

# Critical Discourse Analysis of Online News Headlines in English Reporting on the COVID-19 Pandemic

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Diplomski studij engleskog jezika i književnosti – nastavnički smjer i diplomski  
studij hrvatskog jezika i književnosti – nastavnički smjer

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Mentor: izv. prof. dr. sc. Tanja Gradečak

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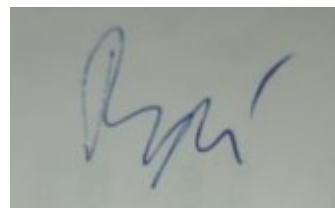
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## Summary

This paper studies the degree of congruence between the headlines and text bodies in The Guardian and the Daily Mail reporting on the COVID-19 pandemic. The hypothesis is that The Guardian should be less sensationalist, less politically and negatively biased than the Daily Mail, as well as scoring a higher degree of congruence. The research is based on the framework provided by the approach of Critical Discourse Analysis. The paper first outlines the theoretical preliminaries necessary for the methodology, drawing on recent studies in the field of Critical Discourse Analysis, especially the studies that analyse online discourse on the pandemic, as well as ideology and negativity bias in news discourse. Additionally, the paper outlines and defines key concepts of congruence analysis, namely cohesion and coherence, which this paper uses to establish the working definition of congruence as a spectrum ranging from incongruence to complete congruence. In the section on methodology, a detailed account of the corpus is presented as well as the specifics of the method to determine the degree of congruence between the headline and the text body. The discussion of the results shows that the hypothesis was only partially verified since there is no significant difference in the degree of congruence between The Guardian and the Daily Mail. The paper concludes that the similarities may be because The Guardian underwent a change in format bringing it closer to a tabloid, and that during the early days of the pandemic, there was no significant ideological polarisation between the left and right-wing news sources.

**Key words:** Critical Discourse Analysis, online news discourse, headlines, British news, COVID-19 pandemic

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## 1. Introduction

The COVID-19 pandemic, which is still ongoing at the time of writing, has made a historical impact on the contemporary society. Its effects and consequences have been felt across all social systems: politics, economy, science, education, healthcare, mass media etc. This paper focuses specifically on the latter social system – the mass media, and how they reported on the pandemic. It focuses on the online news sources, but more importantly, their headlines – how they are structured, what linguistic features they employ and what hidden meanings they might imply. More specifically, this research aims to show the relation between the quality of the headlines of the publication, i.e. the news source using the Critical Discourse Analysis (CDA) approach to the study of language in use. The quality of the headline here refers to the degree of congruence between the content that is summarized in the headline and the content that is present in the body of the article. In other words, this refers to the fact that headlines may not summarize the whole article, but only as much as a single point of the news story. Moreover, it is possible, and is often the case, that headlines are misleading; they have little to do with the text body and instead manipulate the audience's perception of the news story. Furthermore, the ideology of the publication is regarded according to the widely held perception of the news sources' political alignment<sup>1</sup>, which affects the linguistic structure of the news articles. For example, The Guardian is mostly regarded as a left-wing news source, whereas the Daily Mail is largely said to be a right-wing publication. Finally, the paper aims to either verify or disprove the perception that the left-wing news sources tend to be more objective and feature better journalistic integrity than the right-wing news sources, which tend to be more sensationalist and biased.

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<sup>1</sup> <https://yougov.co.uk/topics/politics/articles-reports/2017/03/07/how-left-or-right-wing-are-uks-newspapers>

## 2. Theoretical preliminaries

### 2.1. Literature review of studies of news articles reporting on the COVID-19 pandemic

Several papers focused on the metaphors used in communication about coronavirus pandemic and how they affect the wider society. They mostly focus on the conceptual metaphor of war and similar concepts of fighting, battles, aggressive and hostile agents, such as invaders. The following works research how the war metaphors potentially influence the global audience and evaluate their usefulness as well as the harm they may be causing.

A 2021 research by Elena Semino asks the following questions: “Why is the pandemic talked about metaphorically? Why are WAR metaphors used in particular for the pandemic? Are the critics of WAR metaphors right to be concerned? Should metaphors be avoided altogether? Which metaphors should be used, and which avoided?” (Semino 2021: 50). She introduces an initiative titled “#ReframeCovid”<sup>2</sup> and concludes that the most apt conceptual metaphor to discuss the pandemic is “fire, and specifically a destructive and hard-to-control fire” (ibid).

Her explanation of the choice to focus on metaphors is based, on the one hand, on the fact that metaphors often appear in language<sup>3</sup>, and on the other hand, on a number of theoretical and empirical works that highlight the “role of metaphors as crucial cognitive as well as communicative tools” (Semino 2021: 50-51). She cites Lakoff and Johnson’s 1980 work on conceptual metaphors, which are defined as “systematic mappings (or sets of correspondences) across different conceptual domains whereby a “target” domain (e.g., LIFE) is understood in terms of a “source” domain (e.g., JOURNEY)” (ibid). Continuing the exposition of Lakoff and Johnson’s theory, she emphasises that metaphors are biased ways of “perceiving and representing reality, as each source domain highlights some aspects of the target and backgrounds others, facilitating different inferences and evaluations”. Here she uses the

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<sup>2</sup><https://docs.google.com/spreadsheets/d/139iY5kn1tCuHOQ2Y1q2LjVQrs27jFoBLGJHAEJagtDA/edit#gid=496446171>

<sup>3</sup> “Different studies, using broadly similar identification methods, have found them to occur, on average, between 3 and 18 times per 100 words (e.g., Cameron, 2003; Cameron & Stelma, 2004; Steen et al., 2010)” Semino, 2021: 50-51

example of the war metaphor for the pandemic because it highlights “the need to eliminate it completely through swift action, and background the possibility of adapting to and living with it” (Semino, 2021: 51). She concludes by saying that metaphors are “important rhetorical devices, especially when the aim is explanation or persuasion” and that most metaphors “tend to draw from basic, embodied, sensorimotor experiences” (ibid). In fact, the choice of the WAR metaphor is not unusual at all since “WAR metaphors have been found in communication about difficulties ranging from cancer to climate change” (ibid), so it only makes sense that the COVID-19 pandemic has been discussed in terms such as fights, battles and wars.

Moreover, Semino notes several structural similarities between the domains of WAR and PANDEMIC, such as “between the virus and an enemy, health professionals and an army, sick or dead people and casualties, and eliminating the virus and victory” (ibid). Not only that, but this is not the first time that epidemics are talked about using WAR metaphors: “WAR metaphors have been found to be used for previous epidemics, including, for example, Zika in Brazil in 2015–16” (ibid).

She then proceeds to present a critical evaluation of the usage of WAR metaphors. First, she begins by stating the positive effects of the war metaphor citing Flusberg et al: “War metaphors can increase people’s perceptions of problems as serious and urgent, and their willingness to modify their behaviours accordingly, for example, in relation to climate change” (2017). Semino argues that war metaphors could have been appropriate at the start of the pandemic, and that they could have been useful to “convey the dangers posed by the virus, justify the need for radical changes in lifestyle, and generate a sense of collective responsibility and sacrifice for a common purpose” (Flusberg et al, 2018).

However, the negative effects of war metaphors are evident in the case of cancer prevention: “Battle metaphors have been found to increase fatalism and to decrease people’s willingness to engage in self-limiting behaviours to lower cancer risk, such as drinking less alcohol (Hauser & Schwarz 2015: 2020)”. She argues herself that war metaphors influence fatalistic attitudes and are thus problematic when faced with a long-term public health issue, such as the ongoing pandemic, because the final victory “becomes more and more elusive” (Semino, 2021: 52). Moreover, talking about the virus as hostile entity or “an invader to be fought could run counter to public health messages about reducing contact with others and staying at home more than usual” (ibid). Furthermore, drawing on the 2011 work of Thibodeau & Boroditsky, which discovered that people support more authoritarian measures instead of

social reformism when a social issue, such as crime, is represented as a wild beast or a kind of a violent aggressor; Semino argues that War metaphors may legitimize authoritarian measures that could in fact be disproportionate, and that could go well beyond the specific response to the pandemic. Indeed, the establishment of martial law and or warlike powers for the executive in different countries reveals the potentially fuzzy boundary between the literal and metaphorical status of military references during the pandemic” (ibid: 52).

Semino argues that metaphors are both useful and harmful forms of communication depending on the context and that the “issue is not whether or not they should be used, but how they should be used” (2021: 52). In other words, what makes a metaphor appropriate or inappropriate, helpful or unhelpful, empowering or disempowering is not the type of metaphor itself, but the way in which it is used. Only in a specific context, with a distinguished purpose, and for a particular audience, can a metaphor be appropriately used (Semino et al: 2018).

Her research finds that fire metaphors are efficient means to “convey danger and urgency; distinguish between different phases of the pandemic; explain how contagion happens and the role of individuals within that; explain measures for reducing contagion; portray the role of health workers; connect the pandemic with health inequalities and other problems; and outline post-pandemic futures” (ibid: 54). Still, she concludes that fire metaphors are not without flaws because they may not work as well to “highlight the danger of asymptomatic transmission of the virus”, and that “they may be less effective for people with no strong fears of fires” or that “they may be inappropriate in parts of the world where literal forest fires are a regular or current threat” (ibid: 56). Her main point is that “a well informed and context-sensitive approach to metaphor selection can be an important part of public health messaging” (ibid.)

The 2020 research of Štrkalj Despot deals with different kinds of conceptual metaphors with regards to the pandemic. Namely, there are two sets of conceptual metaphors for epidemics; one in which the epidemic is active and humans are passive, and the other in which the epidemic is passive and humans are active. Conceptual metaphors such as plague, mania, earthquake, fire, nuclear disaster, tsunami etc., with such metaphors as “epicentre of the pandemic”, “Chernobyl”, “first wave” etc. belong to the first set. The second set of conceptual metaphors is comprised of war and sport. Examples of sport metaphors are “this is only the first half-time”, “we’re in the second half of the game, but we’re ready for overtime”, “this is a marathon, not a sprint” (Štrkalj Despot 2020: 4-5).

She presents some examples of people resisting the war metaphor, including her own: “we are not at war, people wage war against people, but we are facing a challenge, we are in a crisis”, and “we are not soldiers, we are health workers. We don’t shoot and we don’t have tanks, airplanes and battleships, we use science to cure people. There’s no war, this is a viral infection. Don’t use words such as war or heroes, we are professional health workers, just give us the resources” (ibid: 5)

Štrkalj Despot also notes that there is a conflation of disease and war historically. War causes poverty which then leads to increased susceptibility to various illnesses. Military camps were often sources of deadly infections, and then there are bio-weapons which were used to weaken the opposing armies. This is one of the reasons why war metaphors are so closely linked to the experience of an epidemic. In a great similarity to real wars, an epidemic causes pain and suffering, fear for one’s own life and the lives of their loved ones. Just as a real war, this metaphorical war will have devastating consequences, economic losses, unemployment and poverty. (ibid: 6)

## 2.2. Ideology and language

The paper takes the view that both ideologies of the political mainstream in the UK fundamentally stem from the Enlightenment ideologies of classical liberalism. They both share the humanist ideology of human rights, which entail private property rights, rights to free exchange, right to competition and opposing monopolisation, as well as other human rights that ensue therefrom. In the political context of the UK, the Labour Party is labelled as a social-democratic party and the Conservative Party is precisely what the name suggests, but in the British context it is actually the mix of economic liberalism (Bale, 2011:145) and British unionism (Dutton, 1979: 861-76). Historically, the two parties have come from socialist and conservative political schools of thought, but recently, both parties shifted to the liberal political centre, one belonging to the social and the other to the classical liberal school of thought (Vincent, 2010: 54). In other words, both parties share similar values, but depending on the context, especially in different time periods, they focus on one, and then the other facet of their shared ideology. Therefore, it is not unlikely to find politicians generally perceived as social liberals speaking about individual responsibility, supporting market liberalization and tax cuts for corporations and wealthy business owners, as was the case under the leadership of Tony Blair and the New Labour; and conservatives supporting social and cultural issues such as same-sex marriage, medical cannabis use and climate change acts, as happened under David Cameron's presidency of Conservative Party. Moreover, The Guardian and the Daily Mail are known to support the two parties, the Labour Party and the Conservative Party respectively. Although The Guardian was initially a middle class newspaper (Engels, 1973: 109), it has shifted its political stance to the left of centre. The Daily Mail has supported the Conservative Party since 1945<sup>4</sup> and is characterised as a right-wing newspaper. In summary, the paper will refer to the Labour Party and its supporters as social liberals and the Conservative Party and its allies as conservative liberals.

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<sup>4</sup> <https://www.theguardian.com/news/datablog/2010/may/04/general-election-newspaper-support>

### 2.2.1. Critical discourse Analysis

The research of ideology in news discourse is of social importance because discourse may have “major ideological effects – that is, they can help produce and reproduce unequal power relations between (for instance) social classes, women and men, and ethnic/cultural majorities and minorities through the ways in which they represent things and position people.” (Fairclough and Wodak 1997: 258). There have been many papers published which approach news discourse from the perspective of CDA. One such relevant research, which precisely analyses how The Guardian and the Daily Mail employ linguistic strategies which intentionally or unintentionally represent news stories in a biased ideological language (Baker et al. 2008: 273), serves as the template on which ideology is approached in this paper. It is based on the discourse-historical approach of CDA, which originates in the work of Ruth Wodak. More specifically, the research notes five discourse strategies which are “manifested textually through a number of linguistic indicators, such as specific lexical items to construct in-groups and out-groups, along with adjectives, attributes, metaphors and the selection of verbs” (Baker et al. 2008: 281). These are *predication*, *labelling*, *argumentation*, *perspectivation* and *intensification* or *mitigation*. The specific linguistic devices or techniques to achieve the strategies are metaphors, metonymies, synecdoches, which fall under the labelling strategy. For predication those are the attribution of negative or positive traits and implicit or explicit predicates. For argumentation, it is topoi used to justify political inclusion or exclusion, discrimination or preferential treatment. Perspectivation is achieved through reporting, description, narration or quotations of events and utterances. Intensification or mitigation refers to the degree of intensifying or mitigating the illocutionary force or utterances.

What follows are the examples of linguistic manifestations of ideology in The Guardian and the Daily Mail from the aforementioned study. In a 2005 article, The Guardian reported a speech of Michael Howard, who was then the leader of the Conservative party, in a critical manner. However, it unintentionally represented immigrants and asylum seekers as a problem over which there is a political debate. They were also “not portrayed as being a heterogeneous set of people or as doing or saying anything”, and instead they were “objectified and backgrounded, being referred to in terms of ‘applications’ alongside quantification (1000 cases a day)” (Baker et al. 2008: 293). So despite the fact that The Guardian is a historical broadsheet of social liberal political views, it ended up reproducing talking points which were dominant in

the right-wing news sources. Despite the article being in a liberal broadsheet newspaper, the way of representing asylum seekers reproduces an ideology that has been established by conservatives (and which we found was particularly dominant in the right-wing press)” (2008: 293). As for the Daily Mail, it reported on Howard’s speech in an approving manner. It used a “number of discursive techniques to support the in-group social actor (Howard) and negatively perspectivize the out-group (the presenter and members of the audience who did not agree with him)” (ibid: 294). Some examples are his description of being a successful politician who “defended his policy throughout” and representation of his opponents as committing a “coordinated attack” and maintaining a “hostile approach”, which partake in negatively connoted war-metaphors (ibid).

For the purposes of this research, however, which draws upon the analysis of metaphor and metonymy in the COVID-19 news discourse, greater emphasis is put on the labelling strategy. There are several ways in which metaphor can be used as an ideological tool. For example, using “swamp” in describing immigration “evokes strong emotions and creates a myth that immigration is excessive and communicates the ideological political argument that it should be stopped – or even be reversed” (Charteris-Black 2006: 563). Furthermore, metaphors can be used to abstract “processes and agents in order to recontextualise and to foreground and background” (Machin and Mayr 2012: 180). The example for the latter is the news coverage of the housing crisis in the USA by the British *Times* newspaper, where the real issue were banking practices, but instead the journalists backgrounded that instead of asking the questions what really needed to be done and who was really responsible. Instead, the crisis was described using the conceptual metaphor of fungus which “creates decay, blight, a disease caused by fungi, and which creeps across the city, spreading to new areas” (ibid: 183). Therefore, metaphors may be a very important category for analysing news stories that report on the movement of SARS-Cov-2, an entity without agency.



### 2.3. Negativity bias

It is widely understood that the majority of news report on negative events. There are several reasons why that is so, but they could all be explained through the phenomenon of negativity bias. According to the Macmillan Dictionary, negativity bias is “the tendency of human beings not only to register negative stimuli more readily but also to dwell on these events”. As a psychological phenomenon, it has been established that people tend to focus on the negative either consciously or subconsciously (Corns 2018). However, there is research that suggests that negativity bias is rooted in human biology. For example, there is a study that provides evidence that negativity bias is present as early as during infancy (Hamlin et al. 2010), and another study that more explicitly links negativity bias to instinctive, biological responses to fear and danger (Carretié et al. 2009). What this suggests is that humans evolved to be more sensitive to negative stimuli, which makes more sense for the survival of a species to do that rather than focus on the positive stimuli. After all, a being that experiences positive stimuli stronger than the negative might lack the incentive to feed and propagate itself, which may lead to poorer rates of survival and, eventually, to extinction, granted one takes the evolutionary psychological view of the matter.

What this paper deals with, on the other hand, is the social rather than the biological aspect of negativity bias. When it comes to the relation between the media and negativity, there is evidence that sensationalist news, which are almost always negative, catch readers’ attention better than the positive or less negative news. In one *Guardian* article, Steven Pinker points out that airplane crashes and tornadoes and are seen as more dangerous by people who read such news than less sensationalist, but more frequent negative news about car crashes and asthma attacks.<sup>5</sup> Moreover, there is evidence that suggests that focusing on negative news is crucial for the journalism as a business. In 2014, the Russian news site *Rostov-on-Don* published only good news for a whole day, which resulted in their losing two thirds of its audience.<sup>6</sup> These are the economic reasons why negativity bias is so prevalent in the media.

There are also political motivations for focusing on the negative. An infamous example of political manipulation of big data to influence voter turnout is the Facebook/Meta and Cambridge Analytica scandal. Donald Trump’s presidential campaign and the Leave

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<sup>5</sup> <https://www.theguardian.com/commentisfree/2018/feb/17/steven-pinker-media-negative-news>

<sup>6</sup> <https://www.bbc.com/news/blogs-news-from-elsewhere-30318261>

referendum or *Brexit* were involved in manipulating the people on the social media to vote for Trump and to leave the EU respectively.<sup>7</sup> It was found that social media posts were forged individually by the Cambridge Analytica firm, which “could target people high in neuroticism, for example, with images of immigrants ‘swamping’ the country. The key is finding emotional triggers for each individual voter”.<sup>8</sup> In other words, those campaigns relied on social media to produce online content that would trigger negativity bias in the target audience, which influenced their voting decisions. The thesis that negativity bias is politically expedient is further supported by the research of Knobloch-Westerwick et al. (2015: 108), who found that “selective exposure is greater for political messages that critique the message recipients’ country in comparison with another country over messages that praise it. They confirmed the hypothesis because the participants of the study opted for negative messaging which criticized their country as opposed to positive messaging. Similar study conducted in 2020 also confirmed the hypothesis that negative messages have a greater impact than the positive messages by studying 140,358 Twitter posts from both left and right-wing news sources (Bellovary et al. 2020). All this suggests that negativity bias is not only used to further political agendas, but that it is significantly more effective in doing so.

As for the linguistic aspect of negativity bias, the latest study by Nera Kovač presents examples of words that evoke negative feelings, such as anger and sadness. She used articles from the BBC and The Guardian and listed words such as “pleads”, “onslaught”, “forces”, “fighting”, “weaponising” (which is a neologism), as well as words such as “loneliness”, “hunger”, “rape”, “murder” “dead”, “shooting”, “war”, “genocide”, “battle”, “gun control”, “killing” (2022: 5). In terms of the theoretical framework of this paper, the words are part of the category of specific lexical choice, which in this case is selected by the news sources to create a negative response and attract the readers’ attention.

Negativity bias is to some extent based in human biology, but its effects are exacerbated through various forms of social manipulation for either economic or political advantage. In language, it is expressed through specific lexical choices, with words such as “dead”, “kill”, “war” and “battle” etc., especially in the journalistic discourse. That is why this paper focuses on the linguistic aspect of negativity bias in its analysis of news sources.

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<sup>7</sup> <https://www.theguardian.com/technology/2022/may/23/mark-zuckerberg-sued-dc-attorney-general-cambridge-analytica-data-scandal>

<sup>8</sup> <https://www.theguardian.com/technology/2017/may/07/the-great-british-brexit-robbery-hijacked-democracy>

## 2.4. News and newspaper discourse

### 2.4.1. News

News is “information about recent events that are of interest to a sufficiently large group, or that may affect the lives of a sufficiently large group” (Reah 2002: 4). They are always transmitted through a medium since they are almost universally information presented through a human semiotic system, namely language, and so can be delivered through talk and text. Delivering news through talk is possible on an individual or a small group level, when for example, people talk to each other directly in person or they use a medium, such as telephone lines, whether land or mobile. Relaying news through speech on a mass level was historically done through newsreels, albeit with motion-picture input, and today can be done through radio, television and the internet. Text variants are further transmitted through various media; on the individual level, this is done through text messages, e-mails and social networks; and on the mass level, this is done through newspapers and the internet. The specific interest of this paper are online news sources, which are, in effect, internet versions of newspapers. This brings into view the nature of newspapers and, for the purpose of this paper, the need to understand what they are.

### 2.4.2. Newspapers

Newspapers are a form of publication which present their readers with news, opinions, features, advertisements and other texts, and it is “usually distributed on a daily or weekly basis” (Rapeepat So-In, 2002: 17). They are a form of mass communication since they possesses the necessary qualities to label them as such. These qualities are, according to Bell, that a mass medium has multiple originators, a mass simultaneous audience, a fragmented audience, absence of feedback, and general accessibility to the public (1991: 2). The content of newspapers are reports on recent events, however, the matter of quantity and quality of content is decisive in drawing distinctions among newspapers. When it comes to quantity, newspapers are faced with spatial limitation concerning the amount of relevant content they contain. A daily publication, for example, can only report on a relatively small number of relevant stories since it is impossible to report on all the events that transpire over a timespan of twenty-four hours. On the other hand, when it comes to quality, newspaper editors select

specific content to be published, therefore they choose whether to include or omit pieces of information, and if they do so, “the reader will probably not be aware that the omitted item of information exists” (Reah 2002: 4).

This raises obvious questions regarding manipulation of a society in this way. Additionally, the production of newspapers in the framework of capitalism, as well as most production, is oriented towards profit, and therefore the market of consumers. A successful product appeals to its market, and in the same vein newspapers relate to their respective audience. In other words, newspapers are “a product- a product that must be made attractive or appealing to a market of consumers” (Richardson 2007: 77), which is done through selection of content. The type of content determines the type of newspapers.

There are two basic types of newspapers, *popular* and *quality* newspapers. Popular newspapers report on stories which are of interest to many people and in a language understood by the general population. They present *soft news*, which includes topics such as crime, accidents, disasters and entertainment. Negative news particularly piques the interest of many people since people usually focus more on negative news than they do on positive ones (Lovell 1980: 17). To catch the attention of the potential readers, soft news incorporates sensational lexical choice as common as “scandal”, “disaster”, “unexpected” together with graphic signifiers such as bright colours of red, yellow and orange. These are intentional choices made in the production of popular newspapers to raise their perceptibility to foster greater sales record than that of quality newspapers (Natta 2002). The term for this sensationalist language and lexical choice invoking feelings of shock, fear and outrage is *tabloidization*. Not only does tabloidization enable newspapers to capture the attention of the readers, present a certain view of the world depending on the category the stories fall under, but also detract from social and political matters, which are arguably more important (Fogec 2014).

As opposed to popular newspapers, which report soft news, quality newspapers report *hard news*. Hard news means reports from the areas of politics, economics, society, the environment etc. The language of hard news is more indirect and informative than the language of soft news, as well as being significantly more complex and requiring sufficient background knowledge from the reader in order to understand them fully.

The journalistic discourse has “some very specific textual characteristics, some very specific methods of text production and consumption, and is defined by a particular set of relationships between itself and other agencies of symbolic and material power” (Richardson

2007: 1). In other words, these three characteristics of journalistic discourse refer to its production, consumption, and relation of journalism to the society in terms of influence to ideas and institutions.

### 2.4.3. The goal of newspaper reports

Since newspapers contain more types of information other than news, such as opinion editorials, entertainment articles and advertisement, there is obviously more than one goal which newspapers aim to reach. The goals of newspaper reports are to inform the audience, to give an opinion, to entertain, and to advertise (Dunanprakhon 2012: 12). Newspapers may also present public and political events or a world “in which the boundaries between public and private events have become blurred”, which is typical for tabloids. (Kress and van Leeuwen 1998: 210). On the other hand, some newspapers focus more on fulfilling certain goals more than the other, which depends on the type of the newspapers. For example, popular and tabloid newspapers focus more on advertising with more pages devoted to adverts (Reah 2002: 3).

### 2.4.4. Online news sources

Online news are published on many different platforms: digital versions of print newspapers, news aggregators, social media networks and blogs. With the widespread availability of the connection to the internet, online news are “the biggest source of information today, while printed newspapers have seen a significant drop in readership in the past decade” (Newman et al. 2017). One of the reasons for this is the competitive dynamics of the journalist practice. Traditional newspapers mainly developed online versions as a reaction to numerous new digital competitors (Boczkowski, 2004). Another reason is the fact that online news sources changed news consumption because they feature more interactivity through incorporating videos and comment sections and increased sharing capabilities. Online news sources are much more immediate, up-to-date and journalists constantly update them. One other key finding is that “people are only willing to spend a limited time for consuming news” and that “it is critical for news sites to have effective strategies to catch people’s attention and attract their clicks” (Reis et al. 2015: 357). This, together with people’s increased focus on individual articles rather than entire newspapers redefined, journalistic practices (Choi and Kim 2017). This redefinition came to mean that, as stated, online news sources sometimes focus

less on values of inquiry, independence and verification, and focus more on eye-catching and shareable content. This has resulted in online news sources being more profitable than print versions (Blom and Hansen 2015). In this way they become more akin to tabloids, i.e. a sort of tabloidization has taken place.

#### 2.4.5. Headlines

They are the first element of the news article which the reader sees. Headlines are placed right above the news article or otherwise on the front page of a newspaper, and feature a larger font than the rest of the text. Nonetheless, words used in the headlines need to be short for preserving space on the newspaper page, yet still need to be effective to grab attention. More specifically, headlines are “a unique type of text that consists of a range of functions that specifically dictate its shape, content, and structure, and it operates within a range of restrictions that limit the freedom of the writer” (Reah 2002: 13).

Headlines have two main functions. The first is to summarize the article to which it refers, however this is not always the case because tabloids tend to summarize a single point rather than abstract the whole news story. In the terms of the news story, headlines also introduce the events and the actors of the story. The second is to capture the attention of the reader. However, in addition to summarizing the content of the article and grabbing attention of potential readers, headlines indicate style and values of the newspaper or news agency, which is important for the appeal to their audience, i.e. they communicate a specific worldview that the newspaper holds (Conboy 2007). Another function of the newspaper headlines is to tell the importance of news, i.e. allow readers to choose what piece of news is important to them. (Thanomsak 1999: 13)

One important fact about headlines is that they “work in conjunction with the other visual aspects of the newspaper text, particularly the pictures” in order to grab attention of readers (Reah 2002: 23). To catch the readers’ attention headlines feature a specific language which creates impact upon the readers. Headlines create this necessary impact through the use of “puns, alliteration, the choice of emotive vocabulary and other rhetorical devices” (Develotte and Rechniewski 2001). Puns, rather than normal statements, appear more “fun” and exciting, they stand out more and have a sense of “personality”; alliteration facilitates memorability, and emotive vocabulary is more relatable and engaging to an average reader.

The specific language of headlines is crucial because “the language of the news reinforces the ways things are” (Conboy 2007: 26). In other words, the language used in headlines is very significant because some readers never read more than the headlines of news articles, which means that in such cases the language of headlines is all that is necessary to inform readers with insufficient understanding of the news story, i.e. give a biased representation of news stories (Fairclough 1992). Notwithstanding, headlines may not be understood by readers without sufficient cultural knowledge or knowledge of the events which precede the news story, i.e. without the knowledge of the reality that the newspapers assume their readers already know, e.g. “Canada’s special adviser [sic] on LGBTQ2 issues urges people to communicate with senators on Bill C-16”<sup>9</sup>. People who are not familiar with the content of the Bill C-16 may not be aware of its importance or the controversy it sparked during 2016.

A typology of headlines can be made according to content and form. Content of headlines most commonly are topics pertaining to politics, economics, celebrity, and various types of events, such as crime and disaster. Headlines assume various forms such as plain headlines or statements, reported speech, headlines with a pointer and questions. Plain headlines are statements such as “New government regulation causing outrage among the general public”; reported speech is acquired in the form of quotations which somebody has uttered, headlines with pointer look like “Scandal: corruption in the government”, where the pointer is the first word followed by a colon which “points” to the rest of the headline; and questions such as “Woman gives birth to a goat?”

Another key type of headlines for this paper are the online headlines and their properties. Daria Lombardi notes three most important facts about online news headlines: “[...] online headlines are able to reach a broader audience than the articles themselves”, “[...] the words used in the headlines alone contribute to creating particular ideological representations of the events, regardless of whether the article is read further”, and “headlines do refer to the content of the article, but can be considered as a separate unit, especially in the online environment where all we see is those few words of the headlines, whether it is on social media networks or on Google Search results” (Lombardi 2018: 11).

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<sup>9</sup> <https://globalnews.ca/news/3403700/canadas-special-adviser-on-lgbtq2-issues-urges-people-to-communicate-with-senators-on-bill-c-16/>, accessed 1.9.2022.

## 2.5. Cohesion, Coherence, Congruence

### 2.5.1. Cohesion

The concepts of *coherence* and *cohesion* are the key elements of the headline analysis because they allow for a precise determination of the degree of *congruence* between the headline and text body. The following paragraphs deal with cohesion, coherence and congruence, respectively.

A more contemporary definition of cohesion says that it “is the connection that results when the interpretation of a textual element is dependent on another element in the text. [...] Cohesion refers to the connection that exists between elements in the text” (Renkema, 2004: 49). This is a very broad general definition, so for the purposes of this research, a more specific definition is necessary. This is provided by Halliday and Hasan’s 1976 work on the topic: “Cohesion is defined as the set of linguistic means we have available for creating texture i.e., the property of a text of being an interpretable whole (rather than unconnected sentences)” (Halliday and Hasan, 1976: 2). In other words, it occurs “where the interpretation of some element in the text is dependent on that of another. The one presupposes the other, in the sense that it cannot be effectively decoded except by recourse to it” (ibid). Halliday and Hasan refer to this intertextual link as “the presupposing” and “the presupposed” (ibid). The concept of cohesion in text is related to semantic ties or “relations of meanings that exist within the text, and that define it as a text” (ibid). Cohesion also refers to the “non-structural text-forming relations” (Halliday and Hasan, 1976: 7).

As for the typology of cohesion, Bussman (1998: 199) lists three ways of producing cohesion: “(a) the repetition of elements of the text, e.g. recurrence, textphoric, paraphrase, parallelism; (b) the compacting of text through the use of devices such as ellipsis; (c) the use of morphological and syntactic devices to express different kinds of relationships such as connection, tense, aspect, deixis, or theme-rheme relationships”.

However, there are five types of textual cohesion according to Halliday and Hasan: *reference, substitution, ellipsis, conjunction, lexical cohesion*.

Reference refers to anaphoric and cataphoric elements. “Anaphoric refers to any reference that “points backwards” to previously mentioned information in text, when the information needed for the interpretation is in the preceding portion of the text. Cataphoric



refers to any reference that “points forward” to information that will be presented later in the text, when the information needed for the interpretation is to be found in the part of the text that follows. For cohesion purposes, anaphoric referencing is the most relevant as it “provides a link with a preceding portion of the text” (Halliday and Hasan 1976: 51). Furthermore, they detail a further subdivision of reference into three types: personal, demonstrative and comparative. Personal reference is expressed through noun pronouns such as “he, him, she, her”, etc. and possessive determiners such as “mine, yours, his, hers” etc. Demonstrative reference relies on proximity references such as “this, these, that, those, here, there, then”, etc. Comparative reference is somewhat different because it uses indirect references through adjectives like “same, equal, similar, different, else, better, more”, etc. and adverbs like “so, such, similarly, otherwise, so, more”, etc. (ibid: 37–39.)

On substitution they say that “substitution is a grammatical relation [...] the substitute may function as a noun, as a verb, or as a clause” (ibid, 90). As with reference, there are three subdivisions of substitution: nominal, verbal and clausal. “In nominal substitution, the most typical substitution words are “one and ones” and they substitute nouns. In verbal substitution, the most common substitute is the verb “do” and is sometimes used in conjunction with “so” as in “do so” and substitute verbs. In clausal substitution, an entire clause is substituted and though it may seem to be similar to either nominal or verbal substitution, the difference is the presupposed anaphoric reference” (ibid). Some examples of substitution: “Is there going to be an earthquake? - It says so”; or “Has everyone gone home? - I hope not” (Hameed 2008: 89).

Evaluative review of Halliday’s and Hasan’s categories of reference and substitution is as follows: “the function they perform is basically the same – to refer repeatedly to the same entity, action or state in the discourse, thus keeping them available in the active memory of the participants in the interaction – and the boundaries between these categories are considered to be rather fuzzy” (Dontcheva-Navratilova et al. 2017: 11).

Ellipsis is really a kind of substitution, but the items are substituted by the “zero item”, or as Halliday and Hasan put it, ellipsis differs from substitution in that it is “substitution by zero” (1976: 142). It is an anaphoric element of cohesion that refers to the presupposed item through its structural connection. That means it operates “through nominal, verbal and clausal levels (Hameed, 2008: 89). Some examples: “Which last longer, the curved rods or the straight rods? - The straight Ø are less likely to break”; “What have you been doing? - Swimming” (ibid).

Conjunction is distinguished from the previous elements because conjunctions “are cohesive not in themselves but indirectly, by virtue of their specific meanings; they are not primary devices for reaching out into the preceding (or following) text, but they express certain meanings which presuppose the presence of other components in the discourse” (Halliday and Hasan, 1976: 226).

There are four kinds of conjunctions: additive, adversative, causal and temporal. Additive conjunction either coordinates elements of a sentence or negates the presupposed items. Examples of the first case are “and, also, too” etc. and the examples of the second case are “nor, either, neither” etc. Adversative conjunctions express “contrary to expectation” (ibid: 250), examples being words such as “yet, though, only” etc. Causal conjunctions indicate “result, reason and purpose” with words such as “so, then, because” etc. The temporal conjunction refers to relations of time and sequences and is expressed by “then, next, after that” etc. (Hameed, 2008: 93)

Perhaps the most important cohesive device for this paper, lexical cohesion, is also held in high regard by Hameed (2008: 95), who writes: “Lexical cohesion is the central device for making texts hang together experientially, defining the aboutness of a text. The reason for this is precisely because it has nothing to do with the grammatical meaning of the previous elements, but because it has semantic meaning. It refers to the “cohesive effect achieved by the selection of vocabulary” (Halliday and Hasan, 1976: 274). There are two categories of lexical cohesion, reiteration and collocation. Reiteration simply refers to the repetition of a previous item directly or through a synonym, hypernym or a “generally related word” (Hameed, 2008: 95). Collocation occurs “when a pair of words are not necessarily dependent upon the same semantic relationship but rather they tend to occur within the same lexical environment” (Halliday and Hasan, 1976: 286). The closer lexical items are to each other between sentences, the stronger the cohesive effect”. (Hameed, 2008: 95). Example, “a boy” may be replaced by “the boy” or “the lad”, “the child”, “the idiot”; in the first case it is the same word, in the second a synonym, a hypernym in the third and a general word in the last one (Halliday and Hasan, 1976: 279–80).

## 2.5.2. Coherence

The definition of coherence is somewhat controversial because there are several competing conceptions of the term. What follows is a short historical review of some of the definitions of coherence. One of the earliest definitions is that of Widdowson and Stubbs, writing in 1978 and 1983 respectively, who say that coherence is “the link between the communicative acts that sentences are used to perform” (in Dontcheva-Navratilova et al. 2017: 1). This link is not based in structural elements of a text, but it consists in the correspondence between the said communicative acts, meaning that the listeners or readers infer the coherence of the text on their own using their knowledge of the world. In other words, this definition of coherence strictly separates it from cohesion, whereas Halliday and Hasan take the opposite approach and define coherence as “the function of variation in the cohesive harmony of a text” (1989: 94), i.e. higher degree of cohesion corresponds to a higher degree of coherence and conversely. Moving onto the 21<sup>st</sup> century, Mey writes that “cohesion establishes local relations between syntactic items (reference, concord and the like), whereas coherence has to do with the global meaning involved in what we want to express through our speech activity” (2001: 154). Finally, the most modern conception of coherence says that it is “the interpretative perception of the semantic unity and purposefulness of a text” (Dontcheva-Navratilova et al. 2017: 1).

What complicates the discussion of coherence further is the fact that most researchers agree that coherence is “influenced and signalled by the cohesive relations holding in the text, i.e. relations between lexical items and grammatical structures which overtly connect clauses and/or clause complexes”, however, “there is considerable variation in views on the interdependence of cohesion and coherence” (ibid). Brown and Yule noted that (1983: 66): “human beings do not require formal textual markers before they are prepared to interpret a text. They naturally assume coherence, and interpret the text in the light of that assumption”. Bublitz (1988:32) holds the view that “cohesion is neither a necessary nor a sufficient condition for coherence”, which is similar to Seidlhofer and Widdowson (1999: 207) who write that one “might derive a coherent discourse from a text with no cohesion in it at all. Equally, of course, textual cohesion provides no guarantee of discourse coherence”. The latter views are in line with Stubbs’ and Widdowson’s take on the matter. As Dontcheva-Navratilova put it, in agreement with the previous authors: “a text, either written or spoken, can be perceived as

coherent without cohesive means, and, moreover, a text can comprise cohesive means without being understood as coherent” (2017: 2).

Towards the end of the past century, the conceptualization of coherence has shifted from a “static text-based descriptive approach” to “a more dynamic understanding, which views coherence as a potentially variable co-operative achievement of the speaker/writer and the hearer/reader”, which is now the most commonly accepted view among linguists (ibid). This paper therefore takes the contemporary view that coherence is not necessarily inherent in the text itself and that interpreting a text as coherent is much more subjective than observing markers of textual cohesion, which are objective.

### 2.5.3. Congruence

The fact that coherence is ultimately subjective poses a methodological problem for attaining scientific standards of objectivity and impartiality when researching the quality of a newspaper headline, i.e. the degree of correspondence between content that is summarized in the headline and the content in the text body. If a text may be subjectively deemed coherent and incoherent depending on the reader, there is no way to ascertain objective features that make a text coherent. To solve this problem, this paper presents the concept of *congruence*, which is defined as the semantic correspondence between parts of a text in terms of accuracy and sufficiency. This correspondence is expressed in degrees, ranging from total incongruence, where there is no meaningful correspondence between, for example, a headline and its text; and complete congruence, where the headline fully corresponds to the text because it accurately summarizes it. In other words, the headline is congruent with the article if it sufficiently and accurately summarizes the whole article or its main point. It is not congruent if it focuses on a single point or is in a contradiction with the rest of the text or if a portion of the article has no cohesive relationship to the headline. More specifically, congruence is expressed in ratios and percentages, e.g. a headline may be 33% congruent with its text, which is a low degree of congruence, as opposed to a headline with 89% congruent with the text, which makes it a high degree of congruence, the suggested benchmark for acceptable congruence being 50%.

To determine congruence, this paper uses a combination of cohesion analysis, especially of lexical cohesive elements, as well as utilizing coherence analysis in cases where there is little or no lexical cohesion, but the semantic content corresponds between the headline and part of

a text without any reasonable doubt. For example, the headline “Hong Kong steps up response to China pneumonia outbreak” is fully congruent with the sentence “Additional thermal imaging systems were put in place on Friday at Hong Kong's international airport to check the body temperature of travellers arriving from Wuhan”. Coherence is obvious here, but there is no exact cohesion between the two except the repetition of Hong Kong, and perhaps the collocation of Wuhan, China. What makes it fully congruent is the fact that “additional thermal imaging systems were put in place [...] to check the body temperatures of travellers [...]”, can only be explained as parts of the response to the illness. This interpretation is derived from the knowledge of the world, i.e. epidemics are normally dealt with such measures as a response.

Furthermore, to assess the congruence between the headline and the text, the relevant objects of analysis are individual subdivisions of the text, which are sentences or paragraphs. The analysis follows the already existent division within the actual news articles; there are articles that are divided into sentences, into paragraphs and a combination of both. The headline is then compared against each individual subdivision of the text. The analysis derives the percentage of congruence based on the ratio between the number of paragraphs/sentences that are cohesive/coherent with the headline and the total number of the paragraphs or sentences. For example, in an article with 9 subdivisions, if 3 paragraphs/sentences are cohesive/coherent with the headline, that means that the percentage of congruence with the headline is 33%, which translates to the low degree of congruence, i.e. low quality of the headline with regards to the actual content. It is noteworthy to point out that recent studies have used various forms of AI and machine learning to detect incongruence, i.e. the analysis is automated and based on large corpora<sup>10</sup>, whereas this analysis uses a manually compiled small-scale corpus.

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<sup>10</sup> See: <https://arxiv.org/abs/1811.07066>, <https://arxiv.org/abs/2010.03617>, [https://www.researchgate.net/publication/349601090\\_Learning\\_to\\_Detect\\_Incongruence\\_in\\_News\\_Headline\\_and\\_Body\\_Text\\_via\\_a\\_Graph\\_Neural\\_Network](https://www.researchgate.net/publication/349601090_Learning_to_Detect_Incongruence_in_News_Headline_and_Body_Text_via_a_Graph_Neural_Network) (accessed 20.9.2022)

### 3. Methodology

#### 3.1. On the corpus

The analysis is based on 100 articles from the Daily Mail and The Guardian, so that there are 50 articles from each news source. These sources are chosen in order to represent two contrasting ideologies, i.e. the left-wing social liberal and the right-wing conservative liberal ideology, in which The Guardian and the Daily Mail partake respectively. Each article is from the period of January 2020, when the earliest reports of the SARS-CoV-2 outbreak are found in those sources. This is the period before the pandemic was declared<sup>11</sup>, i.e. the beginning stages of the pandemic during which world's medical experts had yet to identify and name COVID-19, as well as the virus which causes the illness. In this period, major events such as early observations on the nature, origin, spread and lethality of the virus occurred; the virus spread beyond the Chinese borders and first cases were confirmed in Australia, North America and Europe, including the United Kingdom. This is why the period was selected since it contains the earliest reports on the first days of the pandemic, which should lay relevant groundwork for potential future research into the subject matter.

The selection of the articles was made so that each article from a news source has a counterpart in the other. The collecting of the articles took place from June to July 2021. The articles were searched using distinct, yet appropriate methods for each of the two news sources. Articles from The Guardian were accessed through the “Coronavirus” section on the website's homepage. The articles for the Daily Mail were found using the website's search function located on its homepage. The keyword for the search was “virus” and the sorting of the articles was set to oldest first.

The selection of the articles followed a chronological order and special care was made to find two articles from both sources that report on the same event or news story. This means that if one news source covers one event, but the other does not, then that article is not admitted into the dataset. E.g. the order of adding articles to the dataset begins with The Guardian articles, specifically the first article by The Guardian. Then, an article from the Daily Mail which reports on the same event as The Guardian is searched for. If it is not found, then the next article by

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<sup>11</sup> <https://www.who.int/director-general/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020>

The Guardian which directly chronologically follows the first article is selected. This allows for a controlled comparison and contrast of both news sources.

The articles exhibit cases of having a separate story that, although coherent with the rest of the text, is not congruent due to a lack of any type of cohesion between the headline and the individual paragraph. This is often because the articles contain paragraphs that refer to older news stories. Those paragraphs retell and summarize previous news articles that report on the similar events and for that reason are not congruent with the headline, despite being coherent. Sometimes, there is a piece of old news present in the very headlines side-by-side with actual news, though this holds true only for the Daily Mail articles. Moreover, there are two Daily Mail articles that are really a combination of several articles into one because of their extreme length, which reaches more than two hundred subdivisions of paragraphs or sentences in one of them.

### 3.2. On the method

The research analyses headline typology, in terms of types common in journalistic texts and according to the distinction of formality and sensationalism; it analyses the way in which the virus and illness are named or represented in the headlines; and the degree of headline congruence. All analyses combine quantitative and qualitative aspects in order to derive more sound results. Finally, the results of analyses of both sets of news articles are compared and contrasted with one another.

The analysis of headline typology assigns the following descriptors to the headlines: statement-like, pointer, question, reported speech and a combination of either. This reveals the mode in which the respective news sources opted to represent the news story and shows trends which may be related to ideology or journalistic quality of the paper. Furthermore, headlines are either formal, informal or sensationalist and sensationalist headlines are categorized into graphic, emotional and hyperbolic types of sensationalist discourse as well as into the category of sensationalist framing. Graphic sensationalism is achieved through graphic means such as changing the character font or writing in all capital letters, e.g. “DIES”. Emotional sensationalism is derived from the usage of emotional words such as “panic”, “anger”, “fear” etc. Hyperbolic sensationalism is the usage of hyperbole to draw attention with phrases such as “dire warning” or “sweeps the country”, whereas the actual text presents much more moderate

information. Sensationalist framing occurs when the information in the headline is framed in a biased, non-neutral manner, especially if it is something that can be morally condemned: “woman bragged on social media about cheating airport coronavirus screenings” as opposed to a more neutral account of “Chinese tourist says she evaded coronavirus checks”. The instances of the types are then counted for the quantitative aspect of the analysis and comparison.

The analysis of naming and representation of the virus and illness is done by isolating the noun phrases that refer to either entities and categorising them according to how they are named and how they are modified. For example, the virus may be named “virus”, “coronavirus”, “coronavirus strain” and modified with words such as “SARS-like”, “China” “deadly”, “killer” etc. These qualitative observations are divided into categories that are based on what is written within the texts themselves rather than applying an external frame of reference. For example, the categories found for the naming of the virus and illness are “virus”, “coronavirus”, “illness”, “disease”, “pneumonia”, “flu”, “infection”, “coronavirus infection”, “outbreak” and “viral outbreak”. The modifiers that are used in the texts for the virus or the illness are “China”, “mystery”, “SARS”, “new”, “killer”, and “deadly”. The quantitative aspect of this analysis amounts to counting the number of times each of the words is present in the headlines, which allows for a comparison of the two news sources.

Congruence analysis is about accuracy and sufficiency of the headlines. This is determined using qualitative and quantitative forms of analysis. First, each article is subdivided according to the already present division into sentences and paragraphs. Then, each sentence or paragraph is measured against the headline to detect cohesion or coherence when there is no obvious cohesion. At the same time, the accuracy of the headline is assessed to detect incongruence. Finally, the total number of paragraphs or sentences that are cohesive or coherent with the headline is divided by the total number of paragraphs to get the ratio and percentage of the congruence.

However, there is a phenomenon that complicates things. There are cases where a paragraph is cohesive only with a single part instead of the whole headline. For example, the paragraph, which is just a sentence in this case: “Hong Kong’s hospital authority said on Sunday that 15 patients were being treated for symptoms including fever and respiratory infection after recent visits to Wuhan” is cohesive with the headline: “Mystery illness in China city not Sars [sic], say authorities”. There is contextual synonymy between “China city” and “Wuhan”, i.e. a case of metonymy, because the less specific (China city) is more intriguing to the reader; and



between “mystery illness” and “symptoms including fever and respiratory infection”. Cohesion as well as coherence is apparent, but there is no reference to what the actual news is about – that the illness is not SARS, i.e. the paragraph is not fully congruent with the headline. To resolve this problem of varying congruence between a headline and an individual paragraph, a new concept is necessary – the distinction between the main semantic content and the secondary semantic content of the headline. The main semantic content is what makes the core meaning of the headline, e.g. that the disease is simply not SARS. It is what is newsworthy about the headline as opposed to the secondary content, which is either individual parts of the headline discussed in a different context or isolated from the context of the main content, e.g. that the same illness infected some people who went to Wuhan.

This distinction is determined using syntactic and pragmatic aspects of a news headline, while concerns for semantics are present in both aspects. The procedure of distinguishing the main semantic content from the secondary semantic content is based on two criteria: the first is the pragmatic aspect, which means that the main semantic content must include the newsworthy part of the headline, which is what makes the news story unique in light of the previous news. This excludes part of the headlines which repeat old news. To determine the latter, it is necessary to simply check older news for similar content and to remove it from consideration if it is repeated in the article that is analysed.

The second criterion, which is more complex, is syntactic and includes the removal of modifiers (adjectives, adverbs and corresponding phrases and clauses) with the exception of some articles, such as the negative article *no*, because omitting it would contradict the actual meaning (e.g. “WHO says no global emergency” cannot be reduced to “WHO says emergency”, instead it must be “WHO says no emergency”). Moreover, there are criteria for including or excluding clauses from compound and complex sentences. In compound sentences, both clauses may be admitted as part of the main semantic content of the headline as long as both independent clauses do not repeat old news, and in complex sentences, the subordinate clauses are omitted from the main semantic content. What remains in the main semantic content are nouns, verbs, numbers, some adverbs and prepositional phrases. Grammatical words such as conjunctions, interjections and determiners are omitted, except for prepositions which are a part of phrasal verbs and prepositional phrases.

Demonstration of the procedure is as follows: the headline “Man infected with mystery illness in China dies after outbreak” is transformed into “man dies from [unknown] illness”<sup>12</sup>. The “[unknown] illness” phrase is the newsworthy part of the title here because “man dies” is something which happens every day, but “[unknown] illness” adds the unique aspect to the recent event of a man’s death. This uniqueness makes it newsworthy especially given the context of a new and previously unknown disease. Conversely, in cases such as “US begins airport screenings as SARS-linked virus kills 2 in China”, the clause “as SARS-linked virus kills 2 in China” is part of the already reported news, i.e. old news, and is therefore omitted from the main semantic content. Further, in the case of “Man infected with mystery illness in China dies after outbreak”, the modifying phrase “infected with mystery illness in China” and adverbial phrase “after outbreak” are removed, except the “[unknown] illness” phrase.

Still further, in the case of a compound sentence “China locks down cities, but WHO says no global emergency”, both independent clauses form the main semantic content, which is represented as “China locks down cities” and “WHO says no emergency”. In case of a complex sentence such as “Mystery outbreak of pneumonia which has infected 59 people in China is still baffling scientists as officials rule out deadly SARS and bird flu”, the main semantic content is “Pneumonia is baffling scientists” and “officials rule out SARS and flu”, and the secondary content are all the subordinate clauses, modifiers and adverbials.

These points define the particular objects of the study, which enables their qualification and quantification. The distinction of the main and secondary content allows to precisely determine the level of cohesion and coherence, i.e. congruence of the text with the headline so that the greater the number of sentences that refer to the main semantic content, the greater the quality of the headline as summary of the text. Moreover, this allows for testing the quality of the newspapers’ editing and structure of articles, which should indicate the overall level of journalistic integrity and professionalism.

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<sup>12</sup> The main semantic content of the news headlines is transformed into neutral language: “mystery” → “unknown”, so as to avoid sensationalist or otherwise biased language.

## 4. Results

The expectation of the results is as follows: The Guardian should reflect progressive liberal values, be more formal and serious, less sensationalist, and the headlines should summarize the whole article rather than focus on a single point. The Daily Mail articles should indicate conservative liberal views, be more sensationalist, feature informal language and focus on single points.

Table 1.

Typology (according to structure)	The Guardian	Daily Mail
Statement-like	25	43
Pointer	18	4
Reported speech	3	2
Pointer/reported speech	2	1
Pointer/question	1	/
Statement-like/reported speech	/	1
Question	1	/

Table 2.

Typology (according to formality and sensationalism)	The Guardian	Daily Mail
Formal	40	23
Sensationalist	7	22
Informal	3	5

Table 3.

Typology of sensationalism	The Guardian	Daily Mail
Sensationalist <sup>13</sup>	5	10
Graphic	/	7
Emotional	2	1
Graphic/emotional	/	2
Hyperbolic	/	1
Framing	/	1

Table 4.

Naming of the virus/illness	The Guardian	Daily Mail
Coronavirus	41	20
Illness	3	/
Virus	3	24
Pneumonia	1	3
Infection	1	1
Outbreak	1	1
Coronavirus infection	/	1
Disease	/	1
Flu	/	1

Table 5.

Modifiers of the virus/illness	The Guardian	Daily Mail
China/Chinese	5	9
Mystery	5	5
SARS	3	4
New	1	5
Killer	/	7
Deadly	/	5

<sup>13</sup> Lexical choice, either negativity (deadly, killer), status of unknown (mystery, baffling), strong language (hunt for somebody) or references to the uncanny (ET, spaceman suits)

Table 6. Congruence scores

Article no.	The Guardian	Daily Mail	Article no.	The Guardian	Daily Mail
1.	54,55%	50,00%	26.	9,09%	18,18%
2.	20%	35,29%	27.	50,00%	40,00%
3.	40%	60,00%	28.	7,69%	33,33%
4.	16,67%	20,00%	29.	75,00%	45,45%
5.	15%	28,57%	30.	60,00%	9,00%
6.	36,36%	66,67%	31.	27,78%	22,22%
7.	33,33%	30,56%	32.	10,71%	8,33%
8.	47,10%	25,00%	33.	36,84%	21,67%
9.	10,53%	33,33%	34.	13,79%	16,67%
10.	11,43%	27,66%	35.	75,00%	46,15%
11.	21,05%	23,81%	36.	38,10%	55,00%
12.	33,33%	76,47%	37.	4,17%	37,04%
13.	64,29%	23,33%	38.	21,74%	21,05%
14.	57,14%	23,33%	39.	38,46%	53,85%
15.	50,00%	50,00%	40.	28,57%	31,82%
16.	15,79%	23,08%	41.	16,67%	31,82%
17.	13,04%	11,76%	42.	20,00%	66,67%
18.	11,11%	13,79%	43.	41,18%	13,33%
19.	30,43%	41,94%	44.	41,67%	30,00%
20.	87,50%	81,25%	45.	28,57%	35,00%
21.	76,92%	10,42%	46.	15,00%	50,00%
22.	25,00%	35,71%	47.	15,79%	28,57%
23.	36,00%	62,00%	48.	40,91%	23,68%
24.	100,00%	70,00%	49.	66,67%	35,00%
25.	37,50%	50,00%	50.	54,55%	33,33%

Table 7. Congruence average score

Publication	The Guardian	Daily Mail
Average score	35,64%	35,62%

Table 8. Secondary congruence scores

Article no.	The Guardian	Daily Mail	Article no.	The Guardian	Daily Mail
1.	27%	29%	26.	0%	0%
2.	10%	6%	27.	13%	0%
3.	30%	0%	28.	15%	0%
4.	17%	0%	29.	8%	0%
5.	5%	4%	30.	0%	1%
6.	0%	0%	31.	44%	0%
7.	14%	17%	32.	14%	25%
8.	6%	13%	33.	11%	15%
9.	0%	11%	34.	3%	25%
10.	0%	17%	35.	8%	15%
11.	0%	29%	36.	29%	20%
12.	4%	12%	37.	17%	0%
13.	0%	0%	38.	4%	0%
14.	0%	7%	39.	31%	0%
15.	27%	0%	40.	29%	0%
16.	11%	38%	41.	17%	14%
17.	13%	0%	42.	5%	0%
18.	7%	21%	43.	6%	3%
19.	43%	0%	44.	25%	15%
20.	0%	13%	45.	43%	5%
21.	8%	42%	46.	50%	16%
22.	10%	0%	47.	0%	0%
23.	0%	18%	48.	0%	3%
24.	0%	20%	49.	33%	5%
25.	44%	10%	50.	0%	25%

Table 9. Secondary congruence average score

Publication	The Guardian	Daily Mail
Average score	14%	10%

Table 10. Old news ratio

Article no.	The Guardian	Daily Mail	Article no.	The Guardian	Daily Mail
1.	9%	14%	26.	45%	55%
2.	60%	41%	27.	38%	53%
3.	30%	40%	28.	62%	33%
4.	58%	53%	29.	8%	55%
5.	40%	57%	30.	0%	1%
6.	55%	33%	31.	11%	6%
7.	33%	53%	32.	14%	42%
8.	35%	63%	33.	37%	35%
9.	58%	56%	34.	62%	58%
10.	29%	55%	35.	17%	15%
11.	47%	29%	36.	26%	15%
12.	25%	12%	37.	54%	41%
13.	36%	77%	38.	70%	68%
14.	43%	70%	39.	15%	23%
15.	19%	50%	40.	0%	50%
16.	53%	15%	41.	20%	14%
17.	74%	88%	42.	55%	33%
18.	41%	55%	43.	6%	17%
19.	17%	42%	44.	8%	20%
20.	13%	6%	45.	21%	10%
21.	15%	40%	46.	0%	19%
22.	15%	36%	47.	37%	50%
23.	24%	20%	48.	32%	74%
24.	0%	10%	49.	0%	10%
25.	6%	10%	50.	0%	42%

Table 11. Average old news ratio

Publication	The Guardian	Daily Mail
Average score	29%	37%

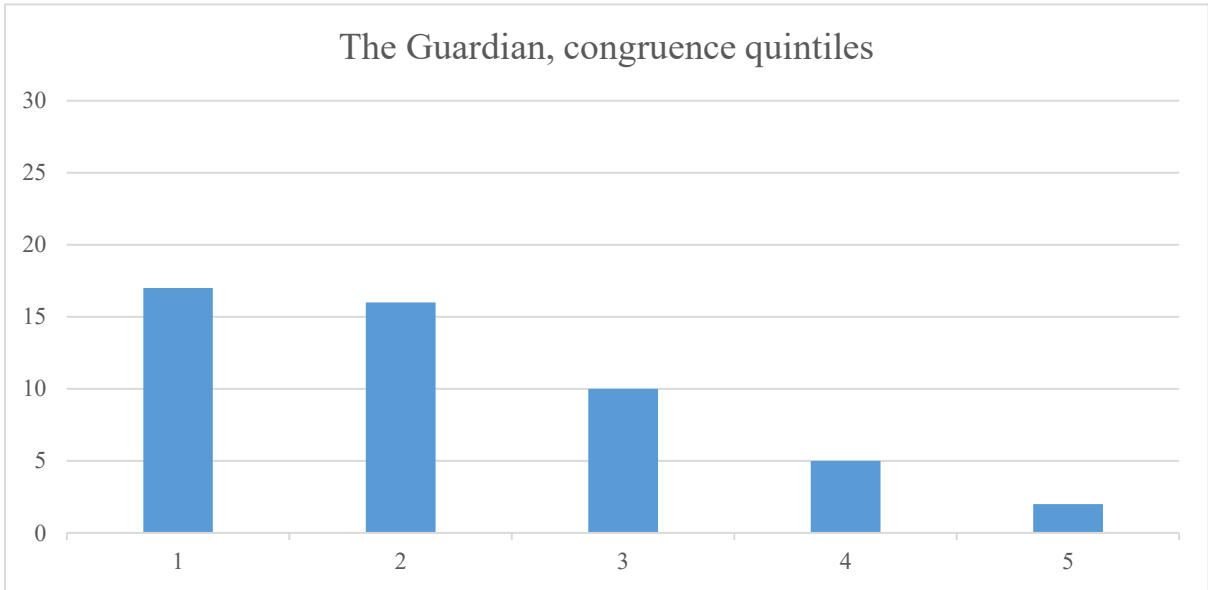


Chart 1. The y axis is the number of the articles, x axis is the quintiles 1=0-20%, 2=20-40%, 3=40-60%, 4=60-80%, 5=80-100%)

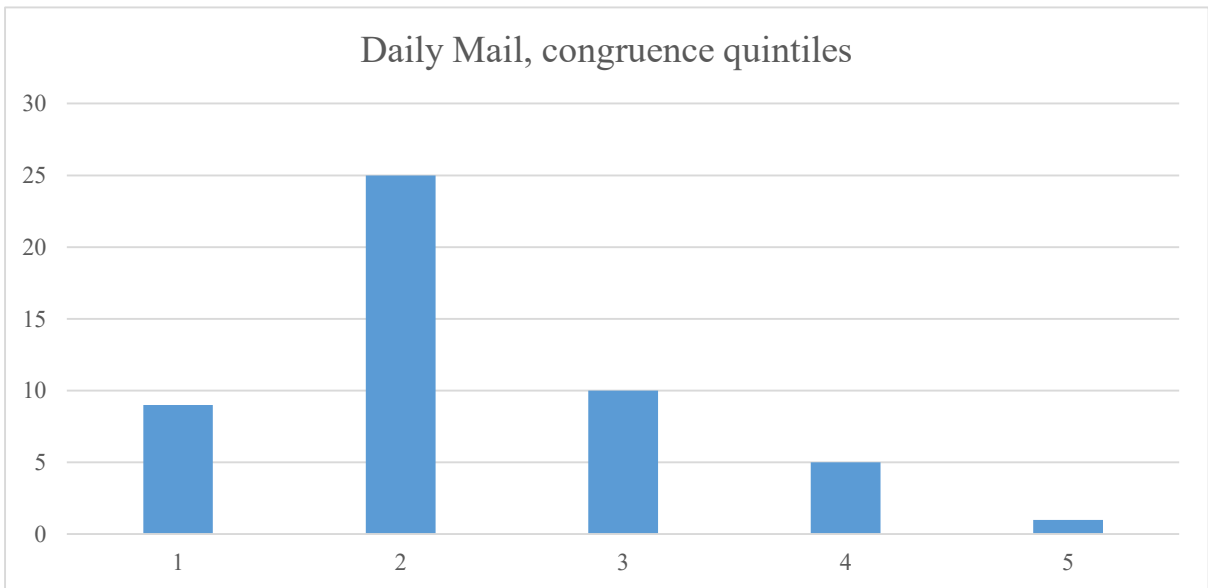


Chart 2. The y axis is the number of the articles, the x axis is the quintiles 1=0-20%, 2=20-40%, 3=40-60%, 4=60-80%, 5=80-100%)



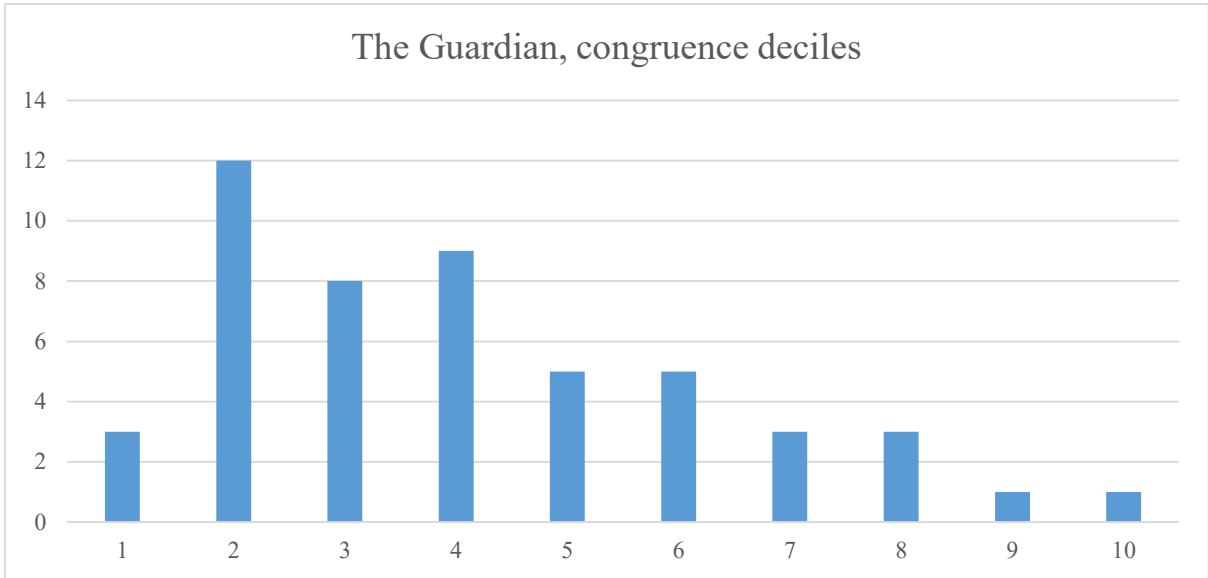


Chart 3. The y axis is the number of the articles, the x axis is the deciles 1=0-10%, 2=10-20% etc.

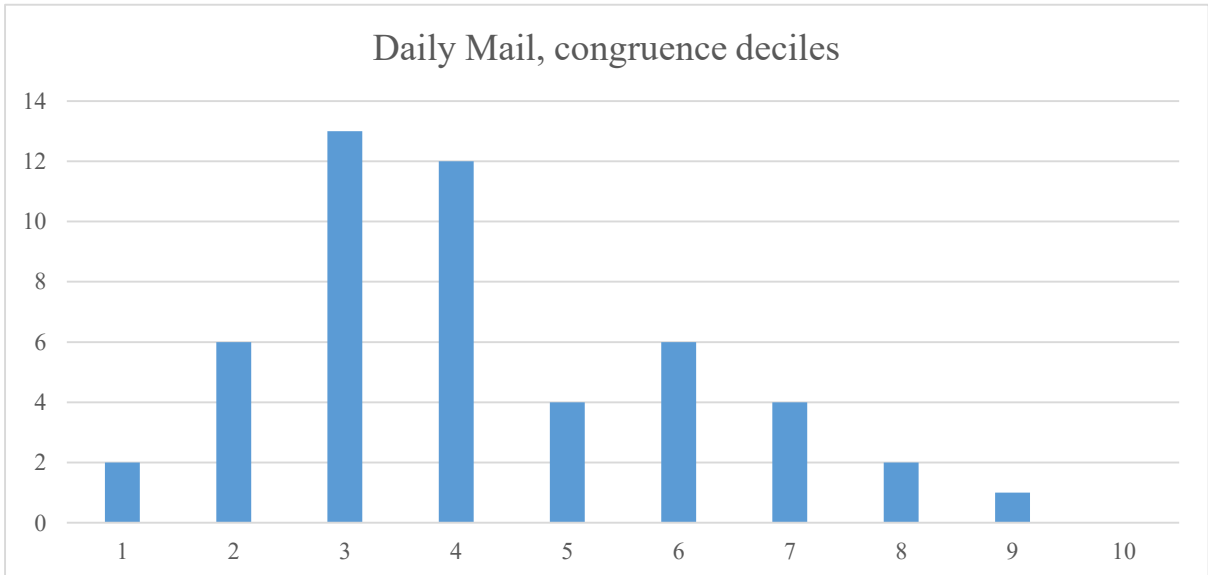


Chart 4. The y axis is the number of the articles, the x axis is the deciles 1=0-10%, 2=10-20% etc.

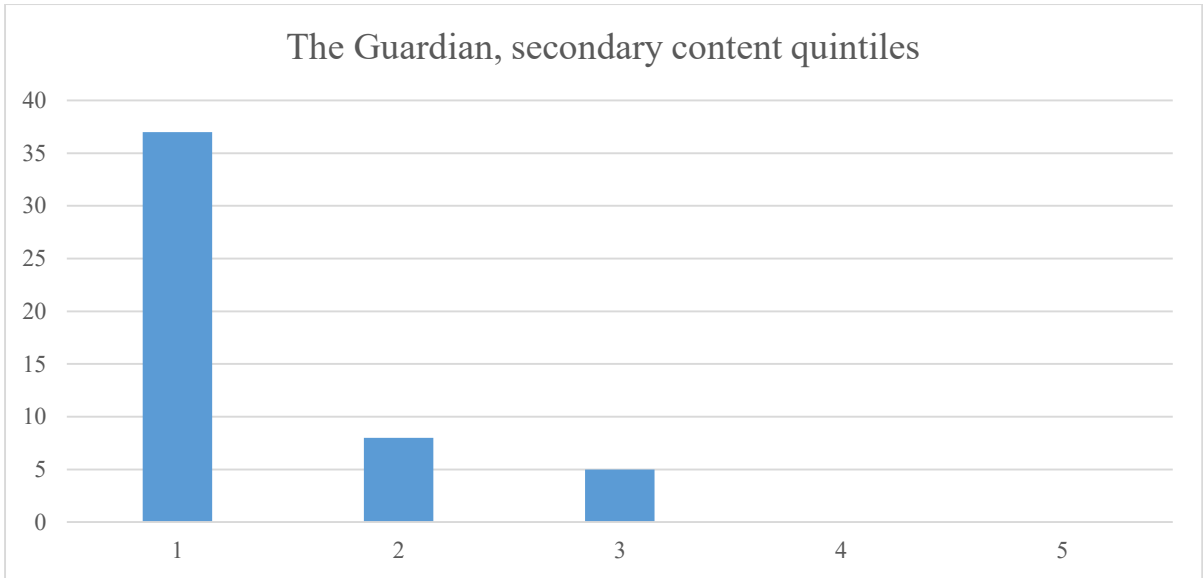


Chart 5. The y axis is the number of the articles, the x axis is the quintiles 1=0-20%, 2=20-40%, 3=40-60%, 4=60-80%, 5=80-100%)

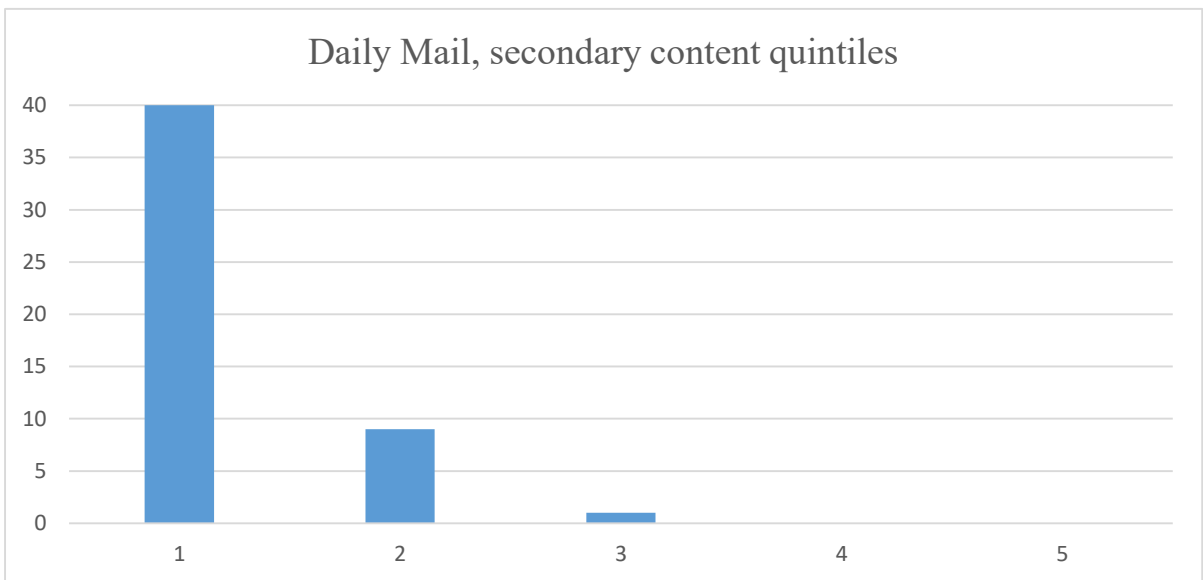


Chart 6. The y axis is the number of the articles, the x axis is the quintiles 1=0-20%, 2=20-40%, 3=40-60%, 4=60-80%, 5=80-100%)

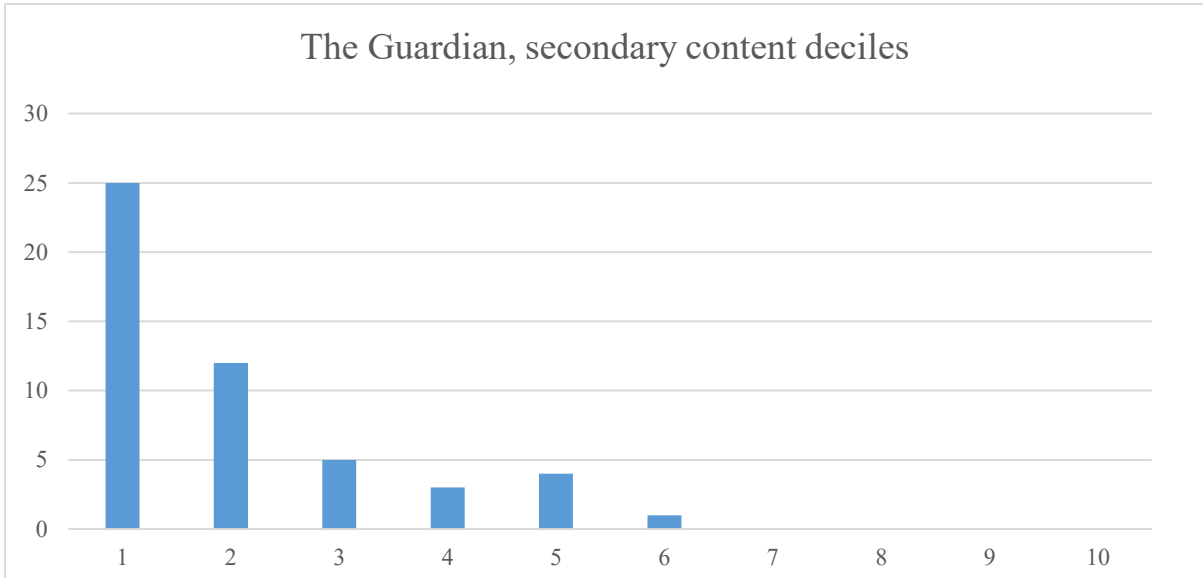


Chart 7. The y axis is the number of the articles, the x axis is the deciles 1=0-10%, 2=10-20% etc.

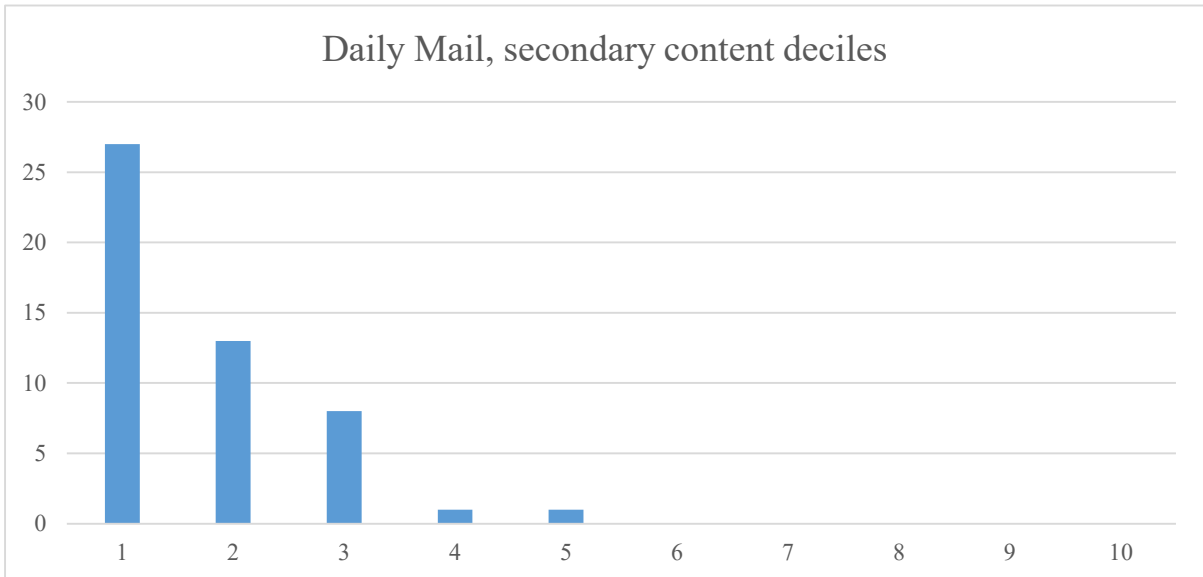


Chart 8. The y axis is the number of the articles, the x axis is the deciles 1=0-10%, 2=10-20% etc.

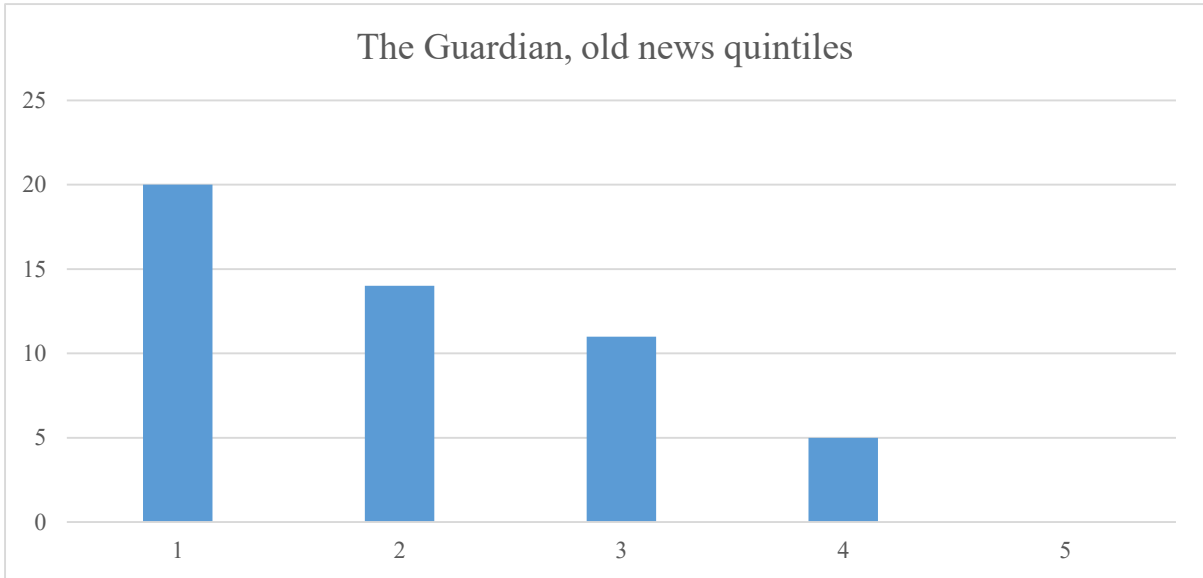


Chart 9. The y axis is the number of the articles, the x axis is the quintiles 1=0-20%, 2=20-40%, 3=40-60%, 4=60-80%, 5=80-100%)

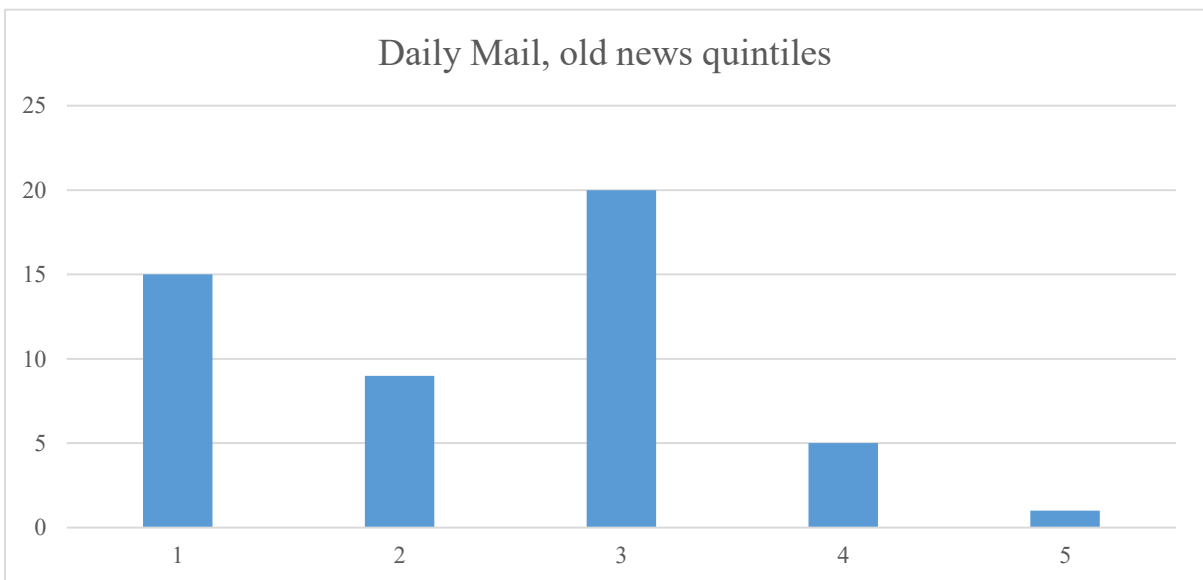


Chart 10. The y axis is the number of the articles, the x axis is the quintiles 1=0-20%, 2=20-40%, 3=40-60%, 4=60-80%, 5=80-100%)

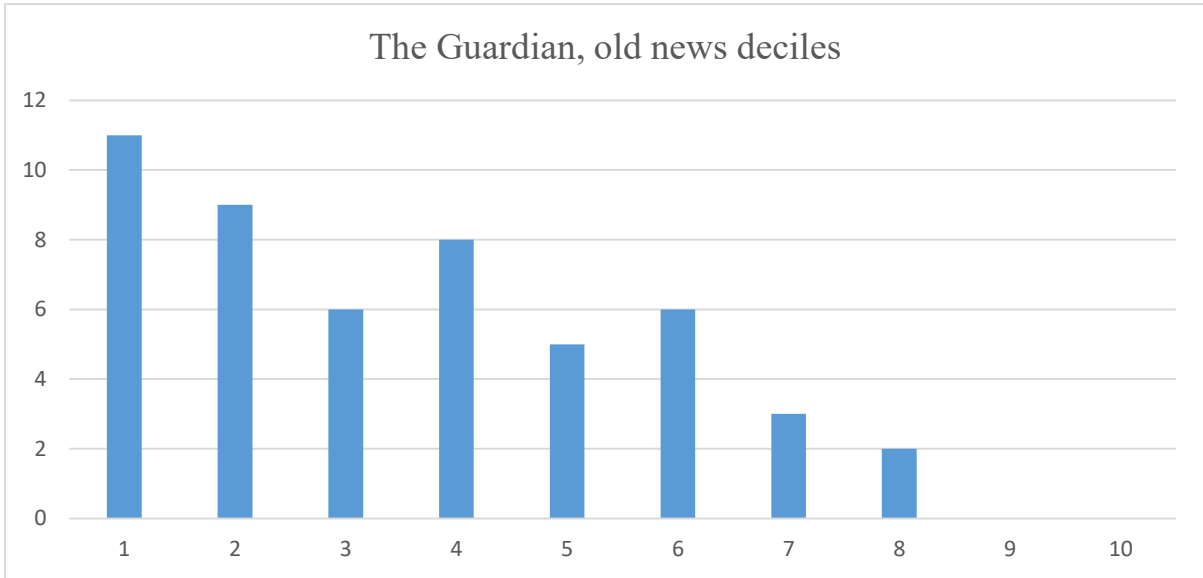


Chart 11. The y axis is the number of the articles, the x axis is the deciles 1=0-10%, 2=10-20% etc.

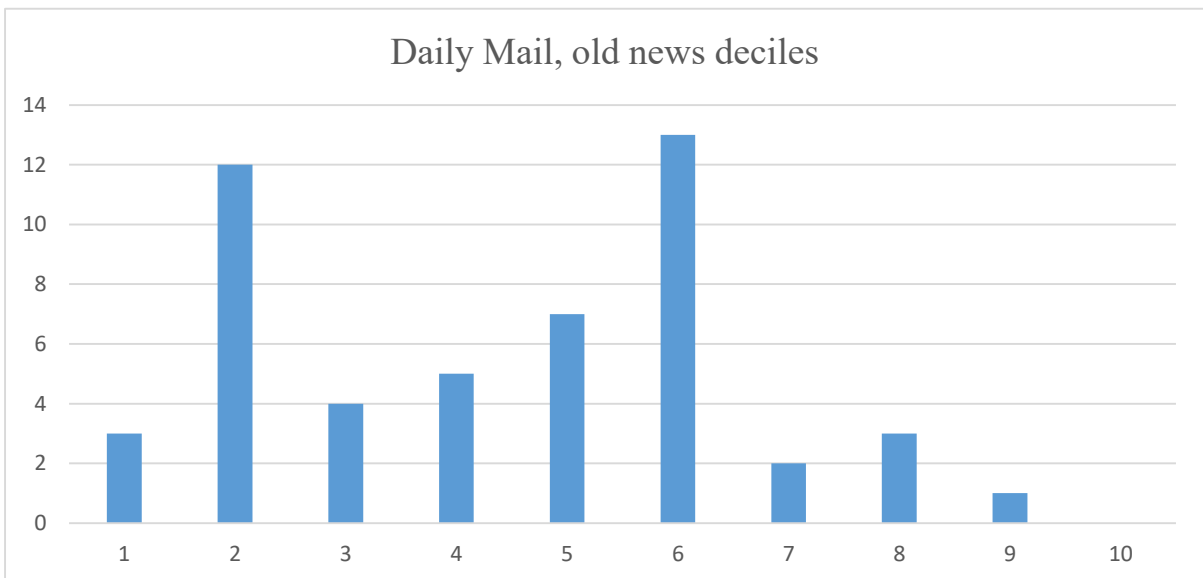


Chart 12. The y axis is the number of the articles, the x axis is the deciles 1=0-10%, 2=10-20% etc.

## 5. Discussion

The discussion is divided into two parts. In the first part, the results of the research are discussed in reference to the analysis of sensationalism, journalistic quality and congruence between the article headlines and the texts, i.e. according to the method outlined above. The second part cross-references the rest of the theoretical preliminaries, namely the presence of conceptual metaphors (or lack thereof), ideological and negativity bias.

The first notable difference between the headlines of The Guardian and the Daily Mail is the length and complexity of the latter. The longest Daily Mail headline is “Now killer virus reaches Europe: Hunt is on in UK for 2,000 people who flew in from Wuhan in last two weeks as France declares three cases and first British patient to be tested reveals treatment in 'spacesuits'” from article no. 33, consisting of 39 words. For contrast, the longest The Guardian headline is “‘We need to get out’: New Zealanders in Wuhan plead for help to evacuate” from article no. 45, numbering at only 14 words.

It seems there is a coherence between tabloid and more formal newspaper formats. It may be argued that the longer title is more captivating, it also delivers a kind of a short-story, and stories are compelling forms of persuasion. On the other, hand, shorter headlines get to the point and act more as a summary of the article rather than a retelling of the whole story in more detail. However, it may be argued that longer titles present the whole story better for the reader than the short one, which may leave out crucial information due to its small size, but this also means that the longer title may still focus on the part of the story despite being longer. It may also mean that the tabloid editors try to insert as much as possible in the headlines due to the fact that people only read headlines and ignore the rest of the article.

As for the typology of the headlines, there is a significant distinction between The Guardian and Daily Mail. The most common type of the headline is the statement-like for both news sources, however, only 50% of The Guardian headlines are statement-like, whereas 86% of the Daily Mail headlines are statement-like. The Guardian opts for another type of headlines in 36% of the articles, namely the pointer type, while Daily Mail only uses pointers in 8% of the headlines. Nonetheless, both sources use statement-like headlines and pointers more than any others. Most diverse set of headline types is found in The Guardian articles, there is a total of six different types of headlines. The Daily Mail set of articles is more conservative when it

comes to the types of headlines it uses, only four kinds of headlines are observed among the articles.

When it comes to the distinction between the formal and sensationalist headlines, the results affirm the hypotheses that The Guardian will be less sensationalist and more formal than the Daily Mail. As a matter of fact, The Guardian has 80% of headlines in written in a formal, non-sensationalist manner. Only 46% of the Daily Mail articles are non-sensationalist, 44% are sensationalist and the remaining 10% are informal. The Guardian has only 14% of articles written with sensationalist rhetoric and only 6% of the headlines are informal. The subtypes of sensationalist headlines found in The Guardian are mostly derived from a specific lexical choice, most common being “mystery” to refer to the unknown status of the virus at the time, which accounts for five of the seven headlines; only two headlines are sensationalist because of the emotional language when words such as “fear”, “panic”, “anger” are used, though one of those headlines is a mix of sensational lexical choice and emotional language (the 1<sup>st</sup> article); and only one headline featured sensationalist language that uses “I felt like ET” and “surreal” instead of “mystery”. As for the Daily Mail, of the twenty-two sensationalist headlines, the most common subtype is the graphic sensationalist, which accounts for nine of all sensationalist headlines in the set; three emotional-language sensationalist headlines, two of which are part of the graphic sensationalist headlines; one sensationalist due to hyperbole and one being sensationally framed: “dire warning” and “sweeps the country” are hyperbolic and the article no. 15 is framed with very specific lexical choices. The informal headlines are those that feature colloquial idiomatic expressions, but these are very few in both news sources, three in The Guardian and five in the Daily Mail, which is a slightly higher number. Overall, The Guardian showed much less sensationalist headlines than the Daily Mail, with a very narrow selection of forms of sensationalism and more formal headlines. The Daily Mail features more diverse types of sensationalism as expected in addition to having almost equal presence of formal and sensationalist headlines. It is therefore reasonable to conclude that The Guardian is more formal and that the Daily Mail is more sensationalist.

The other point of interest in specific lexical choices concerns itself with how the virus and illness are named. This is a separate category because it shows the linguistic bias present in the headlines more explicitly. The names are categorized in nine sections. The Guardian refers to the virus as “coronavirus” in forty-one headlines, which represents 82% of all headlines. On the other hand, the Daily Mail refers to it as such only in twenty articles, which is 40%, and uses mostly just “virus” in twenty-four or 48% of the articles. Three categories are

absent from The Guardian, “coronavirus infection”, “disease” and “flu”, while in the Daily Mail they are each accounted for only once, thereby being in the minority of terms used for the virus or the illness. This means that the Daily Mail is less consistent in its usage of lexical elements to refer to the virus and the illness than The Guardian. Consistency may be conceptualized as systematicity, so that The Guardian is more systematic than the Daily Mail in its lexical choice for coronavirus and COVID-19, and relies on verified scientific facts avoiding vague terms such as “flu”. This reflects the fact that The Guardian is a more serious news source, a historical broadsheet, as compared to the Daily Mail, which is a tabloid form. This finding correlates with the hitherto research that suggests tabloid forms are more sensationalist and of poorer journalistic quality.

When looking at the whole noun phrases, differences between the two papers are also visible and are still in accordance with the initial expectations of the research. The differences are significant due to the lexical choice of modifiers for the virus and the illness. There are six categories into which they are divided. It is evident that whole categories of the lexical choice, such as “deadly” and “killer”, are absent in The Guardian, which means that it has a more formal and less sensationalist lexical choice. The Daily Mail mostly used “killer”, which is present in seven articles, and “deadly”, being present in five of them. Moreover, the Daily Mail modified the virus with “China” and “Chinese” in nine articles, whereas The Guardian did so in five. There is a concern of problematic language when COVID-19 and the coronavirus which causes it is referred to as “Chinese”. This has been supported by future sensationalist reports which assigned the blame to the Chinese government, which is a case of victimization and raising of the hostility to China. The Daily Mail insisted more on the virus being “new”, having referred to it as such in five articles, while The Guardian did so in only one article. However, both sources referred to the virus or illness as “mystery”, in five articles each. This, again, confirms that the Daily Mail is more sensationalist than The Guardian, but also suggests that there is a degree of sensationalism present in The Guardian as well, which is not fully in accordance with expectations, containing sensationalist lexical choice.

The bigger part of the research is concerned with the congruence between the headlines and the text bodies. This is the most comprehensive part of the research as it includes one-hundred unique news articles and their relationship with the headline. This section also includes the discussion of secondary congruence and the ratio of old news that appear in the texts. First, the results for the main congruence reveal that on average, there is no significant difference between the two news sources, seeing that The Guardian scored 35.46% and the Daily Mail



35.62%. This disproves the hypothesis that The Guardian will have a greater degree of congruence between the headline and the text than the Daily Mail. The results grouped into quintiles and deciles show even more surprising data, such as the fact that most Daily Mail articles fall into the second quintile or third and fourth decile, which translate into scores of 20-40% or 30-40% of congruence respectively. Most of The Guardian articles fall in the first quintile or the second decile, which translates into score of 0-20% or 20-30% of congruence respectively. More plainly, The Guardian only has 22 articles with scores greater than the Daily Mail, which has 27 articles scoring higher than the former. However, the Guardian is still superior in having more articles in the top quintile and decile. The Daily Mail has no articles with a score above 81.25%, whereas The Guardian has one article with 87.5% and one with a perfect score. The lowest scores are 4.17% for The Guardian and 8.33% for the Daily Mail, which again goes in favour to the latter. There is only one article for which both news sources scored the same – 50% each for the article no. 15.

The results for the degree of secondary congruence seem to prove the hypothesis. The Guardian on average scored 14% compared to 10% by the Daily Mail. The Guardian has more articles in the second and the third quintile than the Daily Mail. Neither has any articles scoring more than 50% and both papers share the lowest score of 0%. The Guardian has the article with the highest degree of secondary congruence – 50%, while the Daily Mail's highest score in this regard is 42%. The Guardian has 25 articles with greater scores than the Daily Mail, which has 21 articles with scores higher than the former. There are four articles with exact scores, which is 0% in articles no. 6, 13, 26 and 47.

As for the ratio of old news in the news sources, the data confirms the hypothesis. The Guardian scored 29% on average while the Daily Mail scored 37%. The Guardian has most articles fall in the first quintile, whereas the Daily Mail falls mostly in the third quintile. The deciles show a more interesting distribution, where the top two deciles for The Guardian are the first and the second, but the second and the sixth decile are the top two for the Daily Mail. They both share the lowest score of 0%, but The Guardian has one article which is 70% old news, and the Daily Mail has an article that is scarce with news having a score of 88%.

This section cross-references the rest of the theoretical preliminaries. On the whole, there have not been many instances of metaphor and metonymy in the articles. There is only one count of war metaphor in The Guardian: “WHO urges global unity in fight against coronavirus outbreak”, so the virus and the illness it causes are represented using more neutral, ordinary or

scientific language, as in “China confirms human-to-human transmission of coronavirus” or “Australian man tested for coronavirus after returning from China with respiratory illness”. When it comes to whether coronavirus is represented as an active or passive entity, The Guardian opted for passive representation – it uses passive tense as in “World financial markets rocked by China coronavirus” and “China pneumonia outbreak may be caused by Sars-type virus: WHO”; or it focuses on the cases as in “Case of mystery Sars-like illness found outside China for first time” or “Coronavirus: China reports 17 new cases of Sars-like mystery virus”. There are only four instances in which the virus is represented in the active voice – “Mystery viral outbreak in Hong Kong revives fears of Sars epidemic” and “French cases show coronavirus has reached Europe”, “Coronavirus spread accelerating in China, says Xi Jinping”, and “Wilbur Ross says coronavirus outbreak could bring back jobs to the US”. The Daily Mail features only one instance of a war metaphor as well: “Chinese city stops outbound flights, trains to fight virus”. It instead referred to the actions taken to deal with the illness using the verb “to curb”, which is a conceptual metaphor VIRUS/PANDEMIC IS A MOVING OBJECT, in two headlines: “China locks down cities to curb virus, but WHO says no global emergency” and “Hong Kong suspends some rail, ferry links with China mainland to curb virus spread”, but it also used “to stop” and “to contain” in two headlines respectively. Additionally, it used the noun “response” in one case: “Hong Kong steps up response to China pneumonia outbreak”. However, it frames the virus and the illness in the active voice in ten headlines total, e.g. “Mayor of China's Wuhan says city's governance 'not good enough' as virus spreads” or “US begins airport screenings as SARS-linked virus kills 2 in China”. Overall, COVID-19 news coverage mostly avoided employing metaphors to refer to the coronavirus during the early days of the pandemic.

In addition to the lack of metaphorical language at the onset of the pandemic, there is a noted lack of ideological bias, metaphorical or otherwise, in both online news sources when reporting on the pandemic. Although there are obvious differences in how topics such as border control and foreigners are discussed, ideologically biased language is mostly manifested in the metonymical reference to the coronavirus as a “Chinese” or “China” virus. The Daily Mail has nine instances as opposed to The Guardian, which only has five. As for border control and the representation of foreigners, The Guardian tends to frame screenings more neutrally by avoiding details and targets of screening while the Daily Mail emphasises it, e.g., The Guardian’s “Coronavirus: airports around the world carry out screenings” is more neutral than Daily Mail’s “Passengers arriving at airports WILL be screened for deadly Chinese virus - as

Brisbane man is placed in quarantine after displaying symptoms of killer flu”. This may be explained by the typical political division over border control – social liberals tend to positively evaluate immigration and thus divert focus from stronger border enforcement whereas conservative liberals view immigration with great caution which normally calls for greater policing of the customs. However, since the portrayal of border screenings is coupled with descriptions of isolation and separation of travellers due to the potentially lethal hazard which the virus possesses, a likelier explanation is that Daily Mail’s more detailed headlines are thus constructed for sensationalist, rather than political reasons. Moreover, in representing foreigners, the Daily Mail reveals more details such as country of origin and gender as well as framing foreigner’s transgressions with more detail and negative labelling. The most striking example is Daily Mail’s “Chinese woman 'bragged on social media about cheating airport coronavirus screenings' - before being tracked down to France after posting from a Michelin Star restaurant in Lyon” as opposed to The Guardian’s much more neutral “Chinese tourist says she evaded coronavirus checks to fly to France”. Although both sources reveal nationality and gender, it is clear that the Daily Mail represented the woman’s confession as “bragging” and her crime as “cheating”, The Guardian uses neutral labelling using describing her as “saying” that she “evaded coronavirus checks” rather than “airport coronavirus screenings”. It is notable how the Daily Mail provided more details about when and where she was caught confessing her evasion of security checks.

Finally, addressing the negativity bias shows findings which confirm the hypothesis that The Guardian will be less negative than the Daily Mail. It is evident that most sensationalist categories are connected with negative feelings and events such as fear, panic and death. Most news surrounding the pandemic are inevitably negative in nature, since it is a public health issue, which has greatly disrupted social functioning. Yet, since negativity and sensationalism are interlinked, it is evident that The Guardian is less biased to negativity than the Daily Mail. That is why looking at the amount of what can be construed as more positive news could provide a better measure of negativity bias. There are eleven headlines in the set of The Guardian articles which could be interpreted as positive news, while there are only five articles that avoid negative lexical choices and instead provide more reassuring news. Nonetheless, this information holds true for the very beginning of the pandemic. There has been research that suggests that sensationalism around the pandemic, which in this case implies negativity bias, actually served to raise awareness, motivate people to be socially conscious and mindful of

medical advice<sup>14</sup>. This is attributed to the socially liberal news sources in contrast to the conservative liberal sources, which downplayed and avoided sensationalising the pandemic. Therefore, this suggests that there has been a shift in the attitudes of the news outlets toward the COVID-19 pandemic, which could be explained by ideological bias. As exemplified by the numerous civil and political opposition to lockdowns, masks and vaccinations being firmly on the right of the political spectrum, it only makes sense that right-wing media would exploit the situation to gain more readers or at least avoid losing them by reporting on the pandemic with greater indifference. Further research should be done to identify when and where this shift first occurred, what caused it and how the news discourse mediated the relation between political discourse and public opinion. It could also be analysed whether and how socially liberal media produced the opposite effect – turning a portion of the public towards more conservative, and perhaps most importantly, why has it not been effective in turning people from the conservative to the socially liberal side.

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<sup>14</sup> <https://utsc.utoronto.ca/news-events/breaking-research/was-sensationalism-covid-19-news-coverage-good-thing-utsc-researchers-have>)

## 6. Conclusion

The analysis of the articles which report on the COVID-19 pandemic shows both differences and striking similarities between The Guardian and the Daily Mail. On the one hand, there is a typological difference between the sets of headlines, the Daily Mail uses more sensationalist elements than The Guardian, especially in representing the virus and the illness with specific lexical choices, and the levels of ideological and negativity bias are somewhat higher in the Daily Mail than the Guardian. These are the findings that support the hypotheses, however there are striking similarities. When it comes to the congruence between the headline and the texts, there is virtually no difference between the two online news sources. Both outlets have similar patterns of article structuring where only a third of the article is congruent with the headline on average. There is also little difference when it comes to the secondary congruence in favour of The Guardian as well as a bigger portion of old news reappearing in the Daily Mail articles on average. This is perhaps indicative of the tabloidization that The Guardian underwent in 2018 when it became a compact newspaper<sup>15</sup>. Moreover, the findings of the more recent studies in the linguistic features of the online pandemic discourse do not hold for the earliest days of the pandemic. There is a notable lack of metaphorical language as well as a lack of clear ideological bias in the two online newspapers. This is in accordance with the fact that the pandemic became a political issue only after it was declared and especially after the effects of lockdowns, mask wearing and other social measures to contain the spread of the illness started to become increasingly unpopular. The paper concludes with new potential research questions, notably, when and how the discourse became more politicized and how and to what degree did the online news sources contribute to the spread of misinformation, such as overplaying and downplaying the health risks and harm posed by the pandemic.

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<sup>15</sup> <https://www.theguardian.com/media/2017/jun/13/guardian-and-observer-to-relaunch-in-tabloid-format>

## 7. Bibliography

- Baker, P., Gabrielatos, C., Khosravini, M., Krzyzanowski, M., McEney, T., Wodak, R. (2008). A useful methodological synergy? Combining critical discourse analysis and corpus linguistics to examine discourses of refugees and asylum seekers in the UK press. *Discourse & Society*, 19, 273-306.
- Bale, T. (2011). *The Conservative Party: From Thatcher to Cameron*. Polity Press
- Bell, A. (1991). *The Language of News Media*. Blackwell.
- Benčina, K. (2021). *Figurative language in Croatian media discourse during the coronavirus pandemic* [Unpublished doctoral dissertation]. Faculty of Humanities and Social Sciences Osijek.
- Billig, M. (2003). Critical discourse analysis and the rhetoric of critique. In G. Weiss and R. Wodak (Eds.), *Critical Discourse Analysis: Theory and Interdisciplinarity* (pp. 35-46). Palgrave Macmillan.
- Blom, J.N., Hansen, K.R. (2015). Click bait: Forward-reference as lure in online news headlines. *Journal of Pragmatics*, 76, 87-100.
- Boczkowski, P.J. (2004). *Digitizing the News: Innovation in Online Newspapers*. The MIT Press.
- Breeze, R. (2011). Critical discourse analysis and its critics. *Pragmatics*, 21(4), 493-525. [https://www.researchgate.net/publication/259484653\\_Critical\\_Discourse\\_Analysis\\_and\\_Its\\_Critics](https://www.researchgate.net/publication/259484653_Critical_Discourse_Analysis_and_Its_Critics)
- Bussmann, H. (1998). *Routledge dictionary of language and linguistics* (G. Trauth and K. Kazzazi, Trans.). Routledge.
- Charteris-Black, J. (2006). Britain as a container: immigration metaphors in the 2005 election campaign. *Discourse & Society* 17(5), 563-581. Sage Publications.
- Choi, S., and Kim, J. (2017). Online news flow: Temporal/spatial exploitation and credibility. *Journalism* 18(9), 1184–1205.

- Chouliaraki, L., Fairclough N. (1999). *Discourse in Late Modernity. Rethinking Critical Discourse Analysis*. Edinburgh University Press.
- Conboy, M. (2006). *Tabloid Britain: Constructing a community through language*. Routledge.
- Corns, J. (2018). Rethinking the negativity bias. *Review of Philosophy and Psychology*, 9(3), 607-625. <https://link.springer.com/article/10.1007/s13164-018-0382-7>
- Engels, F. (1973). *The Condition of the Working Class in England*. Progress Publishers.
- Develotte, C., Rechniewski, E. (2001). Discourse analysis of newspaper headlines: a methodological framework for research into national representations. *Web Journal of French Media Studies*, 5(5). <http://wjfms.ncl.ac.uk>
- Duanprakhon, P. (2012). *Critical Discourse Analysis of News Headlines: A Case of Youth Crime in Thailand*. [Master's thesis, National Institute of Development Administration]. <https://repository.nida.ac.th/handle/662723737/721?locale-attribute=en>
- Dutton, D. (1979). Unionist Politics and the aftermath of the General Election of 1906: A Reassessment. *Historical Journal*, 22(4), 861–76.
- Fairclough, N. (2010). *Critical Discourse Analysis, the Critical Study of Language* (2<sup>nd</sup> ed.). Routledge.
- Fairclough, N. and Wodak, R. (1997). Critical discourse analysis. In T. van Dijk (ed.), *Discourse Studies: A Multidisciplinary Introduction*, 2 (pp. 258–84). Sage.
- Flusberg, S. J., Matlock, T., & Thibodeau, P. H. (2018). War metaphors in public discourse. *Metaphor and Symbol*, 33(1), 1–18. <https://doi.org/10.1080/10926488.2018.1407992>
- Flusberg, S. J., Matlock, T., & Thibodeau, P. H. (2017). Metaphors for the War (or Race) against climate change. *Environmental Communication*, 11(6), 769–783. <https://doi.org/10.1080/17524032.2017.1289111>
- Fogec, T. (2014). *Critical Discourse Analysis of Tabloid Headlines*. [Master's thesis, University of Zagreb]. <http://darhiv.ffzg.unizg.hr/id/eprint/5215/>
- Hameed, T.H. (2008). Cohesion in Texts: A Discourse Analysis of news Article in a Magazine. *Al-Fatih Journal*, 4(37), 257-265. University of Diyala.

- Hamlin, J. K., Wynn, K., & Bloom, P. (2010). Three-month-olds show a negativity bias in their social evaluations. *Developmental science*, 13(6), 923-929. DOI: 10.1111/j.1467-7687.2010.00951.x
- Jørgensen, M. and Phillips, L. (2002). *Discourse Analysis as Theory and Method*. Sage Publications.
- Kovač, Nera. (2022). *Negativity Bias on the Internet*. [Unpublished bachelor's thesis]. Faculty of Humanities and Social Sciences Osijek.
- Kress, G., van Leeuwen, T. (1998). Front Pages: (The Critical) Analysis of Newspaper Layout. In A. Bell & P. Garrett (Eds.), *Approaches to Media Discourse* (pp. 186-219). Blackwell Publishers.
- Lombardi, D. (2018). *Critical Discourse Analysis of online News Headlines: A Case of the Stoneman Douglas High School Shooting*. [Master's thesis, Malmö University]. <http://mau.diva-portal.org/smash/record.jsf?pid=diva2%3A1483958&dswid=-2173>
- Lovell, R. P. (1980). *The Newspaper: An Introduction to Newswriting and Reporting*. Wadsworth.
- Lukač, M. (2012). *The Wreckognition: Discourse of the British and the US Press on Germany's Recognition of Croatia and Slovenia: a corpus-based critical discourse analysis*. [Master's thesis, University of Graz]. <https://unipub.uni-graz.at/obvugrhs/content/titleinfo/222752>
- Matheson, D. 2005. *Media Discourses: Analysing Media Texts*. Open University Press.
- Newman, N., Fletcher, R., Kalogeropoulos, A., Levy, D. A. L., Kleis Nielsen, R. (2017). *Reuters Institute Digital News Report 2017*. University of Oxford.
- So-In, R. (2002). *An Analysis of Phrasal Verb in News Front Page Headline in an English Newspaper: a Case Study of Bangkok Post*. [Unpublished master's thesis, National Institute of Development Administration].
- Reah, D. (2002). *The Language of Newspapers*. Routledge.
- Reis, J., Benevenuto, F., Olmo, P., Prates, R., Kwak, H., An, J. (2015). Breaking the News: First Impressions Matter on Online News. *Association for the Advancement of Artificial Intelligence*, 357-366. <https://arxiv.org/abs/1503.07921>



- Reisigl, M., Ruth, W. (2001). *Discourse and Discrimination: Rhetorics of racism and anti-semitism*. Routledge.
- Renkema, J. J. (2004). *Introduction to Discourse Studies*. John Benjamins Pub.
- Richardson, J. (2007). *Analysing Newspapers: An Approach from Critical Discourse Analysis*. Palgrave Macmillan.
- Semino, Elena, (2021). Not Soldiers but Fire-fighters – Metaphors and Covid-19. *Health Communication*, 36(1), 50-58. DOI: 10.1080/10410236.2020.1844989
- Sriboonrod, N. (2002). *Editorial Management of Thai Daily Newspapers*. [Unpublished master's thesis, Thammasat University].
- Štrkalj Despot, K. (2020). Kako koronavirus mijenja jezik. *Hrvatski jezik: znanstveno-popularni časopis za kulturu hrvatskoga jezika*, 7(2), 1-7.
- Thanomsak, P. (1999). *The Headline Language of Political news in the Thai Press: The case Study of Thai Rath, Daily News, and Matichon*. [Unpublished master's thesis, Ramkhamhaeng University].
- van Dijk, T. A. (2002). Political discourse and political cognition. In P. A. Chilton & C. Schäffner (Eds.), *Politics as Text and Talk: Analytic approaches to political discourse* (pp. 203-237). John Benjamins Pub.
- van Dijk, T. A. (2008). Critical Discourse Analysis. In D. Schiffrin, D. Tannen & Heidi E. Hamilton (Eds.), *The Handbook of Discourse Analysis* (pp. 352-371). Blackwell.
- Vincent, A. (2010). *Modern Political Ideologies* (3<sup>rd</sup> ed.). John Wiley & Sons.
- Wodak, R. (2001). The discourse-historical approach. In R. Wodak & M. Meyer (Eds.), *Methods of Critical Discourse Analysis* (pp. 63-94). Sage.
- Wodak, R. (2002). Aspects of Critical Discourse Analysis. *Zeitschrift für Angewandte Linguistik* 36, 5-31.

## Appendix – the articles

The Daily Mail:

<https://www.dailymail.co.uk/wires/afp/article-7851669/Hong-Kong-steps-response-China-pneumonia-outbreak.html>

<https://www.dailymail.co.uk/health/article-7854051/China-rules-SARS-mystery-viral-pneumonia-outbreak.html>

<https://www.dailymail.co.uk/wires/reuters/article-7866807/China-pneumonia-outbreak-linked-new-type-virus-WHO.html>

<https://www.dailymail.co.uk/wires/reuters/article-7875377/Man-infected-mysterious-virus-China-dies-outbreak.html>

<https://www.dailymail.co.uk/health/article-7881393/Chinese-woman-mystery-virus-quarantined-Thailand.html>

<https://www.dailymail.co.uk/wires/reuters/article-7892817/Japan-confirms-case-infection-new-China-coronavirus.html>

<https://www.dailymail.co.uk/health/article-7895983/Second-patient-DIES-mystery-virus-China-amid-growing-fears-lethal-outbreak-spread.html>

<https://www.dailymail.co.uk/wires/afp/article-7897407/Second-person-dies-mystery-virus-China-official.html>

<https://www.dailymail.co.uk/wires/reuters/article-7903677/China-reports-17-cases-new-virus-strain.html>

<https://www.dailymail.co.uk/health/article-7906235/China-counts-sharp-rise-coronavirus-cases-2-Beijing.html>

<https://www.dailymail.co.uk/wires/aap/article-7909743/Virus-risk-Australians-low-chief-medic.html>

<https://www.dailymail.co.uk/wires/ap/article-7906543/Asian-shares-higher-central-banks-decisions.html>

<https://www.dailymail.co.uk/news/article-7909629/What-Australians-need-know-deadly-Chinese-sars-like-virus.html>

<https://www.dailymail.co.uk/wires/afp/article-7910149/China-says-virus-spreading-humans-WHO-set-meet.html>

<https://www.dailymail.co.uk/news/article-7910517/Scott-Morrison-warns-Australians-travelling-China-risk-coronavirus.html>

<https://www.dailymail.co.uk/health/article-7915313/Travellers-coronavirus-hit-region-China-separated-arrival.html>

<https://www.dailymail.co.uk/wires/pa/article-7914999/WHO-declare-Public-Health-Emergency-coronavirus-China.html>

<https://www.dailymail.co.uk/wires/ap/article-7914413/Outbreak-new-virus-rises-440-China-9-dead.html>

<https://www.dailymail.co.uk/wires/afp/article-7914491/China-warns-virus-mutate-spread-death-toll-rises.html>

<https://www.dailymail.co.uk/health/article-7924801/Chinese-woman-bragged-cheating-airport-coronavirus-screenings-tracked-France.html>

<https://www.dailymail.co.uk/health/article-7918719/Humans-likely-got-deadly-Chinese-coronavirus-SNAKES.html>

<https://www.dailymail.co.uk/news/article-7921117/World-share-prices-fall-authorities-rush-contain-deadly-coronavirus-outbreak.html>

<https://www.dailymail.co.uk/health/article-7920907/Coronavirus-fears-Scotland-two-Chinese-patients-rushed-hospital.html>

<https://www.dailymail.co.uk/wires/reuters/article-7920437/Chinese-movies-scrap-Lunar-New-Year-premieres-virus-outbreak.html>

<https://www.dailymail.co.uk/news/article-7922683/Thousands-Chinese-students-UK-thought-coronavirus-province.html>

<https://www.dailymail.co.uk/wires/reuters/article-7922365/3-WHO-says-bit-early-declare-coronavirus-global-emergency.html>

<https://www.dailymail.co.uk/wires/pa/article-7924041/China-locks-10-cities-coronavirus-death-toll-rises.html>

<https://www.dailymail.co.uk/wires/pa/article-7922091/Students-planning-Chinese-New-Year-return-China-face-quarantine-return.html>

<https://www.dailymail.co.uk/wires/reuters/article-7923519/China-building-1-000-bed-hospital-weekend-treat-coronavirus.html>

<https://www.dailymail.co.uk/health/article-7926343/First-British-patient-tested-coronavirus-reveals-treated-doctors-spaceman-suits.html>

<https://www.dailymail.co.uk/news/article-7928533/China-virus-outbreak-revives-calls-stop-exotic-wildlife-trade.html>

<https://www.dailymail.co.uk/wires/pa/article-7927265/UK-hunt-2-000-Wuhan-passengers-intensifies-coronavirus-concerns.html>

<https://www.dailymail.co.uk/health/article-7925203/US-testing-12-patients-deadly-coronavirus-including-Texas-M-University-student.html>

<https://www.dailymail.co.uk/wires/reuters/article-7927239/China-virus-death-toll-rises-41-1-000-infected.html>

<https://www.dailymail.co.uk/wires/pa/article-7926539/Coronavirus-reaches-Europe-France-confirms-two-cases.html>

<https://www.dailymail.co.uk/wires/aap/article-7927319/Five-potential-coronavirus-patients-NSW.html>

<https://www.dailymail.co.uk/wires/ap/article-7927397/China-reports-1-280-virus-cases-death-toll-41.html>

<https://www.dailymail.co.uk/wires/aap/article-7929027/Australia-confirms-four-coronavirus-cases.html>

<https://www.dailymail.co.uk/wires/ap/article-7930821/Health-officials-confirm-case-new-virus-California.html>

<https://www.dailymail.co.uk/news/article-7931985/Matildas-embroiled-coronavirus-crisis-matches-moved-China-killer-disease.html>

<https://www.dailymail.co.uk/news/article-7932883/Sydney-schools-ban-pupils-attending-families-China-stop-coronavirus.html>

<https://www.dailymail.co.uk/wires/reuters/article-7933281/Mayor-Chinas-Wuhan-says-citys-governance-not-good-virus-spreads.html>

<https://www.dailymail.co.uk/wires/pa/article-7934535/Government-works-plans-Britons-coronavirus-hit-Chinese-province.html>

<https://www.dailymail.co.uk/health/article-7934869/British-Boarding-Schools-Association-warns-Chinese-students-face-xenophobic-abuse.html>

<https://www.dailymail.co.uk/wires/aap/article-7935767/Kiwis-Wuhan-make-plea-Bring-home.html>

<https://www.dailymail.co.uk/wires/pa/article-7937813/Face-mask-manufacturers-face-surge-demand-coronavirus-outbreak.html>

<https://www.dailymail.co.uk/wires/reuters/article-7937773/Hong-Kong-suspends-rail-ferry-links-mainland-curb-virus-spread.html>

<https://www.dailymail.co.uk/news/article-7936223/Coronavirus-spreads-GERMANY-Chinese-capital-Beijing-confirms-death-disease.html>

<https://www.dailymail.co.uk/wires/reuters/article-7937827/Facebook-HSBC-curb-travel-China-warnings-grow.html>

<https://www.dailymail.co.uk/wires/afp/article-7948035/China-virus-create-US-jobs-commerce-secretary.html>

The Guardian:

<https://www.theguardian.com/world/2020/jan/04/mystery-viral-outbreak-in-hong-kong-revives-fears-of-sars-epidemic>

<https://www.theguardian.com/world/2020/jan/05/mystery-illness-to-strike-chinese-city-is-not-sars-say-authorities-wuhan>

<https://www.theguardian.com/science/2020/jan/09/china-pneumonia-outbreak-may-be-caused-by-sars-type-virus-who>

<https://www.theguardian.com/world/2020/jan/11/china-mystery-illness-outbreak-causes-first-death>

<https://www.theguardian.com/world/2020/jan/14/case-of-mystery-coronavirus-found-outside-china-for-the-first-time-thailand>

<https://www.theguardian.com/world/2020/jan/16/japan-confirms-first-case-of-new-china-coronavirus-strain>

<https://www.theguardian.com/world/2020/jan/17/corona-second-death-in-china-after-sars-like-outbreak>

<https://www.theguardian.com/world/2020/jan/18/coronavirus-what-airport-measures-are-in-place-to-detect-for-sick-passengers>

<https://www.theguardian.com/world/2020/jan/19/coronavirus-china-reports-17-new-cases-of-sars-like-mystery-virus>

<https://www.theguardian.com/world/2020/jan/20/coronavirus-spreads-to-beijing-as-china-confirms-new-cases>

<https://www.theguardian.com/australia-news/2020/jan/21/australian-man-tested-for-coronavirus-after-returning-from-china-with-respiratory-illness>

<https://www.theguardian.com/world/2020/jan/21/coronavirus-shares-in-asia-pacific-fall-sharply-as-fears-mount>

<https://www.theguardian.com/science/2020/jan/21/coronavirus-screenings-global-travelling-airport>

<https://www.theguardian.com/society/2020/jan/21/coronavirus-us-cdc-case-china-health>

<https://www.theguardian.com/science/2020/jan/22/what-is-the-threat-to-australia-from-the-wuhan-coronavirus>

<https://www.theguardian.com/science/2020/jan/22/coronavirus-heathrow-to-create-separate-arrival-area>

<https://www.theguardian.com/science/2020/jan/22/coronavirus-who-steps-back-from-declaring-public-health-emergency>

<https://www.theguardian.com/world/2020/jan/22/coronavirus-china-measures-rein-spread-mutate-disease-death-toll>

<https://www.theguardian.com/world/2020/jan/23/coronavirus-panic-and-anger-in-wuhan-as-china-orders-city-into-lockdown>

<https://www.theguardian.com/science/2020/jan/23/chinese-tourist-says-she-evaded-coronavirus-checks-fly-france>

<https://www.theguardian.com/science/2020/jan/23/animal-trade-in-spotlight-as-china-seeks-source-of-coronavirus>

<https://www.theguardian.com/business/2020/jan/23/financial-markets-china-coronavirus-outbreak-economy>

<https://www.theguardian.com/science/2020/jan/23/increased-likelihood-coronavirus-uk-health-secretary-matt-hancock>

<https://www.theguardian.com/film/2020/jan/23/china-new-year-film-releases-scrapped-coronavirus-crisis>

<https://www.theguardian.com/education/2020/jan/23/uk-universities-issue-health-warnings-over-travel-to-china-coronavirus>

<https://www.theguardian.com/science/2020/jan/23/who-urges-global-unity-in-fight-against-china-coronavirus-outbreak>

<https://www.theguardian.com/world/2020/jan/23/coronavirus-panic-spreads-in-china-with-three-cities-in-lockdown>

<https://www.theguardian.com/science/2020/jan/24/coronavirus-uk-universities-issue-quarantine-warning-china-chinese-students-in-slugs>

<https://www.theguardian.com/science/2020/jan/24/chinese-city-wuhan-plans-to-build-coronavirus-hospital-in-six-days>

<https://www.theguardian.com/science/2020/jan/24/i-felt-like-et-uk-man-surreal-coronavirus-quarantine>

<https://www.theguardian.com/science/2020/jan/24/calls-for-global-ban-wild-animal-markets-amid-coronavirus-outbreak>

<https://www.theguardian.com/science/2020/jan/24/uk-coronavirus-checks-clear-14-people-china>

<https://www.theguardian.com/science/2020/jan/24/coronavirus-confirmed-us-case-chicago>

<https://www.theguardian.com/science/2020/jan/24/coronavirus-chinese-hospitals-in-chaos-as-lockdown-spreads-to-affect-25m-people>

<https://www.theguardian.com/science/2020/jan/24/french-cases-show-coronavirus-has-reached-europe>

<https://www.theguardian.com/science/2020/jan/25/coronavirus-five-people-in-nsw-being-tested-for-deadly-disease>

<https://www.theguardian.com/science/2020/jan/25/coronavirus-puts-50m-people-in-china-under-lunar-new-year-lockdown>

<https://www.theguardian.com/australia-news/2020/jan/26/coronavirus-australia-considers-evacuating-citizens-caught-in-china-amid-lockdown>

<https://www.theguardian.com/science/2020/jan/26/coronavirus-us-confirms-cases-california-arizona>

<https://www.theguardian.com/football/2020/jan/27/matildas-olympics-qualifiers-moved-sydney-coronavirus-outbreak>

<https://www.theguardian.com/science/2020/jan/27/sydney-schools-ask-students-returning-from-china-to-stay-away-amid-coronavirus-fears>

<https://www.theguardian.com/science/2020/jan/27/china-coronavirus-who-to-hold-special-meeting-in-beijing-as-death-toll-jumps>

<https://www.theguardian.com/science/2020/jan/27/coronavirus-britain-under-pressure-to-evacuate-uk-nationals>

<https://www.theguardian.com/science/2020/jan/27/boarding-schools-with-chinese-pupils-urged-to-be-alert-for-xenophobia>

<https://www.theguardian.com/science/2020/jan/28/we-need-to-get-out-new-zealanders-in-wuhan-plead-for-help-to-evacuate>

<https://www.theguardian.com/world/2020/jan/28/china-mask-producers-work-overtime-to-meet-coronavirus-sparked-demand>



<https://www.theguardian.com/science/2020/jan/28/wuhan-evacuation-us-and-japan-to-fly-out-citizens-as-coronavirus-deaths-rise>

<https://www.theguardian.com/science/2020/jan/28/germany-confirms-first-human-coronavirus-transmission-in-europe>

<https://www.theguardian.com/business/2020/jan/28/global-firms-halt-china-travel-as-coronavirus-spooks-markets>

<https://www.theguardian.com/world/2020/jan/30/wilbur-ross-coronavirus-outbreak-comment>