Climate concerns “under the rubble”: discursive portrayal of Turkey-Syria earthquake

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ABSTRACT

A significant amount of research exists on how the media cover environmental disasters and thus articulate climate concerns. However, there is a lack of studies on how news media outlets discursively presented the 2023 earthquake that took place in Turkey and Syria. To address the existing gap, the study seeks to investigate how the selected news media vocalised the climate concerns during the seismic event, reporting on geophysical events that are not conventionally framed as climate-driven. For this purpose, we scrutinised the news pieces published by prominent news outlets. The study implemented qualitative analysis tools to correlate the specific climate concerns and their representation. We qualitatively examined the obtained keywords earthquake, quake, and rubble, focusing on nomination and predication strategies employed for their discursive framing. Our research reveals a general trend exhibited by the three media outlets to place their discursive emphasis on a more immediate scale of repercussions (casualties, destruction, rescue efforts). More global, climate-related issues may require greater attention.

Keywords: *2023 Turkey-Syria earthquake; media coverage; nomination; predication; climate concerns; natural disasters; sustainability.*

I. INTRODUCTION

Language plays a decisive role in shaping how societies understand environmental crises. The ways in which climate-related events are described encode particular ideological orientations and power relations, and these linguistic choices contribute to forming the social realities through which disasters are interpreted, responded to, and governed. For linguistics, this raises critical questions about how environmental crises are narrated, framed, and legitimised in the media. Understanding the discursive strategies through which news outlets construct climate concerns is therefore central to analysing how public perceptions of disaster and environmental responsibility are shaped, especially in the light of catastrophes that are not typically perceived as human-induced.

On February 6th, 2023, a devastating earthquake occurred near the border between northern Syria and south-east Turkey. As the United States Geological Survey (USGS) (2023) reported, the quake registered a magnitude of 7.8 on the Richter scale, followed by 6.7 aftershock 11 minutes later. The USGS agency labelled a seismic event of this magnitude as particularly rare, and the earthquake resulted in significant loss of life and property damage, prompting international attention and relief efforts.

Seismic activities and inherent weaknesses claimed more than 56,000 lives in Turkey and Syria, including those of humanitarian workers. Reports of collapsed buildings emanated from multiple cities, including Adana, Adıyaman, Diyarbakır, Gaziantep, Hatay, Kahramanmaraş, Kilis, Malatya, Osmaniye, and Şanlıurfa. Similarly, in Syria, the Aleppo, Idlib, Lattakia, and Hamma governorates reported instances of buildings collapsing, while rural Damascus experienced significant damage. As the United Nations Development Program (UNDP) (2023) estimated, the earthquake killed 48,448 and left 3.3 million Turkish people displaced, also forcing 392,000 Syrian families to relocate, with a total number of 8.8 million Syrian people being affected by the earthquake and its aftermath.

The news media widely reported the seism as the world grappled with the repercussions of this disaster. In its role as a chronicler of global events, the news media reports on the occurrences taking place across the globe, presenting these events from a variety of perspectives (Molder & Calice, 2023; Takahashi & Zhang, 2023). However, in line with several ecocritical theories, the news media portrayal of environmental disasters tends to overlook the global scale of their repercussions, focusing on the immediate aftermath (Morton, 2013, 2016; Clark, 2012). This is further confirmed by several studies of media coverage of natural disasters (Cox et al., 2008; Houston et al., 2012).

Cox et al. (2008) examine 250 fire-related texts, including news articles (43%), letters to the editor (24%), features, editorials, and advertisements, covering the period from August to October 2003, in the context of the 2003 McLure Fire in British Columbia. The study applied content analysis and Foucauldian-inspired critical discourse analysis (CDA) to assess dominant narratives, voice representation, and discursive strategies. The results indicated that the recovery discourse emphasised the urgency of economic/material issues (56% of coverage), with only 11% addressing psychological/emotional effects, and little to no attention given to climate concerns. The findings also revealed that male, institutional, and expert voices dominated, while local community members made up 60% of the voices overall. However, voices from Louis Creek, the hardest-hit community, were substantially marginalised (~8%).

Another study by Houston et al. (2012) employed a quantitative content analysis to assess mass media coverage of eleven of the costliest and deadliest U.S. natural disasters from 2000 to 2010, including not only hurricanes but also other disaster types such as floods and tornadoes. The sample consisted of 927 news stories collected from three national newspapers with the highest daily circulation (Wall Street Journal, USA Today, New York Times) and two network evening television news broadcasts (ABC World News, CBS Evening News). The study established that the media stories primarily focused on physical destruction (72.8%) and economic impacts such as costs and business disruptions (52.2%), with focus on human stories and political frames growing more prominent in subsequent months after the events, while economic and

criminal frames also gained prevalence over time. Nevertheless, the global implications in terms of environmental concerns did not receive sufficient coverage.

Consequently, how various news media outlets voiced climate concerns in the light of the 2023 Turkey-Syria earthquake remains an open question. Existing knowledge on media coverage of environmental crises has predominantly focused on climate-related disasters such as floods and wildfires, where the causal link to climate change is well established. By contrast, linguistically oriented analyses of how climate concerns are verbalised in news reporting on geophysical events, particularly earthquakes, are notably scarce.

News dissemination to the public enables people's participation in "democratic governance" as it presents information that allows for informed decision-making and civic engagement (Caple, 2018, p.2). Nevertheless, the portrayal of one story can differ from one medium to another, thus calling into question the quality of trustworthiness of the depiction presented by these broadcasting media. In this sense, the news media not only represent scientific evidence but "rather interpret, filter and translate the information for their intended audiences" (Grien & MacNeil, 2022, p. 563).

In the past few decades, the concept of the environment, with a specific focus on climate change, has emerged as a significant public and political issue. The news media and public communication have played a crucial role in bringing attention to this matter and keeping it at the forefront of public discourse, thus being one of the primary sources of information regarding environmental disasters (Bolsen & Shapiro, 2018; Hansen, 2011). However, some climate change sceptics express their denial of the anthropogenic climate change on their social media platforms (Hassan, 2023), so there is a clear necessity to keep studying this setting.

Environmental disasters are events that follow a natural hazard, such as an avalanche, flooding, earthquake, tornado, and others, which have disastrous consequences for different communities affected by these events. The multi-scale effect of these events makes them particularly newsworthy, for they "carry a heavy burden of meanings and

emotions" not only for an individual but also for the collective (Yell, 2012, p. 409).

Despite the existing rhetoric of denial concerning the natural disaster–climate change correlation, multiple studies affirm the existing relationship (Banholzer et al., 2014; Sauerborn & Ebi, 2012; Van Aalst, 2006). Earthquakes have been the most well-known and commonly occurring geophysical disaster on Earth. Global temperature is a major climate variable that has a wide impact on the Earth's ecology and civilisation. Even though establishing a tangible correlation between earthquakes and increasing global temperatures characteristic of anthropogenic climate change is challenging in empirical terms due to temporal scales, several studies propose models that argue for the existence of these correlations (Kim & Lee, 2023; Sadhukhan et al., 2021).

Although previous scholarly articles have significantly furthered the analysis of media coverage of environmental disasters and climate concerns over the last decade (Campbell, 2014; Davis Kempton, 2020; Figueroa, 2022; Weik von Mossner, 2011), more visibility to the issue is required. For instance, an experiment conducted in 2019 suggests that raising climate change concerns in the context of natural disasters leads to minimising the perception of natural hazard severity exhibited by climate change sceptics and their resistance to the news articles featuring the concerns (Dixon et al., 2019). The results of the experiment emphasise the need to vocalise the issue of the climate crisis. Especially in the context of the Turkey-Syria earthquake, research on how news media outlets discursively shaped the recent quake on the border between Turkey and Syria is still lacking.

In this vein, the main goal of the present study is to contribute to the analysis of the textual representation of the specific environmental catastrophe, the 2023 Turkey-Syria earthquake, as construed by several American online news media outlets, ABC News, CNN Digital, and Fox News, during the first three days of the aftermath of the catastrophe, the 6th, 7th and the 8th of February, 2023. The analysis concentrates on the initial 72 hours following the earthquake, a period commonly referred to as the "golden window." This timeframe is widely regarded as critical because the likelihood

of survival for individuals trapped beneath debris is substantially higher when rescue operations occur within this interval (Jang et al., 2009).

Having once broadly established the primary concern of the study, the research questions to be answered throughout the present inquiry can be formulated as follows:

RQ1. How do the leading media sources articulate or overlook worldwide climate concerns when reporting on the 2023 Turkey-Syria earthquake?

RQ2. What discursive and lexical strategies are evident in framing the relationship between earthquake impacts and broader environmental debates?

It is essential to highlight that the present project is primarily text-oriented due to space limitations. The analytical framework applied in the study is eclectic and relies mainly on the central insights of the Discourse-Historical Approach (DHA) and takes into account the discursive strategies of nomination and predication to address the principal research questions of the current investigation (Reisigl & Wodak, 2016). The study additionally employs Computer-Assisted Discourse Studies aligned with qualitative analysis tools. Moreover, the available body of articles published by ABC News, CNN Digital, and Fox News during the first three days after the earthquake on the Turkey-Syria border will thus be assessed qualitatively. The results will be interpreted considering one of the noticeable ecocritical theories, as outlined in Morton (2013, 2016) and Clark (2012).

Therefore, the study understands climate concerns as the social, political and linguistic frameworks through which environmental crises – and particularly those linked to human-induced climate change – are understood, communicated, and acted upon. These concerns extend beyond scientific realities to include the ways in which disasters are framed through discourse. The language used to describe climate-related events reflects existing power structures and ideological positions and actively contributes to constructing social realities, influencing both immediate disaster response and long-term environmental policies.

This paper comprises several sections, commencing with a review of the media framing of environmental disasters, followed by the theoretical framework and a description of the employed methodology, findings, and, lastly, a discussion of the obtained results and conclusions with the current study's limitations.

II. THEORETICAL FRAMEWORK

II.1 Ecocritical perspective

Almost thirty years ago, ecologist Levin argued that "when we observe the environment, we necessarily do so only on a limited range of scales; therefore, our perception of events provides us with only a low-dimensional slice through a high-dimensional cake" (1992, p. 1943). Bearing this in mind, ecocritic Clark (2012) establishes that the Anthropocene, a new proposed geological epoch marked by human impact (Morton, 2013), provokes "derangement of linguistic and intellectual proportion in the way people often talk about the environment" (Clark, 2012, p. 150). Clark additionally claims that the "ecophobic" failing to register the multi-scalar referents of climate change leads to "a cognitive disorder—a vertiginous unframing of cognition—in the face of the complexities with which climate changes" (*ibid*, p. 140).

Likewise, the anthropogenic climate change brings to our attention the two levels we as human species tend to believe are distinct – the human and the geological. Morton (2016) suggests that naming an environmental phenomenon, such as, for instance, an earthquake, without essentially attributing it to its anthropogenic aspect might either indicate a lack of proper ecological awareness or a certain degree of obscure denialism of this aspect per se.

Human-induced climate change is inevitably a politically and socially informed notion, and it serves, to one extent or another, as a frame for natural disasters taking place in the world. The current study looks at the data produced during the first three days of the

aftermath of the 2023 Turkey-Syria earthquake, taking a specific look at how language is used to label impacted communities, governmental entities, environmental conditions, and the disaster itself. Additionally, it explores the adjectival and verbal collocations that contribute to shaping public perceptions of both the event and its consequences. By interpreting the obtained results considering the global environmental scale, the investigation seeks to shed light on how worldwide climate concerns are vocalised in the reporting, and what conclusions this might yield.

II.2 Specialised language corpus

Since 1960s, corpus linguistics has become a valuable research asset. It offers refined language processing through the evolution of text compilation to the creation of corpus-based dictionaries or the implementation of corpus-driven and corpus-based tools. According to McEnery (2019), corpus linguistics derives from the examination of authentic language usage. In line with this, Paquot & Gries (2021) advocate for a three-fold approach that comprises corpus design (representativeness and purposefulness), corpus processing (data organisation and tools) and statistical analysis (data exploration and visualisation) valid for this study.

Hence, Corpus-Assisted Discourse Studies or CADS can be defined, apart from being considered a subset of corpus linguistics, as a framework within corpus linguistics focusing on analysing the form and function of language as communicative discourse using computerised corpora. The term, rooted in Stubbs' work from 1996, was coined by Partington and Haarman (2004) to highlight the use of quantitative and statistical methods in discourse studies and the eclectic nature of the approach. The aim of the CADS approach relies on uncovering the non-obvious implicit meaning (Partington et al., 2013) and investigating language use in social environments (Gillings et al., 2023).

Cheng (2011) broadly defines language use as the ways speakers and writers employ linguistic resources to communicate meaning across contexts. Within critical discourse studies, this involves examining how language, power, and ideology interact to shape

discourse. However, critical discourse analysis has been criticised for potential bias in data selection (Baker, 2012; Flowerdew & Richardson, 2017) and for its early neglect of quantitative methods (Machin & Mayr, 2012).

Collaboration between critical discourse analysis and corpus linguistics has addressed many of these concerns. Corpus tools help ensure the representativeness of linguistic samples and enable the quantitative verification of qualitatively derived hypotheses (Catalano et al., 2020). This integration dates back to the 1990s, notably with Hardt-Mautner's (1995) work, and has since expanded through both empirical studies and methodological reflection.

In this regard, specifically analysing a particular discourse type stored in a corpus and conducting a detailed manual analysis of certain representations of this discourse can help better understand the processes occurring within that discourse type. CADS framework (Zih & El Biadi, 2023) offers a possibility to identify and analyse significant linguistic patterns in texts, reduce researcher bias, and handle large corpora of news reports. Thus, the current study's diverse nature and further implementation of quantitative methods offer a suitable correlation between corpus, discourse and mixed methods approaches.

II.3 Discourse-Historical Approach to Critical Discourse Analysis

The principal ideas underlying the current investigation primarily stem from the Discourse-Historical approach (DHA) as outlined in Reisigl and Wodak (2016), Wodak and Meyer (2016). The approach, being a variety of Critical Discourse Analysis (CDA), upholds the critical linguistic perspective and thus acknowledges that discourses as social constructs are never unbiased, for "they convey how we see ourselves, our identity, knowledge, values and beliefs" (Todolí Cervera et al., 2006, p. 9).

While CDA is predominantly concerned with the dynamics between power and discourse as well as with the way both written and spoken types of discourses manipulate such notions as social inequality, dominance, and authority (Baker et al., 2008; Fairclough,

2013; Locke, 2004), DHA emphasizes the importance of the systematic analysis of the context and how it dialectically relates to the meaning-making process.

In this vein, the main premise of the selected approach is encapsulated in the idea that discourse is "always historical, connected synchronically and diachronically with other communicative events that are happening at the same time or that have happened before" (Wodak, 1999, p. 187). However, by rendering discourses as historical, Wodak does not mean that the approach is offering a time-rooted analysis of the discourse development. Instead, this historical aspect is represented by the approach's concern over the context in which a certain discourse is produced. Thus, with the DHA's concern for the context, as well as its attention to discourse and discrimination, discourse and identity, media discourse, and ecological discourse, among other fields (Reisigl, 2017), makes the DHA a suitable analytical tool for the current inquiry.

In terms of the analytical tools the approach offers, the current investigation relies on nomination and predication strategies to assess how the framing of the environmental catastrophe is perceived within some specific lexical units. These tools are particularly helpful for, as Reisigl and Wodak state (2016), speakers and writers categorise individuals or groups in ways that either include or exclude them from particular social categories, thereby shaping how audiences perceive them through nomination. Regarding predication, Reisigl and Wodak describe it as the fundamental linguistic process of assigning attributes to entities, including people, social actors (i.e., any individual or group that is represented as participating in social practices within a text or communicative event (Reisigl & Wodak, 2016)), animals, objects, events, actions, and broader social phenomena.

Hence, it is among these lines that the present investigation thus seeks to delineate the discursive framing of the worldwide climate concerns of the 2023 Turkey-Syria earthquake. To shed light on how worldwide climate issues were vocalised through the reporting of the 2023 Turkey-Syria earthquake by a specific set of news media and what implications this discursive portrayal had, the present study follows the steps

outlined in the work by Reisigl and Wodak (2016). In other words, current research aims at combining corpus background by collecting specialised texts and exploring them through the ecocritical lens of discourse analysis.

III. METHODOLOGY

Driven by the concerns over climate change and newspaper disaster coverage, we now create a methodology for validating a combined linguistics-social studies approach. Below, Figure 1 depicts the model based on the above-mentioned theoretical foundations aligned with the research pathway:

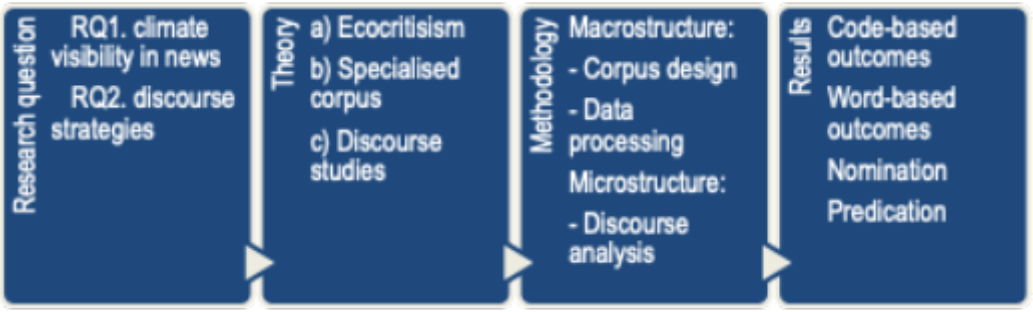

Figure 1. *Research methodology. Source: own elaboration.*

III.1. Corpus design

After carefully considering the study context and available information sources, we have developed a research architecture that ensures quality, reliability and openness. The starting point is the information provided by American news outlets during the week of the 2023 Turkish-Syrian earthquake. Specifically, we focus on the first 72 hours after this major disaster due to this frame's crucial importance. When people are trapped under rubble, there is a higher chance of survival if rescued within this "golden" window of time (Jang et al., 2009).

The selection of news media outlets was guided by two main criteria. First, the study aimed to include platforms with comparatively high audience reach. According to

recent data, at the time of writing, 38% of U.S. adults regularly obtain news from Fox News, 36% from ABC News, and 33% from CNN News, thus positioning these outlets among the most frequently consulted sources (Pew Research Center, 2025).

Second, the study sought to capture a range of ideological orientations by incorporating outlets with distinct positions on the media-bias spectrum. In this regard, ABC News is generally classified as maintaining a centrist or balanced bias, CNN News is typically characterised as left-leaning, and Fox News as right-leaning or strongly right-leaning (Ad Fontes Media, 2025). Audience demographics further reflect these ideological patterns: 57% of Republicans routinely access Fox News, followed by ABC News (27%), whereas among Democrats, CNN constitutes the most widely consulted source (48%), with ABC News ranking third (46%) (Pew Research Center, 2025).

While compiling an *ad-hoc* linguistic corpus limited to February 6th, 7th and 8th, we used the information available on the *Factiva* database. In line with what Hunston (2022) suggests, a smaller collection of texts provides better specific information due to the limited resources and significant manual marking required for some projects. We gathered news texts by first searching the following keywords on *Factiva*: “earthquake”, “quake”, “Turkey”, “Syria”. In line with Stefanowitsch (2020), we prioritised corpus authenticity, representativeness, and size while fine-graining and downsizing the initial texts.

Therefore, the overall number of words in the corpus is 92,596, corresponding to the news content in the following proportions: ABC News 2,442 (2.6% of the total amount) words, CNN Digital News 86,855 (93.8%) words, and Fox News 3,299 (3.6%) words. Since only CNN Digital News provided full-text articles—including interviews and extended coverage—while ABC and Fox News primarily offered headlines and short-format reports, the dataset inevitably contains a greater proportion of CNN words, reflecting differences in data availability rather than sampling bias. The major information load of CNN Digital and ABC News is related to the first two days of the earthquake. On the contrary, FOX News agency offered more reports on the 7th of February, and the specific number of news sections was equal on the 7th and 8th of February.

III.2. Data processing

Having the proper tools and procedures in place is crucial to effectively analyse the compiled data on a macrostructural level. These resources enable scholars to gather, process, and interpret data accurately and efficiently. Without them, making informed comments and drawing conclusions from the available information becomes challenging. Therefore, it is essential to prioritise using reliable tools and effective procedures when analysing data.

This study utilised the MAXQDA software (VERBI Software, 2020a) to examine the news media discourse surrounding global climate issues. After gathering specialised corpus texts, we employed qualitative methods widely used in social sciences for labelling information fragments (Creswell, 2014; Kuckartz & Rädiker, 2019, 2021). Specifically, we introduced corpus text files in this digital environment for performing the following tasks:

a) Coding or tagging selected text segments is the process of highlighting sentences or paragraphs and assigning specific codes. The coding system created for this study has aligned initial news search keywords and a more comprehensive range of climate change concepts.

b) The word-based analyses include the tools for visualising word frequencies or Word Cloud and exploring word combination contexts or Word Tree alongside essential correlation between the number of words per day and news agency and the specific terms analysed.

c) Joint code and word-based data processing required the creation of a new model of information treatment. We hypothesise that the investigation of climate concerns rooted in a social science-oriented set of tools suggests a broader perspective to the study of catastrophe discourse.

In relation to the coding system, the building blocks of this part are codes, coding parts, or segments vital for tackling the qualitative side of content examination. It is a way of structuring, classifying and systematising the *ad-hoc* corpus. For this research and

in line with Kuckartz & Rädiker's (2019) recommendations, the eight most frequent thematic categories or codes were chosen by researchers for manually labelling text segments, namely: "Turkey", "Syria", "Earthquake", "Quake", "Rubble", "Buildings_homes", "Destruction_damage", and "Weather".

Next, the visual tools Word Tree and Word Cloud are to be employed to offer a qualitative exploration of the textual material. On the one hand, the MAXQDA function "Interactive Word Tree" allows navigating between collected texts by clicking on any word branch and searching for keywords in context (Wattenberg & Viégas, 2008). Conversely, an interactive Word Cloud function visually represents the common words in our corpus through interrelated links or "branches" (VERBI Software, 2020b).

Particularly, the Word Tree displays the most frequent words of the corpus. In this case, the lack of stop words provides an uninterrupted reading space that starts with the word chains (a) "one", "of", "the" plus the left text section and (b) "rubble" the right lexical segments. Even though these language clusters are quite complex to interpret, we might consider the indicator (a) to show the large scale of the earthquake and the marker (b) to pinpoint the consequences of the quake.

Consequently, to address the tasks of a micro-structural qualitative analysis, we utilised Sketch Engine, which enabled systematic inspection of the immediate linguistic environments surrounding the target terms within a discourse analysis setting.

III.3. Discourse analysis

Henceforward, the critical discourse analysis outline is based on the discourse-historical approach, or DHA (Wodak & Meyer, 2016), within the qualitative strategies. The authors recommend researchers to adapt the methodological procedures outlined in their formulation of DHA to the specific requirements of the analysis being conducted, as these requirements often vary in scope, temporal range, and overall analytical purpose. The authors of the DHA method further advocate for the adoption of eclectic methodological approaches, encouraging researchers to integrate those methods that

most effectively align with the objectives of a given analysis. Therefore, instead of implementing the original eight steps of discourse-historical analysis (*ibid*), the current study focuses on its four main components:

1. Data: to facilitate a thorough examination of the correlation between environmental concerns and the recent seismic activity in Turkey and Syria, our research questions were crafted to hold essential elements such as theoretical background, reliable information sources, *ad-hoc* linguistic corpus, and specific criteria.
2. Analysis: to properly analyse the corpus, it was important to take a comprehensive approach involving both macro and micro perspectives; this means that we need to conduct qualitative examinations of the data to gain a deeper understanding of its contents and implications.
3. Results: a comprehensive assessment of the outcomes requires a careful examination of the preceding stage's results, the clarification of key points, and attention to the relevant dimensions of critique.
4. Impact: the analytical findings can be used in a practical setting to positively impact society, raising linguistic and social awareness while addressing climate concerns.

By applying the above-mentioned approaches for tackling global climate issues, researchers can gain valuable insights into the media coverage of catastrophes and how public opinion is shaped around both topics. Our methodology relies on carefully preparing research materials and tools for choosing the optimal path towards a more sustainable discourse.

As for the news agencies selected for the current research, the choice of suitable news media outlets for the analysis was deliberate and followed a process of selection based on the criteria that included free access and varied political alignment. Thus, the news media websites ABC News, CNN Digital, and Fox News are open-access websites: their content is available without a paid subscription.

IV. RESULTS AND DISCUSSION

After conceptualising, planning, collecting, and preparing specific data, we are ready to explore the results of implementing the methodology presented above. The *ad-hoc* corpus will thus be analysed in relation to its macrostructure (corpus design and data processing), microstructure (discourse analysis), and context (climate visibility).

On the one hand, since the study is eclectic and primarily text-oriented, the analysis of the macrostructure of the corpus in question investigates how the thematic categories, or codes, are distributed within the compiled corpus, their frequency of occurrence, and the possible correlations of these categories. Additionally, with the help of the same tool, we added word mapping to obtain specific lexical evidence within each category.

On the other hand, the analytical setting adopted for the scrutiny of the micro-structure of the corpus in question is retrieved from the heuristic strategies developed by Reisigl and Wodak (2016, pp. 33–43) and is presented as follows:

- Nomination: the discursive construction of social actors (individuals or/and groups represented as taking part in social practices within a given text), objects, phenomena, events, processes, and actions.
- Predication: the discursive qualification of social actors, objects, phenomena, events, processes and actions (positive or negative).

Various techniques and focuses were implemented during the upcoming phase. They allowed us to better understand how news and the public's perception of a specific natural disaster correlate with environmental awareness at the macrostructural level of the corpus under scrutiny.

IV.1 Macrostructure. Code-based approach

As mentioned in the previous section, "Turkey", "Syria", "Earthquake", "Quake", "Rubble", "Buildings_homes", "Destruction_damage", and "Weather" became the focal categories of this part of the analysis. Some information segments included up to 8 codes and allowed observing their interconnections. Although at the beginning we focused on the first four information search keywords, these being "Turkey", "Syria", "Earthquake" and "Quake", it soon became clear that the extension of this environmental tragedy brings deeper contextual knowledge.

For retrieving and presenting data intersections in segments, we generated an interactive code map. This MAXQDA option (VERBI Software, 2020b) enables us to view the frequency of code assignments to a segment and the proximity of code occurrences within the same document. Hence, the proximity indicates that the closer the codes appear to each other on the map, the more often these segments occur together within the same context. Moreover, the line thickness or the co-occurrence indicator of joined lines highlights the strength of the connection between codes.

From the illustration below, one can see that the number of code repetitions (the highest ones: "Turkey" (626), "Earthquake" (562) and "Syria" (498)) shaped the left side of the diamond-like code map. On the right side, more climate-related labels emerged quite unexpectedly: "Building(s)_homes" (361), "Destruction_damage" (321), "Rubble" (240), "Weather" (196), being "Quake" (113), being the crucial point of this visual representation.

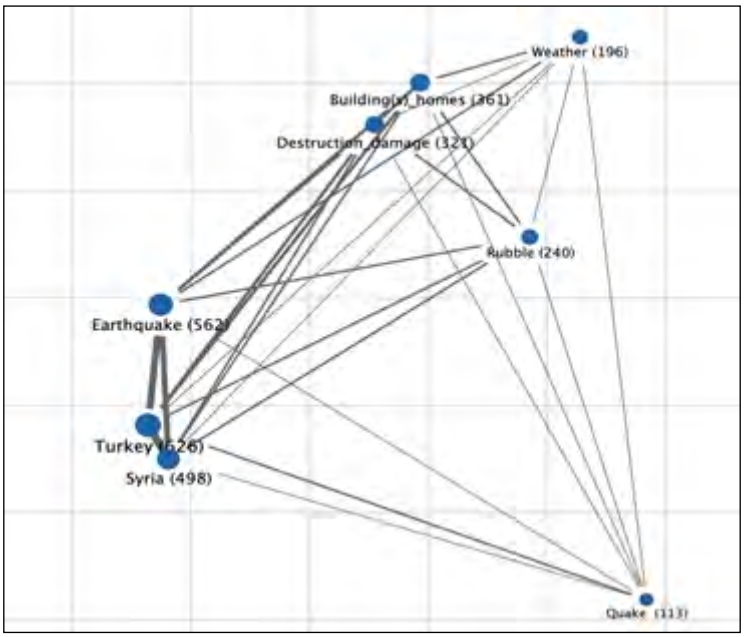

Figure 2. *Research code map. Source: own elaboration.*

This interconnection between the codes, on the macrostructure of the corpus, might be revealing in several ways. First, "Turkey" and "Syria", despite the connection strength these codes deploy, do not always occur in the same context, and the frequency number in the case of "Syria" is marginally lower than that of the code "Turkey". This observation might presage the attention preference bestowed on behalf of the news outlets towards Turkey over Syria, which is explained by the fact that Turkey suffered more consequences after the earthquake, both in damage and life loss rates. Similarly, "Syria" and "Turkey" are frequently linked to the code "Earthquake".

Yet, Figure 2 indicates that "Turkey" is more strongly correlated with "Earthquake" than "Syria". This may be, apart from the reasons presented above, due to the fact that the earthquake's epicentre was located in Kahramanmaraş, Turkey, thus resulting in a higher frequency of the code "Turkey" appearing in relation to "Earthquake". In summation, the prominence of these codes suggests a focus on the geographical and geopolitical aspects of the earthquake as portrayed by the selected American news outlets.

Moreover, the proximity criteria and the thickness of the co-occurrence indicator signalise that the codes "Turkey", "Syria," and "Earthquake" appear in the semantic contexts related to codified items classified as 'Destruction_damage' and 'Building_ homes' labels in similar proportions, the "Rubble" being the fifth crucial element of the irregular pentagon. This interconnectedness of the indicated items might foretell the media interest in discussions related to damage of buildings and homes, the extent of the destruction, and the challenges posed by rubble and adverse weather conditions during the aftermath. Additionally, the emergence of the "Weather" code on the top-right part of the diamond-shaped diagram hints at the focus on the environmental consequences of the earthquake in question.

Apart from this, the high frequency of the term "Earthquake" and the appearance of its informal synonym "Quake" at the bottom-right of the diagram suggest that media coverage and reporting on the seismic event play a central role in the corpus, even though the media preference is clearly given to the former code being mentioned. This could involve detailed accounts of the earthquake's characteristics, its timeline, and ongoing updates. The high frequency of the term "Earthquake" and the appearance of its synonym "Quake" with its deployed connections make these items a suitable choice for the following qualitative scrutiny of the contexts in which they appear.

IV.2 Macrostructure. Word-based analysis

Hereby, we propose an overview of the study's lexical components using the MAXQDA Word mapping tools mentioned above. Predictably, the vocabulary patterns of the Word Cloud account for the geographical (Turkey, Syria) and human dimensions (people) of the adversity. As for the tremors, the keyword "earthquake" is the most impactful term on the abovementioned list.

WORD CLOUD **WORD TREE**

Figure 3. *Word Tree and Word Cloud of the ad-hoc corpus documents. Source: own elaboration.*

Building on this rationale, we paid special attention to additional terms related to the event and illustrated by the Word Tree. Whereas the initial selection of "earthquake" and "quake" was an obvious choice for addressing the 7.8 magnitude seismic shift, another special lexeme stood out. "Rubble" or wreckage stems from the atrocious effects of house destruction attributed to the tragedy from a descriptive viewpoint.

As a result of the macro-analysis, a total of 1740 times the three lexemes were detected. In all three terms ("earthquake", "quake" and "rubble"), the heaviest information load is associated with Day 1, although "rubble" reports dominate the event coverage during Day 2.The set of words "earthquake" and "quake" data do not vary from the 6th to the 8th of February, in contrast to "rubble," which is not mentioned excessively. The proportion of each selected term within the information load of the days under analysis shows generally higher rates (4%-6%) for the first two lexical items.

Therefore, for the qualitative part of the analysis, the current study will seek to address the contexts within the codified segments of "rubble," "earthquake," and "quake." Even though the investigation is text-limited and cannot allocate the analysis of more categories, we believe the chosen items and the contexts in which they occur have the potential to unravel how the chosen news media outlets portray worldwide climate concerns, as well as how the seismic event was discursively shaped.

IV.3 Microstructure. ABC News sub-corpus analysis

For the purpose of a micro-structural qualitative analysis of the study's focal categories, the online corpus-management platform Sketch Engine (Kilgarriff, 2014) was utilised. This tool enabled the storage of news texts associated with the coded segments "earthquake", "quake" and "rubble" and facilitated the examination of nominalisation and predication strategies within their immediate linguistic environments. These local contexts were accessed through keyword-in-context (KWIC) concordance lines, displaying three to five words on either side of the target item.

Specifically, the qualitative analysis of the linguistic framing of the *earthquake*, *quake* and *rubble* on behalf of the ABC News media outlet is presented in Table 1 below. To report on the findings, we considered the nominalisation and predication strategies employed by the selected news media to portray the seismic event in order to assess, firstly, the specific linguistic framing of the catastrophe and, second, to see whether climate concerns were vocalised through the linguistic context in which the items of interest appear.

Table 1 presents the salient findings, organised by the days news pieces were published and their frequency throughout the ABC News sub-corpus. The examples from the corpus evidencing the most prevalent semantic context in which the items under scrutiny are found can be consulted in Appendix 1 (see dataset only available here for review purposes; the authors will create an open-access link if the article is accepted). A similar choice to move the examples from the other sub-corpora was applied in sections IV.4 and IV.5.

Table 1. *Frequencies and key study terms in the ABC News sub-corpus. Source: own elaboration.*

6 Feb		7 Feb		8 Feb	
ITEM	FREQ.	ITEM	FREQ.	ITEM	FREQ.
Catastrophic earthquake	3	Deadly earthquake	1	Monday's devastating earthquake	1
Massive earthquake	4	Devastating earthquake	5	Catastrophic earthquake	1
Powerful 7.8 magnitude earthquake	6	7.8 magnitude earthquake	2	Quake rescue effort	1
7.8 magnitude earthquake	1	Massive earthquake	3	Newborn baby in the rubble	1
Social agent + quake	4	Social agent + quake	2		
New powerful quake	1	Magnitude 7.8 quake	1		
Deadly quake	1	Deadly quake	1		
Victims + rubble	3	(Social agents) + victims + rubble	4		

Regarding the explicit discursive construction of the codified item '*earthquake'*, the ABC News outlet made an overt reference to the event 38 times, while the total number of codified elements belonging to the outlet in question throughout the three-day timespan is 282.

During the immediate aftermath of the disaster on the 6th of February, the phenomenon was explicitly invoked 15 times, with 17 and 6 times on the 7th and 8th of February, correspondingly. Apart from the instantiations where the phenomenon was referred to matter-of-factly through direct nomination, the predication strategies took the shape of several affectively charged adjectives modifying the phenomenon.

Thus, the item *earthquake* was made part of such collocations as shown in Table 1. As can be observed, there was a preference for employing such modifiers as *massive*,

devastating, and *powerful* to refer to the earthquake. These predication strategies were typically employed in the context of building collapse, overall destruction and damage, and casualties, where the earthquake victims were usually introduced through numeratives.

In regard to the most widely used synonym employed to refer to the disaster, the item *quake* was employed 16 times by ABC News reporters, with 8 mentions on the 6th of February, 6 on the 7th, and 2 on the last day covered by the analysis. Being defined as an informal substitute for the word "earthquake" in the British register and a shortened variation of the term in the American register by the Collins Dictionary, the term *quake* was not found in the semantic contexts related to destruction and damage and building collapse.

However, similarly, it was two times regarded as deadly, once on the 6th and the 7th of February, correspondingly. Apart from the mentions of the magnitude, the introduction of the term *quake* was typically accompanied by the discursive invocation of social agents. This pattern was not observed in the previous treatment of the term *earthquake*. The social actors are attributed with positive qualities through the predication strategies in the form of predicates, such as *offer assistance, rush to [help], hit ground.*

Moving on to the third key item of interest, that is *rubble.* It once again should be stated that its invocation appeared to be much less frequent than one of the previously discussed terms, with the total number of 4 of the codified segments. The same frequency pattern is maintained throughout the whole corpus at hand, including news items from CNN and Fox, alike.

In this vein, the only two instances from the 6th of February when the item *rubble* was employed contained a reference, both direct and implied, to the victims of the earthquake and the rubble. On the 7th of February, the immediate context in which the term *rubble* occurred allowed to unravel another linguistic pattern present throughout the corpus at hand. Such collocations as represented by the example *tens of thousands injured* (see Appendix 1), epitomise the most common nominalisation strategy of

using numeratives to discursively construe, and make a reference to, the victims and survivors of the earthquake.

IV.4 Microstructure. CNN News sub-corpus analysis

Commencing the presentation of the obtained findings, it should be noted that the item *earthquake* emerged in the CNN sub-corpus 2,421 times, with the items *rubble* appearing 1,104 times and the *quake* 553 times, respectively. For the investigation, the study mainly took into account the predication strategies employed by CNN and left aside combinations in which the items of interest appeared to be paired with function words (such as articles, demonstratives, etc.). The most frequent nomination and predication strategies are thus presented as follows (for more examples, see Appendix 2):

Table 2. *Frequencies and key study terms in CNN News sub-corpus. Source: own elaboration*

6 Feb		7 Feb		8 Feb	
ITEM	FREQ.	ITEM	FREQ.	ITEM	FREQ.
7.8 magnitude earthquake	21	7.8 magnitude earthquake	36	7.8 magnitude earthquake	131
Massive earthquake	18	Massive earthquake	46	Massive earthquake	122
Devastating earthquake	20	Devastating earthquake	46	Devastating earthquake	82
Major earthquake	21	Major earthquake	4	Major earthquake	75
Earthquake struck	6	Earthquake struck	22	Earthquake struck	52
Earthquake in Turkey	18	Earthquake in Turkey	27	Earthquake in Turkey and Syria	27
Earthquake in Turkey and Syria	1	Earthquake in Turkey and Syria	11	Powerful earthquake	30
Powerful earthquake	4	Powerful earthquake	3	Earthquake hit	15
[…] impacted by this earthquake	2	[…] impacted by this earthquake	8	Under the rubble	171
Earthquake hit	4	Earthquake hit	11	Trapped under the rubble	74

6 Feb		7 Feb		8 Feb	
ITEM	FREQ.	ITEM	FREQ.	ITEM	FREQ.
Under the rubble	5	Under the rubble	129	Through the rubble	68
Trapped under the rubble	6	Trapped under the rubble	44	The rubble here	28
Through the rubble	3	Through the rubble	43	Alive under the rubble	9
7.8 magnitude quake	4	The rubble here	6	Quake zone	24
Quake zone	14	Alive under the rubble	24	Quake struck	25
Quake struck	1	7.8 magnitude quake	23	Monday's devastating quake	14
U.S. Geological survey says the quake	3	Quake zone	32		
Powerful quake	2	Quake struck	26		
Major quake	1	Monday's devastating quake	9		
		Powerful quake	11		

As can be observed from Table 2, in the case of CNN, the preference was given to *7.8 magnitude*, *massive* and *devastating* as the most common lexical predication strategies employed to refer to the earthquake, with the appearance of the explicit anthropomorphic predicates *hit* and *struck.*

In this vein, the overall discursive trend in the context of these predication strategies entails such topics as the vulnerable state of those who have witnessed and survived the seismic event, with a particular emphasis on the psychological implications the event had (e.g., *7.8 magnitude earthquake*, see Appendix 2).

Another observation emanates from the recurrent toponymic invocation of both Turkey and Syria as countries suffering the consequences of the earthquake (e.g., *massive earthquake*, *devastating earthquake struck*, *powerful earthquake*), which thus

informs the appearance of the phrase *earthquake in Turkey and Syria* repeated 39 times throughout the corpus. The CNN news media outlet additionally mentions other areas damaged by the environmental phenomenon and includes the coverage of the overall destruction caused by the phenomenon in question.

In terms of the codified element *rubble*, Table 2 suggests that the overall linguistic pattern concerns the search for survivors and the people and buildings affected by the earthquake, which is also confirmed by the interrelation of codes (see Figure 1). The sub-corpus at hand used personal names of the victims (e.g. within the phrase including a deictic adverb *the rubble here*). Additionally, the uneven distribution of the key items in terms of the dates indicates the focus being shifted from the phenomenon to its aftermath, for the number of total frequencies of the employment of the items of interest increases on the 7th and 8th of February.

Regarding the item *quake*, the overall discourse centres around debris removal, reference to the reports and correspondents encountered in the quake zone, and a call for international assistance. Moreover, several repeated predication strategies are employed to refer both to the item *earthquake* and *quake*, such as, for instance, *7.8 magnitude*, *powerful*, *devastating* and *major*. Notwithstanding, the item *quake* was employed in the contexts in which social agents were invoked, as can also be inferred from Table 2, the U.S. Geological Survey.

IV.5 Microstructure. FOX News sub-corpus analysis

The codified element *earthquake* was explicitly referred to by Fox News media 201 times, with *rubble* and *quake* 152 and 43, respectively. The evocation of the codified element *earthquake* was generally followed by a specific emphasis on the magnitude of the seismic event and its temporal and geographical context. In order to dive deeper into the characteristic topics the apparition of the item triggered, the following most frequently employed nomination and predication pairings were employed (for more examples, see Appendix 3):

Table 3. *Frequencies and key study terms in FOX News sub-corpus. Source: own elaboration*

6 Feb		7 Feb		8 Feb	
ITEM	FREQ.	ITEM	FREQ.	ITEM	FREQ.
7.8 magnitude earthquake	33	7.8 magnitude earthquake	16	7.8 magnitude earthquake	15
Earthquake rocked	24	Earthquake rocked	3	Devastating earthquake	2
The rubble of	3	Earthquake killed	12	Catastrophic earthquake	10
Under rubble	26	Devastating earthquake	10	Earthquake in Turkey and (northern) Syria	7
Rubble after	9	Earthquake in Turkey and Syria	3	The rubble of	23
Quake rocks	5	The rubble of	20	From the rubble	4
Quake kills		Rubble after	7	Deadliest quake	2
		4	Turkey, Syria quake	2	

With the modifier 7.8 magnitude being the most frequently employed predication strategy used to refer to the earthquake in the current sub-corpus, Fox News media also uses the item earthquake employing such explicit predicates as rocked and killed, thus utilising the noun as a subject. As direct objects, the most common ones refer to the vast territory affected by the earthquake and the casualties. As for the adjective modifiers of the element earthquake, these being devastating and catastrophic, these were generally employed to designate the impact the seismic event had in terms of building destruction and the death toll. Lastly, as shown in Table 3, the geographical scope covered by the outlet includes a bilateral overview of the damage caused by the seismic event in Turkey and Syria.

Transitioning to the second codified item of interest, the rubble, the general tendency to construe the linguistic context in which the item in question appeared encompassed,

once again, the casualties and the impact of the disaster in both Syria and Turkey (e.g., under the rubble, the rubble of). This was additionally achieved through a specific focalization on search and rescue teams throughout the current sub-corpus, specifically the repeated referencing of Syria Civil Defence.

As for the least frequently employed codified segment within the current sub-corpus quake, its implementation triggered, in line with the linguistic strategies employed to construe the context related to the item earthquake, the apparition of anthropomorphic explicit predicates rocks and kills. These explicit predicates were used to refer to the affected region of the border between Turkey and Syria. The employment of the superlative in the case of the phrase deadliest quake presents the earthquake faithfully (The 6 Deadliest Earthquakes Since 1950, n.d.). This type of predication strategy was not evident in the previously examined sub-corpora, suggesting a deliberate attempt by the news media outlet to frame the event within a broader historical context, thereby emphasizing its severity and raising awareness of its impact.

V. CONCLUSIONS

Overall, ABC News exhibited a tendency to emphasise humanitarian responses to the natural disaster, focused on building collapses, and employed various sensationalistic strategies concerning the linguistic construction of the natural phenomenon as well as its victims. Both *earthquake* and *quake* were frequently referenced with modifiers emphasising impact and urgency. Positive predication strategies were used to describe rescue efforts related to *rubble*, although specific social actor affiliations were often omitted. Additionally, the corpus analysis revealed no instantiations in which climate concerns were vocalised. The natural phenomenon was treated on its own terms, and on a scale of the primary urgency, while the geological and climate scales were not considered.

As far as the CNN corpus is concerned, the general topics raised by the news outlet discussed the geological context of the earthquake, namely its magnitude and impact,

aftershocks, and the unprecedented strength of the phenomenon. Apart from that, it shed light on search and rescue operations and international responses to the catastrophe through invocating social agents, casualties and death toll. In terms of the geopolitical context, CNN offered a discussion of the earthquake's impact on both Turkey and Syria, including challenges faced in war-torn Syria and its refugee camps, as well as other countries and regions. Lastly, the news media outlet included accounts of human stories encompassing the experiences lived by the earthquake victims.

In relation to the analysis of the sub-corpus of the Fox News media outlet, it might be reported that, generally, it did not present any drastic alterations in terms of the discursive focalization of the overall narrative from the ones that have been previously presented and analysed. Fox News offered an account covering, most of all, the issues of the magnitude and impact of the earthquake both in Turkey and Syria, and it focused on the tragic loss of life – the death toll and casualties, and the challenges the rescue teams faced.

With a minimal focus on the victims' experiences, unlike the CNN news sub-corpus, the Fox News media outlet provided a rather impersonal portrayal of the human cost of the disaster. The outlet also covers international aid by invocating social agents with the corresponding membership categorization, even though it is not a recurrent one. Lastly, the analysis of the macrostructure of the sub-corpus at hand did not reveal any direct act of addressing climate concerns.

As can be noted, the modifier *7.8 magnitude* appears to be the most frequently employed predication strategy used to refer to the earthquake by the CNN News media and Fox News, also appearing among the most salient findings in the ABC News sub-corpus. Functioning as a leitmotif, this constant reference to the magnitude of the seismic event, apart from being scientifically accurate, also served to quantify and contextualise the earthquake's impact, and it outlines the context for the impact that very often followed the phrase under scrutiny. Thus, the three news media outlets tend to broadly cover the magnitude and impact of the earthquake, emphasising its effects

on casualties and building destruction. This is also supported by the interrelation of the codified items presented in the diamond-shaped diagram provided in Figure 2.

As for the synonymous nominalisation of the phenomenon under study, *quake*, its function in general terms reinforces the scale of the impact and offers, to varying degrees, a more complete account of the succession of events. Its linguistic framing was often accompanied by, in a fashion similar to the employment of the item *earthquake*, the emphasis on the action taken as a response to the catastrophe (e.g., social agents + quake in ABC sub-corpus) and explicit anthropomorphic predicates (e.g., *quake struck* in CNN, *quake rocks*, *quake kills* in Fox).

These explicit anthropomorphic predicates tend to linguistically present the disaster as a force beyond control, whose agency perhaps relies within the realms that do not depend on any variables. Even though the seismic activity might not be typically associated with climate concerns (unlike other natural disasters, e.g., wildfires or hurricanes, which receive scholarly attention (Cox et al., 2008, Houston et al., 2012)), human beings' impact on the geological strata demands a more inclusive perspective and broader coverage (Clark, 2012).

Earthquakes are not conventionally categorised as climate-driven phenomena despite the currently emerging scientific evidence suggesting the contrary (Kim & Lee, 2023; Sadhukhan et al., 2021). Earthquakes constitute a productive site for interrogating the discursive boundaries and epistemic flexibility of climate-related reporting. Examining a crisis whose causal mechanisms are perceived as geophysical rather than climatic enabled an exploration of whether, and under which discursive conditions, news media mobilise, negotiate, or suppress climate concerns.

The three analysed sub-corpora offered substantial coverage of the damage caused by the earthquake, with a particular emphasis on the building collapse. The term *rubble*, as a direct result of the earthquake, is closely associated not only with the event itself but also with other words describing destruction, making it a key linguistic marker of the damage caused.

According to various sources, the building collapse and the scale of the destruction, specifically in Turkey, could have been avoided had the construction standards been adhered to (United Nations Development Programme, 2023). Despite the region's seismic vulnerability, most buildings were constructed before implementing disaster-resilience building codes, and the post-code structures seemed to fail to comply.

Turkish officials have issued arrest warrants for over 100 individuals, including building contractors, for their noncompliance with building codes ("Turkey-Earthquake: Emergency Situation Report (21.06.2023) - Türkiye," 2023). Consequently, it might be suggested that the human factor exacerbated the aftermath of the natural disaster and that the rubble, phenomenologically, gets converted into a destructive force on its own. The vastness of the disaster gets condensed into a more measurable and palpable notion through the number of collapsed buildings and the victims.

As the findings suggest, and while the earthquake victims are given thorough coverage, there appears to be a lack of attention given to climate concerns on behalf of the three news media outlets within the immediate linguistic context related to the items *earthquake*, *quake* and *rubble*. Even in the context in which the direct reference is made to building collapse, which phenomenologically remains a consequence of the environmental disaster, alongside the rubble, there is a notable absence of coverage regarding non-compliance with the disaster-resilience building codes or broader environmental issues.

This omission thus contributes to the general discourse in which nature is presented as an entity problematically isolated from human beings and their actions to the extent that there appears to be no control over its overarching force (Morton, 2013, 2016). Additionally, these findings align with the observations outlined in other critical discourse analysis studies interested in the news media coverage of natural disasters, which emphasized the news media's tendency to overlook the possible correlations between natural catastrophes and the climate crisis (Comfort, 2019; Cox et al., 2008; Dixon, et al., 2019).

Regardless of whether the catastrophe was, in fact, triggered by the anthropogenic influence on the planet, it can be argued that better adherence to building construction standards could have mitigated the scale of destruction. The interrogation of the omission of such discourse topics not only allows the study to respond to the primary concerns of the paper, that is, how worldwide climate concerns are portrayed in the different media under scrutiny and how the linguistic framing of the disaster perceived within the lexical units of *earthquake*, *quake* and *rubble*. It additionally offers insight into how the media responds to environmental catastrophes on a more immediate socio-political scale while still overlooking the multi-scalar, broader context of climate concerns (Clark, 2012).

Accordingly, the current study aligns with the ecocritical theories and the discourse-historical approach employed throughout the investigation. By means of this contribution, we welcome researchers from various disciplines to engage with the available information from a more sustainable, climate-sensitive perspective. Engaging with the news media coverage of environmental disasters on a broader, environmental scale allows for a more critical assessment of the current state of global affairs. It also prompts new outlooks and multi-disciplinary discussions among various social agents regarding the construction of a better collective future.

One of the primary limitations of the current study is the size difference between the three different corpora, with the CNN corpus being the most extensive one. Due to the space limitations, the study only focused on the three key items of interest, these being the *earthquake*, *quake* and *rubble*, and thus did not delve into a more detailed analysis of the linguistic framing of other recurrent topics found during the word-based analysis stage, these being the international response to the disaster, the weather, the portrayal of the victims of the earthquake, as well as social agents taking part in the aftermath of the disaster. Including these codified segments for future research endeavours could prove advantageous and offer new, more comprehensive insights into the media reporting of an event of such magnitude.

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REFERENCES

Ad Fontes Media. (2025). *Interactive Media Bias Chart*. https://app.adfontesmedia.com/chart/interactive

Baker, Paul, Gabrielatos, Costas, Khosravinik, Mahid, Krzyżanowski, Michal, McEnery, Tony & Wodak, Ruth (2008). A useful methodological synergy? Combining critical discourse analysis and corpus linguistics to examine discourses of refugees and asylum seekers in the UK press. *Discourse & Society*, *19*(3), 273-306. https://doi.org/10.1177/0957926508088962

Baker, Paul (2012). Acceptable bias? Using corpus linguistic methods with critical discourse anlaysis. *Critical Discourse Studies, 9*(3), 247-256.

Banholzer, Sandra, Kossin, James, & Donner, Simon (2014). The Impact of Climate Change on Natural Disasters. In Ashbindu Singh & Zinta Zommers (Eds.), *Reducing Disaster: Early Warning Systems For Climate Change* (pp. 21-49). Springer Netherlands. https://doi.org/10.1007/978-94-017-8598-3_2

Bednarek, Monika (2015). Corpus-Assisted Multimodal Discourse Analysis of Television and Film Narratives. In Paul Baker & Tony McEnery (Eds.), *Corpora and Discourse Studies: Integrating Discourse and Corpora* (pp. 63-87). Palgrave Macmillan UK. https://doi.org/10.1057/9781137431738_4

Bolsen, Toby, & Shapiro, Matthew A. (2018). The US News Media, Polarization on Climate Change, and Pathways to Effective Communication. *Environmental Communication*, *12*(2), 149-163. https://doi.org/10.1080/17524032.2017.1397039

Campbell, Vincent (2014). Framing Environmental Risks and Natural Disasters in Factual Entertainment Television. *Environmental Communication*, *8*(1), 58-74. https://doi.org/10.1080/17524032.2013.848222

Caple, Helen (2018). News Values and Newsworthiness. In Jon Nussbaum (Ed.), *Oxford Research Encyclopedia of Communication* (pp. 1-21). New York: Oxford University Press. https://doi.org/10.1093/acrefore/9780190228613.013.850

Catalano, Theresa, & Waugh, Linda R. (2020). The Main Approaches to CDA/CDS. In Theresa Catalano & Linda R. Waugh (Eds.), *Critical Discourse Analysis, Critical Discourse Studies and Beyond. Perspectives in Pragmatics, Philosophy & Psychology* (pp. 155-219). Springer. https://doi.org/10.1007/978-3-030-49379-0_4

Cheng, Winnie (2011). *Exploring Corpus Linguistics: Language in Action*. Routledge. https://doi.org/10.4324/9780203802632

Clark, Timothy (2012). Derangements of Scale. In Tom Cohen (Ed.), *Telemorphosis: Theory in the Era of Climate Change, Vol. 1* (pp. 147-162). University of Michigan Library: Open Humanities Press. https://doi.org/10.3998/ohp.10539563.0001.001

Cox, Robin S., Long, Bonita C., Jones, Megan I., & Handler, Risa. J. (2008). Sequestering of Suffering: Critical Discourse Analysis of Natural Disaster Media Coverage. *Journal of Health Psychology*, *13*(4), 469-480. https://doi.org/10.1177/1359105308088518

Creswell, John W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed). London: SAGE Publications. Retrieved from: https://www.ucg.ac.me/skladiste/blog_609332/objava_105202/fajlovi/Creswell.pdf

Davis Kempton, Stefanie (2020). Racialized Reporting: Newspaper Coverage of Hurricane Harvey vs. Hurricane Maria. *Environmental Communication*, *14*(3), 403-415. https://doi.org/10.1080/17524032.2019.1680409

Dixon, Graham, Bullock, Olivia, & and Adams, Dinah (2019). Unintended Effects of Emphasizing the Role of Climate Change in Recent Natural Disasters. *Environmental Communication*, *13*(2), 135-143. https://doi.org/10.1080/17524032.2018.1546202

Fairclough, Norman (2013). *Critical Discourse Analysis: The Critical Study of Language*. Routledge. https://doi.org/10.4324/9781315834368

Figueroa, Ever J. (2022). Casting heroes and victims of disaster events: Representations of race and gender in Hurricane Harvey front page news images. *Critical Studies in Media Communication*, *39*(5), 455-471. https://doi.org/10.1080/15295036.2022.2121412

Flowerdew, John, & Richardson, John (2017). *The Routledge Handbook of Critical Discourse Studies*. Routledge. https://doi.org/10.4324/9781315739342

Gillings, Mathew, Mautner, Gerlinde, & Baker, Paul (2023). *Corpus-assisted discourse studies*. Cambridge University Press.

Grien, Angelina & MacNeil, Robert (2022). The role of journalistic voice in communicating climate scepticism. *Public Understanding of Science*, *31*(5), 563-571. https://doi.org/10.1177/09636625221077826

Hansen, Anders (2011). Communication, media and environment: Towards reconnecting research on the production, content and social implications of environmental communication. *International Communication Gazette*, *73*(1-2), 7-25. https://doi.org/10.1177/1748048510386739

Hardt-Mautner, Gerlinde (1995). 'Only connect': Critical discourse analysis and corpus linguistics.*UCREL Technical Paper* (6). Lancaster University Press.

Hassan, Bahaa A. (2023). Implicatures in the Tweets of Climate Change Skeptics. *Language Value*, *16*(2), 124-145. https://www.doi.org/10.6035/languagev.7707

Houston, Brian, Pfefferbaum, Betty, & Rosenholtz, Cathy E. (2012). Disaster News: Framing and Frame Changing in Coverage of Major U.S. Natural Disasters, 2000-2010. *Journalism & Mass Communication Quarterly*, *89*(4), 606-623. https://doi.org/10.1177/1077699012456022

Hunston, Susan (2022). *Corpora in Applied Linguistics*. Cambridge: Cambridge University Press. https://doi.org/10.1017/9781108616218

Jang, Hung-Chin, Lien, Yao-Nan, & Tsai, Tzu-Chieh (2009). Rescue information system for earthquake disasters based on MANET emergency communication platform. *Proceedings of the 2009 International Conference on Wireless Communications and Mobile Computing: Connecting the World Wirelessly*, pp. 623-627. https://doi.org/10.1145/1582379.1582514

Kilgarriff, Adam, Baisa, Vít, Bušta, Jan, Kovář, Vojtěch, Michelfeit, Jan, Rychlý, Pavel, & Suchomel, Vít (2014). The Sketch Engine: ten years on. *Lexicography, ASIALEX 1*, 7-36. https://doi.org/10.1007/s40607-014-0009-9

Kim, Man-Jae, & Lee, Hee-Kwon (2023). Long-term patterns of earthquakes influenced by climate change: Insights from earthquake recurrence and stress field changes

across the Korean Peninsula during interglacial periods. *Quaternary Science Reviews*, *321*, 108369. https://doi.org/10.1016/j.quascirev.2023.108369

Kuckartz, Udo, & Rädiker, Stefan (2019). *Analyzing qualitative data with MAXQDA: Text, audio, and video*. Berlin: Springer. https://doi.org/10.1007/978-3-030-15671-8

Kuckartz, Udo, & Rädiker, Stefan (2021). Using MAXQDA for mixed methods research. In Anthony J. Onwuegbuzie & Burke R. Johnson (Eds.), *The Routledge Reviewer's Guide to Mixed Methods Analysis* (pp. 305-318). London: Routledge. https://doi.org/10.4324/9780203729434-26

Levin, Simon (1992). "The Problem of Pattern and Scale in Ecology." The Robert H. MacArthur Award Lecture 1989. Toronto: Ecological Society of America. *Ecology* 73 (1992): 1943-1967. Retrieved from: https://esajournals.onlinelibrary.wiley.com/doi/pdf/10.2307/1941447

Locke, Terry (2004). *Critical Discourse Analysis*. London, New York: Bloomsbury Academic. Retrieved from: https://www.bloomsbury.com/uk/critical-discourse-analysis-9780826464866/

Machin, David, & Mayr, Andrea (2012). *How to do critical discourse analysis: A multimodal introduction*. Sage.

McEnery, Tony (2019). *Corpus linguistics*. Edinburgh University Press.

Molder, Amanda L., & Calice, Mijaíla N. (2023). What Do Extreme Weather Events Say About Climate Change? Comparing Politicization and Climate Policy in U.S. Wildfire and Hurricane News Coverage. *Environmental Communication*, *17*(4), 370-385. https://doi.org/10.1080/17524032.2023.2190495

Morton, Timothy (2013). *Hyperobjects: Philosophy and Ecology after the End of the World*. Minneapolis, London: University of Minnesota Press. https://doi.org/10.5749/j.ctt4cggm7

Morton, Timothy (2016). *Dark Ecology: For a Logic of Future Coexistence*. New York: Columbia University Press. https://doi.org/10.7312/mort17752

Partington, Alan, & Haarman, Louann (2004). *Corpora and Discourse*. Bern: Peter Lang. Retrieved from: https://d-nb.info/970878621/04

Partington, Alan, Duguid, Alison, & Taylor, Charlotte (2013). *Patterns and Meanings in Discourse: Theory and Practice in corpus-assisted discourse studies (CADS).* Amsterdam, Philadelphia: John Benjamins Publishing Company. https://doi.org/10.1075/scl.55

Paquot, Magali, & Gries, Stefan T. (Eds.). (2021). *A practical handbook of corpus linguistics*. Springer Nature.

Pew Research Center. (2025). *News Media Tracker: How Americans Use and Trust News Sources.* Retrieved from: https://www.pewresearch.org/journalism/feature/news-media-tracker/

Reisigl, Martin (2017). The Discourse-Historical Approach. In Flowerdew, John & Richardson, John (Eds.), *The Routledge Handbook of Critical Discourse Studies* (pp. 49-59). London: Routledge. https://doi.org/10.4324/9781315739342.ch3

Reisigl, Martin & Wodak, Ruth (2016). The Discourse-Historical Approach (DHA). In Ruth Wodak & Michael Meyer (Eds.), *Methods of Critical Discourse Studies* (pp. 23-61). London: SAGE. https://doi.org/10.4135/9780857028020

Sadhukhan, Bikash, Chakraborty, Shayak, & Mukherjee, Somenath (2021). Investigating the relationship between earthquake occurrences and climate change using RNN-based deep learning approach. *Arabian Journal of Geosciences*, *15*(1), 31. https://doi.org/10.1007/s12517-021-09229-y

Sauerborn, Rainer, & Ebi, Kristie (2012). Climate change and natural disasters – integrating science and practice to protect health. *Global Health Action*, *5*(1), 19295. https://doi.org/10.3402/gha.v5i0.19295

Stefanowitsch, Anatol (2020). *Corpus linguistics a guide to the methodology*. Berlin: Language Science Press. Retrieved from: https://openresearchlibrary.org/content/cf9acafa-db96-4e28-8d79-202eaed3c4f4

Stubbs, Michael (1996). *Text and corpus analysis: Computer-assisted studies of language and culture*. Oxford: Blackwell. Retrieved from: https://www.wiley.com/en-us/Text+and+Corpus+Analysis%3A+Computer+Assisted+Studies+of+Language+and+Culture-p-9780631195122

Takahashi, Bruno, & Zhang, Qucheng (2023). Place in Disaster Coverage: Newspaper Coverage of Hurricane Maria in Puerto Rico. *Journalism Practice*, *19*(2), 447-465. https://doi.org/10.1080/17512786.2023.2190150

Todolí Cervera, Julia, Labarta Postigo, María & Dolón Herrero, Rosanna (2006). What is Critical Discourse Analysis? *Quaderns de Filologia - Estudis Lingüístics*, *11*, 9-34. Retrieved from: https://ojs.uv.es/index.php/qfilologia/article/view/5041

Turkey-Earthquake: Emergency Situation Report (21.06.2023) - Türkiye. (2023, June 23). Retrieved from https://reliefweb.int/report/turkiye/turkey-earthquake-emergency-situation-report-21062023

United Nations Development Programme (2023). Türkiye-Syria earthquakes. Retrieved from: https://www.undp.org/turkiye-syria-earthquakes

United States Geological Survey (2023). *Preliminary rupture mapping of the 2023 M7.8 and M7.5 Turkiye Earthquakes*. https://doi.org/10.5066/P985I7U2

Van Aalst, Maarten K. (2006). The impacts of climate change on the risk of natural disasters. *Disasters*, *30*(1), 5-18. https://doi.org/10.1111/j.1467-9523.2006.00303.x

VERBI Software (2020a). *MAXQDA 2020* [Computer software]. Retrieved from: https://www.maxqda.com

VERBI Software. (2020b). *MAXQDA 2020 Online Manual*. Retrieved from: https://www.maxqda.com/download/manuals/MAX2020-Online-Manual-Complete-EN.pdf

Wattenberg, Martin & Viégas, Fernanda B. (2008). The word tree, an interactive visual concordance. *IEEE Transactions on Visualization and Computer Graphics*, *14*(6), 1221-1228. Retrieved from: http://hint.fm/papers/wordtree_final2.pdf

Weik von Mossner, Alexa (2011). Reframing Katrina: The Color of Disaster in Spike Lee's When the Levees Broke. *Environmental Communication*, *5*(2), 146-165. https://doi.org/10.1080/17524032.2011.562520

Wodak, Ruth (1999). Critical Discourse Analysis at the End of the 20th Century. *Research on Language and Social Interaction*, *32*(1-2), 185-193. https://doi.org/10.1080/08351813.1999.9683622

Wodak, Ruth (2015). Critical Discourse Analysis, Discourse-Historical Approach. In Karen Tracy, Cornelia Ilie & Todd Sandel (Eds.), *The International Encyclopedia of Language and Social Interaction* (pp. 1-14). Chichester: John Wiley & Sons. Retrieved from: https://onlinelibrary.wiley.com/doi/book/10.1002/9781118611463

Wodak, Ruth & Meyer, Michael (Eds.). (2016). *Methods of critical discourse studies*. London: SAGE. Retrieved from: https://uk.sagepub.com/en-gb/eur/methods-of-critical-discourse-studies/book242185

Yell, Susan (2012). Natural disaster news and communities of feeling: The affective interpellation of local and global publics. *Social Semiotics*, *22*(4), 409-428. https://doi.org/10.1080/10350330.2012.693295

Zih, Hanane & El Biadi, Maha (2023). Corpus-Assisted Discourse Studies: Opportunities and Limitations for the Analysis of News Discourse. *Revue Linguistique et Référentiels Interculturels*, *4*(1), 49-58.

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