# The tipping point of the perceptions of the Dutch broiler industry: the case of the 'plofkip'







Wageningen University – Department of So	ocial Sciences
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The tipping point of the perceptions of the Dutch broiler industry: the case of the 'plofkip'

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#### **Preface**

The motivation of this research was a combination of study related interests, since I am a student of animal sciences with an interest in communication sciences. With these interests came the choice of a research subject, which needed to spark my interest. I therefore chose the 'plofkip' campaign of Wakker Dier as a subject, since it was about the broiler industry, of which I was knowledgeable. The 'plofkip' campaign sparked my interest since it focused on the increased awareness on animal welfare in the bio-industry, which was my focus in animal sciences. The design of the research came after the choice of a case. The most appropriate concepts were chosen to understand the case that was selected. Furthermore I would like to thank my supervisor Severine van Bommel for the appropriate guidance and constructive feedback for this thesis.

# **Summary**

Over the last decades animal husbandry has intensified in the Netherlands, which was paired with an increase of various (ethical) challenges. Amongst these challenges were health and welfare related problems. This was seen as a concern for a animal welfare organisation, i.e. Wakker Dier. This organisation started a campaign addressing these welfare issues in the broiler husbandry. With this campaign Wakker Dier (re-)introduced the word 'plofkip'. Together with the help of the media it seemed that Wakker Dier changed the public perception regarding the broiler industry. The research aim was to understand how and why change of the view of broiler husbandry had occurred and how Wakker Dier had contributed to this change. To answer these questions several theoretical concepts were applied to the problem. The overarching theory was the complexity theory. This was used how change would occur and how views on subjects can change. Within the complexity theory stable states i.e. attractors indicated the position of the view on the broiler industry. A shift in attractors was expected in this case study. To understand how different frames were being used of time, the concept of framing was used. The main focus was on the interactive approach of framing, of which issue framing was of the greatest importance. The What is the Problem Represented to be approach (WPR-approach) was used to discover the frames about the broiler industry being used over time. The WPR approach is a tool used to determine underlying principles of defining problems, i.e. the problematisation of the broiler industry. The WPR-approach made use of six questions to understand how a certain issue has suddenly become 'problematic'. For this study an interpretative approach was chosen and within this approach a case study was chosen. To reconstruct what happened over the time period of 2000 to 2013, newspaper articles were collected from five Dutch newspapers from the online database Lexis Nexis. The information in these newspaper articles was summarised in a chronological order and focused on the most important events regarding the broiler industry and the 'plofkip'. The most important events in the chosen time span were: the outbreak of the avian flu in the Netherlands in 2003 and the threat of this disease in the years following; the introduction of a new political party in 2006 called the Partij voor de Dieren with their main agenda covering animal related issues; the increased interest in the environmental aspect of durability in 2008; the kilo-knaller campaign of Wakker dier in 2010 and their 'plofkip' campaign in 2012. The summary of the newspaper articles was used for the analysis with the six questions of the WPR-approach. The history of the broiler industry determined how the origin of the 'problem' originated. The Dutch government focused on an increased

industrialisation of animal husbandry, which lead to an increased production and competition and thereby to the focus on lower prices. The most important underlying assumption was that broilers could be used for the benefit of human kind and were therefore seen as a lesser specie as mankind. The focus on efficiency and productivity drastically decreased the prices of animal products, which was therefore seen as problematic. This focus meant that people were sustaining the idea that meat had to be produced cheap and thereby reinforcing the compromised welfare of broilers. A large invisibility of the broiler industry was that the industry chain was for a large part out of sight of people. Unproblematised aspects of the broiler industry were the diseases that were common for poultry; the lack of governmental involvement; bacterial contaminated meat; and the fact that animals were used for meat production. The effects of this problem representation were the most obvious for the broilers themselves, with several welfare compromising effects. Other effects were on the broiler farmers, which can be regarded as victims of the market mechanism. The view on the broiler had changed towards the 'plofkip' after the campaign of Wakker Dier in 2012. After said campaign, the awareness of animal welfare increased as well as the focus on it. The broiler was no longer just seen as a meat product.

Looking back at the dynamical system with attractors in the introduction, it was possible to understand the how change occurred. The WPR analysis showed that the dominant view was seen as the broiler as a financial product. During the period of 2000 to 2013 the landscape of the broiler representation gradually changed. It was seen that animal welfare gained more interest in the newspapers. Amongst the causes for the change of the landscape, of the views on broiler welfare, were animal diseases that gave reasons for newspapers to cover animal welfare. During these times ethical grounds of broiler keeping were often criticised. Wakker Dier came with a relatively new frame of the animal welfare which was opposing the dominant view. The setting of animal welfare being of an increasing interest made the puddle of the broiler shallower, i.e. a change in frames was made easier and less effort was required for change to occur. The use of language was an indication of how frames were used to send certain messages or how to represent certain issues. The perspective and name of the 'plofkip' were the most active role of language in this study. Within the findings of the WPR-approach were that several discourses became more evident, among others the following subjects had discourses: broilers (e.g. 'plofkip'), environment, welfare, health, economy and consumer behaviour.

With the campaigns of Wakker Dier and the increased focus on a green image of sectors involving the broiler industry, change was allowed the to occur, as such enough was done to for the general view to roll in the attractor of the 'plofkip'.

#### Introduction

Chickens (Gallus gallus) are production animals mainly held for two purposes: laying of eggs (laying hens) and for the production of meat (broiler chickens). Broilers have been selected for a high food conversion efficiency, rapid growth, a larger breast size and meat yield, which resulted in chickens reaching a full adult body size of around 2.2 kg in 6 weeks, as compared to 17 weeks for laying chickens (Mench, 2009). Large-scale commercial production required animals to be housed indoors, to provide better environmental control, allowing automatic feeding, watering, manure disposal, prevention of predation and disease prevention (Mench, 2009). Broilers are typically housed in floor systems, which are large stables where the broilers walk on a floor made of wire, slats, litter or a combination of these. Within these floor systems, light is frequently dimmed to decrease the activity of broilers, thereby promoting growth. In 2011 there were 439 broiler farms in the Netherlands, with a total of little less than 44 million live broilers were kept in 2012 and over 520 million were slaughtered in 2012 (CBS, 2013). Broilers farms house on average 100.000 broilers. These broilers may be held at a maximum density of 42 kg/m<sup>2</sup> (Vleeskuikenbesluit, 2010). This comes down to an average of about 19 broilers per square meter, i.e. broilers have an area of 0.05 m<sup>2</sup> per broiler. The intensity of commercial keeping of broilers is paired with various (ethical) challenges. Amongst these are health and welfare problems. Holding animals in large groups can be a source of aggression, which can lead to typical problems with chickens, including feather pecking and cannibalism. Broilers commonly suffer from claw dermatitis caused by walking on wet excretion, this problem is so common that even the Dutch law allows up to 15% of the tested broilers to suffer from claw dermatitis. Other known problems were related with the rapid growth of the broiler, include ascites, sudden death syndrome and leg deformities. Cumulated mortality rates of seven consecutive days are allowed to be the sum of 1% and 0.06% multiplied with slaughter age of broiler chickens in days (=3.52%). This meant that it was legally allowed that 3.52% of the broilers died before slaughter, which comes down to 3.520 dead broilers on an average broiler farm. Welfare problems include the health problems and lack of space, daylight and limited enrichment. This was a cause for concern for the animal welfare organisation 'Wakker Dier', which began a campaign aimed at broilers.

Wakker Dier started a campaign in 2010 against cheap meat production and especially against discount on meat products. A new campaign was started on 29 January 2012 specifically aimed at broiler chickens in the Netherlands. For this purpose, Wakker Dier used a 'new' name for broiler chickens, i.e. 'plofkip' which is roughly translated to plump chicken.

Plump is a literal translation of 'plof', plump also means fat or heavy, which reflects the quick weight gain of broilers. This name was created in 2001 by Wouter Klootwijk a journalist and co-worker of the program 'Keuringsdienst van Waarde'. The focus of the word was on the large (explosive) increase in mass of the chicken. The increase of muscle mass of the chicken surpassed the growth of the bones, this continued until the legs of the chicken cannot support the weight and the chicken literally bursts through its legs (legs break under the weight). The main concern of Wakker Dier was that 'plofkippen' had the most impaired welfare of all production animals in the Netherlands. The cause of these welfare problems can be attributed to the increasing demand for cheap meat, which resulted in a selection for animals with an increased growth rate and food conversion rate. The goal of the campaign aimed at broilers was to ban the sale of the so-called 'plofkippen' and replace these with the sale of chickens with an increased welfare. According to Wakker Dier welfare of broilers has to be improved by replacing the 'plofkip' with a different and slower growing breed. According to Wakker Dier welfare also has to be improved with chickens being able to go outside and a different catching method and transportation method need to be used. To achieve this goal, Wakker Dier used multiple media strategies that exposed companies that continued their sale of plump chickens and indicated what companies stopped the sale of plump chickens. This campaign already resulted in companies stopping with the sale of 'plofkip' meat. The campaign even resulted in a plan of supermarkets to change the industry, allowing more room per chicken, increased life-span and longer nights. Wakker Dier does not think that these changes were severe enough and continued their campaign.

In the light of the campaign of Wakker Dier the following questions arose: since when and why was the husbandry of broilers actually seen as problematic, and as an effect why did it suddenly change? How was it possible that Wakker Dier caused a change in the broiler industry and change thoughts about the broiler industry? The aim of this study was to answer the question how and why the perception on the broiler industry had changed over the last decade, and how Wakker Dier contributed to this with their 'plofkip' campaign. Sub questions will be addressed in the conceptual framework. To answer these questions, the representation of the problem in Dutch newspapers will be investigated. This will be studied by looking into the amount of articles that have been published in Dutch newspapers and how framing of this subject has changed over time.

#### Theoretical framework

# Complexity theory, change and tipping points

The problem of the broiler industry seemed to be situated in a complex context, since there were many different stakeholders which had interdependent stakes and interests in the problem. To understand the sudden change within the broiler industry, it was of interest to look upon the complexity theory. Complexity theories originated from natural sciences, where they were concerned with systems which were constantly changing and where the laws of cause and effect of remained obscure (Beeson & Davis, 2000; Haigh, 2002). Complexity theories hold that chaos was a necessary condition for the growth of dynamic systems (e.g. ecological systems and the weather), but such systems were prevented from falling apart by simple order-generating rules (Burnes, 2005; Gell-Mann 1994; Gould 1989; Prigogine & Stengers 1984). Within the complexity theories, 'chaos described complex, unpredictable and orderly disorder in which patterns of behaviour unfold in irregular but similar forms' (Burnes, 2005, p79; Tetenbaum, 1998). Too much order within a system will prevent change from occurring, whereas too much chaos will result in overwhelming change (Burnes, 2005). Even small changes in one element might lead to large changes in the system, where systems spontaneously organise themselves to a new structure. Self-organisation means that 'change emerges as the unintended outcome of numerous intentional actions which interact and interfere with each other in complex ways' (Leeuwis & Aarts, 2011 p 25; Sharpf, 1978; Aarts & Van Woerkum, 2002; Castells, 2004; Aarts, 2007). These systems tend to return to a relative stable state (an attractor) after self-organisation. Attractors can be seen as 'a state or a reliable pattern of changes (e.g. periodic oscillations) toward which a dynamical system evolves over time and to which the system returns after it has changed" (Coleman et al, 2007a p 5). This system is visually represented by Figure 1.

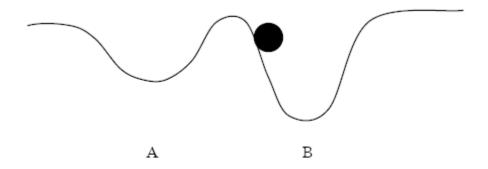


Figure 1: A dynamical system with two attractors A and B, with the ball representing the current state (Source: Coleman et al., 2007b).

The state of the system fluctuates continuously, but will roll back to an attractor (e.g. a accepting the welfare of broilers). When sufficiently pushed, the state can shift towards another attractor (e.g. not accepting the welfare of broilers). A single intervention alone is unlikely to be able to force the state to another attractor (Leeuwis & Aarts, 2011). Due to the complex nature it is most likely that a single intervention will have both positive and negative effects on the state. Not only can the state be changed, but the landscape of the attractors itself can change as well (Leeuwis & Aarts, 2011). It is possible that the basins represented in Figure 1 change over time by become wider or narrower, as well as deeper or shallower. The complexity theory might thus explain how the view on the broiler industry has suddenly shifted from one attractor to the other over the course of time. It is possible that the state of the system has changed and/or the landscape of the attractors changed, allowing the change view of people. Changes of attractors and the landscape can be seen by the different frames being used by people. A shift of attractors can be noted when frames change e.g. from broiler to a 'plofkip'. It has therefore been chosen to focus on frames within the context of the broiler industry.

To further understand how the figurative ball in figure 1 is able to change from attractor and how this can occur rapidly, the next concept i.e. the tipping point will be discussed. The tipping point is where usually gradually change would have occurred, but instead a radical turn around occurred. A tipping point typically occurs at a threshold where a slight disturbance can change the social trend, e.g. the top between two attractors in figure 1. The shift in the perception of social problems can occur rapidly and can become self sustaining when it has passed a certain threshold. Some restraints may occur, e.g. cultural prejudices might block opportunities for change (Gladwell, 2012). The tipping point can be

seen as a S-shaped curve, where a lot of input has been introduced at the start (Rogers, 2003). Another view on the S-shaped curve, included the stages of predevelopment, take-off, breakthrough and stabilisation (Moser & Dilling, 2007). These aspects can be seen as inherent parts of the tipping point. The predevelopment was the part of the curve before the steep rise, thus all happenings leading up to the tipping points. The take-off stage was the part where the tipping point occurs and after which a breakthrough follows. After the breakthrough a time of stabilisation remains, at which the change of perception occurred.

Within the group of people conveying the message of change, a certain set of roles needed to be fulfilled, i.e. connectors, mavens and salesmen. The mavens are presumed to gather intelligence and like to share it. An example mentioned by Gladwell (2002) was that the mavens were the ones that looked for the lowest prices and mentioned it to the connectors. The mavens were seen as the people that find problems and want to pass this knowledge on to others. They are the ones that have knowledge that most others do not have. To share this knowledge effectively the next role will be needed, i.e. connectors. Connectors are the people responsible for knowing the right people to which they can convey the message. The final role mentioned in Gladwell (2002) was the salesmen, i.e. those that had the uncanny ability to be persuasive and draw others in their way of thinking.

A tipping point was said to follow a set of rules or laws (Gladwell, 2002). The first law was the law of few, with meant that only a small part of society cause the real change of what happens. The second law was the law of stickiness, which holds that for a message to make an impact, people need to remember why they should change their behaviour. The third and final rule was the power of context, determining that the context of change is of utmost importance.

Frames will indicate how problems have been defined. Change leading towards a tipping point will include a different perception on the problem definition of the broiler industry. The usage of frames will change during the tipping and frames can thus help understand how and when change from one attractor to another occurred.

#### **Framing**

Framing was used to understand the different realities that were created as well as it helps to understand the rules which govern our world (Goffman, 1974). Framing was used to interpret, understand, making sense and giving meaning to what happens in the world (Aarts &

Woerkum, 2006). Norms, values, believes, objectives, interests, convictions and knowledge influence the process of framing (Aart & Woerkum, 2006). The concept of framing was divided in two main dimensions, i.e. the cognitive and the interactive approach on framing (Dewulf et al., 2005).

The cognitive approach focused on how frames are stored and represented in memory, whereas the interactive approach focused on the enactment of frames in ongoing interactions (Aarts & Woerkum, 2006). The cognitive approach held that frames consist of thoughts, feelings, emotions and language (Aarts & Woerkum, 2006). Cognitions were stored as a result of previous experiences and interactions in life (Teasdale & Barnard, 1993). Cognitions were activated and emerge when people were highly involved in a certain issue. When activated, these cognitions became strong enough to produce emotions, which in turn would be used for decision making (Hamilton, 2005). A certain context called forth different cognitive frames, which would then be combined and flexibly used.

The interactive approach held that people construct frames in interaction to reach certain goals, e.g. as a problem definition (Aarts & Woerkum, 2006). Out of all possibilities a certain frame would be chosen to accomplish our goals in an interaction, e.g. altering the content of a conversation. To achieve these goals, frames were constructed and communicated in interactions (Aarts & Woerkum, 2006). Frames that were used integrate past (experiences), future (goals) and the present (the current context) (Rosales, 2004). Experiences, expectations and interests with regard to content could be discovered by studying frames that were produced (Aarts & Woerkum, 2006). The main difference between both approaches was that in the interaction approach dealt with how language was used in interaction for constructing frames, whereas the cognitive approach focused on the contents of the interaction as well as the background of the stakeholders (Aarts & Woerkum, 2006).

The focus in this study will be on the interactive approach of framing, since the interactive approach focuses on how problems are defined, and frames used to achieve goals in interactions, whereas cognitive frames focus on how stored cognitions that are primed and is not focused of how frames change. The interactive approach holds that a certain frame is chosen in a certain context, in this case Wakker Dier used certain frames to interact with different stakeholders about the 'plofkip' problem. Other interactions of interest were those of the media, where the 'plofkip' was communicated to the consumers.

Different frames exist within the interactional approach, depending on what gets framed. The following frames are include in the interactional approach: issue frames, relationship frames and interaction frames (Dewulf et al., 2005). Issue frames interactively

produce meaning of issues, relationship frames interactively produce meaning of self, other and relationships, interaction frames interactively produce meaning of ongoing interaction. The focus of this study, within the interactional approach of framing, will be on issue framing. Issue framing was appropriate since the 'plofkip' and the Dutch broiler industry are seen as issues. Issue framing focused on how parties give meaning of issues in interaction (Dewulf et al., 2005). Issue framing held that certain situations were labelled as problematic, with their causes discussed and stakeholders being responsible (Dewulf et al., 2005). Within the issue framing, actors stress specific aspects of a situation and defined how the issue could be understood or labelled. These frames could be rejected or accepted by others by either maintaining the frame or altering the current frame (Drake & Donohue, 1996). The focus of this approach is on the what an issue becomes defined as in a situated context (West, 1984).

Frames in the make pieces of information more salient, i.e. making information more noticeable, meaningful and memorable for the audience (Entman, 1993). Frames could be perceived as packages of information concerning a certain event, which is explained and simplified in such a way it provides meaning for the target audience, as summarised in Scheufele (1999). These frames showed persistent patterns of selection, emphasis and omission of information concerning a specific event or issue (Gitlin, 1980, 1994). Framing had the following purposes: frames define problems, i.e. "frames determine what a causal agent is doing with what costs and benefits" (Entman, 1993, p 52), identify the forces creating a 'problem', make moral judgments by evaluating causal agents and their effects, and suggest remedies which will treat the problem and predict their effects (Entman, 1993, 2004). Entman stated that the focus on problems was of importance, this was where the 'what is the problem represented to be' (WPR) approach can be of assistance. The WPR approach was useful for identifying issue frames and determining underlying causes in problem definitions. Frames and discourses become more apparent in the WPR approach, which in turn can explain the change seen in the complexity theory. The WPR approach will be explained in the following section.

#### What is the problem represented to be approach

The What is the problem represented to be approach (WPR approach) is a tool used to determine underlying principles of defining problems (Bacchi, 2012). The WPR approach was originally designed for policy analysis, but can also be applied to cultural materials,

economic decision-making and social debates (e.g. the issue with the 'plofkip') (Bletsas & Beasly, 2012). The methodology of the WPR included several strategies, including discourse analysis, genealogical analysis and archaeological analysis (Goodwin, 2012). According to Bacchi (2012), social problems did not exist and were not waiting to be solved, addressed or corrected; but 'problems' were socially created. The WPR tried to disrupt the presumptions that 'problems' were fixed and can and need to be solved (Bacchi, 2012). The WPR assumed that policies, policy proposals and social debates contain implicit representations of what was considered to be a problem (Bacchi, 2012). The aim was to find these assumptions and deepseated conceptual logics within problem representation (Bacchi, 2012). The WPR approach guided the finding of assumptions, presuppositions, and help with considering what was left unproblematised and ascertaining the effects of the specific representations as well as finding different ways of interpreting a specific 'problem' (Goodwin, 2012). The WPR involved three key propositions: 1. we are governed through problematisation, 2. we need to study problematisations, rather than problems, 3. we need to problematise the problematisations on offer through scrutinizing the premises and effects of the problem representations the contain (Bacchi, 2012). The first proposition holds that one must think behind different forms of rule. Problematisation needs to be investigated, rather than the focus on solving 'problems' (Bacchi, 2009). The offered solutions are an indication of the problem representation. The second proposition questions the declared objective of assisting governments and organisations to solve 'problems'. This proposition presumed that governments and organisations were active agents in the creation of policy 'problems' and associated 'solutions'. The focus on analysis should be less on solving 'problems' and more on problem representation. The third proposition desired to rethink the ways in which we were governed due to concerns and hesitations about the effects of particular forms of rule. Particular ways of thinking had been closed off by the presumptions and assumptions in the problem representation. The WPR helped with identifying the implications of problem representations. This study aimed to understand the how the tipping point of the perception of the broiler industry occurred. It will therefore make use of frames for understanding how perception has changed and how problems were defined. To further help with understanding problem, definitions, the WPR-approach was used. The application of the WPR approach in this research will be on the social debate of the 'plofkip', with the focus on the problem representation within the media. The six questions of the WPR approach are presented in the following part and applied to the 'plofkip' campaign of Wakker Dier.

- 1) What is the problem of the 'plofkip' represented to be in Dutch newspapers?
- 2) What assumptions or presuppositions underpin the problem of husbandry of broilers in the Netherlands?
- 3) How has the representation of the broiler husbandry come about?
- 4) What part of the broiler husbandry is not expressed as problematic, where are the silences? Can the husbandry of broilers be thought of differently?
- 5) What effects are produced by the representation of the broiler husbandry?
- 6) How and where has the representation of the broiler husbandry been produced, disseminated and defended? How could the representation of the broiler husbandry be questioned, disrupted and replaced?

# **Methodology**

#### **Approach**

Two ways of knowing exist in research, i.e. the interpretative approach and the positivist approach. The interpretative approach differs from a positivist approach, the latter being the main approach in natural sciences. The positivist approach takes the view that reality exist independently from the observer and it can therefore be know objectively (Haverland & Yanow, 2012). Positivists aim to indentify the causes of certain phenomena, which is mainly done by testing causal hypotheses (Haverland & Yanow, 2012). The researcher needs to demonstrate that an independent variable has caused another factor, i.e. the dependent variable. The interpretative approach will guide the researcher to provide reasons for a certain phenomenon. Interpretative research does not start with formal hypotheses and it does not specify variables, thus it does not test hypotheses (Haverland & Yanow, 2012). The interpretative approach often starts with abductive reasoning, where the researcher begins with a surprise or a puzzle and aims to make sense of the puzzle or surprise (Schwartz-Shea & Yanow, 2012). The conditions which made the puzzle less perplexing will be sought after by the researcher. The main questioning of the puzzle is what circumstances would make the change seen in the view on broiler husbandry as less surprising (Haverland & Yanow, 2012). This requires the researcher to tack continuously back and forth between what is puzzling and possible solutions for this. Therefore the researcher is directed from the puzzle to a solution. Interpretative research holds that knowledge of social realities are socially constructed and objectivity from the outside is impossible (Haverland & Yanow, 2012). The focus of the interpretative approach is on contextualised meaning making. This type of research is entailed with interpretations. The interpretative approach allows different interpretations to a certain context, which will be found frequently with framing, making an interpretative approach seem to be the most appropriate approach.

#### Design

Within the interpretative approach a case study was chosen. A case study was a detailed examination of a single example of a class of phenomena (Abercrombie et al., 1984). The word "case" indicates that an instance (or example) of something had been used (Haverland & Yanow, 2012). In interpretative research a case was often a site or setting, illustrating the

focus of interest, in which the research was carried out (Haverland & Yanow, 2012). The focus of case studies was on the context and interaction within the case, i.e. the full width of the context would be used (Aarts, 2009). The case study aimed to understand the role of communication in a certain context. The case study was well suited to offer concrete, context-dependent knowledge (Flyvbjerg, 2006). Cases studies provide a historical perspective, which it will shed light on the processes that preceded and influenced the event or case (Aarts, 2009). The advantages of the case study indicate its usefulness for this study. The most important aspects of the case study for this research were: that the case study provides a historical perspective, which will provide clues how the view of people has changed over time; and the case study will provide context dependent knowledge.

Contrary to the positivist approach, the interpretative approach does not begin with predefined hypotheses. This research started out with the surprise of the sudden change of the view on broilers. People knew the problems associated with the husbandry of broilers for years, but they only recently changed their thoughts about it. The 'plofkip' was thus seen as the figurative puzzle within the interpretative approach of this study and was the starting point of this study. The case of the 'plofkip' itself was therefore chosen to be the subject of this research. The case was thus not selected to fit certain hypothesis, as such the study was in a way selected to fit the case.

#### **Data collection**

Newspaper articles were chosen for the data collection, since they archived events happening in the chosen time period and thereby provide the relevant frames and a relative complete story. Newspaper article were chosen even though the media is not entirely objective, therefore the data collection was comparable with that of interviews which were not objective as well. The data collection was thus treated similarly as interviews would have been treated. Newspaper articles were collected from the online database Lexis Nexis. The following Dutch newspapers were included: NRC Handelsblad, De Volkskrant, Trouw, AD and de Telegraaf. The references to the newspapers can be found in index 1. The most sober newspapers were NRC Handelsblad and De Volkskrant, whereas de Telegraaf is a populist newspaper. The following terms or a combination of these were used to find relevant newspaper articles: "plofkip", chicken, broiler, animal welfare, meat, livestock, animal ethics. Newspaper articles were found in the time period of 2000-2013. This time span has been chosen because it

envelops the time before the term 'plofkip' existed and lasts until Wakker dier used the term for their campaign and the effect of the campaign. Selection of relevant articles was primarily done by reading the titles of the articles and secondarily done by reading part of the text of the articles. The subject of the articles had to fit in the discussion of the broiler industry, the ethics of it or needed to be somehow related to this. A total of around 750 newspaper articles were found with an average of 150 newspaper articles per newspaper. All of these articles were read and summarised, where about 5 to 10% of the articles were removed due to a lack of relevance (e.g. articles containing no information besides chicken recipes and articles about individual animals or persons were removed).

#### The newspapers

The newspapers selected for this study were five of the largest newspapers in the Netherlands and their attributes described shortly.

#### De Telegraaf

The 'Telegraaf' was typically described as a populist newspaper, due to the large amount of entertainment and sensational news it contained. The Telegraaf was not seen as a quality newspaper together with AD, politics and quality do not seem to play a large role in this newspaper. The financial section of the newspaper has a more serious tone. The Telegraaf was the largest Dutch newspaper. The target audience of the newspaper was a large portion of the Dutch people who are said to be distrusting in politics. The average Telegraaf reader was said to be a 48 year old male smoke, with below average intelligence and income. The writing style was conservative and populist. Politically seen this newspaper has a tendency to be right-wing oriented.

# Algemeen Dagblad (AD)

AD aimed to be politically neutral in their coverage of the news. The target audience was said to be of all layers of the population, but more than half of the readers had above average income and above average education. The AD is mostly read in southwest of the Netherlands. The target audience of the newspaper has changed back and forth in the last decades. Newspaper articles of the AD were only uploaded from 2005 onward.

#### De Volkskrant

The volkskrant used to be on the left-wing of the political spectrum, but moved a bit to the right-wing spectrum. The Volkskrant, together with NRC Handelsblad and Trouw, were seen as Dutch quality newspapers. It aimed at the higher educated and young people. The newspaper was described as authorizing critical and easily accessible. It was said to be on top of the news.

#### NRC Handelsblad

NRC Handelsblad was called a liberal Dutch quality newspaper. It was seen as the most influential newspaper for higher educated people. NRC Handelsblad was said to have a large in depth coverage of issues. Among its main qualities was that of politics and economy. The average target audience was 35+, university educated and higher income.

#### **Trouw**

The Trouw was a Dutch quality newspaper, with a focus on society and ethics. It was said to be involved in social discussions and said to sparkle these. The target audience was described as highly educated people with ideals and have an above average income. The audience was said to be involved and aware with a goal to a better, healthier and more sustainable world. They were focused on quality and were prepared to pay for it. The political spectrum is said to be CDA, PVDA and Groenlinks, thus more left-winged.

#### **Analysis**

The hermeneutic circle is a sense making circle designed by Dilthey (1976) and further extended by Gadamer (1976). Within the hermeneutic circle there is no fixed starting point for inquiry: the process of sense making begins wherever the individual is in her understanding at that moment with whatever grasp of things she has at that time (Schwartz-Shea & Yanow, 2012). The hermeneutic circle holds that there are no conclusions, only momentary stopping points to collect one's thoughts. The researcher begins with the project with prior knowledge and his sense making develops both as he confronts particular elements as he gains sense of the wider context. The circle described the intimate relationship between part and whole: how the meaning of a phrase or act depends in its relationship to the whole, but, as well, that the meaning of the whole cannot be grasped independent of its constituent parts (Schwartz-Shea

& Yanow, 2012). The hermeneutic circle has an iterative-recursive character. It is iterative in that the same logic of inquiry is repeated over and over again. It is recursive in that we perform abduction within abduction as one discovers leads to another.

The hermeneutic circle starts with the search for and selection of relevant newspaper articles. As has been described before, this was done on the newspaper database Lexis Nexis, where partial selection is performed by searching for certain key-words in the articles. After acquiring the articles, a selection was made on which articles would provide the most valuable information, which would then be read. Through reading, important concepts and patterns become apparent, which can lead to the discovery of key events. Knowledge of this can help with selecting other articles to read, it can also help with the interpretation of the articles as well as pointing in a direction for clarifying theories. Within this hermeneutic circle steps can be performed interchangeably, since there is no set order of steps.

The analysis was performed with the help of the what is the problem represented to be approach (WPR-approach). The summary of the perceptions of the broiler industry during the chosen time span was used as the basis for the WPR-approach. The six questions of the WPR were applied in the analysis. The questions themselves have been left out of the analysis in favour of a more fluent story. The results of the WPR-approach were adjusted with the answers to subsequent questions to therefore present a more accurate result.

# **Changing perceptions of the Dutch broiler industry**

The discussion of the 'plofkip' in the media consists of the summary of the relevant issues and key events occurring between 2000 and 2013 described in the collected newspaper articles. Different views on the issue of the broiler industry will be highlighted within the text. The results thereby consist of multiple views on the same subject and might therefore be inconsistent on occasion. Translated quotes in the text were followed by the original text in annotations.

The discussion of the 'plofkip' started in the year 2000, which was marked with the introduction of the term 'ploffers', which was used to describe the fast growing chicken breed and used by the creator of the term 'plofkip': Wouter Klootwijk (Volkskrant 10-06-2000). In his article he described how chickens had a better life in the past and how they used to taste better. Wouter Klootwijk is a Dutch journalist, columnist and writer of children books. He writes articles for NRC Handelsblad and De Volkskrant. Wouter produced a television show called Keuringsdient van Waarde, in which he and others sought the truth behind our food industry. He was known for his critical and independent view on different subjects. In an interview he claimed that he wanted citizens to change the world with the facts that he presents.

Welfare was always in the newspapers within the given time span, but it became of more interest in the later years. In the year 2000 one specific chicken welfare issue was mentioned. This was the cutting of beaks of chickens. This procedure was performed by cutting of the tip of the beak. This was supposed to reduce the damage done by feather pecking, which otherwise would result in one in eight chickens dying from the consequences of feather pecking (Volkskrant 08-04-2000). The ban of beak cutting was addressed to be in 2011. The article in which the issue was addressed, mentioned the ethical choice between beak cutting and feather pecking.

The debate about the broiler industry intensified in 2001 after an outbreak of Foot and Mouth Disease (FMD) occurred in the Netherlands. FMD had as an effect that interest in animal ethics, animal welfare and animal suffering increased and it seemed that consumer awareness about these subjects increased as well. The image of dead cows being moved by a crane was one of the causes of this (Volkskrant 23-04-2001). This brought attention to commissioners claiming that the livestock keeping needed to change dramatically (Telegraaf

30-02-2001), in which it was stated that "The current method of animal husbandry needs to change radically, according to the commissioners". They wanted a complete ban on large distance transportation of live animals and a ban on livestock markets in 2010. It was preferred that the view of seeing animals as products would shift to seeing them as animals again. The same commissioners also address the health problems of broilers, especially when they are slaughtered too late. Others focused on the welfare of broilers too, especially since the consumption of chicken meat has increased during the outbreak of FMD. They mentioned that the broiler is exceptionally young when slaughtered and that they grew extremely fast. Wouter Klootwijk also had a say this year and claimed that there was an increased concern about animal welfare, he claimed that people used to laugh about animal welfare on the television and now it was taken more seriously (Volkskrant 15-05-2001). In this article Wouter said: "the price difference between good, decent stuff and horror meat and chicken so large that people think they cannot afford regularly buying organic products "2". He wanted a stop of the so called 'plofkip', since these animals grew so fast that they fall through their legs. Another article mentioned the horrible short existence of broilers and called it a decadent welfare achievement. Wouter repeated his statement that chickens used to taste better and added the opinion that bio-industry chickens were tasteless. The Dutch animal protection was also mentioned being involved in animal welfare and they called for an extensive livestock keeping and increased animal friendlier manner of keeping. The animal protection focused on broilers and claimed that it is unacceptable, where they were mainly referring to the immense growth and mention a sudden death syndrome. Problems mentioned in other articles were the lack of possibilities of the chicken to dust bathe or to scratch the ground, which would lead to frustration and boredom. Boredom in turn can lead to excessive gleaming and feather pecking. The main concerns were mentioned to be Christian political parties, including the CDA, that allowed welfare diminishing laws (Trouw 05-04-2001). The success of campaigns aiming to change conditions for livestock were said to depend on the willingness of consumers to pay more for buying better meat (Trouw 06-06-2001). Another article also claimed that the involvement of supermarkets was necessary for change, with a focus on the stop of discount of meat (Telegraaf 30-05-2001).

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<sup>&</sup>lt;sup>1</sup> In die sector moet het roer, als het aan de commissieleden ligt, radicaal om. (De Telegraaf 30-02-2001)

<sup>&</sup>lt;sup>2</sup> Vaak is het prijsverschil tussen goede, fatsoenlijke spullen en horrorvlees en kip zo groot dat men het zich nog niet denkt te kunnen veroorloven om voortaan biologische producten te kopen. (Volkskrant 15-05-2001)

Interest in animal welfare decreased after the effects of FMD wore off. Plans for increasing broiler welfare stumbled upon drawbacks of agreements. The animal protection claimed that animal welfare still needed to be increased. Wouter Klootwijk again wrote some articles about the broiler industry. He claimed that it was no life for the animal, living in a stable with the smell of urine in the air full of dust (Volkskrant 04-10-2002). He explained the term 'plofkip' again as a "apathetic vegetating freaks, where nothing happy, animal like or pleasant radiates from." He claimed that broilers did nothing, wanted nothing and preferred to die. Wouter said that the consumer was the boss of what happened in the industry. The fameless ('ploffer') bio-industry chicken was said to taste the same as organic ones. Another relevant issue was the introduction of a genetically modified chicken which was featherless. This seemed to cross the moral border of the Christian Union (Telegraaf 23-05-2002).

#### **Avian Flu**

The discussion of broiler welfare started with increased interest in 2003, when an outbreak of the avian flu occurred in the Netherlands. The strain of the aviary influenza H7N7 was not harmful for humans. Even before measures were taken it was clear that the European Union would not allow a vaccination, even if it were available. To stop the spread of the disease, measures were taken including a transport stop, indoor confinement of chickens and mass culling of chickens, these measures were also aimed at hobby held chickens. The avian flu cost the life of 30 million chickens, with most of them culled instead of being the deadly victim of the disease itself (Volkskrant 04-06-2003). The culling of chickens was still in an experimental phase at the start of the avian flu outbreak. These experiments were far from perfect and in some cases chickens were dying slowly and painfully with a lot of fear and stress.

During the period of the avian flu outbreak, people began to question the usefulness of culling and were wondering if the avian flu itself would have caused as much damage as the culling. The animal protection wanted a halt of the non-vaccination policy in the future to prevent mass culling. It was said to be unnecessary. The reason for culling was thought to be the economic viability of the Dutch poultry sector, it was therefore questioned whether the hobby chickens were being sacrificed for the Dutch economy (Trouw 18-03-2003). Competition for the Dutch poultry sector became increasingly difficult with the export ban.

<sup>&</sup>lt;sup>3</sup> Vegeterende gedrochten zijn het, waar niets vrolijks, dierlijks, prettigs van afstraalt. (Volkskrant 27-12-2002)

Gaps left by this ban were filled by other countries, e.g. Thailand and supermarkets were already looking for chicken meat in foreign countries in case of a meat shortage. The animal protection thought it would be a good time to bring improvement of the poultry sector.

The validity of the bio-industry was questioned during the avian flu outbreak. According to one article the ban of the bio-industry would only lead to a shift of the sector to other countries. Even though culling was met with criticism, the resistance was less severe as compared with the period when cows were culled during the outbreak of FMD and BSE. The cause for a lower resistance was thought to be that chickens were massively culled and they were seen as less cuddly than cows, had a decreased amount of attachment to them and some claimed that chicken were better off dead anyway (e.g. Trouw 15-03-2003; NRC Handelsblad 04-03-2003). The chickens were just a product for most people and not seen as an animal anymore. The welfare of chickens was impaired during the avian flu with the indoor confinement and transport prohibition. Bio-industry broilers got into more problems as compared to the organic broilers. These broilers were not allowed to be transported or slaughtered, thus they grew past their regular six weeks slaughter age. This increased problems with their legs breaking and broilers becoming too big.

In an experiment of Wouter Klootwijk, four broilers were bought alive and raised to the age of four months instead of the regular six weeks in which they reach their slaughter weight (Volkskrant 14-04-2003). These broilers were apathetic and when they reached the four kilograms they died a painful death. Feather pecking was brought to the foreground in an article claiming that beak cutting is not an optimal solution and claimed that beak cutting was planned to be banned in 2006. Feather pecking is a sign of impaired welfare and it is an excessive form of a natural behaviour. Broilers had problems with their skeleton growth, metabolism, pulmonary and heart diseases. The strive for cheap food was one of the main causes for these problems in broilers: "our strife for the increased meat consumption for the lowest price, shall eventually stab ours backs." Possibilities were warding off animal unfriendly meat or even a 'bad' meat tax, but it was seen as impossible to ban the bio-industry chicken. The consumer was seen as another cause for the problems, since they were not willing to pay more for meat, which was a contradictory view to another article claiming that people would be willing to pay more for increased welfare (e.g. Trouw 22-09-2003). A positive welfare initiative was the adopt a organic chicken, which started in 2003. People were supposed to pay the farmer a yearly fee and get six eggs every month and you can look

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<sup>&</sup>lt;sup>4</sup> Ons streven naar zoveel mogelijk vleesconsumptie tegen een zo laag mogelijke prijs, zal zich uiteindelijk tegen ons keren. (Trouw 18-03-2003).

in the stable with the use of a webcam. Nutreco used a slower growing chicken after receiving criticism about the extreme growth rate of broilers. This breed would reach its weight in 56 days, which is two weeks longer than the standard broiler. Nutreco thought that there was a market for slower growing broilers (Telgraaf 06-12-2003).

Every now and then there were taste tests or opinions about the taste of chickens. In a taste test it was found that experts could not taste difference of between types chicken meat. Organic chickens did not taste better than the 'plofkip'. Wouter Klootwijk said that taste is subjective and mentally influenced (NRC Handelsblad 14-06-2003). The different types of husbandry could not be tasted, however the age could be tasted.

The effects of the avian outbreak from the 2003 before were still visible, so was the discussion of broiler welfare. The consumption of meat was still reduced in 2003, but the consumption of chicken had increased even with the new outbreak of the avian flu in southeast Asia. This might have been caused by discounts on chicken, which might have increased the consumption of cheap meat. The strain of avian flu in Asia was potentially deadly for people and some people feared a disaster scenario where the avian flu would mutate with a human virus. Other people feared for economical damage of the chicken meat in the Netherlands due to the outbreak in Asia (Trouw 03-02-2004).

It seemed that the welfare of animals was still of high interest in the year after the outbreak of the avian flu in the Netherlands. The adopt a organic chicken from last year seemed to be successful, but the focus of animal welfare was as usual on the poor welfare of bio-industry animals. The year 2004 was marked by the campaigns of Wakker Dier and their association with the word 'plofkip'. Some were even wondering why abused dead animals were still for sale, stating: "meat from the bio-industry should be stigmatised heavily. It is an immoral choice."<sup>5</sup>. They called for the need of powerful organisations to induce change. At the moment it seemed that the government was resisting the influence of organisations such as Wakker Dier. The concern for the difference between the attitude and behaviour of consumers, e.g. the difference between the critical citizen and the calculating consumer seemed to be problematic for change in the bio-industry. For this purpose, campaigns began promoting a reduction in meat consumption. A reduction in meat consumption would be better for the animal and the environment, with the reduction of emissions and manure. Articles were again mentioning the six week short life of the broiler, explaining that they were

<sup>&</sup>lt;sup>5</sup> Vlees uit de bio-industrie zou zwaar gestigmatiseerd moeten worden. Het is een immorele keuze. (Volkskrant 16-10-2004)

constantly hungry and are not able to be active due to being out of balance with an exceptional large breast muscles and weak legs. It was mentioned that chickens were more vulnerable for diseases, due to living in an artificial area which has been sterile from the outside influences lowering resistance was lowered with the help of hygiene and antibiotics (Volkskrant 17-12-2004). The current husbandry of broilers was seen as insufficient for their welfare. Welfare could be improved when another broiler, which grows slower was used, but it had the problem that it would become more expensive. Additional improvements for welfare were increasing the available space, adding straw and a better regulation of the temperature, humidity and ammonia. Among the challenges with a different breed of chicken was lack of willingness of the politics, which did not think it was necessary to improve welfare standards of animals beyond the European guidelines (NRC Handelsblad 08-06-2004). The fear remained that the cheaper broilers would then be imported from countries with lesser interest in animal welfare. People who argued this point claimed that welfare increasing measures would only increase the amount of imported meat from these countries. To prevent this it was suggested to increase import taxes and make more money available for better farmers and clearer labels on meat indicating the welfare level of the animals.

The fear for a new outbreak of the avian flu marked the discussion in 2005. The fear of a pandemic with the avian flu increased as more countries confirmed outbreaks of the avian flu. The avian flu was potentially dangerous for human health, with over half the infected people dead (Trouw 15-10-2005). The avian flu reached countries closer the Netherlands than Thailand. To prevent the virus from spreading to the Netherlands, the former Dutch minister of agriculture, Veerman, decided that an indoor confinement of poultry was necessary. The government presumed that poultry walking outside were susceptible for getting infected by bird droppings of infected migrating birds from Russia. Other than the damage to the human and animal health, prevention was also preferred to reduce emotional damage from culling of animals (AD 25-10-2005). The reasoning behind the indoor confinement was not supported by all groups, e.g. Wakker Dier claimed that infected birds were not able migrate since they would be too weak for it and they claimed that no bird was migrating from Russia to the Netherlands in that time of the year. Others claimed that it might be possible that infected animals, which did not become sick themselves, were able to participate in the migration and therefore be able to spread the virus. It was also not proven that broilers walking outside were the cause of the outbreak of the avian flu in the Netherlands. The indoor confinement was thus met with stride, some felt safer with it, while others saw it as a promotion for bio-industry

chickens, which never go outside anyway. A single veterinarian claimed that the indoor confinement was not severe enough and wanted it to include all hobby held poultry (Trouw 18-08-2005). Indoor confinement could lead to multiple problems, including an increase in feather pecking and cannibalism that followed. Organic farmers were hit hardest with this measure, since it was forbidden to cut the beaks of their chickens, therefore feather pecking had more severe consequences. Wakker Dier challenged minister Veerman to the court for damaging the welfare of organic chickens with the unnecessary measures of the indoor confinement. Organic farmers threatened to stop with the indoor confinement if the government continued to be unclear about their future. The government decided to allow chickens to go outside, as long as they were sheltered from above. This was extremely expensive to do for organic farmers, due to the large outside area available for the broilers. Birds could be vaccinated for the avian flu, but some people seemed to fear the consumption of vaccinated meat, even though broilers got multiple other vaccines before they were slaughtered and none of them were a hazard for human consumption (NRC Handelsblad, 19-08-2005). Other measures to prevent a new outbreak were to stop import of poultry from Poland and increase hygiene, e.g. with decontaminating mats and cleaner transportation.

The spread of the avian flu did not seems to affect the meat consumption in the Netherlands. Some people feared that eating infected meat was damaging for their health, but only one person died by the consumption of chicken meat infected with the avian flu. Wakker Dier used this situation and asked people to stop eating chicken for as long as vaccination was not allowed. Hereby they wanted attention for the fact that an outbreak could be prevented with vaccinations. Wakker Dier was challenged to court for playing in to the fear of people and claiming that eating infected meat was dangerous, but Wakker Dier won since they did no claim that eating infected meat was a danger for the health of people.

Interest in animal welfare was less in 2005 in comparison with the year before. A new study showed that the feared welfare problems in countries such as Brazil were nonexistent (Telegraaf 10-06-2005). Chickens in Brazil had more space, since the ground price was much lower and less energy was put in the system, since it relied on natural light and feed did not need to be imported, since it was produced in the same country. This information made the argument of the unwillingness to change the bio-industry less valid, since chickens did not have the best welfare in the Netherlands. Some articles mentioned the compromised welfare of broilers in the Netherlands: "The chicken in the Netherlands taste like nothing. She also

costs little, because she only lived for six weeks, with 25 others on a square meter. "More expensive meat would taste better since the chick moved more and lived longer. Another welfare issue was the beak cutting of chickens. This was planned to be forbidden in 2011, but farmers still had problems with feather pecking and cannibalism.

It seemed that the love for animals is very skewed, with people caring for their pets and not being interested in the fate of animals in the bio-industry (Trouw 19-11-2005). Even so, consumers became more aware of their direct influence of their eating habits and were more aware that a single person could change the world. Consumers were said to want more honest and better food. This included a change in the view of chickens only seen as products, which was the case with many broilers. Others claimed that the Dutch broiler was a superior chicken and reached its physiologically maximum, but thought they could increase production with genetic manipulation (Trouw 21-01-2005). More attention was also given to the fate of confined chickens with a new campaign to adopt a confined chicken.

The discussion of broiler welfare was still governed by the avian flu in 2006. The deadly strain H5N1 of the avian flu had spread even closer to the Netherlands. The avian flu was confirmed in Germany, Denmark, Austria, Italy and Greece this year and measures were taken to prevent an outbreak in the Netherlands. On the second of August 2006, the avian flu was confirmed in a company in the Netherlands, but it was not the deadly strain and an outbreak did not occur. The most frequently used measure to prevent an outbreak was the indoor confinement of poultry. This measure was in effect and stopped regularly this year in sync with bird migrations. The repeated indoor confinement measure gave rise to resistance. Some thought it was not severe enough and hobby kept poultry should also be included in the indoor confinement. Others stated that the indoor confinement was an unjustified welfare impediment and a hobby farmer preferred to slaughter his chickens instead of adhering to the indoor confinement. The welfare impediment was mainly for organic chickens, which got severely smaller room and the farmer may not sell his chickens as organic chickens during the period of indoor confinement. Organic chickens did not have their beak cut and thus did more damage with feather pecking. To increase welfare of chickens indoors during the indoor confinement, people were suggested to change feeding rhythms, hang toys and generally prevent boredom.

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<sup>&</sup>lt;sup>6</sup> De kip in Nederland smaakt naar niets. Ze kost ook weinig want ze heeft maar zes weken geleefd, met 25 andere op een vierkante meter. (NRC Handelsblad 06-08-2005)

The vaccine for the avian flu was now allowed by the European Union and readily available for poultry. Poultry can be effectively vaccinated against the avian flu and vaccinated birds can be identified by registration and a ring around their legs. Vaccination took six weeks to be effective, divided in two rounds of three weeks. Mass vaccination was performed by administration of the vaccine in the drinking water of the animals. Vaccination should make culling of animals unnecessary, but infected farms and farms surrounding those will still be culled, even without scientific proof of the usefulness of that method (AD 25-02-2006).

The year 2006 was marked by the introduction of the PvdD (a political party with the main interest in welfare of animals) into the House of Representatives of the Netherlands. The issues that the PvdD mentioned were increasing knowledge of animal suffering in the bioindustry, animal transport and hypocrisy of consumers and citizens. Others too, wanted to increase the awareness of people about the bio-industry, people should know the difference between a 'plofkip' and an organic chicken. The EU made the proposition to lower the maximum density of chickens to 38 kg/m<sup>2</sup>, but this proposition did not make it. Sedating chickens with a bath that is under an electrical current was found to be insufficiently sedating all chickens before slaughter, i.e. some chickens are fully aware when their throats were slit. The discussion also arose about broilers, which again were said to live six weeks and burst through their legs. In an article the following was said about the broiler as compared to a longer living chicken: "I compare the difference with bodybuilders and ordinary people. The latter move much easier than the former." The preference was thus made for the longer living broiler. An end to the bio-industry was preferred and some farmers wanted to introduce a stronger and healthier chicken again (De Telegraaf 25-01-2006). The animal protection worked together with the bio-industry to introduce a new chicken that lived longer and had higher welfare than a bio-industry chicken. Animal protection also wanted to introduce a new label on meat, which indicated the welfare of animals. People think change is needed and still they refuse to change their behaviour in the shops.

Other issues addressing the broiler industry were about the taste of different chickens. Brazilian chicken was said to have a watery taste and bio-industry chickens were watery, bleak, odourless and tasteless (NRC Handelsblad 02-12-2006). Others were not sure if a difference could be tasted in chicken.

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<sup>&</sup>lt;sup>7</sup> Ik vergelijk het verschil met bodybuilders en gewone mensen. De laatsten bewegen zich ook veel gemakkelijker dan de eersten. (Trouw 03-02-2006).

Interest in the avian flu diminished in 2007. The indoor confinement was regularly in effect as a reaction to confirmed infections in nearby countries. Now that the avian flu was seen as less of a threat, more attention was given towards welfare issues. Welfare was given more attention in the politics since the arrival of the PvdD last year, whilst some claimed that the political party is unnecessary for addressing this subject (Telegraaf 16-08-2007). The EU reached an agreement on a new maximum density of broiler chickens allowing up to 42 kg/m<sup>2</sup>, even though the aim for the agreement was to lower it to 34 kg/m<sup>2</sup>. The reason for allowing a higher density was the low mortality rate of broilers, and not welfare issues related with high densities (Telegraaf 08-05-2007). A peculiarity is that the EU talked about weight units instead of number of animals, making chickens look more like products rather than living beings. Another peculiarity was that the animal was being modified to fit the system and not the other way around (Trouw 28-06-2007). It was however unclear whether a larger space equals a higher welfare. A study showed that chickens will stay close together with these densities and did not make use of all the available space (Volkskrant 17-02-2007). The result of this study was however open for interpretations, as shown behaviour was only tested in high to very high densities. Other welfare discussions were about the ban on beak cutting, which still remained to be agreed upon, but its welfare impediment was clearer with studies showing phantom pains in the cut area. An alternative for beak cutting was the genetic selection for a friendlier chicken. A motive for not using genetic selection was a reduced production when not selecting purely for production and would thus be a competitive disadvantage (Telegraaf 31-05-2007). Another improvement for the broilers is that some slaughterhouses now only accepted broilers with their legs intact.

Other welfare aspects were more aimed at consumers. The Dutch nutrition centre wanted to inform consumers about the welfare of bio-industry animals with the commercial that animals cannot choose how they live, but we as consumers can. Others claimed that meat can be more environmental friendly as well as animal friendlier (AD 27-10-2007). This article also claimed that: "the consumption of wrong meat should be stigmatised as much as wearing fur in the '80." 8, indicating the negative aspect of the broiler industry. Indirect CO<sub>2</sub> emission from meat products was shown to be higher than that of plant products, bringing new light to the discussion of the bio-industry. They claimed that people act wrong when they buy from the bio-industry, and thought that the bio-industry needed to be stigmatized similar to the fur industry. Some also stated that the political party the CDA was destroying innovations for the

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<sup>&</sup>lt;sup>8</sup> Het eten van fout vlees moet net zo worden gestigmatiseerd als het dragen van bont in de jaren '80. (AD 27-10-2007).

bio-industry (AD 27-10-2007). This political party suggested that organic meat is not of a higher quality than regular meat and wanted a ban on the commercial from the Dutch nutrition centre. Consumers seemed to have more interest for the fate of the animals, but they still will not buy organic meat. The welfare and price gap between the bio-industry chicken and the organic chicken was filled with a new type of chicken was introduced, i.e. the Volwaard chicken. This chicken lived two weeks longer and had more space and costs more than the regular chicken and has one better live star from the initiative of animal protection.

The increased attention for welfare was not always beneficial for the animals. Some feared that increased welfare measures in the bio-industry will reduce its economical viability, claiming: "The farstretching plans of environmental organisations and animal lovers to kill intensive animal husbandry in our country are disastrous for the economy and the wallet of the citizens." They claimed that when the Netherlands only produced organically, then this will lead to a huge economical loss. The bio-industrial chicken was said to be the best for the environment. A single veterinarian was also unleashing claims that the bio-industry was good, with his definition of welfare, only the health of animals matters (Volkskrant 20-04-2007). He worked against animal welfare organizations, mainly against Wakker Dier, which he called terrorists. He also claimed that organic food was unhealthy and gives cancer.

Some articles claimed that organic chicken tasted better than regular, even a taste test concluded that organic chicken tasted better (Trouw 16-06-2007).

## **Environmental influences of the bio-industry**

The mentality around animal welfare was changing after some successes in the last few years in the field of animal welfare. These changes in the system would not have been possible a few years before (AD 17-04-2008). A large difference was the naming of individual companies that were not up to standards and naming those that were doing their best to change for the better. This together with the media's attention to the failures of the bioindustry and the increased knowledge of the consumers, made change in the sector possible. Mariane Thieme of the PvdD made a movie called "Meat the thruth", in which she showed the environmental damage done by the bio-industry. The movie marked a new time where

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<sup>&</sup>lt;sup>9</sup> De verstrekkende plannen van milieuclubs en dierenliefhebbers om de intensieve veehouderij in ons land de nek om te draaien zijn desastreus voor de economie en de portemonnee van de burger. (Telegraaf 31-05-2007)

increased interest will be shown in the environmental consequences of the bio-industry. This was also a time where welfare of animals will be weighed against the environmental benefits of a more intense keeping. Some criticised that she exaggerated with her claims about the emissions from the bio-industry and they stated that bio-industry broilers were more environmental friendly than some meat replacers (Telegraaf 12-11-2008). Governments were concerned with lowering the environmental impact of the country, but they were not addressing the meat consumption of its citizens.

In the year 2008 Wakker Dier started a campaign that used a similar tune of a commercial subsidized by the government, i.e. chicken the most versatile piece of meat. Wakker Dier changed this into: chicken the most abused piece of meat, with which Wakker Dier tried to focus attention on broiler welfare. Wakker Dier was challenged in court with this commercial, but they won because the judge thought that people could understand that it was intended as a parody. Some think it was strange that Wakker Dier still called the broiler a piece of meat instead of a living being in their commercial and that the lack of space was only one of the aspects of welfare that could be increased. Johan Vlemmix wanted attention for the welfare of chickens together with Wakker Dier and broke a record of riding a rollercoaster for 25 hours. Another issue addressed by Wakker Dier was the fire safety of stables, which had the same requirements of a storage shed without animals. A ban on mega stables is in effect due to the protesting against it by animal welfare organizations, which is peculiar since mega stables would mean an increase of animal welfare and better for the environment.

Up till now interest in welfare was found in the increased number of people that were against the manner of exploitation of animals in the bio-industry, more animal welfare organizations and a political party for the welfare of animals. In the last few decades animals were increasingly more viewed as objects. With the help of several animal disease outbreaks, the bio-industry increased its controversy (Volkskrant 24-12-2009). The images of culled animals where a frequent motivation for people to say that it was the last time they would eat meat again. People were opening their eyes more in order to face the problems in the bio-industry. Organic meat became more popular and the trust in regular products decreased (Volkskrant 24-10-2009). The government was said to be unhelpful for improving the welfare of animals in the bio-industry. Among the so-called problems with the government, was that the minister of Agriculture was in hands of the CDA (Volkskrant 11-04-2009). This political party was claimed to be in favour of bio-industry with personal backgrounds in farming. The animal protection was still working on the better live rating on meat. The Volwaard chicken,

introduced in 2007 seemed to be a successful small step towards a better welfare of chickens. The 'plofkip' was named in an article describing it was used by Wakker Dier in 2011. They mentioned the lack of interest in welfare of the meat consumers. Wakker Dier scored with their pole of shame type of campaign, in which they pointed their finger to organisations and showed what they were doing wrong. Wakker Dier addressed companies on their discounts on cheap meat. Wakker Dier said that they would focus more on the welfare of broilers in the next few years. Other welfare subjects were the success of the adopt a organic chicken campaign and the sedation method before the slaughter of chickens. The current method makes use of a bath under electrical current in which the head of the chicken in dipped in the water. The problem with this method was that some animals remained conscious and felt pain during slaughter. This method was said to be banned in a year.

Since previous year, the attention for the environment has increased in the bio-industry. Some articles stated that most people were not aware of the environmental consequences of their meat eating behaviours, whilst others stated that most people were aware of the environmental consequences of eating meat and they therefore reduced their meat consumption (e.g. Volkskrant 24-10-2009). Only several articles made a trade-off between the environment and animal welfare. They claimed that the bio-industry is bad for the welfare of chickens, but it was good for the environment. Some wanted a guide to include the environmental impact of meat products.

## The 'kilo-knaller' campaign

A campaign of Wakker Dier in 2010 increased the critique of the bio-industry. Welfare gained even more interest, especially with the PvdD, but welfare was not improved much up till now and it was stated that the CDA was still the main culprit in delaying animal welfare improvement with the excuse that the Netherlands played a leading role in animal welfare in Europe (Trouw 25-06-2010). A study highlighted the welfare problems with the broiler industry again. About 50-70% of the broilers had difficulties with moving (AD 11-09-2010). The inability to move lead to frustration of the broilers. More groups desired an increased awareness of welfare issues in the bio-industry. Most people were aware that their food choices had an impact on welfare of animals, but they still chose for short term enjoyment instead of the long term good (Volkskrant 12-08-2010). It was unclear for consumers which meat came from animals with improved welfare. Animal welfare organizations claimed that supermarkets should take responsibility for the behaviour of the

consumers. The cause of the problem was said to be the discount on bio-industry meat, which focused the attention of consumers on these products. This was also seen as problematic by Wakker Dier. They started a campaign addressing the 'kilo-knaller', a term used by the supermarket chain C1000 indicating the discount on bio-industry meat. Wakker Dier compared the prices of meat with that of cat-food, which in some cases was more expensive than meat. Wakker Dier claimed that meat so cheap could not have been produced in an animal friendly way. Some farmers supported Wakker Dier in their campaign, indicating that the price difference between regular chicken and organic chicken becomes even more extreme with discount on the bio-industry meat (Volkskrant 14-08-2010) The central food agency (CBL) stated that the lower price for regular chicken does not change the product quality and therefore thought that the claims of Wakker Dier were ungrounded. In the same year that this campaign started, it showed success and C1000 promised to reduce the amount of 'kilo-knallers' and made discounts on organic meat more explicit. The 'plofkip' made another appearance in articles by Wouter Klootwijk, but also in articles with different authors, claiming that almost all of our eaten chicken consist of the 'plofkip'.

Interest in welfare increased so much in 2011, that even smaller cases were addressed in newspapers. Animal welfare was also weighed against some religious views, e.g. ritual slaughtering. Problems in the bio-industry were summed up in one article: one-day old male chicks were still gassed in the layer line, beak-cutting was still allowed and feather pecking was the result of boredom and stress (Trouw 20-06-2011). This writer called for a change forced by the politics since the writer did not think that the sector would change itself. Beak cutting was still allowed for the coming ten years. The amount of 'kilo-knallers' was reduced in comparison with the years before and the focus on the discount of organic meat was increased. Welfare improvements for broilers were not always well received, e.g. a more sustainable chicken of the C1000 did not get a single star for the better life rating of the animal protection, even though the animals lived longer and had more space. The focus on the cheapest meat has shifted to the focus an more animal friendly meat (Volkskrant 03-09-2011). Wakker Dier would focus on the 'plofkip' in the next year.

Even though attention for animal welfare increased, the consumer did not change their buying behaviour accordingly. Organic meat was still viewed as too expensive and an article mentioned: "The most used broiler is also the least tasty: buy a shamelessly cheap

*plofkip...*" <sup>10</sup>, indicating an increased stigmatisation of the broiler. An internal struggle commences between the attitude and the fatness of their wallet, with the latter usually winning (Trouw 04-06-2011).

Sustainability was introduced as a 'new' issue concerning the broiler industry. Sustainability was frequently used, while they actually meant environmental impact of products. The bio-industry and the consumption of meat were seen as damaging the environment and partially to blame for the greenhouse effect. The CDA was again mentioned with the halt on welfare improvements and claiming that the world can only be fed with the intensive bio-industry (Trouw 14-01-2011). The argument that chicken meat was better for the environment than yeal meat was now brought to attention.

The taste of chickens was frequently brought to attention in newspaper articles. The regular chicken was called tasteless, whilst the organic chicken was said to taste better (Telegraaf 28-05-2011).

#### The 'plofkip' campaign

Wakker Dier started their campaign of the 'plofkip' in 2012. Wakker Dier was nominated for best commercial with their 'plofkip' campaign. The word 'plofkip' also became the word of the year. The term 'plof-' was used to address other animals or products that have gone too far and were not acceptable. The 'plofkip' gained the status of a taboo, with someone claiming that the 'plofkip' became the new smoking and others claimed they did not want to be seen buying 'plofkip' (NRC Handelsblad 17-03-2012). In this article it was mentioned why the writer enjoyed meat less: "The Radio commercial of Wakker Dier plausibly had an influence on my growing aversion for meat, or ... with the end result a sort of deformed heavy creature — "gallus kiloknallus", the so called plofkip." indicating an increase stigmatisation for this person.

The taste of 'plofkip' was also frequently been told to be absent, watered down or plain terrible. The campaign had successes soon after its launch. Wakker Dier used a shaming and naming approach in their campaign, in which they shamed the companies that were still

<sup>10</sup> De meest gebruikelijke is ook meteen de minst smakelijke: koop een beschamend goedkope plofkip (Volkskrant 09-06-2011)

<sup>&</sup>lt;sup>11</sup> Vermoedelijk hebben die radiospotjes van Wakker Dier ook iets te maken met mijn groeiende afkeer van vlees, of die reclames met "de evolutie van de kip" waarin het eindresultaat een soort misvormd topzwaar mormel is - "gallus kiloknallus", de zogeheten plofkip.

using 'plofkip' and naming companies that changed their policy and stopped using the 'plofkip' in the future. Downsides of the 'plofkip' were mentioned in the commercials of Wakker Dier. Wakker Dier started by addressing a few of the larger companies with the thought: if they fall, the rest shall follow. Unilever was the first to announce that some of their products would not contain 'plofkip' anymore, Olvarit soon followed after Unilever and promised to stop using 'plofkip' in their products. Struik followed soon after Olvarit and not too long and no baby food products would have 'plofkip' in them. More companies claimed to stop using the 'plofkip' in their products. Supermarkets also slowly stopped with the use of the 'plofkip' and claimed they wanted to improve their sustainability. A mistake was made by the supermarket chain the Jumbo, which had 'plofkip' on sale, this was noticed by Wakker Dier and Jumbo regretted doing it. The supermarkets wanted a stop of the 'plofkip' in 2020. Some companies were glad with the 'plofkip' campaign, since it opened up a gap for a more sustainable production and companies could show that they were on the right track. It was said that the poultry sector needed time to change if the 'plofkip' was about to be removed.

The hypocrisy of people was still seen as problematic, with their love for pets and their indifference towards the welfare of bio-industry animals (Telegraaf 12-09-2012). This was not only mentioned for the consumers, but companies were also responsible for this if they cared for more than just money. The behaviour of consumers seemed to change, with more money spend on less meat.

The 'plofkip' campaign was not received positively everywhere and was called the most confusing piece of meat (Volkskrant 17-07-2012). Some said that the healthiness of organic food was bad since animals outside were more exposed to toxins, whilst others claimed that the 'plofkip' came in contact with pesticides. Among other claims it was mentioned that: "Because free range chickens peck food from ground polluted by gas fumes and flying sick geese and gulls". (Telegraaf 15-09-2012). What the 'plofkip' lacked in animal welfare it made up with the environmental friendliness. Some even claimed that the ban on 'plofkip' was bad for the environment and therefore a monumental mistake (Telegraaf 16-04-2012). It thus became difficult for the good-willing consumers that were supposedly forced to make a choice between environment and welfare. An influential person from Wageningen claimed that farming needs to be intensified even further to satisfy the increased food demand (e.g. Trouw 08-11-2012). Other critiques on the 'plofkip' were that poor people now are even more duped by the ban on the 'plofkip'. They need to reach deeper in their

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<sup>&</sup>lt;sup>12</sup> Want scharrelkippen pikken voedsel uit grond die vervuild is door benzinedampen en overvliegende zieke ganzen en meeuwen. (De Telegraaf 15-09-2012).

wallets for the same amount of meat and were said to be able to make these choices themselves.

Other than the 'plofkip' not much attention was turned to broiler welfare. The most important welfare issue was the transportation of chickens to the slaughterhouse. Wakker Dier claimed that many broilers died yearly due to transportation of crippled animals, which was forbidden (AD 20-11-2012). The ban on the bath with an electrical current to sedate chickens before slaughter, has again been delayed.

Wakker Dier's campaign of the 'plofkip' continued through in 2013. Additional companies claimed to stop using 'plofkip' in their products or services, including KLM and Kruidvat. All baby food would be 'plofkip' free in 2014. Hospitals also stopped using 'plofkip' in their meals, the banning of 'plofkip' was done with the cooperation of WWF and not with Wakker Dier. The supermarkets said they needed more time to remove the 'plofkip' completely in 2020. The ban of 'plofkip' by companies did not make the 'plofkip' disappear from the Netherlands, since a large portion of the meat production in the Netherlands was for export. Supermarkets did not plan to replace the 'plofkip' with a chicken with at least one star better life, thus Wakker Dier would continue to focus their aim on them. Companies said they changed because they fear damage to their image (Volkskrant 12-04-2013; 27-02-2013). Consumers also feared for their image as some do not want to be seen buying a 'plofkip'. Consumers spent more money on less meat, but only a small amount has bought more non-'plofkip' chickens. A counter initiative against the 'plofkip' was launched and was called the bofkip (lucky chicken). The Dutch bond for poultry keepers (NVP) claimed that the 'plofkip' stories are Pinocchio stories and that broilers should be happy to be in the Netherlands, because animal welfare in other countries in Europe is supposedly worse (Trouw 04-03-2013; Volkskrant 23-02-2013).

The environmental friendliness was again weighed against welfare as if it was an inevitable trade-off. It was still viewed that 'plofkip' was the most environmental friendly method of keeping broilers and even the most environmentally friendly meat (Telegraaf 12-01-2013). Organic farming was seen as bad for the environment and not proven to be healthier. Others claimed that the environmental impact of organic chicken was not much worse than that of the 'plofkip'.

A few welfare issues were discussed this year. Beak cutting was now planned be banned in 2018, which was three years sooner than previously planned. A newer issue is that

of hatching chicks that were not given water or food while they hatch. Some earlier hatching chicks died due to starvation or due to thirstiness.

# Shifts in problem representations of the Dutch broiler industry

The analysis will be the consist of the summary of the answers to the six question of the WPR approach. These question were performed with the purpose of understanding the problem representation of the broiler industry and how Wakker Dier changed the dominant view on the broiler industry.

### **Problem representation of the broiler industry**

The focus on efficiency and productivity drastically decreased the prices of animal products, sometimes seen as too cheap. Therefore the problem of the broiler industry was represented to be that the meat of it was seen as too cheap. In many of the newspaper articles it was mentioned that the broiler was cheap or even shamelessly cheap. The low price of broiler meat resulted in people being more interest in buying cheaper meat, especially since its low price increased the relative price difference between the regular bio-industry broiler and the organic broiler. The price difference became even greater because the costs of production were calculated in the most profitable part of the broiler, i.e. the filet. The competition for the lowest price made the producers, in this case farmers, to produce as much as possible for the lowest price possible. Therefore the underlying cause of this problematisation was considered to be the market mechanism.

The assumptions of the market mechanism were that it rested on the principle of the greatest good for the greatest number. The dynamics of the market were said to be a rational choice and an invisible hand behind the market. The rational choice indicated that it was accepted that the way of getting the most meat for everyone was by the way of allowing meat production guided by the market forces. These choices govern the choices in farming, including animal welfare, competition and the solving of 'problems' in the sector. The rationale also includes that the so called 'suffering' of animals is a necessary evil for the better of human kind. Farmers produced in such a fashion that consumers wanted and politics allowed. Change of the sector must either come from the changed satisfaction of the consumers of regulation of policies.

International competition with other countries increased the focus on cheap and efficient production within the Netherlands. The producers were not the only ones that were competing for the lowest price, but other sectors in the production chain were competing for the price as

well, including supermarkets and slaughterhouses. To sustain the market mechanism, it was not allowed by the government to get too involved as to prevent unfair competition. Among the possibilities to minimise the product price was the selective breeding of the broilers. This breeding resulted in a high feed efficiency and a high muscle growth, especially in the breast region. Some of these breeding goals were to minimise the cost of production whereas others focused on the increased profits. The market mechanism deflected the attention towards other issues regarding the broiler industry. Change possibilities in the market mechanism were limited, since improvement needs funding and to regain these costs it will be calculated in the price, thus making the product more expensive. A more expensive products quickly loses ground in comparison with the cheaper product, since consumers were expected to buy the cheaper products. Examples of the focus on the market mechanism were seen during the outbreak and the threats of potential outbreaks of the avian flu. During this time harsh measures were taken to prevent economical loss and retain positions on the market at the cost of animal welfare and the current income of some of the farmers.

### Assumptions concerning the broiler industry

One of the most basic assumptions was that chickens were allowed to be used as a gain for human benefit and can therefore be used for financial gain. One of the assumptions was that animals cannot protect themselves against human influence. This makes it relatively easy for humans to use animals for their benefit, but it does not mean however that animals can be ill-treated for human benefit, i.e. animals are supposed to be treated with minimal respect as living beings. For this purpose laws were designed to ensure minimal protection of the animals. This meant that there were some additional presuppositions. First of all it means that chickens were seen as a lesser specie than man. A broiler life has some monetary and ethical value, where ethics decide what is allowed to do with the animal and what is not allowed. Laws also indicate that mistreating animals is possible and probable, otherwise these laws were unnecessary. The breeding of broilers was said to be out of hand (e.g. Wakker Dier and Wouter Klootwijk), but at the same time it was allowed to modify animals to fit the system. The restrictions for breeding seem to be vague and not clearly defined. Breeding has almost exclusively been focused on increasing production or efficiency, leaving less space for welfare related breeding goals. The selective breeding seems to be a product of a lack of

knowledge which had been solved with increased usage of technology. An example of using technology instead of knowledge is the problem with featherpecking, which is currently 'solved' by cutting of the tip of the broilers beak instead of targeting and understanding the causes of this problem.

# Historical background of the problem representation of the Dutch broiler industry

To understand how the problem representation has come about, it is of importance to understand the history of the Dutch livestock, with the focus on the origin of the bio-industry. The Dutch livestock farms used to consist of small scale mixed companies before 1850, i.e. multiple different animals for both their products, e.g. milk and eggs and for their meat. The farms were mostly used for the food supply of farmers themselves and excess products were sold. After 1850 the focus increased in specialisation of livestock farms and farmers were more able to earn a living with farming. A new goal for agriculture started, i.e. the goal of feeding the livestock. A more standardised chicken was used after 1900 and were held more frequently than before since the chickens were an additional profit for the farmers. After the Second World War, the Dutch government focused on the industrial production of food. The Dutch government wanted to modernise the Dutch bio-industry. One of the goals of this modernisation was scale enlargement, which included that farms increased the amount of animals per location, but an effect of this was that the number of farmers decreased. New technologies made scale enlargements more viable. Another goal of the government was to increase the production on the Dutch farms, a manner to achieve this goal was a mechanisation of the farms. For the broiler industry it meant that the broilers were given more concentrates. Intensive farming became more common and advanced rapidly. The ultimate goals of the bio-industry were a stable food supply and low prices for consumers. A surplus of food production ensured the food supply of the Dutch even in times of a crisis. To realise a surplus of food possible, the government and the EU invested a lot of money in research of production efficiency optimisation thereof.

## Silences and unproblematised issues

The bio-industry was governed by silences and invisibilities. The whole food industry remained out of sight for most consumers and the distance between producers and consumers

had increased over the years. The whole sector had gone away from the sight of people, even more in case of broilers. Most of the broilers never go outside and the sight of chickens outside became rarer with the introduction of the bio-industry. The distance between the farmer and the consumer became so great, that some people were not even aware that meat comes from animals. Among the silences was the antibiotics usage, this was completely invisible for consumers but gained media attention after a deadly incident. Antibiotic usage was extremely high in the Dutch broiler industry as compared to other European countries. An additional silence was where the by-products of meat stay. Most people do not know what remains of the feathers, manure and remaining parts of the slaughtered chicken. These remains disappear from the sight from citizens and it was not entirely possible to backtrack this information. Other silences were in the ecological footprint and chemicals that were used. The ecological footprint traced back all the environmental emissions that were needed for a certain product. This meant the transport of the chicks to the broiler farmer, the transport and production of food and the transport to and from the slaughter. For citizens it is very difficult to understand and obtain this information.

Within the discussion of the broiler industry certain points or issues were not seen as problematic, but can be seen as problematic with a different context. An important aspect of the broiler industry that had not been seen as problematic, was food safety. Food safety was left out of the results since it was not directly related to the problematisation of the 'plofkip'. Food safety was mentioned in multiple newspaper articles. These articles were mainly about chicken meat being infected with E. coli and Campylobacter. These bacteria strains were on roughly a third of the meat and can be killed when the meat is sufficiently heated, but even then people can be infected due to cross-contamination. E. coli and Campylobacter caused about 100.000 cases of food poisoning and over a hundred deaths per year according to various newspaper articles. Another problem with food safety became an issue later, which was the discovery of the ESBL-bacteria on chicken meat. This strain of bacteria was resistant against antibiotics and a single death due to antibiotic resistance occurred due to the consumption of contaminated chicken meat. E. Coli and Campylobacter have been known for over ten years and little effort has been done to deal with these, even though there were some possible solutions. One of the solutions was that the chicken would go in a chlorine bath which would kill all bacteria, but the government would not allow it on the fear that farmers would then not care about the hygiene anymore. The government prioritises hygiene practices on farms and slaughter houses more than a certainty to increase food safety. Another stimulating solution would be the ban on meat contaminated with these bacteria, but that

would have meant that a large portion of meat could not be sold. This indicates a larger interest in the economic part of broiler husbandry instead the food safety.

An additional part of the broiler industry that was not problematised much, were the diseases\_among the broilers. Only one virus amongst the broilers was severe enough to be problematised. This was the avian flu, which filled many newspaper articles and made claims of the problems it caused. But this was not enough to set a focus on the health of the broilers. During the outbreak and threat hereof it seemed that the economy had the leading role in the decisions that were made. Other than the avian flu, other viruses and diseases were prevalent amongst broilers, which has been a reason for farmers to vaccinates their broilers more often. It also gave farmers a reason to antibiotics as soon as one of the chickens looked ill. This was also due to the fact that preventive antibiotic usage was a cheaper solution than broilers becoming sick. The overeager usage of antibiotics lead to an increase in antibiotic resistant strains. The antibiotic usage remained invisible for people until the unfortunate death of someone who had antibiotics resistance due to the consumption of chicken meat.

The market mechanism had some disadvantages, but other than these direct disadvantages, there are some indirect disadvantages, including the different sectors of broiler husbandry, i.e. the organic and other broiler industries were meant which had other improvements. The cheap regular bio-industry chicken made it harder for the more expensive and supposedly higher quality chicken meat to be sold. The price differences became excessively large. The second disadvantage of the market mechanism was the proposed technical superiority. Technological advances were the main driving force for improvement of the broiler industry. The breeding of broilers was said to have gone out of control (e.g. Wakker Dier), but technological advances were still possible. The other problem with technology was that it was sometimes used to counter symptoms of unwanted animal behaviour, e.g. beak cutting used for feather pecking behaviour.

An additional part of the broiler industry which has not been problematised was the involvement of the government. Since the market mechanism controlled the broiler industry, the government was tied and could not meddle too much with the broiler industry. Too much meddling would either give the Dutch broiler industry an unfair advantage in case of subsidies or it could make it too hard for the Dutch broiler farmers to compete internationally when there were too much requirements by the Dutch government. The lack of governmental control also meant that the government was not in charge of potential improvement other than technical and economical benefit.

An important issue that was not mentioned as problematic, was that animals were used for meat. This issue is directly related to the market mechanism and the thought of the greatest good for the greatest number. This thinking had as an effect that animal welfare was thought to be of lesser importance than the wellbeing of consumers, which brings us to another aspect that has not been seen as problematic, i.e. the broader definition of animal welfare which included more aspects apart from just health. Within the whole discussion of the broiler industry, welfare has only recently become more of an issue. With the increased focus on efficiency and profit, less attention could be spend on animal welfare, which in some cases was severely in problems. Welfare became undervalued in comparison of other objectives of breeding. These issues have a profound effect on the broiler.

# Effects of the problem representation

The effects of the problem representation of the broiler industry were very profound in certain areas. The most important effects were seen on the broilers. Due to the economical and utilitarian view on broiler farms, the broilers became more objectified. The value of the live of the chicken was seen as inferior to the economical value of its death. This objectification caused the decreased interest in its welfare. Welfare, in its broader sense of the definition, was not focused on during breeding or during the holding of the animal, with the most common excuse being that focussing on anything but profit or efficiency will decrease this. This caused welfare issues for the broilers. The most important ones will be mentioned here. Beak cutting is performed to prevent or lessen the damage of the feather pecking behaviour. Beak cutting is done with either a laser or a hot knife with which the tip of the beak is cut off. A large amount of nerve endings reside in the tip of the beak, making the beak of tactile importance for the broiler. Beak cutting causes stress and pain for the broiler and might result in phantom pains. Beak cutting is thus a choice of the better of two evils, but in this case the cheaper choice. Other problems of broiler welfare were related to the immense growth it had. Among these problems were lameness, weak bones, sudden death syndrome and apathy. Lameness is a direct effect of the growth, due to which the broiler has little energy to spend to an increasingly heavier body. The growth of the muscles is disproportional to the growth of the bones, the bones are unable to grow as fast as the muscles, meaning that the bones are not strong enough to handle the weight. This causes the chicken to become lame or even break their legs. The sudden death syndrome occurs when the heart suddenly stops, the syndrome

occurs more frequently in faster growing broilers. Other welfare problems were related to the excretion of the broilers. In the six weeks the broilers grow up from chick to their slaughter age the stable will not be cleaned. The broilers will thus be in their cumulative excrement of six weeks. This will affect the air quality and it damages the feet of the broilers. The cleaning of the stables is easier and probably cheaper between the rounds than within rounds. An additional welfare problem is that the broilers have a limited space available. It is legally allowed to hold up to 42 kg/m<sup>2</sup> broilers. This comes down to roughly the area of a A4 paper per broiler. The small area restricts the movement and the possibility of performing natural behaviour of the broiler and increases the chance of interacting with conspecifics, which increases the chances of agnostic behaviour. The small space per broiler also increases the infection pressure, i.e. if a broiler gets ill then it will spread the disease or virus more easily to a conspecific. The definition of animal welfare itself can even be used to promote the economical concerns of the broiler industry. The definition of welfare that is often used, only involves the health of animals. This would mean that e.g. battery cages are very good for welfare, broilers cannot move in these cages and can thus not harm themselves or other when housed alone. Even the EU allowed a higher density with the argument that the percentage of broilers dying before slaughter age was sufficiently low. In their desicion of the density, the EU valued the low percentage of broilers dying during their raising above potential welfare problems of the broilers.

Other than the broilers, this problem representation has an effect on farmers as well. The farmers can be seen as trapped by the market mechanism. Farmers can also be seen as egoistic, caring only for money and not about the animals any more. This image might make the farmer seem like a bad guy and therefore it might have an influence on their mental wellbeing. Supermarkets and other sectors that sell chicken products might also be seen as the bad guys. They are supposed to be the ones that profit the most from the agricultural treadmill. It would thus be logical to see them as the cause for the problematisation.

## Problem displacement of the broiler industry: the 'plofkip'

A new different view on the broiler industry made it possible for Wakker Dier to come with a different problem representation. A different framing of the broiler industry was used, which focused on the welfare problems in the industry. Animal welfare was always mentioned in the period of 2000-2013, but more frequently in the end of this time period. The

main source of this new focus was Wakker Dier. Wakker Dier had multiple campaigns targeting animal welfare in the bio-industry. The most important campaigns were the 'kiloknaller' campaign and the 'plofkip' campaign. The 'kilo-knaller' campaign targeted the supermarkets that sold bio-industry meat at a discount, arguing that the even lower price made the price gap between bio-industry meat and organic meat even bigger. This would then cause consumers to choose organic meat less often. The second and most important campaign is the 'plofkip' campaign. They decided to officially make a problem out of the 'plofkip'. The word itself was created before Wakker Dier used it. Thus inspiration might have come from the creator of the word, i.e. Wouter Klootwijk. He thought similarly as that Wakker Dier would do years after regarding bio-industry broilers. The campaign framed the broiler as 'plofkip', i.e. a chicken that bursts through its legs due to its weight. Additional information was given about the welfare of the broilers and welfare issues were addressed by Wakker Dier with the help of commercials and advertisements. Wakker Dier was neither the first nor the only one to reframe the broiler chicken. Others also mentioned the poor welfare of broilers calling the broiler among other things: the most abused piece of meat, bio-knaller, water bomb tokkies, death growers, ploffers, pimped chicken, turbo chicken, Gallus kiloknalles (referring to the chicken in scientific name, i.e. Gallus gallus domesticus) and the Schwarzenegger chicken. These frames became more frequent in the end of the period 2000-2013. This was also seen in the concerns raised in this period about the bio-industry broiler. Especially during the period of the avian flu, questions were raised about broiler welfare. Animal welfare became so important that even a political party, with their main agenda consisting of animal welfare, was able to get seats in the house of representatives. Other than that more attention was given to animal welfare related issues and even more so after the launch of the 'plofkip' campaign.

The 'plofkip' frame changed the way one could look at the broiler, taking the focus away from it being seen as a product. The discourse of the broiler as a product had been broken and the broiler could now be seen as an animal again, one which was suffering. Wakker Dier made some of the invisibilities of the broiler industry visible again with their new frame. They made the welfare issues, slaughter age and growth rate visible and question it in their campaign. The welfare issues were said to be lameness, claw problems, lack of space, immense growth rate and being too heavy. The age was also mentioned to indicate two points of concerns, the first is that the broiler is just a chick when it is old enough to be slaughtered, and secondly that the growth rate is extremely high. The word 'plofkip' was a negative frame of the broiler, especially negative to the welfare of the broiler. With the 'plofkip' Wakker Dier stigmatised the bio-industry broiler, which had as an effect that some people were afraid of

being seen buying 'plofkip'. It was hard to still think of the broiler as a product and not an animal.

Even though the newspaper articles focused on the effects on of the 'plofkip' campaign of Wakker Dier on companies, its main focus remained on the consumer. Companies and supermarkets also had their image on the line and preferred not to be associated with the 'plofkip', as well as some companies wanted to have a greener image. Other than the greener image of companies, they also did not like to be shamed publically for selling 'plofkip' products, and those that did not sell 'plofkip' anymore would be praised publically. The public shaming might have lead to losing clients and might thus be an economical rather than an moral choice. This resulted in some companies and supermarkets stopping with the sale of 'plofkip' products. The time was ripe for the 'plofkip' campaign to become successful for companies, when more attention was spend on animal welfare.

## **Conclusion**

Looking back at the tipping point and the dynamical system with attractors in the introduction, an attempt will be made to understand the change seen in the results and analysis. According to this dynamical system, an attractor is located within a basin which in this case was the dominant view on the problem representation. The tipping point describes how change suddenly happened.

The tipping point occurred when the public's view on the 'plofkip' problematisation changed. The tipping point starts with the predevelopment towards change. The predevelopment of the tipping point can be considered the part where the previous campaigns of Wakker Dier were targeting other aspects than the 'plofkip' and the start of the 'plofkip' campaign itself as well as the change of the landscape of the dynamical system. The take-off of the tipping point was the combination of the start of the campaign until the moment that the first company promised to change. The breakthrough is the first large and maybe unsuspected company that stopped, in this case this can be Unilever, a very large international organisation which was not expected to change without resistance. When companies changed, others might follow, an increasing number of people were adopting the change and even those that held back at first were changing. The stabilisation is where thus many companies have changed and that the change is gradually comes to a hold.

The different roles of induced change were fulfilled by the members of Wakker Dier in their 'plofkip' campaign. The mavens in Wakker Dier already had access to information regarding the 'plofkip' during their previous campaign targeting kilo-knallers. As mentioned earlier an example of the maven was that they compared prices of products, which was done by Wakker Dier in their 'kilo-knaller' campaign. Wakker Dier also fulfilled another requirement of the maven, which was to share information. The importance of information was found in this study, which was found to be lacking for most people. Amongst the causes for this was the people were distanced from what happened within the bio-industry and those that were involved were hardly present at the times, since most of the system had been automated. This also lead to different conceptions of the bio-industry, based on incomplete knowledge. These conceptions might be constructed either consciously or not. Valid information for citizens was rarely provided, but when it was provided, it was done by animal rights/protection organisations. Providing this information allowed people to make more informed conceptions about the bio-industry and thus allowed a step towards potential change.

The fulfilment of the connector for Wakker Dier was done by the person (or persons) that knew the sources to which they can send their commercials or advertisements. These can be the magazines, newspapers, radio station or television channel.

The final role that was fulfilled by Wakker Dier was that of the salesmen. Wakker Dier used celebrities to help spread their word for the 'plofkip' campaign. These celebrities could be heard on radio and television commercials. In the 'plofkip' campaign the role of salesmen could also be performed by the people that have designed the use of the word 'plofkip' and the framing within the campaign. The salesmen focused on how much a non-verbal communication can have an effect, in this case it can be the picture of a six week old broiler compared to a layer of the same age. The manner of framing was of importance to sending a message.

The case of the 'plofkip' is an example of the first law of the tipping point, i.e. the law of the few. Wakker Dier is just a small organization with only a select few people working for it, with a small number of volunteers. The law of the stickiness was also in effect with the 'plofkip' campaign. The 'plofkip' became the word of the year and was occasionally used to describe other issues. Framing was of a large importance for the stickiness of the message. The use of language was an indication of how frames were used to send certain messages or how to represent certain issues. The perspective and name of the 'plofkip' were the most active role of language in this study. Within the findings of the WPR-approach were that several discourses became more evident, among others the following subjects had discourses: broilers (e.g. 'plofkip'), environment, welfare, health, economy and consumer behaviour. Discourse in animal agriculture determined the thought process regarding animal welfare and how animals should be seen.

The effects of the discourse for Wakker Dier, were that the 'plofkip' became more stigmatized and less likely to be seen in a positive daylight. People were sometimes afraid of being seen buying the 'plofkip' and the image of companies was shed in bad light while they were still selling the 'plofkip'. People were becoming more aware of the issues troubling the broiler industry. Other positive effects were that Wakker Dier became more known and 'famous', also seen in the popularity of the word 'plofkip' which became the word of 2012. An additional finding was that certain issues or definitions were defined differently by different stakeholders. These stakeholders had different interests in the varying definitions of animal welfare. This indicated that the definition of welfare, and economic choices were limiting the focus of underlying problems.

For the 'plofkip' to have become successful, the context was crucial. Without the right context, the plofkip would have probably either not have been as successful or not even successful at all. The landscape of the dynamical system can be seen as the context of the broiler industry and how this influenced conceptions about this.

A trend that was found in the newspaper articles was that companies were trying to reinforce their green image as such that sustainability became increasingly more important. Wakker Dier and the PvdD influenced the context regarding the broiler husbandry before 2012. As can be seen in the results, within the time-span from 2000-2013, animal welfare gradually increased its presence in the media. Without it being of interest change in favour of animal welfare was unlikely.

The increasing interest in sustainability might have been an additional and potentially complicating factor in the 'plofkip' campaign, since companies cared for their sustainable image. As can be seen in the results it was found that animal welfare was not always positively related with sustainability. It was thus possible that the timing of Wakker Dier was impeccable together with the increased focus of companies to work on their green image. This might also explain why the larger companies were the first to change, since it would be possible to boost their profit with a positive image.

The criticisms, change towards sustainability and an increased interest in animal welfare thus changed the context of the dynamical system. The puddle of the dynamical system shallower, i.e. a change in frames was made easier and less effort was needed to change. With the campaigns of Wakker Dier and the change in the sectors made possible by these campaigns made the change happen, and enough was done to roll over in the other puddle. The possibility of Wakker Dier to invoke change was increased by the power that Wakker Dier had. If Wakker Dier had been less known and less powerful, their campaigns would have had less chance of success. Wakker Dier increased their fame by and power with their campaigns early in the period of 2000 to 2013.

The bio-industry as well as others with interest in the 'plofkip', e.g. the governing organ of the supermarkets attempted to push the figurative ball back in the place it was, i.e. back to the accepted 'plofkip'. They gave counter arguments on why the 'plofkip' was supposed to be called good. They brought forward the 'bofkip' as similar word as the 'plofkip', but with a positive meaning attached to it. The environment was included towards in the argument that the 'plofkip was supposed to be a good choice, claiming that it was the most environmental friendly broiler and thus the most sustainable one.

Together with these conditions and with the timing of Wakker Dier, they were able to be successful with their 'plofkip' campaign and managed to reach a tipping point with it. Wakker Dier managed to change the perception of the broiler to the 'plofkip', and thereby potentially change the industry itself.

#### **Discussion**

The discussion will shed light on the findings in the newspapers and the findings of the WPR-analysis and will attempt to clarify these findings with a comparison with other studies. The discussion is divided in three different reflections.

#### **Societal Reflection**

In the last few decades animal agriculture changed dramatically from family farms to industrialised complexes. This came with several societal consequences which were compared to child labour in the study of Anderson (2011). The main concerns which were raised were ethical ones with the emphasis on economics rather than animal welfare. Economical self-interest was thought to be directly opposing animal welfare. According to the minister of agriculture the animal husbandry needed social legitimacy (EL&I, 2011). Animal welfare has increased over the last few years, where rules and laws have been strengthened as well as an increased demand for animal welfare friendlier products (EL&I, 2011), even though the minister claimed that the government did not actually interfere much in this sector, since they focused on the responsibility of this sector. An effect of this was that animal welfare was still far from optimal, since a lot of animals were still unable to perform natural behaviour. It was thought that animal health did improve over the last years, but this did not seem to be the case in the poultry sector.

The social relevance of the ethical issues concerning the bio-industry was also found to be apparent in several other studies. Increased interest in animal welfare has been found in multiple articles (e.g. Schröder & McEachern, 2004; Middelkoop, 2007; EL&I, 2011; Moraal, 2005; van Zanten & Breeman, 2009; de Jong, 2011; Boehm et al., 2010; Hall, & Sandilands, 2006). Internationally there seemed to be a difference in the interest in animal welfare, e.g. the Dutch were seen as regarding to be mobilised for animal welfare, identifying themselves as consumers in markets (Kjaernes et al., 2007b). Another study found that the Dutch citizens think that animal welfare was mediocre to poor in the Netherlands and people were increasingly concerned about animal welfare (LNV, 2004).

Besides the increased interest in animal welfare, the trend of increased interest in sustainability was also found in other studies. Sustainability gained more interest in the last few years according to Kiron et al. (2012). It was globally seen in their research that more managers and executives were setting sustainability on their agenda (also found in Davelaar, 2011). Companies either embraced sustainability completely or they cautiously adopted it, either way they are more interested in sustainability. This trend was seen in 113 countries (Kiron et al., 2012). Reasons for change had different underlying motivations (Davelaar,

2011). The first was idealism, this happened when a company wanted to change themselves for the better. The second reason, and one of importance to the 'plofkip' campaign, was the fear for negative reactions. Companies were concerned with the information that social and mass media were able to spread, with the focus on a sustainable image it was feared that malfeasance was spread (Kiron et al., 2012). Wakker Dier made sure to make companies look bad as they continued to sell plofkip. Negative reactions potentially have a negative financial impact on companies. Another reason, following the line of the previous reason, was the value of a good reputation, indicating that a company cared for their image in a positive manner. A more sustainable image was preferred by companies and might have been a valid reason for them to stop with the 'plofkip' and thereby showing off their good intent. Along this line was the motivation of the workers of the company, which was mentioned at least once in the newspapers. The workers of a supermarket felt uneasy after they were said to be one of the bad companies that they still sold 'plofkip'. Sustainability was even regarded as critically important to being competitive in today's marketplace (Kiron et al., 2012). The question to incorporate sustainability changed from an if to a how. An increasing number of companies assumed that consumers were interested in sustainability and that the consumers expected that companies were covering this aspect. Even though it was on the agenda of companies, it was only on the eighth place of importance. It must be noted however that sustainability was defined in a way that it was relevant to the business of companies, but even then, sustainability can be profitable.

Even with the increased interest of companies in sustainability, it can takes years to take advantage of sustainability related opportunities. The largest challenge was said to be finding the sustainability-related opportunities (Kiron et al., 2012). This was made easier for companies with the 'plofkip' campaign of Wakker Dier. Companies just had to indicate that they wanted to change and Wakker Dier included these companies positive in their next commercials.

An underlying cause for the increased interest in welfare was said to be that wealthier consumers with food security would have more possibilities to question the quality of food products (Hall & Sandilands, 2006; Boehm et al., 2010). This concern about quality also includes animal welfare. When threatened with food shortage, then people were less negative about the conventional method of farming (Boehm et al., 2010) Consumers held ethical concerns for the closed confinement of animals in the bio-industry and with which they had to deal with during their purchase of meat and other animal products (Schröder & McEachern, 2004). Conflicting values occupy the mind of the consumer, with some of the underlying

causes for this were conflicting information or lacking knowledge (Schröder & McEachern, 2004). It was also found that consumers try to deliberately sever the link between meat and animals (Schröder & McEachern, 2004). It was said that if products had pictures of e.g. caged animals on them, people would think their consumption will decrease.

Even though interest in animal welfare and sustainability increased over the years, it was found that ethical concerns were weighed against the market possibilities for welfare improvements in the end (Ingenbleek, 2006). According to this study it was found that the market was valued higher than ethical values. The norms that were designed, were measured against the market values, in the case of the 'plofkip' it meant that Wakker Dier chose for a slight overall improvement of broiler welfare instead of choosing a minimum of organic chicken. Price perceptions, strategies and mechanisms can form a barrier for the market acceptance of animal welfare improvements (Ingenbleek et al., 2005).

This study helped understand how the change of the conceptions on the broiler industry happened. The societal reflection indicated the importance of the context of a given attempt to invoke change. When the context is being watched closely, trends become apparent which can be used to time certain change campaigns to increase the chance of success. Trends found with the help of the WPR-approach in this study were the increased interest in animal welfare and sustainability. The use of the word 'plofkip' also helped increase the focus on the negative aspects of the bio-industry, which might be reproduced for campaigns targeting different animals in the bio-industry.

#### **Scientific Reflection**

In this study it was found that the change of perceptions of the broiler industry was not solely attributed to the campaigns of Wakker Dier, it was found that the context was of great importance in this case. Increased interest in animal welfare and the environment were prime indications for this. Thus change did not purely happen due to organisations just wanting to bring about change, but with a combination of the 'plofkip' campaign, the timing of this and the correct context for it.

Change often happens as unintended outcome of numerous intended actions that interact with each other. Change is not planned and it is very unlikely that a single intervention aimed at a specific target will yield this result (Leeuwis & Aarts, 2011). "We now see that change is often affected by complex interdependencies, unintended and unforeseen developments and interactions, coincidence and dynamics of conflicts that defy engineering and reductionist understanding" (Loorbach, 2007; Prigogine and Stengers, 1990; van

Woerkum et al., 2007; Leeuwis & Aarts, 2011 p.21). This means that change was always possible, but that societal contexts can be constraining or enabling. The room for change was limited by the dominant discourse regarding the broiler industry. In this study it was found that multiple factors influenced the tipping point as well as the campaign of Wakker Dier. Amongst these factors were the increased interest in animal welfare and sustainability. This confirmed the point made by change happens as an unintended outcome of intended actions.

To make changes possible, it was of importance that multiple stakeholders were involved. These can be the consumers, companies, knowledge systems, social organizations and the government. A novel change has some problems getting past the primary resistance of the dominant regime and discourse of the broiler (Ingenbleek, 2006). Only a few initiatives were able to break through this regime, which was seen in the case of the 'plofkip'. Other campaigns by Wakker Dier and other animal welfare organisations did not bring about change the manner the 'plofkip' campaign did. Even when the 'plofkip' passed the tipping point, the broiler industry tried to return to the old discourse of the broiler industry.

Change was said to be difficult to start when industrialists with economic self-interest dominate the political landscape as well as having the dominant view on the issue (Anderson, 2011). A well known criticism against change in the sector was that many thought that focusing on animal welfare was economical unfeasible and unrealistic in the market mechanism (Anderson, 2011). There were also concerns that raising animal welfare would only move the problems to other countries, which was also mentioned in the 'plofkip' case. One of the main reason not to chose for change was that increased animal welfare also increases the product price. Other potential disadvantages of change were viewed as obstacles for change.

The tipping point was not always applied to look back at change that has occurred in the recent past, but could also be used to investigate a tipping point about to occur. This has been done in the study of (Kiron et al., 2012) where they looked at the perception of sustainability in companies, which had not yet passed the tipping point, but an increased interest and including it in the agenda were said to be indications of it being on the edge of a tipping point. Kiron et al. (2012) also made the remark that change can occur rapidly and unexpectedly. Another study tried to calculate when a tipping point within a person would occur after that person was exposed to a incongruent information (Redlawsk et al., 2010). This knowledge might be used to understand what was actually needed for people to change their perception of the broiler industry and whether this was attributed to the amount of incongruent information consumers received about the broiler industry. The main difference

was that the study of Redlawsk et al. (2010) focused more on the individual instead of a large portion of a community. The application of the concept of the tipping point to an actual tipping point can provide a better understanding of what has and can contribute to a tipping point. This knowledge can in turn be used to provide a better understanding when a tipping point is about to occur and help predicting these. Changes in the context of this study have shown the importance of the timing of the 'plofkip' campaign and how language was an important factor in the run towards the tipping point. This study had a small difference with the description of the tipping point as compared in the work of Gladwell (2002), i.e. there was no real single event that made the tipping point able to occur, it was therefore a little bit more gradual but nonetheless rapid change that occurred.

Organisations were mentioned to be of importance in the regard of triggering an event that marks change. Scandals could also be used as a triggering event, but in the case of the 'plokfip' this had not been the source of change, as can be seen with the avian flu or food safety scandals. Wakker Dier attempted to induce change during this period, but to little avail. According to an article regarding the implementation of improved animal welfare, it was said to be left to be addressed by companies and stakeholders, as well as the government (Ingenbleek, 2006). Animal welfare improvements that cannot be implemented by the government can be implemented by animal welfare organisations or behaviour code organisations (Ingenbleek, 2006). The need for this may rise when there are no laws regulating the subject or the laws are to minimal for these organizations. In the case of Wakker Dier it was the latter, they thought that the laws regarding broilers were lacking in the aspect of animal welfare.

Within the tipping point it must be noted that people generally overestimate character traits and underestimate the power of the context and the situation (Gladwell, 2002). The world is a lot easier to understand when people can be directly attributed for what happened, but the context and situation are of great importance as well. The idea with change is that the ones trying to initiate it, want to change a small but very important aspect.

The WPR-approach has also been used in several other studies. In this study it was used as a means to an end in understanding another concept used in this study, i.e. the tipping point. Other studies primarily used the WPR-approach as an end of their study. Its main application was the problem representation within a certain social context. One such study examined the Kurdish minority rights to understand how problems were represented (Hagberg et al., 2013) in this specific context. Another study applied the WPR-approach to understand the problem representation of the Swedish state support to fiction, in which the main purpose

was to uncover the problem representation (Lindsköld, 2010). This study therefore provides additional usage beyond the application of the WPR-approach, which can be used to understand how a tipping point is able to occur. The WPR-approach had a supporting role in this study as compared to the carrying role it had in several other studies.

# **Methodological reflection**

The case study gave distinctiveness through its WPR-approach. The broiler industry was questioned with the WPR-approach to understand how people thought about it and how Wakker Dier together with the correct context made it possible to break the dominant view on the broiler industry. An often heard criticism on interpretative research was said to be that qualitative research was build upon the interpretation of the researcher. To counter this argument it was stated by the interpretative approach and the WPR that there is no single objective truth and therefore interpretation was not wrong to be subjective (Bacchi, 1999). Awareness of the value laden interpretations of the world of policies helps identify where the research areas are tended to be influenced by conceptions and increases the critical analysis of it (Suzić, 2010). A response to this can be that the problem definition is in itself inherently subjective and therefore objective measurements cannot be taken (Joensen, 2010). Involvement was needed for the analysis, which was not inherently bad. Other responses to this were that social sciences cannot be objective, since judgments are included (Bacchi, 1999).

Context was of great importance in this case study, thus an interpretative approach was well suited for this (Travers, 2001). The interpretative method was mainly used in a naturalistic way, i.e. researchers examine occurrences in their natural surroundings and try to understand it by giving meaning (Denzin & Lincoln, 2000). The pure natural surroundings of this case were reconstructed by the means of using newspaper articles, i.e. this case study was not performed in a natural environment. Meaning giving is one of the main goals of interpretative research. Interpretations were of importance with the WPR which attempted to bring forth these interpretations.

The What is the Problem Represented to be approach (WPR-approach) was used to understand the underlying mechanisms that were at work to allow the change seen in the 'plofkip' case possible. It must therefore be noted that the WPR-approach was originally designed to uncover problem representations of policies. Among others, Bacchi claimed that the WPR-approach was not solely limited to the government and can be performed on other issues and problem representations (Bacchi, 2009). One of the largest difference compared to

other studies was that the WPR was frequently used as the final product, whereas in this study it was used as a means to an end (e.g. Lindsköld, 2010; Symes, 2013; Hagberg, 2013). In this study the WPR-approach had as one of its functions as to find the different framing used in covering the broiler industry. The WPR-approach was said enable the researcher to unpack problem representations and understand why change had come in certain ways and not others (Bacchi, 1999).

A point of critique could be casted upon the results of the newspaper articles in this study. The results consisted of summaries of newspaper articles of five different newspapers. These newspapers had different political backgrounds, which could therefore influence the framing of the articles. It was therefore of critical importance that most of the stories were comprised of different newspaper articles of different newspapers, thereby decreasing the individual influence on these stories of the different newspapers. Individual points of view on the same subject were often contradicting and quoted for specific articles. It was attempted to be as close as what happened during the chosen time span and where possible opinions have been highlighted. The newspaper articles were processed in a manner similarly as would have been done with interviews.

The media itself influenced the discussion by selecting what was covered in the media and what was not covered by it. This meant that the media played an active role in the broiler discussion. The media can thus either be beneficial or detrimental for a campaign either by maintaining or changing the current governing discourses (Munro, 1997a; Boehm et al., 2010). The media can be used to gather attention, funding, power and in the end it can change an industry. Wakker Dier received the attention, funding and power from the current and previous campaigns at least with some help of the media. In the study of Munro (1997b) it was suggested that media attention will help spread certain discourses if these attract media attention. This study did not look for the effects of the media on the discussion, but its influence is undeniable.

The choice for the case study should be critically viewed. One of the definitions of a case study was that it was intensive study of a single unit with an aim to generalize across a larger set of units (Perry, 2011, p 233). This would mean the case of the 'plofkip' was used to understand how an instance of change can be accomplished over time. An often used argument is that a case study makes a research less likely to be generalised since it is heavily dependent on the given context, but one can learn from it (Suzić, 2010). According to Flyvbjerg (2006, p 228) "One can often generalize on the basis of a single case, and the case study may be central to scientific development via generalization as supplement or alternative

to other methods." Even though the case of the 'plofkip' had a very specific context, it might still be used to understand how change can occur and might therefore be generalised on other change campaigns in the future or how past campaigns were similar to this case. The knowledge of the 'plofkip' case may not be generalised for other animal husbandry cases but it can be generalised for tipping points.

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# Appendix 1

08-04-2000	de Volkskrant	Welopgevoede kip houdt snavel thuis
10-06-2000	de Volkskrant	Kip van toen Wouter Klootwijk
05-04-2001	Trouw	Welzijn dieren
23-04-2001	de Volkskrant	In een ideale wereld eet niemand vlees Jeroen Trommelen
15-05-2001	de Volkskrant	Biologische vleugeltjes Wouter Klootwijk
30-05-2001	De Telegraaf	Commissie-Wijffels bepleit radicaal andere veehouderij
06-06-2001	Trouw	Gehavende kip
23-05-2002	De Telegraaf	ChristenUnie wil verbod kale kip Ronald Veerman
04-10-2002	de Volkskrant	Brood me zonder beestenbeleg Wouter Klootwijk
27-12-2002	de Volkskrant	Goed voornemen van culinaire aard Wouter Klootwijk
04-03-2003	NRC Handelsb	lad Minder tranen om kip dan om koe
15-03-2003	Trouw	De individuele kip telt niet; Vogelpest Kees de Vre
18-03-2003	Trouw	De kip is te goedkoop Ahmed Aboutaleb
14-04-2003	de Volkskrant	Music & Cooking Paul Brill
04-06-2003	de Volkskrant niet voor eind j	Kippen verklikken eind pestepidemie; Doorstart pluimveehouderijen uli verwacht
14-06-2003	NRC Handelsb Klootwijk	lad Een bil uit Parma is niet te herkennen; Smaak Wouter
22-09-2003	Trouw	Ludieke actie moet EKO-sector oppepen; Biologische landbouw

06-12-2003	De Telegraaf	Langzaam groeiende kip
03-02-2004	Trouw	Vrees voor forse schade economie; Vogelgriep
08-06-2004	NRC Handelsb	lad D66'er houdt pleidooi voor 'een rustiger groeiende kip'
16-10-2004	de Volkskrant de eeuw van he	Beschermers in nood; Bernd Timmerman 'Ik zeg al tien jaar: dit wordt t dier' Jeroen Trommelen
17-12-2004	de Volkskrant Aarden	Moderne koe is kasplantje, de boer een angsthaas Marieke
21-01-2005	Trouw	De superieure Nederlandse vleeskuiken
10-06-2005	De Telegraaf	Productschap verzweeg uitkomst kippenrapport
06-08-2005	NRC Handelsb Franse kippen l kunnen dromen	eiden een leventje waar gewone biologische kippen alleen maar van
18-08-2005	Trouw	Ruim vijf miljoen kippen moeten hun hokken in; Vogelpest
19-08-2005	NRC Handelsb kippenhouders	lad 'Alleen ophokken heeft weinig zin'; Biologische zien ophokplicht als hulp aan de bio-industrie Arjen Schreuder
15-10-2005	Trouw	Acht vragen over de vogelgriep
25-10-2005	AD Gerben van 't H	Nijkerkse boerenfamilie – 'Afmaken en ruimen hakt er teveel in' Hof
19-11-2005	Trouw Otter	Dieren dienen ons goede gevoel. Of ze nu dood zijn of levend Hester
25-01-2006	De Telegraaf	Buik vol van antikipactie

03-02-2006	Trouw den Blijker	Boerenkip vervangt piepjonge bodybuilder; dierenwelzijn Jeroen
25-02-2006	AD	Kippenredder Broekman nog vol strijdlust
02-12-2006	NRC Handelsh	olad De kippenketen Laura Starink
17-02-2007		Lekker samen in een stampvol hok; Bioindustrie als kippen mogen n ze volgens dierkundigen dicht op elkaar Marcus Werner
20-04-2007	de Volkskrant vecht terug	'Scharrelhen heeft meer ziekten dan batterijkip'; Accent Bio-industrie Michiel Haighton
08-05-2007	De Telegraaf	EU sluit akkoord over welzijn vleeskuikens
31-05-2007	De Telegraaf	Veertigduizend banen op tocht in veehouderij
16-06-2007	Trouw kiest blind biol	Smaakt het beter? Onze papillen zijn lui geworden, maar de proefelite logisch Jeroen Thijssen
28-06-2007	Trouw kippenhok ver	Moderne haan is flirten verleerd; Pluimveesector gaat welzijn in het beteren Jeroen den Blijker
16-08-2007	De Telegraaf	Bah!
27-10-2007	AD	Stop fout vlees, het kan veel milieu- en diervriendelijker
17-04-2008	AD organisaties – 2	Bio-industrie einde ei uit legbatterij is nieuw succes dierenwelzijns- Mentaliteit rond welzijn dieren verandert
12-11-2008	De Telegraaf	Dierenleugens
11-04-2009	de Volkskrant	Geef het dier rechten; Essay democratie voor dieren
24-10-2009		Supermarkt helpt bio op weg; consumeren marktaandeel zal in licht op 5 blijven steken Michael Persson, Liza Titawano

24-10-2009	de Volkskrant	Vlees mevrouw, u weet wel waarom (niet); omnivoor of veganist
24-12-2009	de Volkskrant vlees onder vui	Veel ruimingen, minder dieren op het bord; de jaren nul (2000-2009) ur Caspar Jansen, Gerard Reijn
25-06-2010	Trouw	Kippen en varkens moeten geduld hebben Ingrid Weel
12-08-2010	de Volkskrant	Kiloknaller
14-08-2010	de Volkskrant	De vleeseter moet worden opgevoed
11-09-2010	AD	Geen titel Jeroen van der Horst
14-01-2011	Trouw Koopmans verd	'Ik gun iedereen in India een stukje kip naast zijn kop rijst'; CDA'er dedigt vleeseters intensieve veehouderij in opspraak Ingrid Weel
28-05-2011	De Telegraaf	Stiekem varkens houden
04-06-2011	Trouw	Een beter kippenleven
09-06-2011	de Volkskrant	Fatsoenlijk lekker beestje Marcus Huibers
20-06-2011	Trouw diervriendelijk	Nederlandse pluimveesector moet voorop gaan lopen in produceren
03-09-2011	de Volkskrant	Plofkip voorgoed uit de supermarkt Peter de graaf
17-03-2012	NRC Handelsb	lad Vlees is het nieuwe roken Rosanne Hertzberger
16-04-2012	De Telegraaf	Plofkip
17-07-2012		Kip, het meest verwarrende stukje vlees. Smaak; Achtergrond welke nals goedwillende consument Marc van Dinther
12-09-2012	De Telegraaf	Troeteldieren; Gelukkig wint het gezonde verstand

15-09-2012	· ·	Prooi van dierenactivisten; Pluimveearts Jetze Plantema betaalt hoge ek op Wakker Dier
08-11-2012	Trouw	De landbouw past niet in een labaratorium Kees de Vré
20-11-2012	AD	Wakker Dier kippen lijden tijdens transport
12-01-2013	De Telegraaf Wakker Dier	'Bio schaadt milieu'; Universiteit Wageningen ondergraaf claims
23-02-2013	de Volkskrant	Pluimveehouders komen met 'bofkip'
27-02-2013	de Volkskrant Dinther	Hoek van dierenbeul geen fijne hoek om in te zitten Mac van
04-03-2013	Trouw	Bofkip: opgeblazen hoen of geluksvogel?
12-04-2013	de Volkskrant Jeroen Tromme	Hamburgers van echt rundvlees, dat zegt niets over duurzaamheid elen