4 Data and methods

4.1 Introduction

I introduced critical discourse analysis — my main methodological approach — already in Chapter 3, as it forms an important part of the framework intended to both fulfil the research task from Chapter 1 and provide the conceptual background to the empirical analysis in Chapter 5. In this chapter, I will, therefore, focus more on the actual methods of carrying out the empirical analysis to answer my research question, in addition to other necessary considerations regarding data and its analysis. This introductory section will first discuss philosophical assumptions consistent with the applied methodology, along with assumptions about the data, and then move on to briefly describe the means used to manage both the data and the progression of the research. In Section 4.2, I will justify my choice for the type of data I have, explain the process of choosing, collecting and processing my final data, give a brief overview of it, as well as describe its preliminary analysis. Further, in Section 4.3, I will explain the main characteristics of the methods used. Section 4.4 will discuss the necessary questions of quality as regards the methodology and methods, and finally, Section 4.5 will conclude the chapter.

4.1.1 Philosophical considerations

A methodology can be simply defined as the combination of methods with (compatible) positions on the nature of reality — ontology — and the ways in which we come to know reality — epistemology (Fierke, 2004). Herrera and Braumoeller (2004:16) see discourse analysis linking "epistemology to ontology in that [it] asks how we came to know the representations (words, phrases, language, gestures, etc.) that we claim constitute reality". Since discourse, how we talk, and what we talk about, defines what we see and constructs our experienced reality (e.g. Schreier, 2012), discourse analysis attempts to uncover that reality and the production of it. This is the *critical realist position* (the position adopted in this book) whereby the world exists even if we don't know of it. Experienced reality and actual reality are separate from each other. We construct our experienced reality, and this is then

subject to revision, e.g. involving theories of actual reality. While revision of such theories does not change actual reality, our constructed reality influences nonetheless our actions, and therefore, through our actions, it also influences actual reality (Bazeley, 2013).[1]

Although the basic goal of discourse analysis stays the same — to analyse how discourse constructs experienced reality — there are two traditions: one which is more descriptive and linguistic, and the other which is critical discourse analysis, introduced already in Chapter 3 as the main methodological approach for the data analysis in this book.

4.1.2 Two basic assumptions about the data

There are some underlying assumptions about the data I have analysed, partly arising from the assumptions in the previous section, partly relevant to the type of discourse data used.

Firstly, as meaning is a central concept in this book, I will give it some context here. Arising from the discussion in the previous section (and the previous chapter), meaning is culturally determined. Once something (an experience, an object, a way of behaving) becomes "defined and labelled, we tend to interpret it in the terms ascribed to that label and to neglect features from a wider perspective that don't fit" (Bazeley, 2013:22). In the context of my data, for example, the meaning of "meat" is culturally — temporally and contextually — determined. Discourse, from a sociological point of view, is about filling reality with meaning (Ruiz Ruiz, 2009).

Secondly, arising from the previous section, what someone says within a discourse is not assumed as a fact — in the world in general, or for that person — but a component (a "true component") of the discourse in question (Keller, 2013). We cannot look directly inside the minds by asking people what they think, as what people express as their attitudes depends on the situation (Billig, 2009). Wilson et al. (2004) conclude from their rhetorical study on motivations of vegetarians that since meat eating continues to be normative, and ethical motivations of not eating meat are still stigmatized, the motivations given within the discourse are about fitting the right arguments in the right places: "It is not a case of health or ethics, but rather what serves the purpose of accounting for preference best in a particular argumentative context" (idem:579). However, the point of exploring the discourse is to cover what is true within that discourse. As such, my analysis can only discover partial truths *about* the discourses reflected in the data (for example, that they are

1 This is by no means the only way discourse analysts can approach ontology and epistemology. In a strict version of *constructivism*, the world exists only in our construction of it, and since there are many constructions, there are also many realities. Similarly to the critical realist position, however, the construction of reality occurs through discourse (Bazeley, 2013).

seemingly rich); however, it can better discover truths *within* the discourses examined. More assumptions as regards the type of discourse data analysed in this book will be included in Section 4.2.

4.1.3 Management of data and research process

Over the period that I worked on this PhD project, I used a variety of methods to keep track of plans, ideas, processes, decisions, data, and so forth, both in digital and non-digital form. The main documents created were:

- Notes on issues related to the research process
- Audit trail and more general notes on methods
- Data plan and overview of final data
- Detailed track record of all final data
- Hand-drawn sketches of the discourses and the conceptual structure
- Notes on the used literature in Endnote
- A variety of further notes as regards both analysis and theoretical concepts.

Additionally, I used MAXQDA software[2] to aid data management, coding and analysis. Especially valuable was the ability to create individual comments ("memos") on codes, coded segments and any interesting parts of the textual data in general, as well as a logbook, in my case used to create summaries of the different discussion threads within the data. I generated several Excel files from MAXQDA to assist in the data analysis. The final data itself was downloaded from the Guardian website into Word, processed there, and then imported to MAXQDA. Section 4.2.3 will explain my use of the software in more detail.

The above description of the various aids used may give the image of a more orderly process than the real progression of the project was at several points in time. Bazeley (2013) makes the point that indeed a "messy" process — going back and forth between theory, data, research questions, methodology, and so forth — is normal for qualitative research. The aids I employed all proved useful and necessary also from this point of view and greatly helped me to keep the tasks moving further and the project coming to an end.

Last but not least, I used literature to guide the research process and data analysis. The most useful guide for data analysis has been Bazeley (2013). Other literature used in data analysis is referenced elsewhere when appropriate.[3,4]

2 Version 11. See https://www.maxqda.com.

3 Additionally, of course, several people have been of great assistance. They are mentioned in the Acknowledgements.

4 For the structure of some of the chapters in this book, I used a guide by Lynch (2014).

4.2 Data choice, processing and preliminary analysis

In this section, I will explore the character of online news media, describe and justify the particular data chosen for this project, as well as explain how I handled it prior to the analysis proper. To start with, however, Table 4.1 shows a brief overview of the data, all from the UK based online Guardian newspaper.

Table 4.1: Overview of the data from the Guardian

Theme	Date of online publication	Title of the article	Number of reader comments included in data
Cultivated meat	20 Sep 2017	Could lab-grown fish and meat feed the world — without killing a single animal?	154
Plant-based meat	2 Jun 2016	It looks like a burger, tastes like a burger — but it's a plant	153
Insects	5 Nov 2015	Insects should be part of a sustainable diet in future, says report	147
Flexitarian-ism	25 Jun 2017	Vegans, vegetarians and now... reducetarians	153

4.2.1 Online news media

A large part of current and recent public discourses around meat eating — explored in general in Chapter 2 — take place online, frequently within online news media. Although there are clear differences between on- and offline new media, much of the traditional role of news media and media discourse holds online as well. What counts as news in the media has an agenda-defining function, and is a product shaped by political, economic and cultural forces (van Dijk, 2015). Even just the belief that the media influences attitudes and actions can already produce an impact (e.g. on political actions), regardless of the actual direct impact of the media (McNair, 1998). In other words, this belief is another way the media contributes to agenda setting. Further, the audiences of news media often tend to hear what they want to hear, and interpret content according to their pre-existing views, sometimes leading to misunderstanding or misremembering of news (Bell, 1991), a phenomenon also known as *confirmation bias*.

In the online news environment, reader comments become part of the news stories (Cambria, 2011; Shanahan, 2010). In an interactive process between readers and texts, readers tend to create their own meanings, rather than accept ready

meanings (Lehtonen, 2000). In the online environment, this is extended, so that old meanings may be confirmed or new meanings created in the interplay, not only between news articles and their readers but between posters and their readers as well.[5] Cambria (2011:135) refers to a new type of news genre, the *article-cum-comments genre* whereby, with the possibility to comment on online news, the "entire processes of producing, accessing, and perceiving news is [...] undergoing fundamental changes as regards the activities of representing, construing and experiencing news". Similar to Letters-to-the-Editor (see Hogan, 2006), reader comments are said to influence opinions of other readers (Henrich & Holmes, 2013) and affect perceptions of what the public opinion on a particular matter is, what "my" opinion is as a reader, and indeed what the actual news is (Lee, 2012).[6] The comments may even have *more* influence on the readers than the actual articles (Yang, 2008).[7]

In the online article-cum-comments environment, the confirmation bias of readers mentioned above has an additional function in that it can lead to a more polarized discourse. Although the *argument culture* to which the media contributes has existed already before the internet (Tannen, 1998), online discourses tend to be particularly polarized (e.g. Caldwell, 2013; Pavasovic Trost & Kovacevic, 2013). This can both influence the impact such discourses have on individuals and society and affect the use of instances of such discourses as data for analysis. Caldwell (2013), for example, could not conduct his original analysis of online comments due to a large amount of flaming[8] in the data. However, he employed *media play theory* to reanalyse his data, and "the seemingly irrational and chaotic instances of participation" (idem:504) took on a different meaning and became part of the debate.[9] Further, Papacharissi (2004:259) argues that, apart from incivility, heated discussion as such is not a threat to deliberation, and that "disagreement and anarchy" might promote democratic emancipation.

Online discourse has indeed been repeatedly measured against the Habermasian criteria for deliberative democracy (see e.g. Dahlberg, 2004, for a dis-

5 And between the posts and the researcher.

6 However, unlike Letters-to-the-Editor, online news comments are normally not edited, and are screened only for bad language.

7 However, considering that few readers would read all of the comments in the cases when they run up to hundreds or thousands of individual posts attached to a single news article, this influence can be somewhat random and be determined more by the posts appearing at the top. Nonetheless, the posts reflect the experienced reality for the readers writing the posts, and this is relevant to the analysis.

8 *Flaming* is usually understood as hostile, offending commenting online, and *trolling* as deliberate flaming, with the purpose of disrupting or hurting the other participants.

9 Play is understood here as something between the concepts of *citizen* and *consumer*, and replaces the *rational citizen* (who would not get involved in flaming) with *cultural citizen* (who might).

cussion), and although some studies have found that the criteria are frequently not met in online discussions (e.g. Noci et al., 2010), others see more democratic potential in online deliberation (Manosevitch & Walker, 2009; Sampaio & Barros, 2012).

Flaming and trolling tend to result from the characteristics of online communication such as anonymity, lack of status cues and social context, as well as topicality (Diakopoulos & Naaman, 2011). These same characteristics can, however, also be beneficial for communication. For example, missing social cues can draw in people who would otherwise be excluded, and anonymity can equalize the interaction (e.g. Albrecht, 2006). However, gender differences do tend to be visible online based on an overview by Herring and Stoeger (2014) of two decades of studies on the topic. A further characteristic of online discourse is its *multimodality* (combining text, images, video, hypertext), and that it is spatially and temporally fragmented, something atypical for speech; nonetheless, the style of online communication is considered closer to speech than writing (Cambria, 2011; Sindoni, 2013).

Due to the often large amount of rough postings, most journalists are critical of (especially anonymous) online comments, but even so, Santana (2011) found in his study that about half of journalists had changed their reporting practices, topics, writing, and so forth, as a result of online comments.

Despite the downsides and the criticism, many researchers maintain that online news comments — as part of Discourse 2.0 (Herring, 2013) — are valuable data. Online news sites with their reader comments are seen as "naturally occurring and ecologically valid experimental setting" for researchers (Lee, 2012:43). Since a relatively large part of the population[10] participates in commenting and reading others' comments, the discussion can be seen to reflect a considerable share of people. Although online comments tend to be more "impulsive, shallow and aggressive" (Henrich & Holmes, 2013:2) than public opinion obtained by more traditional means, Henrich and Holmes among others (e.g. Hancock, 2007; Pavasovic Trost & Kovacevic, 2013) argue that they may be providing a more genuine insight into people's opinions than surveys, interviews or experimental studies,[11] potentially providing policymakers with another input for policymaking.[12]

Online discourse data allows for large sample sizes, when necessary, provides for real-time data, and has no constraints by researchers as to what is worth men-

10 For example, a PEW survey published as early (for online commenting) as in 2010 (Purcell et al.) found that 25% of users of online news in the US had commented.

11 My data is therefore mainly spontaneous discourse, as opposed to induced discourse, more common in sociological research, e.g. in interviews or surveys (Ruiz Ruiz, 2009).

12 Although one might conclude from this that more polarized opinions might be more "truthful" than less polarized opinions, one has to also keep in mind that the online environment tends to have its particular polarizing effect which adds on to otherwise more open communication.

tioning or asking. Henrich and Holmes (2011) conclude from their study on online news comments in Canada that their results have a high degree of consistency with results from other comparable, but offline studies, and suggest that this type of data works as stand-alone data, as well as in combination with other data sources.

Further, Barr (2011) claims that analysing online discussion can provide important insight into the social construction of issues to do with sustainability, something that policymakers could indeed use in making challenging, but necessary policy decisions. A study by Cooper et al. (2012) contains one such analysis of the online discussion following a Guardian journalist opinion piece on consumption, one conclusion being that the discourse analysed "echoes themes and debates within academic literature" (idem:26).

As said, media has both real and imagined power to set agendas in society. With the publics participating in creating news through their comments, ordinary people take on some of that power. Online comment forums "demonstrate the growing power of citizens to influence [the media] in their agenda-setting role" (Santana, 2011:77). Social power rests with those who talk and whose talking is listened to and thus forms dominant discourses. However, counter discourses may turn out to be future dominant discourses (Schreier, 2012). In effect then, there are two types of social power: current power and potential (future) power. Through their ability to participate in agenda-setting online, the publics have such potential social power.

4.2.2 Final selection of data

In addition to what was discussed in the introductory section to this chapter, it can be assumed that differences in the kinds of comments the readers of online newspaper articles post depend on temporal and contextual factors such as:

- The type of newspaper (e.g. broadsheet vs. tabloid)
- The country/culture in which the poster is based (broadly, e.g. Global North vs. South, the United States vs. Europe, but also southern vs. northern Europe)
- The overall topic in the newspaper article: some, especially political topics are "hot" and tend to generate not only more posts but often also more posts containing flaming or trolling[13]
- Style and frame of the article itself, including e.g. the metaphors used
- Certain controversial elements or actors in the article, e.g. "the UN" or "Paul McCartney" acting as messengers: such elements tend to invite more derogatory posts ("shoot the messenger")

13 Meat related topics are often somewhat political, but they still do not get a great deal of derogatory posts containing flaming or trolling, at least not in the Guardian newspaper.

- Other contextual issues, such as the time of day the news is published (are people reading and commenting at that time the story is new and more visible?), what other news is around at the same time, and the personal situation of the poster at the time of reading and commenting.

While working on other aspects of this work, I considered various online discourse data sources, in terms of different countries (including different languages), newspapers, and specific (meat-related) topics. After deciding on the country (the United Kingdom), I then examined a large number of newspaper articles and comments from the last decade. During these phases, I read through a lot of potential data. The main benefit of having gone through this search period is that I became quite familiar with the different topics and viewpoints and the arguments existing in such discourses. I did some initial coding to get a feel for what to expect and for how the coding will work. Having decided on the specific topics to include, I continued further to select appropriate examples of the discourses, and eventually arrived at the final selection of data. During this last phase, I read through the final data in greater detail to become thoroughly familiar with it. In the following, I will justify the choices made, regarding the rough geographical location of the discourses, the particular newspaper, topics, actual articles and the kinds of posts included.

My reasons for choosing Northern discourses on meat eating over Southern ones are three-fold: one is principal, the other two more practical. First, in the climate mitigation discourse, there are two basic ways of "dividing the cake", or justly distributing "a limited resource that no-one owns" in Peter Singer's words[14] — in other words, dividing GHG emissions that stay under a critical limit. The principles are the historic principle of justice (e.g. polluter pays), and the per capita principle. According to both principles, it is the Northern nations that are (most) responsible. Similarly for intensive animal agriculture, it can be argued that both principles hold, so that this destructive industry was created in the North (in the United States), and only through it, has per capita consumption of meat been able to rise to its currently unsustainable amounts at a global level. Even though there are some exceptions of longer-term high meat consuming countries in the South, such as Argentina,[15] it is mainly through the exportation of intensive farming systems that Southern countries, such as China, have been able to increase their consumption of meat animals to the extent that they have.

14 Peter Singer in his presentation on the ethics of climate change during the Climate change — Views from the humanities conference from 3 to 24 May 2016, taking place online. See ht tp://ehc.english.ucsb.edu/?page_id=13544.

15 Even in Argentina, the high consumption of meat was not indigenous, but largely a consequence of Spanish invasion (Boyer, 2016).

Secondly, the first practical reason for my selection of geographical location is that currently there are no means of collecting similar online data from the South, as a comparable online newspaper discussion culture does not (yet) seem to exist in at least the English-speaking Southern news media. Based on my quick scan of several online English-speaking national newspaper content between 2010 and 2016, the news media in the South has not (yet) contained anywhere close to the same number of articles on the impacts of eating meat, or the alternatives to meat.

Thirdly, the global transformation of the meat system will quite possibly be a two-way cultural exchange, i.e. between the North and the South. Coming from a Northern culture, I am looking at the end that is more familiar and understandable to me.

Regarding particular newspapers, Ruiz et al. (2011) divide national (broadsheet) online newspapers into two types, 1) communities of debates (such as the New York Times, and the Guardian), in which opposite views to the majority are welcomed, and 2) homogenous communities (such as Le Monde, El País and La Repubblica), in which the comments are often a "collective reproduction of the same positions" (idem:20), i.e. less debate takes place. Ruiz and colleagues attribute these differences largely to culture and conclude that "conversations [in the New York Times and the Guardian] showed a greater deal of argumentation, respect among participants, and diversity of ideas" (ibid.) than those in the other three newspapers. Further, Ruiz et al. concluded that the comments in the first two newspapers were closer to the principles of democratic deliberation mentioned above. Moreover, Ruiz and colleagues note that the Guardian has the least amount of derogatory language out of the five news websites. Finally, their justification for choosing "quality press" for their study was that such papers portray themselves "as the main arena for public opinion formation" (idem:6).[16]

From my own experience, I have concluded that the discussion in the Guardian usually has a fairly high quality (reasonably long posts, relatively focused discussion, justified arguments, not a lot of flaming), in particular, when compared to

16 All five newspapers include moderation in their online commenting, and so, there is probably less polarization because of that. Different ways to do moderation (pre-moderation, post-moderation, in-house, outsourced) did not seem to make much difference in the study by Ruiz et al. (2011). Another feature of at least some of these newspapers is that not all stories can be commented on. The Guardian itself says on its website that "where comments are likely to add value (for us and other readers) in terms of additional insight, perspective or knowledge, and where we have time and resource to be involved in the conversation, we try to ensure commenting is turned on". So the most polarizing topics and articles do not necessarily have commenting possibilities. However, the point I wish to make in the text is about the diversity of opinion, justifying arguments etc., and this Ruiz et al. (2011) attribute to the culture of the newspapers, or more precisely the "the relationship between political systems and journalistic culture" (idem:5).

another popular UK national newspaper, the mid-market tabloid Daily Mail. Comparing these two further, the Guardian has had better technical possibilities for discussion between posters over the last few years, i.e. it has been easier to comment on others' posts. Based on my experience, such "conversations" can offer relatively rich data.

The Guardian has a background as an upmarket (i.e. traditionally "broadsheet") newspaper,[17] and usually, in the United Kingdom, newspaper readership profiles are particularly distinct and stable and go along socioeconomic lines (Bell, 1991). Some of this is still valid in the UK online journalism, although the readership profiles are more mixed, also geographically.[18] Interestingly, however, the readership profiles for *all* major UK online (traditional tabloid and broadsheet) newspapers are similarly divided across socioeconomic classes, so that the upper classes form a much larger group of readers of online news than the lower classes, whereas, for the downmarket tabloid papers (in particular, the Sun and the Daily Mirror), the lower socioeconomic classes form a larger proportion of readers for offline newspapers than the upper classes do.[19,20]

In Chapter 2, I discussed the new meatways as getting a fairly large amount of media attention. These are also the chosen specific topics for the Guardian articles included as my data: cultured meat, plant-based meats, insects and flexitarianism. I discussed pulses in Chapter 2 as well, and in principle, I wanted to include discourse around pulses in my data. However, as mentioned in Chapter 2, such discourse does not really exist. I, therefore, decided to discuss pulses, and the lack of enthusiasm, in Chapter 2, and include pulses only rather indirectly in the flexitarianism discourse, if and when appropriate.

Henrich and Holmes (2013) emphasize the importance of considering methodological issues when using this relatively new type of data, online news commenting, especially for qualitative research. They discuss a number of points, and these — and my choices regarding them — are:

- *Demographic depth vs. breadth:* This is a question between choosing a larger number of articles and their comments from a single newspaper or a smaller number from several newspapers. As Henrich and Holmes argue, it is challenging,

17 Similar to other UK broadsheet papers The Daily Telegraph, The Independent and The Times.

18 Based on profiles of e.g. Guardian posters, many posters live outside the UK, although the majority live in the UK. However, online *readership* may be more international.

19 The readership profile for the Daily Mail is similar to the upmarket papers in terms of differences between the off- and online versions. However, the differences are not as stark. For example, the offline Daily Mail gets proportionally more readers from the lower classes than the upmarket papers do.

20 This readership profile information is from Newsworks.org.uk, providing profiles for the UK, downloaded in March 2017.

and perhaps ill-advised to try to generalise from a few articles to the whole readership, or in this case, to the group of posters for a particular newspaper (of which we know even less, as discussed below), and therefore, comparing newspapers does not necessarily make sense. Indeed, generalisation to a population is not, and could not be the aim of my analysis. In the end, I chose four articles from a single newspaper. A larger sample would not have allowed for the same depth of analysis.

- *Uncertainty of commenters' demographics:* Profiles of commenters do not necessarily match with online or offline readership profiles, and there is a lack of research in this area. However, Chung (2008) found that for a US newspaper, the profiles of posters did match with the profiles of readers. Further, the Guardian did a large survey of their posters in 2016 and concluded that two-thirds of their posters are male, partly attributable to there being slightly more male than female Guardian readers. Nonetheless, male readers are more likely to comment: 21% of male Guardian readers said they have commented, whereas only 12% of female readers said so.[21] In my analysis, I do not make any assumptions about the demographics of the posters.
- *Article inclusion criterion:* After a long period of considering which articles to include, I chose the latest article I found on each topic that included rich enough discussion in terms of both the number of posts and their contents.[22] Originally, I did several keyword searches on the Guardian website (with keywords such as "insect", "cultured meat", "lab meat", "synthetic meat", "in-vitro meat", "frankenmeat", "plant-based meat", "impossible burger", "beyond burger", "flexitar*" etc.), but as mentioned earlier, I also followed the Guardian news over time and usually caught potentially relevant articles before even doing keyword searches.
- *Comment inclusion criterion:* After considering several different options, I decided to include "topic conversations" only, whereby one topic conversation is one discussion thread where at least half of the posts are relevant to the topic of interest.[23] Further, I included the around 150 first relevant conversation posts (including the last thread entirely, so the number was not exactly 150). Since many Guardian articles on controversial topics have especially lately included hundreds or occasionally even a thousand or more individual posts, this method

21 See https://www.theguardian.com/technology/2016/apr/12/how-we-analysed-70m-comments-guardian-website#comment-72293328 from 12 April 2016.

22 The Guardian article on eating insects was the only one where I doubted whether I should include it, as there were fewer and shorter comments than for the other themes. However, there was much less to choose from for this theme, and so I went with the original criterion for choosing the latest article that was still adequate for my purposes.

23 "Relevant" here means that the post touched upon at least some arguments related to eating meat, not eating meat, or eating meat replacements.

does eliminate a lot of posts. However, a strict criterion was necessary to allow for depth of analysis. Moreover, some comparable research includes only one post per poster to allow for enough diversity of views. However, this method would not have worked in my data, as my main criterion was to include posts that are part of a conversation.[24]

- *Time-limited access to comments:* Newspapers do not tend to leave comments indefinitely to their websites. However, for me, this was not a problem. First of all, the Guardian does seem to still include all (or most of) the comments since the beginning of the possibility for such interaction on their website, and secondly, I did not go back in time for very many years for my final data.
- *Using public consensus data* (e.g. the up or down arrows next to a post showing agreement or disagreement): I decided not to use such data, as to my view it is not reliable. It may, at least on occasion, be purely by accident that some posts get lots of feedback, and others do not.

Lastly, a point not mentioned by Henrich and Holmes (2013), but discussed by e.g. Sindoni (2013) and Cambria (2011), is to consider whether or not to include multimodality in the analysis, in particular visual effects, graphs, photos or videos. There are no videos in the articles I chose, but there are several photos. Due to time constraints, I decided not to include the photos in my analysis. I did, however, consider and include in the analysis the hyperlinks contained in the reader comments.

To describe the final selection of data, again, it includes four articles from the Guardian, described in detail in Chapter 5, and shown in the overview of Table 4.1, and the first around 150 relevant posts within topic conversations. The total number of posts included in the data is 607. The articles vary somewhat in length, and the number of existing comments to them varies as well.[25] As regards the included threads, the final data consists of 90 different discussion threads within the four documents.[26,27] This amount of data is comparable to, or slightly more than in similar qualitative studies of online comments (e.g. Cooper et al., 2012; Sneijder & te Molder, 2005), and less than in quantitative studies of online comments (e.g. Henrich & Holmes, 2011) or a quantitative study by Hogan (2006) on Letters-to-the-Editor.

---

24 Shanahan (2010) also included conversation threads only — or *conversational episodes* — in her data for full analysis.

25 The article on cultured meat includes 1084 posts, the one on plant-based meats 437 posts, the one on insects 302 posts and the one on flexitarianism 1033 posts.

26 The number of threads is 18 for cultured meat, 17 for plant-based meats, 16 for flexitarianism and 39 (shorter ones) for insects.

27 In Chapter 5, I use frequently the word "document" to refer to any of the four Guardian articles and the posts that follow them as one entity, the article-cum-comments entity.

Before moving on to the next section, I will briefly discuss an issue not raised in the literature I have just discussed, but something that has been in the news since the 2016 US presidential elections and the UK Brexit vote. There are clear attempts to manipulate public online discourses on certain political issues.[28] Additionally, many industries are known to have manipulated public discourses on science over decades, e.g. the tobacco and fossil fuel industries. There may also be purposeful attempts to manipulate online discourses on newspaper websites by individuals or groups with interests in such action, including on topics such as meat eating. Meat is a rather political issue, and involves powerful interest groups. This is an unexplored area, however, for the sake of the kind of exploration I carry out in terms of discourses on meat, it may be less relevant how and why individual posts come about. More relevant, for analysing particular discourses, is that all the posts exist, and are therefore part of the discourse and part of the news, in the way discussed earlier in this section. If some of them are produced with manipulation in mind, it may be an important issue for other research focusing on such manipulation, as it has to do with controlling discourses and with power in society. All in all, there is no way to know about the honesty or motivation of any individual poster's comments, although there is research indicating that overall, people tend to be fairly honest in (anonymous) online communication, as discussed in the previous section. In conclusion, all posters taking part in the conversation are part of the discourse and the discourse is what matters for my particular research.

4.2.3 Processing, coding and preliminary analysis of data

As mentioned earlier, I downloaded the final data (in a threaded form) from the Guardian website into Word, processed it there, and then imported it to MAXQDA. The preparation within Word involved cleaning the text from unnecessary (often HTML) elements, reformatting it, colour coding each post based on its relevance to the topic of the article, marking each conversation thread with another code, and saving the articles with the topic conversation threads only into a separate Word document. I then imported each of these four Word documents into MAXQDA where I processed them further. To anonymize the data (as requested by the Guardian), I coded each post with a codename — CM, PBM, INS and FLEX — and a number representing the order in which the posts appear in the threads.[29,30]

28 See https://www.theguardian.com/us-news/2017/oct/14/russia-us-politics-social-media-facebook a Guardian article from 14 October 2017 on the issue.

29 In other words, the posts were not coded in time order, as for example, two separate comments posted at 9:10 and 9:15 am could each attract tens of posts that would run possibly to the following day. These two threads would, however, appear in the data so that the whole thread started at 9:10 am would come first before the thread started at 9:15 am.

30 Each post forms one unit of analysis.

As part of the preliminary analysis, I wrote a brief summary of each thread in MAXQDA to assist in getting an overview of the data and drew a rough map of connections for each document (Bazeley, 2013).

My research question for the dissertation took its final form only during the further analysis of data discussed in the next section. Yet, the question started developing from its initial state already during the preliminary analysis, based on what was most significant or insightful about the data (Foss, 2009), and based on how the data affected the ways I approached the topic. The research task for Chapter 3 was also essentially related to my research question, and the two were formed in a simultaneous and gradual process.

The first round of coding of the data in MAXQDA was part of this first stage of analysis. I used MAXQDA primarily for coding and note taking, and to gain an overview of the data. Such limited use of the software, moreover, prevents problems with giving the software too much influence in the analysis or letting it fragment the data extensively and leaving out the important context of each coded piece of text.[31] The type of analysis conducted did not even call for the more advanced features of this type of software.

As regards the coding itself, the initial or primary coding was two-fold, based on concepts thought of beforehand, based on literature, and on a significant number of further concepts rising from the data, or inspired by the data. Later on, when conducting the main analysis, and when going through the existing codes, memos, notes, and so forth, I still added on to the codes in a second round of coding. Table 4.2 shows an overview of the codes from both the first and the second round of coding in MAXQDA, while Annex 1 explains the codes in more detail.[32]

31 For criticism of using software for qualitative analysis, see e.g. MacMillan and Koenig (2004) or Bong (2002).

32 Included in Annex 1 are descriptions for the codes, and an indication of where the code came from, i.e. is it from literature, or the conceptual framework more generally, or did it come directly from the data. A few of the initial codes had no actual data linked to them, especially a couple of the coping strategies identified in literature but not present in the data.

Table 4.2: Codes used for analysis

Main codes	**Subcodes**
Interesting	
Old meatways	Vegetarianism/veganism
	Conventional meat system
New meatways	Insects and insect protein as food
	Flexitarianism
	Plant-based meat
	Cultivated meat
Making positive future with meat alternatives	
Business/technology — meat & meat alternatives	
Labels	
Story	
Knowledge	
Conflict	
Cognitive frames about meat	
Carnism	
Metaphor	
Values and morals	Values and morals general
	Watching/not watching others and their choices
Modality	
Agency or lack of agency	
Emotions	Emotions general
	Catastrophizing
Disgust	
Environmental melancholia	
The 4 N justifications	Not normal
	Normal
	Not natural
	Natural
	Not necessary
	Necessary
	Not nice
	Nice

Acknowledging ambivalence	
Indifference	
Actual behaviour change	
Other coping strategies	All or nothing
	Animal death is unavoidable
	Devaluing vegetarians
	Freedom to choose
	Blaming vegans
	Denial of animal mind
	Denial of animal pain
	Neocarnism
	Perceived behavioural change
	Disassociation
	Avoidance

Most codes in this scheme had a description (a "code memo", developed during the coding process) usually related to where the code came from, how it is used, and how it may be related to other codes. Table 4.3 shows examples of two such code memos. Many of the coded text segments included a further note regarding the coded data.

Table 4.3: Code memos from MAXQDA — Example

Disgust	Disgust either towards meat/fish or towards meat/fish alternatives, such as cultured meat, insects or plant-based meats. Audit trail: I initially put "disgust" under coping strategies, but since it is not clearly a coping strategy in these contexts (at least not yet from CM, but maybe other docs?), and since I don't know of any literature that would define it as a coping strategy (it's just my idea, as in, alternatives to meat are disgusting, therefore, we have to keep eating normal meat). Would be interesting to see if I found that meaning for disgust in my data. If I do find it, then I should maybe have two codes separately for "disgust", one under "coping strategies" and one otherwise. Disgust is of course also an emotion, but since it is both an emotion and (possibly) a coping strategy, it is not under either of those.
Animal death is unavoidable	This is a version of the "all or nothing" coping strategy, but it is separate as there are a lot of references to it. So, the meaning in short: Even a vegetarian diet causes a lot of animal death (on the fields themselves, or because of agricultural expansion). Humans cannot live and not have others die for it. It's inevitable, and the more humans, the more animals die. And it is not the meat eaters' fault alone that animals die. I can reference this to literature, but not as a coping mechanism? Audit trail: I have added some stuff to the description above, so the "too many people on the planet" argument is added, although it belongs more to environmental melancholia or catastrophism than here. It is related.

Qualitative research is sometimes criticized for giving coding too central of a role, especially if software is used for coding (see e.g. Bong, 2002). However, when extending the analysis to *conceptual coding* (Schreier, 2012), as is often the case in qualitative analysis, this may be less of an issue. Conceptual coding refers to creating links between data and concepts, between concepts, and between data, and can also be used to generate theory from data. Further, my specific methods of analysing the data (described in the following section) reduced the impact of coding as such. Finally, although I had a preliminary idea of the concepts significant to the research, and of what to look for in the data, the coding process was still exploratory to some extent.

4.3 Methods of further analysis

As explained earlier, I approached the data from a critical discourse analytical viewpoint. Since the approach taken within critical discourse analysis is intertwined with the conceptual structure of this book, I introduced this methodology already in Chapter 3. Otherwise, Chapter 3 deals with discourses at a general level, explor-

ing their importance to social practices, and, among other things, the concept of frames, and the relevance of values, ideologies, and issues of morality present in discourses. This section will outline the actual ways in which I conducted the data analysis within the critical discourse analysis framework.

My overall goal in the data analysis was to reflect the potential of certain mechanisms (as discussed in Chapter 3) to contribute to change in social practices and to look for possible levers for change. Bazeley (2013) considers a focus on processes important for qualitative research and analysis, thereby increasing the chances of legitimate generalising of research results. Qualitative research often seeks to generate — rather than test — hypotheses (Curry et al., 2009) which can then be tested in further, qualitative or quantitative research.

More specifically, critical discourse analysis involves a certain attitude with which the data is approached. According to Fairclough (2001b:236), a suitable research problem for critical discourse analysis is "a social problem which has a semiotic aspect". Consequently, the aim of critical discourse analysis is often not to generalise results as regards language, but to "understand and make explicit the potential social implications which follow" from certain discourses (Taylor, 2001:317).

The following sections will explain the structuring of my analysis and the different methods involved.

4.3.1 Structuring the analysis

The main data analysis can be seen organised at three distinct levels. Including the actual methods used, these three levels were:

- Textual/qualitative content analysis: focus on themes and dimensions
- Contextual discourse analysis: frame analysis (incl. metaphor analysis)
- Interpretation of the previous levels for sociological/societal context (incl. ideological analysis).

The first level involves close textual analysis and much of the coding of the data, looking for explicit and implicit themes, and the dimensions of the discourse. The second level entails looking at further implicit meanings in the data, using more structured methods such as frame analysis, as well as ideas from the related theory discussed in Chapter 3, in addition to further coding. Finally, the third level entails looking at the impacts of the discourses on society, drawing from the concepts discussed in Chapter 3.

Perceiving discourse analysis at three levels seems to be a relatively common way of theorizing such analysis, including critical discourse analysis. For example, Norman Fairclough (e.g. 1989; 2001b; 2015) uses it in his micro-, meso- and macro-level interpretation of discourse:

> Text, interaction and social context [are] three elements of a discourse, and the corresponding distinction […] between three stages of critical discourse analysis; *description* of text, *interpretation* of the relationship between text and interaction, and *explanation* of the relationship between interaction and social context.
> Fairclough (2015:128)

Further, a similar structure going from detail, via context, to societal relevance is sometimes used in frame analysis, as with Eder (1996) in analysing ecological communication, and in Strydom (2000:84) in theorizing on frames in his work on the relationship between discourse and sociology. Also, Paltridge (2006:179) states that critical discourse analysis "may include a detailed textual analysis and move from there to an explanation and interpretation of the analysis".

Although different authors interpret the levels somewhat differently, a three-level structure seems commonly used. Ruiz Ruiz (2009) organises his sociological discourse analysis methodology on three levels as well, as Box 4.1 explains.

Box 4.1. Sociological discourse analysis according to Ruiz Ruiz (2009)

Ruiz Ruiz (2009) defines a three-way structure for sociological discourse analysis, so that the first level is about textual (characterizing the discourse), second about contextual (understanding it), and the third about interpretative analysis (explaining it and its impact). The analysis is often conducted at all levels simultaneously in a dynamic dialogue between them.

To describe further, textual discourse analysis regards discourse as an object and often uses qualitative content analysis and/or semiotic analysis as tools, and involves some degree of coding of the data.

Contextual analysis, on the other hand, regards discourse as a "singular event produced by subjects" (idem: 8) in a context which is both situational (a discourse in relation to its particular production) and intertextual (a discourse in relation to other discourses). Frame analysis is one form of situational analysis (in addition to, e.g. conversation analysis), while intertextual analysis often attempts to look for the meaning of a discourse from its relationship to other discourses. Ruiz Ruiz argues that discourse analysis frequently ends at this level, but that for sociological analysis, the third level is required.

The final level interprets discourse as either social information, a reflection of ideologies, or as a social product. Social information tends to contain partial knowledge of social reality, while with ideological analysis, partiality becomes a crucial limiting factor for an informative interpretation of discourse. Critical discourse analysis often focuses on analysing hidden ideological constructs within a discourse. When

discourse is interpreted as a social product, the focus is on the social conditions under which it has been produced (and which it may in turn influence).

Both inductive and abductive reasoning are typical of the third level of analysis. On the one hand, inductive reasoning moves from the particular to the general, whereby one part of the system reveals something from the whole system. In sociological analysis, unexpected or atypical cases should either expand the theory or necessitate building new theory. On the other hand, abductive reasoning moves from the particular to the most likely explanation, in sociology often forming new hypotheses, instead of conclusions as such. Although especially abductive logic is often criticized as weak, Ruiz Ruiz argues that it is the only process "by which new ideas can be introduced in science" (idem:13) in the form of new hypotheses. Such hypotheses can initially take the form of *conjectures*, somewhat uncertain conclusions, which can later be developed into hypotheses.

Ruiz Ruiz concludes his description of sociological discourse analysis by arguing that two things differentiate it from other discourse analytical approaches, namely its eclectic character (several different traditions are combined), and the links that this analysis makes with broader social realities.

The overall analysis I conducted resembles the structure and content of the analysis described in Ruiz Ruiz (2009) and explained in Box 4.1.

4.3.2 The first level of the analysis – Focus on themes, dimensions and meanings

My aim with the initial content analysis was to look for diversity and as many different aspects as possible that are relevant to the main themes in this book, and in particular, to find the most relevant research question(s) to investigate further. Upon identifying a particular theme, I identified its different dimensions, and the endpoints of these dimensions (Bazeley, 2013). To give a simple example, upon identifying the discussed impacts from a particular new meatway, say, eating insects, I would then identify extracts from the data describing the opposite, contrasting ends of the impact dimension, e.g. nature will do *better* when humans eat insects, or it will do *worse* when humans eat insects. Or similarly, a theme about the wellbeing of nature more generally would contain the contrasting ends of nature needing humans, to look after it, so to speak, and nature being better off without human influence.[33] The data contained most of the contrasting ends of the dimensions I found, and when it did not, for the sake of completeness of the analysis, I used a theoretical or imaginary example of the opposite end to create the dimensions

33 The focus in the particular comments was indeed on nature's wellbeing, not on humans, and it seemed that at both endpoints, humans were seen as separate from nature.

themselves, as advised by Bazeley. Searching for the dimensions of a theme greatly aided in finding the themes themselves, as well as meanings present in the data. The key task in this part of my analysis was to find the issues (related to my main themes and potential research question(s)) brought up in the discourse. The positions of the posters on these issues were not relevant as such, a key point for such qualitative analysis raised by Bazeley (2013).

To note, this type of thematic analysis is rather general with its aim being to get to know the data, and present it to others, although using the technique involving dimensions does make it more involved and detailed. Joffe (2011) advises against claiming that a superficial reading of a text — looking for themes — would be proper thematic analysis. Generally, thematic analysis is an extensive method of analysis of its own.

4.3.3 The second and third levels of analysis — Focus on frames, values and ideologies

Unlike separating the first level from the rest of the analysis, it is harder to separate the second level from the third. This is because the frame analysis is more intertwined with ideological analysis, examining the more psychological aspects of the discourse and evaluating the societal dimensions. I will, therefore, discuss both levels in this same section. Most of the theory behind this stage of analysis has already been covered in Chapter 3, necessarily so, as discourses, and therefore concepts related to discourses, such as frames, are part of my conceptual structure. Further, Chapter 3 discussed the relevance of values, especially sustainability-facilitating values, and finally, the psychological concept of coping strategies concerning meat eating was also covered in Chapter 3.

My main aim with the frame analysis was to find the relevant dominant and counter frames and their implicit meanings and relations to ideologies, often expressed through values. For example, the following extract contains a counter frame to both carnism as an ideology and to an Absolute morality frame[34] (whereby only absolute measures count). I call the counter frame associated with the extract a Solution frame, and in this case, it is further linked to sustainability-facilitating values:

> *If more suffering is reduced by many people reducing their meat consumption, as opposed to a few people becoming vegan and the rest not wanting to go that far, then I support reducetarianism.*
> *FLEX75, 25 Jun 2017*

34 Frames are often written with a capital initial letter.

In my frame analysis, I used analytical concepts and structure similar to Strydom (2000),[35] whereby *cognitive framing devices* help construct frames in a discourse, as explained in Chapter 3. Moreover, a larger discourse can consist of various constructed frames. Many frames reflect ideologies, which in turn affect the manner and emphasis with which each of the three framing devices are applied, delimiting or defining an issue. Indeed, frame analysis is a frequently used method in critical discourse analysis, in particular, because of its ability to bring out hidden meanings, values and ideologies (Paltridge, 2006).

Although I did not initially intend to look for metaphors, I decided in the end to include two specific *conceptual metaphors* that rose implicitly, but relatively unambiguously from the data, as discussed in Chapter 5. In fact, they both became apparent already in the first stage of analysing and coding the data.

A conceptual metaphor (originally from Lakoff & Johnson, 1980) is "a way of knowing the world" (Foss, 2009:270), where one idea (target domain, e.g. time) is understood in terms of another (source domain, e.g. money). People's knowledge of the source domain (e.g. money is valuable, not to be wasted) carries over to explain the target domain.[36] A conceptual metaphor can often make a point more efficiently and comprehensively than typical argumentative structures can. Further, metaphors play a key role in framing perceptions, and therefore also in framing action. Metaphor analysis is therefore frequently a part of frame analysis, as analysing metaphors can be very illuminating in identifying implicit frames, meanings, values, and so forth. Although the significance of conceptual metaphors is obvious, metaphor analysis is, however, sometimes criticized (see Box 4.2).

Box 4.2. Metaphors and criticism of metaphor analysis

Semino et al. (2004) are very critical of metaphor analysis. Their main issue, and a crucial one as such, is that deciding what exactly in a text is a metaphor, and further, what this particular metaphor means, is tricky, and depending on the answers (which may all be equally valid), different conclusions to the research itself may be drawn.

As regards the concepts, a *linguistic metaphor* is the way a metaphor is expressed in the actual language in use (e.g. "It's time to take stock of my life" or "You are wasting your time"), and a *conceptual metaphor* is the meaning at a more conceptual level (e.g. A PURPOSEFUL LIFE IS A BUSINESS or TIME IS MONEY). The link between these

35 Strydom (2000) partly draws from work by Klaus Eder and William A. Gamson for his theory on frames.

36 So, for example, in the conceptual metaphor TIME IS MONEY.

two, however, is often up to interpretation, in other words, the problematic issue is interpretative variability.

Conventional metaphor is part of a frequently occurring, systematic pattern of conceptual metaphors (i.e. not a single case, or a novel metaphor). TIME IS MONEY is a conventional conceptual metaphor.

Whether something is actually a metaphor (the *metaphoricity* of an expression), rather than a literal expression, is a matter of degree, and therefore the boundary between the literal and the metaphorical is fuzzy, and some expressions can be both literal and metaphorical.

Semino et al. (2004) emphasize that if one performs metaphor analysis, it is very important to be transparent and explicit about the criteria applied. Only rather careful and general conclusions can be made about the data, due to the challenges of metaphor analysis.

Partly due to such criticism, and even though metaphor analysis is often a considerable part of frame analysis, I decided not to do actual metaphor analysis with my discourse data.

During this stage, a notable element of my analysis was comparing the different discourse examples (of different new meatways) to each other, and interpreting their similarities or differences in light of the conceptual structure. My main aim was to widen the view on the different aspects of the discourses.[37] For example, a frame I named Technological innovation frame was present in both the cultured meat and plant-based meats documents, whereas it was not present in the insect and flexitarianism documents. This frame among similar ones, however, can have an impact on the kinds of values the discourses invoke, and their connections to the larger discourses regarding how societies should approach sustainability.[38]

Moreover, and bordering on ideological analysis, I explored how the coping strategies regarding meat eating were reflected and employed in the discourses. This included a significant amount of meaning-based questioning (Bazeley, 2013), whereby the data is questioned in order to look for the implied meanings of statements. For example, when someone says "It's not a burger then",[39] this implies certain things about the posters view on what meat is or should be, and what is important about meat or food to him/her. Additionally, it indicates that this poster may be trying to avoid information that would likely increase cognitive dissonance regarding the issues to do with eating meat.[40]

37 I did the comparisons mainly through iterative reading of the coded segments from the different documents within one Excel table.

38 This issue is discussed further in Chapter 5 and 6.

39 This is a comment to the plant-based burger article.

40 Avoiding information is one coping strategy, see Rothgerber (2014).

Similar to the two conceptual metaphors, a theme rose from the data that I eventually incorporated into the framework presented in Chapter 3, namely the issue of labels and labelling, including social labelling.[41] During the analysis, this became significant enough of an issue to not ignore. Lastly, one more focus deserves to be mentioned. After looking for normalisation of the new meatways in the data, I decided to explore the extent to which narratives about the future, or narratives about the new meatways, are part of the discourse, as such an element can be critical for normalisation. This was not a question of an issue arising from the data, as much as of me deciding to add something potentially relevant to the range of focus.

As mentioned, the third level of analysis, the societal context, was interlinked with the other analysis. Yet, as Ruiz Ruiz (2009) notes (See Box 4.1), this is an essential level for any discourse analysis with a critical approach. In my research, this level mainly served to link the discourses more firmly to the conceptual structure and to interpret the findings for further discussion and evaluation. As a result, I ended up with several conclusions which could also be seen as hypotheses (Curry et al., 2009; Ruiz Ruiz, 2009),[42] as answers to my research question. These are presented in the final Chapter 6.

4.4 Quality criteria vs. methodological criticisms

In this section, I will address general quality criteria for qualitative research, criticisms received, and my own reflections on ways of dealing with the issues.

Although there is no definite agreement on the necessary quality criteria for qualitative research (Bryman et al., 2008), the literature discussing such criteria, however, seems to more or less agree that the following issues are important to consider (see e.g. Bazeley, 2013; Taylor, 2001):

- Objectivity/subjectivity and reliability of interpretation
- Internal validity
- Reflexivity
- Transferability/generalisability, also in terms of the data analysed
- Usefulness.

41 "Labelling" as such represents a conceptual metaphor, of course. For example, HOW YOU BEHAVE IS WHAT YOU ARE could describe the labelling of behaviour as a conceptual metaphor. However, since there is a distinct theory attached to it — social labelling — I did not handle labelling as a metaphor in my analysis.

42 Or perhaps conjectures, still somewhat uncertain hypotheses.

I will address these criteria in the following sections. Although much of the following applies to qualitative analysis more broadly, I will generally refer to discourse analysis, or more specifically to critical discourse analysis.

4.4.1 Objectivity vs. interpretation of data

One of the main criticisms of qualitative discourse analytic research is a lack of objectivity.

Firstly, this is related to discourse analysis being inherently interpretative. Therefore, its results are criticized for being less reliable. Indeed, in critical discourse analysis, "the analyst imposes her reading [on the data] which she must be aware is only one of countless possibilities" (Mautner, 2005:819). Generally, this criticism is addressed by the analysis and its results being grounded in detailed evidence and persuasive and well-supported arguments, through which the data is not open to any number of interpretations (Tonkiss, 2004).[43] This is also related to the criteria of internal validity discussed more below.

Secondly, (critical) discourse analysis is challenged for researchers possibly taking sides, for example, by being politically committed (see e.g. Antaki et al., 2003; O'Halloran, 2010). Burman (2004) notes, however, that no researcher can help taking sides, and even trying not to is actually about taking sides, as the *status quo* is then maintained: "objectivity is not the absence of subjectivity, but a particular form of it" (idem:2). For Taylor (2001), the main point is about acknowledging that the research has an agenda.

Similarly, sustainability research (such as this research) often takes sides, as it usually aims to contribute to changing societies towards more sustainable ways of existence. Such research tends to be based on certain values and driven by a desire to do something good (Peattie, 2011). The criticism is, however, that *real* research should be value-free, objective and dispassionate. But Peattie notes, that most research is laden with the *dominant social paradigm* and with its associated values. As this paradigm is dominant, and therefore mostly invisible, researchers are usually not aware of it. One should not forget that in some areas of research, such as in health research, there is a clear and accepted societal goal, a desire to make populations healthier. In a similar vein, John Dewey (see e.g. in White, 1972) has argued that science in general should be directed at improving the world.

Specifically reflecting on critical discourse analysis, O'Halloran (2010) states that one way to address what he calls the "over-subjectivity" of critical discourse analysis is to incorporate corpus linguistics software, as then "it is the software which reveals salience and not the analyst" (idem:565). With software, he notes,

43 Hardy et al. (2004) note that differences in interpretation may, in fact, be a source of new data.

even larger data sets can be used for critical discourse analysis. Koenig (2004) also suggest using textual analysis software to aid qualitative frame analysis. Software could in principle add to the robustness of analysis (linking again to internal validity discussed below), and indeed the reliability of results. Apart from separate software packages, some of the claimed benefits could alternatively be reached by using certain advanced features of programs such as MAXQDA,[44] often used to manage and code discourse data.

As regards my own methods of analysis, I did consider using both the more advanced features of MAXQDA and additional corpus linguistics software. As already mentioned in Section 4.2.3, I decided not to use the MAXQDA features for more advanced analysis, for example, because doing this would have taken the focus away from the context of the data and too much towards the (reliability of the) coding itself. These features also seemed to not be particularly useful to my analysis. The separate corpus linguistics software I considered included AntConc[45] (freeware), with a concordance table feature where data can be compared to e.g. standard English corpora, and LIWC,[46] able to do more advanced textual analysis. However, I did not find that the analyses the software provided would add anything significant to what I was already pursuing with the data. It may be that the situation would have been different with a much larger dataset, but with such data, I would have had to do a different kind of analysis in any case, as the level of detail in the analysis with a much larger dataset would have had to be different.[47]

4.4.2 Internal validity

External validity is generally not considered a reasonable criterion for qualitative discourse analysis, whereas internal validity is (discussed e.g. by Georgaca & Avdi, 2011; Taylor, 2001; Tonkiss, 2004). Taylor (2001) presents several criteria for qualitative analysis such as critical discourse analysis. Those most relevant to this section are:

- Coherence of arguments and analysis
- Persuasiveness, based on arguments

44 As a group, such software packages are called computer-assisted qualitative data analysis (CAQDAS) software.

45 See http://www.laurenceanthony.net/software/antconc/.

46 Linguistic Inquiry and Word Count. See http://liwc.wpengine.com.

47 One example from a test with LIWC worth mentioning is that, according to a basic analysis of my data with this software, the article on flexitarianism is more focused on the present, and the other articles are more focused on the future (the article on insects, however, was not yet included in this test run). Although this insight seems reasonable, it did not appear as something I could not have concluded from comparing the four article texts on my own.

- Rigour, systematic analysis
- Looking for deviant cases, oppositions and diversity in the analysis.

In developing and working on my analysis, in theory development, in describing my methodology and specific methods, as well as in presenting results, I have applied such principles. In other words, I have aimed to be systematic and coherent and give enough detail of the data and the process of analysis. Having extensive notes has certainly assisted in this. My objective has been to make reasonable arguments as regards the data so that my conclusions could be tested in further research. In searching for the "counter data" (e.g. counter frames), I have also looked for diversity in the material.

Goodwin and Shoulders (2013) and Bazeley (2013) discuss peer debriefing as a validation strategy. In peer debriefing, the other person plays "devil's advocate" (Goodwin & Shoulders, 2013), questioning the theory and methods. This is a strategy I have used on occasion.

4.4.3 Reflexivity

Reflexivity is particularly important for qualitative research. Hardy et al. (2004:21) argue that in discourse analysis, reflexivity is necessarily high, as the researcher "is part of the process whereby meaning is constructed". Reflexivity is about being critical and open about the data and its analysis, by questioning assumptions, critically examining the processes of the analysis, and evaluating how these processes affect the results (Tonkiss, 2004). Taylor (2001) asks for rich detail in explaining the process of analysis, and in presenting findings. The value of keeping an audit trail is clear for any research project, and its usefulness is probably most obvious for the criteria of reflexivity.

In my work, I have tried to be critical of my analysis, including assumptions and processes. Further, I have kept detailed notes about the developments, both in the form of an audit trail and in many other notes, as explained in Section 4.1.3. Chapter 6 will include a section on limitations where I will reflect more on what could have been done differently, but in the following criterion of transferability, I will also reflect on my choices for data.

4.4.4 Transferability

Data for critical discourse research often just happens to be there. It is not random, or randomly selected, as it might be in quantitative media content analysis, for example, nor is it usually designed, as in surveys or interviews. It is frequently therefore not representative. Such is my data as well, reflecting some of the discourses around the new meatways. Taylor (2001) warns against assuming that any

results from critical discourse analysis would describe the real world in a more general way. Instead, such results are partial (not general), contingent (not necessary, but possible), and situated (claims made can only refer to the specific situation). She maintains that *all* knowledge is such, as experienced reality is inevitably influenced by any research processes. This connects back to the critical realist position discussed in Section 4.1.1.

As said, external validity is not considered a criterion for qualitative discourse analysis. The results of critical discourse analysis, for example, are usually not representative, and therefore not generalisable to a larger population. However, results of discourse analysis can be *theoretically generalisable* (Bazeley, 2013; Tonkiss, 2004), or transferable to other situations, especially when such analysis focuses on processes and mechanisms.

Regarding the value and transferability of small-scale qualitative data, Bazeley argues that:

> Each singular person or event embraces a degree of universality, reflecting dimensions of the social structures and order of their time. What is learned from individual cases or case studies reflects this: it is not that we can describe the characteristics of a larger population, survey style, but rather that we gain understanding of the way some aspect of society works — an understanding of processes and principles, theory rather than facts.
> Bazeley (2013:411)

Critical discourse analysis frequently engages in abductive logic (discussed in Box 4.1) involving an interplay between existing theoretical understandings and empirical data, in which the data can generate new theoretical understandings (Bazeley, 2013). In other words, abductive logic can create theoretically generalisable data. I would suggest that the conclusions (or hypotheses) from my data may be theoretically generalisable, but they could also possibly be tested in further research.

4.4.5 Usefulness

Last but not least, although the claims in discourse analysis tend to be modest, with an open approach to knowledge (Tonkiss, 2004), the usefulness of the findings, both theoretically and in terms of the real world is a general criterion for research. Georgaca and Avdi (2011) suggest that findings from discourse analysis can provide new insights, and generate new questions (or theory, as argued above), and they can deconstruct dominant assumptions and challenge practices. They note further that there are no direct strategies that discourse analysis can usually lead to, but such analysis can inform interventions, especially interventions challenging dominant understandings and practices.

In line with Georgaca and Avdi, I contend that, assuming the general relevance of discourses around meat (an argument in Chapters 2 and 3), findings from research such as mine can contribute to deconstructing dominant assumptions, and challenge unsustainable practices, for example those involved in producing animals for human consumption, as well as in eating such animals. I will address this "so what" question — a key motivation for this research – again in Chapter 6, but suffice it to say here that the discourses around meat are out there, and although my interpretation of the data I have collected is likely to be only a small part of the whole discourse universe, it is valid as a justified interpretation.

4.5 Conclusion

In the previous sections, I have covered the main points as regards philosophical arguments, aspects of my data, and its analysis, and issues to do with the quality of research. I have also described the ways I managed the data and the project itself. Critical discourse analysis was already introduced in Chapter 3, and in this chapter, I explored it further. Chapter 6 will still get back to some of the issues mentioned in this chapter, such as limitations to the research, alternative ways of pursuing it, and the relevance of the research. My objective has been to use a methodology and create methods that are suitable, interdisciplinary, adequately adopted, and open-minded, while offering detail useful for discussion and further research.

A final point to this chapter: looking into Chapter 3 and its focus on expanded social practice theories, and the exploration of the relationship of practices and discourses, this approach to the data could be presented as a novel methodology. However, as Wiles et al. (2011) note, researchers have always adapted methods for their own purposes, and while this is good, it need not necessarily be presented as something new. Over-claiming in methods can lead to several issues: it "encourages a focus on the latest methodological fads", instead of furthering the development of well-established methodologies, it "encourages a view that the established social science methods of the past are 'old hat' and inappropriate", and it "risks losing credibility in the same way as over-claiming by academics of 'international' standing in research" (idem:601). In other words, new and different is not necessarily better than the old and familiar.

The following chapter will present the analysis of my discourse data.