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Epistemicity in Covid-19 discourse in the British and American Press

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Acknowledgements

Abstract

The aim of the present study called 'Epistemicity in Covid-19 discourse in the British and American Press' is to explore epistemicity markers in the context of Covid-19 discourse across different genres (i.e. opinion columns, editorials and news reports) in the British and American broadsheets, namely *The Times*, *The Independent*, *The Wall Street Journal* and *The New York Times*. The study focussed on the expressions of epistemic support, epistemic justification, cognitive attitude and factivity. The main objectives of this study are to identify and examine the epistemicity markers in the corpora compiled, to compare the expressions of epistemicity occurring in the opinion columns, editorials and news reports, and to reveal the impact of supported ideology on the representation of Covid-19. The data was collected from the British and American newspapers mentioned above. The results indicate that irrespective of the ideological distinction of the newspapers, some expressions are used by journalists for either positioning their voice explicitly or distancing themselves from the responsibility of the claim. The remarkable point is that both British and American newspapers promoting a liberal view tend to use more epistemicity markers compared to the newspapers holding conservative ideology. It might suggest that the writers of former newspapers prefer interacting with readers explicitly.

Keywords: epistemicity**,** epistemic support, epistemic justification, cognitive attitude, factivity, Covid-19, newspaper discourse

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Abbreviations

The WSJ: *The Wall Street Journal*

The NYT: *The New York Times*

IRJ: Indirect Reportative Justification

IIJ: Indirect Inferential Justification

IFV: Impersonal Factives

CFV: Cognitive Factives

CGA: Cognitive Attitude

Introduction

The Covid-19 health crisis has affected almost every aspect of life socially, culturally, politically and economically, and thus it is not surprising that various media outlets have been releasing articles about Covid-19 and its unexpected impacts on people's lives on a regular basis. Over 10 million news stories were released only in the second week of March 2020 (LexisNexis, 2020). Owing to the excessive release of unchecked and non-confirmed articles and news stories related to the Covid-19 pandemic, The World Health Organization (WHO) has had to describe the pandemic as "infodemic" so they could fight against the reckless spread of misinformation that has panicked communities across the world. A number of studies from various disciplines were conducted to uncover the role of online news media and social media in the narratives of Covid-19 (e.g. Lee *et al.* 2021) and the dissemination of misinformation about Covid-19 through mainstream and social media (e.g. Focosi *et al*. 2021). Mainstream newspapers try to create reliable communication with the public and transmit unbiased opinions and arguments about the virus in the context full of misinformation. In this regard, it is important to investigate how the beliefs and reliable knowledge about the coronavirus have emerged and transmitted, as well as how journalists assess and present every piece of information about the virus. One aspect of this study is to investigate how journalists tackle the pandemic situation and how they reach and convey knowledge about Covid-19 and approach the government-sanctioned precautions such as early detection methods, lockdown implications, isolation and quarantine regulations, and the like from the domain of epistemicity.

Mainstream media owners and journalists (i.e. news reporters, science editors) need to be cautious and unbiased while assessing and conveying the data that they are planning to reveal since people shape their opinion in accordance with the information they learn from newspapers (Focosi *et al.* 2021). In several studies, the use of language while narrating the events of Covid-19 has become quite polarized and politicised (e.g. Kerr *et al.* 2021). The risk of coronavirus infection has been screened differently by left-leaning and right-leaning media entities (Calvillo *et al.* 2020, 1120). With the view proposed by Van Dijk (2009, 193), "ideologies control more specific socially shared attitudes of groups", it may be possible to say that potential readers of the newspapers take coronavirus pandemic seriously and behave responsibly mostly depending on what they read, or vice versa. Many studies conducted in the United States showcase that news media coverage of Covid-19 in the U.S has been divided along political views. It has been highlighted that the language of media has been polarised and used politically to a great extent (Hart *et al.* 2020, 681-682). In the United States, political ideology relatively influences the attitudes of the media consumers apparently

"conservative participants reported fewer protective actions such as wearing a mask or handwashing" (Kerr *et al.* 2021, 6). In the case of the United Kingdom, despite the decrease in trust in government and news media, reliance on news is substantially less polarized (Fletcher *et al.* 2020, 1). It would be essential to examine whether the texts written by the journalists to express the coronavirus related issues on behalf of their media institution are different from those who hold the opposite ideological tendencies. As for misinformation prevalence, it needs to be explored whether the journalists take responsibility for what they claim or whether they justify their opinions in the light of the evidence.

So far most attention in the literature has been devoted to the aspects of disinformation and polarization of Covid 19 narrative in news media. Very few studies (e.g. Nor and Zulcafli, 2020; Katermina & Yachenko, 2020) have elaborated on the presentation of the Covid-19 pandemic situation from a linguistic perspective. The primary aim of the present study is to investigate the realisations of the category of epistemicity in the Covid-19 related news discourse in the British and American newspapers targeting audiences with different political orientations (conservative *vs* liberal). The current research explores different linguistic resources that indicate how journalists provide the source of information and signal degrees of reliability and commitment in order to justify and legitimise their claims in the context of Covid 19 discourse. The present study also focuses on the attainment of knowledge and the writer's evaluation of the events related to Covid-19. Chafe (1986, 264) points out that "people are aware, though not necessarily consciously aware that some things they know are surer bets for being true than others, that not all knowledge is equally reliable", and therefore it is important to explore the linguistic expressions conveyed through news media to inform readers about Covid-19. It seems that no studies recently have been pursued to address the domain of epistemicity in the representation of Covid-19 from different political orientations of the newspapers (liberal *vs* conservative). To achieve the aim of the study, the following objectives were set:

1) to identify and explore markers of epistemic support in the British and American selected newspapers;

2) to identify and examine types of evidential markers in the British and American selected newspapers;

3) to identify and analyse the markers of cognitive attitude and factivity in the British and American selected newspapers;

4) to compare the expressions of epistemicity in news reports, opinion columns and editorials in the newspapers under analysis;

5) to reveal and account for the political position (i.e. liberal or conservative) regarding the representation of Covid-19.

For the sake of this study, news texts are collected from the four leading newspapers based in the English-speaking countries, the United Kingdom and the United States from the period between March 2020 and February 2022. Newspaper discourse is chosen for this study, as "media help structure the public's understanding of the pandemic, creating an evolving narrative of coverage" (Jiang, Hyland 2022, 2).

The structure of this thesis comprises introduction, (1) theoretical framework, (2) data and methodology, (3) epistemic support analysis, (4) epistemic justification analysis, (5) cognitive attitude and factivity analysis, and (6) conclusion.

The introductory section provides an overall review of the Covid-19 context all around the world, as well as in the United States and the United Kingdom. This section also includes other research findings proving that the language of news media has been polarised, while representing Covid-19. Lastly, this section presents aims and objectives of the study.

Theoretical background of epistemicity is presented in three subsections. The first sub-section introduces epistemic support by presenting the divisions of full-partial-neutral support (Boye, 2012). The second sub-section presents the notion of epistemic justification focusing on indirect justification (indirect inferential justification (IIJ) and indirect reportative justification (IRJ)). The third sub-section presents the notions of cognitive attitude (CGA) and factivity ((CFV), (IFV)), which are also a part of epistemicity/epistemic stance (Marín-Arrese, 2011). Section two also reflects on previous studies conducted in the area of newspaper discourse as far as study of the markers of epistemicity are concerned.

Section two offers an extensive description of how the research is conducted. It clearly presents details about the data collection process, data size and the types of newspaper genres. This section finally provides clear information regarding the research methodology, the procedure of data analysis and the corpus analysis tool.

Section three presents the results of the empirical study, which is divided into three sub-sections, the first of which analyses the distribution and use of epistemic support markers in the corpora consisting of the British and American newspapers. Section four presents the realisations and distribution of the linguistic resources of epistemic justification in the British and American selected newspapers. Section five provides the realisations and distribution of verbs of cognitive attitude and expressions of factivity in the British and American newspapers under analysis. Overall, the empirical part of the thesis focuses on the prevailing coding elements of epistemic support and

epistemic justification, including verbs of cognitive attitude and factivity expressions present in the corpora from a comparative perspective.

Section six includes the restatements of the main findings, as well as directions regarding the future research.

1 Theoretical Background

1.1 The category of epistemicity

In this present section, a general review of the notion of epistemicity proposed by Boye (2012) is offered, in addition to the dimension of the epistemic stance presented by Marín-Arrese (2011). According to Boye's (2012) classification, the category of epistemicity is divided into two subcategories of epistemic support and epistemic justication, which include the notions of direct evidence, indirect evidence, certainty, probability and epistemic possibility. The relationship between these categories can be termed "justificatory support" (Boye, 2012, 12).
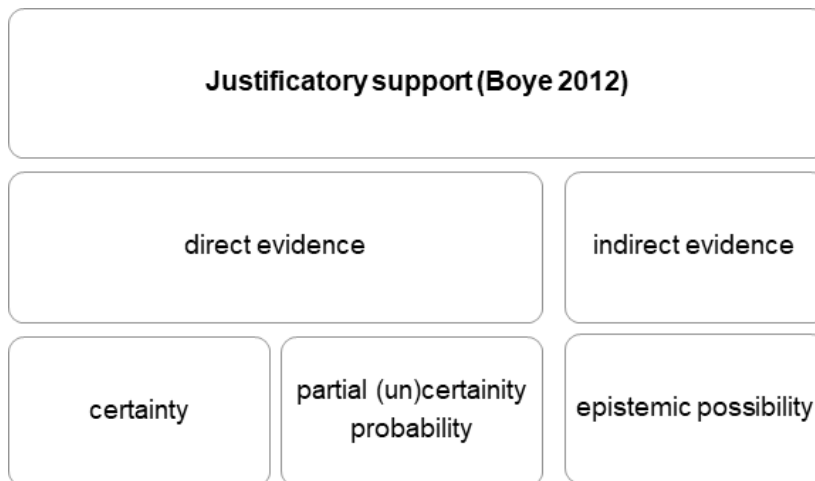
Figure 1 Boye's (2012) justificatory support

Even though there has been a myriad of classifications, typologies and "overlaps" regarding the lines of modality, evidentiality and epistemic modality, this present study adopts Boye's (2012, 7) epistemicity framework to unravel how the relationship between structure and use of the epistemicity markers serves the purpose of cognitive and functional communication.

1.2 Epistemic support

The notion of epistemic support comprises an epistemic modal scale that is ranked as "full support (certainty), partial support (probability and likelihood) and neutral support (possibility and uncertainty" (Boye, 2012, 21-22). The notion of full support (or full epistemic support) can be explained with "emphatic certainty" and "full certainty", while the partial support is expressed with the markers denoting "probability", "likelihood", and "dubitative" (Boye, 2012, 23). The expressions in the category of neutral support denote "epistemic possibility" and also refer to "complete uncertainty" and "complete lack of knowledge" (Boye, 2012, 25). In the present study, the markers expressing the certainty or full commitment of the writers towards the events of Covid-19 include

certainly, *surely*, *for sure*, *definitely*, *no doubt*, *bound to* and *must*. The partial support markers expressing "medium certainty" regarding the Covid-19 events include *will*, *would*, *should*, *likely*, *probably, probability*. The markers of neutral support or epistemic possibility are *may*, *might, could, perhaps, maybe, unlikely*. The figure below shows the classification provided in the literature (Boye, 2012, 22-31).

Epistemic modal scale

Full support	Partial Support	Neutral support
• K-group: K stands for know	• T-group: T stands for think	• P-group: P stands for possibly
• "certainty"	• "probability"	• "epistemic possibility"
• "emphatic certainty"	• "likelihood"	• "agnostic"
• "full certainty"	• "doubt"	• "complete uncertainty"
	• "dubitative"	
	• "uncertainty"	
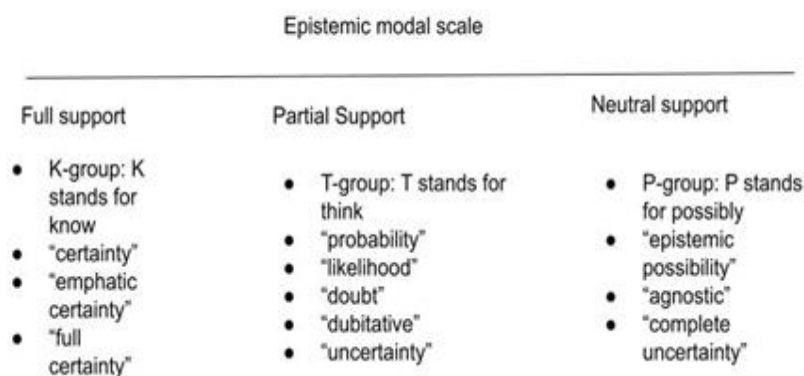
Figure 2 Boye's (2012) framework on the epistemic modal scale

Expressions of epistemic modality very often relate to the likelihood, possibility, necessity and prediction of the events or state of affairs (Biber *et al.* 1999, 485). They express the speaker/writer's "assessment of its degree of reliability, the likelihood of its being a fact" (Chafe 1986, 264). From a different perspective, "epistemic modality concerns an estimation of the likelihood that (some aspect of) a certain state of affairs is/has been/ will be true (or false) in the context of the possible world under consideration" (Nuyts 2001b, 21-22). In Boye's (2012) classification, the realisations of epistemic support are ranked with respect to the speaker/writer's commitment to the proposition. This ranking system quite relates to how the knowledge is retrieved either through direct justification (first-hand) or indirect justification ("reportative", "inferential", "hearsay" or "second-hand"). This ranking system is accounted for with the notion of "degrees of reliability" by Chafe (1986). Chafe (1986, 264) states that "one way in which knowledge may be qualified is with an expression indicating the speaker's assessment of its degree of reliability, the likelihood of its being a fact."

1.3   Epistemic justification

Knowledge can be acquired through and expressed in miscellaneous ways. Validation of knowledge with respect to the source of knowledge either direct or indirect and its relation to epistemic expressions has been scrutinised through various typologies and maps set forth by many

scholars (e.g. Chafe 1986; Palmer 2001; Aikhenvald 2004). Evidentiality means in Aikhenvald's (2004, 3) words "a linguistic category whose primary meaning is the source of information." Mushin (2001, 18) approaches the notion of evidentiality from two perspectives. From a narrow view, evidential meaning refers to the source of information. Yet, from a broader perspective, evidentiality illustrates the speaker/writer's stance towards knowledge. Boye (2012) maintains that evidentiality reflects the source and evidence for information obtained. However, instead of evidentiality, Boye (2012, 19) leant toward using the term justification for eliminating the meanings of ethical justification and the other expressions of non-epistemic justification. Epistemic justification is grouped into two classes: direct justification and indirect justification. Indirect justification can be divided into two branches: indirect-reportive and indirect-inferential.
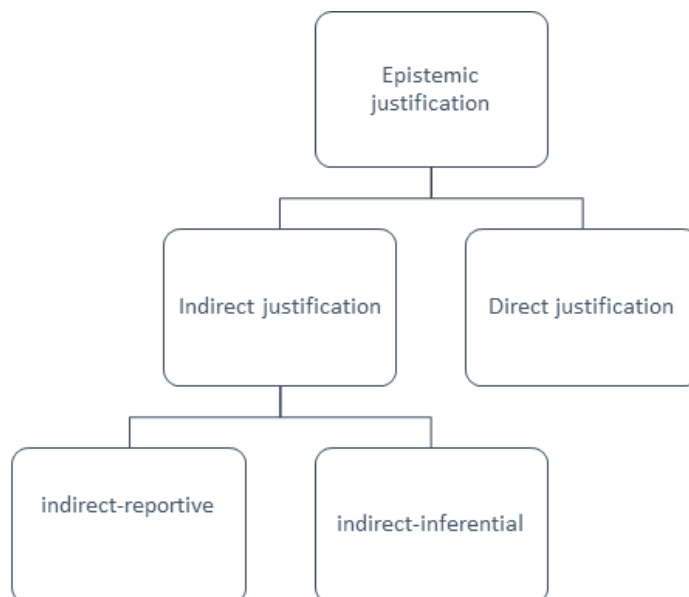
Figure 3 Boye's (2012) classification for epistemic justification

Direct justification's sub-types include "direct evidence", "first-hand evidence", "sensory evidence", and "auditory evidence". Indirect reportive justification has its own sub-categories such as "reportive evidence", "reportative evidence", "hearsay evidence", "second-hand evidence", "third-hand evidence" and "quotative". Additionally, indirect-inferential is divided into two classes: "inferential evidence" and "assumptive evidentiality". Aikhenvald's (2004, 63) evidential category with alternative terms consists of such sub-types as "visual", "non-visual sensory", "inference", "assumption", "hearsay", and "quotative".

1.4   Domains of cognitive attitude and factivity

In the current study, alongside epistemic support and epistemic justification, the expressions of cognitive attitude and factivity, which are a part of epistemicity/epistemic stance (Marín-Arrese

2011), are investigated. The domain of epistemic stance is pointed out by Marín-Arrese (2011, 195) in the following way:

> *Epistemic stance refers to the positioning of the speaker/writer with respect to knowledge concerning the realisation of the event, to the ways in which the speaker/writer carries out a stance act aimed at estimating the likelihood of an event and/or judging the validity of a proposition designating the event.*

The following subcategories of epistemic stance are adopted from Marín-Arrese's (2011) classification:

(a) CFV: Cognitive factive include markers describing the writer's knowledge of the representations in explicit ways (Marín-Arrese, 2015, 219), and expressions include such markers as *I/we know, I remember, as I recall, realise, find* and *understand*, etc.

(b) IFV: Impersonal factives include expressions that strengthen the writer's devotion to a claim (Marín-Arrese, 2021, 141), such as *the fact, in fact, the reality, it is true that.*

(c) CGA: The expressions of cognitive attitude refer to mental state of the writer, representing the writer's beliefs and attitudes towards the event (Marín-Arrese, 2021, 141). The expressions involved in this category are *I/we believe, I think, I guess, I suspect, presumably*

1.5 Previous studies in newspaper discourse

There are a number of relevant studies in newspaper discourse investigating the notion of epistemicity and associated terms such as epistemic modality, evidential expressions and epistemic stance, which form the backbone of this present study.

A study on epistemicity and stance in journalistic discourse was conducted by Marín-Arrese (2015) to uncover the features of stance devices embracing evidential and epistemic modal expressions, including cognitive attitude and factivity markers in three sub-genres of the British and Spanish newspapers. The results of the study showed a remarkable difference in the use of the stance resources, especially in the use of epistemic modal expressions that are frequently preferred by English journalists, manifesting that English journalists mitigate their voices while communicating their assertions through the use of epistemic justification and support markers compared to Spanish journalists. Furthermore, the differences in the distribution of the epistemic stance markers were observed across the genres. Whereas opinion columns in both languages contain more cognitive attitude expressions in comparison with the other genres, the texts of news reports show more indirect-reportative evidence markers in both languages. Lastly, Marín-Arrese drew attention to the fact that the differences in the distribution of epistemicity across the genres and languages might be due to cultural variations. Marin-Arrese (2015, 223) implied that the differences and similarities in the exploitation of linguistic resources would be attributed to cultural factors. Based on this research,

the current study points out that alongside the cultural differences, political tendencies might fluctuate the distribution and frequency of the expressions of epistemicity.

Another relevant study is performed by Henneman (2012), who analyses the function of modal adverbs and cognitive verbs that express evidentiality and epistemic modality in a daily newspaper *El País* based in Spain. The study emphasizes the multifunctionality of the modal adverbs *evidently, apparently* and *obviously*, displaying the contexts in which the meanings of epistemic modality and inferential evidentiality are interwoven. More specifically, the author came across the context where the modal adverb *probably* is used, albeit barely, in the inferential meaning. Similarly, mental predicates such as *I believe* and *I think* in some contexts conveyed the epistemic meaning, as well as the meaning of evidentiality. This multifunctional feature of modal adverbs and mental predicates may well be interpreted through the notions of the 'connecting lines on the semantic map of epistemic expressions", as argued by Boye (2012). Therefore, this current study draws on the epistemicity framework (i.e. justificatory support) presented by Boye (2012) for analysing the overlapping occurrences of the linguistic resources.

Facchinetti (2013) analysed the distribution and function of the modal verbs *will, could, can, could* and *should* throughout four news-related blogs concerned with the international affairs of the Russian-Georgian war. The author attempts to unravel the similarities and differences of the modal verbs used in the online news blogs and the traditional mainstream newspapers. The results of this study indicate that modal verbs are distributed variably in the blogs and mainstream newspapers. This variation in the use of linguistic resources of the compiled news texts might be elucidated with the institutional traits. Freelance journalists structure their texts in a freer format compared to the institutionalised journalists in the corpus (Facchinetti, 2013, 374-375). The study lacks a deeper analysis of the texts from the domains of epistemic support and epistemic justification, which are essential in assuring whether the variation of the linguistic resources used in the news blogs stems from personal or institutional features. This present study attempts to close this gap by addressing the question of whether the institutionalised practices have an impact on the variation in the frequency and distribution of the linguistic resources from the domain of epistemicity.

Bednarek (2006) explored epistemological positioning, evidentiality, sourcing and subjectivity by analysing English newspaper texts. The scholar states that evidentiality and epistemological positioning in newspaper discourse needs to be explored further either through text-driven or corpus-driven methods. The present thesis provides a deeper analysis of newspaper texts posted in English from two English speaking countries through the linguistic elements of the epistemic justificatory framework presented by Boye (2012).

Carretero *et al.* (2017) offered a comparative study of the evidential adverbs *clearly*, *evidently, obviously, apparently, seemingly* and *supposedly* alongside their Spanish translations. This research study combines spoken and newspaper discourse in order to elicit the differences in spontaneousness and planning. The evidential adverbs are examined in accordance with their varying degrees of reliability. While the higher degree of reliability is attributed to the information that is obtained through personal experience, the lowest degree of reliability is attributed to the information acquired through hearsay.

In sum, the notion of epistemicity consists of epistemic support and epistemic justification. Epistemic support is expressed through full support, partial support and neutral support markers. Epistemic justification is divided into two categories as direct and indirect justification (indirect inferential justification and indirect reportative justification). The distinction within the epistemic justification is based on how the information is obtained. The current study also addresses the domains of cognitive attitude and factivity to shed light on the truth of an assertion and the representation of the writer's beliefs and knowledge (Marin-Arrese, 2015).

2 Data and Methodology

This section provides a comprehensive overview of the way this study was designed and conducted. First, the section begins with a description of the sources of data selected for this study, namely types of newspapers and genres. Then, the procedures of data collection and compilation of the corpus are explained. Finally, the section presents the methods used and the ways of processing and analyzing the data.

2.1 Sources of data and compilation of the corpus

The present study aims to investigate the markers of epistemic support, epistemic justification, cognitive attitude and factivity in the representation of the Covid-19 pandemic situation in British and American newspaper discourse.

A set of criteria, i.e. types of newspapers and genres, were established prior to starting the data collection. The data was self-compiled from the British and American broadsheets representing different ideological orientations. The British newspapers include *The Times*, representing a conservative political stance and *The Independent*, a liberal paper; the American newspapers include *The New York Times*, a liberal political orientation and *The Wall Street Journal*, representing a conservative paper. The ideological orientation (i.e. conservative, liberal) of newspapers mentioned plays a key role in being selected for this study. The factor of ideology is chosen as a distinction line for this study, since ideology has been one of the primary properties of the newspapers (Gentzkow et al 2014, 3074). Drawing on the framework of epistemicity enables this study to reveal how the newspaper politically biased their opinion and understanding regarding the Covid-19 pandemic (Chong, 2019, 440-441). Three genres, namely news reports, opinion columns and editorials, were chosen for analysis, which enhances the possibility of the comparison of the markers of epistemic support, epistemic justification and the dimensions of cognitive attitude and factivityfrom different angles.

As far as the characteristics of genres are concerned, one of the most outstanding properties of the editorials is that the editorial writers use linguistic resources to establish favourable or unfavourable bias in their arguments (Bhatia, 2014, 303-304). Opinions function as "mental representatives" of the nwspapers (Van Dijk, 1996). A news story needs to be neutral and use objective language as much as possible (Lavid *et al.* 2012, 5).

The research data was collected through an online search on each newspaper's original website. The research material comprised the articles generated for the sections of news reports, opinion

columns and editorials of the newspapers' digital versions. As the phenomenon of the Covid-19 pandemic is a recent issue, the search box on each newspaper's website allowed me to search the related articles dated back to the starting date of the Covid-19 pandemic. Entering the keywords, such as "COVID-19", "covid", "coronavirus", and "coronavirus pandemic" and filtering the scope of the date either "past year" or between March 2020 and February 2022 provided a large number of articles. Since the beginning of its outbreak, Covid-19 has had in-depth impacts on almost entire entities in life from health, economic and social, and many more. In this respect, great numbers of articles from politics, health, science, education and sports were collected to obtain possible homogenous data.

Despite the relevance to Covid-19, the articles written by the same journalists/writers were not chosen to get as variable data as possible. After the related article was found, it was downloaded, and then the text was saved in a .doc file format. The files include the number of information about the genres, names of the authors, publishing dates and URL links, which enables the data to be handled in extensive detail. Names of the journalists, dates, headlines and definitions of the images were removed from the running texts on the grounds of merely analysing the remaining text. All the data and the information regarding the articles are stored digitally. The running texts were scanned and analysed quantitatively using AntConc (version 4.0.5).

As mentioned above, the texts were selected between starting early in March 2020 and ending early in February 2022 from the three sections of news reports, opinion columns and the editorials of *The Times, The Independent, The Wall Street Journal and The New York Times*, equally distinctive in their political and ideological orientation. Thus, the corpus includes the subcorpora of British and American broadsheets, the size of which are provided in Table 1. The subcorpus of the British broadsheets (*The Times* and *The Independent*), includes 200,888 words and 270 articles of all three genres. The subcorpus of the American broadsheets (*The Wall Street Journal* and *The New York Times*) comprises 219,191 words and 273 articles. Table 1 below illustrates the number of words of each subcorpus and texts per genre.

Mar 2020 – Feb 2022	Opinions		Editorials		News		Total	
	NW	NT	NW	NT	NW	NT	NW	NT
The UK								
The Times	32,385	43	27,022	27	41,039	61	100,446	131
The Independent	32,338	40	33,532	32	34,552	67	100,,442	139
Total	64,723	83	60,554	59	75,591	128	200,888	270

The US							
The New York Times	31,908	30	32,776	32	47,302	40	111,986	102
The Wall Street Journal	34,085	48	28,512	46	44,608	45	107,205	139
Total	65,993	78	61,288	78	91,907	85	219,191	241

Table 1 Corpus of opinion columns, editorials and news reports in the British and American newspapers (**NW:** number of words, **NT:** number of texts.)

2.2 Methods

The current study adopts both qualitative and quantitative analysis, the integration of which yields a more comprehensive interpretation of the data (Creswell, 2014). For this study, the quantitative analysis concerns the calculation of the raw and normalized frequencies of the markers of epistemicity in the British and American broadsheets across different genres, whilst the qualitative analysis aids in interpreting the functions of the markers of epistemic support, epistemic justification, factivity and cognitive attitude. To achieve more appropriate and consistent findings, a purposeful selection criterion was implemented in this study. Defining the theme and research area beforehand and selecting only articles possessing the specific characteristics related to Covid-19 have enabled the examination of all the relevant aspects of the phenomenon.

2.3 Data processing and analysis

The data in this study is mostly analysed through the lenses of Boye's (2012) framework for epistemicity and Marín-Arrese's (2011) categorization of epistemic stance. Expressions of epistemic support, epistemic justification, cognitive attitude and factivity are examined in each sub-corpus in order to answer the research question about the distribution and deployment of epistemicity markers used in the British and American broadsheets. A set of criteria applied for selecting the epistemicity expressions found in the texts were the following:

(a) In the first place, frequency counting was done for the partial support markers, which include *will, would, should, probably, likely, likelihood, probability.*The forms *will* and *would* were discarded when they were used as future tense markers. The study included the modal verbs *will* and *would* that only denote epistemic support, such meanings as prediction, future assumptions and general inferences. In order to differentiate the epistemic *will* and *would* from the other modality types, such as deontic or dynamic modality, the modal verb *will* and *would* were paraphrased with the following expressions, including*be willing to* and *be prepared to*, which are labelled as volition, willingness and insistence

(Collins, 2009, 131 -135). Additionally, when marking the use of *will* and *would* that expresses epistemic meaning, a variety of syntactic features such as "the passive voice usage", "non-agentive verb", "existential there-construction" were taken into consideration (Collins, 2009, 129-131). The modal verbs *will* and *would* used with a 1st or 2nd person subject, referring to deontic modality, were not included in the analysis. Finally, there is a distinction between epistemic *should* and deontic *should* (expressing an obligation). In this study, only epistemic *should*, expressing a presumption, or an evaluation of the assertion's likelihood (Collins, 2009, 46), was selected, as in the following example:

(1)   *England* **should** *by now be introducing the kind of clearer household mixing regulations there are in Scotland.* (*The Independent_*editorials)

(b)   There are also certain criteria that applied to the neutral support expressions. The epistemic devices marked as neutral support include *possibly, possibility*, *maybe, perhaps*, *may, might and could.* These expressions are observed in the data that contained hints of the journalist's lack of confidence in their utterance. It should be noted that modal auxiliary verbs can express different types of modality, namely epistemic, deontic or dynamic (*cf.* Downing & Locke 2006, 385-393; Palmer 2001:9; Biber *et al.* 1999: 485). Despite the nature of polysemous nature of modal verbs, it might be possible to distinguish epistemic meanings from dynamic or deontic meanings. Even though the occurrences of the modal verbs *may* and *might* were dominantly epistemic, there were the occurrences of *may* and *might* denoting deontic modality, which were not included in the analysis. This discrimination is conducted through paraphrasable expressions, for instance, dynamic modality can be detected through the construction of "*it is possible for…*" (Collins, 2009, 110). Adding that, the modal verb *could* denoting the past ability and dynamic possibility was not included in the analysis. The modal verb *could* denoting epistemic possibility was included only in the cases where it was found with the non-human or inanimate subjects, as in the following example:

(2) *This* **could** *explain why more than one medical-journal study has found that transmission largely occurred inside households.* (*The WSJ_*editorials)

(c) Regarding the full support (certainty) markers, the expressions of certainty (or full support) are included in the data providing that they convey the certainty of knowledge. Certainty is coded by adverbials and nouns. The expressions of certainty are marked by *certainly, no doubt, certain, surely* and *definitely*.

(3) *It's* **certainly** *here to stay, "endemic" rather than "pandemic", they tell us*. (*The Independent_*opinion column*)*

A significant point that needs to be noted is that the notions on the epistemic scale consisting of full support, partial support and neutral support also encapsulate the notion of negative epistemic meanings (Boye, 2012, 27). For instance, "impossibility" can be graded as full support as it expresses the contradictory meaning of "certainty": "it is certain that not P". The following cases found in the data exemplify the negative epistemic meanings:

(4) *but much of what we've seen in 2020 would have seemed* **impossible** *as the year began.* (*The Independent*_opinion column)

(d) Regarding the category of indirect reportative justification (IRJ), the information is retrieved from either the mode of hearsay or second hand. The phrases in this category signal that the source of the information is external and indirect (*cf.* Chafe 1986; Cornillie 2009; Carretero *et al.* 2017). The expressions of indirect-reportative justification were realised in the data by such markers as *reportedly, according to, (be) told, allegedly, supposedly*, *seem* and *appear*, which are non-personal, external sources of evidence (Marin-Arrese, 2015, 214). There were such IRJ markers as *they say, people say, experts/researchers/health officials say* in the data.

(e) The category of indirect inferential justification (IJJ) can comprise various types of inferences (Boye, 2012). Squartini (2008, 925) indicates three inferential types: circumstantial inferences, generic inferences and conjectural inferences. Based on the above mentioned scholars' categorisation, *clear, clearly, apparent, apparently, obvious, obviously, seemingly, seem, sign, evidence* and *proof* were selected as the IJJ markers in the data. It should be noted that there are certain types of evidential markers, such as *apparently, appear and seem* having multifunctional features considered either as IJJ marker or IRJ marker (Marín-Arrese, 2015). However, the occurrence of the evidential marker, *apparently* was not found prevalent in the data, the occurrence *apparently* was examined within the category of IJJ. On the other hand, evidential verbs *appear* and *seem* were considered separately, either as IRJ or IJJ, depending on the context they occurred.

(f) The category of factivity was dealt with in the category of epistemic stance presented by Marín-Arrese (2011). The markers of cognitive factive (CFV) include as *I/we know*. The verb *know* is kept distinct from its non-qualificational meanings, which refer to *to be acquainted with* or *to be aware of* (Cappelli, 2007, 156). The markers of impersonal factivity (IFV), such as t*he fact, in fact, the reality, it is true* were examined separately.

(g) The expressions of cognitive attitude (CGA) include *I/we think, I/we believe, I/we guess, I/we suspect* and *presumably*.

Finally, it should be noted that there are some epistemic meanings naturally regarded as epistemic; however, they are regarded as non-epistemic within the framework of epistemicity argued by Boye (2012, 31-35). The categories regarded as non-epistemic in justificatory support system include:

(i) mirativity

(ii) quotative (quotation marking)

(iii) indicative

(iv) dimensions of hedges (*like, sort of, mainly, in general,* etc.)

The expressions belonging to these categories were not included in the data analysis.

3 Realisations of epistemic support in the British and American press

This section presents the analysis of epistemic support markers used in the context of Covid- 19 discourse in three sub-genres of *The Times*, *The Independent, The Wall Street Journal* and *The New York Times*, namely in news reports, editorials and opinion columns. Following the scale of epistemic support proposed by Boye (2012), the expressions in the three sub-genres in the four newspapers were classified into markers of full support (certainty), partial support (probability) and neutral support (possibility and (complete) uncertainty).

3.1 Distribution of the markers of epistemic support in the corpora

Prior to investigating the realizations of epistemic support in the three subgenres, the overall frequencies of the epistemic support markers in the corpora (Table 2) are discussed.

The Times	Opinion columns		Editorials		News reports		Total	
Epistemic Support	N	R	N	R	N	R	N	R
Full support	15	4.57	20	7.40	5	1.2	40	3.98
Partial support	159	49.06	181	66.97	112	27.26	452	44.99
Neutral support	77	23.74	71	26.27	48	11.67	196	19.51
Total	251	77.37	272	100.64	165	40.13	688	68.49
The Independent	Opinion columns		Editorials		News reports		Total	
Epistemic support	N	R	N	R	N	R	N	R
Full support	26	7.98	37	10.97	3	0.84	66	19.10
Partial support	176	54.41	316	94.21	77	22.25	569	56.64
Neutral support	71	22.01	158	47.08	68	19.62	297	29.56
Total	273	84.4	511	152.26	148	42.61	932	92.78
The WSJ	Opinion columns		Editorials		News reports		Total	
Epistemic Support	N	R	N	R	N	R	N	R
Full support	11	3.2	7	2.45	4	0.88	22	2.05
Partial support	200	58.66	149	52.23	134	30.02	483	45.05
Neutral support	99	29.01	90	31.54	62	13.85	251	23.41
Total	310	90.87	246	86.22	200	44.75	756	70.51

The NYT	Opinion columns		Editorials		News reports		Total	
Epistemic support	N	R	N	R	N	R	N	R
Full support	9	2.8	26	7.91	5	1.05	40	3.57
Partial support	237	74.26	193	58.85	144	30.42	574	51.25
Neutral support	100	31.31	84	25.59	131	27.65	315	28.12
Total	346	108.37	303	92.35	280	59.12	929	82.95

Table 2 Distribution of the epistemic support markers in the corpora (raw numbers and normalised frequencies per 10,000 words).

The distribution of the 'epistemic support' markers (full, partial and neutral support) illustrates that, in general, the markers of partial support (probability) are more frequent in the selected newspapers across the three sub-genres, whereas the markers denoting full support (certainty) are scarcely used, which might be due to the fact that journalists abstain from conveying statements in full confidence when it comes to giving information to potential readers about the novel coronavirus. Marín-Arrese (2015) also observes that partial support expressions are commonly used in journalistic discourse, and she interprets this tendency as "a lesser degree of commitment" expressed by writers (Marín-Arrese 2015, 222). At this point, the journalists might signal the dubiousness and constantly changing status of Covid-19 through the deployment of partial support markers.

The markers of neutral support become the second choice of the writers, which reflects the fact that the texts in the context of Covid-19 discourse are written more cautiously and tentatively. Furthermore, the markers in the three classifications are more frequent in *The Independent* than in *The Times*. As for the American newspapers, the markers of epistemic support are more prevalent in *The New York Times* than in *The Wall Street Journal*. Thus, both the British and American newspapers representing liberal ideology contain more markers of epistemic support than the newspapers reflecting conservative ideology, which implies a more salient authorial perspective on the pandemic in the papers with a liberal political slant.

In contrast, the news reports show lower occurrences of epistemic support markers. Particularly observable in the case is the lack of the full support markers in the news reports, clearly making the news reports writers' assertions less conclusive.

The distribution of the individual markers of partial, neutral and full support is examined in detail in the following subsections.

3.2 Partial support

The distribution of the markers of partial support across the genres (Figure 4) shows that in the British newspapers, the partial support markers are most frequent in the editorials. As known, editorials generally provide information that is reshaped in accordance with the political opinion of their institution and aim "to influence public opinion" (Firmstone, 2019, 5). Thus, the dominance of the partial support markers in the British editorials may be a sign of cautious presentation of attitudes and opinions to the general public in Britain. In the American newspapers, the markers of partial support are more frequent in the opinion columns. It might suggest that the writers of opinion columns are more willing to reflect on their personal evaluation regardless of their institutions ideology. The markers of partial support were almost equally distributed in the news reports of the selected newspapers.

Figure 4 Normalised frequencies of the partial support markers in the corpora across the genres.

Table 3 and Table 4 below display the raw numbers and normalised frequencies per 10,000 words of the markers of partial support in the three sub-genres of *The Times*, *The Independent*, *The Wall Street Journal* and *The New York Times*.

	Opinion columns	Editorials	News Reports

Partial support	The Times		The Independent		The Times		The Independent		The Times		The Independent	
	N	R	N	R	N	R	N	R	N	R	N	R
will	92	28.40	104	32.16	103	38.11	160	47.71	29	7.06	25	7.23
would	47	14.51	39	12.06	50	18.50	108	32.20	51	12.42	30	8.68
should	2	0.61	2	0.61	9	3.33	5	1.49	1	0.24	1	0.28
likely	5	1.54	25	7.73	13	4.81	21	6.26	24	5.84	20	5.78
likelihood	1	0.30	-	-	2	0.74	1	0.29	1	0.24	-	-
probably	12	3.70	6	1.85	4	1.48	21	6.26	6	1.46	1	0.28
Total	159	49.06	176	54.41	181	66.97	316	94.21	112	27.26	77	22.25

Table 3 Distribution of the partial support markers in *The Times* and *The Independent*

	Opinion columns				Editorials				News Reports			
	The WSJ		The NYT		The WSJ		The NYT		The WSJ		The NYT	
Partial support	N	R	N	R	N	R	N	R	N	R	N	R
will	96	28.16	121	37.92	76	26.65	113	34.47	49	10.98	52	10.99
would	68	19.95	72	22.56	41	14.37	52	15.86	37	8.29	48	10.14
should	-	-	3	0.94	2	0.70	1	0.30	-	-	4	0.84
likely	29	8.50	33	10.34	24	8.41	23	7.01	45	10.08	31	6.55
likelihood	4	1.17	1	0.31	-	-	1	0.30	-	-	1	0.21
probably	3	0.88	7	2.19	6	2.10	3	0.91	3	0.67	8	1.69
Total	200	58.66	237	74.26	149	52.23	193	58.85	134	30.02	144	30.42

Table 4 Distribution of the partial support markers in *The WSJ* and *The NYT*

Across the three sub-genres in both British and American newspapers, the most frequent markers of partial support are the modal verbs *will* and *would* that serve the purpose of prediction and assumption. Journalists in the newspapers investigated tend to use *will* and *would* to predict and anticipate the future actions related to Covid-19, to name a few, the infection and death rates, the economic status of the country, and possible ending scenarios for Covid-19 as in the following examples:

(5) *Rightly so, in fact, because the situation **will** remain serious for some time yet, and a potential third wave later in the year has always been a likely development.* (*The Independent*_editorials)

(6) *That **would** be likely to rise again next year, as we continue to struggle with the economic consequences of the pandemic.* (*The Times*_editorials)

(7) *Boosters for the wealthy and scraps for everyone else **will** neither get us out of this pandemic nor prepare us for the next one.* (*The NYT*_opinion columns)

In both British and American newspapers, the second most frequent markers of partial support are *likely,* and *probably*, which also help the audience realise the 'subjective tone' of the writer. The expressions of partial support suggest that coronavirus has constantly morphed into new variants, which might cause unforeseeable consequences. Thus, journalists might prefer avoiding expressions denoting certainty due to the presence of various uncertainties. There were numerous examples of the use of *likely* and *probably* in *The Independent*, especially in the opinion columns and editorials. The use of these markers shows "opinion ("I think") and lack of knowledge ("I don't know") rather than truth" (Wierzbicka, 2006, 253). The writers of the newspapers are aware that their country and the whole world have been undergoing a serious health crisis. Therefore, they use these markers while commenting on the issues which are not yet verified, such as recent developments in vaccinations, future lockdown and re-opening regulations of the government, as shown in examples (8), (9) and (10) below:

(8) *It is **likely** that from July 19, whether you cover your face will, in most circumstances, be your call. (The Times*_opinion columns*)*

(9) *and that there was no point in delaying the inevitable by suppressing the virus, as a vaccine would **probably** take a decade to arrive. (The Times*_ opinion columns*)*

(10) *Studies from China show kids were more **likely** to pick up the virus from their parents than vice versa.* (*The WSJ*_editorial)

3.3   Neutral support

The distribution of the markers of neutral support across the genres (Figure 5) shows that they are generally more frequent in the editorials and opinion columns in the corpora. It should be noted that the writers of the editorials in *The Independent* and *The WSJ* use the markers of neutral support quite frequently. The markers of neutral support are almost equally distributed in the editorials of *The Times* and *The NYT*.
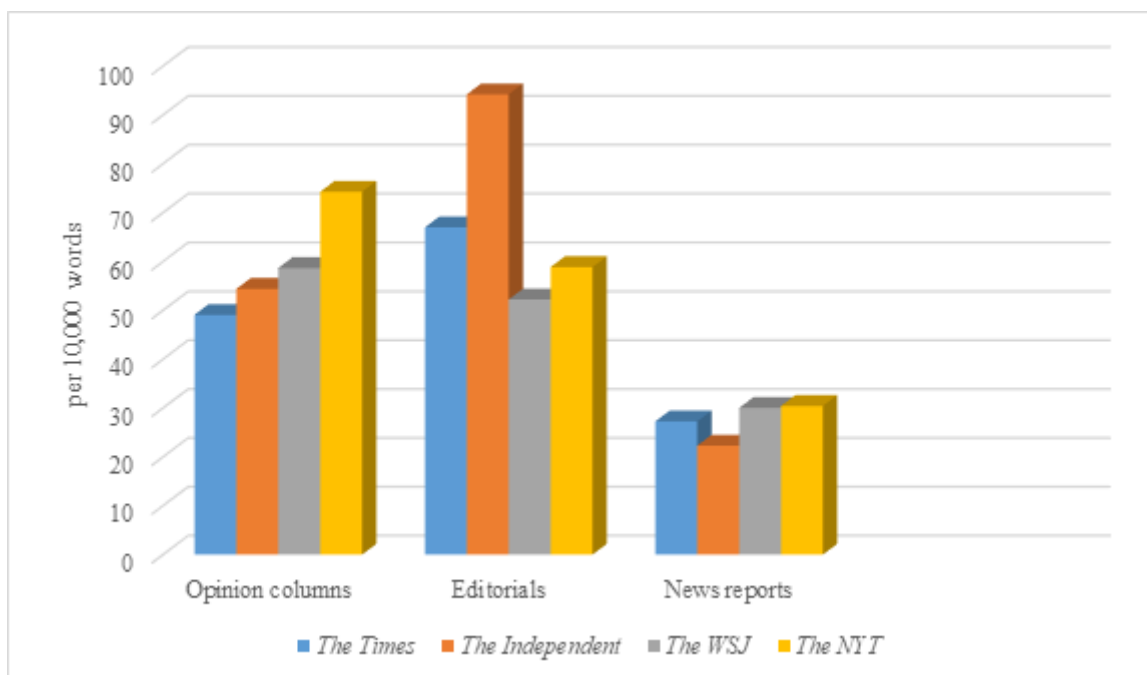
Figure 5 Normalised frequencies of the markers of neutral support in the corpora across the genres.

Table 5 and Table 6 below show the raw numbers and normalised frequencies per 10,000 words of the neutral support markers used in the British and American newspapers.

	Opinion columns				Editorials				News Reports			
	The Times		The Independent		The Times		The Independent		The Times		The Independent	
Neutral support	N	R	N	R	N	R	N	R	N	R	N	R
may	21	6.48	23	7.11	27	9.99	66	19.68	20	4.87	19	5.49
might	14	4.32	11	3.40	17	6.29	26	7.75	3	0.73	7	2.02
could	16	4.94	7	2.26	12	4.44	25	7.45	16	3.89	30	8.68
perhaps	9	2.77	9	2.78	4	1.48	12	3.57	-	-	2	0.57
maybe	3	0.92	2	0.61	-	-	-	-	2	0.48	-	-
unlikely	3	0.92	1	0.30	5	1.85	5	1.49	3	0.73	5	1.44
possibly	3	0.92	6	1.85	1	0.37	7	2.08	3	0.73	1	0.28
possible	8	2.47	10	3.09	4	1.48	11	3.28	1	0.24	2	0.57
possibility	-	-	2	0.61	1	0.37	6	1.78	-	-	2	0.57
Total	77	23.74	71	22.01	71	26.27	158	47.08	48	11.67	68	19.62

Table 5 Distribution of the neutral support markers in *The Times* and *The Independent*

	Opinion columns				Editorials				News Reports			
	The WSJ		The NYT		The WSJ		The NYT		The WSJ		The NYT	
Neutral support	N	R	N	R	N	R	N	R	N	R	N	R

may	47	13.78	38	11.90	43	15.08	27	8.23	9	2.01	56	11.83
might	12	3.52	15	4.70	6	2.10	18	5.49	19	4.25	33	6.97
could	14	4.10	23	7.20	21	7.36	19	5.79	27	6.05	22	4.65
perhaps	8	2.34	6	1.88	12	4.20	7	2.13	1	0.22	6	1.26
maybe	1	0.29	4	1.25	2	0.70	1	0.30	-	-	-	-
unlikely	6	1.76	3	0.94	3	1.05	-	-	1	0.22	3	0.63
possibly	3	0.88	3	0.94	-	-	5	1.52	1	0.22	1	0.21
possible	8	2.34	6	1.88	3	1.05	4	1.22	2	0.44	4	0.84
possibility	-	-	2	0.62	-	-	3	0.91	2	0.44	6	1.26
Total	99	29.01	100	31.31	90	31.54	84	25.59	62	13.85	131	27.65

Table 6 Distribution of the neutral support markers in *The WSJ (The Wall Street Journal)* and *The NYT (The New York Times)*

In this category, in both British and American papers, the modal verbs *may, might* and *could* are frequently deployed to express *possibility* or *complete uncertainty*. It seems that the writers have obfuscated their voices while commenting on the Covid-19 related events, which are mostly not substantiated by any type of evidence, such as scientific findings and studies, or authorial bodies. Journalists tend to use the markers of epistemic possibility and uncertainty through the use of the modal verbs *may, might* and *could* in cases of the lack of evidence (Boye, 2012, 159-61). It is seen in the data that the journalists present their evaluations, preassumptions far from being certain. As shown by the examples below, the expressions of neutral support suggest the journalist's lack of confidence and knowledge about the situation:

(11) *There are plenty of predictions as to how the coronavirus will change our lives, but the most worrying outcome **may** be a massive increase in youth unemployment and disillusionment.* (*The Times*_editorials)

(12) *Experts also suggest there are two distinct symptoms that **could** be a sign a positive test is around the corner: and dizziness/ fainting. (The Independent*_news reports*)*

(13) *It is a difficult choice, and it **might** not be the most politically attractive, but the fact is that the pandemic, by definition, is a global event, and it demands global solutions. (The Independent*_editorials*)*

(14) *This **could** explain why more than one medical-journal study has found that transmission largely occurred inside households.* (*The WSJ*_editorials)

Epistemic devices, such as *perhaps, maybe, possible, possibly* and *possibility* display lower frequencies compared to the modal verbs *may, might* and *could*, and they are absent in some subgenres in the newspapers investigated:

(15) ***Perhaps*** *the world will be lucky this time, and learn the lesson that "no one is safe until everyone is safe" without further unnecessary misery.* (*The Independent*_editorials)

In example (15), the marker *perhaps* helps the reader to evaluate the condition of the world, which has been adversely affected by the global pandemic. Within this category, the use of *unlikely* is also observed in the three sub-genres of the newspapers analysed.

3.4 Full support

The distribution of the markers of full support (Figure 6) illustrates that they are significantly more frequent in the editorials, except for *The NYT*. The dominance of these markers in the editorials may be connected with the authorial persuasion and determination to influence public opinion on matters that are certain but still raise questions and doubts to the public. The markers of full support denoting certainty and verified knowledge are used rarely in news reports in the British and American newspapers. This is due to the fact that the majority of the full support markers occurred in the quotes and had to be excluded from the analysis.
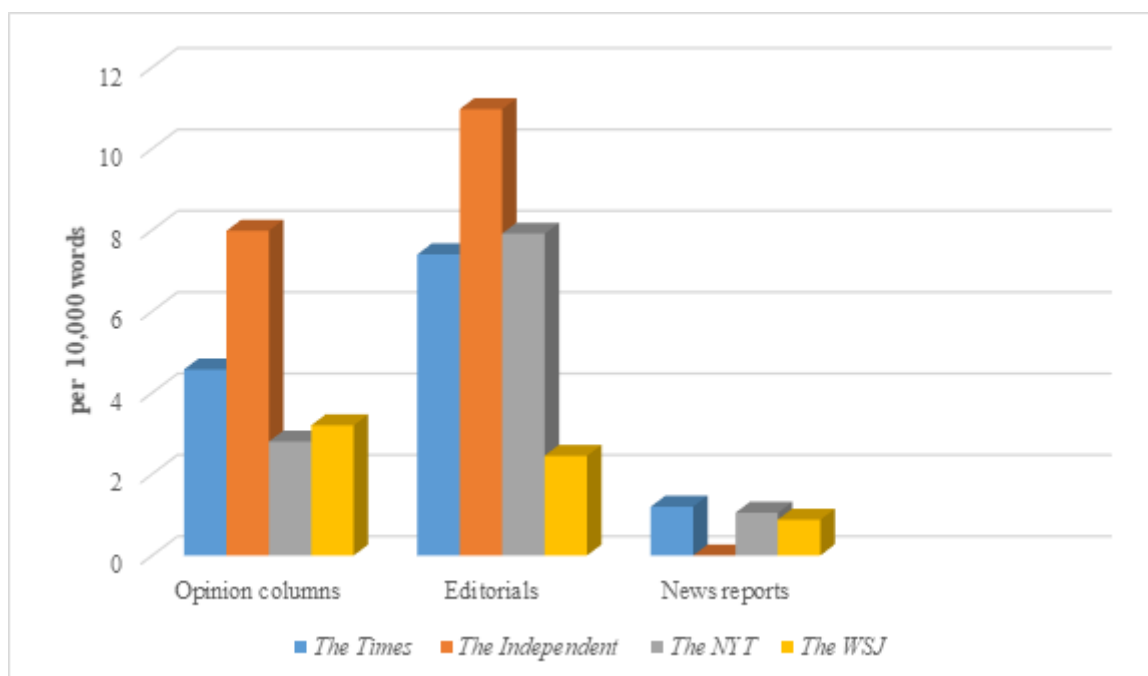

Figure 6 Normalised frequencies of the markers of full support in the corpora across the genres.

Table 7 and Table 8 below provide the raw numbers and normalised frequencies per 10,000 words of the full support markers used in *The Times*, *The Independent*, *The Wall Street Journal* and *The New York Times*.

| | Opinion columns | | | | Editorials | | | | News Reports | | | |
| | The Times | | The Independent | | The Times | | The Independent | | The Times | | The Independent | |
Full support	N	R	N	R	N	R	N	R	N	R	N	R
definitely	1	0.30	2	0.61	2	0.74	1	0.29	1	0.24	-	-
undoubtedly	3	0.92	1	0.30	-	-	1	0.29	-	-	1	0.28
no doubt	2	0.61	4	1.23	2	0.74	6	1.78	-	-	-	-
must	-	-	-	-	2	0.74	1	0.29	-	-	-	-
certain	1	0.30	-	-	2	0.74	1	0.29	-	-	1	0.28
certainly	5	1.54	4	1.23	4	1.48	20	5.96	-	-	1	0.28
sure	1	0.30	2	0.61	1	0.37	3	0.89	2	0.48	-	-
surely	-	-	10	3.09	2	0.74	1	0.29	-	-	-	-
for sure	1	0.30	-	-	2	0.74	-	-	1	0.24	-	-
bound to	-	-	1	0.30	1	0.37	3	0.89	-	-	-	-
impossible	1	0.30	2	0.61	2	0.74	-	-	1	0.24	-	-
Total	15	4.57	26	7.98	20	7.40	37	10.97	5	1.2	3	0.84

Table 7 Distribution of the full support markers used in *The Times* and *The Independent*

| | Opinion columns | | | | Editorials | | | | News Reports | | | |
| | The WSJ | | The NYT | | The WSJ | | The NYT | | The WSJ | | The NYT | |
Full support	N	R	N	R	N	R	N	R	N	R	N	R
definitely	1	0.29	-	-	-	-	-	-	-	-	-	-
undoubtedly	1	0.29	-	-	-	-	-	-	-	-	1	0.21
no doubt	1	0.29	1	0.31	4	1.40	-	-	-	-	-	-
must	-	-	-	-	-	-	-	-	-	-	-	-
certain	-	-	-	-	-	-	3	0.91	1	0.22	-	-
certainly	3	0.88	4	1.25	2	0.70	7	2.13	-	-	1	0.21
sure	1	0.29	2	0.62	-	-	10	3.05	1	0.22	-	-
surely	2	0.58	-	-	-	-	2	0.61	-	-	-	-
for sure	1	0.29	1	0.31	1	0.35	-	-	-	-	2	0.42
bound to	-	-	-	-	-	-	1	0.30	-	-	-	-
impossible	1	0.29	1	0.31	-	-	3	0.91	2	0.44	1	0.21
Total	11	3.2	9	2.8	7	2.45	26	7.91	4	0.88	5	1.05

Table 8 Distribution of the full support markers used in *The WSJ* and *The NYT*

The most frequent full support markers in the British and American newspapers are *certainly*, *definitely*, *no doubt*, *sure* and *surely*. The modal verb *must*, and other expressions, such as *for sure* and *bound to*, have lower frequencies.

The use of such markers as *certainly, undoubtedly,* and *no doubt* signals that there is "an absence of doubt" (Wierzbicka, 2006, 284). As pointed out by Quirk *et al.* (1985, 620), *certainly, surely* and *definitely* are among the markers that "present a comment on the truth value of what is said, expressing the extent to which, and the conditions under which, the speaker believes that what he is saying is true". The findings show that the

writers prefer using these markers in cases in which they introduce events that are justified with some evidence or scientific findings. For example, *certainly,* in (16) below shows that the writer refers to evidence

(16) *That was* **certainly** *evidenced in the trends in the northwest of England, Bedford and elsewhere. Even though the link between infection, and death have been weakened by the vaccine programme and improved treatments, there was every possibility of a third wave of Covid.* (*The Independent*, editorials*)*

The modal verb *must* is one of the less frequent full support markers. Example (17) is a typical representation of "the expression of speaker inference or judgment that is regularly associated with epistemic modality" (Collins, 2009, 29):

(17) *The Treasury* **must** *have known then how serious the economic outlook was. (The Times,* editorials)

In sum, a wide range of epistemic support markers is used by the writers of the newspapers either to indicate the likelihood of the assertions expressed regarding Covid-19 or to convey a future prediction regarding the possible future scenarios or a tentative possibility of the events specified in the context of Covid-19 discourse. The higher occurrences of the partial support markers show the writer's commitment to their assertions regarding the events of Covid-19 to a greater extent, which in turn helps the reader conceptualise the state of affairs circled around the Covid-19 pandemic and act accordingly.

4 Realisations of epistemic justification in the British and American press

In this section, the distribution and use of the markers of epistemic justification, i. e. evidentiality, in the corpora will be presented and discussed, following the classification of epistemic justification provided by Boye (2012).

4.1 Distribution of epistemic justification expressions in the corpora

Table 9 illustrates the raw numbers and normalised frequencies per 10,000 words of epistemic justification expressions occurringin the opinion columns, editorials and news reports of the selected British and American newspapers: lexical verbs of perception, appearance and utterance (e.g. *see, say, seem, look like, sound like*), adjectives (e.g. *obvious, apparent*), nouns (e.g. *sign, proof, report, evidence*) and adverbs (e.g. *obviously, allegedly, reportedly*) that express indirect justification (indirect reportative justification (IRJ) or indirect inferential justification (IIJ)).

The Times	Opinion columns		Editorials		News reports		Total	
Epistemic justification	**N**	**R**	**N**	**R**	**N**	**R**	**N**	**R**
IIJ	33	9.79	37	13.69	19	4.58	89	8.86
IRJ	38	11.64	24	8.88	67	16.28	129	12.84
Total	71	21.43	61	22.57	86	20.86	218	21.7
The Independent	Opinion columns		Editorials		News reports		Total	
Epistemic justification	**N**	**R**	**N**	**R**	**N**	**R**	**N**	**R**
IIJ	52	15.96	88	26.49	15	3.7	155	15.43
IRJ	17	5.2	30	8.88	75	21.62	122	12.14
Total	69	21.16	118	35.37	90	25.32	277	27.57
The WSJ	Opinion columns		Editorials		News reports		Total	
Epistemic justification	**N**	**R**	**N**	**R**	**N**	**R**	**N**	**R**
IIJ	46	13.44	51	18.92	29	6.68	126	11.75
IRJ	36	10.53	36	12.61	169	37.86	241	22.48
Total	82	23.97	87	31.23	198	44.86	367	34.23

The NYT	Opinion columns		Editorials		News reports		Total	
Epistemic justification	**N**	**R**	**N**	**R**	**N**	**R**	**N**	**R**
IIJ	49	14.7	39	11.84	77	16.23	165	14.73
IRJ	37	11.56	49	14.93	103	21.74	189	16.87
Total	86	26.26	88	26.77	180	37.97	354	31.6

Table 9 Distribution of the indirect epistemic justification markers in the corpora (raw numbers and normalised frequencies per 10,000 words).

The overall results show that the markers of epistemic justification are more frequent in the American newspapers than in the British ones. Concerning the preference of the epistemic justification of the American newspapers, the writers prefer communicating with the readers through a variety of evidential expressions. It could create an interactional environment where readers are satisfied with the assertions, suggestions or claims regarding the Covid-19 pandemic. The high preference for the epistemic justification markers helps the writers of the American newspapers initiate socially and epistemically rich settings in which the participants (both the writer and readers) connect themselves to the events and one another as stated by San Roque (2019, 354). Regarding the British newspapers, *The Independent* displays more occurrences related to indirect epistemic justification than *The Times* in the same way as in the epistemic support analysis (Section 4). As for the American newspapers, the indirect evidential markersare more frequent in *The Wall Street Journal* than in *The New York Times*. The markers of indirect reportative justification are more frequent than the markers of indirect inferential justification in both American newspapers and British *The Times*. This is discussed further in the subsection of indirect reportative justification (IRJ).

The results illustrate differences in the distribution of the evidential markers across the genres. News reports in the selected newspapers, unsurprisingly, are equipped with a considerable amount of indirect reportative justification (IRJ) markers. Referrals made to different external sources of information constitute the majority of this ratio in indirect reportative justification, which helps readers conclude how the writer attains and internalises information, and finally how s/he presents it to readers. The abundance of the markers of IRJ in the news reports can be explained within the genre-related specification. News reports are supposed to provide different kinds of evidence to readers (Chilton, 2004, 34). On the other hand, the opinion columns and editorials are largely qualified by

the substantial use of indirect inferential justification (IIJ) markers. This can also be interpreted with features specific to the genres of opinions and editorials. It is argued that both genres in newspaper discourse are characterised by authorial opinions and arguments of the writers (Marín-Arrese, 2007, 96). Hence, the writers of the opinion columns and editorials in the corpora generally rely on inferences based on their observations regarding the developments and changes that happened in society due to the Covid-19 pandemic.

4.2   Indirect reportative justification

As shown in Table 9 in subsection 5.1, the texts selected from the newspapers display more occurrences of indirect reportative justification than indirect inferential justification use. In this subsection, the markers of indirect reportative justification are analysed and discussed.

The distribution of the indirect reportative justification expressions (Figure 7) across genres is quite similar in the newspapers. Whereas the opinion columns and editorials display relatively lower occurrences of the indirect reportative expressions, there appears a remarkable increase in the use of the indirect reportative expressions in the   news   reports.
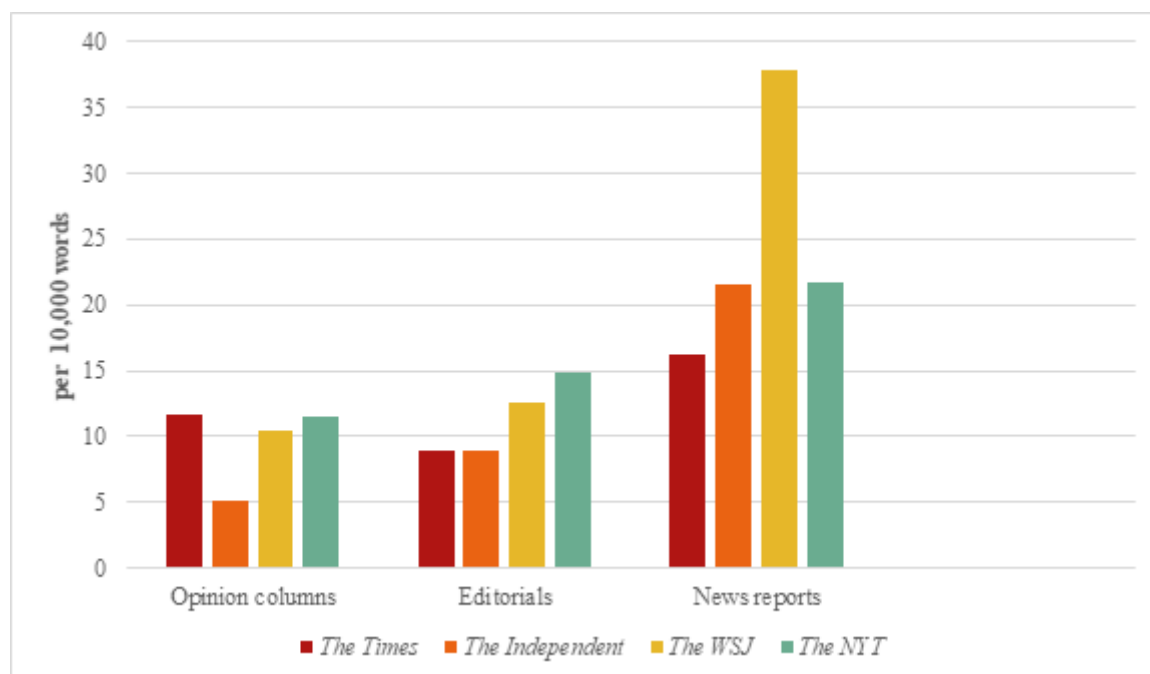

Figure 7 Normalised frequencies of the IRJ markers in the corpora across the genres

These findings can be explained by the characteristics of news reports, as the writer of news reports "distances him/himself from the viewpoints and assessments attributed to external voices" (Marín-Arrese, Núñez Perucha, 2006, 226). News reporters

are generally engaged in representing information about the events, such as Covid-19, pandemic, vaccinations, etc., instead of injecting and arguing their viewpoints. They keep themselves distinct from the arguments through the use of different "hearsay", "second-hand evidence" or "third-hand evidence" expressions. They were found to be neutral and avoid providing the writer's involvement from the dimension of epistemicity; however, the data shows that the news reports are preoccupied with the IRJ markers to refer to the source of information.

Table 10 and Table 11 below provide the raw numbers and normalised frequencies per 10,000 words of the indirect reportative justification markers used in *The Times*, *The Independent*, *The Wall Street Journal* and *The New York Times*.

| | Opinion columns | | | | Editorials | | | | News Reports | | | |
| | *The Times* | | *The Independent* | | *The Times* | | *The Independent* | | *The Times* | | *The Independent* | |
IRJ	N	R	N	R	N	R	N	R	N	R	N	R
appear	1	0.30	2	0.61	1	0.37	3	0.89	1	0.24	6	1.73
they say /said	2	0.61	2	0.61	2	0.74	-	-	3	0.73	3	0.86
experts /researchers/ scientists say	-	-	-	-	-	-	2	0.59	8	1.94	6	1.73
people say	1	0.30	-	-	-	-	1	0.29	-	-	1	0.28
supposedly	2	0.61	1	0.30	1	0.37	1	0.29	-	-	1	0.28
according to	9	2.77	3	0.92	4	1.48	3	0.89	24	5.84	31	8.97
reportedly	1	0.30	1	0.30	1	0.37	-	-	-	-	3	0.86
report (n)	1	0.30	-	-	1	0.37	1	0.29	7	1.70	8	2.31
It is/was claimed	-	-	-	-	-	-	1	0.29	3	0.73	-	-
It says	1	0.30	-	-	1	0.37	2	0.59	5	1.21	2	0.57
allegedly	1	0.30	-	-	1	0.37	-	-	1	0.24	1	0.28
suggest	11	3.39	3	0.92	6	2.22	14	4.17	14	3.41	11	3.18
seem	6	1.85	5	1.54	3	1.11	2	0.59	1	0.24	2	0.57
I/we be told	2	0.61	-	-	3	1.11	-	-	-	-	-	-
Total	38	11.64	17	5.2	24	8.88	30	8.88	67	16.28	75	21.62

Table 10 Distribution of the IRJ markers in *The Times* and *The Independent*

| | Opinion columns | | Editorials | | News Reports | |
	The WSJ	*The NYT*	*The WSJ*	*The NYT*	*The WSJ*	*The NYT*

IRJ	N	R	N	R	N	R	N	R	N	R	N	R
appear	2	0.58	2	0.62	-	-	-	-	1	0.22	2	0.42
they say /said	3	0.88	2	0.62	1	0.35	1	0.30	5	1.12	5	1.05
experts /researchers/ scientists say/said	-	-	5	1.56	2	0.70	16	4.88	59	13.22	40	8.45
people say/said	-	-	1	0.31	1	0.35	-	-	1	0.22	-	-
supposedly	-	-	-	-	3	1.05	-	-	-	-	-	-
according to	5	1.46	17	5.32	8	2.80	15	4.57	84	18.83	29	6.13
reportedly	2	0.58	-	-	1	0.35	-	-	-	-	-	-
report (n)	1	0.29	1	0.31	1	0.35	4	1.22	3	0.67	4	0.84
It is/was claimed	-	-	-	-	-	-	-	-	-	-	-	-
It says	-	-	-	-	-	-	-	-	-	-	-	-
allegedly	-	-	-	-	-	-	-	-	-	-	-	-
suggest	19	5.57	9	2.82	17	5.96	11	3.35	16	3.58	17	3.59
It/that/this/there seems/seemed	-	-	-	-	-	-	2	0.61	-	-	-	-
Seem	3	0.88	-	-	2	0.70	-	-	-	-	6	1.26
I/we be told	1	0.29	-	-	-	-	-	-	-	-	-	-
Total	36	10.53	37	11.56	36	12.61	49	14.93	169	37.86	103	21.74

Table 11 Distribution of the IRJ markers in *The Wall Street Journal* and *The New York Times*

The most frequent IR J marker across the three sub-genres is *according to*, which shows the writer's acknowledgement of the external sources. It is also discernable that *according to* is used in the cases of narration of scientific information approved by a report, analysis, or researchers. For example, in (18), *according to* represents the source of information that is attained via *the Labour analysis*:

(18) *In London, the use of the tube and bus was up to 61 per cent and 75 per cent of pre-pandemic levels in the first week of February,* ***according to*** *the Labour analysis - figures that changed little since the start of the month.* (*The Independent_*news reports)

Scientific information is also presented through the markers of "hearsay", such as *experts say*, *scientists say*, *researchers say, epidemiologists say* or *critics say* referring to a number of unspecified professionals. These markers are generally not preferred by the writers of opinion columns in the newspapers. They are used in general by the writers of news reports. The highlighted marker *researchers say* in the following case illustrates that the writer expresses a suggestion that is previously stated by the authorised voices.

(19) *The commonly used steroid, dexamethasone, is the first drug to show in a clinical trial it could improve the survival of severely ill coronavirus patients,* ***researchers said.*** (*The WSJ_*news reports)

Such markers as *it/that/this/there seems* and *it/that appears* are also among frequent devices expressing reportative meaning. As Wiemer (2010, 105) states, "the 3rd person singular form of the present indicative of SEEM-verbs highlights a reportative function only when it loses its dependency relations with a host sentence". Quite a similar view, seem is rather regarded as a signal that guides the readers to "some contextual elements serving as information source" (Lampert, 2020, 132). *Seem* in example (20) expresses a report that the type of variant in the Kent is more fatal.

(20) *At the very least the country will need to be on its guard against new strains, as **it now seems** the Kent variant is more deadly.* (*The Times*_opinion columns)

By means of the SEEM verb in example (20), the writer expresses "hearsay" or "third-hand evidence" that can be interpreted as '*it is said that the Kent variant is more deadly'* (Wiemer, Marin-Arrese, 2022).

Furthermore, the verb *suggest* is also frequently used by the writers of the newspapers to report information belonging to an external source, as illustrated in example (21):

(21) *Experts also **suggest** there are two distinct symptoms that could be a sign a positive test is around the corner: and dizziness/ fainting. (The Independent, news report)*

Evidential adverbials, such as *allegedly, reportedly* and *supposedly*, are also found in the data. They express that information is reached through "hearsay", but they do not specifically refer to the exact source of information. As Ruskan (2015) points out, "hearsay" markers indicate that "responsibility for the propositional content is attributed to some external source but not to the author" (Ruskan 2015, 119). Celle (2009) emphasises that "the speaker's epistemic judgement is overshadowed by the quotative function in the case of hearsay adverbs" (Celle 2009, 280). The argument made by Celle (2009) reflects the relationship between reportative expressions and partial support (probability), as indicated by the 'connecting lines' of the semantic map presented by Boye (2012). This means that by using reporting expressions writers may convey their statements with less certainty.

Some differences in the use of reportative expressions should also be noted. Such markers as "*I am/was told"* and "*we are/were told"* are used generally by the writers of the opinion columns and editorials to express what they hear from the external source. Another passive construction referring to the involvement of a third party is *it is*

claimed that. It is found in the editorials and news reports in the British newspapers. It is generally used in cases where the writer prefers not to indicate the source of information. It can be interpreted as "in news, this seems to be a deliberate strategy to avoid direct responsibility for the reported stance" (Biber *et al.* 1999, 977). This strategy is also noted by Fairclough (1989, 124) as "possible ideologically motivated obfuscation of agency, casualty and responsibility."

4.3   Indirect inferential justification

As shown in Figure 8, the indirect inferential expressions are more frequent in the opinion columns and editorials than in the news reports. The frequent use of the IJJ markers in these genres indicates that the writers based their inferences on personal observations by addressing the issues related to Covid-19. One could argue that the writers of opinions and editorials obtain information through inferences.
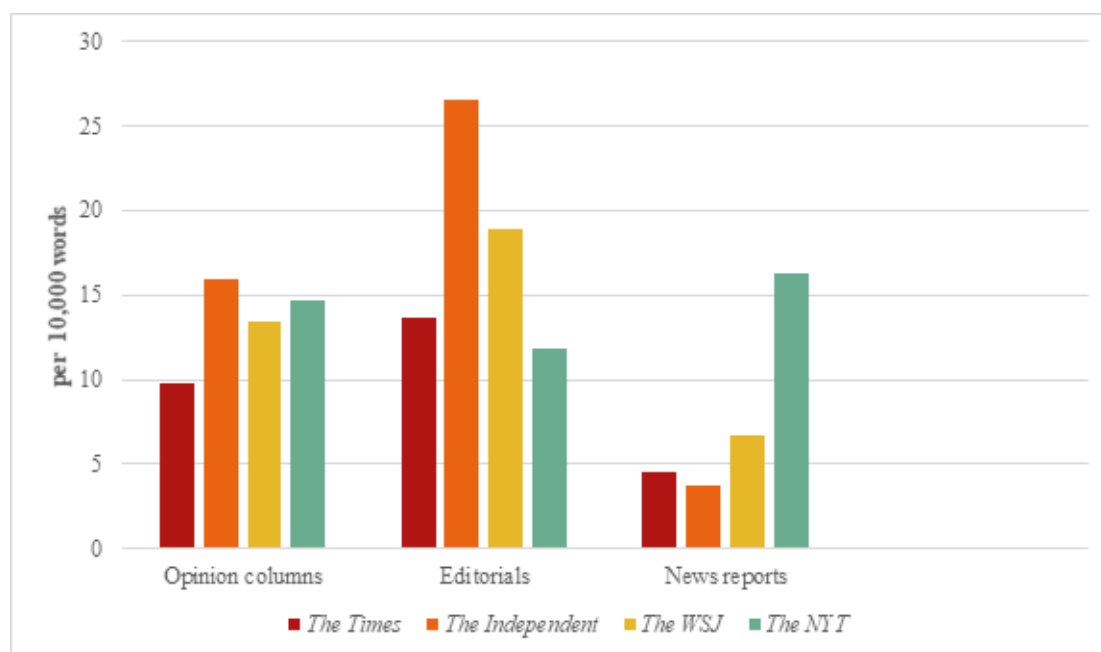
Figure 8 Frequencies of the IIJ markers in the corpora

Table 12 and Table 13 below illustrate the most recurrent IIJ markers occurring in the British and American newspapers. One could argue that the writers of opinions and editorials obtain the information through inferential reading.

	Opinion columns				Editorials				News Reports			
	The Times		*The Independent*		*The Times*		*The Independent*		*The Times*		*The Independent*	
IIJ	N	R	N	R	N	R	N	R	N	R	N	R
clear	5	1.54	13	4.02	3	1.11	20	5.96	2	0.48	1	0.28

clearly	1	0.30	4	1.23	4	1.48	3	0.89	1	0.24	1	0.28
obvious	1	0.30	2	0.61	3	1.11	10	2.98	1	0.24	-	-
obviously	1	0.30	1	0.30	-	-	3	0.89	1	0.24	-	-
evidence	7	2.16	12	3.71	4	1.48	10	2.98	3	0.73	3	0.86
evidently	-	-	1	0.30	-	-	-	-	-	-	-	-
apparent	-	-	-	-	1	0.37	4	1.34	2	0.48	-	-
apparently	-	-	3	0.92	-	-	4	1.34	-	-	1	0.28
appear	2	0.61	1	0.30	1	0.37	3	0.89	1	0.24	2	0.57
see	1	0.30	3	0.92	1	0.37	-	-	-	-	-	-
seem	4	1.23	3	0.92	14	5.18	9	2.68	2	0.48	2	0.57
seemingly	1	0.30	3	0.92	-	-	-	-	1	0.24	1	0.28
look 'like', 'as if /though	3	0.92	1	0.29	4	1.48	7	2.08	1	0.24	-	-
sound 'like', 'as if / though'	2	0.61	-	-	-	-	1	0.29	-	-	-	-
proof	3	0.92	-	-	-	-	-	-	-	-	-	-
sign	1	0.30	4	1.23	1	0.37	9	2.68	4	0.97	4	1.15
experience	1	0.30	1	0.29	1	0.37	5	1.49	-	-	-	-
Total	33	9.79	52	15.96	37	13.69	88	26.49	19	4.58	15	3.7

Table 12 Distribution of the IIJ markers in *The Times* and *The Independent*

	Opinion columns				Editorials				News Reports			
	The WSJ		*The NYT*		*The WSJ*		*The NYT*		*The WSJ*		*The NYT*	
IIJ	N	R	N	R	N	R	N	R	N	R	N	R
clear	5	1.46	12	3.16	4	1.40	6	1.83	-	-	7	1.47
clearly	1	0.29	-	-	-	-	1	0.30	-	-	1	0.21
obvious	2	0.58	2	0.62	1	0.35	1	0.30	-	-	1	0.21
obviously	1	0.29	2	0.62	-	-	-	-	-	-	-	-
evidence	7	2.05	5	1.56	15	5.26	3	0.91	7	1.56	16	3.38
evidently	-	-	-	-	-	-	1	0.30	-	-	-	-
apparent	-	-	-	-	-	-	-	-	-	-	-	-
apparently	-	-	2	0.62	1	0.35	1	0.30	-	-	1	0.21
appear	2	0.58	3	0.94	4	1.40	5	1.52	4	0.89	6	1.26
see	1	0.29	5	1.56	1	1.40	1	0.30	-	-	-	-
seem	15	4.40	11	3.44	18	6.31	12	3.66	5	1.12	23	4.86
seemingly	-	-	2	0.62	-	-	1	0.30	-	-	-	-
look 'like', 'as if/though'	8	2.34	3	0.94	2	0.70	1	0.30	4	0.89	2	0.42
sound 'like', 'as if/though'	-	-	2	0.62	-	-	2	0.61	-	-	2	0.42
proof	1	0.29	-	-	-	-	1	0.30	1	0.22	7	1.47
sign	1	0.29	-	-	2	0.70	1	0.30	7	1.56	10	2.11
experience	2	0.58	-	-	3	1.05	2	0.61	1	0.22	1	0.21
Total	46	13.44	49	14.7	51	18.92	39	11.84	29	6.68	77	16.23

Table 13 Distribution of the IIJ markers in *The Wall Street Journal* and *The New York Times*

As seen in Table 12 and Table 13, *seem*, *appear, clear/ clearly, evidence,* and *sign* are the most frequently used expressions in the newspapers. The marker *clearly* is

frequently used by the writers to show that validation of the information is based on circumstantial inferences. Squartini (2008, 925) states that circumstantial inferences are generally based on external evidence. For instance, *clearly* in example (22) below states that there is a correlation between the ease of lockdown rules and the number of Covid-19 infection cases:

(22) **Clearly** *there can be no relief from the lockdown until the number of new infections falls dramatically.* (*The Times*_opinion columns)

Marín-Arrese (2013, 416) points out that "circumstantial inferences are characteristically linked to epistemic certainty". Similarly, Ruskan (2015) argues that *clearly* is among the adverbials that "denote inferences drawn from perceptual and conceptual evidence and contribute to persuasive authorial argumentation" (Ruskan, 2015, 124). In this regard, a considerable amount of the markers *clear and clearly* occurring in the newspapers help writers communicate their arguments convincingly to persuade the target reader about the Covid-19 pandemic with a relatively higher epistemic tone.

Furthermore, the perception verb *seem* is also quite frequent, reflecting the sense that the statement is highly related to the writer's uncertainty, as the verb does not only show the writer's source of information (inference) (Usonienė, 2000, 191). Thus, the writers may use the perception verb *seem* when s/he has hesitation in representing information pertaining to Covid-19, as in the example below:

(23) *This depends partly on how schools manage outbreaks, but **it seems** likely that vaccination would reduce the number of children who might have to be kept at home.* (*The Independent*_editorials)

In (23), the marker *it seems* denotes the writer's uncertainty regarding the impact of vaccination on school-aged children. The writer proposes vaguely that inoculating children at schools might work, but there are other factors, such as the precautions taken by the school management. In the example above, the writer expressed his/her perspective regardless of referring to any information source. Another interpretation relating to the inferential reading of *seem* in example (24) could be that in cases where *seem* functioned as a copular verb complemented by an adjective phrase, as in the example above (e.g. *seems likely*), "describes the impression of the speaker based on circumstantial inference and as a rule they do not contain information on his/her judgement" (Usonienė and

Šinkūnienė, 2013, 300). At this point, it is important to highlight that the indirect inferential markers attenuate the reliability of the source of information since they are predictions drawn from hypothetical inferences (Usonienė and Šinkūnienė, 2013, 286).

The editorials have shown a considerable use of the perception verb *seem*, whilst the news reports have shown the lowest number of this verb. It is also important to state that the markers *seem* and *it seems* that denote reports are not counted within the domain of indirect inferential justification.

There are also certain cases where noun phrases (NP) in the data set, such as *evidence, sign* and *proof,* can operate as evidential expressions (Carretero, 2017, 33). In example (24), the use of *evidence* qualifies the proposition uttered by the clause starting with Covid-19 is dangerous for older citizens. In example (25), the evidential marker *proof* designates the proposition that *people want the vaccine than can actually get it*.

(24) *The website says there is some limited **evidence** that face masks worn by the public can be useful, while warning that wearing them incorrectly can increase risk of infection.* (*Times_*news reports)

(25) *Still others point to long lines at clinics as **proof** that far more people want the vaccine than can actually get it*. (*The NYT_*editorials)

In conclusion, this section presents the results and discussion regarding the use of indirect epistemic justification markers in two distinct categories: IRJ (indirect reportative justification) and IIJ (indirect inferential justification). The results show that the writers use a broad range of epistemic justification markers. In particular, they preferably use the IRJ markers due to the nature of Covid-19, which requires to be verified via external sources. Implying the sources of information overtly helps the readers understand how the information is accessed and to what extent this information is reliable. Regarding ideological preferences, the newspaper on the left wing is preoccupied with the markers of epistemic justification in the British press. In contrast, the epistemic justification markers are dominant in the newspaper on the right-wing in the American press.

5 Realizations of cognitive attitude and factivity in the British and American press

In this section, the markers of cognitive attitude (CGA) and factivity (CFV and IFV), which are also a part of epistemicity/epistemic stance (Marín-Arresse 2011) are analysed. The category of CGA includes such markers as *I/we think, I/we believe*, etc.; the markers of factivity comprise two subcategories, namely cognitive factive verbs (CFV) (e.g. *I/we know*) and impersonal factives (IFV) (e.g. *the truth, the fact, in fact, the reality, it is true*).

5.1 Distribution of the expressions in the corpora

Table 14 illustrates the overall results for cognitive attitude (CGA) and factivity ((CFV) and (IFV)) occurring in the corpora. The results are provided in raw numbers and normalised frequencies per 10,000 words of numerous epistemic stance markers used by the writers of opinion columns, editorials and news reports in the British and American newspapers.

The Times	Opinion columns		Editorials		News reports		Total	
	N	R	N	R	N	R	N	R
Cognitive attitude (CGA)	10	3.08	3	1.11	1	0.24	14	1.39
Factivity (CFV)	9	2.7	4	1.48	4	0.97	17	1.69
Factivity (IFV)	12	3.67	16	5.92	2	0.48	30	3.08
Total	31	9.52	23	8.51	7	1.69	61	6.16
The Independent	Opinion columns		Editorials		News reports		Total	
	N	R	N	R	N	R	N	R
Cognitive attitude (CGA)	8	2.44	6	1.77	-	-	14	1.39
Factivity (CFV)	5	1.54	3	0.89	-	-	8	0.79
Factivity (IFV)	18	5.54	11	3.26	2	0,56	31	3.08
Total	31	9.52	20	5.92	2	0.56	53	5.26
The WSJ	Opinion columns		Editorials		News reports		Total	
	N	R	N	R	N	R	N	R

Cognitive attitude (CGA)	4	1.16	3	1.05	-	-	7	0.65
Factivity (CFV)	7	2.05	5	1.75	-	-	12	1.11
Factivity (IFV)	7	2.05	4	1.4	-	-	11	1.02
Total	18	5.26	12	4.2	-	-	30	2.78
The NYT	**Opinion columns**		**Editorials**		**News reports**		**Total**	
	N	**R**	**N**	**R**	**N**	**R**	**N**	**R**
Cognitive attitude (CGA)	10	3.12	-	-	4	0.84	14	1.25
Factivity (CFV)	14	4.38	1	0.30	3	0.63	18	1.60
Factivity (IFV)	11	3.44	15	4.57	4	0.84	30	2.67
Total	35	10.94	16	4.87	11	2.31	62	5.52

Table 14 Distribution of the epistemic stance markers in the corpora (raw numbers and normalised frequencies per 10,000 words).

The overall distribution of the epistemic markers within this category shows that unlike some previous findings (presented in Section 4 and Section 5), a right-leaning newspaper, *The Times*, shows relatively higher occurrences of the markers of CGA and CFV than *The Independent*. As for the American newspapers, these markers are more common in *The New York Times* than in *The Wall Street Journal*. This overall result of epistemic stance markers suggests that the writers of *The Independent* and *The Wall Street Journal* did not prefer governing the public opinion by purporting their ideological identities in the Covid-19 discourse. It is clearly seen that the IFV markers are dominantly preferred by the writers of the newspapers, except for *The WSJ*; however, the writers of the opinions and editorials in *The WSJ* preferably use the cognitive factive marker, *I know*.

Regarding the distribution of the expressions in the genres, the markers of cognitive attitude (CGA) and factivity (CFV, IFV) are more frequent in the opinion columns and editorials. As stated by Marín-Arrese (2013, 412), it is possible for the writers to create their interactional identity as well as their ideological positioning through various stance resources. It is clearly seen that these markers are used rarely by the writers of news reports. For example, no epistemic stance markers from this category are found in the news reports of *The Wall Street Journal*. It means that the writers of news reports, especially in *The Wall Street Journal*, distance themselves from revealing any ideological tendency regarding Covid-19. By contrast, the writers of opinion columns and editorials

express their viewpoints and beliefs and "legitimise" what they write about the events emerging in the context of Covid-19 by using the epistemic stance markers.

The individual markers of factivity and cognitive attitude are discussed further in the following subsections.

5.2   Expressions of factivity

This category includes the personal cognitive factive verb (*I/we know*), and impersonal factive constructions (*The truth…, the fact…, the reality…, it is true...*). As shown in Figure 9, the writers of the opinion columns and editorials tend to exploit impersonal factive phrases to provide assurance to the readers regarding the truth of the propositions. *The Wall Street Journal* shows fewer occurrences of the impersonal factive markers, and the impersonal factive markers are absent in the news reports. The editorials of *The Times* and the opinion columns of *The Independent* show a higher preference regarding the use of IFV markers. Special attention is given to the markers of *in fact, the fact* and *the reality* in the editorials and opinions of *The Times* and *The Independent*. This result can shed light on the degree of commitment of the writers to their assertions. With the IFV markers, the writers precisely present their assertions on the events of Covid-19 to the readers without creating equivocation.
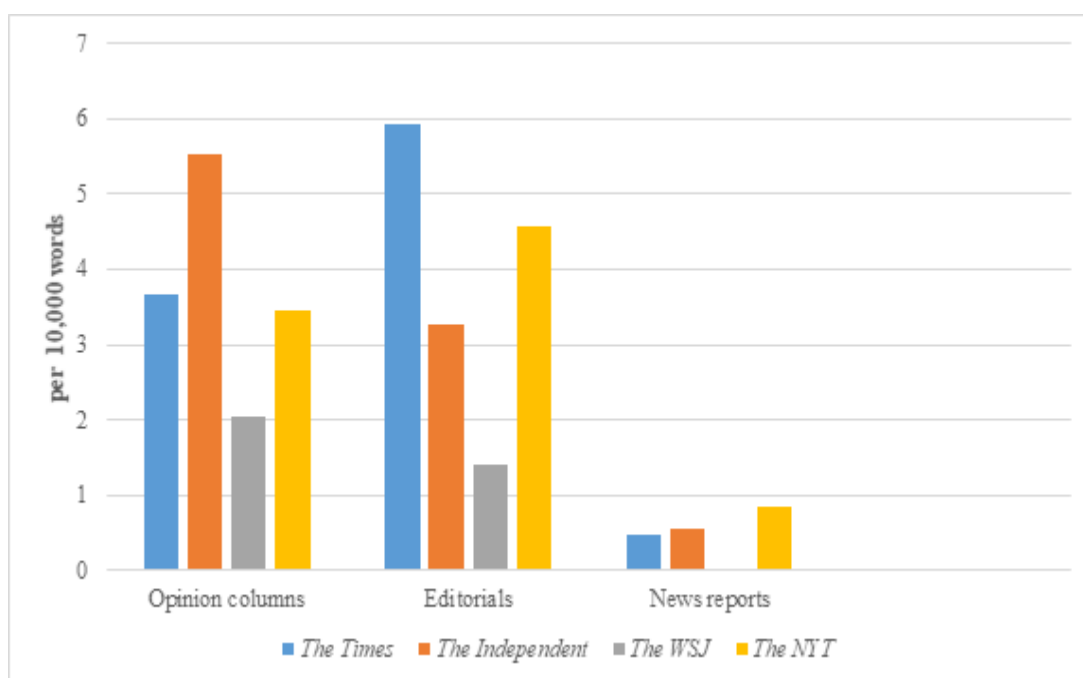

Figure 9 Normalised frequencies of the impersonal factivity markers in the corpora across the genres

The cognitive factive verb *I know* (Figure 10) designating the writer's mental state is generally preferred by the writers of opinion columns. It seems that columnists frequently use *I know* as they have sufficient evidence regarding the events of Covid-19. By using the cognitive factive verb, columnists might fulfil their "social role" and "the perceived responsibility" for the events occurring in the Covid-19 pandemic.
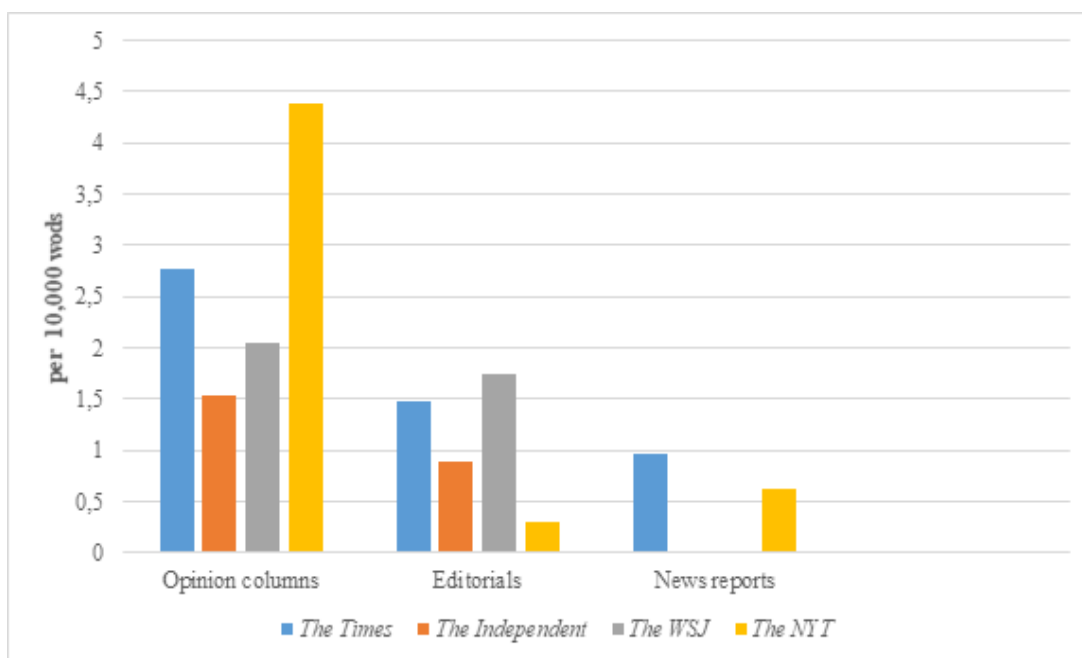

Figure 10 Normalised frequencies of cognitive factivity marker (*I know*) in the corpora across the genres

Table 15 and Table 16 below provide the raw numbers and normalised frequencies per 10,000 words of the factivity markers emerged in *The Times*, *The Independent*, *The Wall Street Journal* and *The New York Times*.

| | Opinion columns | | | | Editorials | | | | News Reports | | | |
| | *The Times* | | *The Independent* | | *The Times* | | *The Independent* | | *The Times* | | *The Independent* | |
CFV	**N**	**R**	**N**	**R**	**N**	**R**	**N**	**R**	**N**	**R**	**N**	**R**
I/we know	9	2.77	5	1.54	4	1.48	3	0.89	4	0.97	-	-
IFV	**N**	**R**	**N**	**R**	**N**	**R**	**N**	**R**	**N**	**R**	**N**	**R**
The truth	2	0.61	-	-	-	-	2	0.59	-	-	-	-
The fact	3	0.92	5	1.54	5	1.85	3	0.89	2	0.48	1	0.28
In fact	4	1.23	3	0.92	4	1.48	4	1.19	-	-	1	0.28
The reality	2	0.61	4	1.23	3	1.11	-	-	-	-	-	-
In reality	-	-	-	-	4	1.48	-	-	-	-	-	-
It's true	1	0.30	6	1.85	-	-	2	0.59	-	-	-	-
Total	12	3.67	18	5.54	16	5.92	11	3.26	2	0.48	2	0.56

Table 15 Distribution of the factivity markers used in *The Times* and *The Independent*

	Opinion columns				Editorials				News Reports			
	The WSJ		*The NYT*		*The WSJ*		*The NYT*		*The WSJ*		*The NYT*	
CFV	N	R	N	R	N	R	N	R	N	R	N	R
I/we know	7	2.05	14	4.38	5	1.75	1	0.30	-	-	3	0.63
IFV	N	R	N	R	N	R	N	R	N	R	N	R
The truth	1	0.29	-	-	2	0.70	2	0.61	-	-	-	-
The fact	-	-	3	0.94	1	0.35	5	1.52	-	-	1	0.21
In fact	1	0.29	3	0.94	-	-	4	1.22	-	-	2	0.42
The reality	1	0.29	1	0.31	1	0.35	-	-	-	-	-	-
In reality	-	-	-	-	-	-	-	-	-	-	1	0.21
It's true	4	1.17	4	1.25	-	-	4	1.22	-	-	-	-
Total	7	2.05	11	3.44	4	1.4	15	4.57	-	-	4	0.84

Table 16 Distribution of the factivity markers used in *The Wall Street Journal* and *The New York Times*

There seems an inclination towards the use of the cognitive factive *I/we know*, which is in strong relation to knowledge and certainty (Boye, 2012). According to Boye's (2012) epistemic support scale, knowledge relates to higher certainty, as it is indicated that knowledge or source of information is justified by the evidence (Boye, 2012). While *I know* stands for *certainty*, *I don't know* is relatable to the notion of *uncertainty* on the "epistemic scale" (Capelli 2007: 125). The use of the cognitive factive verb signals "knowledge available to the speaker/writer" (Marín-Arrese, 2013, 421-22). In (26), the writer displays knowledge and certainty that *lockdown damages the economy and the population's health.*

(26) **We know** *that lockdowns damage the economy and damage the health of the population.* (*The Times*_opinion columns)

The most common expressions of impersonal factivity markers include *the fact, in fact, the reality* and *it is true*. In (27) and (28), the impersonal factivity constructions found in the data are presented below;

(27) *Officials failed to inform the public about the new virus in a timely manner, especially **the fact** that the virus could transmit from human to human; they did not make sufficient preparations in staff and supplies, so the situation soon spiralled out of control.* (*The Independent*_opinion columns)

(28) **It's also true** *that vaccines are not easy to make. The mRNA shots, for example, require highly specialized equipment and hundreds of ingredients, most of which are not made in underresourced settings.* (*The NYT*_opinion columns)

5.3   Expressions of cognitive attitude

In this subsection, the cognitive attitude markers such as *I believe, I think, I guess, I suspect* and *presumably* are examined and discussed. The distribution pattern of the CGA markers (Figure 11) shows similarities with the distribution pattern of the factivity markers. Namely, the opinion columns are typically equipped with the markers of cognitive attitude, whereas the cognitive attitude markers do not occur in the news reports. The writers of opinion columns in *The Times* and *The New York Times* act as representatives of the ideological positioning of their institution by using cognitive attitude markers.The latter holding liberal ideology shows slightly higher occurrences of the CGA marker in contrast with the former representing a more conservative ideology.
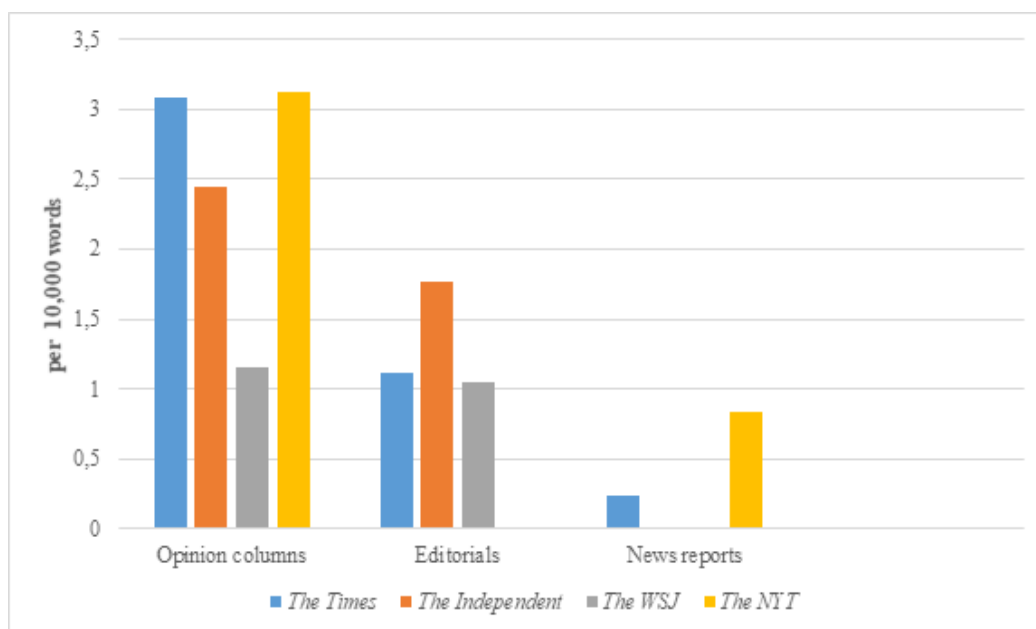

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Figure 11 Normalised frequencies of the CGA markers in the corpora across the genres

Table 17 and Table 18 below present the raw numbers and normalised frequencies of the CGA markers emerging in the corpora across the genres.

	Opinion columns				Editorials				News Reports			
	The Times		*The Independent*		*The Times*		*The Independent*		*The Times*		*The Independent*	
CGA	N	R	N	R	N	R	N	R	N	R	N	R
I/we believe	-	-	2	0.61	2	0.74	1	0.29	-	-	-	-
I/we think	7	2.16	3	0.92	-	-	2	0.59	1	0.24	-	-
I/we suspect	3	0.92	2	0.61	-	-	-	-	-	-	-	-
I/we guess	-	-	1	0.30	-	-	-	-	-	-	-	-
Presumably	-	-	-	-	1	0.37	3	0.89	-	-	-	-
Total	10	3.08	8	2.44	3	1.11	6	1.77	1	0.24	-	-

Table 17 Distribution of the CGA markers used in *The Times* and *The Independent*

CGA	Opinion columns				Editorials				News Reports			
	The WSJ		The NYT		The WSJ		The NYT		The WSJ		The NYT	
	N	R	N	R	N	R	N	R	N	R	N	R
I/we believe	1	0.29	3	0.94	1	0.35	-	-	-	-	-	-
I/we think	1	0.29	4	1.25	1	0.35	-	-	-	-	2	0.42
I/we suspect	1	0.29	2	0.62	-	-	-	-	-	-	-	-
I/we guess	-	-	-	-	-	-	-	-	-	-	-	-
Presumably	1	0.29	1	0.31	1	0.35	-	-	-	-	2	0.42
Total	4	1.16	10	3.12	3	1.05	-	-	-	-	4	0.84

Table 18 Distribution of the CGA markers used in *The Wall Street Journal* and *The New York Times*

What the markers *believe*, *think* and *suspect* in (30), (31) and (32) imply is that the writers expressed the justified knowledge through evidence or circumstantial inferences, and therefore these propositions might be evaluated as reliable. Boye (2012, 18) points out that these markers may entail "the highest degree of reliability of justification".

(29) *We strongly* **believe** *that we need to promote digital and media literacy as a fourth pillar of education, alongside reading, writing and maths, so that children and young adults can know how to find what is truthful, factual and informative.* (*The Times*_opinion columns)

(30) C*onservative backbenchers are demanding. However,* **I suspect** *the Covid Recovery Group will be disappointed; if possible, they want a road map with target dates, not an ever-growing list of "criteria".* (*The Independent*_opinion columns)

(31) *And if they were 10 times higher,* **I think** *there might have been more red-state support for public-health restrictions of all kinds.* (*The NYT*_opinion columns)

In (29), *believe* qualifies the proposition that there is probably a need to increase media literacy. On the "epistemic scale", *believe* stands for the partial support (probability), which hints that the writer signals the likelihood of the demand regarding the media literacy, but s/he is not certain. This is also confirmed by Cappelli (2007), who argues that "*belief* is a non-factive verb, and speakers use it to mark epistemic uncertainty and to express their subjectivity" (Cappelli, 2007, 168). *I suspect,* in (30), co-occurred with a prediction marker, expressing the probability (partial support) on the epistemic scale. In (31), *I think* is followed by the marker of epistemic possibility or probability, *might (have +ed),* which mitigates the likelihood of the event (Fetzer, 2014, 90), as the writer comments the proposition that did not happen in the past.

To sum up, this section provides the analysis and discussion regarding the use of cognitive attitude and factivity markers in the corpora. Cognitive attitude and cognitive

factive verbs, including *believe, think, suspect, guess* and *know* are found as commonly expressed verbs in the corpora. These cognitive verbs are related to the mental process of the writers. While *know* represents the certainty of the writer regarding the events of Covid-19, other cognitive attitude verbs *believe, think, suspect* and *guess* represent the beliefs and opinions of the writers cultivating from the background world knowledge or observations about the Covid-19 pandemic. In this section, it is seen that impersonal factive markers are determined as the most dominant occurrences in the corpora.

6 Conclusion

The importance of this present study is to show how the writers of the newspapers, having different political tendencies, presented the information during the coronavirus pandemic that caused a crisis for human beings who experienced grief over the death of millions and dealt with a myriad of social and economic problems. During these unfortunate times, people naturally resort to the high-qualified newspapers to be informed of the fatal coronavirus and find out what is lying ahead of them in the upcoming days. While the writers share the findings of the research studies and what doctors and scientists say, they also make announcements of the political leaders and officeholders regarding what measures should be in play, including their perspectives and comments. The newspapers communicate with their readers, providing epistemic meanings "basic to human interaction" (Boye, 2012, 297). Boye (2012, 296) also acknowledges that " the ability to share with the rest of our community, distinctions between different degrees of epistemic support and between different types of epistemic justification is of fundamental importance to civilisation". In particular, in the context of a fatal virus that has appallingly affected civilisations, communities and people's individual lives, it becomes essential to interact with the readers by communicating only truths and sharing the information referring to the sources.

Examining the texts compiled from the original data enables this study to determine various epistemic meanings encoded by grammatical and lexical elements in the selected newspapers while presenting the global Covid-19 pandemic to the readers. In addition, this study aims to answer how the expressions of epistemic meanings used by different political views differ in reporting such a global pandemic as Covid-19. It also evaluates the degree of reliability by analysing the expressions referring to the source of information as well as the expressions where the journalist convey their attitude towards the statement they make about Covid-19. The current section presents an overall review of the main findings that emerged in the sections analsysed above and draws some general conclusions and observations.

The overall number of epistemic epistemic support markers is significantly common in the data, and the partial support markers are discernably prevalent. Epistemic justification markers are the second most frequent. The indirect reportative (IRJ) markers are seen to be frequent occurrences in the data.

The main difference between the four leading newspapers depends on the political ideology of the institution, which is either conservative or liberal (i.e. *The Times* and *The*

Wall Street Journal as conservative newspapers, and *The Independent* and *The New York Times* as liberal newspapers). In both English-speaking countries, the left-wing newspapers favour using epistemicity expressions, whereas the newspapers, having a conservative orientation, show the prudent use of the epistemicity markers. As a matter of fact, the overall results for *The New York Times* nearly doubled, surpassing the epistemicity markers used in *The Wall Street Journal* (see **Appendix I**).

The overall results for epistemicity markers are relatively low for *The Times* in comparison with The *Independent*, whose editorials show relatively higher use of partial support and indirect inferential justification (IJJ) markers, which nearly corresponds to the same point on the "epistemic scale" in terms of the writer's commitment to the proposition (Boye, 2012). Regarding the category of epistemic epistemic support, *The Independent* and *The New York Times* appear to prefer expressions of partial and neutral support more commonly, which renders the existence of the "internal authorial voice" (see **Appendix I**). The findings in the category of epistemic support align with the analysis of Marín-Arrese (2015), who pointed out that partial support markers are dominantly expressed throughout the news texts, which confirmed the writers' tentative manner toward the argument in the newspaper discourse.

As for the category of epistemic justification, the markers of epistemic justification in *The Independent* are more prevalent compared to *The Times*. *The New York Times* shows a lower preference in using epistemic justification markers compared to *The Wall Street Journal*, which stood out in using IRJ markers, giving readers of *The Wall Street Journal* the sense that assertions are more reliable since the writers often refer to the source of information. The category of indirect reportative justification is more common in the news reports in the corpora. This result matches the findings of the previous study carried out by Martínez Caro (2004), who found that evidential and hearsay markers are nearly three times more in the news reports of the English corpora. This motivation can be explained by the news reports' writers' attempt to keep their authorial voice distinct from the argument to ensure the objectivity of their assertions. One of the notable features of epistemic justification is to influence "memory for the source as a function of the status of evidential marking in the language" (Tosun *et al.* 2013, 131). From this point of view, it may suggest that readers who prefer reading newspapers, the writers of which use more evidential markers regardless of "first-hand evidence" or "non-firsthand evidence", feel a long-lasting effect of the events of Covid-19 on their memory.

The cognitive attitude and factivity markers are used more frequently in the British newspapers compared to the American newspapers. This result parallels the findings of the previous study conducted by Marín-Arrese (2021, 147). The British writers prefer using cognitive attitudes and factivity markers dominantly, which shows that the writers of the British newspapers display a higher level of personal engagement with the accuracy of the information presented. On an individual basis, *The Times* shows higher occurrences of cognitive attitude and factivity markers than in *The Independent,* whereas they are relatively more frequent in *The New York Times* than in *The Wall Street Journal*. The writers (except for the writers of news reports) are mostly engaged in representing their beliefs and knowledge about Covid-19 as reality. Furthermore, the writers of *The Times* and *The New York Times* present their "ideological purposes in the management of hearers/readers' acceptance of information in the discourse" (Marín-Arrese, 2013, 414). The readers of such newspapers accept propositions expressed regarding Covid-19, such issues as the origin of coronavirus, the effect of vaccination and transmission of the virus, and other social and economic effects of the pandemic as true, since the writers of these newspapers back up their propositions with sufficient epistemic support and justifcation.

The genres in the four newspapers obviously have an affinity with the distribution pattern of the expressions of epistemicity explored in this thesis. While the opinion columns and editorials are generally preoccupied with the expressions of epistemic support, cognitive attitude and factivity, the news reports show, in general, a lower occurrence of these markers. However, the news reports show a high preference for the epistemic justification markers, specifically IRJ markers.

There are various reasons involved in explaining why some types of epistemicity markers are more common than others in certain genres. One of the notable reasons could be the uncertain nature of the Covid-19 pandemic; despite numerous studies, it is sometimes impossible to make assertions. For example, the markers of partial support are frequently favoured by the writers of the newspapers to indicate conjectural inferences and unverified judgements of the writers. Another reason for certain differences might stem from the characteristical features of the genres. For instance, the writers of opinion columns position their voices at the centre by taking full responsibility for what they say; however, the writers of editorials reflect upon their institution's ideological preference by biasing their voices with the help of epistemic support markers. On the other hand, the writers of news reports convey news and announcements by reflecting the distance of

their position from the source of information by distinguishing their active voices without being as critical as possible.

To sum up, this present study examines the deployment of the markers of epistemicity (i.e. epistemic support and epistemic justification) as presented by Boye (2012), as well as epistemic stance markers of cognitive attitude and factivity provided by (Marín-Arrese, 2011) in the British and American newspapers differing in their political ideologies. As proposed by Boye (2012, 296), the system of justificatory support functioning as a "social-communication survival skill" allows people to "share communicatively the tenability assessments or reliability assessments provided by this structure." Boye (2012, 296) maintains that in the scenario of the absence of epistemic meanings, it would seem like to live in a community where people bend the truth and mislead the audience. From this point of view, one could argue that by using the epistemicity markers more frequently, the newspapers on the left-wing foster an environment for the readers to participate in evaluating the assertions in more democratic ways.

As a concluding remark, for the first time, this study dealt with how the Covid-19 pandemic was portrayed in the news media from a comparative ideological standpoint, focusing on the domain of epistemicity and epistemic stance. To broaden this investigation, exploring if the same dominant use of epistemicity markers applies to spoken discourse would be intriguing. It would also be interesting to study the impact of epistemicity on the readers who read ideologically different newspapers.

Data Sources

https://www.thetimes.co.uk/

https://www.independent.co.uk

https://www.nytimes.com/

https://www.wsj.com/

References

Aikhenvald, Alexandra Y. 2004. *Evidentiality*. Oxford: Oxford University Press.

Bednarek, Monika. 2006. Epistemological positioning and evidentiality in English news discourse: A text-driven approach, *26*(6), 635-660.

Bhatia, Vijay Kumar. 2014. *Analysing genre: Language use in professional settings*. Routledge.

Biber, Douglas, Stig Johansson, Geoffrey Leech, Susan Conrad, Edward Finegan, eds. 1999. *Longman grammar of spoken and written English*. London: Longman.

Boye, Kasper. 2012. *Epistemic meaning: A crosslinguistic and functional-cognitive study*. Berlin: Mouton de Gruyter.

Boye, Kasper. 2010. Semantic Maps and the Identification of Cross-Linguistic Generic Categories: Evidentiality and its Relation to Epistemic Modality. *Linguistic discovery*, *8*(1).

Calvillo, Dustin P., Bryan J. Ross, Ryan J. B. Garcia, Thomas J. Smelter, Abraham M. Rutchick. 2020. Political Ideology Predicts Perceptions of the Threat of COVID-19 (and Susceptibility to Fake News About It). *Social Psychological and Personality Science*, *11*(8), 1119–1128.

Cappelli, Gloria. 2007. *"I Reckon I Know how Leonardo da Vinci Must Have Felt…" Epistemicity, evidentiality and English verbs of cognitive attitude*. Pari: Pari Publishing.

Carretero, Marta. 2017. Noun Phrases as expressions of evidentiality: an analysis of four English abstract nouns and their Spanish equivalents. *Kalbotyra, 69*, 29-58.

Carretero, Marta, Juana I. Marín-Arrese, Julia Lavid-López. 2017. Adverbs as evidentials: an English-Spanish contrastive analysis of twelve adverbs in spoken and newspaper discourse. *Kalbotyra, 70*, 32-59.

Celle, Agnès. 2009. Hearsay adverbs and modality. *Modality in English: Theory and description*. Raphael Salkie, Pierre Busuttil & Johan van der Auwera, eds. Berlin, New York: Mouton de Gruyter. 269–293.

Chafe, Wallace. 1986. Evidentiality in English conversation and academic writing. *Evidentiality: The linguistic coding of epistemology*. Wallace Chafe & Johanna Nichols, eds. Norwood, NJ: Ablex Publishing Corporation. 261–272.

Chilton, Paul. 2004. *Analysing political discourse: Theory and practice*. London: Routledge.

Chong, Phillipa. 2019. Valuing subjectivity in journalism: Bias, emotions, and self-interest as tools in arts reporting. *Journalism*, *20*(3), 427–443.

Collins, Peter. 2009. *Modals and quasi-modals in English*. Amsterdam, New York: Rodopi.

Cornillie, Bert. 2009. Evidentiality and epistemic modality: On the close relationship between two different categories. *Functions of Language*, *16*(1), 44–62.

Creswell, John W. 2014. *Research design qualitative, quantitative, and mixed methods approaches.* Fourth Edition. Sage Publishing, 3-23

Downing, Angela, Phillip Locke. 2006. *English grammar: A university course*. Routledge.

Facchinetti, Roberta. 2013. Modal verbs in news-related blogs: When the blogger counts. *English modality: Core, periphery and evidentiality*. Juana Marín-Arrese, Marta. Carretero, Jorge Arús Hita & Johan van der Auwera (eds.) Berlin: Mouton de Gruyter. 359-378.

Fairclough, Norman. 1989. *Language and power*. London: Longman.

Fetzer, Anita. 2014. I think, I mean and I believe in political discourse: Collocates, functions and distribution. *Functions of Language, 21*(1)*,* 67-94.

Firmstone, Julie. 2019. Editorial journalism and newspapers' editorial opinions. *Oxford research encyclopedia of communication*. Oxford University Press, Oxford, England.

Fletcher, Richard, Antonis Kalogeropoulos, Nielsen, Rasmus Kleis. 2020. Trust in UK government and news media COVID-19 information down, concerns over misinformation from government and politicians up. *Reuters Institute for the Study of Journalism.*

Focosi, Daniele, Navarro, David, Maggi, Fabrizio, Roilides, Emmanuel, Antonelli, Guido. 2021. COVID-19 infodemics: the role of mainstream and social media. *Clinical Microbiology and Infection*, *27*(11), 1568-1569.

Gentzkow, Matthew, Jesse M. Shapiro, & Michael Sinkinson. 2014. Competition and ideological diversity: Historical evidence from us newspapers. *American Economic Review*, *104*(10), 3073-3114.

Jiang, Feng Kevin, Ken Hyland. 2022. COVID-19 in the news: The first 12 months. *International Journal of Applied Linguistics*.

Hart, P. Sol, Sedona Chinn, Stuart Soroka. 2020. Politicization and polarization in COVID-19 news coverage. *Science Communication*, *42*(5), 679-697.

Hennemann, Anja. 2012. The epistemic and evidential use of Spanish modal adverbs and verbs of cognitive attitude. *Folia linguistica. 46* (1), 133–170.

Kerr, John, Costas Panagopoulos, Sander van der Linden. 2021. Political polarization on COVID-19 pandemic response in the United States. *Personality and individual differences*, *179*, 110892.

Katermina, Veronika, Ekaterina Yachenko. 2020. Axiology of COVID-19 as a linguistic phenomenon in English mass media discourse. *Advances in Journalism and Communication, 8*, 59-67.

Lampert, Gunther. 2020. How and why seem became an evidential. *Re-Assessing modalising expressions: Categories, co-text, and context*. Pascal Hohaus & Rainer Schulze (eds.) 109-140. Amsterdam & Philadelphia: John Benjamins.

Lavid, Julia, Jorge Arús, Lara Moratón. 2012. Genre realized in Theme: The case of news reports and commentaries. *Discours. Revue de linguistique, psycholinguistique et informatique. A journal of linguistics, psycholinguistics and computational linguistics*, (10).

Lee, Junmin, Kim, Keungoui, Park, Gangmin, & Cha, Namjun. 2021. The role of online news and social media in preventive action in times of infodemic from a social capital perspective: The case of the COVID-19 pandemic in South Korea. *Telematics and Informatics*, *64*, 101691.

LexisNexis. 2020 COVID-19 and the Global Media: A Real-Time Perspective. https://bis.lexisnexis.co.uk/blog/categories/media-intelligence/covid-19-and-the-global-media-a-real-time-perspective March 25, 2020, by Leela Bozonelis (retrieved on 12 March 2022).

Marín-Arrese, Juana Isabel, Begoña Núñez Perucha. 2006. Evaluation and engagement in journalistic commentary and news reportage. *Revista alicantina de estudios ingleses*, No. 19 (Nov. 2006); 225-248.

Marín-Arrese, Juana Isabel. 2007. Commitment and subjectivity in the discourse of opinion columns and leading articles.: A corpus study. *RAEL: Revista electrónica de lingüística aplicada*, (1), 82-98.

Marín-Arrese, Juana. Isabel. 2011. Effective *vs*. epistemic stance and subjectivity in political discourse. *Critical discourse studies in context and cognition*, *43*, 193.

Marín-Arrese, Juana Isabel. 2013. Stancetaking and Inter/Subjectivity in the Iraq Inquiry: Blair *vs*. Brown. *English modality: Core, periphery and evidentiality*. Juana Marín-Arrese, Marta Carretero, Jorge Arús Hita & Johan van der Auwera (eds.) Berlin: Mouton de Gruyter. 411-445.

Marín-Arrese, Juana Isabel. 2015. Epistemicity and stance: A cross-linguistic study of epistemic stance strategies in journalistic discourse in English and Spanish. *Discourse Studies*, *17*(2), 210-225.

Marín-Arrese, Juana Isabel. 2021. Stance, emotion and persuasion: Terrorism and the Press. *Journal of pragmatics*, *177*, 135-148.

Martínez Caro, Elena. 2004. Evidentiality and the verbal expression of belief and hearsay. *Perspectives on evidentiality and modality*. Editorial Complutense, Madrid.185-204.

Mushin, Ilana. 2001. *Evidentiality and epistemological stance: Narrative retelling*. Amsterdam and Philadelphia. PA: John Benjamins Publishing Company.

Nor, Nor Fariza Mohd, Adlyn Syahirah Zulcafli. 2020. Corpus driven analysis of news reports about covid-19 in a malaysian online newspaper. *GEMA Online® Journal of Language Studies*, *20*(3), 199–220.

Nuyts, Jan. 2001b. *Epistemic modality, language, and conceptualization: A cognitive-pragmatic perspective*. Amsterdam, Philadelphia: John Benjamins Publishing Company

Palmer, Frank Robert. 2001. *Mood and modality*. (2nd edn.). Cambridge: Cambridge University Press.

Quirk, Randolph, Sidney Greenbaum, Geoffrey Leech, Jan Svartvik. 1985. *A comprehensive grammar of the English language*. Harlow: Longman

Ruskan, Anna. 2015. Evidential adverbials in Lithuanian: a corpus-based study. *Kalbotyra*, (67), 104-130.

Ruskan, Anna, & Marta Carretero. 2020. *Attitudinal and epistemic dimensions of evaluation: Form, meaning and discursive contexts*.

San Roque, Lila. 2019. Evidentiality. *Annual Review of Anthropology*, *48*, 353-370.

Simon-Vandenbergen, Anne Marie. 2008. Almost certainly and most definitely: Degree modifiers and epistemic stance. *Journal of pragmatics*, *40*(9), 1521-1542.

Squartini, Mario. 2008. Lexical *vs*. grammatical evidentiality in French and Italian. *Linguistics* 46(5): 917–947.

Tosun, Sumeyra, Jyotsna Vaid & Lisa Geraci. 2013. Does obligatory linguistic marking of source of evidence affect source memory? A Turkish/English investigation. *Journal of Memory and Language, 69*(2), 121–134.

Usonienė, Aurelia. 2000. On the modality of the English verbs of seeming. *Belgian Journal of Linguistics*, *14*(1), 185-205.

Usonienė, Aurelija & Jolanta Šinkūnienė. 2013. A cross-linguistic look at the multifunctionality of the English verb seem. *English modality: Core, periphery and evidentiality*. Juana I. Marín-Arrese, Marta Carretero, Jorge Arús Hita & Johan van der Auwera, eds. Berlin: De Gruyter Mouton. 281-316.

Van Dijk, Teun A. 1996. *Opinions and ideologies in editorials.* Paper for the 4th International Symposium of Critical Discourse Analysis, Language, Social Life and Critical Thought. Athens, 14-16 December, 1995.

Van Dijk, Teun. A. 2009. News, discourse, and ideology. *The handbook of journalism studies,* 191-204.

Wiemer, Björn. 2010. Hearsay in European languages: Toward an integrative account of grammatical and lexical marking. *Linguistic realization of evidentiality in European languages*. Gabriele Diewald & Elena Smirnova (eds.). Berlin – New York. De Gruyter Mouton. 59-129

Wiemer, Björn, Juana Isabel Marin-Arrese. 2022. *Evidential marking in European languages: Toward a unitary comparative account.* Berlin, Boston: De Gruyter Mouton.

Wierzbicka, Anna. 2006. *English: Meaning and culture*. Oxford and New York: Oxford University Press.

World Health Organization (WHO). (2020).https://www.who.int/director-general/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020 (retrieved on the 24 January 2022)

World Health Organisation (WHO). 2020 Managing the COVID-19 infodemic: Promoting healthy behaviours and mitigating the harm from misinformation and disinformation. https://www.who.int/news/item/23-09-2020-managing-the-covid-19-infodemic-promoting-healthy-behaviours-and-mitigating-the-harm-from-misinformation-and-disinformation

Summary in Lithuanian

Šio tyrimo pavadinto „Epistemiškumas Covid-19 diskurse britų ir amerikiečių spaudoje" tikslas – ištirti epistemiškumo raišką Covid-19 diskurso kontekste įvairiuose žanruose (t. y. nuomonių skiltyse, vedamuosiuose straipsniuose ir naujienų pranešimuose) britų ir amerikiečių laikraščiuose, būtent *The Times*, *The Independent*, *The Wall Street Journal* ir *The New York Times*. Tyrime pagrindinis dėmesys buvo skiriamas episteminio palaikymo ir episteminio pagrindimo bei pažinimo požiūrio ir faktiškumo išraiškoms. Pagrindiniai šio tyrimo tikslai – identifikuoti ir ištirti epistemiškumo raišką surinktuose tekstynuose, palyginti epistemiškumo išraiškas, pasitaikančias nuomonių skiltyse, vedamuosiuose straipsniuose ir naujienų reportažuose bei atskleisti palaikomos ideologijos poveikį Covid-19 reprezentacijai. Duomenys buvo surinkti iš aukščiau paminėtų britų ir amerikiečių laikraščių. Rezultatai rodo, kad nepaisant ideologinio laikraščių skirtumo, kai kuriuos posakius žurnalistai vartoja norėdami aiškiai išdėstyti savo balsą arba atsiriboti nuo atsakomybės už pateikiamą informaciją arba vertinimą. Pastebima, kad tiek britų, tiek amerikiečių laikraščiai, propaguojantys liberalų požiūrį, linkę naudoti daugiau epistemiškumo požymių palyginus su konservatyvios ideologijos laikraščiais. Tai gali reikšti, kad liberalių laikraščių rašytojai mieliau bendrauja su skaitytojais tiesiogiai.

Raktiniai žodžiai: epistemiškumas**,** episteminis palaikymas, episteminis pagrindimas, kognityvinis požiūris, faktiškumas, Covid-19, žiniasklaidos diskursas

Appendix I

Figure 12 and Table 19 display the overall results for the epistemicity markers used throughout the corpora.
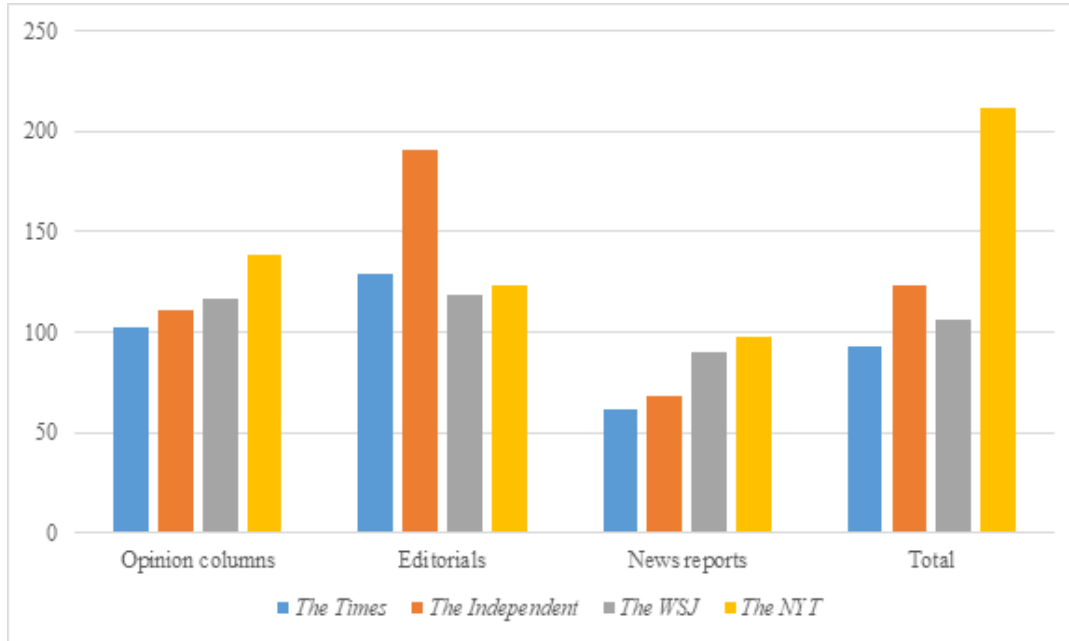

Figure 12 Normalised frequencies of epistemicity markers in the corpora across the genres.

The Times	Opinion columns		Editorials		News reports		Total	
Epistemicity	**N**	**R**	**N**	**R**	**N**	**R**	**N**	**R**
Epistemic support	251	77.37	272	100.64	165	40.13	688	68.49
Epistemic justification	71	21.43	61	22.57	86	20.86	218	21.7
Cognitive attitude and factivity	12	3.67	16	5.92	2	0.48	30	3.08
Total	334	102.47	349	129.13	253	61.47	936	93.27
The Independent	Opinion columns		Editorials		News reports		Total	
Epistemicity	**N**	**R**	**N**	**R**	**N**	**R**	**N**	**R**
Epistemic support	273	84.4	511	152.26	148	42.61	932	92.78
Epistemic justification	69	21.16	118	35.37	90	25.32	277	27.57
Cognitive attitude and factivity	18	5.54	11	3.26	2	0,56	31	3.08
Total	360	111.1	640	190.89	240	68.49	1240	123.12

The WSJ	Opinion columns		Editorials		News reports		Total	
Epistemicity	N	R	N	R	N	R	N	R
Epistemic support	310	90.87	246	86.22	200	44.75	756	70.51
Epistemic justification	82	23.97	87	31.23	198	44.86	367	34.23
Cognitive attitude and factivity	7	2.05	4	1.4	-	-	11	1.02
Total	399	116.89	337	118.85	398	89.61	1134	105.76
The NYT	Opinion columns		Editorials		News reports		Total	
Epistemicity	N	R	N	R	N	R	N	R
Epistemic support	346	108.37	303	92.35	280	59.12	929	82.95
Epistemic justification	86	26.26	88	26.77	180	37.97	354	31.6
Cognitive attitude and factivity	11	3.44	15	4.57	4	0.84	30	2.67
Total	443	138.07	406	123.69	464	97.93	1313	211.27

Table 19 Distribution of the epistemicity markers in the corpora across the genres