

The horsemeat scandal: The unknown victims of economically motivated crime

Escándalo de la carne de caballo: víctimas desconocidas de un delito de motivación económica

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Of all the frauds practised by mercenary dealers, there is none more reprehensible, and at the same time more prevalent, than the sophistication of the various articles of food (Accum, 1820: 1 B).

resumen

El objetivo del artículo es reflexionar acerca del proceso de victimización de los consumidores en Alemania: cómo se trivializan actos criminales cometidos por el sector alimentario y cómo se invierte la culpabilidad entre los responsables y las víctimas.

En 2013 se encontraron restos de carne de caballo en algunos productos elaborados y etiquetados 100% carne de vacuno. Esto produjo uno de los mayores engaños económicos en décadas en Europa. En el artículo se ilustran procesos de victimización típicos en el sector alimentario y se discute sobre cómo la opinión pública alemana los abordó en el caso del escándalo de carne equina.

Aunque se detectaron restos de medicamentos como Fenilbutazona en la carne de caballo, sin embargo, los medios de comunicación alemanes se centraron en los beneficios de esta carne. Las víctimas fueron vistas no solo como causantes sino que también ellas mismas se consideraron como responsables. Los medios de comunicación convirtieron el escándalo alimentario en un fenómeno: ni se prestó atención al fraude ni a las enormes ganancias económicas que obtuvieron los autores en este asunto. Todo esto podría explicar por qué hay poca conciencia legal y no existe apenas interés victimológico en el campo del engaño.

palabras clave

Escándalo carne de caballo, victimización, concienciación legal, engaño alimentario por motivos económicos.

abstract

The purpose of this article is to reflect on consumer victimization processes in Germany: how criminal acts are trivialized in the food sector and how a reversal of the fault occurs.

In 2013 traces of horsemeat were identified in many ready-meal products that were labelled 100% beef which was one of the biggest economically motivated frauds in recent decades in Europe. Typical victimization processes in the food sector are illustrated and public lines of arguments in Germany are discussed using the example of the horsemeat scandal.

Although residues of the veterinary drug phenylbutazone were detected in the horsemeat, the advantages of consuming the meat were highlighted in the German media. The victims were not only viewed as perpetrators but also condemned themselves as such. The illegal food scandal transformed into a phenomenon in which neither the fraud nor the enormous financial gain of the offenders were recognized nor criticized. This could be seen as an explanation as to why there is little legal awareness as well as victimological interest in this field of fraudulent behaviour.

keywords

Horsemeat scandal, victimization, legal awareness, economically motivated food crime

1. Introduction

Offences in the food sector have generally not been considered by criminologists or sociologists. An exception is Cheng (2012), who examined food crime in the Zhejiang province of China. Ghaza-Teherani and Pontell (2015) conducted a case study of the Chinese melamine milk scandal in 2008 during which at least 6 babies died and approximately 300,000 were affected. These examples are all the more astonishing because food safety scandals are not a new phenomenon, nor are such scandals limited to economies with so-called 'cheap capitalism' (Cheng, 2012) such as China. Accum (1820), for example, presented an extremely detailed overview of food adulteration and poisoning in England in the 19th century. A few decades later, a notable and frequently quoted example in Bradford, England in 1858 was the accidental arsenic poisoning of more than 200 people who consumed poisoned sweets (Jones, 2000), followed by a long list of scandals in the last century that extend to the present. Hargin (1996) even assumed that food adulteration is as old as the food trade. The Spanish cooking oil scandal in 1981 is another example that had fatal consequences: between 350 and 600 people died, and more than 25,000 people fell critically ill, some for quite a long time, and others were permanently harmed. The probable reason was rapeseed oil that had been contaminated with the toxic dye aniline

and that should have been used for industrial purposes only. To protect Spanish olive oil production, the importing of pure rapeseed oil was prohibited (Doeg, 2005: 217 f.).

In addition to these striking, life-threatening examples, less hazardous food fraud and food crime are omnipresent; in 2013, conventionally produced eggs were declared organic in Germany, aflatoxin-infested milk and dairy products were distributed in several European countries (Kerschke-Risch, 2014), 22 tons of long-grain rice were sold as pricier Basmati rice, and in Sussex, nearly 2,500 jars of honey that contained nothing but sugar syrup were identified (The Economist, 03/2014). In addition, counterfeit labelling of product origin is widespread; worldwide, 20% to 25% of seafood is mislabelled (consumerreports.org, 2011), and Moore *et al.* (2012: R119) assume that there are nearly unlimited possibilities for food adulterations.

These examples clearly illustrate the omnipresence and great extent of fraud and crime in the food sector, suggesting that there are an even greater number of consumers who have been deceived or in fact harmed. Many victims have not been recognized as victims by social scientists, victimologists or themselves. A special characteristic of food-related crime is that everyone has to eat; therefore, without exception, everyone is, to a greater or lesser extent, at risk of becoming a victim (Kerschke-Risch, 2016). Despite this fact, criminological research has only been marginally engaged in this field. Notably, as with violent crime, physical damage may be an unintended consequence of food-related crime, as Coleman explains: 'Although white-collar crime causes far more deaths and injuries than other types of crime, this violence is always a by-product of the offense, not the immediate goal, as it is in assault or murder' (Coleman, 1987:408). Elliot argued in a similar manner that '[t]here is always the potential for food fraud to lead to severe illness, or in the worst case, death due to consumption of contaminated food or food that is not what it claims to be' (Elliot, 2014:12).

Throughout food production industry but particularly in the agricultural sector, critics of conventional agriculture denounce the pressure to keep costs low. The intense pressure in this area is considered to be responsible for negative effects on the environment, conditions of animal production, and recurring food scandals. Illegal practices in the field of food production are therefore often explained as a result of a tremendous pressure to reduce costs, forgetting that conditions are similar in nearly all other economic fields. If this were the only reason for criminal practices in the food sector, increasing pricing or introducing subsidies would easily resolve all fraud problems. It is not true that these solutions are practical and therefore are not solutions, as will be demonstrated in the following example, the horsemeat scandal of 2013.

2. The Horsemeat Scandal

Compared with other cases, the horsemeat scandal added new dimensions to the vast extent of food fraud in a globalized world. In January, 2013, 'a pan-European meat authenticity crisis' was announced by the Food Safety Authority of Ireland (Jakes *et al.*, 2015:1). Because of new technologies, closer examination of food is currently possible (Ballin, 2010; Ballin *et al.*, 2009; O'Mahony, 2013; Zhao *et al.*, 2014). On behalf of the FSAI (Food Safety Authority of Ireland) in November 2012, a private testing laboratory analysed several samples of burgers, salami and beef meals, searching for traces of porcine, bovine and equine DNA.

Equine DNA was detected in 10 out of the 27 burgers tested, all at trace levels except for one which had 29.1%. To corroborate the initial results, further samples of the same burger brands found to be positive for equine DNA were purchased at the same retail outlets and tested, with similar qualitative results reported. [...] Considering all of the controls in place, such levels of equine DNA were considered to indicate meat substitution rather than be the result of any sampling or testing anomalies (O'Mahony, 2013: 596).

Few if any meat products had recently been tested for traces of pork, which is known to be a cheaper substitute for more expensive meat such as beef, lamb or poultry. These tests were possible because DNA analyses were available and particularly interesting regarding halal¹ testing because pork and pork-related ingredients are not compliant with Islamic dietary rules (Fadzillah *et al.*, 2011, Murugaiah *et al.*, 2009).

Because horse and donkey meat was less commonly consumed, the range of assays for the detection of equine meat was relatively limited (Chisholm *et al.*, 2005). Furthermore, because there had been no initial suspicion that horsemeat was processed in ready-meal products, no target-oriented equine DNA was sought. Before the technology for detecting DNA of certain species existed, it was impossible to analyse processed products for equine DNA. Until the first traces of horsemeat were detected in 2012, such an adulteration was unimaginable. It is quite possible that meat products such as sausages, minced meat or ready-meal products over a long period, perhaps years or even decades, contained undeclared horsemeat without the proper authorities or the consumers even knowing about it. Mary Creagh, who was shadow environment secretary in the UK at the time of the horsemeat scandal, suspected that horsemeat had already

1 "Halal is Arabic for permissible. Halal food is that which adheres to Islamic law, as defined in the Koran. The Islamic form of slaughtering animals or poultry, *dhabiha*, involves killing through a cut to the jugular vein, carotid artery and windpipe". One main rule forbids consumption of swine flesh (Eardly, 2014).

entered the food chain on a massive scale three years before the scandal surfaced. She made her assertion based on the huge number of abandoned horses after the financial crisis in 2008 and inconsistencies in the statistics of the number of horses that had been slaughtered (Johnston, 2014).

During the spring of 2013, horsemeat was identified across Europe in many ready-meal products that were labelled as 100% beef although some products contained up to 100% horsemeat (Sawer and Ensor, 2013). Hence, the European Commission coordinated an EU-wide testing for horsemeat DNA and phenylbutazone.² Of the tested products, 5% had horse DNA, and approximately 0.5% of the equine carcasses tested were discovered to be contaminated with 'bute'. Subsequently, tens of millions of burgers were recalled.

According to Tonio Borg, EU-Commissioner for Health and Consumers, who stated:

Today's findings have confirmed that this is a matter of food fraud and not of food safety. Restoring the trust and confidence of European consumers and trading partners in our food chain following this fraudulent labelling scandal is now of vital importance for the European economy given that the food sector is the largest single economic sector in the EU. ... In the coming months, the Commission will propose to strengthen the controls along the food chain in line with lessons learned (European Commission, 2013).

One possible explanation for the discovery of horsemeat in food products was a surplus of horses in Romania. Romania is one of the poorest countries in the EU and more agrarian with less mechanization than other EU members. Therefore, approximately 750,000 horse carts remained in use. In 2007, a horse cart ban on main roads was imposed because the carts were blamed for 10% of all road traffic accidents (Thorpe, 2007). As a consequence, the majority of the draught horses became useless; from a business perspective, maintenance costs for them were unnecessary. Slaughtering the horses not only saved costs but also generated a small amount of revenue when the carcasses were sold.

However, residues of pharmaceuticals identified in the horsemeat are an important argument against the 'theory of Romanian horse carts' (Leopold, 2013). Generally phenylbutazone is only given to horses that participate in equestrian sports. Poor Romanians would not or could not pay for expensive medical treatment for their horses; thus, it can be assumed that horses from oth-

2 Phenylbutazone, commonly referred to as 'bute', is an anti-inflammatory drug used as a painkiller in veterinary medicine for pets and horses that have been explicitly excluded from the food chain. It also has a use in human medicine in the treatment of severe cases of chronic inflammatory diseases.

er countries as well had been slaughtered and trafficked using counterfeit documents. In 2012, the Humane Society International conducted a study on the availability of horsemeat in Belgium, France and the Netherlands. The majority of the horsemeat was sourced from outside the EU, mostly from Canada, the USA, Mexico and Argentina. Notably, the majority of the respondents in the study thought that the meat came either from their own country or elsewhere in Europe. Most consumers are not aware that trading horsemeat is a profitable international business in a globalized world. In 2011, the official total value of equine meat imported to Belgium, France and the Netherlands was more than 173 million Euros although the Romanian portion of that amount was only approximately 2.8% and the volume approximately 3.3% (Humane Society International, 2012a: 2).

Because high-quality horsemeat is quite expensive and a type of delicacy (Humane Society International, 2012a), it would make no sense to replace substandard beef with high quality horsemeat. It is therefore reasonable to assume that either equine meat that was not approved for human consumption or horsemeat of low quality had been processed illegally.

2.1. Consumers in the role of victims

Previous research in the field of victimology focused predominantly on violent crime, sexual assaults or serious property offences; with few exceptions, the effect of white-collar crime was neglected (see Croall, 2010; McGurrin and Friedrichs 2010). Typical victims of violent or property crime are identifiable persons who have been physically, financially or emotionally harmed. In addition, the effects of violence are visible. Victims can also suffer psychological effects and financial losses. By contrast to criminal offences in general, offences in the food sector display special characteristics. Because of almost total anonymity, offenders are at little risk of being prosecuted or even detected. Moreover, possible effects on consumers' long-term health cannot be proven if, for example, legal limit values for pesticides which are implemented by authorities are neglected, antibiotics are used illegally in animal mass production or feed contains illegal additives. Nearly all victims fail to recognize these special offences or even regard themselves as victims. If scandals such as the 'horsemeat scandal' surface, many consumers react like other victims: they consider themselves wrong-doers because of their demand for the cheapest possible food (Anderson, 2000, Meiborg, 2014).

Issues regarding food safety or marketing strategies following food scandals do not consider victimization processes and effects on consumers; thus, we know nearly nothing about the customers who have been victimized. This

lack of knowledge, particularly the lack of victims' surveys, has been criticized as too narrow (see in detail, Croall, 2010:169). The only analyses regarding the horsemeat scandal were consumer reactions on the basis of loyalty card datasets of beef burger shoppers in the UK, which showed a decrease in retail sales of the affected products (Yamoah and Yawson, 2014: 98), explanations from power asymmetry perspectives (Madichie and Yamoah, 2016), corporate identity as a resource for managing reputational crisis (Töpfer, 2013), a meta-analytical study (Madichie, 2015) or discrete choice experiments estimating the willingness of European consumers to pay for improved food safety standards (Agnoli *et al.*, 2016). However, subjective assessments of consumers remain unknown; we have no information regarding individual perceived victimization experiences and no information regarding customers' feelings and reactions.

One recurrent fraud is false labelling of product origin, which can generate considerable profit. In this regard, the American consumer organization stated, in relation to mislabelled fish,

Whether deliberate or not, substitution hurts consumers three ways: in their wallet, when expensive seafood is switched for less desirable, cheaper fish; in their health, when they mistakenly eat species that are high in mercury or other contaminants; and in their conscience, if they find out they've mistakenly bought species whose numbers are low (consumerreports.org, 2011).

The questions resulting from the horsemeat scandal are whether and in which of the three ways stated above consumers were affected. First, consumers paid for beef instead of cheaper horsemeat; second, the meat could have contained illegal pharmaceuticals; and third, the affected customers' consciences were possibly affected because they had eaten meat from animals that are often regarded as pets. Thus, all of the statements mentioned above appear to be relevant to the consumers. In addition, a taboo against eating horsemeat was violated, with conceivably far-reaching consequences for the enjoyment of culinary delights and eating behaviour.

From a financial perspective it is difficult to estimate the economic damage of white-collar crime in general (see Coleman, 1989: 6ff.), it is nearly impossible to calculate the losses to the consumer related to food fraud. If, for example, minced meat is declared to be 100% beef contains a certain amount of horsemeat, one cannot calculate the exact cost to the consumer. Therefore, consumers' knowledge of the traders' and/or producers' advantage is unknown. Conversely, the person who has been cheated does not know how much was lost paying for real beef instead of horsemeat because the price depends, among other things, on quality. Thus, it is quite possible that horsemeat of a higher quality is more expensive than substandard beef. Overall, it can be assumed that for commercial gain, the cheapest alternative would have been chosen.

From a health perspective it could be problematic if the horsemeat had been contaminated with pharmaceutical substances that are not permitted for human consumption. The German media as for example Spiegel Online (2013) claimed that at no time had there been any danger or risk to consumers. Contrary to this conclusion, the Humane Society International (2012b) is of the opinion that in the US, so-called ‘kill buyers’ buy up large numbers of horses to sell in Mexico. Insufficient controls lead to fraud; documents can easily be counterfeited and imported horsemeat can be contaminated with illegal medicine residues.

From a psychological perspective the unintentional consumption of horsemeat can trigger emotional or psychological effects to the consumer, for example, disgust and guilt, because horses are often seen as companions and not as livestock. Thus, losses in white-collar crime are for the most part difficult to ascertain (Coleman, 1989; Cross, 2015) whereas it is nearly impossible to estimate the individual disadvantages related to food crime.

2.2. Cost pressure on food production

A basic economic concept is to minimize costs and maximize profit to be competitive. Consistent with Milton Friedman’s assertion that ‘The Social Responsibility of Business Is to Increase Its Profits’ (1970), which remains subject to debate, it can be assumed that in most economic sectors, this idea is the norm, even in the anonymous field of globalized food production.³ However, focusing nearly exclusively on the areas of agribusiness and food production, ‘cheap production’ is particularly denounced when it is the result of pressure to reduce costs, mostly without considering that costs are the most important factor in the entire economy, all industry and all commerce.

Similar to victims of online fraud (Cross, 2015), victims of food-related offenses are blamed and viewed as responsible for being deceived, which is justified by consumers’ demand for the cheapest food possible. German consumers are often accused of spending less money on food than other Europeans (Kroker, 2012; Meiborg, 2014) and therefore cannot expect high-quality food. In 2011, German consumers spent approximately 11 percent of their income

3 It is worth noting that Friedman (1970) modified his position, saying that ‘there is one and only one social responsibility of business—to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game, which is to say, engages in open and free competition without *deception or fraud* [emphasized by Author]’.

for food, which is in fact less than in Austria, Ireland, Luxemburg, the UK or Switzerland (Statistisches Bundesamt, 2015a). This argument places the responsibility for food fraud on the consumer: Those who buy cheap food know the quality is low and 'decide' voluntarily to buy inferior food products, tacitly accepting some type of adulteration.

2.3. Economic Gain from horsemeat

It may reasonably be assumed that intentional fraud is economically motivated in most cases, which would also apply to food-related crime. According to Coleman, 'All types of white-collar crimes are rational, calculating crimes, not crimes of passion. The goal of the vast majority of white-collar criminals is economic gain or occupational success that may lead to economic gain' (Coleman, 1987: 408). Coleman extracts at least four factors that determine an opportunity's attractiveness: the individual's perception of the size of the expected gain; perception of potential risks, such as detection and severity of sanctions; compatibility with the individual's ideas, rationalizations and beliefs; and the comparison of illicit opportunity to legal opportunity.

With reference to possible health effects, it is not permitted to use horsemeat treated with special pharmaceuticals such as phenylbutazone for human consumption. Owners of such horses must pay for euthanizing and transportation - unless they sell the horses to a butcher. To have a horse put down by a veterinarian incurs costs whereas slaughtering brings in at least a small amount of money. The prices (costs and earnings) may differ from country to country; however, the ratio is similar. If a horse is euthanized, the costs in Germany range from 200 to 400 € (veterinarian and skinner); if a horse is to be slaughtered, the horse butcher *pays* 0.40 – 0.60 €/kg on average for live weight, good quality up to 0.80 €/kg (Deter, 2013). Because the goal of trade is financial gain, in every value chain, everyone wants to maximize profit and minimize losses. On the basis of this fact, it is logical to try to substitute cheaper for expensive ingredients, either legally or illegally. So, it is lucrative for everyone in the supply chain to substitute cheaper ingredients for expensive beef. In general meat cannot be identified with the naked eye (Zhao *et al.* 2014). Because of the precedent set by so-called 'pink slime', which was used in frozen hamburgers although it has since been outlawed (Boffey, 2012), it made sense to process another surrogate – horsemeat, which is the perfect substitute for beef. Horsemeat has no suspicious taste when processed and seasoned; processed and seasoned, horsemeat looks like beef; depending on the quality, is cheaper than beef; and until 2012, there were no reasons for suspicion and therefore no DNA tests conducted, which meant nearly no risk of detection.

In the food and feed sector in general, it is difficult or even impossible to prove intended criminal acts. Products can be contaminated inadvertently, producers did not know the real origin or ingredients and so on. Another problem is that fresh products especially are consumed soon after the making or are perishable and not collectable for a longer period like other goods. Furthermore, almost all contaminations cannot be seen or smelt and the origin of products is not visible (Kerschke-Risch, 2014: 113).

Assuming that illegal practices in connection with food production and trade are almost exclusively economically motivated, a particular financial advantage was a given for the perpetrators who substituted horsemeat for beef. If this had not occurred, the equine meat could have been sold and labelled correctly as horsemeat. This assumption appeared to be confirmed by the fact that within six months, Spanghero made 500,000 Euros profit by trading 42,000 kg of horsemeat from two Romanian abattoirs (Volkery 2013).

2.4. Victims' reactions dealing with the horsemeat scandal

McGurrin and Friedrichs (2010:148) state that victims of white collar crime also experience severe and enduring harmful consequences. Furthermore some international studies have shown that many victims of fraud react in a similar manner as to those victims of serious violent crime (Cross, 2015:3). Unlike other forms of crime, there is less knowledge about victimization processes, risk factors and effects on the victims (see Croall, 2010: 81). Because there are no crime or victim surveys that have been conducted regarding offences in the food sector (see Elliot, 2014), we know little or nothing regarding the victims. The scant information we have regarding consumer attitudes towards fraud involving horsemeat indicates that the majority of consumers judged this scandal to be neither bad nor severe. This is confirmed by the fact, that, at least in Germany, there had been no indignant reactions from upset consumers.

At first glance, these surprising results can presumably be explained by official statements and by the media, which unanimously claimed that there had never been any hazard to consuming meat from equine animals. The media calms any misgivings that the consumers might have regarding the horsemeat that was detected in meat products.

Horsemeat itself should be as safe to eat as beef and is eaten in many countries around the world. ... The government has advised people to carry on with their normal shopping habits unless told otherwise. ... The FSA ordered tests to check whether a drug given to horses, bute (phenylbutazone) - which can be dangerous to humans - had illegally entered the human food chain. It found eight horses, killed in the UK, had tested positive for bute and six may have entered the food chain in France. However, the levels detected are said to pose 'very little risk to human health' (BBC, 2013).

Even the World Trade Organisation (WTO) published news items in the course of a formal meeting of Sanitary and Phytosanitary Measures (21-22 March 2013) stating that the horsemeat found in various meat products was only “labelling fraud and not a food safety issue” (WTO, 2013). The German magazine *Spiegel Online* (2013) went one step further, titling one article ‘Delicacy Horse Meat’ and highlighting the good taste and healthy benefits of this meat compared with beef. Even the Australian Food Safety Institute emphasized the low levels of fat, sodium and cholesterol in horsemeat. Furthermore, the FSI asked in its infographic whether people in fact eat horsemeat and then answered its own question: ‘They sure do. [...] In Japan, there is even a dessert known as ‘Basachi ice cream’ made from horsemeat’ (Flynn, 2013). There is no evidence that the food industry put pressure on the media to play down the possible risks that could arise from the horsemeat. But instead complaints are made that the media often picks up on food scandals with pleasure and dramatizes incidents so that the food industry is forced to act (see for example Anderson, 2000).

Most likely because of the media coverage and official announcements, one unforeseeable consequence was that the demand for horsemeat increased, which was explained by Dylan Gordon, who studies Canadian food culture at the University of Toronto, as follows: ‘It’s also about sort of creating distinction as a foodie’ (Sagan, 2013). However, public perception and discussion overlooked that the replaced meat was a substandard ingredient for maximizing profit which means that it was not a healthy and delicious delicacy as the media tried to portray. This reaction may be a result of the media representation, which influences the public’s reception of crime and victimization (Davies *et al.*, 2011:9).

Another reaction was to stop eating meat, as the following example illustrates:

I loved meat as a child. The smell of bacon made my eyes roll and my heart race. [...] But in recent days, as the horsemeat scandal broke across Britain, the true, titanic horror of modern meat-production has reared up before my eyes like a tidal wave. As news of internationally transported entrails broke over my head, amid the swirling foam of a supply chain so complicated it reads like a smuggling plot, I suddenly couldn’t double-think anymore. Findus has pulled away my felt-like blanket and I am left cold, shamed and worried about what I’ve been eating. To find out that beef is now no longer a description of cow meat, but more of an umbrella term for anything with four legs and long eyelashes is quite something. [...] Give it up. Just stop eating it altogether. Wave goodbye to meat and go back to halloumi, Quorn, lentils, slow-roasted aubergine, tofu, paneer, chickpeas, veggie sausages and, well, vegetables (Nell Frizzel in: Frizzel *et al.*, 2013).

This quotation highlights another strategy: risk avoidance of becoming a victim by renouncing meat products, which is an individual strategy, as opposed to, for example, standing up for better controls and therefore identifying a political solution at the EU level.

Furthermore, eating horsemeat can be considered a violation of a taboo because eating horsemeat can damage ethical or religious feelings of people who are fond of animals, especially passionate horse lovers as well as people who abide by religious dietary regulations in communities such as Muslims or Jews. Food scandals such as the horsemeat scandal can victimize people in different manners to varying degrees of severity. People can be disgusted by meat and become vegetarian or vegan. Some consumers worry about their health and can be compulsive about clean eating, which can lead to eating disorders. However, avoiding fast food leads only to a loss of time and convenience. Generally, after such a scandal, people feel uncertain to some extent about food and lose at least a little bit of their eating pleasure.

As a result of the horsemeat being discovered, a second round of coordinated pan-European testing for horse meat DNA in beef products was launched in April 2014. This testing was a follow-up to the exercise conducted in 2013 in the wake of the horsemeat crisis, in which 4.6% of products tested positive. This second round of testing was requested and co-financed by the Commission. The findings are encouraging because they show that the situation had significantly improved, with only 0.61% of samples testing positive. In this context, EU Commissioner for Health, Tonio Borg, said:

Today's findings confirm that our collective efforts are bearing fruit and that increased controls to uncover food fraud are having real impact. Restoring the trust and confidence of European consumers and businesses in our food chain is vital for our economy given that the food sector is one of the EU's largest economic sectors. I believe that this on-going work will continue to pay dividends. Fraudulent practices must be tackled through joined-up efforts to target the weakest links in the food supply chain (European Commission, 2014).

With these assertions, the public could be reassured, avoiding a situation in which previous uncertainty would lead to far-reaching consequences for the European food sector. Such consequences would be of extreme economic importance.

2.5. Reversal of guilt

The lack of transparency of trading routes and the lack of traceability of food and its separate components render it difficult or even impossible to identify the guilty actors and call them to account because 'only the criminal knows how the food ingredient has been manipulated and is, thus, the only one with the information, but not necessarily the expertise, to assess whether such a manipulation poses any toxicological or hygienic risks' (Moore *et al.*, 2012: R118f.).

Prosecution is nearly impossible because supply chains are complex and unclear, as the following case illustrates: 'The factory that supplied Tesco with its 29% horse 'beefburgers', for example, was using 'multiple ingredients from some 40 suppliers in production batches, and the mixture could vary in every half-hour', according to the Irish department of agriculture' (Lawrence, 2013).

This raises the question whether the following statement is only a convenient excuse that is difficult to verify. According to its own presentation, ABP Food Group is 'One of Europe's leading food processors', 'Delivering quality and flavour since 1954' (ABP Food Group, 2016). In 2013, ABP blamed rogue managers at Silvercrest, a subsidiary, and declared 'it has never knowingly sold horse and is an innocent victim of fraud' (Lawrence, 2013), which presumably is a distortion of facts.

Tesco, Burger King, Aldi and the Co-op have all apologised to customers and said they had been unwitting victims of fraud at some point in their supply chain. They also say the authorities have confirmed there was no food safety issue raised by the adulteration. They refused to answer the Guardian's questions about where the horsemeat in their beef products had originally come from, and whether Norwest or Selten were involved in their supply chains. An ABP spokesperson said it had not engaged in any illegal activity and that there had been no breaches of law or food safety at Silvercrest. 'We have made it clear we have never knowingly bought horsemeat ... if equine was deliberately introduced into the food chain, then we are among those who have suffered as a result of such activity' (Lawrence, 2013).

These statements exemplify a reversal of guilt by establishing perpetrators as unwitting and suffering victims although '[a]ll sold beef burgers made by ABP Silvercrest factory [...] were adulterated with horse'. And the potential offenders stated that they were unwitting victims of fraud elsewhere in their complex supply chains (Lawrence, 2013). This indicates 'typical aspects referring to the phenomenon of neutralization belonging to illegal acts in the food sector: A globalized world is characterized by anonymity. Generally there is no direct connection between the producer and the consumer of food, and of course, no contact between offender and victim' (Kerschke-Risch, 2014: 113).

The serious end of food fraud can be food crime with substantial profits (Elliot, 2014:12). In many cases food producers can rest secure in the knowledge that food inspections are usually carried out once a year and the risk of being detected is therefore low. Furthermore, 'the justice system shows greater leniency to all types of white-collar offenders than to those who have committed common crimes of equal severity' (Coleman, 1987: 408).

Another convincing popular accusation against the original victims is the increasing worldwide demand for inexpensive meat.

A century ago, meat was a dish primarily for special occasions or the rich. That's still the case in much of the world, but today consumers in wealthy countries expect meat to be their primary source of protein, and they want it inexpensive and convenient. They'd also prefer not to think too hard about where it came from. [...] Europe's horsemeat scandal has exposed a food supply chain set up to fulfill that demand — one in which meat from a Romanian abattoir can end up in British lasagna by way of companies in Luxembourg and France (Lawless and Hinnant, 2013).

It is certainly true that meat consumption in most Western countries is too high considering the known consequences to the environment, animal welfare and human health. But there is also an increasing demand for other consumer goods and products. Conversely, this is no argument for absolving unscrupulous traders from guilt and shifting the blame to the original victims, the consumers.

3. Discussion

The special characteristics of the horsemeat scandal are different from the characteristics of 'conventional crime'. This paper has shown that any recourse claims are difficult to enforce, either practically or legally because the monetary loss cannot be calculated exactly. There are an enormous number of victims; however, the exact figure is unknown. Because food fraud is an omnipresent mass phenomenon (Kerschke-Risch, 2016), it is possible to obtain large profits by defrauding the customer even if the individual loss is rather small. The majority of victims are unaware of their individual financial loss or the total amount of loss to all consumers involved, which, of course, is the fraudsters' profit. Additionally, no one was obviously physically harmed because compared with, for example, the Spanish cooking oil scandal, no direct damage could be proven. Moreover, possible effects on the consumer's long-term health are even more difficult to verify, which may also be the reason why there was no public outcry in Germany. In addition, the media did not only downplay the scandal it did not accuse the real perpetrators and their fraudulent profit maximising behaviour but emphasized the health benefits of horsemeat for the consumer and did not name the fraud for what it really was: economically motivated fraud. One year after the scandal nearly all tests on meat products were free of horsemeat (European Commission, 2014). This fact should not be taken as conclusive evidence for the achievement of increased security in the food sector because criminals may have changed their focus to other types of food fraud for the reason of incident-related controls for equine DNA.

Assumptions that food-related victimization processes include specific characteristics underline the wish of consumers to retain control of food-relat-

ed crime at all times and in any situation, which is impossible. Food fraud is not limited to cheap products for the poor; on the contrary, expensive or luxury products such as extra virgin olive oil, real vanilla extract or saffron are often counterfeit (Moore *et al.*, 2012) as well as foods labelled organic. Between 2007 and 2014, more than 300 million kilogram of conventional food products were traded as organic (Grefe, 2014). Often consumers deny being a victim because it is hard to accept one's own omnipresent vulnerability, which is based on physiological need: no one can exist without eating and drinking. Therefore, compared with nearly all other offences, anyone can be a victim – and it can be assumed that everyone has been a victim – mostly without realizing it, and presumably with regard to mislabelled food products.

Because all people must eat every day, there is a daily risk. This fundamental need cannot be replaced by something other than food, which inevitably results in a high probability of again becoming a victim in the future and a low probability of avoiding all food-related risks. If people attempt to minimize these risks, they must necessarily introduce restrictions into their daily lives, and in the worst cases, such people will suffer from severe eating disorders.

However, scarcely any victims recognize these special offences or even regard themselves as victims. According to Simpson (2013:309), '[w]hite-collar crime is one of the least understood and arguably most consequential of all crime types'. Simpson's assertion can be fully accepted but must be complemented with crime in the food sector as a special field of white-collar crime with resultant consequences to the victims.

The horsemeat scandal can be seen as representative for food fraud in general. The majority of consumers believed that the horsemeat was not harmful because the media as well as official statements from the WTO alleged that the meat was harmless. On the whole especially in Germany there is only limited legal awareness with regard to food fraud and especially in the particular case of horsemeat. Additionally, in Germany as well as most members of the European Union there are no legal foundations for class actions as for example in the USA. This means, even if some consumers would have been aware of being defrauded they would have had no possibility for inexpensive and risk-free legal action.

If all existing legal frameworks were applied and adhered to by all parties involved food scandals like horsemeat could be prevented as the following statement shows: "After the horsemeat crisis, we realised that one of the main problems in enforcing food legislation across Europe and tackling food fraud across Europe was the fact that member states were not using to the full the instruments and the tools for administrative co-operation across borders", Carmen Gerau, Head of the European Union's Food Fraud Network, said (Johnston, 2014).

When scandals such as the recent ‘horsemeat scandal’ in Europe become well-known, many consumers react like other victims, transforming themselves into wrong-doers and justifying the fraud by their desire for the cheapest food possible. If this were the only reason for counterfeit food, one would only have to raise prices and/or subsidies. However, raising prices is no solution because highly priced products or luxury goods are counterfeited as well (Grefe, 2014; Moore, 2012). Conversely, consumers lose confidence in official statements from the authorities and the government. Consumers are the victims who are, if not physically, at least emotionally harmed and may be under a great deal of psychological pressure (Kerschke-Risch, 2014, 2016).

According to Ghazi-Terhani and Pontell (2015), the melamine milk scandal in China was no ‘accidental contamination’; the same is true for the horsemeat scandal, which was economically motivated fraud. Despite environmental, animal welfare and health-related questions, according to which a reduction in meat consumption would definitely be desirable, the goal must be to protect consumers’ decisions regarding the type of diet to follow: omnivorous, vegetarian or vegan. This decision must be free and not a consequence of fear or guilt.

Elliot defines food crime by contrast to food fraud as ‘an organized activity perpetrated by groups who knowingly set out to deceive, and/or injure, those purchasing a food product’ (2014:12). Because of this definition and the obscure economic activities in this context, the horsemeat scandal is an organized and economically motivated food crime. Public opinion generally disregards the concept that not only cheap processed food is faked or adulterated but that expensive luxury products are as well, such as champagne or even caviar (SWR.DE, 2008). Thus, the alleged argument that the ‘squeezing’ of producers is the reason for crime in the food sector is not convincing at all. One must fully agree that ‘[t]he ingenuity of fraudsters is almost infinite, but we must do our best to try and keep up’ (Lawless and Hinnant, 2013). Publicity, as Ghazi-Terhani and Pontell (2015) argue, is not a universal remedy as long as consumers have no sense of right and wrong in connection with food fraud. We need publicity regarding food production, traceability, the role of food suppliers and economic entanglements.

Consumers’ reactions to food ‘scares’ have thus far been interesting primarily as a result of marketing strategies and restoration of lost trust regarding food products (Yamoah and Yawson, 2014). Victims’ experiences, feelings and reactions are largely ignored by criminologists. There is no victims’ survey regarding an awareness of food-related crime, nor have consumers’ opinions of the consequences of their shopping behaviour been measured.

Consumers believe that they are the guilty parties and blame themselves instead of the real offenders. Everyone blames the victims for demanding af-

fordable food; however, nearly no one blames the criminals for their greed for illegal profit. Considering that most German consumers are not aware of being victimized by the horsemeat scandal, awareness of food-related offences should be increased in connection with victims' issues and their consequences. Garkawe's demand that the scope of victimology should not be restricted (2004: 290) must be corroborated.

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