University of Twente
Enschede, Netherlands
June 2020

Advocating hysteria

How Dutch media used framing and conspiracy coverage during the Corona Virus of 2020 compared to the Swine flu of 2009

Bachelor Thesis in Communication Science (BSc)

Faculty of Behavioral, Management and Social Sciences

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Abstract

Aim: Climate change is a hoax, the earth is flat and vaccines cause autism are just some examples of conspiracy news. Whilst a lot of these stories sound to many as an obvious deception, an abundance of fake news is still being shared and adopted. The increase in news available the past years has made it harder for the consumer to pick out the right story. Especially at times of crisis such as during a pandemic, feelings of uncertainty can cloud the news. To explore the way news stories are presented during the current pandemic, this research examines the extend to which articles use conspiracy news, framing, valence and stakeholder engagement. A comparison will be made between articles from the coronavirus of 2020 and the swine flu of 2009. Additionally, the potential change in media coverage from first case to widespread human infection is evaluated.

Method: A total of 200 articles were selected from three major Dutch newspapers (de Telegraaf, de Volkskrant and het AD) with 100 articles in each pandemic which match the same general timeline. A content analysis was done using a codebook including five categories and 23 different coding items. Articles were coded with conspiracy coverage, media framing, valence and stakeholder engagement.

Results: The results show a contrast between both situations where articles during the swine flu were more often neutral with little use of framing and a bigger focus on experts, articles during the Corona virus more often referred to the public opinion and made more use of frames focused on human interest and economic consequences. Additionally, articles during the preliminary phase of a pandemic gave less background information with little references to experts and a bigger use of frames to highlight who is responsible and its effects on the economy, whereas those later on used all frames more equally and had a bigger number of neutrality and objectivity.

Conclusion: Overall, the way the media covers the news during a pandemic has changed and where news since the swine flu has become less focused on experts, including a bigger use of framing and less neutral. With regards to the general timeline of a pandemic, at the start the articles proofed to refer less to experts, framed the story often in the light of who is to be held responsible and were less neutral than later on.

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1. Introduction

For as long as there is science, there are people who make up their minds about how the world is. Skeptics of science have gone out of their way to create theories to debunk what the majority believes to be the reality. These conspiracies have raised many eyebrows and have led to a general discussion about validity. The difference between the early days in history and today's society is the reach that these theories have gotten. Even commercial media such as newspapers and news channels are now a platform through which these beliefs can travel and reach the mass public. Whilst the conspiracy theorist of the past had a small network to operate in, the conspiracy theorists of today can come together in multiple ways to form a large group of individuals. The creation of these unities gives them a stronger voice and the feeling that as long as many people believe in one thing, it becomes reality.

One might think that these theories are harmless but when one realizes that historically, conspiracies have led to prejudice, revolutions, and genocide, one might realize the possible impact it can have (Douglas, Uschinksi, Sutton, Cichocka, Nefes, Ang & Deravi, 2019). What is still proven to be having a consistent impact is that these theories have driven many to reject mainstream medicine to the point that viruses we thought were extinct are making a comeback. Whilst countless studies have proven the worth of today's medicines, many people still believe them to be more negative than positive. Vaccines should form our first line of defense when it comes to old and new viruses but when this process is disrupted by an opposing side, the world could risk an epidemic or even a pandemic. From the plague of Justinian just a few hundred years after the birth of Christ to the Black Death in the 14th century or the outbreak of the swine flu only ten years back, history has been marked with many global outbreaks (Schoch-Spana et al., 2017). Rejecting fake news and conspiracy beliefs might save the world its next pandemic.

At this point, the world is looking at its next pandemic with the emergence of the Coronavirus (COVID-19) which is expanding at a rapid pace. Viruses like this might be harmless for animals, but when transferred to a human host it can have immense effects. In many cases, a pandemic like this is split up in different phases where the first three cover the pre-phases in which there are a few human infections. Phase 4 has sustained human-to-human transmission and phase 5 and 6 are the peak with widespread human infection (World Health Organization, 2009). After the peak, there is still the possibility of a return if people are not careful enough. When we look at the situation today, the timeframe of these phases might look different than historically observed, especially when one takes into account the globalization and the decrease in the relative distance, it could be only a matter of days until a virus has expanded beyond its country of origin. The spread of the virus is one thing but something that might be just as contagious is fear. The fear for a possible worldwide pandemic has its effect on people and fake news possibly exaggerating the facts could only enlarge this. This, in turn, might affect fields such as politics, social, and economic (Peckham, 2013). Some might say that the fear of the virus often does more harm than the virus itself.

During a health crisis like this, the media is playing a big role in influencing the public. An overflow of information is then presented to the people which could have big psychological impacts (Falagas & Kiriaze, 2006). The impact of media has seemed to be increasing over the past years due to the expansion in reach they now have. Through the use of framing and valence, the media has been able to create messages in a way they see fit for society. Frames are created by selecting some parts of a perceived reality by the writer to make it more salient (Entman, 1993). The increase in media outlets has increased the way each of these outlets frames different issues. Background, experience, perspective, and different motives are all reasons for frames to emerge, both consciously and unconsciously. Especially during big occurrences such as crises, many different news platforms report on the problem with different interests and perspectives on the issue. Tying together with that is valence, which relates to the affective component of the text related to the tone and sentiment attached to the message (Young & Soroka, 2012). Likewise, the valence of an article might influence the reader and give them a certain feeling, either consciously or unconsciously. Compared to the role of framing, valence influences the way the general public is interpreting the message (Hurtiková, 2017). The writer might present the topic in a positive, negative, or ambiguous way to add an extra layer to what is written.

With the increase in reach the media has gotten, it is interesting to see how these constructs have changed over time during the coverage of a pandemic. Especially with the current pandemic in full commence, it is worth looking at how media coverage has changed since the end of the last decade. This report will compare the swine flu influenza (H1N1) outbreak of 2009, and the coronavirus (COVID-19) of 2020. As for the sake of continuity, other names these viruses might have been called (e.g. Mexican flu or Wuhan virus) will not be used in this report. With regards to the possible results when comparing the starting phase to when the pandemic has reached its peak, those from phase 4 will be considered less as this research is focused on the media coverage from the absolute start of a pandemic compared to the full-on outbreak. However, phase 4 is still important to consider when comparing the two pandemics together to ensure completeness and preserve cohesion. Whilst having similar components such as the contagiousness and cause respiratory diseases, one must realize they are still very different from each other. When treating the results, it is therefore important to take into account that these are two different pandemics and that this research does not have the intention to make them out to be the same.

To discover the difference in media coverage between the two outbreaks a central research question has been established. *"In what way has the media coverage changed during a pandemic comparing the swine flu influenza (H1N1) to the coronavirus (COVID-19), considering the moment of the first case to widespread human infection in the Netherlands?"*. The central aim is to find out how media coverage has changed since the last global pandemic and if the current state of mainstream media influenced a possible change. To explore this central research question, four sub-questions have been established.

RQ 1: What are the differences in fake news and conspiracy coverage used during the swine flu influenza (H1N1) and the coronavirus (COVID-19), furthermore considering the change from phase 1-3 to 5-6?

RQ 2: What is the difference in frames used during the swine flu influenza (H1N1) and the coronavirus (COVID-19), furthermore considering the change from phase 1-3 to 5-6?

RQ 3: What is the difference in valence between the coverage of the swine flu (H1N1) compared to the coronavirus (COVID-19), furthermore considering the change from phase 1-3 to 5-6?

RQ 4: What is the difference in stakeholders mentioned during the swine flu (H1N1) compared to the coronavirus (COVID-19), furthermore considering the change from phase 1-3 to 5-6?

The outcome of these sub-questions will hopefully help answer the main research question. This research aims to explore a relevant topic and assist in getting a better understanding of the magnitude of pandemics in the future with relation to the media. As new viruses will emerge and the media will keep growing, it is valuable to assess the correlation between the two to act on it in the future. Following this introduction, a critical review of some of the core concepts in this research will be highlighted to formulate individual research questions. After that, the design of the research will be presented and elaborated upon. Finally, the results will give energy to a discussion in which an answer to the research question can be formulated.

2. Theoretical framework

The topic of this research considers many different dimensions and to find an answer to the different questions, a critical review of the literature needs to be done. To give a foundation for the research design, different concepts need to be elaborated upon. The first broad concept that will be touched upon is that of a pandemic to help understand the magnitude of a crisis and put all the other constructs into context. Secondly, the construct of conspiracy coverage will be discussed which will shed light on the reliability and relevance of news and the phenomena of fake news. Thirdly, media framing will be elaborated upon to see the ways news topics can be presented and the reasoning behind it. Fourthly, the construct of valence will be discussed which will shed light on the underlying tone and emotional value a news text can have. Finally, the stakeholders involved are presented to get an understanding of who is affected during such a crisis. The constructs will all lead to multiple individual questions in the end.

2.1 Phases of a pandemic

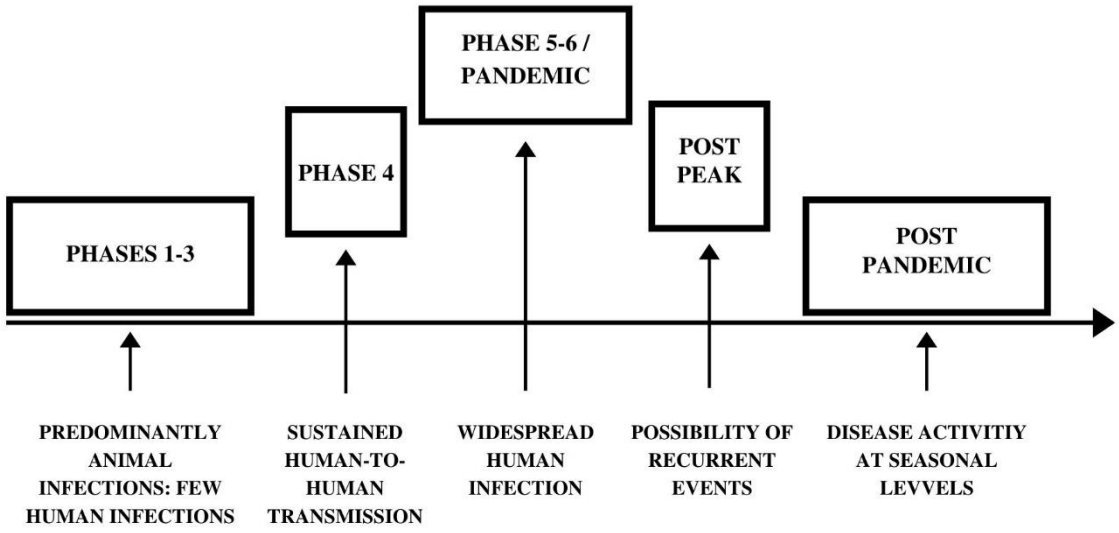
The world has known many different crises ranging from terrorist attacks to natural disasters, to nuclear catastrophes. However, none of these is as globally impactful as a worldwide pandemic. To understand the magnitude better one should define what a pandemic means and an important distinction to make here is between a pandemic and an epidemic. Epidemics are often viewed as a small scale outbreak with a disease spreading within a city, area, or region (Doshi, 2011). If looked at a pandemic, this is seen as more large-scaled where people all around the world are infected and not only in a specific region (Morens, Folkers & Fauci, 2009). This would imply that a pandemic would start off as an epidemic in a specific region and due to the contagiousness of the virus it would spread and lead to a worldwide pandemic. This is often linked to the human immune system not being able to cope with an unfamiliar virus and, therefore, harming the host (Krause, Dimmock & Morens, 1997). The high levels of contagiousness make it difficult for society to contain a virus and therefore prevent a pandemic from happening.

Whilst all pandemics are different, most of them can be observed through different phases. After the pandemic in 2009, the World Health Organization (WHO) revised its description of the different phases during a pandemic (figure 1). This model explains where a pandemic starts and how it evolves over a period, it, however, does not illustrate the impact it might have. This model can be used to evaluate how a virus might spread and when we would arrive at which stage. One must point out that how this model plays out during real-life might differ due to external factors. For example, when looked at the difference between the swine flu of 2009 and the coronavirus of 2020, the swine flu reached phase 5 a month faster than the coronavirus (Fox, 2020). The interesting point here is that the coronavirus has been evaluated to be more destructive than the swine flu. In his article, Fox explains that it is near to

impossible to stop the spreading of a disease such as this, so why bother preventing it. What is implied is that declaring a pandemic early on does not affect the degree of prevention. A news article from the New York Times added that the WHO avoided the term “pandemic” as they did not want to give the impression that the virus was unstoppable (Gross & Padilla, 2020). This to arguably prevent mass hysteria before the WHO was sure of its case. However, according to Duncan (2009), health organizations such as the WHO should be early when it comes to statements about a possible health crisis. The philosophy behind this is that people live in a world with 24-hour media and instant international communication where news travels fast. This means that if there is any development or matter related to the health crisis, it won’t stay secret for long.

Figure 1

Pandemic Influenza Phases 2009



2.2. Conspiracy coverage

With today's society innovating every day, communication channels have gotten more and more advanced. Theories about everyday events are manifesting at a faster speed and reach people all around the world. Where in the past people had to go on the streets to spread their ideas and beliefs, contemporary platforms offer a wide variety of possibilities to reach the public. Due to the increased supply of theories found across the internet, many journalists and academics have labeled this time we live in as an "age of conspiracism" (Oliver & Wood, 2014). However, when one looks at the past and how conspiracies have been documented, there is no significant increase over time (Uscinski & Parent, 2014). This means that there has always been conspiracy news in the world, and just because they are more visible now due to the availability does not turn this era into an age of conspiracism. Additionally, if there ever was an "age of conspiracism", it is not in the current decade as there have been higher amounts of conspiracies in past decades. Conspiracy theories can be based on a lot of different matters but the biggest manifestation of conspiracies is during some sort of a crisis such as a terrorist attack, natural disaster, war, or a pandemic (Roitman, 2011). These times can cause a great deal of uncertainty and fear which could bring someone in a state of feeling out of control and conspiracies could help one make sense of the world. Consecutively to the feeling of uncertainty and disbelief, one is easier influenced by others advocating their belief. However, whilst conspiracy theories are a response to fear and uncertainty, it is not proven that they help reduce these feelings (Douglas & Sutton, 2015). These insights could explain as to why conspiracy beliefs flourish notably in times when society is in distress.

As mentioned before, conspiracy theories come in different shapes, and one that might be the most relevant today is the concept of fake news. The increase in the availability of news online has allowed the public to access information quickly and from multiple different sources. The extensive availability of news also enables a widespread of conspiracies and fake news. Shu et al. (2017) describe this form of news as low-quality news with intentionally false information which would mislead the reader. However, there is the possibility that the writer of the text is unintentionally reporting faulty claims due to a lack of journalistic quality. Allcott and Gentzkow (2017) highlight two key features of fake news; authenticity and intent. Firstly, fake news includes faulty information that can be verified as being false. Secondly, fake news is made with malicious intentions to mislead the reader.

The mass media often frames social issues by choosing particular stakeholders and highlight their reactions to the matter, not always making sure that all the perspectives of the story are covered (Sin, 2020). This can pose a problem when researchers merely look at the content of the information and do not identify the source of where it comes from. Especially during a crisis, it becomes more crucial to investigate the connections between news content and the source it comes from as concepts such as fake news and frames on the web are still making their impact (Sin, 2020). Therefore, the first point to look at is the number of sources in an article. The writer determines the number of sources he or she uses when writing a text. What is often seen is that news articles that include many sources are often

more reliable (Spurk & Lublinski, 2014). Next to the number of sources, one should also take into consideration where these sources come from. Shu et al. (2017) identify the approach of discovering the content of the sources as a knowledge-based approach to check the truthfulness of claims and the validity of the news article. This knowledge-based approach considers two categories; *Expert-oriented fact checking* and *Crowdsourcing-oriented fact checking.* Expert-oriented fact checking heavily relies on experts investigating relevant data to support their claims. Crowdsourcing-oriented fact checking uses the contribution of the crowd to enable the general public to annotate news content. Whilst expert-oriented fact checking might seem more reliable, it is also more time-intensive than getting the general opinion of the mass public.

A final aspect to look at in a text is the degree to which a writer puts the matter in a broader context. If the background of an issue is highlighted, it shows the article views the matter in a broader spectrum. Urban & Schweiger (2013) explain this with the term "completeness" which relates to the relevance of a text. Only when a text gives the full story about who, what, when, and where it can be considered of high quality. As speculated before, the immense increase in media coverage these days might have decreased the quality of such coverage due to the assumption news outlets want to report fast news compared to well-considered news. Additionally, with news outlets wanting to bring out the story more promptly these days to its readers, the completeness of the story might be lacking when we compare it to the articles during the swine flu. Additionally, when looked at the way conspiracy coverage is spread across the different phases, there might appear to be a difference. So could it be that due to the high level of uncertainty at the beginning of a pandemic, articles might more often report faulty information. Whilst if reported later on during a pandemic, the writer might have been able to do more research on the topic. To explore how the coverage of news during a crisis has changed between two decades and across different phases of a pandemic, two questions have been formulated:

RQ1: How has the degree of fake news and conspiracy coverage changed from the swine flu influenza (H1N1) in 2009 to the coronavirus (COVID-19) in 2020?

RQ2: How has the degree of fake news and conspiracy coverage changed from phase 1-3 of a pandemic to phase 5-6 of a pandemic?

2.3. Media framing

The increased connectedness and emergence of more complex and integrated networks have given the media a vital and powerful position in society. Through framing, they have the opportunity to frame public opinion and set the political agenda. Having such an impact and power comes with a sense of responsibility. But the question is if the media always report unbiased or conversely shape public opinion for different reasons. Framing is a powerful tool used in news coverage to influence the public. Journalists often come to create a frame by selecting some parts of a perceived reality to make a concept appear more salient in a text (Entman, 1993). Nisbet (2010) adds that frames are a result of the actors' connection to the frame which makes it important to identify how the media channel is related to the frame. One critical consideration to be made is that framing a text is not always done consciously by the writer (Dahl, 2015) and that the process has multiple steps in where a frame could start to develop (De Vreese, 2005). This communicative process is a dynamic process rather than static which involves frame building, how frames emerge, and frame-setting which is the relation between media frames and audience susceptibility (De Vreese, 2005). One can take away from this that the final frame in a news text does not necessarily have a specific origin, but could be a combination of factors.

News media can, either consciously or unconsciously, make use of a variety of frames the get a certain message or belief across. Whilst there are a numerous amount of frames to use, several researchers have identified five different media frames as many news outlets make use of them; *human interest, conflict, economic consequences, morality and responsibility* (Semetko & Valkenburg, 2000; An & Gower, 2009; Jebril, de Vreese, van Dalen & Albeak, 2013; Nijkrake, Gosselt & Gutteling, 2015; Muhamad & Yang, 2017; De Vreese, 2005).

The human interest frame gives the presentation of the story a dramatized, personal, and emotional tone (Semetko & Valkenburg, 2000). News writers often use this frame to entice the audience whilst they are reading the piece (Price, 1989). News pieces that include a human interest frame are often more personality-biased and are aimed at entertaining the reader rather than being informative (Jebril, de Vreese, van Dalen & Albeak, 2013). Nonetheless, this entertainment factor of the piece might help an individual recall the news and learn from it. The conflict frame emphasizes the conflict between individuals, groups, or institutions (Semetko &Valkenburg, 2000). It is often used to highlight controversy and simplify complex events to increase the comprehensibility of the matter (Neuman, Just & Crigler, 1992), but also get the attention of the reader (Jebril et al., 2013). The economic consequences frame is related to the financial consequences on an individual, group, organization, region, or country (Semetko & Valkenburg, 2000). This frame is likely to be more used in times of a crisis as that often has a big impact on the financial situation of many parties (An & Gower, 2009). This sounds logical if one looks for instance at the stock market and its vulnerability to change when people start to feel more uncertain such as during a crisis. The morality frame puts the matter in the context of morals, social prescriptions, and religious tenets (Semetko & Valkenburg, 2000). This frame is commonly used more

indirectly through quotations rather than in a direct form because of the professional norm of objectivity (An & Gower, 2009). This could be done by for instance having someone else raise a question about a certain issue. The responsibility frame presents an issue, problem, or event in such a way so the reader gets an idea of who the responsible is for either the cause of the solution (Semetko & Valkenburg, 2000). When looked at a crisis such as a pandemic, many people in the world often hold the country of origin responsible for an outbreak (Ren, Gao & Chen, 2020). As in 2020 with the coronavirus, many people in the world are holding China responsible for the outbreak of the virus.

How all these frames interplay together in the media during a crisis can largely affect how the public will react. The way certain events or other news are framed related during a crisis could help spark conspiracies and promote fake news. Especially when different channels use different ways of framing, more confusion arises. It is however not only important to explore the meaning of these frames but also their frequency relating to different moments in time. How the frequencies of framing differ between the two pandemics could tell us something about the kind of message the media would like to bring across. What is often seen during times of crisis is that articles tend to frame on the impact on the economy and who can be held responsible for it. Next to the difference between the pandemics, the way framing is used can also seem to differ during the pandemic. So could the uncertainty that comes with the early phases give rise to the media looking for who to blame or making predictions on how this will affect various parties. The increase in media coverage over the past decade has allowed more perspectives on crises but could also increase framing due to a greater amount of factors such as background, attitude, or morale. To discover if and how framing has changed with regards to the coverage during a pandemic, two questions have been established:

RQ3: What is the difference in frames used comparing the swine flu influenza (H1N1) to the coronavirus (COVID-19)?

RQ4: What is the difference in frames used comparing phase 1-3 of a pandemic compared to phase 5-6 of a pandemic?

2.4. Valence

Besides framing, the valence of a text can play an important role in conveying attitudes in news stories. Valence is related to the affective component of reporting, meaning emotion and tone of voice that is attached to the matter discussed in the article (Young & Soroka, 2012). There has been an increase in research on this topic after the media started to focus more on their tone and sentiment during reporting. What was found is that affectiveness is a central component of individual decision making, as well as the processing of information and attention (Lodge & Taber, 2000). To understand the full concept of valence, one must consider its origin and what the over-arching concept is of valence. Valence is one of the dimensions of a broader concept called media salience, which is related to media attention and the prominence of an issue (Lee & Carrol, 2011). It is, additionally, one of the core concepts of agenda-setting (Kouisis, 2004). The salience of a concept is related to the relative importance, in this case to the public, of what is presented to them (Chyi & McCombs, 2004). People have different responses depending on the valence of the article (Ferguson & Gallagher, 2007), but are especially vulnerable during times of a crisis (Prooijen & Douglas, 2017).

Most commonly, two to four different categories are identified when talked about valence in a content analysis, including positive, negative, neutral, and ambiguous (e.g., Kouisis, 2004; Young & Soroka, 2012; Lee & Carrol, 2011). In many content analyses, the "ambiguous" tone is excluded as it often does not matter too much for the study, whilst the other three categories are more valuable (Kang et al., 2017; Huan, Peng, Li & Lee, 2013; Kouloumpis, Wilson & Moore, 2011; Dotson, Jacobson, Kaid & Carlton, 2010). Why ambiguity is important to consider in the case of pandemic media research is because during such a crisis many conspiracies emerge which would make a text ambiguous. Recognizing when a text is ambiguous could help assess the reliability of the information presented. The increase in media availability these days might have influenced how stories are being presented. Articles need to now also focus on how to get and keep the attention of the reader throughout the article. This could mean that the tone has changed during the coronavirus since the swine flu. When looking at how the valence is across the different phases, there could be a difference between the beginning phase and later on. In the beginning, there is still little information so instead of presenting facts which would often tend to be more neutral, it could be that articles will more often speculate about how the situation will look in later phases. In later phases, more research has already been done for the writer to present more facts about the situation. To see the difference that recent mainstream media has used valence compared to that of a decade ago, two questions were established:

RQ5: How has the valence changed from the swine flu influenza (H1N1) in 2009 to the coronavirus (COVID-19) in 2020?

RQ6: How has the valence changed from phase 1-3 of a pandemic to phase 5-6 of a pandemic?

2.5. Stakeholders

Next to understanding how conspiracy coverage, media framing, and valence affect the reader, one must also realize which parties are all affected and therefore have a certain stake. Coady (2019) describes that the most important stakeholders during times of uncertainty such as a crisis are classified as socially and politically recognized authorities, such as scientists, medical professionals, mainstream media, and government officials. What these parties possess is some level of legitimacy which contributes to their trust level. One important party Coady does not mention however is the general public. They are often just as much involved, even when they do not actively seek out the information. Another important stakeholder that needs to be considered is the NGO's and other organizations. They often care a lot about what the possible financial consequences could be. Especially during a crisis such as a terrorist attack or pandemic, conspiracies and fake news could have a negative influence on their financial position (Tam, Sciberras, Mullington & King, 2005).

After this, the current research considers seven groups who each have their stake when it comes to the impact of conspiracies in society; *scientists & researchers, medical professionals, mainstream media, government officials, general public and NGO's and other organizations.* Coherence between these groups is important as the lack of cohesion could hinder the development of society and could stagnate the economy (Sutherland, Pullin, Dolman & Knight, 2004.). Especially during times of uncertainty, any discourse between stakeholders could arguably have effects on the functioning of society. When looked at the traits of a pandemic, one could already speculate about which stakeholders will be more often mentioned. Pandemics often strike all parties involved as everyone will be affected, it would therefore not be a surprise if all stakeholders are considered. With the world these days being more connected, it could be the case that a greater variety of stakeholders will be affected as well. Additionally, with the media seeming to have a higher position in society, their involvement could be more impactful than that during the swine flu. When looked at the different phases, at the start of the pandemic it is important to assess all the risks. To get a clear overview of the possible consequences, all parties who possess a stake need to be considered (Huizer, Kraaij-Dirkzwager, Timen, Schuitmaker & Steenbergen, 2015). The inclusion of all parties might then become less important later on during the pandemic. To analyze the certain involvement these stakeholders have, two questions were established:

RQ7: What is the difference in stakeholders mentioned during the coronavirus (COVID-19) in 2020 compared to the swine flu influenza (H1N1) in 2009?

RQ8: What is the difference in stakeholders mentioned in phase 1-3 of a pandemic compared to phase 5-6 of a pandemic?

3. Method

3.1 Design and Instrument

The present study has a primarily qualitative research design. To elaborate, a comparative content analysis was conducted to uncover the different ways mainstream media reports during a pandemic. In this research, the swine flu influenza (H1N1) outbreak in 2009 was compared to the coronavirus (COVID-19) outbreak in 2020. An additional look was taken at the way the media report from the first human infection of one of the viruses to the moment it is declared to be a pandemic. In a deductive coding process, phases of a pandemic, conspiracy coverage, media framing, valence, and stakeholders were assigned to a range of 200 articles, 100 from each pandemic. To acquire these articles, the Lexis Nexis database was used. Articles were randomly selected out of three Dutch newspapers; De Telegraaf, het AD, and de Volkskrant. These newspapers are number two, three, and four of most read newspapers in the Netherlands, which is why they were selected. The reason why the number one, the Metro, has not been selected is that it did not report as much during the swine flu influenza as the other newspapers. While having multiple quantitative elements such as the frequencies of the codes, this research will focus on the qualitative components of the content the meaning behind these numbers.

3.2 Corpus

To establish an adequate selection of articles for the analysis, several inclusion and exclusion criteria were created. Firstly, the news articles had to be published on the website of either de Telegraaf, het AD, or de Volkskrant. As mentioned earlier, these are three of the most read newspapers and are therefore affecting the biggest group of people. Additionally, these newspapers have a bigger focus on national and international news than the local newspapers.

The second criteria are that the articles had to include the names of the pandemic, either "varkensgriep OR H1N1" and "coronavirus OR COVID-19", to ensure topic specificity. Due to the nature of the research that mostly researches the preliminary phases of a pandemic, a time restriction had to be included. If articles during post-pandemic phases would be included, the nature of the research would be different. In the case of the swine flu influenza, a time frame was selected from April 15 2009, which is when the first human infection was detected in California, USA, to August 20 when the biggest wave had passed and the virus had passed its peak. In the case of the coronavirus, a time frame was selected from December 31, 2020, when the first human infection was detected in Wuhan, China, to April 20. This date was chosen as the endpoint to match the general timeline of the swine flu as the coronavirus is at this point in the research still in phase 5-6 and a full overview could only be done in future research after the pandemic. An overview including the phases can be found in table 1 below.

Table 1

Distribution of articles compared to its phase

	Swine Flu (H1N1)		Coronavirus (COVID-19)	
Phases	**Timeframe**	**Articles**	**Timeframe**	**Articles**
Phase 1-3	April 15 2009 – May 7 2009	47	December 31 2019 – January 30 2020	40
Phase 4	May 8 2009 – June 10 2009	20	January 31 2020 – March 11 2020	26
Phase 5-6	June 11 2009 – August 20 2009	33	March 12 2020 – April 20 2020	34

Taking the extensive amount of content published during the situation of the coronavirus, more attention was paid at the source of the article. All articles were included from the beforementioned websites except opinion pieces (since they are biased by definition), video material, and social media content. Furthermore, due to the magnitude of content, a random selection was done to reduce the number of articles into 100 as a representation. In the case of the swine flu influenza, a total of 191 articles came up in the selected timeframe, which was then reduced to 100 articles for the analysis. Within this selection, 43 articles published by the Telegraaf, 22 articles published by het AD, and 35 articles published by de Volkskrant. In the case of the coronavirus, a total of 11.160 articles came up in the selected timeframe, which was also then reduced to 100 articles for analysis. Within this selection, 30 articles published by the Telegraaf, 34 articles published by het AD, and 36 articles published by de Volkskrant. The full corpus can be found in Appendix B for reference.

3.3 Analysis

A deductive approach was taken in this content analysis which implies that the categories established during the theoretical framework were systematically organized in a codebook (table 2). The five categories are created to answer the four research questions established earlier in the research. Additionally, the 23 individual codes were established following previous studies with a similar nature. For the analysis of the intercoder reliability, each code will be either referred to with a “0” if not present and with “1” if present.

Table 2

Codebook

Variable	Code		Description	Example
Phases of a Pandemic *(Assigned once per article)*	(1)	Phase 1-3	Predominantly animal infections, few human infections	*1st-2nd month after the first infection*
	(2)	Phase 4	Sustained human-to-human transmission	*2nd-3rd month after first the infection*
	(3)	Phase 5-6/Pandemic	Widespread human infection	*3rd-5th month after the first infection*
Conspiracy coverage *(Assigned once per article)*	(4)	Diversity of sources	The number of different sources an articles quotes in an active way, both credible and non-credible sources	*> 2 sources quoted*
	(5)	Expert-oriented fact checking	If the article uses only credible sources either passively or actively (Scientists, Medical professionals and Governmental officials)	*"'Typical sars-like virus', warns virologist Bart Haagmans"*
	(6)	Crowdsourcing-oriented fact checking	If the article uses only sources of those without legitimacy and credibility either passively or actively (e.g. general public).	*"Grischa Niermann, sports director at Jumbo-Visma; If the people of RCS cannot fly home this weekend, those Italian races will not go ahead anyway"*
	(7)	Both expert- and crowdsourcing oriented fact checking	If the article uses both credible and non-credible sources either passively or actively	
	(8)	Completeness	If the text proves to be relevant and provides the reader with background	***8.1*** *Low: < 4 sentences with facts* ***8.2*** *Slight: 4-7 sentences with facts* ***8.3*** *High: > 7 sentences with facts*

		information about the virus in question	
Media framing *(Assigned once per article)*	(9) Human Interest	Story presented with a dramatized, personal tone to sympathise with the actor	*"We are now locked up in our hotel room in the capital of Cambodia, Phnom Penh. We can't get out of the room. We are imprisoned again."*
	(10) Conflict	Story presented with a focus on the conflict between individuals, groups or institutions	*"The Belgians were annoyed last week with the Dutch who ignored the rules"*
	(11) Economic Consequences	Story presented with a focus on financial consequences on an individual, group, organization, region or country	*"How deep is the economic crisis? It is still shrouded in mystery. "*
	(12) Morality	Story presented in the context of morals, social prescriptions and religious tenets	*"National Institute for Public Health and the Environment (RIVM) calls on the Dutch to show solidarity'*
	(13) Responsibility	Story presented with a focus on who or what is responsible for the cause or solution of the virus outbreak in question.	*"The GPs are now to blame for RIVM for complying with the rules imposed by that same RIVM."*
Valence *(Assigned once per paragraph)*	(14) Positive	Positive/optimistic regarding the pandemic in question	*"Yet it has not yet been proven that the disease can be transmitted from person to person."*
	(15) Negative	Negative/pessimistic regarding the pandemic in question	*"Others predict that corona heralds the end of the globalized world economy"*
	(16) Neutral	Neutral regarding a pandemic (factual	*"How deep is the economic crisis? It is still shrouded in mystery. "*

		information without evaluating objectives)	
	(17) Ambiguous	Text is open to more than one interpretation about the pandemic, the text is mostly speculating	*"It could be that we got there on time. But it is also possible that there is a distribution that we do not notice at all. "*
Stakeholders *(Assigned once per article)*	(18) Scientists & Researchers	References to a scientific source recognized by the literal title "scientist" (not applicable when considering a medical scientist)	*"Meanwhile, there is a diagnostic saliva test, developed very quickly by, among others, Dutch scientists."*
	(19) Medical Professionals	References to any medical professional and health organizations	*"South China Morning Post reports on the authority of anonymous speaking medical personnel in two other cities"*
	(20) Mainstream Media	References to the mainstream media	*"The Chinese media were only allowed to make positive stories"*
	(21) Government Officials	References to government officials, including countries	*"Despite censorship allegations were that the government did not take the disease seriously."*
	(22) General Public	References to the general public (any other individual who does not fit in any other groups mentioned)	*"Research agency conducts international survey research into values among the population"*
	(23) NGO's and other organizations	References to NGO's or other organizations	*"Google, Ikea, Samsung and other companies have temporarily closed their production facilities or stores."*

The first category, *Phases of a pandemic*, is aimed at connecting the article to one of the phases and put it in context. In practice, these codes are assigned per article. In total, three codes belong in this category which was drawn from the influenza pandemic phases which the WHO drafted during the times of the swine flu influenza. The original figure included, besides phases 1-6, also the post-peak and post-

pandemic phases. Due to the nature of the study which aims to explore the media coverage during the times leading up to the peak, these phases were not included in the codebook.

The second category, *Conspiracy Coverage,* is aimed at assessing the journalistic writing quality and reliability of their argumentation. Through analyzing the argumentation of the writer, this research will discover the degree of "fake news" across different pandemics and different stages of these pandemics. The reliability will be assessed with the use of five different codes derived from a knowledge-based approach described by Shu et al. (2017) which led to the following codes used: (4) Diversity of sources, which assesses if the writer supports their claims with multiple sources. (5) Expert-oriented fact checking, which refers to whether the writer supports their claim via only legitimate individuals on the topic. (6) Crowdsourcing-oriented fact checking, which refers to whether the writer refers to only the public opinion as input for the claims made. (7) Both expert- and crowdsourcing oriented fact checking, which refers to whether the writer both considers the public opinion and supports their claims via a legitimate party. Finally, code (8) Completeness, as described by Urban & Schweiger relates to the relevance of the text and if such a text provides sufficient background information about the virus in question to the reader. Assessing the completeness of the article is done by scoring the amount of factual information the text possesses. According to Urban & Schweiger, the more factual information a writer has collected, the text is more likely to be of higher quality. The code is therefore split into three classes; 8.1 Low Completeness (< 4 sentences with facts), 8.2 Slight Completeness (4-7 sentences with facts), and 8.3 High Completeness (> 8 sentences with facts).

The third category, *Media Framing,* is aimed at uncovering the different ways the media make use of framing during the two different pandemics. For each article, these codes were assigned per text to see what ways of framing were used by the author. Based on similar content analyses done by Semetko & Valkenburg (2000) and Jebril, de Vreese, van Dalen and Albeak (2013), a total of five codes belong to this category. Each of these codes represents one aspect the text could have a focus on. Code (9), Human Interest, assesses if the story is presented with a dramatized and more personal tone to appeal to human engagement. Code (10), Conflict, assesses if the story is presented with the focus on the conflict between two or more different parties such as individuals, groups, institutions, regions, or countries. Code (11), Economic Consequences, assesses if the story is presented with a focus on the financial consequences of a pandemic for stakeholders. Code (12), Morality, assesses if the story is presented in the context of morals, social prescriptions, religious tenets, and in connection with norms and values. Code (13), Responsibility, assesses if the story is presented with a focus on who is responsible for a certain cause or solution.

The fourth category, *Valence,* aims at exploring the way articles are presented and what kind of sentiment is used to present a pandemic. Valence was assigned once per paragraph as a lot of news usually reports objective which would result in too many articles having a predominantly neutral tone. By assessing the valence once per paragraph, a better understanding can be made about the sentiment. Often the valence is split into three categories but in this research, four different categories were

established: (14) Positive, (15) Negative, (16) Neutral and (17) Ambiguous. By identifying the valence of an article, one can see how the media reports in different phases and different pandemics.

The fifth and final category, *Stakeholders*, is used to establish what kind of people are often included and referred to whilst reporting during a pandemic. Different stakeholders all have a different degree of urgency, legitimacy, and power during a crisis. Based on the description of Coady (2019) of stakeholders during times of uncertainty, four socially and politically recognized stakeholders were identified: (18) Scientists & Researchers, (19) Medical Professionals, (20) Mainstream Media, and (21) Government Officials. Additionally, two stakeholders were added to take those affected with less legitimacy in account: (22) General public and (23) NGO's and other organization. To find out which group a stakeholder belongs to and therefore what its legitimacy is the first thing that is being looked at is the title (e.g. doctor, scientist, researcher, etc.). When this is not explicitly mentioned, one must look at the institution to categorize this stakeholder. Lastly, if both are not found in the text, the context must tell what kind of stake a person or group possesses. By identifying which stakeholders are mentioned during articles, this research can see when the news focuses on which stakeholder and under what circumstances.

Before the complete corpus could be coded, the reliability of this codebook had to be ensured. To assure the reliability, a pertest was conducted to assess the intercoder reliability. In practice, this meant that two different researchers each coded ten percent of the articles (20 articles each) with the use of the existing codebook. Subsequently, these codes were compared to see if both researchers used the codebook in the same way to code the same parts of the articles similarly. With this, five Cohen's Kappa scores were calculated: one for the phases of a pandemic, one for conspiracy coverage, one for media framing, one for valence, and one for stakeholders. This Cohen's Kappa statistic is a measure of the agreement to ensure the reliability of the used method of analysis (Blackman & Koval, 2000). To be sufficient, the Cohen's Kappa must be higher than a 0,7. As can be seen in Table 3 below, there has been a near-perfect agreement across all code categories with an average Cohen's Kappa of 0,83. With sufficient intercoder reliability, the complete corpus was subsequently coded with the help of the program Atlas.ti.

Table 3

Intercoder Reliability

Category	**Cohen's Kappa**
Phases of a Pandemic	1.00
Conspiracy Coverage	0.83
Media Framing	0.77
Valence	0.82
Stakeholders	0.89

4. Results

4.1 Conspiracy Coverage

4.1.1 Swine flu versus coronavirus

To create an idea of the way articles in two different pandemics include traces of conspiracy coverage and fake news, an array of codes were assigned to test the journalistic quality in an article. When comparing the frequency of the codes, the swine flu articles included a total of 200 codes, each article containing an average of 2 codes per article and the coronavirus articles included a total of 224 codes, each article containing an average of 2,24 codes. When looking at how the codes were divided across the two pandemics, one sees that in both situations, most of the articles have very low completeness with only a select amount of articles that show a slight-, or even high completeness. When reviewing the division of the other codes, a greater discrepancy can be observed. So can be seen that the diversity of sources is higher during coverage of the coronavirus (N=34) compared to the swine flu (N=19). Moreover, the news outlets during the coronavirus used crowdsourcing-oriented fact checking (N=28) more than the ones during the swine flu (N=13). Lastly, whilst both the media during the swine flu (N=44) and the coronavirus (N=48) almost use the same amount of expert-oriented fact checking, the swine flu has a higher amount of using both expert- and crowdsourcing oriented fact checking (N=24) compared to the coronavirus (N=13). When looking at the full picture, the coverage during the swine flu more often voiced experts compared to the coronavirus who voiced the opinion of the crowd more.

Table 4

Frequencies of Conspiracy Coverage between two pandemics

Code	**Swine Flu (H1N1)**	**Corona Virus (COVID-19)**
(4) Diversity of sources	19	34
(5) Expert-oriented fact checking	44	48
(6) Crowdsourcing-oriented fact checking	13	28
(7) Both expert- and crowdsourcing-oriented fact checking	24	13
(8.1) Low Completeness	67	63
(8.2) Slight Completeness	22	25
(8.3) High Completeness	11	13
Total	**200**	**224**

4.1.2 Phases of a pandemic

Concerning the spread of conspiracy coverage across the different phases of a pandemic, some comments could be made. As previously mentioned, phase 4 will be less considered due to the nature of the research. When comparing the diversity of sources in both the phases, one could see that phase 1-3 has a greater diversity of sources (N=22) compared to phase 5-6 (N=17). Additionally, the expert-oriented fact checking was higher during phase 1-3 (N=38) than during phase 5-6 (N=32). Subsequently, phase 1-3 also had a higher amount of only crowdsourcing-oriented fact checking articles (N=18) compared to phase 5-6 (N=10). What phase 5-6 exceeded in is that there was a higher amount of both expert- and crowdsourcing-oriented fact checking in articles (N=14) compared to that in phase 1-3 (N=9). Concerning the completeness, the one thing that stands out is that there is a slight difference in that during phase 1-3 there were more articles who had low completeness (N=60) compared to during phase 5-6 (N=43). What is again noticeable is that across all phases, most articles are predominantly written with low completeness. The discrepancies become clearer when reviewing table 5.

Table 5

Frequencies of Conspiracy Coverage across different phases

Code	**Phase 1-3**	**Phase 4**	**Phase 5-6**
(4) Diversity of sources	22	13	17
(5) Expert-oriented fact checking	38	21	32
(6) Crowdsourcing-oriented fact checking	18	13	10
(7) Both expert- and crowdsourcing-oriented fact checking	9	4	14
(8.1) Low Completeness	60	27	43
(8.2) Slight Completeness	18	12	15
(8.3) High Completeness	9	6	9
Total	**174**	**96**	**140**

4.2 Media Framing

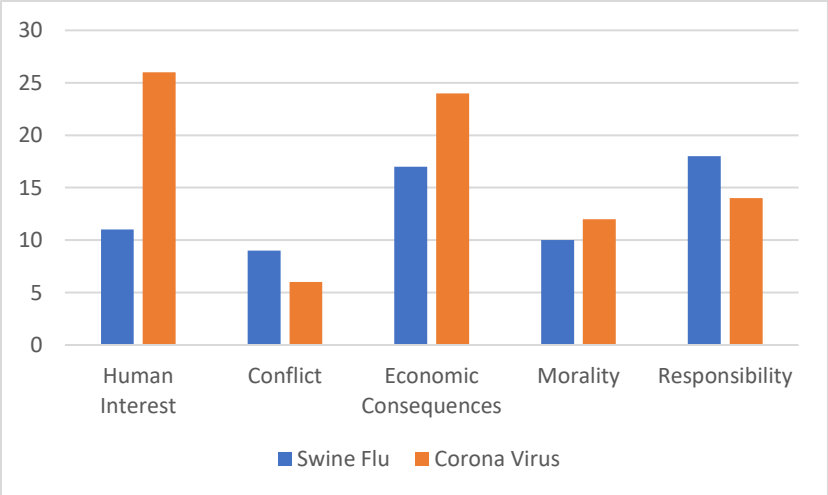
4.2.1 Swine flu versus coronavirus

When considering media framing, several differences between the two situations can be identified. Overall, media coverage during the coronavirus made use of the most frames with a total of 82, which results in a mean of 0,82 frames per article. During the coverage on the swine flu, less amount of frames were used with a total of 65, which results in a mean of 0,65 frames per article. Moreover, based on the frequencies depicted in figure 2, an indication of the framing preferences during both situations can be seen. In the articles from the swine flu, the most frequently found frame was *Responsibility* (N=18), closely followed by the *Economic Consequences* frame (N=17). In contrast, the most notorious frame found amongst the articles about the coronavirus was the *Human Interest* frame (N=26), likewise closely followed by the *Economic Consequences* frame (N=24). Besides some frames being used many times, the *Conflict* frame was used noticeable less compared to the frequency of all the other frames with a total of nine for the swine flu and six for the coronavirus.

The most considerable difference when one compares both situations is that the coverage during the coronavirus makes more use of the *Human Interest* frame (N=26) than during the swine flu (N=11). Besides that, coverage during the coronavirus shows a higher frequency of the *Economic Consequences* frame (N=24) compared to that during the swine flu (N=17). Contradictory, coverage during the swine flu made more use of the *Responsibility* frame (N=18) compared to the coronavirus (N=14). Additionally, the *Conflict* frame was also used more during the swine flu (N=9) than during the coronavirus (N=6). Lastly, the *Morality* frame was fairly equally used in both situations with a slight edge during the coronavirus (N=12) compared to during the swine flu (N=10).

Figure 2

Frequencies of Media Frames



4.2.2 Frame per phase

Whilst there was a difference found in framing between the two pandemics, there was also a difference found when looked at the phases of a pandemic. The phase in which the biggest amount of frames were used is during phase 1-3 with a total of 67. When one looks at phase 5-6 when the pandemic is at its top, the number of frames dropped to a total of 42. Whilst there is a higher amount of frames coded during phase 1-3, the frame per article ratio is similar. However, when looking at the use of individual frames, there is a difference. Whereas phase 1-3 predominantly makes use of mostly three frames, phase 5-6 does not have specific frames that are used significantly more than the others (see table 6). One of the most used frames during phase 1-3 is the *Responsibility* frame (N=21), which is significantly more than during the last phases (N=6). The other most used frame is the *Economic Consequences* frame (N=21) which shows a similar difference with a frequency of ten in phase 5-6. The last frame that was more used during phase 1-3 is the *Human Interest* frame which was used 15 times during phase 1-3 but only ten times during phase 5-6. As time progressed, these three frames started getting used less and the focus shifted to a more equal division where two other frames started to appear more. First off is the *Conflict* frame, which was used more in phase 5-6 with a frequency of six compared to the frequency of three during phase 1-3. Following the same path, the *Morality* frame was increasingly used from phase 1-3 (N=7) to phase 5-6 (N=9).

Table 6

Frequencies of Media Framing across different phases

Code	**Phase 1-3**	**Phase 4**	**Phase 5-6**
(9) Human Interest	15	10	11
(10) Conflict	3	6	6
(11) Economic Consequences	21	10	10
(12) Morality	7	6	9
(13) Responsibility	21	7	6
Total	**67**	**39**	**42**

4.3 Valence

4.3.1 Swine flu versus coronavirus

Besides both media framing and conspiracy coverage, this research aimed at exploring the way valence appears in news media and if that would be different per pandemic. Since the coronavirus articles were often to be found longer, therefore having more paragraphs to code valence, an indication was given through a percentage. What could be noted is that the majority of pieces were coded as neutral which would be in line with the goal of objectivity in news reporting. Nonetheless, a large amount was still coded with some level of sentiment. The least used valence coded across both situations is *positive.* More often did the news have either a more negative or ambiguous tone regarding a pandemic.

Whilst both situations had a relatively equal division in percentage, there were still some slight differences found. What can be seen is that the media during the swine flu more often reported neutrally than during the coronavirus. Additionally, whilst news about the swine flu was more often classified as ambiguous, the news reported about the coronavirus was more often either positive or negatively worded as seen in table 7.

Table 7

Frequencies of Valence between two pandemics

Code	**Swine Flu (H1N1)**	**Corona Virus (COVID-19)**
(14) Positive	28 (3,73%)	65 (6,60%)
(15) Negative	99 (13,20%)	186 (18,88%)
(16) Neutral	486 (64,80%)	591 (60,00%)
(17) Ambiguous	137 (18,27%)	143 (14,52%)
Total	**750**	**985**

4.3.2 Valence per phase

When one compares how the valence has evolved throughout a pandemic there are no immense shifts. In line with the difference observed between the two pandemics is the low amount of positive reporting by news channels. More often has the tone of the article been either negative or ambiguous. What is still the case is the high amount of neutral reporting which would again be in line with the goal of objectivity by the writer. Whilst there are no immense shifts, there are still some differences that can be recognized.

What can be seen in table 8 that news reporting has become more neutral when comparing phase 1-3 to later phases. This would be in line with the slight decline in both the negative and ambiguous valence from phase 1-3 to phase 5-6. The only thing that has seen no real change is the way news channels use a positive tone in their reporting when comparing phase 1-3 to phase 5-6.

Table 8

Frequencies of Valence across different phases

Code	Phase 1-3	Phase 4	Phase 5-6
(14) Positive	41 (5,62%)	18 (4,49%)	34 (5,53%)
(15) Negative	131 (17,97%)	59 (14,71%)	99 (16,10%)
(16) Neutral	432 (59,26%)	258 (64,34%)	391 (63,58%)
(17) Ambiguous	125 (17,15%)	66 (16,46%)	91 (14,79%)
Total	**729**	**401**	**615**

4.4 Stakeholders

4.4.1 Swine flu versus coronavirus

When looking at the division of stakeholders mentioned in each pandemic there are no large discrepancies. The total amount of codes assigned came to a total of 599 across all articles, which would mean that an average of almost three stakeholders was found in each article. In both situations, the *General Public* was mentioned most often with a frequency of 80 during the swine flu and 90 during the coronavirus. When taking into consideration that from every situation 100 articles were analyzed, the majority of them talked about the general public. Additionally, more than half of the articles in both situations mentioned *Medical Professionals* with a frequency of 64 during the swine flu and 56 during the coronavirus. In both situations, medical professionals were often used as expert sources to explain certain phenomena. When looking at other discrepancies between the two situations there are still two stakeholders worth mentioning. There has been a higher number of mentions of *NGO's and other organizations* from the swine flu (N=38) to the coronavirus (N=44). Though, the biggest increase in relative frequency is that of the *Scientists & Researchers* mentioned, where during the swine flu there was only a frequency of five but during the coronavirus a frequency of 14.

Table 9

Frequencies of Stakeholders between two pandemics

Code	Swine Flu (H1N1)	Corona Virus (COVID-19)
(18) Scientists & Researchers	5	14
(19) Medical Professionals	64	56
(20) Mainstream Media	18	20
(21) Government Officials	57	57
(22) General Public	80	90
(23) NGO's and other organizations	38	44
Total	**262**	**281**

4.4.2 Stakeholders per phase

Whilst there was no immense difference found when comparing the involvement of stakeholders in both the pandemics, there are some discrepancies when looking at their spread within the phases. In general, all but one stakeholder have been mentioned more in phase 1-3 compared to phase 5-6. This is illustrated better when looked at the general division of stakeholders per article. Phase 1-3 has on average a higher number of stakeholders per article (N=2,90) compared to phase 5-6 (N=2,67). The highest frequenting stakeholder in all phases was the *General Public*, with a frequency of 75 in phase 1-3 and a lower frequency of 57 in phase 5-6. Whilst this was the highest frequency, the stakeholder which has the biggest discrepancy is the *Government Officials*, who were mentioned a total of 57 times in phase 1-3 and stooped down to a total of 35 in phase 5-6. Whilst the *Medical Professionals* had a similar spread over the phases, the group with the next highest frequency, the *NGO's and other organizations,* saw a bigger drop from phase 1-3 (N=41) to phase 5-6 (N=27). The last group that saw a noticeable change is the *Mainstream Media* who were mentioned a decent amount in phase 1-3 (N=20) but were referred to the least in phase 5-6 (N=9). As seen in Table 8, both *Medical Professionals* and *Scientist & Researchers* stayed relatively the same as the number of articles.

Table 10

Frequencies of Stakeholders across different phases

Code	Phase 1-3	Phase 4	Phase 5-6
(18) Scientists	7	3	9
(19) Medical Professionals	52	25	42
(20) Mainstream Media	20	9	9
(21) Government Officials	57	22	35
(22) General Public	75	37	57
(23) NGO's and other organizations	41	14	27
Total	**252**	**110**	**179**

5. Discussion

The current study aimed to analyze the way media coverage reports during a pandemic and how that is changed over time. When considering the results discussed previously, one could see an apparent distinction in both how coverage of a pandemic has changed over time and how it has changed from the moment of the first case to worldwide human infection. This research will indicate if media coverage has changed since the last decade and give an explanation for this change. The data collected from the research will answer the five sub-questions and, consequently, the main research question; *"In what way has the media coverage changed during a pandemic, considering the moment of the first case to widespread human infection in the Netherlands?"*. The following chapter will highlight the results with regards to the research questions to answer them and put them into a broader context.

5.1 Conspiracy Coverage

Leading from the results, much can be interpreted regarding conspiracy coverage to answer the first RQ; *What are the differences in fake news and conspiracy coverage used during the swine flu influenza (H1N1) and the coronavirus (COVID-19), furthermore considering the change from phase 1-3 to 5-6?*. Earlier mentioned in the introduction is the hypothesis that we are now living in a fast pace society with an abundance of networks. News is changing daily and can hardly be compared to the way it was a decade ago. The news being faster and in a bigger abundance does not imply that everything is as reliable and well researched. Good articles would often put more time into getting the right sources and not necessarily focus on putting it out there as fast as possible.

Similar research to this done by Sommariva et al. (2018) explored the way media included fake news in their coverage of the 2016 Zika virus. What they found is that misinformation and ambiguity find it soil in fast-paced news where having a large quantity of news increases the amount of it being "fake". Similar results came out of this research when we compare the swine flu with the coronavirus. When looked at the amount of news available on the topic, the news on coronavirus far exceeded that of the swine flu as mentioned in the methods. The assumption of quantity including less quality information is illustrated by the results where the articles were written during the coronavirus more often used only crowdsourcing oriented fact checking and had a lower total of articles that mentioned experts compared to the swine flu. Even though the coronavirus had a greater amount of sources, as said to be an indicator of reliability by a study done by Spurk & Lublinski (2014), the remainder of the results tell otherwise. Whilst the results show an indication that articles during the coronavirus included a greater amount of conspiracy coverage, it must be noted that the differences were not immense enough to generalize these results to a collective.

Not only a difference was found when comparing two different pandemics, but also when one looks at the timespan some notable discrepancies can be observed. During the beginning stages of a

pandemic, there is still a lot of unknown information about the nature of the virus in question. As mentioned by Prooijen & Douglas (2017), in times of uncertainty, people will start to make up their theories to report about. Whilst was no clear difference in experts consulted during the beginning phases and the later ones, more often were the general public consulted during phase 1-3. This could be because experts would not have had enough time to give enough information on a new topic but the media would still want to bring out information. This could be an explanation for the fact that the completeness of the articles was found to have dissimilarities with a greater number of articles having low completeness in phase 1-3 of a pandemic compared to phase 5-6, considering that the frequency of articles with a slight- or high completeness stayed the same. These results would align with a previously done study by Andreu-Sánchez & Martin-Pascual (2020) on news content at the beginning of the coronavirus pandemic. Here was found that at the start of a virus outbreak, more often wrongly interpreted and little researched information was presented to the general public. News channels researched would, for instance, present images of the virus that were so deformed they had more similarities to an influenza virus. The current research could give a good indication of how conspiracy coverage has evolved from the start to the moment of widespread human infection, but to get a complete picture of the trend further research should be done post-peak and post-pandemic.

5.2 Media framing

As stated before, the increased magnitude of news channels with each their way and intentions has made news coverage more prone to the possibility of framing. The results about how framing has changed and impacted media coverage will be used to answer the second RQ; "*What is the difference in frames used during the swine flu influenza (H1N1) and the coronavirus (COVID-19), furthermore considering the change from phase 1-3 to 5-6?".* The assumption of the increase in framing together with the increase in media availability would be confirmed if looked at the results which show a general increase in frames used from the news about the swine flu to the coronavirus. This difference in framing was mainly caused due to the increased use of the *Human Interest* frame and *Economic Consequences* frame. The increased use of the *Human Interest* frame could be due to its quality of entertaining the reader. As Jebril, de Vreede and Albeak (2013) stated in their research that this frame is used to entice the audience and make it more engaging rather than informative. This would be following a goal of contemporary news channels to generate a great number of clicks rather than merely informing the public. Whilst these frames were more often placed in a negative light, a study conducted by Luther and Zhou (2005) on the coverage of SARS showed the *Human Interest* frame was rather used to make people optimistic and to use a diversionary device to safeguard social stability. What is said about the *Economic Consequences* frame is that it was mainly found due to the times of uncertainty both economically and politically. This would be following the results from this study where the *Economic Consequences* frame was used the

most as a pandemic tends to cause many to be uncertain about their financial situation.

Stepping away from the comparison between swine flu and coronavirus and looking at the general course of a pandemic, the total amount of framing has not changed significantly from phase 1-3 to phase 5-6. However, the big focus in phase 1-3 is primarily on two different frames compared to the rather equal division in phase 5-6. Regarding the *Economic Consequences*, it was beforementioned that this frame would become particularly apparent during times of uncertainty and distress. At the beginning of a pandemic, much is still unknown and in society, as we live in today, financial consequences are always one of the first things we look at. The *Responsibility* frame was often used to blame or hold other parties accountable for the origin of the virus. Ren, Gao and Chen (2020) argued in their study that during a crisis such as a pandemic, many are putting the responsibility to the country of origin. Especially in the earlier phases of a pandemic when not all information is available, people intend to start pointing fingers and hold others responsible for the outbreak.

5.3 Valence

The results of this study indicate how valence is being used by the media during a pandemic. Elements have been found which can be used to answer the third RQ; "*What is the difference in valence between the coverage of the swine flu (H1N1) compared to the coronavirus (COVID-19), furthermore considering the change from phase 1-3 to 5-6?".* Whilst the valence of a text might seem less prominent than conspiracy coverage or media framing, its possible impact is not. The results from this research do not show a massive drop or increase in valence when we compare both the pandemics to each other, but there is still a notable difference that shows a pattern. So can be seen that during the coronavirus, articles were less neutral and instead had a more negative or positive tone. The decrease in neutrality could be linked to previous results which led to thinking that the current media is less focused on objective reporting but more on generating more readers. What is interesting to see is that whilst the current research discovered a greater focus on negative valence a different study conducted by Lee and Basnyat (2013) on news coverage during the swine flu found more often the text had a positive tone rather than a negative tone. What must be taken into account is that this study did include "*Ambiguous"* as a code whilst the other did not. What did match is that the majority of the articles were coded as neutral (66,5%) which would be more like the results in the current research. Against expectations is the result that the coronavirus reported less ambiguous compared to the swine flu. Following previous results, one would expect that framing and conspiracy coverage would go together with ambiguity, but opposite shows.

Considering the change of valence throughout the phases, a more expected result was shown where neutrality increased the further society got in a pandemic paired with a decrease in ambiguity and a slight decrease in positive and negative valence. This would show that in phase 1-3, where not a lot of information was clear, more articles presented their news with a specific tone than later in phase 5-6

where more neutral and factual information would be reported. The importance of neutrality during a situation such as a pandemic, especially in the beginning phase, is because tone significantly affects audiences' attitudes (de Vreese, 2003). A neutral tone would allow the public to evaluate the news without any factors influencing their attitude.

5.4 Stakeholder

The findings of this research explain a wide array of stakeholders being mentioned during news about a pandemic. These findings will be used to answer RQ4; *"What is the difference in stakeholders mentioned during the swine flu (H1N1) compared to the coronavirus (COVID-19), furthermore considering the change from phase 1-3 to 5-6?".* Many articles included a high amount of stakeholders with an average of almost three stakeholders per article, which shows that many articles would consider a variety of parties when reporting. More often than others, the perspectives of the general public, medical professionals, and government officials were used. When looked at the impacts of a pandemic, these are often the parties that are engaged the most. A similar result was found in a study on how the Australian tv reported on the swine flu by Fogarty et al. (2011) who found that after the author, the most mentions were made by representatives of the government followed by public health and infections disease experts. The difference here is that they did not consider the general public in their results. When looked at the difference between the two pandemics there are no striking discrepancies. The discrepancy worth noting is the increase in mentions of the general public and that of the NGO's and other organizations. This could be linked to the use of framing where the coronavirus had a higher frequency of the *Human Interest* frame and *Economic Consequences* frame, which is likely correlated with the increase in frequencies of the general public and NGO's and other organizations due to the nature of the frames. The last difference is the increase in mentions of scientists during the coronavirus which could be an indication the news reports more on the focus on research than during the swine flu.

There are more notable differences when considering the change of stakeholders mentioned across the different phases. Whilst references to scientists and medical professionals stayed the same, mentions of other stakeholder groups have all decreased from phase 1-3 to phase 5-6. These results would be explained by a context analysis done on epidemic control in the Netherlands by Huizer, Kraaij-Dirkzwager, Timen, Schuitmaker and Steenbergen (2015) who state that during the risk assessment and management, stakeholder participation is of increasing importance. The process of risk assessment usually happens in beginning phases where different parties are still evaluating the magnitude of the problem. When arrived at phase 5-6, there is already more clarity on how different parties will be affected and are therefore less mentioned as shown by the results from the current research. The stable course of the scientists and medical professionals also shows that these experts stayed important throughout all the phases.

5.5 The Bigger Picture

To see how all these different results come together and what is valuable to take in, one needs to consider the bigger picture. What is again important to realize is that not only these two pandemics are different, but all pandemics have their characteristics and course. It is thus also important to take into account that other factors are playing a part during each pandemic when treating the results. However, with the results from this study, we can still sketch a general picture of how media coverage during a pandemic has changed and possibly will change in the future. This will be done with the help of answering the central research question: *"In what way has the media coverage changed during a pandemic comparing the swine flu influenza (H1N1) to the coronavirus (COVID-19), considering the moment of the first case to widespread human infection in the Netherlands?"*. The previous sections all focused on one aspect of news articles, but to get a full picture of the development of media coverage these results need to be put next to each other.

To paint the picture of how news was during the swine flu, articles did not have a high diversity in sources and giving little background information. However, these articles would focus more often on experts for their facts. When it comes to framing, these articles have a higher tendency of framing the text in a way of pointing who is responsible or what the consequences are for the economy. The overall valence of the swine flu articles is mostly neutral with as second highest ambiguous. Lastly, the stakeholders most referred to were the general public, medical professionals, and government officials. With regards to the coronavirus, articles had a larger diversity of sources but focused often less on experts. Articles here often made more use of framing with a large focus on human interest. The valence was more often less neutral and often more negative or positive than during the swine flu. The division in stakeholder mentions is similar, however, there is an increase in scientists and organizations being mentioned and a decrease in medical professionals.

Whilst a lot changed since a decade ago, one must realize that the way news is reported also changes by the day. So was found that during phase 1-3, where there are merely a few human infections, articles possess lower completeness with little references to experts and more use of frames such as responsibility and economic consequences. Contradictory, during phase 5-6 there was no tendency for a specific frame but articles had a higher amount of neutral reporting whilst the degree of biased reporting had decreased. It was concluded that there was greater stakeholder involvement during the beginning during the process of risk assessment after which it decreased except for the importance of experts such as medical professionals, scientists, and researchers.

The results from this research can give a general idea of how the media has developed and how it might look like in the future. What can be seen in the results is that, compared to a decade back, the media has made more use of concepts such as fake news and framing whilst also reporting less neutral than before. When we talk about an article having fake news elements, it is likely this article also uses some way of framing. These concepts are especially apparent in the beginning phases of a pandemic

where there is still a lot of uncertainty affecting the media. With little facts known about the danger, origin, and composition of the virus, the media is then resulted to merely speculate about how it will turn out to be. Due to the 24-hour media and the high demand for news, there is more pressure on media channels to bring out a story now than a decade back. Quantity is more often chosen above quality which will only prove to be problematic moving forward. If this trend stays as is, news quality will have to suffer more and the risks of it affecting the public negatively will increase.

5.6 Limitations and Recommendations

Just like many other studies does this research have certain limitations and implications that should be considered when doing further research. The first limitation this research has is the immense discrepancy between the number of articles available in the period of the swine flu compared to that during the coronavirus. The limited amount of articles available about the swine flu made it unable to perform a good random sample as done with the articles from the coronavirus. As a result, an even spread in articles from different phases of a pandemic was not feasible. Ideally, phase 1-3 and phase 5-6 would have a similar number of articles to analyze, but that was not possible due to the limited availability during the swine flu. Future research could include a broader range of news channels to generate a better sample.

A second limitation is that, whilst the timeframe of both pandemics was similar, they were not perfectly aligned. That meant that some phases were shorter whilst in the other situation it had a longer duration period. With a longer period, more external factors and developments regarding the pandemic could've influenced the news whilst a short period would not have had as many developments. The discrepancy between the timeframe should therefore also be kept in mind when reviewing the results between different pandemics. Whilst the phases included in this research were not a bad representation of the general timeframe, future research could look into different ways a pandemic can be split up to have the timeframes linked up better.

A third limitation is related to topic specification within the articles. Whilst all of the articles mention the respective virus, not all of them are solely focused on this. Some would only mention the virus briefly in the context of a different matter discussed. For future research, one could set more requirements to assure topic specification to ensure that the article is useful for the research. One example of such a requirement is that the name of the virus should be at least named three times for an article to be considered.

The fourth limitation impacting the validity of this study is the subjective bias which is paired with manual coding. Whilst an intercoder reliability test was done beforehand to ensure the quality of both the codebook and the researcher, subjective biases by the researcher are prone to affect the coding in some way. Having a researcher code with no subjective biases is nearly impossible, but should still be the ultimate goal if one seeks validity. Additionally, some considerations were made whether some

codes needed to be coded to an article or not. An example is the completeness of an article, where it has shown to be sometimes difficult to assess the factual value of sentences to assess the completeness of an article. Future studies that will also include this variable could look at a better way to determine when background information is provided and therefore an article has high or low completeness.

The last limitation is the news channel bias. The current research explored the difference in how news channels report during different pandemics but did not measure how different news channels reported in general. It could have been that one news channel specifically made use of framing whilst the other outlets were more objective in their reporting. For future research it could be valuable to have the news outlet as an extra factor when analyzing the way news coverage is done. This way you can take into account how news channels have been reporting on other matters and how that could translate into this research.

6. Conclusion

To come back to the original nature of this research, the aim was to investigate news coverage in two different pandemics. This was done by assessing the concept of conspiracy coverage, media framing, valence, and stakeholder involvement through content analysis. The analyses of the different pandemics showed a change in the way the media has reported during the crises with some results being the most interesting. If we compare the swine flu to the coronavirus, the results show a significant increase in the use of frames, with the coronavirus focusing greatly on human interest. Next to that, the news reporting has become less neutral since the swine flu, contradicting with the goal of objectivity. Whilst a lot changed comparing the two pandemics, changes are also happening on a smaller scale per phase. Most notable was that during phase 1-3, there was lower background information with a littler focus on expert sources than later on. With that, articles would focus a lot on who is responsible for either the cause or solution of the pandemic during the beginning. What could be seen moving further down the line, news started to get more neutral, presenting more often facts rather than opinions.

Overall, the two different situations can paint a different picture of how news has been presented. Concepts such as fake news and media framing have increased whilst the news has gotten less neutral. Especially during the first phases these concepts seem to be apparent. Only time will tell how the media will evolve from here and be of influence in the future, but if this trend continues it will become harder for the consumer to form an objective opinion without being influenced. The fast-paced society we live in today already make it that millions of people have their views shared, let us have that of the mainstream media be the right one.

7. References

Allcott, H., & Gentzkow, M. (2017). Social Media and Fake News in the 2016 Election. doi: 10.3386/w23089

Andreu-Sánchez, C., & Martín-Pascual, M.-Á. (2020). Fake images of the SARS-CoV-2 coronavirus in the communication of information at the beginning of the first Covid-19 pandemic. *El Profesional De La Información*, *29*(3). doi: 10.3145/epi.2020.may.09

An, S.-K., & Gower, K. K. (2009). How do the news media frame crises? A content analysis of crisis news coverage. *Public Relations Review*, *35*(2), 107–112. doi: 10.1016/j.pubrev.2009.01.010

Blackman, N. J.-M., & Koval, J. J. (2000). Interval estimation for Cohens kappa as a measure of agreement. *Statistics in Medicine*, *19*(5), 723–741. doi: 10.1002/(sici)1097-0258(20000315)19:5<723::aid-sim379>3.0.co;2-a

Chyi, H. I., & Mccombs, M. (2004). Media Salience and the Process of Framing: Coverage of the Columbine School Shootings. *Journalism & Mass Communication Quarterly*, *81*(1), 22–35. doi: 10.1177/107769900408100103

Coady, D. (2019). Conspiracy Theories and Official Stories. *Conspiracy Theories*, 115–127. doi: 10.4324/9781315259574-9

Dahl, T. (2015). Contested Science in the Media Linguistic Traces of News Writers' Framing Activity. *Written Communication, 32*(1), 39-65. doi:10.1177/0741088314557623

De Vreese, C. H. (2005). News framing: Theory and typology. *Information design journal+ document design*, *13*(1), 51-62. doi:10.1075/idjdd.13.1.06vre

Doshi, P. (2011). The elusive definition of pandemic influenza. *Bulletin of the World Health Organization*, *89*(7), 532–538. doi: 10.2471/blt.11.086173

Dotson, D. M., Jacobson, S. K., Kaid, L. L., & Carlton, J. S. (2012). Media Coverage of Climate Change in Chile: A Content Analysis of Conservative and Liberal Newspapers. *Environmental Communication*, *6*(1), 64–81. doi: 10.1080/17524032.2011.642078

Douglas, K. M., & Sutton, R. M. (2015). Climate change: Why the conspiracy theories are dangerous. *Bulletin of the Atomic Scientists*, *71*(2), 98–106. doi: 10.1177/0096340215571908

Douglas, K. M., Uschinksi, J. E., Sutton, R. M., Cichocka, A., Nefes, T., Ang, C. S., & Deravi, F. (2019). Understanding Conspiracy Theories. *Political Psychology*, *40*(S1), 3–35. doi: 10.1111/pops.12568

Entman, R. M. (1993). Framing: Toward Clarification of a Fractured Paradigm. *Journal of Communication*, *43*(4), 51–58. doi: 10.1111/j.1460-2466.1993.tb01304.x

Falagas, M. E., & Kiriaze, I. J. (2006). Reaction to the threat of influenza pandemic: the mass media and the public. *Critical Care*, *10*(2). doi: 10.1186/cc4910

Ferguson, E., & Gallagher, L. (2007). Message framing with respect to decisions about vaccination: The roles of frame valence, frame method and perceived risk. *British Journal of Psychology*, *98*(4), 667–680. doi: 10.1348/000712607x190692

Fogarty, A. S., Holland, K., Imison, M., Blood, R. W., Chapman, S., & Holding, S. (2011). Communicating uncertainty - how Australian television reported H1N1 risk in 2009: a content analysis. *BMC Public Health*, *11*(1). doi: 10.1186/1471-2458-11-181

Fox, J. (2020, March 10). Remember the Last Global Pandemic? Probably Not. *Bloomberg*. Retrieved from https://www.bloomberg.com/opinion/articles/2020-03-10/how-coronavirus-compares-with-2009-s-h1n1-in-spread-and-reaction

Fukuyama, F., & Pipes, D. (1998). Conspiracy: How the Paranoid Style Flourishes and Where It Comes From. *Foreign Affairs*, *77*(2), 140. doi: 10.2307/20048795

Gross, J., & Padilla, M. (2020, March 18). From Flattening the Curve to Pandemic: A Coronavirus Glossary. *New York Times*. Retrieved from https://www.nytimes.com/article/coronavirus-terms-glossary.html

Huang, S., Peng, W., Li, J., & Lee, D. (2013). Sentiment and topic analysis on social media. *Proceedings of the 5th Annual ACM Web Science Conference on - WebSci 13*. doi: 10.1145/2464464.2464512

Huizer, Y. L., Kraaij-Dirkzwager, M. M., Timen, A., Schuitmaker, T. J., & Steenbergen, J. E. V. (2015). Context analysis for epidemic control in the Netherlands. *Health Policy*, *119*(1), 66–73. doi: 10.1016/j.healthpol.2014.10.004

Hurtíková, H. (2017). The Importance of Valence-Framing in the Process of Political Communication: Effects on the Formation of Political Attitudes among Viewers of Television News in the Czech Republic. *Medijske Studije*, *8*(15), 72–91. doi: 10.20901/ms.8.15.6

Jebril, N., Vreese, C. H. D., Dalen, A. V., & Albaek, E. (2013). The Effects of Human Interest and Conflict News Frames on the Dynamics of Political Knowledge Gains: Evidence from a Cross-national Study. *Scandinavian Political Studies*, *36*(3), 201–226. doi: 10.1111/1467-9477.12003

Kang, G. J., Ewing-Nelson, S. R., Mackey, L., Schlitt, J. T., Marathe, A., Abbas, K. M., & Swarup, S. (2017). Semantic network analysis of vaccine sentiment in online social media. *Vaccine*, *35*(29), 3621–3638. doi: 10.1016/j.vaccine.2017.05.052

Kiousis, S. (2004). Explicating Media Salience: A Factor Analysis of New York Times Issue Coverage During the 2000 U.S. Presidential Election. *Journal of Communication*, *54*(1), 71–87. doi: 10.1111/j.1460-2466.2004.tb02614.x

Kouloumpis, E., Wilson, T., & Moore, J.D. (2011). Twitter Sentiment Analysis: The Good the Bad and the OMG! *ICWSM*.

Krause, R. M., Dimmock, N. J., & Morens, D. M. (1997). Summary of Antibody Workshop: The Role of Humoral Immunity in the Treatment and Prevention of Emerging and Extant Infectious Diseases. *The Journal of Infectious Diseases*, *176*(3), 549–559. doi: 10.1086/514074

Lee, S. T., & Basnyat, I. (2013). From Press Release to News: Mapping the Framing of the 2009 H1N1 A Influenza Pandemic. *Health Communication*, *28*(2), 119–132. doi: 10.1080/10410236.2012.658550

Lee, S. Y., & Carroll, C. E. (2011). The Emergence, Variation, and Evolution of Corporate Social Responsibility in the Public Sphere, 1980–2004: The Exposure of Firms to Public Debate. *Journal of Business Ethics*, *104*(1), 115–131. doi: 10.1007/s10551-011-0893-y

Lodge, M., & Taber, C. (2000). Three Steps toward a Theory of Motivated Political Reasoning. *Elements of Reason*, 183–213. doi: 10.1017/cbo9780511805813.009

Luther, C. A., & Zhou, X. (2005). Within the Boundaries of Politics: News Framing of Sars in China and the United States. *Journalism & Mass Communication Quarterly*, *82*(4), 857–872. doi: 10.1177/107769900508200407

Morens, D. M., Folkers, G. K., & Fauci, A. S. (2009). What is a pandemic? *The Journal of Infectious Diseases*, *200*(7), 1018–1021. doi: 10.1086/644537

Muhamad, J. W., & Yang, F. (2017). Framing Autism: A Content Analysis of Five Major News Frames in U.S.-Based Newspapers. *Journal of Health Communication*, *22*(3), 190–197. doi: 10.1080/10810730.2016.1256453

Neuman, W. R., Just, M. R., & Crigler, A. N. (1992). Common knowledge. Chicago: University of Chicago Press. doi:10.1177/027046769401400211

Nijkrake, J., Gosselt, J. F., & Gutteling, J. M. (2015). Competing frames and tone in corporate communication versus media coverage during a crisis. *Public Relations Review*, *41*(1), 80–88. doi: 10.1016/j.pubrev.2014.10.010

Nisbet, M. C. (2010). Knowledge into action: Framing the debates over climate change and poverty. In P. D'Angelo & J. A. Kuypers (Eds.), *Doing news framing analysis: Empirical and theoretical perspectives* (pp. 43-83). New York: Routledge.

Oliver, J. E., & Wood, T. (2014). Medical Conspiracy Theories and Health Behaviors in the United States. *JAMA Internal Medicine*, *174*(5), 817. doi: 10.1001/jamainternmed.2014.190

Peckham, R. (2013). Economies of contagion: financial crisis and pandemic. *Economy and Society*, *42*(2), 226–248. doi: 10.1080/03085147.2012.718626

Price, V. (1989). Social Identification and Public Opinion: Effects of Communicating Group Conflict. *Public Opinion Quarterly*, *53*(2), 197. doi: 10.1086/269503

Roitman J (2011) Crisis. In: Political Concepts: A critical lexicon. Available at: http://www.politicalconcepts. org/issue1/crisis/

Schoch-Spana, M., Cicero, A., Adalja, A., Gronvall, G., Sell, T. K., Meyer, D., … Inglesby, T. (2017). Global Catastrophic Biological Risks: Toward a Working Definition. *Health Security*, *15*(4), 323–328. doi: 10.1089/hs.2017.0038

Shin, Y. (2020). What can tripartite semantic network analysis do for media framing research? *Communication & Society*, *33*(1), 121–137. doi: 10.15581/003.33.1.121-137

Shu, K., Sliva, A., Wang, S., Tang, J., & Liu, H. (2017). Fake News Detection on Social Media. *ACM SIGKDD Explorations Newsletter*, *19*(1), 22–36. doi: 10.1145/3137597.3137600

Semetko, H. A., & Valkenburg, P. M. V. (2000). Framing European politics: A Content Analysis of Press and Television News. *Journal of Communication*, *50*(2), 93–109. doi: 10.1111/j.1460-2466.2000.tb02843.x

Sommariva, S., Vamos, C., Mantzarlis, A., Đào, L. U.-L., & Tyson, D. M. (2018). Spreading the (Fake) News: Exploring Health Messages on Social Media and the Implications for Health Professionals Using a Case Study. *American Journal of Health Education*, *49*(4), 246–255. doi: 10.1080/19325037.2018.1473178

Spurk, C., & Lublinski, J. (2014). Content analysis: measuring the success of journalism capacity building. Retrieved from https://www.dw.com/downloads/28543660/dwakademiemeasuring-the-success-of-journalism-capacity-building.pdf

Sutherland W.J., Pullin A.S., Dolman P.M. and Knight T.M. 2004. The need for evidence-based conservation. Trends Ecol. Evol. 19: 305–308. doi: 10.1016/j.tree.2004.03.018

Urban, J., & Schweiger, W. (2013). News Quality from the Recipients Perspective. *Journalism Studies*, *15*(6), 821–840. doi: 10.1080/1461670x.2013.856670

Uscinski, J. E., & Parent, J. M. (2014). Conspiracy Theories Are for Losers. *American Conspiracy Theories*, 130–153. doi: 10.1093/acprof:oso/9780199351800.003.0006

World Health Organization. (2009). *Pandemic influenza preparedness and response: a Who guidance document*. Geneva.

Young, L., & Soroka, S. (2012). Affective News: The Automated Coding of Sentiment in Political Texts. *Political Communication*, *29*(2), 205–231. doi: 10.1080/10584609.2012.671234

APPENDIX A: Literature search log

1. Search Matrix

Table 11

Literature Search Matrix

Constructs	Related Terms	Broader Terms	Narrower Terms
Conspiracy Coverage	Fake news, News quality, Journalistic argumentation	Article quality	Science, Theories, Stories, Facts
Framing	Priming, Content Analysis, Media Analysis,	Agenda-setting	Responsibility, Conflict, Human Interest, Morality
Valence	Sentiment, Tone, Affection, Emotions	Affective evaluation	Positive, Negative, Neutral
Stakeholders	Parties, Stakeholder salience, Involvement	Engagement	Medical Professionals, Government, General Public, Mainstream Media

2. Search Actions and Results

Table 12

Examples of Search Actions and Results

Nr	Date	Sourcce	Search Terms and Strategies	Total hits
1	14/02/20	Scopus (db)	“Conspiracy”	4.690
2	21/05/20	Scholar	“Fake news” AND “Pandemic” AND “Content Analysis”	466
3	21/0520	Scholar	“Fake news” AND “Beginning” AND “Pandemic”	1.060
4	21/05/20	Scopus (db)	“Conspiracy news” OR “Fake news” AND “Pandemic”	12
5	21/05/20	Scopus (db)	“Framing” OR “Priming”AND “Pandemic”	251
6	25/05/20	Scopus (db)	“Framing” AND “Human interest” OR “Economic consequences”	139
7	25/05/20	Scopus (db)	“Valence” OR “Sentiment” AND “content analysis”	646
8	25/05/20	Scopus (db)	“Valence” OR “Sentiment” OR “Tone” AND “Pandemic”	57
9	25/05/20	Scopus (db)	“Stakeholders” AND “Pandemic”	323
10	25/05/20	Scopus (db)	“Stakeholder” AND “content analysis” AND “Pandemic”	2

3. Found References in APA (Examples)

Andreu-Sánchez, C., & Martín-Pascual, M.-Á. (2020). Fake images of the SARS-CoV-2 coronavirus in the communication of information at the beginning of the first Covid-19 pandemic. *El Profesional De La Información, 29*(3). doi: 10.3145/epi.2020.may.09

De Vreese, C. H. (2005). News framing: Theory and typology. *Information design journal+ document design, 13*(1), 51-62. doi:10.1075/idjdd.13.1.06vre

Sommariva, S., Vamos, C., Mantzarlis, A., Đào, L. U.-L., & Tyson, D. M. (2018). Spreading the (Fake) News: Exploring Health Messages on Social Media and the Implications for Health Professionals Using a Case Study. *American Journal of Health Education, 49*(4), 246–255. doi: 10.1080/19325037.2018.1473178

4. Reflection

To have a good research design, sufficient literature needed to be found to support the five concepts making up the five categories in the codebook. To get the right sources, the right database needed to be consulted. For the present study, both Google Scholar and Scopus were the most used databases for the sources. What worked very well is to first collect a certain amount of sources on one topic and pick out the useful information from that source to then compile this into a coherent text. If there was then still a part missing within these sources, additional sources were looked for. I found it relatively easy for a lot of constructs to find the right sources. For the constructs such as framing and valence, a lot of content analyses had already been done using these constructs which would help to structure my literature reflection. The construct of conspiracy coverage was not as much researched yet since terms such as fake news have been around less and therefore less research was done which made it harder to find fitting articles. A similar problem was found with finding information on stakeholders. Whilst there is a lot of information about various stakeholder analyses, there is not as much in the case of a pandemic. It took a while to figure out what kind of search terms work the best to make sure I get a good amount of articles but not that I ended up with over 5.000 results. When the search engine would generate around a few hundred results, the most useful articles were often found. What helped with the search is to sort the articles on relevance in scopus to eliminate articles that most likely did not anything to do with it. Overall, a good selection of articles was used to explain the different concepts evaluated. However, in hindsight, if a more systematic way of searching would have been used it could have yielded a different set of results.

APPENDIX B: Corpus

Table 13

Corpus swine flu influenza (H1N1)

Nr	Source	Article
1	De Volkskrant	April 25 2009_Varkensgriep eist tientallen levens
2	Het AD	April 25 2009_Kort nieuws
3	De Telegraaf	April 26 2009_Catastrofe op de loer; Zeventig doden, duizend geïnfecteerden
4	Het AD	April 27 2009_Smeulend vuurtje dat zo kan oplaaien
5	De Volkskrant	April 27 2009_Een metropool komt tot stillstand; Varkensgriep. Mexicaanse president adviseert: niet kussen, geen handen schudden
6	De Volkskrant	April 27 2009_Bert Wagendorp Grieppandemie; Bert Wagendorp Grieppandemie
7	De Volkskrant	April 27 2009_Juiste reactive kan pandemie voorkomen
8	De Telegraaf	April 28 2009_Verlies Damrak valt mee; Zorgen over varkgensgriep ebben in laatste handelsuur weg
9	De Volkskrant	April 28 2009_Zeker drie gevallen van varkensgriep in Europ
10	Het AD	April 28 2009_Beurs Amsterdam – Varkensgriep drukt aandeel vliegbedrijven in het rood
11	De Telegraaf	April 28 2009_Israël schuwt varkensgriep
12	Het AD	April 28 2009_Nederland wapent zich tegen uitbraak
13	De Telegraaf	April 28 2009_Beurzen VS beetje koortsig
14	Het AD	April 28 2009_Kans op pandemie groeit – In Nederland veel vraag naar mondkapjes tegen griepvirus
15	De Volkskrant	April 28 2009_Mexico is prooi van geruchten
16	Het AD	April 28 2009_Mijn Mening – Babs & Beer
17	De Telegraaf	April 28 2009_Griep komt dichterbij; Panische sfeer in Mexico
18	Het AD	April 29 2009_Varkensgriep WHO: Bijwerkingen mogelijk ernstiger dan de ziekte – Twijfels over zin van vaccine
19	De Volkskrant	April 29 2009_Mexicanen geloven alles en niemand; Geruchten, feiten en verzinsels over griepepidemie hebben Mexico in hun greep
20	De Telegraaf	April 29 2009_Damrak flink omlaag; Kwartaalcijfers DSM krijgen goed onthaal
21	De Telegraaf	April 29 2009_Doem
22	De Volkskrant	April 29 2009_Nederlanders alleen informeel afgeraden naar Mexico te reizen
23	Het AD	April 29 2009_Expert WHO: Pandemie is heel dichtbij
24	De Volkskrant	April 29 2009_Goed en slecht nieuws houdt beurs vrijwel vlak; wall street
25	De Telegraaf	April 29 2009_'Hier is het begonnen'; Bewoners bergdorp noemen fokkerij als bron virus
26	De Volkskrant	April 29 2009_Hoge cijfers op Obama's eerste rapport
27	De Volkskrant	April 29 2009_Meevaller cijfer verlost beurzen uit hun lijden; Euronext en beurzen Europa
28	De Telegraaf	April 29 2009_Mexicoganger kan beter thuis blijven
29	De Telegraaf	April 29 2009_Virus nekt reisbrance
30	Het AD	April 30 2009_A1GP Mexico geschrapt vanwege varkensgriep
31	De Telegraaf	April 30 2009_A1GP-seizoen beslist door varkensgriep
32	De Volkskrant	April 30 2009_Kai-virus (level1) op volle sterkte uitgebarsten

34	Het AD	April 30 2009_Annuleren. Consumentenbond wil positive toeristen verbeteren – Niet naar Mexico? Geef geld terug!
35	Het AD	April 30 2009_Bij vondst nieuw virus is groot alarm verstandig
36	De Telegraaf	May 1 2009_Grieppeuter spelt alweer; Nu ook melding Mexicaans virus in Nederland. Minister bestelt extra vaccins
37	De Volkskrant	May 1 2009_Generale repetitie voor de pandemie; alledaagse kunst
38	Het AD	May 2 2009_Mexicaanse Griep. Ab Osterhaus werkt hard aan een vaccine – Virus zit achter slot en grendel
39	De Telegraaf	May 2 2009_Griepvirus ook zonder reis naar Mexico; Duitse en Schot via anderen besmet in eigen land. Mexico plat tot woensdag.
40	Het AD	May 2 2009_Mondkapje in opmars
41	De Volkskrant	May 2 2009_Griep velt Mexicaanse economie; MExicaanse griep preventive maatregelen worden opgevoerd
42	De Volkskrant	May 2 2009_Het raadsel van de virusstam; Mexico griep
43	De Volkskrant	May 2 2009_Uitbraak van Mexicaanse griep heft raakvlakken met de Spaanse griep
44	De Telegraaf	May 4 2009_Rellen Egypte om afmaken varkens
45	De Volkskrant	May 4 2009_Virus slaat toe in 17 landen
46	De Telegraaf	May 4 2009_Amerikanen in ban griep; De hele dag handen wassen
47	De Telegraaf	May 5 2009_Griep nog niet uitgeraasd; Vragen beantwoord
48	De Volkskrant	May 7 2009_Laatste varken van Afghanistan in quarantaine wegens griep
49	De Telegraaf	May 8 2009_"Mexicaanse griep"; Ambassadeur boos op ons land, landgenoten op veel plaatsen geweerd. Compleet voetbalelftal niet welkom in Achterhoek. Door de spaanse griep zijn we toch niet minder van Spanje gaan houden?
50	De Volkskrant	May 8 2009_Gewoon blijven schudden handen; Omgangsvormen en sociale gevolgen van besmettelijke ziekten
51	De Telegraaf	May 8 2009_Griepgevallen alweer aan de beterende hand; Kleine kans op besmetting medereizigers van vrouw
52	Het AD	May 9 2009_Gezondheidsraad waarschuwt voor gevaarlijke bijwerkingen vaccine – Verscherpte maatregelen tegen Mexicaanse griep
53	De Telegraaf	May 9 2009_Verdere toename griepgevallen onvermijdelijk; Derde besmetting via vliegverkeer Mexico
54	De Telegraaf	May 9 2009_'Mokerslag in verschiet': Exportdaling naar niveau 1945, harde klap Nederland. 'Bedrijven komen omzetdaling niet te boven'
55	De Telegraaf	May 11 2009_Het varken als leermeester; Westerhof begint pr-project voor knorretje
56	Het AD	May 12 2009_Amerikanen blijven nuchter onder griepgolf
57	De Telegraaf	May 12 2009_Griepochonders!
58	De Telegraaf	May 13 2009_Scholen meteen dicht bij Mexicaanse griep
59	De Volkskrant	May 14 2009_Mexico zet tegenaanval in tegen bange landen; Column griepepidimie
60	De Telegraaf	May 15 2009_Miljoenen griepdoden; WHO-experts: Mexicaanse griep wordt pandemie
61	De Telegraaf	May 17 2009_Verdubbeling van Mexicaanse griepgevallen
62	De Telegraaf	May 19 2009_Nederland binnekort geen rooie cent meer waard
63	De Telegraaf	May 19 2009_What's in a name...
64	De Telegraaf	May 20 2009_Piraten hier halen: een schot in de roos
65	De Volkskrant	May 22 2009_Japan staat op scherp nu de mondkapjes op zijn; Accent Mexicaanse griep
		May 29 2009_Patiënt Nul' krijft zijn egen standbeeld; Accent Mexicaanse griep

66	De Volkskrant	May 30 2009_23VeLi twee regels; De claim Mexicaanse griep-verbod
67	De Volkskrant	June 10 2009_WHO: “Dicht bij pandemie griep”
68	De Volkskrant	June 12 2009_Mexicaanse griep viroloog hamert op belang voorraad virusremmers –
69	Het AD	Alarmfase 6: maar er is verder niets aan de hand
		June 16 2009_Grieppaniek blijft uit; Scholen wachten af ondanks forse stijging zieken. Enkele
70	De Telegraaf	ouders houden kind wel al thuis
		June 17 2009_Drie prikken nodig tegen griep; Extra inenting voor kwetsbare groepen
71	De Telegraaf	June 17 2009_Je kunt eraan doodgaan, maar herstelkans is goed
72	De Volkskrant	June 19 2009_Griepprik voor heel het land; Klink bestelt 34 miljoen extra vaccins
73	De Telegraaf	June 21 2009_Doem profeten tegen wil en dank; Experts Ab Osterhaus en Roel Coutinho
74	De Telegraaf	begrijpen kritiek op hun bange boodschap over griepgolf. “Laat ze een ander hobby gaan
		zoeken. We kunnen niet meer slapen” “Ik probeer slechts het land goed voor te bereiden.
		June 23 2009_Mexicaanse griep in honderd landen
75	De Volkskrant	June 25 2009_H1N1-virus treft Aboriginals
76	De Telegraaf	June 25 2009_Paisly als proeftuin tegen het griepvirus
77	Het AD	June 26 2009_Q-koorts al fatal voor vier mensen; Ziekte besmettelijker dan nieuwe griep
78	De Telegraaf	July 9 2009_Griepvaccinatie word een mega-operatie
79	Het AD	July 16 2009_Naar huis bij griep!; Advies aan bedrijven over ziek personeel: H1N1-virus slaat
80	De Telegraaf	toe in najaar
		July 17 2009_Bedrijven klaar voor grieppandemie; Oproep Ter Horst om actie te ondernemen,
81	De Volkskrant	komt voor velen als mosterd na de maaltijd
		July 17 2009_Gevallen Mexicaanse griep niet meer te tellen
82	Het AD	July 17 2009_Mexicaanse griep grijpt om zich heen
83	De Volkskrant	July 20 2009_Preventie en Paniek; Commentaar
84	De Volkskrant	July 24 2009_Ziekenbezoek risico bij griep; Visite aan bed extra besmettingsgevaar
85	De Telegraaf	July 25 2009_Dam tegen de griep; Intenser schoonmaken en vaker thuiswerken. Muise en
86	De Telegraaf	hoorn verspreidingsbronnen
		July 30 2009_Grotere kans op complicaties – Griepvirus eist tol bij zwangeren
87	Het AD	July 31 2009_Baarmoederhalsprik wijkt voor griepactie; Vaccinatie jonge meisjes zeker
88	De Telegraaf	halfjaar uitgesteld
		August 5 2009_Overheid probeert met tips ziektegolf zoveel mogelijk te voorkomen –
89	Het AD	Thuisblijven, eerst de dokter bellen
		August 5 2009_Eerste dode door griep in Nederland; Jongen (17) met zeer ernstige aangeboren
90	De Volkskrant	afwijking liep Mexicaanse griep op in het buitenland
		August 5 2009_Onrust groeit na eerste griepdode; Zieke werknemers worden onderzocht.
91	De Telegraaf	Ministerie start campagne
		August 6 2009_Mijd de Spaanse disco’s!; GGD in Limburg slaat alarm na griepsbesmettingen
92	De Telegraaf	jonge vakantiegangers. Vakbond wil extra bescherming voor reisleiders.
		August 7 2009_Geen extra vakantie vanwege griep
93	De Volkskrant	August 7 2009_Scholen negeren griep
94	De Volkskrant	August 8 2009_Bang voor enge ziektes door die prik; kennis/griepvaccin
95	De Volkskrant	August 8 2009_Commentaar virus en vaccine
96	De Volkskrant	August 9 2009_GRIEP
97	De Telegraaf	August 15 2009_Mexicaanse griep op rand epidemie
98	De Telegraaf	August 19 2009_Advies: papieren zakdoek tegen griep

99	Het AD	August 20 2009_'Richtlijn is boobytrap'; Grieppoli en RIVM vechten over straat. 'Longkanker
100	De Telegraaf	genees je niet met Tamiflu'

Table 14

Corpus corona virus articles (COVID-19)

Nr	**Source**	**Article**
1	De Volkskrant	January 11 2020_Nieuw virus opgedoken in China
2	De Volkskrant	January 18 2020_Virus met sars-trekjes
3	De Telegraaf	January 18 2020_Zorgen over nieuw virus
4	De Volkskrant	January 20 2020_Reispiek China ideal voor verspreiding corona-virus
5	De Volkskrant	January 20 2020_In Beijing regeerde maandelang de doofpot
6	De Volkskrant	January 21 2020_Virus is overdraagbaar van mens op mens
7	Het AD	January 22 2020_Chinees Nieuwjaar vergroot kans op verspreiding virus
8	De Telegraaf	January 22 2020_Jacht op mondkapjes
9	De Volkskrant	January 22 2020_'Wuhan-virus' kon best eens meevallen
10	De Telegraaf	January 23 2020_China gooit Wuhan op slot
11	De Telegraaf	January 24 2020_Alleen isolatie patiënt stopt verspreiding
12	De Telegraaf	January 24 2020_'Illegale handel dieren is bron van het virus'
13	Het AD	January 24 2020_Miljoenen vast in spooksteden
14	De Telegraaf	January 24 2020_Vlucht uit 'virusstad' Wuhan
15	Het AD	January 25 2020_'China doet dingen anders dan de rest van de wereld'
16	De Volkskrant	January 25 2020_Is het tijd voor coronapaniek?
17	De Volkskrant	January 27 2020_Het coronavirus gaat viraal: feiten en fabels
18	De Volkskrant	January 27 2020_Een beproeving voor patiënt en arts in Wuhan
19	Het AD	January 27 2020_'Gevaar virus is nog moeilijk in te schatten'
20	Het AD	January 27 2020_Grote chaos in Wuhan, VS en Frankrijk halen burgers terug
21	De Volkskrant	January 27 2020_ Spannend virusje
22	De Telegraaf	January 28 2020_Den Haag beraadt zich op coronavirus
23	Het AD	January 28 2020_Coronavirus raakt de economie wereldwijd
24	De Volkskrant	January 28 2020_Coronavaccin komt eraan, is het op tijd?
25	De Telegraaf	January 28 2020_'Huisarrest' na Wuhan
26	De Volkskrant	January 28 2020_Beijing-vrees is ook nu de boosdoener
27	De Volkskrant	January 28 2020_Wuhanvirus? Patiënt in isolatie
28	De Telegraaf	January 28 2020_Nederlandse nuchterheid overheerst
29	De Telegraaf	January 28 2020_Beurzen in de greep van virus
30	De Telegraaf	January 29 2020_'Hebben we genoeg mondkapjes?'
31	De Telegraaf	January 29 2020_'Het is vermoeiend continu bang te zijn'
32	De Volkskrant	January 29 2020_ Wuhan: stad van 'spookrijders'

33	Het AD	January 29 2020_Minister: ‘We zijn voorbereid en alert’
34	De Telegraaf	January 29 2020_Wuhan
35	De Volkskrant	January 30 2020_Chinese groei vlakt nu meer af dan onder sarsepidimie in 2003
36	De Volkskrant	January 30 2020_Uitbraak Wuhanvirus is nu al groter dan de sarscrisis
37	De Volkskrant	January 30 2020_Wereldeconomie voelt gevolgen van viruscrisis
38	De Volkskrant	January 30 2020_Een warme douche
39	De Volkskrant	January 30 2020_Hoe gevaarlijk is de Chinese dierenmarkt?
40	De Telegraaf	January 30 2020_Koortsachtige tijd
41	Het AD	January 30 2020_Prikken
42	De Volkskrant	January 31 2020_Nederland maakt haast met evacuatie uit China
43	De Volkskrant	February 8 2020_ Viraal met een virus
44	De Telegraaf	February 8 2020_Vleermuizensoep
45	De Telegraaf	February 11 2020_Chinese aanpak coronavirus heeft schaduwzijde
46	De Volkskrant	February 12 2020_Zal het coronavirus China veranderen?
47	Het AD	February 15 2020_Een kind vang je niet op, zegt de minister
48	De Telegraaf	February 17 2020_In wurggreep van corona
49	Het AD	February 19 2020_Annuleren Spelen ‘niet aan de orde’, maar artsen twijfelen
50	De Volkskrant	February 22 2020_Geeft griep een boost aan het immuunsysteem, zodat je daarna...
51	De Volkskrant	February 28 2020_Virus doet koersen kelderen
52	De Telegraaf	February 28 2020_Advies: ‘Baas, bereid u voor’
53	Het AD	February 29 2020_Virologen verwachten meer besmettingen. Moet ik nu thuisblijven
54	Het AD	February 29 2020_’Dit moet geen twee weken duren’
55	Het AD	March 2 2020_’We moeten niet ophouden met het normale leven’
56	Het AD	March 3 2020_’Als ik niet fiets, ben ik mezelf niet’
57	De Volkskrant	March 4 2020_Virus kan net te veel zijn voor toch al zwak immuunsysteem
58	De Telegraaf	March 5 2020_Corona splijt Europa
59	De Telegraaf	March 5 2020_Iets minder ‘knuffelen’
60	Het AD	March 5 2020_Olielanden willen de kraan dichtdraaien
61	De Volkskrant	March 7 2020_Als een staafmixer door een cel
62	Het AD	March 9 2020_Buitenlandse Zaken: Verlaat Noord-Italië
63	Het AD	March 9 2020_’Wees solidair met opa en oma’
64	Het AD	March 9 2020_Italië verkeert in chaos
65	De Telegraaf	March 10 2020_ Coronaschade
66	De Telegraaf	March 11 2020_’Ik houd mijn hart vast’
67	Het AD	March 11 2020_’We zetten extra druk op Brabant’
68	De Telegraaf	March 13 2020_Nieuwe naam voor dezelfde klachten
69	Het AD	March 14 2020_Moet ik nog maar even geen zomervakantie boeken?
70	Het AD	March 17 2020_Coronavirus dreigt jaar omzet horeca te halveren
71	De Volkskrant	March 18 2020_Snelle stijging pas het begin: ‘Het gaat komende week nog harder’
72	De Telegraaf	March 19 2020_Hele wereld jaagt op ‘corona killer’
73	De Telegraaf	March 20 2020_’Deze klap kan nog veel groter worden’
74	Het AD	March 21 2020_Situatie Nederland lijkt op Lombardije, dat is niet goed
75	De Telegraaf	March 23 2020_Aanpak van Nederland onbegrepen in België
76	De Telegraaf	March 25 2020_Einde epidimie in Wuhan in zicht
77	De Volkskrant	March 26 2020_Medewerker intensive care Maastricht ligt nu zelf met corona...

78	Het AD	March 27 2020_Zorgen over veiligheid basisscholen door grote stijging aantal...
79	De Volkskrant	March 28 2020_Onze vrijheid is altijd al ingeperkt
80	De Volkskrant	March 31 2020_Coroncrisis is stresstest voor het brede politieke midden
81	Het AD	April 1 2020_'Noord-Nederland kan de economische dreun van het coronavirus...
82	De Volkskrant	April 2 2020_Als er al eten is, wie kan het uitdelen?
83	Het AD	April 2 2020_Ex-coronapatiënt uit beneden-Leeuwen wil anderen genezen...
84	Het AD	April 4 2020_Patiënten met een beroerte te laat naar het ziekenhuis door quarantaine
85	De Volkskrant	April 6 2020_Bacteriën kun je niet zien, het zijn 'helaas geen krioelende maden'
86	De Volkskrant	April 7 2020_Hoe pakt EU de coronaschade aan?
87	De Volkskrant	April 8 2020_Hoe langer de crisis, hoe lager de huizenprijzen
89	Het AD	April 9 2020_Door corona komt het lijden dichtbij: Pasen krijgt zo extra dimensie
90	Het AD	April 11 2020_RIVM: opnieuw daling ziekehuisopnames, huidige maatregelen...
91	Het AD	April 12 2020_Ouderen worden massaal bezocht door familie na opheffen lockdown.
92	Het AD	April 13 2020_Stress, spanningen en soms irritaties: opgehokte studenten...
93	De Telegraaf	April 14 2020_Blijf virus volgen
94	De Volkskrant	April 14 2020_Afrikaans protest tegen racisme China
95	Het AD	April 15 2020_Stop 5GNL neemt afstand van sabotage zendmasten
96	Het AD	April 17 2020_Advocaat uit Deventer: Corona belemmert goede reïntegratie...
97	De Telegraaf	April 18 2020_Het is een zaak van medemenselijkheid
98	Het AD	April 18 2020_Door corona de ocean over: Wel gek als ik eraan denk...
99	De Volkskrant	April 20 2020_De nieuwe vijand is hett virus
100	Het AD	April 20 2020_Honderdduizend patiënten wachten op behandeling, gefaseerde...

APPENDIX C: Cohen's Kappa calculations

Table 15

Cohen's Kappa calculations

Code	Agreed include	Agreed to exclude	Coder 1 included	Coder 2 included
Phases of a Pandemic	20	40	0	0
Conspiracy Coverage	38	230	7	6
Media Framing	22	168	9	2
Valence	165	1404	40	24
Stakeholders	49	182	6	3

Note: Cohen's Kappa = 0.83. The strength of agreement is considered to be "very good"