

**WHO'S TO BLAME?
ASSIGNING, TAKING AND SKIRTING RESPONSIBILITY FOR
IMPROVING ANIMAL WELFARE IN A GLOBALISED MARKET**

Lars Esbjerg, Aarhus University, Denmark, lae@asb.dk

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ABSTRACT

Animal welfare is an important ethical issue in relation to food production and consumption. It is an issue, for which business actors increasingly have the responsibility to set and monitor standards. This is the case even though the food industry is often castigated for not doing enough to ensure that animals are treated well. Politicians are nevertheless very reluctant to increase regulatory demands for animal welfare. Thus, an understanding has developed that public regulation in itself cannot deliver the level of animal welfare that is desirable from public and political perspectives. Instead, politicians and authorities increasingly look for 'the market' to drive improvements in animal welfare.

Taking the Danish pork sector as its subject, this paper uses a practise perspective to analyse how animal welfare standards are negotiated and enacted through the materially interwoven activities of business and non-business actors. A central theme is how actors construct and follow rules and standards in relation to animal welfare. In this regard, the analysis discusses how responsibility for improving animal welfare standards is taken, assigned and skirted as ethical considerations regarding the adequacy of current and prospective animal welfare standards are tempered by economic considerations in the practices of some actors. Animal welfare differs in importance to the practices of different actors; to some actors animal welfare is central, while for others animal welfare is but a minor concern. The analysis documents that efforts to improve animal welfare standards are contingent upon collaboration and coordination between several actors within globalised markets.

The paper is based on analysis of documents (e.g., reports, websites, marketing materials and the like), store visits and around 40 semi-structured interviews with different actors in the Danish pork sector (pig producers, processors, retailers and other stakeholders), as well as with importers and other customers on five export markets (Australia, China/Hong Kong, Great Britain, Sweden and the United States).

Keywords: animal welfare, enactment, market practices, standards

Competitive paper

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INTRODUCTION

Animal welfare is an important ethical issue in relation to food production and consumption. It is something that has traditionally been the domain of politicians and authorities to regulate. However, politicians and authorities are becoming very reluctant to raise regulatory demands for animal welfare and instead look to the market when it comes to improving animal welfare, as there is an emerging consensus that animal welfare legislation on its own cannot ensure the levels of animal welfare that are considered appropriate from public and political perspectives (Christensen, Esbjerg et al. 2012).

But what is this 'market' in which politicians vest their hopes of improvements in animal welfare? It is rarely defined explicitly, but rather taken for granted and reflects a neo-classical belief in an abstract perfect market, where anonymous market forces, such as the famous 'invisible hand' (Smith 1776/1970), are assumed to make demand and supply for a good (e.g., animal welfare) meet, thus setting a price that can serve as a signal for the behaviour of buyers and sellers (Marshall 1920).

The neoclassical view of markets has been challenged from a number of different perspectives, including socio-economic approaches, Marxist political economy and cultural economists (Berndt and Boeckler 2009). These approaches agree that markets do not simply exist but are continually being constructed and reconstructed through the concrete activities of different, interlinked actors going about their business (Kjellberg and Helgesson 2007, Berndt and Boeckler 2009). Markets 'only exist in the doing of them' (MacKenzie 2006: 34). In this connection, the ideas and understandings actors have of the market play a central role (Kjellberg and Helgesson 2007). First of all, ideas about the market influence what actors do. Secondly, ideas about the market play a role in relation to how actors construct understandings of the market. Finally, ideas about the market and how it should function are used to evaluate the activities of individual actors and the functioning of the market as a whole. It is through the ideas different actors have of the market and their enactment in concrete practices that a market is constructed (Kjellberg and Helgesson 2007). Ideas about markets are self-realising as they are enacted by 'economists-in-the-wilds' who frame and perform markets by defining standards, monitoring exchange processes, benchmarking goods, calculating prices and so on (Callon 2005, see also Berndt and Boeckler 2009). Ideas about markets are thus performative in the sense that they do things rather than just describe an external reality (Callon 1998, MacKenzie 2006).

This paper builds on these and related ideas to deal with the enactment of animal welfare. It discusses how animal welfare is conceptualised, enacted and contested in interactions between business and non-business actors in the production and marketing of pork. In particular, it focuses on attempts to change the market and how it functions, and especially how responsibility (or blame) is taken, assigned and skirted, as ethical considerations regarding the adequacy of current and prospective animal welfare standards are tempered by other considerations, not least economic, in the practices of various actors. In focusing on how animal welfare is enacted in day-to-day practice, the paper draws on the literatures on practices, not least market practices, standardisation and enactment.

The paper is structured as follows. In the next section, I review the literature on how regulation of animal welfare has changed and the interests that are involved. Then, the theoretical anchoring in practice theory is elaborated. Next, the setting and methodology of the empirical study is discussed before the findings and analysis of the empirical material is presented in some detail. The paper ends with a discussion of the implications of the findings.

FROM LEGISLATION TO PRIVATE STANDARDS

Who is responsible for improving animal welfare? Is it consumers, who have to (finally) act in accordance with their convictions when shopping in their local supermarket and buy welfare meat (rather than the cheaper alternative next to it)? Is it retailers, who should take responsibility for what they are selling and push welfare meat, giving it pride of place in their coolers and raising demands to suppliers? Is it the big meat companies, the slaughterhouses and processors, who should invest in marketing welfare meat and turn it into a real brand? Is it pig farmers, who after all are the people working with animals on a daily basis? Is it authorities and politicians, who should introduce legislation and regulation and force farmers and business to live up to higher animal welfare levels? Is it the media, who should expose transgressions and help inform consumers about animal welfare issues (and not just when there is breaking news or a scandal to cover)? Or is it all of the above and many more?

Legislation has hitherto been the primary instrument used to improve animal welfare. However, as the market for food products has been more globalised, it has become increasingly difficult for politicians and public authorities to regulate food safety and quality practices (Hatanaka, Bain et al. 2005, Tennent and Lockie 2012). Hence, animal welfare is an issue for which business actors increasingly have the responsibility to set and monitor standards. The use of private standards and third-party certification has thus increased over the last 20 years (Henson 2008). This is the case even though the food industry is often castigated for not doing enough to ensure that animals are treated well.

Within the meat industry, private standards are in part a response to consumers becoming more concerned about the safety and quality of fresh meat in the wake of different meat scandals in the 1990s. In order to reassure consumers and meet their demands, the meat sector has developed, implemented and communicated a number of different quality management systems. On the British market alone, there are about 20 different labelling schemes for meat (McEachern and Warnaby 2004). Similarly, an industry-wide quality standard (QS) has been established in Germany and some German retail chains have introduced private brands of pork, which amongst other things meet demands and standards for genetics, feedstuff, rearing and medication that their suppliers must live up to (Esbjerg 2004).

Retailers and other actors, including public authorities, increasingly use third-party certification to ensure that firms live up to a particular private standard for food safety and standard. Third-party certification is often viewed as being independent and effective, as the firm or organisation responsible for the certification (at least on paper) is independent of buyer and seller. Third-party certification can be seen as a governance mechanism that offers retailers (1) the opportunity to differentiate foods on attributes of interest to the retailer (e.g., how foods have been produced, product quality, animal welfare or origin), (2) consistent implementation of a standard regardless of country of origin, while at the same time (3) minimising the transaction costs and economic responsibility of the retailers, as costs and responsibility are transferred to producers and auditors (Hatanaka, Bain et al. 2005).

GLOBAL G.A.P is an example of a private standard in the food industry that is primarily focused on food safety and traceability. The standard was originally developed by British supermarket retailers, but is now used across Europe and even beyond (Tennent and Lockie 2012). The implementation of standards like GLOBAL G.A.P enables retailers to coordinate and control other actors in their supply chains. This can have consequences for the relationships between producers and suppliers, as traceability is often a requirement (Hatanaka, Bain et al. 2005, Tennent and Lockie 2012). The use of private standards such as GLOBAL G.A.P can also be seen as a way for retailers to hedge against network risks, and amongst other things allows retailers to standardise both direct and indirect relationships with suppliers, transfer liability (to suppliers and third-party auditors) and to balance control over suppliers with flexibility to replace suppliers in order to get better deals (Rindt and Mouzas 2013).

While private standards bring many advantages to retailers, other actors sometimes view them in a less positive light. Thus, a study of Australian citrus growers found that these were very concerned that standards such as GLOBAL G.A.P are undermining their rights and flexibility with regard to making decisions about their own land, company and production processes (Tennent and Lockie 2012). In addition, meeting certain standards rarely translates directly into higher prices being paid to farmers, but often impose large administrative burdens related to documentation of meeting requirements (Hubbard, Bourlakis et al. 2007). In principle, meeting private standards is voluntary but for many producers signing up to private standards is a prerequisite for continuing to produce (Hubbard, Bourlakis et al. 2007). In Great Britain most abattoirs and retailers thus have as contractual requirements that farmers are members of a quality assurance scheme such as Assured British Pigs, Genesis Quality or Freedom Food. The latter is the only one with primary emphasis on animal welfare.

Consumers and animal rights activists can also influence norms and guidelines for animal welfare (Elzen, Geels et al. 2011, Uzea, Hobbs et al. 2011), in part through how the former behave when making purchases, and in part through influencing legislation or the practices of particular firms. There are thus examples that retailers and caterers have been pressurised by animal rights organisations to implement higher animal welfare requirements in relation to their suppliers (Uzea, Hobbs et al. 2011).

Finally, farmers of course also play a role in relation to improving animal welfare. Pig producers can have both ethical/moral, economic and legislative reasons for improving animal welfare conditions for their animals (Borgen and Skarstad 2007, Uzea, Hobbs et al. 2011). A study of English pig producers found that especially organic farmers are motivated to do the right things, while conventional producers get involved with standards and implement animal welfare improvements for pragmatic reasons – to be able to continue to sell their pigs (Hubbard, Bourlakis et al. 2007).

WHAT IS A MARKET AND HOW DOES IT WORK?

The shift from regulation to private standards discussed in the preceding section can be seen as a representing a shift in market practices. In this section, I discuss my view on what a market is and how its workings can be analysed.

This study is based on the assumption that firms and other actors on a market always act in interaction with other actors in their environment (Håkansson and Snehota 1989). Through these interactions each actor constructs understandings of their own identity and the market they are operating in (Esbjerg 2011). Previous studies have documented that different firms

construct quite different understandings of their environment and therefore have different approaches to doing business (Finch and Acha 2008), including different interpretations of how they can create value (Corsaro 2011). This influences the activities of actors on the market, and actors can therefore develop different understandings of the market they see them self as being on.

A concrete market is constituted and reconfigured through the concrete activities of numerous actors through their different everyday activities and involves different forms of expertise and market devices (Callon, Méadel et al. 2002, Callon, Millo et al. 2007, Kjellberg and Helgesson 2007). In this connection, it is possible to distinguish between exchange, representational and normalising practices (Kjellberg and Helgesson 2007), as outlined in Table 1.

Table 1 Market practices

	Exchange practices	Representational practices	Normative practices
Definition	The concrete activities related to performing discrete economic transactions.	Activities that contribute to the construction of understandings and models about how the market “looks” and how it “works.”	Activities that contribute to establishing guidelines for how a market should be (re)shaped or work according to some (group of) actor(s).
Examples	Activities linked to specific transactions: - Product specifications - Price negotiations General activities: - Organisation of marketing channels - Advertising - Annual negotiations	Gathering and analysis of sales statistics in order to evaluate the effect of advertising. Customer segmentation based on importance of animal welfare.	Efforts to change markets (e.g., liberalisation). Efforts to specify and enforce general guidelines (e.g., legal requirements for animal welfare). Establishment of voluntary standards (both public and private) of animal welfare.

Source: Based on Kjellberg and Helgesson (2007).

The three types of market practices should not be considered in isolation. They are entangled and linked through chains of translations. Translation is here understood as the basic social process through which something spreads across time and space (Callon 1986, Latour 1987). Translation involves intermediaries such as rules, tools, measures and measurements (Callon and Muniesa 2005), and is an ongoing, continuous process. The market is thus shaped and continually evolves in the day-to-day interactions between actors (Kjellberg and Helgesson 2006).

Markets can be conceptualised as ‘calculative collective devices’ that enable calculative agencies to reach compromises on the nature of goods to be produced and distributed and the value given to them (Callon and Muniesa 2005). Calculation should be understood broadly and does not necessarily involve performing mathematical or even numerical operations (Lave 1988, Callon and Muniesa 2005, Cochoy 2008):

“Calculation starts by establishing distinctions between things or states of the world, and by imagining and estimating courses of action associated with those things or with those states as well as with their consequences” (Callon and Muniesa 2005: 1231).

Practitioners frame and perform markets by defining standards, monitoring exchange processes, benchmarking goods, calculating costs and prices etc. (Callon 2005). The forms of agency are multiple and diverse and in addition to human beings comprise material and technical devices, texts, algorithms, etc. (Callon 2005). Action takes place in these hybrid collectives, or *agencements*¹, and is a collective property that naturally overflows and has to be framed, if it is to be attributed to a particular agency (Callon 2005). Three framings are decisive in this connection (Callon 1998, Callon 2007): the transformation of goods into commodities, the formatting of agencies capable of operations of valuations and the organisation of encounters between goods and agencies (see also (Berndt and Boeckler 2009):

“The existence of a market implies the circulation of merchandise, that is, the existence of goods transformed into things that can be passed from hand to hand. This circulation is simultaneously a process of production and qualification that transforms products and in so doing qualifies them in such a way that they are attached to users by entering their world and becoming parts of it” (Callon 2005: 5).

Market circulation also implies that this attachment induces a transaction, upon completion of which the agencies involved are quits. Callon discusses this in terms of entanglement and disentanglement (Callon 2005). As we will see in this paper, the development, implementation and monitoring of animal welfare standards mobilises a large number of actors and implies collective work. In the attempted qualification and singularisation of products, the actors involved – e.g., pig producers, slaughterhouses, retailers, auditors, animal welfare organisation, etc. – weave a web of entanglements between them (Callon, Méadel et al. 2002). As entanglements proliferate, the disentanglement of goods becomes increasingly problematic and difficult to obtain (Callon 2005). However, disentanglement from producers, former users or prior contexts is necessary for market transactions to take place (Thomas 1991, Callon 2005).

For a transaction to take place, all elements that are not to be taken into account have to be excluded from the market frame, at least for the time being. Framing involves selecting certain elements, severing links and finally making some trajectories irreversible, at least temporarily (Callon 2007). Market framing is a powerful mechanism of exclusion, as when some products are defined as welfare meat, but others are not. What is constituted as welfare meat thus depends on the framing, including the dimensions and thresholds used in the qualification of pork and pork production.

Framing is a delicate process that is neither complete nor perfect and that easily gets out of control. To capture this, Callon argues that framings are sources of overflowing (Callon 1998). Overflowings of goods and the activities related to them ‘occur when goods act unpredictably, transgressing the frameworks set for them and the passivity imposed on them’ (Callon 2007: 144). Economic agents can also overflow, resulting in ‘the creation of new identities, concerns and forms of action’ (Callon 2007: 145). Overflowings, whether of goods or agents, can have both positive and negative consequences or connotations. They trigger the

¹ Michel Callon uses the French word *agencement*, rather than arrangement, ‘to stress the fact that agencies and arrangements are not separate. *Agencements* designate socio-technical arrangements when they are considered from the point of view of their capacity to act and to give meaning to action’ Callon, M. (2005). “Why virtualism paves the way to political impotence: A reply to Daniel Miller's critique of The Laws of the Markets.” *Economic Sociology: European Electronic Newsletter* 6(2)..

formulation of new questions or problems (also referred to as matters of concern (Callon 2007), which can stimulate the creation of collectives or groups. In the case of pork, examples of issues that are sometimes excluded from consideration, but trigger the formulation of new matters of concerns include the effects of meat consumptions on climate change, pollution resulting from animal husbandry or animal welfare. Any framing can be challenged and is thus temporary.

RESEARCH SETTING AND METHODOLOGY

The theoretical starting points for this study were outlined in the previous section. This section will briefly describe the research setting, the sources of data and how these were analysed and interpreted using this theoretical perspective.

RESEARCH SETTING: THE DANISH PORK SECTOR

The setting of our study is the Danish pork sector. Around 20 million pigs and sows are slaughtered in Denmark annually, while roughly 9 million piglets are exported for rearing and slaughtering in other countries. The sector is very export-oriented: approximately 90% of the pork produced in Denmark is exported. In 2012, exports of pig products (bacon, cuts, edible by-products, live pigs and sows, etc.) accounted for 21.8% of food exports and 5.3% of total Danish exports (Agriculture & Food, 2013).

Of the 29 million pigs produced in Denmark, around 6% are different specialty productions: UK pigs (around 1 million), organic pigs (100,000), free range (100,000), Antonius (200,000) around 15 other special productions for domestic and export customers (200-300,000). Conventional pigs thus account for around 94% of the Danish pig production.

Animal welfare is a recurring theme in relation to increasingly concentrated and the highly industrialised production of pigs in Denmark. About 90% of pigs are slaughtered by either Danish Crown (80%) or Tican (10%), which are both farmer-owned co-operatives. The remaining 10% are slaughtered by private slaughterhouses.

As of 1 January 2013, it is a requirement across the European Union that all pregnant sows and gilts have to be kept in 'loose systems' during gestation, which account for about 60% of their production cycle. In 2013, Danish parliament furthermore passed a motion stipulating that sows should be kept in loose systems during the service phase (mating or insemination), where they spend around 20% of their production cycle. All new units built from 2015 have to meet this requirement, and it is expected this it will be fully implemented in 2035.

In conventional pig production, sows are currently almost always fixated when they farrow and suckle (which accounts for the last 20% of their production cycle). Most stakeholders agree that this is not optimal from an animal welfare perspective. Alternative production systems where sows are loose when they farrow and suckle exist, but often involve substantial extra costs for farmers.

At a recent "summit" between the Danish Minister for Food and representatives of Danish agriculture, slaughterhouses, animal welfare organisations, consumer organisations, veterinarians and retailing, it was agreed to work towards the following objectives: to reduce piglet mortality, 10% of sows being held in loose systems during farrowing from 2020, a stop for castration of male piglets, reducing the number of tail dockings, reducing the prevalence of ulcers among sows and pigs and to give consumers more information about animal welfare and the ability to choose products with better animal welfare (Minister for Food, 2014).

SOURCES OF EMPIRICAL DATA

In order to develop an understanding of how animal welfare is enacted in particular practices and how responsibility for animal welfare is taken, assigned and skirted, we have conducted semi-structured interviews with actors along the value chain. Interviews were conducted with a variety of actors in the Danish pork sector and with importers and other customers on five export markets (Australia, China/Hong Kong, Great Britain, Sweden and the United States). In addition, we collected relevant documentary materials about animal welfare practices in the countries studied and conducted store visits in Denmark, China/Hong Kong and Great Britain.

Regarding the Danish market, interviews were conducted with three primary producers (a conventional pig producer, a free-range pig producer and an organic pig producers), a sales manager from each of the two big Danish slaughterhouse co-operatives (Danish Crown and TiCan), a project manager from Friland Foods (a subsidiary of Danish Crow marketing organic and free range meat) and the corporate communications manager of Tulip (a large meat processor and subsidiary of Danish Crown). Furthermore, interviews were conducted with three retailers: a soft discount chain, a mid-market supermarket chain and an upmarket supermarket chain. For each retailer, interviews were conducted with the relevant category manager/retail buyer at the corporate level, a store manager and the store-level butcher/category manager. Finally, we interviewed representatives of three stakeholder organisations working with animal welfare in different ways: the communication manager and the project manager responsible for pigs of Dyrenes Beskyttelse (the largest Danish animal rights organisation), the area manager for Food, Veterinary and Research Policy of the Danish Agriculture and Food Council (an organisation representing Danish farmers and the Danish food industry) and the area manager for housing and environment of the Pig Research Centre (the organisation in charge of research and development tasks related to live pigs and of communicating knowledge obtained through these activities to practitioners). In total 20 informants were interviewed regarding the Danish market during the fall of 2012 and winter and spring 2013.

We chose to study market practices in Australia, China/Hong Kong, Great Britain, Sweden and the United States because all five countries are important export markets for Danish pork. Furthermore, discussions with Danish practitioners suggested that animal welfare differed in importance across the different countries. Animal welfare was expected to be most important in Great Britain and Sweden, somewhat important in Australia, less important in the United States and least important in China/Hong Kong.

Interviews regarding export markets were conducted in the summer and fall of 2013. Regarding China/Hong Kong, interviews were conducted with the relevant export managers of Danish Crown and TiCan. In Hong Kong, two local employees of Ess-Food (a subsidiary of Danish Crown) were interviewed, while the retail buyer responsible for pork of a foreign-owned supermarket chain and senior managers of online retailer, a wholesale and a food service company were interviewed in Guangzhou. In addition, the local representative in China of the Danish Agriculture and Food council was interviewed.

Interviews regarding the British market were conducted with the export manager for Danish Crown, the supply chain manager of a British meat processing company and the operations manager of another processing company. We were unable to get a British retailer to talk to us, but the operations manager we interviewed had considerable experience working in British retailing. Regarding Sweden, interviews were conducted with a senior quality manager of a large retail chain, a project manager of another retailer, the quality manager of a Swedish meat company and the export manager of Danish Crown. With regard to the

American market, we interviewed the relevant export manager of Danish Crown, an area sales manager of Plumrose (an American subsidiary of Danish Crown) and the chief operating officer of an American meat processor. With regard to Australia, we were only able to interview the export managers of Danish Crown and TiCan, as all other potential informants we approached proved immune to our overtures. In total, 20 informants were interviewed regarding export markets.

In the selection of informants, we strove to cover to the entire value chain from farm to retail store. We used snowballing to identify potential informants. Our informants are not necessarily representative, but they represent different perspectives on animal welfare. Interviews in Denmark and China/Hong Kong were conducted in person, while interviews regarding other export markets were mainly conducted via phone, although interviews with most export managers were conducted in person.

DATA ANALYSIS AND INTERPRETATION

All interviews were recorded and transcribed verbatim. The interviews were analysed by coding and categorising of central themes. Some of these themes originated from the concepts and theories used in this study, and some were identified inductively.

ENACTING ANIMAL WELFARE

To enact animal welfare is to enact norms and standards. Norms and standards for animal welfare differ between countries, but also within countries, as different actors advocate different ideas about what constitutes good and bad animal welfare. In this section, I will first discuss animal welfare in a Danish context, but it will soon become clear that viewing the Danish market in isolation is fraught with difficulties because of the international nature of the pork industry. Something that different Danish actors, not least farmers and slaughterhouses, take this into account in various ways when they talk about the challenges in relation to improving animal welfare for Danish sows and pigs.

ANIMAL WELFARE IN THE LOCAL MARKET CONTEXT

Animal welfare is something that only a small minority of Danish consumers is interested in and willing to pay a (small) premium for. The vast majority of consumers do not pay attention to animal welfare when buying pork – they are looking for low-priced, tasty and lean pork. This distinction, or customer segmentation, is made by several different informants make when talking about Danish consumers.

Because animal welfare is important for only a small minority of consumers, it is subordinated to other concerns in the day-to-day practices of most Danish actors (for a thorough discussion of Danish market practices in relation to animal welfare, see Esbjerg, Pedersen et al. 2014). Welfare meat is thus constituted as a niche for the Danish pork sector. Most of the pork that is produced and sold is conventional; speciality productions with a greater focus on animal welfare, such as organic or free-range pork, account for only a small share of the market.

Organic and free-range pork is widely recognised as being best in terms of animal welfare, but there are also a number of intermediate products on the market. These products are much cheaper than organic and free-range products and are supposed to meet higher standards for animal welfare than conventional pork, although some actors contest this claim.

The introduction of the new rules requiring that sows be housed in loose systems during gestation has eroded a large part of the differences between standard/conventional production and specialty productions with regard to animal welfare. This has triggered efforts by some actors to change the standards according to which these intermediate products are produced and thereby to re-establish a difference between conventional products and intermediate products. For example, a retailer has entered into discussion with its supplier, Danish Crown, about how to re-establish a difference in animal welfare between different productions. However, this retailer has found it difficult to move forwards, as its demands and wishes are weighed against other concerns by the supplier.

Not all are happy with these intermediate products. Not least Dyrenes Beskyttelse, the largest Danish society for the protection of animals, is highly critical and wants significant changes in overall level of animal welfare, rather than intermediate products that in its view do not make a real difference to the animals.

Perhaps paradoxically, improvements in general levels of animal welfare can be problematic for actors that want to use animal welfare to differentiate themselves from their competitors. One informant thus argued that you cannot use meeting general requirements to position your offerings or in your marketing efforts. If general levels of animal welfare increase, animal welfare thus becomes uninteresting from a marketing perspective, this informant said.

Some observers argue that the niche status of welfare meat is rooted in limited supply of organic, free-range and other types of welfare pork, others argue that supply simply mirrors demand – if only consumers would demand welfare meat, the pork sector would be happy to oblige and produce more welfare meat. However, and this is an important caveat, consumers would have to be willing to pay a premium that would enable farmers to recoup the extra costs that improving animal welfare is argued to entail. Actors in the pork sector thus assign considerable responsibility to consumers – they have to demand higher levels of animal welfare and be willing to pay extra for it. On the other hand, one informant claimed that there is already unmet demand, as it is difficult to meet the demand for free-range pork with the current production levels.

Dyrenes Beskyttelse argues that there is a growing interest in animal welfare amongst Danish consumers. The organisation suggests that if they are to demand welfare pork to a greater extent, Danish consumers need to be better informed about animal welfare. On the other hand, other informants suggest that consumers already have so much information at their disposal that they have difficulty making sense of it.

Several informants argue that if pork is to be sold as welfare meat, the difference in animal welfare compared to conventional pork has to be significant enough as to be communicable and they have to make a 'real' difference to the sows and pigs.

On the domestic market, exchange practices between pork suppliers and retailers are characterised by frequent interactions and quite complex relationships with contacts between people on different organisational levels. Relationships are described in positive terms, even though differences in interests are acknowledged. According to Danish Crown, retail chains want to offer their customers something unique. Danish Crown has therefore developed a number of special productions. In most cases, these special productions are sold exclusively by specific retail chains. Danish Crown is in continuous discussions with the respective chains about the demands that these productions have to meet. This can involve demands for how much space each animal has, feeds and weight at slaughter. For all special productions, animal welfare is higher than for conventional pork, but how much higher differs.

One informant describes Danish Crown as being lethargic because it has such a dominant position on the Danish market. It is described as a large, bureaucratic organisation that finds it difficult to, or is even unwilling to, change its practices and cope with the hassles involved in serving small niches, such as the minority of Danish consumers that are viewed as willing to pay extra for higher levels of animal welfare.

“There is no doubt that the bigger a position you have on the market, the more complacent you become.”

“Danish Crown are very big, and they are very, very focused on being big.”

On the other hand, retail buyers emphasise the frequent interaction and the good, long-term relationships they have with their Danish pork suppliers. The category manager for one retail chain described co-operation with Danish Crown in the following manner:

“I regularly sit down with people from Danish Crown and exchange ideas. We talk about what we can do differently, e.g., by giving the pigs a certain feed. [...] Factory managers of the different slaughterhouses think in terms of logistics, rational production and efficiency. The people that I do business with are thinking in terms of sales. They then have to go back to the factories and make things happen. Some things can be done, other things not. [...] We have a very, very close relationship with Danish Crown. We recognise each other’s mission in this world. It all revolves around ‘what we can do’ in order for both us to run a better business.”

The big retailers are described by several informants as skilled negotiators that are only interested in making money, also when it comes to animal welfare. This view is illustrated in the following quotes:

“The Danish market is dominated by three big retail actors that are ruthless in their trading approach, and that do not emphasise animal welfare in their general policies. It’s all about price. But they also sell specialty products that focus on animal welfare in some way.”

“Those big corporations on the retail market dominate many issue. They are not always governed by the same concerns they would be, if they asked their customers about what was important to them. They are driven by what’s good for them [the retailer], and they influence what the customers think more than the other way round.”

“The retailers are hard-nosed negotiators, also when it comes to animal welfare. So there is a requirement to justify the added value of animal welfare.”

The sales manager of one of the slaughterhouses opined that it is difficult to talk long-term initiatives with big retailers because retail buyers are evaluated on their ability to buy cheaply. On the other hand, it is recognised that some small retail chains view animal welfare as an issue that they can use to differentiate themselves from larger competitors.

Both in terms of animal welfare requirements and more generally, Danish Crown work closely with Dyrenes Beskyttelse to develop their products from organic and free-range pigs. My informants from the pork sector view Dyrenes Beskyttelse as having high credibility and substantial knowledge about animal welfare. Dyrenes Beskyttelse regularly monitors that pig producers meet the animal welfare standards developed in collaboration between it and the industry. However, other informants argue that Dyrenes Beskyttelse sometimes make it difficult to move forward because they make too big demands. Not surprisingly, Dyrenes Beskyttelse reject this criticism. On their homepage Dyrenes Beskyttelse argue that the marketing for some of the products sold as welfare is misleading, as animal welfare is only marginally better than for the conventional production

Table 2 Comparison of the importance of animal welfare and market practices between markets

	The importance of animal welfare	Exchange practices	Representational practices	Normalising practices
Denmark	Animal welfare is a (very) small niche	Close relationships, frequent contacts; price and quality paramount	Ongoing discussions; sales figures; hunches; formal market research	Combination of private standards and public regulation
Australia	Animal welfare is slowly becoming more important	UK standards influencing retailer demands	<i>No information</i>	Coles imitating UK, Woolworths sitting on the fence waiting
China/Hong Kong	Animal welfare is not important yet, food safety is	Price, quality and food safety important; very close business relationships	No reliable statistics; customer visits, informal discussions and customer visits	Public regulation of food safety; some private animal welfare standards
Great Britain	Local, happy and British free range pigs are the ideal	Retailers are dominant; animal welfare and local foods important (esp. private brand)	Discussions with retail customers	Private standards (both retailer- and producer-led); opinion leaders (TV chefs); media
Sweden	Animal welfare is a given; authorities have set high standards, resulting in lower local production	Locally produced and animal welfare is important; discounters are growing	Comparisons with Denmark, UK	Public regulation; media important; cooperation with farmers
United States	Beware of the media; importance of animal welfare is growing	Caterers are so far more proactive than retailers	<i>No information</i>	Media have a disciplining influence

Table 3 Comparison of animal welfare of different production systems

	Conventional pig	Organic pig	Free range pig	Antonius	Den Go'e Gris
Do they have outdoor access?	No	Yes	Yes	No	No
Are sows with piglets fixated (locked in boxes that do not even allow sows to turn around)?	Yes	No	No	Yes	Yes
Are piglets routinely tail docked?	Yes	No, only with special dispensation in cases of documented case of tail biting	No, only with special dispensation in cases of documented case of tail biting	No, only with special dispensation in cases of documented case of tail biting	No, only with special dispensation in cases of documented case of tail biting
When are piglets removed from their mother?	Not before 21 days	Not before 49 days	Not before 30 days	Not before 28 days	Not before 28 days
Do slaughterpigs have straw to root in?	In 2 out of 3 conventional farms, pigs are NOT given straw to root in. Here rooting materials are typically a wooden block or similar.	Yes, pigs are given sufficient amounts of straw.	Yes, pigs are given sufficient amounts of straw.	Yes	Yes
How much space must a slaughterpig weighing 100kg have as a minimum?	0.65 m ²	2.30 m ²	1.20 m ²	0,85 m ²	0.85 m ²
How long is transport to slaughterhouses?	Maximum 8 hours. In special vehicles unlimited but with 24 hours rest for every 24 hours of transport.	Transport times must be kept at a minimum	Maximum 8 hours. There are requirements for, amongst other things, air suspension and isolating/noise reducing/non-slip floors.	Maximum 8 hours	Maximum 8 hours
Is the use of electric prods used to drive pigs allowed?	Yes – but not for pigs slaughtered by Danish Crown	No	No	No	No
What control are pig producers subject to?	The Veterinary and Food Administration annually randomly visit about 5% of producers. In addition almost all producers are controlled every 3 years through the industry's own standard DANISH. These controls are performed by Baltic Control.	In addition to The Veterinary and Food Administration's random visits, organic producers are controlled at least once a year by Dyrenes Beskyttelse and/or the Plant Directorate.	In addition to The Veterinary and Food Administration's random visits, free range producers are controlled at least once a year by Dyrenes Beskyttelse.	In addition to The Veterinary and Food Administration's random visits, Antonius producers are controlled at least once a year by Baltic Control	In addition to The Veterinary and Food Administration's random visits, Den Go'e Gris producers are controlled at least once a year by Baltic Control
Who sell the meat?	Most supermarkets and butchers	Supermarkets and butchers	SuperBest, Irma, Kvickly, SuperBrugsen, Føtex, Rema1000 and more	Dansk Supermarked, Føtex and Bilka	Rema1000
What does Dyrenes Beskyttelse think?	The welfare of conventional pigs is simply not good enough. Space in stalls is limited, all pigs are tail docked, most pigs don't get straw to root in, sows are fixated for long periods, and the animals are given too many antibiotics.	Organic pork has the best animal welfare. Organic pigs win by having the most space, and that piglets are weaned very late.	Free-range pigs have really good animal welfare. There is neither fixation or routine tail docking, sows farrow in huts on fields and pigs can always get inside.	Antonius [and] Den Go'e Gris [...] are all produced by Danish Crown and are almost identical. [...] The pigs have a little more space than conventional pigs and are not routinely tail docked, but farrowing and suckling sows are fixated just as in the conventional production. All in all, these products are better than conventional pork but not to a significant extent.	

Source: Extract from *Dyrenes Beskyttelse (2012)*, own translation.

The large actors on the market – both slaughterhouses and retail chains – are constructed as not being interested in increasing animal welfare standards. The big actors in the pork industry are happy with the current level of animal welfare, as it meets the demands they face on world markets. Unilateral Danish improvements in animal welfare are argued to risk impeding competitiveness of the Danish industry, as this is assumed to increase costs. Producers base claims of legitimacy of current animal welfare levels through reference to national and EU legislation.

FROM THE LOCAL TO THE GLOBAL

When discussing opportunities for improving animal welfare, it is remarkable that many of our Danish informants explicitly make a link between the Danish market and the global nature of the Danish pork industry. There is widespread recognition of the economic importance of the pork sector and that improvements in animal welfare for Danish sows and pigs have to be made without undermining the international competitiveness of the sector.

The life of Danish pig producers, slaughterhouses and meat processors is complicated by the fact that export markets differ substantially in terms of the importance that animal welfare plays (see Table 2 for an overview). On some markets, animal welfare plays an important role in the practices of retailers and other actors. This is, for instance, the case in Great Britain and Sweden. Animal welfare has traditionally been important on both markets, meaning that welfare requirements here are higher than on most other markets. In both markets there is a preference for locally produced products, as national standards are viewed as being higher in terms than in other countries. In both countries, large retailers have played a prominent role in increasing animal welfare standards. On other markets, such as Hong Kong and China, animal welfare is less important, and might even be a liability as buyers might think of high animal welfare levels as just adding costs and increasing prices. In Hong Kong and especially China, food safety is viewed as a much more important issue following a number of scandals. Finally, markets such as the United States and Australia are somewhere in between in terms of the importance of animal welfare. On both our informants suggest that animal welfare is becoming more important. In the United States this development is driven by large food service companies that want to avoid negative attention from the media, while the retail chain Coles is seen as driving developments in Australia following the appointment of senior managers with experience from Tesco.

For a more elaborate discussion of the role that animal welfare plays for market practices on the five export markets studied, please see Esbjerg and Pedersen (2014).

Some of these “markets” are more important than others in terms of how much Danish pork they buy and at what price, but it nevertheless poses a serious challenge for Danish pig producers and slaughterhouses, as they have to take into account that customers in different countries have different demands for animal welfare.

Different cuts of pork are sold on different markets (countries) with different demands. Only some cuts can command a price premium for animal welfare and only on some markets. Other cuts or parts of the pig are sold on other markets at world-market prices.

Some actors use the global nature of the Danish pork industry to argue against unilateral initiatives to improve animal welfare of sows and pigs, as this might impede the international competitiveness of the Danish industry. They are satisfied that Danish producers live up to Danish legislation (which is heavily influenced by EU membership). Others actors suggest that animal welfare can be used to differentiate the Danish industry, even if this means that overall production has to shrink.

FRAMING ANIMAL WELFARE

How to reconcile these different expectations regarding animal welfare? One way, in which the Danish pork industry has taken into account differences between markets, is to produce some pigs according to the demands of particular countries. The “UK pig” introduced in the 1990s in response to increasing demands for animal welfare from UK retailers is an example of the Danish pork industry responding to differences in market demands. Similarly, the DANISH production standard is a response to the German QS standard introduced in the aftermath of the BSE crisis and various meat scandals in Germany. The DANISH standard is intended to signal that Danish pork lives up to the same standards as German pork, thereby gaining legitimacy and meeting expectations of customers (Rindova and Fombrun 1999). The DANISH production standard ensures that products are of consistent quality. The standard evolves in line with the German QS standard and is considered a prerequisite for exporting to Germany. Baltic Control, an independent third-party auditor, monitors pig producers’ compliance with the DANISH standard.

The typical manner in which industry and other actors try to deal with animal welfare is thus through standards. Through the various standards certain qualities become associated with particular goods and vice versa, and goods are converted into commodities that can be exchanged across time and space. Standards thus play a central role in relation to animal welfare. Pork is qualified as welfare meat by living up to certain standards. What these standards are or should be is contested by farmers having to protect their investments in stables and fixtures, by animal welfare organisations driven by ideals about the good pig life, by retailers, who wish to be able to source products globally, but at the same time seek legitimacy by selling local or regional pork (Esbjerg 2004), as well as other actors.

Animal welfare is a rather vague and contested concept. Different actors disagree about what constitutes good animal welfare, how it should be regulated and monitored and who is responsible for ensuring that it is good enough. Different actors operationalize it differently and use different dimensions to describe it. Animal welfare is thus objectified and singularised in different ways (Callon, Méadel et al. 2002).

Standards are socio-technical devices and procedures that organise encounters between goods and agencies. Standards are negotiated over time in discussions between different actors and are enacted in daily practice and monitored in various ways, by actors themselves who change their practices in order to live up to requirements and typically by third-party auditors making a living from private standards. Often enacting and complying with a standard also involves investing in material devices. This is definitely true for animal welfare, as new animal welfare standards will often require substantial remodelling of existing pits and fixtures or the construction of new facilities.

Standards and regulations are sometimes set a national and pan-national level, with EU regulation being particularly important. But other actors also have standards, rules and norms that have to be observed. This includes, but is not limited to, retailers, caterers and food manufacturers themselves. Animal rights organisations often have an opinion about the (in)adequacy of these standards.

It can take a long time to implement new animal welfare requirements and standards, as this will often involve significant investments. For instance, the requirement that as off 1 January 2013 all pregnant sows and gilts have to be loose is an example of this as it is an issue that has been discussed since the 1970s (Elzen, Geels et al. 2011).

Different actors represent animal welfare in different ways. These ways are never neutral and often favour the actor’s own interests or view. For instance, the Danish Agriculture & Food

Council compares how pigs are produced in four European countries (Agriculture & Food, 2014). In this way, the good – Danish pork – is singularized. It is made calculable and positioned relative to main European competitors. Hereby Danish pork is made both comparable and different. It is broad framing, as production is compared on a wide range of properties, with animal welfare only being one aspect among several. Other aspects are quality and control; health and use of medicines; feed; the environment; transport; slaughterhouse; and food safety (Agriculture & Food, 2014). In this comparison, animal welfare is operationalised in very concrete terms such as the width of farrowing pens, the nature of rooting and enrichment materials, whether floors are fully slatted and whether tail docking is permitted on routine basis or not (see Appendix 1). Given the organisation performing the comparison, it is not surprising that Danish production standards come out as just a little bit better than competitors on most accounts.

A narrower framing strictly focused on animal welfare is offered by Dyrenes Beskyttelse (2012), which compares a number of Danish pig production schemes in terms of the following issues: outdoor access, use of farrowing pens, tail docking, weaning of piglets, access to rooting materials, medication, space, transportation to slaughter, use of electric prods to drive pigs, control of farmers and where meat is sold (see Table 3). Dyrenes Beskyttelse make a distinction between different types of pork – conventional, organic, free range and other special productions. These ‘productions’ differ in various ways, including animal welfare and Dyrenes Beskyttelse is quite unequivocal of its assessment of the animal welfare levels of the various productions, deeming only organic and free-range productions to have satisfactory animal welfare.

Different organisations have an interest in promoting their own standard at the expense of other standards or labelling schemes. An example of this is Red Tractor Assurance, which on its website compare the Red Tractor labelling scheme with other labelling schemes used in British agriculture (see Table 4).

Table 4 Comparison of UK labelling schemes

Key questions	Red Tractor	Freedom Foods	LEAF
1. Traceable from farms to pack?	✓	✗	✗
2. Covers food safety?	✓	✗	✗
3. Covers animal welfare standards?	✓	✓	✗
4. Covers environmental protection	✓	✗	✓
5. Shows where your food is from?	✓	✗	✗

Source: <http://www.redtractor.org.uk/know-your-logos> [accessed 21 March 2014].

Red Tractor (2014) compares its logo against other logos that British consumers will find on their pack and positions its logo as covering ‘all aspects of the supply chain from to form’, whereas other logos only cover certain aspects such as animal welfare or the environment. Below are the descriptions of Red Tractor and Freedom Foods:

“Red Tractor covers all aspects of the supply chain from farms to fork. This includes food safety and traceability, animal welfare, and environmental production. The logo is not just about Farm Assurance. Standards must be met at every critical link in the food supply chain. The Union Jack in the logo indicates that food has been farmed, processed and packed all in the UK.”

“Freedom Foods focuses on welfare standards and conditions for animals on farm. In some cases the Freedom Foods standard sets higher welfare requirements to Red Tractor. However, these will have added cost implications for some aspects of production. The food can come from any producer in Europe that meets the standards, although many are British. Many

members of Freedom Foods will also be certified with Red Tractor because it covers a broader spectrum of critical criteria e.g. food safety which is required by retailers and food services businesses.”

There is thus competition between different standards in the UK (as elsewhere).

In these various ways, the abstract concept of animal welfare becomes concrete and comparable – it becomes a thing that can be handed from hand to hand and circulated across time and space (Callon 2005).

ASSIGNING, TAKING AND SKIRTING RESPONSIBILITY (AND BLAME)

Danish authorities and politicians have great expectations in the power of the market in driving animal welfare forward (and thereby conveniently relieve themselves of responsibility). As we saw in previous sections, private standards are becoming more important and animal welfare is a prominent aspect of many of these standards.

Responsibility and blame is assigned liberally when actors try to explain the limited role animal welfare plays in Danish pork industry and how it welfare standards can be improved. In different ways all actors from farm to fork are either given responsibility for improving animal welfare or blamed for not doing more.

If we start with consumers, a recent study suggests that ordinary Danes are aware of a dilemma between economic issues and animal welfare (Kondrup and Lassen 2014). Two parameters are particularly important for how consumers view animal welfare of pigs and sows: ample space and access to outdoor areas. In their role as citizen, ordinary people often frame animal welfare differently than as consumers, even if citizen and consumer share the same human shell (Kondrup and Lassen 2014).

Our informants see consumers as being focused on price and taste, not animal welfare. Retailers therefore say that they are simply selling the products that consumers demand, thus assigning responsibility for improving animal welfare to consumers (and simultaneously skirting it themselves). The implication being that if consumers would demand animal welfare, they would be happy to supply it. Along similar lines, informants from the pork sector argue that if consumers put greater emphasise animal welfare (and would be willing to pay a premium), the supply of welfare meat would increase.

Retailers themselves are also assigned significant responsibility (or blame) for the current level of animal welfare. One of the retail category managers we interviewed lamented that other retailers did not do more to improve animal welfare. He suggested that even though retailers wield substantial power over suppliers, they do generally not want to use it to improve animal welfare.

“It is possible to add something in the supply chain, such as animal welfare, and to get some consumers to pay a premium, but it requires that retail buyers such as me believe in it. If everyone thinks that it all revolves around price, there is only one thing to do, and that is to buy where prices are lowest.”

In the view of this and other informants, the fact that retailers are not emphasising animal welfare reflects their understanding of consumers as more interested in low prices and taste than animal welfare, or that consumers are at least not willing to pay a premium for animal welfare. The focus on prices is linked to the growth of the discount sector, which is continuously gaining market share in Denmark.

Especially the three big retail groups – Coop, Dansk Supermarked, SuperGros – are described as not having animal welfare as a priority. Instead they focus on stable supplies and (low)

prices. This reverberates back in the supply chain to slaughterhouses and pig producers, which have to think about cutting costs, not improving animal welfare. The efforts of some smaller retailers to improve animal are acknowledged, however. Several of our informants would like (big) retailers to take greater responsibility for animal welfare, as these retailers are seen as being in a position to influence consumers.

The Danish Agriculture & Food Council employee interviewed voiced similar views, saying that only a few smaller retail chains use animal welfare proactively. Danish retailers are generally described as only having an expectation that Danish pork meets current animal welfare requirements. The new rules for pregnant sows and gilts are viewed as a substantial improvement, but further improvements have to be made successively and over a long period of time in order to give pig producers stable production conditions, as substantial investments will be required to remodel or build new facilities.

The big actors in the pork sector, Danish Crown, Tican and Danish Agriculture & Food Council, are satisfied that Danish pig producers live up to Danish legislation, as this is viewed as more than sufficient to meet demands they face on world markets. Because of high relative costs, these actors are afraid that unilateral Danish improvements in animal welfare will undermine the competitiveness of the sector. These actors argue that on world markets, Danish products are the standard against which other producers are measured when it comes to animal welfare, standardisation, legislation and monitoring.

Other actors, most notably Dyrenes Beskyttelse, are dissatisfied with the status quo and want significant improvements in relation to animal welfare issues such as the castration of male piglets, tail docking and a ban on fixation of farrowing and suckling sows.² However, some actors accuse Dyrenes Beskyttelse of making life difficult for firms that want to improve animal welfare because they set the bar too high. Not surprisingly, Dyrenes Beskyttelse rejects this criticism.

Dyrenes Beskyttelse sees itself as working on a political level to improve animal welfare. This organisation is not in favour of leaving improvements of animal welfare to voluntary initiatives, preferring binding legislation. However, given that ‘market-driven animal welfare’ is a mantra for the Danish government, Dyrenes Beskyttelse see it as their task to inform consumers about animal welfare issues in order to stimulate consumer demand. More concretely, Dyrenes Beskyttelse are the driving force behind a range of “welfare delicacies” that is intended to further natural and diverse husbandry on small organic farms. These welfare delicacies are sold through local networks and farm stores. Dyrenes Beskyttelse also endorses organic and free-range pork. In contrast to some other animal welfare organisations, Dyrenes Beskyttelse acknowledges that it is acceptable to eat animal as long as they have had a good life. What constitutes a ‘good life’ is up for constant discussion.

The Danish Agriculture & Food Council is another organisation that is constituted as playing a role in relation to animal welfare in interviews, although it is accused of foot dragging by one retail informant:

“The Danish Agriculture & Food Council work for animal welfare, but they don’t lead. They are perfectly able to see where Denmark makes money. It would be nice to see them step up [in relation to animal welfare], but you don’t cut the branch you are sitting on.”

² After interviewing was concluded, a new Minister for Food, Agriculture and Fisheries came into office following a cabinet reshuffle. Soon after taking office, Dan Jørgensen criticised the animal welfare record of the Danish pork sector, particularly in relation to piglet mortality. He quickly called a “summit” between actors in the pork sector (authorities, agriculture, slaughterhouse, retailing, animal welfare and consumer organisations), which came up with a letter of intent addressing this and other animal welfare issues (Minister for Food, 2014).

This informant would like the Council to do more, but at the same time acknowledges that Danish pork competes on global markets and that the sector cannot be expected to undermine its own position. Using similar arguments, the Agriculture & Food Council emphasises that improvements have to be made one step at a time in order to maintain competitiveness (and thus jobs and export earnings). The organisation prefers improvements to initially be voluntary in order to gain experience with new production systems and routines before they are implemented on a larger scale.

In order to get pig producers to voluntarily change farm-level practices it is viewed as important to design appropriate incentive schemes that make converting to new production systems attractive. As an example, an informant mentions that it is important that producers have at least a rough idea about the conditions they have to work under and the requirements they have to meet, as new stables have an expected life expectancy of 20-25 years. Production facilities require substantial financial investments, and welfare requirements therefore cannot change every two years. Farmers need to know what requirements they have to fulfil at least 5-10 years ahead.

That the market is international can be viewed as both an explanation and as an (in the views of some actors, poor) excuse for the current state of affairs and initiatives for improving animal welfare. For Dyrenes Beskyttelse, in particular, there is no question that animal welfare is more important than the wellbeing of the pork sector:

“Most of [Danish] pork production is for export. As an animal rights organisation we cannot condone animal welfare abuses because we [as a country] have to make a lot of money on export markets. This is not really our role.”

Informants expect animal welfare to be more important for consumers in future, but acknowledge that many consumers will continue not to care. Consumers have played a role in relation to transport of live animals, but have not been aware of the issue of fixation of sows

Is the understanding that consumers are not interested in animal welfare a self-fulfilling prophecy? In many retail outlets, consumers are not stimulated to take animal welfare into account when buying pork, but rather look for low prices. Several informants would like retailers to take more responsibility for animal welfare, and at least make consumers aware of the fact that the choices they make have consequences, i.e. that they overflow.

DISCUSSION

Developing an animal welfare standard involves establishing a metrological network that measures and objectifies certain aspects of animal welfare. As we have seen, animal welfare is measured in terms of issues such as hay, space, naturalness, and (the absence of) tail docking and castration. In this way, certain ideas or values are turned into facts, social facts and the abstract notion of animal welfare is made visible, audible, tangible and knowable.

Ideas about animal welfare are translated into standards and procedures, material devices such as fixture, maximum travel times and more. Through this process of standardisation, pigs are turned into commodities that can be classified into certain categories (conventional, organic, free-range etc.) that can be easily exchanged between economic actors – farmers, slaughterhouses, importers, retailers and so on.

The development of new standards involves numerous actors working together (and sometimes against each other). At first glance, the development of standards can be seen to contradict the increasing singularisation of products (Callon, Méadel et al. 2002), as attempts are made to make products conform to particular standards. However, following standards

also involves exclusion: some products will not live up to the standard and given the seal of approval or branded as bad for animals.

Guidelines and norms are to some extent fluid and open to influence from many different actors. The fine-tuning of animal welfare standards and their enactment involves ‘explorations, investigations and relations that weave a web of entanglements between the agencies’ (Callon, Méadel et al. 2002: 6). Quite a number of heterogeneous actors participate in the formulation and enactment of animal welfare standards, including marketers, retailers, farmers, interest groups, third-party auditors, authorities and animal welfare organisations. These actors engage in collective work (Callon 2005). In this work, they attempt to accommodate, or make compromises between, different interests and ideas. This includes ideas about what constitutes good animal welfare and how it should be improved, but also ideas about the costs involved, supply and demand of welfare meat and the international competitiveness of the Danish pork industry.

The various actors have different ideas about what constitutes good animal welfare and how animal welfare should be improved, if at all. How actors approach animal welfare depends on what good is sought – animal welfare, jobs and export earnings or meat quality. Some actors prioritise animal welfare over other concerns (such as export earnings), for other actors it is the other way round: improvements in animal welfare should not come at the expense of the competitiveness of the overall industry. In addition, different bodies promote different standards of animal welfare, and ideas about animal welfare differ between countries. Animal welfare is thus an intensely contested issue.

Agreeing on a standard is only the start. Decisions have to be made by different actors. For instance, the farmer has to decide whether to invest in new stables and furnishings that conform with a particular standard, retailers have to decide whether the standard is right for them, animal welfare organisations have to decide whether they will endorse a particular standard as animal friendly or not, and so on.

Improvements in animal welfare are contingent on changes being made by the farmers, who have to invest in new stables and new furnishings, who have to change their management practices. It is more labour intensive to have loose sows, at least in the short run when new routines and skills have to be developed and learned.

Slaughterhouses are important too. Have to keep different productions separate, so that meat from welfare productions are not mixed with conventional pork. This facilitates traceability that can be used to document that customers (retailers, consumers) get what they pay for – animal welfare, but perhaps also a cleaner conscience, better meal experiences.

From knowledge to knowing – knowledge of how to do animal welfare is incorporated in the practices of different actors. In the farmers animal management practices, the slaughtering of animals, in their marketing, and in their consumption

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Appendix 1 Comparison of housing and welfare between Denmark and main European competitors.

	Denmark/Danish	Denmark/UK Contract	England	Holland	Germany
Pregnant sows	Housed in accordance with EU legislation. The pen must not be narrower than 3m. There must be straw on the solid or drained flooring.	No confinement from weaning until 7 days before predicted date of farrowing – otherwise requirements as per Danish standard.	No confinement from weaning until 7 days before predicted date of farrowing. At least 2.8 m between sides of pen in indoor systems Around 40% of UK breeding herd is kept outdoors.	Housed in accordance with EU legislation. At least 2.8 m between the sides of the pen.	Housed in accordance with EU legislation. At least 2.8 m between the sides of the pen.
Farrowing pens	Housed in line with EU legislation. Appropriate nest building material in sufficient quantity is required, unless this is technically impossible because of the slurry system used at the farm. The piglets must have an area that is separate from the sow. If necessary, there must be a source of heat. The Danish pig industry's aim is for 10% of sows to be loose in the farrowing pens by 2020. After 2021 all newly built farrowing units must be designed as loos systems.		Housed in line with EU legislation. Appropriate nest building material in sufficient quantity is required, unless this is technically impossible because of the slurry system used at the farm. The piglets must have a thermally comfortable and dry lying area.	Housed in line with EU legislation. Appropriate nest building material in sufficient quantity is required, unless this is technically impossible because of the slurry system used at the farm. The piglets must have an area that is separate from the sow. There must be a source of heat.	Housed in line with EU legislation. Appropriate nest building material in sufficient quantity is required, unless this is technically impossible because of the slurry system used at the farm. The piglets must have an area that is separate from the sow. There must be a source of heat.
Weaning of piglets	After 28 days. The average in 2012 was 31 days.		Not before 28 days or 21 days for batch production.	After 28 days or 21 days for batch production.	After 28 days or 21 days for batch production.
Enrichment and rooting materials	All pigs must have permanent access to sufficient quantities of straw or other manipulable rooting and enrichment material. Enrichment and rooting material must be of natural materials and in contact with the floor. Chains alone are not acceptable.		All pigs must have permanent access to sufficient quantities of enrichment or other rooting material. Chains alone are not acceptable.	All pigs must have permanent access to manipulable materials. Chains with plastic hooks are permitted.	All pigs must have permanent access to manipulable materials. The materials must be harmless and adequate. Chains with plastic hooks are permitted.
Flooring for piglets and finishers	Since 2000, it has been forbidden to build stalls with fully slatted floors. With regard to newly built stalls, at least half of the floor for piglets and at least one third of the floor for finishers must be solid or drained. This will apply to all systems from 2015.		Fully slatted floors are permitted provided minimum slat and opening widths are observed.	40% solid floor for piglets and finishers required.	Fully slatted floors are permitted.
Sprinkling systems	All pigs over 20kg (including sows) must have access to sprinkling system or another system to keep the pigs cool.		No regulation	No regulation	No regulation
Castration	Pain relief must be administered before castration takes place. Anaesthetic must be used if castration is carried out 7 days after farrowing.		Castration is not permitted by RTA standards. According to UK legislation castration is permitted up to the seventh day after farrowing.	Pain relief must be administered before castration takes place. Anaesthetic must be used if castration is carried out 7 days after farrowing.	Pain relief must be administered before castration takes place. Anaesthetic must be used if castration is carried out 7 days after farrowing.
Tail docking	Not permitted on a routine bases, but permitted if it can be documented that measures that have been taken to prevent tail biting. Only permitted between day 2 and 4 after birth and no more than half of the tail may be docked.		Only within the first 72 hours after birth and not on a routine basis	Docking of part of the tail no later than seven days after birth.	Docking of part of the tail no later than four days after birth
Tooth reduction	Tooth clipping is not permitted. Tooth grinding is allowed, but not on a routine basis. Tooth grinding must take place within the first four days after birth.		Piglet teeth clipping is allowed up to 72 hours after birth, but not on a routine basis.	Tooth clipping is allowed within the first seven days after birth.	Tooth clipping is allowed within the first seven days after birth.

Source: Agriculture and Food (2014).

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