describe how the conventional pig producers seems to be especially challenged due to the overall association the younger generation has towards the production (Kjeldsen-Kragh, 2014, EffektivtLandbrug, 2013, Landbrugsnyt, 2018). The overall assumption is that many people cannot mirror themselves in the production and for young farmers the conventional pig production has become a symbol of an outdated system, that is out of touch with the world it is surrounded by. Historically, it used to be that everybody knew someone that had some relation to the pig production, and many took pride in Danish agriculture (Simonsen, 2017).

Symbolically, the divide between production and consumption, has never been larger. As expressed by one young farmer, the overall debate has become polarised to a degree where many young people today cannot see themselves working with pig production. This is in large contrast to how things have historically been conducted. It used to be that farmers proudly passed on their farms to their children upon retirement (Thøgersen, 2017). Peter Munk, has just recently acquired the farm from his father, but he too is well aware of the negative symbolism that clings to his production, and how things have changed from the past to now:

“My parents run the farm. I am a fourth-generation farmer. The farm has been in our family since 1906, so just over a 100 years. But who knows, maybe I will be the last one, it is a complicated business to be in today” Peter Munk (Appendix: A7)

8.3.4 The Symbol: Naturalness register

According to the focus group, the image of the idyllic farm with the pigs roaming freely around in the mud and rummaging for food in the underbrush has changed and exist only in advertising. Instead, the production has slowly been overtaken by industry, creating an image of the pig being produced in a huge scale, in farms closed off from the public, with little space or inclination to live a natural life before slaughter. Consequently, it seems like the pig no longer symbolises a production in sync with the Danish values, the countryside and the nature around surrounding it. Instead, pork production now represents an increasingly closed off production sector, where the animals find themselves completely separated from the outside world, leaving consumers unable to identify with the production. As a result, the symbolic value register of naturalness of the pig is greatly reduced or even completely gone. According to APD, this separation is not only unnatural and undesirable, it represents a self inflicted problem that the pig producers are struggling with, and that the consumers actively rejects.

According to APD, the production could greatly benefit from rethinking their approach to animal welfare and the rearing of the pigs.

“It would create value if we tried to rediscover our roots in our pig production and agriculture instead of trying to keep status quo.” Ilse Lærke Kristensen (Appendix: A5)

It is not just the industry surrounding the pig that seems to have been removed from nature. Increasingly, the pig itself has diverted further away from its original properties, and is no longer a natural animal due to the extensive breeding. As previously covered, the efficient pig is very valuable to the industry as it has insured that pigs grow bigger in less time and consume less foder whilst growing. The best example of how the pig is no longer a entirelyly natural creature, is in how the farmers have managed through extensive breeding to give the pig an extra rib, thus producing more of the valuable meat used to produce bacon. The lack of naturalness in the traditional sense, actually represent great value for many in production, while chefs and consumers identify this unnaturalness as a major devaluing factor, and the extra pig has become the ultimate symbol of a production that has become unnatural.

“The story of the pig with the extra ribs went from being a great triumph to becoming something disgusting - imagine the chicken with extra wing - no one would buy that, it is a mutant” Mads Schriver (Appendix: A3)

Interestingly, the organic and free range pigs have the same extensive breeding, the same properties and the same production advantages as the conventional. According to the chefs, this somewhat diminishes the positive symbolism of the organic pig, but is still preferable to the conventional pig, as the sum of welfare and the sum of the story is better.

“Stories of the hyper efficient pig production created value in the 80s and 90s but not it is the opposite of what we want, we want authenticity and craftsmanship” Rune Lund Sørensen (Appendix: A3)

While the pig is increasingly becoming a symbol of unnatural and factory style farming, the debate of whether or not it is even natural to eat pigs at all has created a new association for many consumers. The growing concern for pigs and animals in general when it comes to meat consumption is something that has starting to influence the industry, as plant based products symbolises clean and sustainable consumption. Lately, a growing market has been created for meat alternatives, as other industries seek to imitate meat, even copying the look and packaging of minced meat. However, the launch of these new products has created some

resentment from the actors within the meat industry, as they are concerned with the claims put forth by the new producers. Here, butchers have somewhat become a symbol of a growing resistance, with many butchers stating that the new products are not really meat and therefore should not be allowed to be promoted as meat in the supermarkets (Amtsavisen.dk, 2017). According to APD, the meatless products represents a disruptor and everything that the pig industry has failed to symbolise, and industry should learn from these new businesses instead of trying to undermine them, as they represent the symbolic change consumers are craving for.

“It proves the desperation and fear of change when they argue about the definition of meat” Birgitte Dam (Appendix: A5)

“I think this is something they have battled a lot with, all of these plants based foods and meat free Mondays” Ilse Lærke Kristensen (Appendix: A5)

According to Birgitte Dam and Ilse Lærke Kristensen, the opposition from the butchers and other actors within the industry against the meat free products, demonstrates that they are aware of the change in public opinion. The meat free movements increasingly coining the symbolic value of natural, even though the meatless products are processed and created as are products containing meats. At Tulip, Jesper Jæger is very much aware of this trend; *“The new trends mean that we will have to work with vegetarian products. We are going to work with this trend and not against it.” (Appendix: A6).*

However, according to Jæger, the meat free trend is still very much a big city phenomenon, whereas rural areas and smaller cities are sceptical in accepting the premise that meat free, equals natural. In this setting, the symbolic value of the naturalness of the pig is determined partly by how the pig production industry is no longer considered natural.

Additionally, as the efficiency seems to have been integrated into the physicality of the animals themselves the pig is becoming a symbol of the unnatural. Also, the associated value and naturalness is enacted differently, as the pig becomes a symbol of whether or not it is even natural to eat meats. Due to the animals, high level of intelligence and emotional capacities some consider the pig generally unethical to consume, while freely consuming other animals. The pig thereby becomes the first animal that people choose not to consume, while still consuming chicken and beef. As described earlier, the industry itself somewhat acknowledged the intelligence of the animals through the rules and regulations that requires the farmers to provide stimuli for the animals, as well as the value an intelligent farming animal provides by being easy to train and manage.

Ultimately the notion of value and naturalness is depending on a wide range of different perceptions and often conflicting values, especially since the very notion of naturalness is impossible to clearly define, and symbolises vastly different things to the production and to the consumers.

8.3.5 The Symbol: Seduction

As with the product and the animal, the pig in a symbolic context, needs to be able to entice and seduce in order to become an attractive symbol that consumers wish to be associated with. As demonstrated, the pig is challenged within multiple registers, where it is enacted as a symbol or where symbolic enactments interfere with other enactments. According to the chefs, the Danish pig fails to seduce the consumers as it has become the symbol of a unnatural and hyper efficient industry, that has removed itself to far from the natural registers traditionally associated with agriculture.

“I don't think it is that complicated. The conventional pig has become the image of something that is so far away from the natural way, that we as chefs have a hard time telling ourselves and our guest a compelling story of why we should eat this animal.” Christian Bøjlund (Appendix: A3)

Søren Gericke also describes how the symbolic value of the mass production of pigs has become a huge burden to the story of the Danish pig, while the physical production continues to sell and export the physical pig successfully. In other words, the pig itself only appears to represent part of the problem, while the symbol of the pig encompasses a increasingly large part of the problematic discourse. People do not connect with the imagery, and it is therefore very easy to turn your back to the pig, and choose other animals or foods with more compelling associations. This allows for the brand of the Danish pig to suffer due to the multiple associations, many of which are negative.

According to Gericke, the Danish pig also has multiple positive associations, but ultimately suffers as people mistakenly see it as an symbols of something old-fashioned, unhealthy and sub-quality.

“The pig is certainly viewed as old fashioned, even unhealthy and low class. It is something they ate with our parents, but they would never choose it at a restaurant, unless it was chosen for them by the chef, then they love it! The pig has much more to offer than they know” Søren Gericke (Appendix: A13)

Gericke argues that the pig has a practical and symbolic potential that far outweighs its challenges, and emphasises the need for a better story that can convincingly connect with consumers and chefs alike. Moreover, the symbolic value of increased or decreased animal welfare is also important to the consumer, as they do not actually experience the reality of the farm themselves. Many consumers therefore connect with a symbolic story. As voiced by the chefs, the story has to be meaningful and most of all true. Exaggerated claims and stories that later turn out to be less than true, actively hurt the overall symbol of the pig, reinforcing the notion that the Danish pig industry is misrepresenting the truth and is out of touch with reality.

According to Gericke, the connection to the positive association and the symbolic value of the pig, is increasingly important to the chefs, and the consumers, and both group will actively turn their back on the pig, if the story does not improve.

“It all about how we connect with the brand. The animal welfare is important to consumers, you cannot deny that anymore, it needs to be taken very serious, because it shades the good story of the Danish pig, and then people do not like it” Søren Gericke (Appendix: A13)

Within the focus group, the chefs overwhelmingly seek a better story to connect with. As described, the valuing of pork products, actively hinder a positive association with the pig as a symbol, as pig has come to symbolise low quality and very cheap meat. This association is described as somewhat self-reinforcing as the low prices, generates low esteem for the product, which in turn generate even lower expectations and connotations. The overall perception is that that the symbolism of the pig, fails to communicate a compelling story that resonates with the foodservice industry and the consumers.

By allowing the positive symbolism of the Danish pig to weaken, it appears that industry has somewhat created a situation where negative association potentially outweigh the positive, causing the domestic consumption of pork to decline as consumers turn toward foods with a more positive association such as vegetable based products, or other meat sources with a more relatable story. For the chefs, the pig no longer represents farmhouse idyllic scenes, but rather a factory style assembly line and a symbol of mistreated animals and mediocre product. The symbolic value of the pig boils down to the sum of the stories associated with the animal, especially when alive.

Part 5



9.0 Discussion

As revealed by our analysis, the Danish pig is enacted in numerous and increasingly multiple ways. As a result, the collected data have revealed several different overall themes worth of further investigation, as well as underlying registers for value, that inform on the overall enactments. As a structural framework, three overall categories or enactments were analysed i.e. the animal, the pig and the symbol.

Underlying value registers i.e. *monetary*, *historical*, *handling*, *natural* and the sum of all – the sensual register, were used to further shed light on the interconnected enactments of valuing the pig. It was found that some underlying themes had the ability to influence each category, while some overall themes, appeared to influence several enactments, and in some cases all types of enactments and registers at once. An example of this was the importance of animal welfare, which appeared to influence all aspects of the value register in some way, as well as being represented in all three enactments, affecting valuing even after the pig had been slaughtered.

Consequently, three main themes will be discussed in the following section, thus informing on the existing valuing and the future value creation within the industry. Each theme, represents an underlying issue affecting the valuing of the Danish pig, as observed within our research.

Firstly, the theme of increased focus on *efficiency* in the Danish pig production, was identified as the primary approach of many producers within the industry. Efficiency was mentioned countless times, as a tool to secure profits and maintain a leading position as dominant producer. Many informants specified efficiency as an important factor when valuing or devaluing the Danish pig.

Secondly, as a direct response to efficiency, the theme of being the *world leader* proved somewhat ambiguous. Many informants related to this phrase, but increasingly defined it in various ways, as well as disagreeing upon the current status of the claim; *that Denmark is world leaders in producing pigs*. This caused informants to correspondingly assign or subtract value from the Danish pig. The theme of world leadership will be discussed, in order to further inform on the aspirations of the industry and the outsiders.

Finally, the theme of *craftsmanship* echoed throughout all enactments of the pig, and greatly related to the importance of efficiency and world leadership. Overall, craftsmanship entails the overall story of the pig, as well as the concept of care as a central value. How value is created and perceived by all informants, as well as from how the industry is trying to use artisanal craftsmanship in their product development as a means to circumvent other values. Furthermore, it becomes clear that the notion of craftsmanship is not merely confined to the

handling of the products, but increasingly encompasses the whole story, particularly animal welfare issues i.e. the treatment of the live animal. The theme of craftsmanship thereby greatly contributes to the overall story and valuing of the Danish pig.

9.1 Efficiency, value and ethics

The main factor influencing how the value of the pig was enacted and perceived by most of the actors outside of the industry, as well as some within the industry, appeared to be that the industry has simply evolved to be too efficient in their production. Many of our experts expressed that there seems to be a lack of appreciation of the basic ethical considerations, greatly affecting the overall perception of the Danish pig. As described by Tom L. Beauchamp and James Childress, ethics can play a vital part in shaping the views and perceptions of people toward an item or a practice. By introducing the ideal of *commonsense ethics*, it is depicted how to successfully encompass and balance four essential principles namely i.e. *non-maleficence and beneficence, justice* and finally, *respect for autonomy* as means to judge the ethicality of a practice (Beauchamp and Childress, n.d.). These four principles can potentially be applied when evaluating the legitimacy of the current Danish pig production and its apparent dominating focus on creating more value through upscaling, structural consolidation and increasing efficiency.

A main point of pride for many Danish pig producers, has for a long time been their ability to be among the biggest producers of pork in the world despite the small size of the country. The efficiency of the Danish pig production is closely linked to how the producers, L&F, Tulip and Danish Crown perceive themselves as world leaders within their industry. This position has largely been achieved via increased productivity, skilful breeding techniques and an overall focus on increasing efficiency in both the farms and the living animal. Much of the efficiency has been created through extensive breeding as exemplified by the creation of a physically elongated pig with additional ribs and a pig that is increasingly efficient at converting feed into animal protein. As the production innovated the nature of the pig to increase efficiency, so did the overall industry. By innovating and restructuring farming, such as consolidating smaller farms into larger more resource efficient ones, the industry successfully increased production efficiency. According to the industry itself, this has created a resource efficient and sustainable industry, with a lower environmental impact and a higher production rate.

In this field of study, we have identified four groups of ethical subjects with different and sometimes opposite needs, interests and requirements i.e. the consumers represented by the foodservice, the farmers, the industry represented by L&F and Tulip, and finally the pigs

themselves. Simply put, balancing the different needs and opposing interests of the ethical subjects by creating ethical compromises is the main purpose of commonsense ethics. The ethical subjects represent groups or individuals whose needs are required to be taken into consideration by the ethical society, when actions or institutions are infringing on their rights. Herein lies a significant difference between ethical subjects depending on their ability to influence the situation. According to (Beauchamp and Childress, n.d.) a subject with the ability to influence a given situation is considered an ethical agent.

Consequently, the pig must be considered merely an ethical subject as it is influenced by the actions of the industry. However, the pig is not to be considered an ethical agent as it has no agency to affect the overall situation, nor its own.

Opposingly, all the human actors, including farmers and chefs are all defined as ethical subjects *and* agents due to the fact that they have the ability to influence the situation through their actions, as well as being influenced by other agents (Coff, 2016). As an example, the conventional farmers expressed being able to change their practices due to their own convictions, but also expressed a growing awareness of external pressures from consumers to change production methods, in order to produce a desirable product. Likewise, chefs expressed the conflict between balancing their own ethical convictions, with the need for a seducing story *and* need for cost effective solutions, as demanded by restaurant guests.

Overall, when discussing the ethical considerations of different ethical subjects with opposing needs, it becomes essential to consider ethical evaluations in order to create a working compromise. Accommodating the needs of as many of the ethical subjects as possible, creates the need for opposing considerations to be contemplated in order to successfully navigate ethical dilemmas. In order to achieve constructive cooperation, the different ethical values, needs and considerations, must be taken into considered in order to determine which enactment carries the most weight, thus creating a working ethical consensus (Coff, 2016).

Non-maleficence and Beneficence considerations

In the case of the Danish pig, the ethical dilemmas of the industry is impacting how the Danish pig is valued. By considering the commonsense ethical principles of non-maleficence and beneficence, an ethical compromise or co-operation can potentially be achieved

The concept of non-maleficence is based on Peter Singer (2017) utilitarian ethical principle, where actions should strive towards contributing the most possible wellbeing (beneficence) and the least amount of suffering (maleficence). In the case of the Danish pig the actions that needs to be conducted has to not only bring with the largest amount of wellbeing for a single ethical subject but has to take the needs of the subjects into consideration. A current example of a successful collaboration that seems to ensure these properties, is the current collaboration

between Animal Protection Denmark and Friland, where compromises in ethical consideration, have led to a productive collaboration, benefitting all involved, including foodservice, as chefs are more inclined to attach value to the story or organic or free-range pigs.

During our interviews with both chefs and APD, it was regularly pointed out was that the conventional industry seems to be out of touch with what large parts of the Danish society is willing to accept, in terms of production methods. The extensive focus on efficiency within the industry i.e. creating more products and rearing more pigs than can be consumed and sold, constituted circumstances that are considered inappropriate and unethical by many.

“I don't think it is that complicated. The conventional pig has become the image of something that is so far away from the natural way, that we as chefs have a hard time telling ourselves and our guest a compelling story of why we should eat this animal” Christian Bøjlund (Appendix: A3)

“The premise that creating more value for current Danish pig production is a good thing, is not something that we are interested in working with. Dyrenes Beskyttelse generally find the whole existing conventional production inhumane and unnatural, and they (farmers) needs to work really hard, and fast, in order to change their ways.” Ilse Lærke Kristensen (Appendix: A5)

The enactment of the efficiency of the pig production industry in the eyes of foodservice has become an almost purely negative story. The continually focus on increasing productivity and efficiency as the means to overcome any challenges to the industry, is actively causing the Danish pig to be devalued by many chefs. The challenge faced by the industry is that their own efficiency is turning chefs and consumers away from the overall story that is being told. The ethical consideration of non-maleficence is a central principle that we experienced being expressed, although with other words, by the actors outside of the industry. As non-maleficence entails causing no harm to another ethical subject, this principle appeared to cause actors such as the chefs and APD, to actively reject the premise of the conventional Danish pig production, as they viewed the production as a violation of its ethical obligations. Based on the enactment of the pig as more than just a product being produced by the industry, but also as a living cognitive creature with physical and emotional needs, that are not being met by modern production methods.

Historically, it can be interpreted that the increasing efficiency of the industry has had the safekeeping of the industry as its main focus, often at the expense of the wellbeing of the pigs.

Furthermore, chefs believe that this efficiency has also been at the expense of the consumers and chefs, as many are requesting a more diverse set of products, with a better story.

However, the added efficiency is part of an overall strategy undergone by large parts of the Danish pig production. Recently, it has come to represent a part of the larger strategy within Danish agriculture, named "*Finding a better way, the Danish way*". This joint strategy is developed by a coalition of Danish food productions and industries collectively known as *The Danish Food Cluster*.

As a result, it is not only the overall efficiency or output of the Danish agriculture that has increased exponentially, Denmark is also globally renowned for extremely high quality food products as well as food safety systems and traceability. As a result of the efficient production, Denmark is often hailed as the best in the world at producing pigs (Fødevarefortællingen, 2016). The high standard of the production in regard to food safety and security of supply has secured Denmark unique global export agreements including access to the restrictive Chinese market. (Tang Nielsen, 2018).

According to L&F, one of the largest emerging markets for Danish exports are to be found in Asia, where demand for safe - high quality products and stable production facilities, are high, and efficiency deemed very valuable. These new markets somewhat validate the production methods of the industry as the Danish pig is valuable in a different context, in relation to exports. However, at the same time the focus on export requires the industry to be even more productive to meet the increase in demand, as to not lose market shares to rivaling productions.

Furthermore, according to L&F, the access to this market represents a huge economic priority, as the industry as well as people working within it as well as the country of Denmark, benefits through the creation of new jobs and tax revenues. Effectively, the hyper efficiency of the industry composes an ethical dilemma, as one could argue that the increased wellbeing of the industry and the country as a whole, is achieved not by beneficence but at the expense of the overall wellbeing of the conventional pigs, causing Danish consumers to devalue the pig.

According to John Stuart Mill (2004), there is a clear distinction between the different subject's perception of maleficence and wellbeing. Arguably, all ethical subject such as humans and pigs experience the world differently as humans has a higher level of intelligence than pigs, and therefore their wellbeing often ranks higher than that of the pigs. However, this reason of intelligence as a measurement for evaluating priority of basis needs, is by some undermined by a string of recent scientific studies showing the intelligence and emotional range of pigs (Bekoff, 2015 (Greenwood, 2017, ModernFarmer, 2014). The conclusion is not that pigs should be equal to humans. However, according to Peter Singer (2017), it is increasingly important for the ethical subjects not to consider one's own interests as inherently more

important than the needs of others. Singer calls this concept *the equality principle*, meaning that all subjects should not be treated equally since different subjects does not have equal needs. Accordingly, actors are required to see act beneficently and see beyond the selfish own-interest in order to maximise the sum wellbeing or while seeking to minimise the overall maleficence. It is this consideration that the industry according to foodservice experts, has been negligent in considering, thus resulting in an unethical production, and devaluing of the pig. Accordingly, the chef and the APD are responding to what they perceive as a blatant violation of the commonsense ethical considerations for the Danish pig.

Justice

Considering the concept of ethical justice within the pig production industry, it is necessary to look at the broader considerations, not only on what generated the most beneficent output, but also what can be considered just or fair, for all involved. Paradoxically, the efficiency of the pig production is something the farmers and pig production industry has been working hard to develop, spanning many years. The innovations have been created as a result of the consumers demand for cheap products, and higher meat consumption. The efficiency is a result of the massive demand cheap pork, and the industry appears to have simply tried to meet the demand by creating one of the most efficient productions in the world. As part of an ethical evaluation, it is therefore fair to acknowledge that the current system of hyper efficiency, is created as a reaction to decades of consumer demands for cheap product, just as current and future changes will be a response to new demands set by the majority of consumers.

According to John Rawl (2005), justice is a fundamental pillar of society and is reflected in every institution, norm and law, as well as the fact every human has a right to the benefits of the society. This somewhat opposes the utilitarian ethics described by Singer (2017), as the maximisation of wellness is not necessarily the ethical solution where overall justice is a more important goal.

To achieve justice in ethically complex issues, Rawls introduces the abstract concept of *the veil of ignorance* to describe how actors should approach an ethical dilemma. By placing themselves behind a metaphysical veil, the subjects should abstract from considering any of their own needs or concerns and only consider what would be considered most fair (Rawls, 1971). Imagine, in relation to the Danish pig production if both producers and consumers acted as if they stood behind the veil of ignorance. Consequently, the producer would not choose the production solely on the basis of the efficiency and the consumer would not choose their products solely based on price. Although both the consumer and the industry has an interest in choosing the most efficient production method, as it will allow the industry to produce more

and the consumer to pay less for the product. However, the industry also has an interest in achieving the highest products price, and the consumer to get the best quality product and the best possible story. A pure focus on efficiency cannot be considered ethical since it will inevitably result in one of the ethical subjects interest being promoted at the expense of either the wellbeing of the pig, the price or the quality of the product.

Furthermore, an important ethical consideration that needs consideration, is what can be considered fair or just for the producers. As experienced in our research, the debate surrounding the pig producers often take on a maleficent property, where producers are portrayed as evil or deliberately cruel to animals. In reality, many producers have invested large amounts of money into their farms and production systems, based on the demands of the same consumers that are now rejecting their production. Although some could argue that producers could have been more forth sided, the reality is often a bit more complex. Radical changes to the rules and regulations surrounding the production could result in many farmers not being able to continue production, thus suffering financially and personally.

“My parents run the farm. I am a fourth generation farmer. The farm has been in our family since 1906 so just over a 100 years. But who knows, maybe I will be the last one, it's a complicated business to be in today. “ Peter Munk Nielsen (Appendix: A7)

When considering how the industry should change it is important that all actors are represented and in a fair and equal manner. This is especially important due to the fact that the farmers only represent a very small group within the Danish population. Therefore, in order for all actors to be treated justly, including the farmers, one can apply Rawls objective approach to justice. While the producers represent a very small part of the global population, the Danish domestic market represent an even smaller market. The vast majority of the pigs and pork products produced in Denmark are exported, with less than 10% of the products sold and consumed domestically (Statistics 2016 pigment, 2017).

“It's hard to argue why they (the industry) should change their ways, if over 90% goes to export and the buyers outside of Denmark loves it - but maybe this trend will be over, and then what?” Lars Olsen (Appendix: A3)

Since the Danish market only represents a very small share of the overall market, how can it be considered justified that the Danish consumers should be the ones dictating how the production is run, when the implications are global? This is especially true, since Danish produced pork products are considered of exceptional high quality abroad, especially in Asian countries, such China. Creating a production environment in Denmark that would make it too

difficult for farmers to continue production would not necessarily amount to higher overall levels of welfare for the pigs of the world, as the production would simply be moved to place with fewer regulations. If the pig farms move out of the country there will be no means to regulate the industry and insure increased justice in the pig production.

Respect for autonomy

The final ethical consideration is the principle of respecting the autonomy of the ethical subjects involved in the ethical dilemma. According to the philosopher Tom Regan (1985), autonomy is ascribed to a person or creature with the mental capacity to pursue their own interests. These interests of course vary greatly from farmer, consumer and animal (Regan 1985). According to Regan (1985), the interests of the subjects can be divided into two categories. The first being *preferences or wishes* and secondly, *objective requirements or needs*. The subjects need represent universal requirements such as food and sleep, where wishes represent specific preferences for instance to certain foods.

In an commonsense ethical production the autonomy of both the animals, producers and consumers needs to be taken into consideration. The efficiency of the industry can therefore not be allowed to infringe on the natural requirements of the pigs and their autonomy. Since it is obviously not possible for the pig to express wishes or desires as verbal communication, it has to be interpreted by quantifiable evidence such as stress and wounds. One of the most discussed aspects of the pig production is the notion on whether or not tail-docking and castration without anaesthesia should be allowed in production. During our visit to the conventional pig farm, we were told by the farmer Peter Munk Nielsen, that the pigs could not feel any pain when their tail was cut off, and that it was better than having the pigs gnaw on other pig's tails. This is a hard notion to either proof or disproof, however as we observed when visiting the organic farm, where tail docking is not practiced, some of the weaker pigs did have numerous tail bites and cuts. In Denmark as well as the EU the systematic use of tail docking is prohibited. However, many of the farmers we spoke with sees the use of tail docking as better animal welfare, and that the regulations against the practice is infringing on their autonomy to best take care of their animals.

The castration of piglets at a very young age, without any anaesthesia is another major issue that is continually brought up whenever the notion of animal welfare in the pig production is questioned. Castrating the piglets seems like a clear violation of the autonomy of the pigs in both their wishes and their pursuit of avoidance of excessive suffering. However, something that is rarely taken into consideration is the infringement on the autonomy of both the farmers and the consumers, if regulations to make castration illegal were established. It has to be considered that the reason for castrations are even conducted, is due to the certain

percentage of male pigs developing and unpleasant taste and odor within their meat if they are not castrated. A complete stop to castration would effectively make some of the animals produced in the industry inedible and therefore worthless to the farmer and to other actors such as chefs. Using anaesthesia when castrating the piglets or using chemical castration would therefore seem like the ideal solution. However, there are numerous challenges that needs to be taken into consideration prior to requiring these practices to become standard.

Firstly, the issue of the work environment of the farmers as it would require substantial more work, time and money to castrate each pig.

Secondly, the other known alternative is chemical castration. However, this represents a danger for the worker since they risk accidentally injecting themselves if the pig proves difficult to handle, consequently risking chemical castration themselves. Furthermore, one could only assume that for the consumer, the use of chemical castration is also somewhat problematic as it might prove a health risk if detected in food items, actively rendering the option unviable to consumers and farmers. Overall, considering and seeking to respect the autonomy of all the different ethical subjects present in the field, including farmers and the pigs, is therefore a requirement to insure and ethical production.

A commonsense production

One often overlooked issue in regard to the efficiency of the industry, is that the consumers enact the practices as in opposition with commonsense ethics. This apparent lack of ethics in the production is enacted as callousness and absence of decency in the production. The way in which the story is currently communicated, causes both producers, consumers and the pigs to come out as losers' due to the practices in the industry. This somewhat contradicts the overall notion that the Danish pig production industry is a world leader - a story that is continually told by industry actors, such as L&F and Danish Crown. The disconnect between how the industry is perceived by the chefs and consumers outside of the industry vs. how the industry perceives itself creates a sense of distrust towards the industry, thus hurting the overall story.

"People who trust the story (told by the pork industry) are people who are wearing blinkers, and do not care" Rune Lund Sørensen (Appendix: A3)

For the industry to truly be a world leader, they have to adhere to common sensual ethical expectations that the consumers have to the industry. Where increasing the efficiency was a tool that made the industry into a world leader in the first place, it is no longer sufficient to convincingly claim that title, at least not according to all. The industry has to be a sustainable production that does not create losers out of any of the ethical subjects. Arguably, the needs

and requirements of all subjects has to be taken into consideration, and catered for if the industry is to be considered ethical in the eyes of foodservice and the consumers.

“It is not enough that we know that we are the best at this. We need the trust and support of Denmark, otherwise we have no right to exist.” Pig farmer, Nu er det nok, Horsens (Appendix: B6)

Adhering to the expectations of foodservice and thereby many consumers is what can be considered the industry's license to produce. If the industry strays too far away from what the citizens of Denmark are willing to tolerate, they risk jeopardising their symbolic contract with the chefs and consumers, which could result in losing their license to produce. During the workshop in Horsens many farmers were aware of this inherent risk and it was one of the reasons for why many reacted strongly to the cage pig campaign, as they felt it portrayed them unfairly and gave the wrong impression in the eyes of the consumers.

9.2 World leader

One thing that became apparent in the analysis was the notion that all of our groups of informants, in one way or another, somewhat agreed that Denmark should in fact be the world leaders in pig production. The phrase world leaders, or best in the world, is one that has been coined by L&F and the pig industry themselves. When reading articles, listening to newscasts or keeping up with relevant pig related information, the phrase consistently appears, and is often used by L&F to demonstrate the extent of the Danish production, and how it is superior to that of other nations.

According to Fødevarefortællingen (2016), Denmark's is to be considered amongst the absolute elite in regard to food production, including pig production.

As described in the report, although the overall Danish contribution to the collected food production of the world is defined as “despairingly small”, the level of innovation and technological sophistication achieved through decades of development and streamlining, positions Denmark as a food production heavyweight (Fødevarefortællingen, 2016).

The world leader title, might appeal to our national pride, prompting Danes to brag and boast about our sizable industry. Although this might seem obvious to some that we all want to excel at something, the discovery represents somewhat of a significant shift, from the way the different actors are normally perceived, as well as their inability to work collectively.

Throughout all the interviews we did not experience anyone that argued profusely that we should simply give up and disassemble the entire Danish pig industry. Some did suggest a

comprehensive rebooting - a need for going back and re-evaluating efforts or going ctrl.alt.delete, thus restarting the system, to force the evolution towards a more sustainable system.

Importantly however, the different groups did not agree upon what constitutes world leadership, nor did they agree on a singular path in achieving this world leadership. As described by Heasman and Lang (2015), the global food system is undergoing a *war like* transformation, where competing perceptions of what the food supply of tomorrow should encompass. Much like Børsen and Baunerhøj (2016), argues that commonsensual ethical considerations can effectively redirect and shape the future of the Danish industry so does Heasman and Lang (2015), argue that a paradigm shift is evident, and that the methods and understandings of past decades approaches to food production are in need of serious revision. According to Heasman and Lang (2015), the revision is not voluntary, but is rather to be considered eminent. The important question is not - if a change from, what is dubbed the *Productionist paradigm*, is going to occur? - but rather what the paradigm is going to change into?

In the book, two challenging paradigms are outlined. Although different, both offers a contrast to the existing paradigm or system, that has been dominating since the end of the second world war. The productionist paradigm, is described as a mainly efficiency driven approach to agriculture and food production. Within this system, the agricultural and food producing system has evolved from local and small-scale production into an increasingly concentrated and dominating mass production (Heasman and Lang, 2015). This system has been a huge success for some and has its strengths, including producing large amounts of food and utilising resources efficiently. However, the role of the food production system has been rapidly changing and this leaves little room for a system out of touch with the world in which it exists (Heasman and Lang, 2015). Børsen and Baunerhøj (2016), argues that food production must as a core principle ensure the welfare of all ethically represented actors, including the pigs. Additionally, Heasman and Lang (2015), argue that the productionist paradigm fails to produce food according to the basic principles of the modern consumer. Within this paradigm, food production became production-led, prioritising quantity over other priorities, such as animal welfare, ethics and quality, effectively causing this system to no longer serve the public interest (Heasman and Lang, 2015).

The alternatives to the dominating paradigm are referred to as the *life science integrated paradigm* and the *ecologically integrated paradigm*. Both paradigms represent a significant alternative to the current dominating system. According to Heasman and Lang (2015), this paradigm has outplayed its role, as the very methods such as conventional animal husbandry

and high chemical inputs, have disfavoured it in the eyes of many consumers. The life science integrated paradigm appears to be the increasingly preferred paradigm within industry and many agricultural organisations, as it largely represents an adjustment of the current paradigm, and not a far-reaching reformation. It is however, still effectively supporting concentrated agriculture, monocultures and globalised commodity trade. New biotechnology, such as genetically modified crops and other biotechnological solutions are key elements in this paradigm, gaining traction as many within industry and agriculture seek to modify but not reform their production structure (Heasman and Lang, 2015). However, it is argued that while the life science integrated paradigm offers a cutting edge, technologically fuelled revision of agriculture, it is little more than a modernisation of productionist paradigm, meaning that all the issues associated with that system, follows with all the same potentials for damage and collapse.

Consequently, we will concentrate on the underdog of the three paradigms i.e. ecologically integrated paradigm as this to a larger degree represents the sum of our findings.

Our connected data indicates that, while all effectively agreed that Denmark should be world leaders in pig production, the contextual definition of world leadership differed greatly. For some it constituted significant changes to the overall production methods, especially in regard to animal welfare. A fraction argued that keeping the status quo was adequate and worth developing even further. Amongst the majority, the ones that argued for a significant change in production, overall issues such as mass production, an overly efficient production system and inhumane conditions for the pigs, were key elements that required to be addressed if the Danish producers were to convincingly claim the title of world leader.

Within the ecologically integrated paradigm, many of these notions are key elements of a revision of the agricultural system. Just as Børsen and Baunerhøj (2016), argue that the overall sum of welfare is more important than that of an individual, so does the ecologically integrated paradigm assume that the current system, does not generate societal value, but merely favour a few. A ecologically integrated paradigm include an increasingly holistic view of food production, including rethinking production systems that have outlived their usefulness in the eyes of the public, such as the conventional and closed off pig production (Heasman and Lang, 2015).

According to Fødevarerfortællingen (2016), the Danish food system, are divided between those who favour business as usual, but with a focus on optimising production even further, and those who advocate for larger more wide-ranging changes, in order to secure the Danish production.

At first glance, these standpoints represent very different vantage points to the outsider, but it

is important to acknowledge that to the actors deeply involved in production, they actually represent somewhat of a common ground worth exploring further, as the ethical fairness should encompass all parties, including the pigs and the farmers. As described by Fødevarefortællingen (2016), *"It is about balance. It is about change. It is about always searching for better solutions"*

According to Børsen and Baunerhøj (2016), the introduction of commonsense ethics, would allow for opposing views to achieve balance, via negotiated compromises and collaboration, effectively ensuring a win-win for all involved including farmers, consumers and the pigs.

This is further supported by Heasman and Lang (2015), who claim that opposing paradigms can coexist, by enforcing the notion of choice, where consumers are actively involved in creating demand. According to Børsen and Baunerhøj (2016) this must include a choice at a fair price point, as to ensure the fairness towards the consumer as well. In other words, much like the organic movement, the consumers must be presented with an actual choice, at a price that allows for this choice not to be a burden upon the individual, as this would be unethical towards the consumer and the farmer, rendering him unable to sell his product.

9.2.1 World leader multiple

Our interviews and observations indicates, that although the different actors do not appear to see eye to eye, they are not actually working against each other either. It might appear so at first glance, especially to the involved parties themselves, but the collected data suggests that by accepting the multiplicity of the phrase "world leader" it is possible to create a common ground, where actors seek to collaborate rather, than fight each other. The principal obstacle is to accept and navigate the multiplicity of the valuable pig. During our analysis, we sought to illustrate how value differs depending on the enactments, and how value is assigned differently by the actors involved and in multiple ways, depending on the specific context or situation.

According to Mol (2002), multiplicity encompasses different enactments that can interfere with each other, creating a reality where ongoing negotiations can create a deeper understanding. The main objective in this study, thus became to explore the different enactments and to illustrate how the same situation, item or concept could be enacted in different ways. This causes different outcomes and vantage points, but maintains the overall notion that we are referring to the same thing, but in multiple ways. Hence the pig *multiple* or as revealed by analysis; world leader *multiple*.

Consequently, the definition of the valuable pig, does not need to be specifically agreed upon, but merely clarified and demonstrated to ensure that the enactments are non-maleficent (Børsen and Baunerhøj, 2016). As previously mentioned, our analysis operated with three different enactments. Within these categories, five main groups of experts were interviewed

i.e. the pig experts, the foodservice experts, industry experts, innovation experts and outsiders. Inviting outsiders to comment proved extremely relevant as it provided us with valuable perspectives as well as an increasingly holistic overview of multiple enactments, thus challenging the echo chamber effects that we observed early on in the fieldwork.

Shared by all was an inherent, but often unexpressed desire to actually strengthen or improve the pig industry, allowing Denmark to be the world leader, but through different enactments and with different desired outcomes.

Not surprisingly, the pig experts were the most favourable towards the current production. To the farmer, the pig has value when it efficiently fits into the system, requires few resources, the rearing adheres to current laws and regulations and when the finished product, slaughtered or alive is able to generate stable profits in relation to the labour and cost put into rearing the pig. This view corresponds somewhat to the dominating paradigm described by Heasman and Lang (2015), i.e. the productionist paradigm. However, many of the producers expressed that improving the current system, was not simply a task needed to appease critical voices, but part of a natural progression of the entire industry, that has been ongoing for several decades, and would continue in the future.

“So much has changed within the production, we are heaps better at taking care of the pigs today, more efficiently and more sustainable. Comparing the production 50 years, even 20 years ago, to today is like comparing apples to oranges - the only thing they have in common is that they are both fruit” Peter Munk (Appendix: A7)

“We already know what will work, raising our ambitions to above the bare minimum. It is not enough that we know that we are the best at this. We need the trust and support of Denmark, otherwise we have no right to exist” Pig farmer, Nu er det no, Horsens. (Appendix B6)

“Look at how we did things 20 years ago - so many things have changed - in 20 years we will be able to say we improved even more. But! - the consumer needs to see and be included in this vision, it all about the future. We gain nothing by clinging to the past, and we will get no credit for all the improvements we have already made” Pig Farmer, Nu er det nok, Horsens (Appendix: B6)

Within the analysis it became evident that the development and continued improvement of the production facilities were immensely important to the farmers, as it acquaints the production with the needed knowledge and facility needed for world leadership. Our analysis suggests that while the statements of some farmers indicate hesitancy and dismay when debating

improvement on subjects such as animal welfare, the notion of the valuable pig causes them to align their enactments upon further analysis. Some of the most critical opinions in our choir of voices expressed reluctance to even debate further improvements.

“We are already the world leader; does it pay to be that? - no!” “Would a title as world leader, actually yield the recognition that we are looking for?” Pig farmers, Nu er det nok, Horsens (Appendix: B6)

However, when equivocating the expressed value registers for the pig with the concept of world leadership, it quickly becomes clear that the pig is only valuable to the producers if the value registers are reflected in the overall production. Hence, as the system evidently changes due to changes in enactments by consumers, chefs and interest organisations, so does the enactment of the pig within the industry.

Consequently, the shifting of paradigms is slowly causing the pig producers to assign value to the pig, based on other parameters than just efficiency. Change, therefore becomes a question of necessity if the producer is to continue to find value in a pig that fits into the system - a system that is slowly changing. It might seem obvious, but the value enacted by the farmer only holds merit if it is mirrored by the surrounding system, a system made up of multiple negotiations of enactment. In other words, as discussed earlier, if the market (both domestic and export) fails or diminishes, the world leader position becomes challenged, causing the value of the pig to change or to no longer hold significant value.

The farmers might not realise it, but they too are working toward a shared goal: another enactment of world leadership, based on values defined by a new paradigm.

According to industry experts, we are already world leaders in pigs, but we can sediment and ensure this position by constantly developing and bettering ourselves on a wide range of parameters. Our analysis revealed that the Danish pig is enacted somewhat differently in the overall industry, then it is in the production itself. In production, the pig is valuable when it generates a profit and when it can be exported, either as slaughtered or alive.

However, according to our informants, the value registers for the pig within the industry also include a pig that is in high demand, meaning a pig that can be converted into products that consumers request, as well as a pig that is extremely versatile when it comes to product development. Although this does not constitute opposing value registers, it demonstrates the often-subtle variations in value enactment of the pig, as it is enacted in different situations. In order to achieve or maintain world leadership, the pig therefore needs to be in high demand, both domestically and internationally, whilst simultaneously generating profits. In order to achieve this, value must be generated at all levels of production, to ensure a desirable product.

According to the guidelines of commonsensual ethics, this includes a non-maleficent approach to pig production (Børsen and Baunerhøj, 2016). As demonstrated by our analysis, it is the sum of the story that constitutes value, requiring industry and production to essentially work towards a common goal.

“When we tell the story about our pigs, we need to be able to look ourselves in the mirror – the story needs to be good and true and we need to ask ourselves – are we doing the best we can and then admit that we can develop even further” Henrik Billman (Appendix: A4)

“The industry has many advantages with both productivity, effectivity and sustainability... And you have to remember to appreciate what they have done it's really quite amazing. The Danish pig industry is one of the very best in the world, it generates so much money and value, not just for themselves, but to all of us” Søren Gericke (Appendix: A13)

According to Heasman and Lang (2015), the ecologically integrated paradigm, offers a framework with elements that actively ensures joint value creation, whilst allowing industry to remain world leaders, based on parameters of value generated for the majority of society. As described by Fødevarefortællingen (2016), a key parameter for the continued success of the Danish food production, lies in the inherent ability to work together in creating value via multiple actors such as industry, technology and culinary actors. As revealed by our analysis, especially culinary actors i.e. foodservice are interested in a paradigm shift, towards a better story to actively seduce their consumers. In order to create joint value, it is in the interest of production to supply a product that foodservice enacts as valuable.

As part of our project the most obvious opposing viewpoint to the status quo was expressed by Animal Protection Denmark as well as by documents from The Danish Society for Nature Conservation. These NGOs were included as they represent some of the most outspoken consumer groups in the country. Even before securing the interview with APD, the organisation made it very clear that they did not want to contribute to any glorification of the current production methods, just as they generally opposed the idea of producing more pigs in Denmark. Collected data suggests that to APD, a valuable pig is a pig that is able to live a natural life and where the overall sum of welfare is higher than the conventional production offers, such as organic or free-range.

“It would be so interesting and innovative, if Danish agriculture took the front seat in rethinking agriculture. Just like we did with windmills 20-30 years ago” Ilse Lærke Kristensen (Appendix: A5)

“The farmers can do some good things for both climate and welfare, but only within the existing framework of the industry. And that's why the farmers get angry when they hear us talk because they feel like they are doing a good job taking care of his pigs, but the consumer disagree” Birgitte Dam (Appendix: A5)

The APD and DSNC represents a very reformist approach to the Danish pig industry, demanding wide-ranging changes, and an overall restructuring of central parts of the conventional production. As opposed to the farmers, the NGOs find little value in the status quo. In many ways, they seek to transform the current productionist paradigm, by somewhat opposing a possible life science integrated paradigm and increasingly seeking to strengthen the ecologically integrated paradigm. At first glance, this might be construed as opposing the Danish Pig industry. However, the paradigm that the NGOs are actively working to achieve, represents many of the key factors for generating value for the Danish pig production, in the eyes of the foodservice experts. By creating a production that encompasses many of the notions of commonsense ethic, a broader value creation is achievable, benefiting everyone involved.

However, APD must be included in the process, to ensure a holistic approach that is inherently non-maleficent to all, including the individual farmers (Børsen and Baunerhøj, 2016). While past endeavours such as “burgris – nej tak” represents the somewhat opposite of non-maleficent value creation, there is nothing hindering mutual beneficial collaboration and partnership in the future, in an ecologically integrated paradigm.

A collaboration between all actors would also greatly benefit the foodservice segment. As observed within the collected data such as L&F documents and Fødevarerfortællingen, foodservice and food professionals can be instrumental in securing a mutual beneficial enactment of the Danish pig. However, to the chefs, the valuable pig, is a pig that is able to seduce the guest. This entails a product with a seductive and appealing story, a high-quality product and a value framework that does not actively devalue the pig outside of foodservice e.g. in supermarkets.

According to the foodservice experts, the Danish pig industry has the potential to create value on multiple levels, and world leadership is considered a realistic goal, if production accepts the need for improvements and a better story.

“We can sell better quality, better welfare and a better story! - But the story needs to be better and most importantly, true! What we cannot sell is a rebranded product that we and the consumers don't believe in” Lars Olsen (Appendix: A3)

“Danish pork was a world leader because we created a Danish Standard that was much better than others in regard to traceability, food safety and so on. That has worked for Denmark the last 30 years or so. Now we need to create the new Danish Standard based on quality and welfare that will fuel the industry for the next 30” Christian Bøjlund (Appendix: A3)

A key reason for the outfacing of the previously dominating paradigm, is the emergence of a new culture where food policies are dominated, not by agriculture and commodity style production, but by consumption, food manufactures and foodservice (Heasman and Lang, 2015). As consumption and food trends becomes an increasingly dominating factor in food production, foodservice becomes increasingly skilled at meeting demand. However, farmers find themselves struggling to keep up with current trends. A food trend survey conducted by Mikkelsen (2017), and presented at the L&F workshop demonstrates that food trends are constantly evolving and changing. According to Mikkelsen (2017), a general tendency is that of cleaner, more transparent, authentic and trustworthy food. As part of the new paradigm, the food producers in Denmark are constantly appraised and judged in relation to whether or not the consumers trust the production and trust the products. The new reality is that the consumer needs to be attracted to the story of a product, and the inherent values associated with that story (Mikkelsen, 2017).

One notion is that these demands set forth by actors not directly involved in production such as those of chefs and NGOs, could be construed as elitist, as they lack a grasp of the reality within production. According to some of the farmers at “*Nu er det nok*”, part of the problem is that the consumers who are the loudest opponents, are the furthest away from the realities of production. In this statement lies the inherent risk that when the dominating paradigm gives way for another, it will be in a polarised version where the notion of choice only applies to the *food rich* at the expense of the food poor (McMichael, 2001). As has previously been the case with food items, such as organics, the added price premium proved too high of a cost for many consumers, effectively only making organic foods available for high income consumers (Anderson, 2008).

However, Børsen and Baunerhøj (2016), argues that commonsense ethics ensures a mutually beneficial ethical framework as the production is only considered ethical if everybody wins, including the farmer, the pig and the consumer.

Likewise, Heasman and Lang (2015), discusses the possibility of paradigms existing parallel to one another, as it is the case with organics and genetically modified organism production. At “*Nu er det nok!*”, one suggestion debated enthusiastically, was actually that of a parallel pig production, allowing progressive and adaptable producers to set new standard by distancing themselves from other less adaptable pig producers, thus breaking the conformity of the Danish pig producers to focus more on animal welfare and craftsmanship in the production.

9.3 Craftsmanship

Another central theme unearthed by our data collection is the concept of *craftsmanship*, and its importance role in value generation and storytelling. Our data suggest that the current rhetoric's and stories surrounding the Danish pig, indicates the overall valuing of the finished product is exceptionally low. As expressed by many of the interviewees, the low valuing and enactment of the product, reflects poorly on the industry as a whole. One chef described the valuing chain as a negative spiral, where pricing the products cheaply further enforced the notion of low value, subsequently devaluing the product even further, consequently lowering the price even further.

Our interviews showed that an important part of the problem stems from the lack of craftsmanship within the industry.

As described by "Fødevarefortællingen" (2016), craftsmanship is becoming increasingly important element in the overall storytelling, both domestically and internationally. Importantly, our interviewees described craftsmanship as more than just artisanal processing, but rather the sum of the animal's life, and the seductive properties of its story. Craftsmanship, in the case of the pig, encompass the entire value creation chain, from birth to consumption. The notion of the *good animal life*, actively affected the story of the product, long after the animal had been slaughtered, thus increasing or decreasing the value of pork products more than other aspects of production.

As a result, the idea of the artisanal butcher and farmer as *the craftsman*, seemed to be glorified, indicating increased value for the products. Guldrummets failure to seduce chefs and consumers, by simply creating high value pork products, in the same way as Arla Unika cheeses, does not appear to generate significant value. This was made abundantly clear by the fact that "Guldrummet" did not create its artisanal products by using pigs from the conventional production. Instead they sourced free-range small-production animals from the local area to meet the demands from foodservice. The failure underlies the notion that craftsmanship is important, but that the definition of craftsmanship needs to encompass more than efficiency and product development. While the domestic market increasingly rejects these attributes resulting in decreased consumption, the international market continues to respond more favourably to the overall story of food traceability and food safety. The overall story of the Danish pig might be appealing outside of Denmark, but generates negative conjunctions domestically, due to the unappealing story that accompanies the product. Basic aspects of production such as a minimum of corporate social responsibility (CSR), seems to have been somewhat neglected, giving way for a more streamlined and efficient production. While CSR and craftsmanship are directly related, CSR provides an indication of a company's attitude

towards their consumers and their market (Lodsgård and Aagaard, 2017). Danish Crown describes actively working with their CSR goals, for creating more value, welfare and a sustainable production, (DanishCrownAmbA, 2017), and collaborates with the *UN Global Compact and UN Guiding Principles on Business and Human Rights*. However, these actions seem to fail to make an actual impact or even register in the eyes of consumers and foodservice professionals, who describe them as *just words – no action*. Symbolically, at the Danish Crowns official website, the CSR strategy communicated to the consumers and chefs consists of a blank page with a picture of a pork chop (DanishCrown, 2018).

9.3.1 Craftsmanship and care

According to Heuts and Mol (2013), a central part of creating value across different enactments of a food item can be summed up to the concept of *care*, indicating a respectful and sustainable involvement with a food product, encompassing the entire life of the food item i.e. from *seed to plate*, or in relation to the pig, *from rearing to plate*. In our interviews, a similar concept quickly revealed itself. Encompassing many of the same definitions as Mol's (2013) concept of care, the concept of *craftsmanship*, as formulated by our informants, is a level of care and respectful and sustainable involvement with the Danish pig, that indicates that the producers are doing their best.

According to our informants, the Danish pig lacks proper craftsmanship i.e. the handling, rearing, breeding and feeding of the living animal. As explained by Søren Gericke,

"There used to be some hands-on work involved, some care and some skill involved in rearing pigs. Today, it is just an industry, no love. You know, when chefs talk about putting love in their food, that's what they are talking about - the farmers giving a damn!" Søren Gericke (Appendix: A13)

The lack of craftsmanship was expressed by many informants we interviewed. Some called it; *"always taking the easiest way out"*, others called it *"only delivering the bare minimum"*, or *"we haven't done enough to care for the pig's reputation and the associations that people have to the pig"*. Others questioned the overall quality of our production *"It's not the fact that we eat it. It's also the fact that we are the country that produces this bad product."*

The negative story of the Danish pig thereby acts as a negative cursor, shaping the way we identify with it. As elaborated by Franchi (2012), as consumers, we are shaped by our choices and we identify through our food. Consequently, few are interested in identifying with an overall story of poor craftsmanship. In a 2002 study by Lassen (2002), multiple focus group interviews

were carried out, elaborating on the consumers associations towards the Danish pig production and the pig itself. Much like our project, this project indicates a weakening connection from the consumer to the industry, due to the increasingly negatively framing of the industry as a whole. Lassen (2002), describes the need for a new agenda, where hyper efficiency is replaced with a new paradigm and where taste is secondary to animal welfare and sustainability, this was echoed in our informants when they described the lack of craftsmanship, as a consequence of efficiency and a lack of ethical considerations.

While chefs generally indicated that taste and sensory values of the meat were very important, they also stated the overall craftsmanship transcends all other parameters, and adds to the story served for the guests. Likewise, a report from DetØkologiskeRåd (2017), states, that Danish agricultural production in general is at a crossroad, where changes must be made, if production is to continue with the support from consumers. Additionally, a workgroup assembled by the Ministry of Agriculture, recently concluded that there is an inherent need to reassess key elements of the Danish pig industry, including the breeding of animals to counter problems caused by harmful breeding techniques and increased litter sizes (ArbejdsgruppenForAvlAfDyr, 2012).

Consequently, as agricultural paradigms appears to be shifting, so too does the inherent value associated with the story of the Danish pig. This could explain why internationally, the sum of the brand of the Danish pig is still strong, while large parts of the foodservice sector and many consumers are rejecting the story domestically. In a 2014 report, detailing Danish consumers associations towards animal welfare, especially free-range reared pigs, was made clear many consumers demand changes in the overall production conditions (Christensen, 2014).

However, the same report also outlines several challenges involved in drastically improving the animal welfare. According to the report, consumers express a high level of concerns when interviewed, but find it increasingly difficult to adhere to their own demands when presented with the added price of welfare pigs (Christensen, 2014).

Furthermore, many producers express interest in perusing free-range productions, thus improving the notion of their craftsmanship, but find themselves hindered by a lack of demand for high priced pork products. The lack of demand is effectively rendering the animal welfare and general craftsmanship improvements a bad business model. As expressed by many of our interviewed pig producers, *“the risk of simply pricing ourselves out of business, is simply to great”*. There seems to be a tendency in consumer studies where price is a contributing consumption factor, for animal welfare to become secondary, causing some people to be less concerned about animal welfare in practice, however supports it as a concept (Lassen et al., 2006; Korzen and Lassen, 2010; Korzen et al., 2011). For chefs, the situation is different. Food professionals has a tendency to become gatekeepers for the valuing of pork products in

a growing restaurant business. For chefs, the craftsmanship concept is considered increasingly important, as it yields higher quality products and contributes to the sum of the overall story, acting to seduce the consumer. Consequently, the pig regains value when removed from the low quality and everyday context.

A study suggests that food items are often subjected to an *as cheap as possible approach*, and especially within northern Europe, consumers are considered sensitive to price fluctuations, choosing price over quality (Clark et al., 2017). According for Lassen (Lassen), part of the reason for the general enactments of many pig products as a *low value commodity*, is a bad story made less transparent to the consumer by clever branding. The previous branding efforts, with questionable truths are thus infecting all types of production with an inherent scepticism towards the craftsmanship, especially conventional and specialty pigs. Branding and storytelling somewhat clouds the perception of value, whereas total transparency would be using phrases such as; *swine, reared on fully slatted floors* or *castrated for the sake of taste*, could potentially create a greater appreciation for production methods with a higher overall degree of craftsmanship and care. By openly informing consumers of production methods, products with a higher degree of craftsmanship could potentially be more valuable by representing a significant improvement (Lassen, 2002).

The concept of price acts as an ambiguous indicator of craftsmanship and value of a product. A higher price can be construed as a cue for craftsmanship and quality, including a high degree of animal welfare (Thorslund et al., 2016).

By contrast, the chefs described low price, is an indicator of the lack of care and craftsmanship, low sensory value and subpar production method. However, as demonstrated by the multiplicity aspect of the different monetary registers, value can be construed differently depending on the context. Low price can also be seen as a quality in its own right, stressing the value for money concept, and can be associated with an opportunity to provide meat on a limited budget (Thorslund et al., 2016). Even though the chefs vigorously requested increased craftsmanship and quality in the pork product, indicating a willingness to pay a higher price, the low value of pork was also described as advantage when pricing fixed menus.

According to (Latvala et al., 2012) studies demonstrates a minority of consumers are willing to accept a sizable price premium of more than 15% to accommodate the added animal welfare. The price sensitivity, further underlines the need for value creation based on craftsmanship. As described by Lars Olsen of AB Catering: *"If there is no trust or loyalty, you are left with price as a quality and when you are only competing on price - low is the way to go"*

9.3.2 Craftsmanship and the right to produce

In many ways, the contradictions in value creation efficiently frame part of the challenges faced by the Danish pig and the pig producers. A study found that consumer attitudes to the story of the Danish pig production may be more important for pig producers licence to produce rather than for the domestic sales of their products (Krystallis et al., 2009). This is seconded by Boogaard et al. (2011) who describes the inherent risk of Danish producers losing the right to produce, if the general story of the production becomes unpopular with the majority of consumers and foodservice.

The overall concern regarding the social contract, and the right to produce also preoccupied the producers in Horsens. Here many expressed unease in regard to the tendencies of other animal rearing production around Europe, being forced to disassemble the production or face consumer boycotts. Since the campaign reminded them of what happened in Denmark with caged eggs producers, were major retail chains reacted to consumer pressure and discontinued the sale of caged eggs. Retailers are increasingly powerful in facilitating and framing consumer expectations (Latvala et al., 2012).

As described in relation to commonsense ethics, a dismantling of the Danish production would be considered highly unethical, as pig producers would suffer greatly. Ethically, consumers and foodservice need to accept some price premium for the product or government needs to subsidise improved production in order to achieve significant improvements to animal welfare without maleficent consequences to the farmers. According to Lassen (2002), consumers are a key player in keeping the status quo, due to their fixation on food item pricing, while vocally demanding changes in production (Lassen, 2002).

In some ways, the aspect of increased craftsmanship, works as a compromise securing an common sensual ethical solution, allowing for farmers to create improvements based on the notion of care and craftsmanship, while foodservice and consumers accept a price premium.

According to Latvala et al. (2012) value creation within the food sector, is complex. As expressed by the vast majority of our interviewed informants, collaboration and communication is a key aspect to creating long lasting production solutions. Finally, as described by Krystallis et al. (2009) consumers are generally more positive if they experience the production themselves, see the craftsmanship and hear the stories. This indicates that collaboration, open innovation and productions all need to be utilised in order to achieve added craftsmanship and a better story, thus allowing production to continue.

9.3.3 Creating shared value and innovative solutions

The main challenge seems to be navigating the different enactments of what it actually entails to be a world leader - to create or maintain a valuable production. This is where definitions become blurred and sometimes conflicting. The divide or fragmentation between the actors as a result of the different enactments, needs to be handled constructively in order to ensure the collective success of world leadership. This main divide seems to be due to the historic success of the Danish pig industry, that has left the production as an institution increasingly segregated from the rest of the country. Due to the increased the efficiency of the production, it now generates fewer jobs and the pigs are increasingly produced in a manner that many find unethical and untrustworthy. The result is an increasing lack of support for the current industry, but not the underlying goal of the industry. In the article from Harvard business review, Michael E. Porter and Mark Kramer (2011) argues in order for a business to truly succeed it needs to be a force of good within society. This shows that a successful industry is dependent on the goodwill of the citizens. There is an inherent need for creating value not only monetary for the industry itself, but also value for the surrounding society. An added focus on co creating joint value, on multiple registers, results in the industry becoming legitimised in the eyes of society, allowing production to continue and possibly flourish (Porter and Kramer, 2011).

In order to address the increasing perception of the pig as a low quality and low value product, the industry needs to include the different enactments of value from all actors both from within and outside of the industry. The Danish pig industry therefore needs to open up and practice open innovation. Throughout our fieldwork we interviewed several different informants working with value creation through co-creation, simultaneously with our other data collection.

These actors are experts in a wide range of fields some related to food innovation, such as Gyda Bay, CEO of *Food Innovation House* and Rikke Pape, project leader of the new food innovation section of *DTU Skylab*. Other informants, such as Lone Isakson from *Experimentarium* or Jonas Juhl Luttermann COO of *Danfoss Universe*, are not directly involved in working with food, but are experts in the field of value creation through experiences and co creation (Appendix: A9, a11, a10).

As part of our overall holistic approach to the Danish pig production issues, these experts inspired us to explore new and alternative ways to create shared value for the Danish pig, by seeking common ground between the actors that we encountered during our research.

By constructing a space, such as a Danish Lab, either physical or symbolically, where different actors could meet and express concerns, solutions and directions in regard to production, common ground could be achieved via increased understandings and perspectives. Co-

creation and open innovation would allow the industry to explain and rationalise the current practices of the industry, while critics and outsiders would be able to constructively influence changes and provide industry with insights into the differently enacted values. According to Søren Gericke, the idea of some sort of innovative space, such as a Danish Lab, could actively help in creating a common ground, unifying critics and industry in an effort to create better solutions for the future.

“I think it's a good idea to have a place to show off. I believe in such a house, but you need to have everybody in there both chefs and farmers. It has to be a living breathing place. They could use it as a place to develop new products and ideas. The place have to feel and smell alive.” Søren Gericke (Appendix: A13)

As explained by Gericke, a common space needs to be alive, ever changing and open for all in order to ensure true open innovation. Chefs needs to be invited to “play” with products, just as APD should be included to represent their version of world leadership. As expressed by producers at “Nu er det nok!”, *“if we are not comfortable showing the pig - then we have a real problem!”* Increasingly, industry needs to allow criticism to be seen as constructive, and critics must accept that criticism and *must* be constructive in order for real, ethically sound changes to happen. Such a space could aid in bridging the divide, generating added appreciation of the care and craftsmanship inherent in the many parts of industry. An example of a similar concept, DTU Skylab, is where they are working with open innovation and value creation by allowing a space where companies can pitch ideas to students to develop solutions.

“We want to create a place where companies can meet our students and where they will get something out of this collaboration” Rikke Pape (Appendix: A11)

According to Henrik Billman, the idea of open innovation within the Danish pig industry is a valid idea, but it with challenges;

“Open innovation is great for Lego, they have fans, we don't have fans, but maybe we can create something similar... I think everyone agrees: we need to move closer to the consumer, plain and simple” Henrik Billman (Appendix: A4)

An increased focus on meeting the consumer, foodservice and inviting constructive criticism face to face, could create new and improved solutions through open innovation, bringing the industry closer to its goal, of global world leadership.

According to Professor Richard D. Arvey (2009) conducting meetings face to face brings an inherent value, that is hard to replicate. By experiencing something face to face, and creating an association to an actual person, people are invited to engage and observe more actively than by participating from a distance. Humans are social creatures and experiencing something face to face is an effective way to generate a deeper and more complex understanding between otherwise antagonistic groups (Arvey, 2009). Due to the complexity of the Danish pig and the controversies of the industry, there appears to be an increasing need for a common space where different actors can meet and participate in a constructive dialog, actively engaging producers, chefs, consumers and critics in constructive and ethical innovation of the entire industry.

Part 6



10.0 Limitations

Great care has been taken to represent a diverse set of voices, with interviewees from a multitude of backgrounds. In order to demonstrate the inherent multiplicity of the Danish pig, we prioritised a relatively extensive data collection, with many different experts as our informants. Generally, we sought to employ a very practical approach where we wanted to demonstrate the multiplicity based on real life observations and information, from the people actually working with the pig, as opposed to a more theoretical discussion of the pig multiple. It is however possible, that a different strategy, or a different set of voices, would have sung a different song, providing us with different findings, leading to different conclusions.

In addition, our research has focused on many different actors, but not the end consumer directly. As explained in Our journey, existing consumer studies as well as interviews with actors from foodservice, represents the voice of the consumer in the project. Although we are confident that our findings to a large degree represent the consumer, as foodservice professionals are experts in seducing their guests, is considered somewhat a limitation of the study. Consequently, our study is meant to be seen as a point of departure towards a new understanding of the importance of value creation in a more holistic context. Additionally, very specific barriers to value creation on a broad scale, such as technological limitations have not been explored in depth. This allows for an obvious criticism that these ethical and co-creational tools in order to create value, are easier described than performed in real life. Indeed, this paper does seek to navigate a thin line between practical reality, dominated by hands on solutions, with higher level conceptual knowledge that still require translations in order to amount to real life actions. We acknowledge this criticism, and underline that this thesis does not have a set purpose of offering instant steadfast solutions, but rather invites relevant actors to understand and explore the pig in a new context, the pig *multiple*, in order to navigate the future complexities of the industry.

11.0 Conclusion

The creation of this paper was initially motivated by a cooperation with the Danish Food and Agriculture Counsel (L&F), intent on researching and understanding why the value of the Danish pig is declining, with a special focus on foodservice. However, as we conducted our interviews and field trips, it was found that the enactment of value was multiple and complex. As a result, in order to investigate the decline in value, we first had to explore the multiplicity of the pig, in order to adequately understand how the pig was considered valuable within different enactments. During our research we encountered many actors, with differing opinions

and enactments of the value of the Danish pig. The different enactments, represented opposing understandings and experiences of what the pig represents. The focus of the paper therefore evolved from a *why* is the value declining to a *how* is the pig enacted in regard to value and how does different enactments of the Danish pig affect the perception of the Danish pig industry.

Our findings indicate that there is no simple solution, when seeking to determine how value is created for the Danish pig. Overall, we found that the pig is enacted in multiple ways, and our analytical efforts were therefore concentrated on three main enactments i.e. *the animal*, *the product* and *the symbol*. Throughout the thesis we have demonstrated how the pig can be considered the *pig multiple* – having multiple enactments of value depending on the context. By analysing how the pig was perceived within the different value registers, we were able to identify the actor's perceptions of the valuable Danish pig. Each value register in the enactments illustrates the immense complexity of determining what is considered valuable by different actors. More often than not, what is considered valuable for some actors represents a conflict of interest for others, causing an apparent divide in the perceptions of value.

In this study, we observed several different groups of actors. Firstly, actors who opposed the current conventional production methods, such as Animal Protection Denmark (APD), but also the chefs, who found themselves unable to seduce their consumers with conventional pork products. Secondly, within production, we saw conventional producers, many of whom defended the current conditions, at the same time, we also encountered producers with different enactments of the industry, arguing for changes to be implemented. Additionally, different actors enacted the Danish pig in multiple ways, some expressing that changes were imminent, while others favoured the status quo. Third and finally, we saw that L&F effectively represents many of the different enactments, due to their large heterogeneous member base, thus effectively representing actors who were somewhat divided in their enactment of the Danish pig.

Consequently, the different actors are often using the same terminology when describing the industry, regardless of their central viewpoint. However, they are enacting the pig differently, thus creating different meanings - multiple world views.

Interestingly, we found that several enactments and value registers exist simultaneously, without necessarily conflicting with each other, indicating the multiplicity inherent in the pig, is more than simply a matter of disagreeing. As an example, the pig is devalued in the eyes of the chefs when it is presented and treated as a low value everyday product by the industry. However, at the same time the low value of the product can be valuable to the chefs, as it is inexpensive to purchase and include on their menu, satisfying consumer demand for cheap food. Consequently, a main point of this study, is that the pig and the enacted value, is

increasingly complex depending on the context. The phrase pig *multiple*, accurately depicts the differing enactments, however also reveals common ground, well suited for future collaboration.

Appreciating and acknowledging the different enactments of the Danish pig is an important initial step for the industry, as they seek to bridge the apparent divide between the producers and the consumers. By recognising the validity of the enactments of the pig production, by actors *outside* the industry, the pig industry can advance from simply perceiving some actors as adversaries, and instead seek to include them in creating solutions within a collaborative partnership.

As shown, the different enactments may appear contradicting at first glance, however they actually indicate a willingness of all the interviewed actors, to work towards improving the industry, thus generating a more sustainable future. In our discussion, the chefs and Animal Protection Denmark, are considered amongst the toughest opponents of the conventional pork production. However, they actually agree with the industry, that they should in fact be *world leaders* of pig production. However, as with the pig *multiple*, the concept of *world leader* can also be considered multiple, as it is enacted differently depending on the actor and the context. As an example, the chefs request for a higher product quality, with a better story of the pig's life attached to it, that will allow them to serve a product that their customers can relate to. APD on the other hand, exclusively seeks to increase the welfare of the pigs while simultaneously improving and expanding organic and free-range production methods. For the farmers, higher prices for their meat, manageable animal welfare and decent working conditions are increasingly important, while the industry and L&F seeks to expand production and instil pride into the Danes, with the underlying goal of expanding market for pork products.

As explored in the discussion, in order to make a legitimate claim of world leadership, the industry and the producers must navigate the increasingly negative story, associated with the increased efficiency of the Danish pig production. We discovered, that while the industry via the *Danish Standard certification*, traditionally focused on key areas affecting food safety, traceability, as well as animal welfare in primary pig production, these standards are inadequate to seduce the chefs and their consumers. As a result, the status of world leader became a question of enactments, thus exposing certain disagreements amongst actors. In order to meet and navigate the changing demands and expectations of the different actors, we introduced the concept of commonsense ethical considerations, to ensure the fair treatment of all actors. In our fieldwork, we observed, that the pig industry, is in a constant defensive state. Pig producers are increasingly fighting off accusations and rivalling enactments, while outside actors were allowed unlimited metaphorical free punches, without

any responsibility of the outcome. The most prudent example of this is the “cage-pig” campaign. As an outsider, APD was able to completely control the overall narrative, affecting the overall valuing of the Danish pig in an immensely negative context. Whether or not the campaign was factual or exacerbated is somewhat beside the point, as APD themselves agreed that the campaign was to be *taken with a grain of salt*, and simply intended to generate public debate.

Our analysis, found that raging a war on facts, is counterproductive, as it is the overall perception that ultimately affects actor's enactments of the pig. Instead, considering the multiple enactments, and recognising the validity of these enactments, could potentially create a meaningful understanding. However, the industry does not get a free pass on any wrong doing in this somewhat self-inflicted crisis. The fact that the farmers feel like they are being treated unfairly, rings hollow as we found issues within production, that provides some merit to the central claims of the criticism of animal welfare issues. As a result, we found that, the Danish pig industry is increasingly weighed collectively, based on their treatment of the individual pigs. It is therefore imperative for the industry to re-examine many of their handling practices prior to engaging with critics. During our interviews with informants representing the industry, many of them seemed to be aware of this, and urged farmers to expedite welfare generation improvements.

Nevertheless, while there is a growing need for the farmers to re-examine many of their practices, it is also crucial for the actors outside of the sector to appreciate and understand the farmers situation, in order to move towards a collaborative solution. In this light, the divisive tactics of the past, must be just that; a thing of the past. The overshadowing challenge to reach this common consensus appears to be the increased efficiency of the industry, due to decades of focusing on improving the productivity of the sector. This efficiency has been achieved by consolidating farms, increasing output, and lowering production time, resulting in the customers having lost their connection and appreciation to the industry and their products. The efficiency of the industry has resulted in the creation of low price / low quality products, in a quantity the Danish market is unable to absorb. As a result, products are sold at very low prices, which acts as a double-edged sword. The low prices actively devalue the products, in a literal sense, while the widespread perception that pork is a low value product, further devalues it in a symbolic sense. Although the monetary registers of value, also proved multiple, the overall devaluing of the pig and the products, appeared to be mainly a negative development for most actors. Reversing decades of optimisation in an industry, like the Danish pig production, is perhaps not a realistic or even desirable goal. However, appreciating the symbolic and literal impact of the increased efficiency, could be the first step towards

understanding the multiple enactments of the value of the pig. By appreciating the importance of *the good and true story*, and by openly collaborating in order to make improvements, the Danish Pig industry could truly become the world leader. In the current consumer driven Danish market, the characterisation of what it entails to be a world leader, cannot simply be to produce with high efficiency or to be technologically more advanced. The dominating focus of the industry appears to have been to generate value by simply improving the products. While product development is an important part of the overall puzzle, it cannot stand alone. In our analysis, we found that craftsmanship is increasingly complex, and encompasses the entire life of the animal.

As a result, industry must accept that the notion of craftsmanship in relation to the Danish pig, entails the entirety of the farm to fork journey, not just artificial processing. As explained by the chefs, the story of the pigs life needs to be addressed. If industry only seeks to create value for the products through product development, it could be considered attempting to turn something undesirable into something desirable by covering it up; *putting lipstick on a pig!* As long as the pig is increasingly being enacted as a low-quality product that is reared in poor conditions, it will never be considered valuable.

Concludingly, this means that none of the actors can rest on their laurels. The farmers needs to be constantly evolving and improving, as they will receive no credit or praise for past achievements. Industry must strive to create products that encompasses a good story while opponents, must adopt a constructive and collaborative attitude, in order to affect long lasting changes. While farmers and many other actors will be required to do a lot of the heavy lifting, L&F must acknowledge that the burden of creating an improved appreciation of the different enactments, primarily rests with them. According to L&F themselves, they are the only interest organisation that represents the entire food value chain from farm to table. This positions L&F as the ones with the knowledge and overview to facilitate future collaborations in regard to value creation for the Danish pig. According to L&F, one of their most important functions is to adequately represent their members. Our research indicates that in order to uphold the industry's position as world leaders, L&F must facilitate the collaborative creation of a new Danish Standard that embraces the pig *multiple*, in order to best represent the Danish pig in the future, allowing Denmark to remain a true world leader.

12.0 Future research

Within this thesis, an alternative direction for how to perceive value creation within the Danish pig industry has been presented and discussed. Our study deals with the theoretical value creation by analysing the industry in the context of multiplicity. The contextual empiric argument is that the pig *multiple*, carries many different enactments, affecting how value is created and perceived by different actors. Although many observations were carried out, somewhat employing a practical aspect to this study, future research should be carried out as to further elaborate on the practical aspects of value creation. Just as *Notes on fish, ponds and theory*, by Law (2012), outlines a practical theoretical approach to value enactment within a salmon pond, so to could the Danish pig production benefit from an in depth investigation into the practical value creating implications of rearing pigs. Since the actual piggeries have become rather isolated and removed from the public view, a thorough analysis of the inner workings and practices involved in rearing pigs could greatly inform future value creation strategies, as well as enable the industry to reflect upon future improvements.

Likewise, future research could actively engage in further investigating consumer preferences and product development to actively incorporate the notion of the pig *multiple*, into future strategies.

Although many studies have focused on consumer segmentation, product development and food innovation in the past, future multiplicity research could present valuable findings to the overall value creation within the Danish pig industry.

Additionally, research revolving around large scale mediation in emotionally driven discourses about controversial rearing, could potentially aid in creating productive common ground. As part of our discussion, we mentioned there is a need for the different actors to accept a increasingly constructive approach and focus on collaboration in order to achieve long lasting ethical compromises. However, this requires extensive knowledge of internal politics and mediation to achieve actual results. Future studies could favourably investigate how compromises can be achieved practically, in order to inform on initiatives that could facilitate this goal.

Finally, as we firmly believe that co-creation and open innovation could prove vital to the future success of this industry, future research could seek to investigate how to practically accomplish the idea of a Danish Lab, by conducting wide-ranging analysis on the pragmatic barriers for achieving world leadership through the Danish Lab idea.

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