

Climate scientists vs climate sceptics: Constructions of climate change in the blogosphere

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Abstract

This study explores how climate change is discursively constructed in a climate science and a climate sceptical blog. In this thesis, ten broad constructions of climate change emerge from a detailed discourse analysis conducted with two specific blog posts from Skeptical Science (climate science blog) and Watts Up With That (climate sceptical blog). The latter will be referred to as WUWT in this thesis. The analysis aims at discerning linguistic and discursive strategies used to construct a certain kind of climate change. Thus, this thesis aims to provide a more discourse-level understanding of climate change, as language is the central medium for human interaction and aids in understanding how climate change is discursively constructed. The results illustrate that the following constructions show the most overlap in both blogs: climate change constructed as a topic of science, followed by constructions of climate change as an emotional topic and climate change as apocalyptic. On Skeptical Science, climate change is mainly constructed as an existential threat, whereas, on WUWT, climate change is commonly constructed as exaggerated and as a phenomenon influenced by people in power positions. In summary, the complexity of climate change as a phenomenon is mirrored by the various ways in which climate change is discursively constructed in the blogosphere. This study's results revealed that the construction of climate change is interconnected with different viewpoints, feelings and thoughts towards climate change. Hence, the comparative portrayal of both blog posts aims to increase our understanding of how climate change is constructed as part of our shared reality. Ultimately, this may allow for an enhanced collective mitigation effort in tackling this complex issue.

Keywords: climate change, blogosphere, discourse, discourse analysis, climate science, climate scepticism

Climate scientists vs climate sceptics: Constructions of climate change in the blogosphere

Climate change has become a heated topic in the public sphere, and there seems to be an ever-growing rift between two respective sides, the climate scientists and the climate sceptics (Brüggemann et al., 2020; Tyagi et al., 2020, 2021). Concurrently, researchers agree that climate change is an anthropogenic phenomenon, one that humans can be deemed responsible for and that it is a severe issue that will become a disastrous threat in the future if it is not successfully mitigated (IPCC, 2022). However, with the emergence of scientific results proving that climate change is human-caused, a significant increase in opposing viewpoints has been observed, particularly prevalent in the blogosphere (Elgesem et al., 2015). The blogosphere can be conceptualised as “the network of blogs and their linkage to one another, (...) through hyperlinks, references to other blogs or bloggers within posts or by commenting on others’ blogs” (Sharman, 2014, p. 160). Hereby, the opponents emphasise the uncertainties of scientific findings and, in this way, build a connection to climate scepticism and denialism (Rickens, 2019; Treen et al., 2020). To depict circulating climate scepticism, a study in the UK illustrated a decline from 91% of the individuals believing in climate change in 2005 to 78% in 2010 and a simultaneous rise in climate scepticism from 4% to 5% in the same period (Jaspal et al., 2012b). With this in mind, this thesis seeks to explore the manner in which climate change is discursively constructed within the blogosphere in an attempt to present a more clarifying and comparative portrayal of how climate change conversations are discursively constructed in both climate science and climate sceptic blogs.

The internet ascertains to be the space where climate science is continually discussed, shared or contested. Nowadays, everyone can join discussions on climate science online, providing a free space to comment on scientific findings or to disseminate personal views (Kahn-Harris, 2021). The large amount of supposedly scientific information that is roaming around uncontrolled proves to be a demanding challenge in this new age of the internet. The arising difficulty in filtering misinformation from scientifically valid data directs to distortion and a deficiency of verifiability of the presented information (Kahn-Harris, 2021; Minol et al., 2007).

In addition to that, the discourse on climate change is becoming progressively more influenced by information propagated on the internet by non-scientists and non-professionals (Harvey et al., 2017; Minol et al., 2007; Sharman, 2014). Accordingly, the World Economic Forum (WEF) identified the top ten global risks in 2014, with *online misinformation* being one of them

(WEF, 2013). They state that “Digital Wildfires in a hyper-connected world, concern the spreading of misinformation online, particularly through social media and (...) its serious consequences and the potential to wreak havoc in the real world” (Treen et al., 2020, p. 1). Moreover, the anonymity that web-based discourses provide to an individual creates another difficulty, namely that anyone can hide their true identity behind a username. In this way they obtain an unsusceptible status, making them feel safe while engaging in discussions online without worrying about being reprimanded in real life (Koteyko et al., 2015; Minol et al., 2007). Findlay (2004, p. 73) offers one explanation as to how this behaviour change may happen on the internet by stating that "anonymity might as well lead to deindividuation, encouraging antisocial behaviour such as 'flaming', which involves angry, offensive, even vitriolic attacks on others (..)”.

Arguably, the area where the discourse is particularly polarised is the blogosphere. Generally, blogs can be described as internet pages consisting of entries or ‘posts’ with different chunks of information created either by an individual author, a so-called ‘blogger’ or by multiple authors. They are usually centred around a single topic of discussion, thereby creating an interactive space where in-depth conversations can occur, as opposed to, for example, single online posts on social media. In this way, online users of blogs have the ability to freely determine in which discussions they would like to engage and vice versa, facilitating the abandonment of any discussion in which one's views are not shared (Treen et al., 2020). Correspondingly, like-minded groups (e.g., climate sceptics) emerge and serve as echo chambers in which polarised opinions are amplified (Bloomfield & Tillery, 2018; Harvey et al., 2017; Rickens, 2019).

Thus, a need arises to explore how climate change is constructed discursively in both climate science and climate sceptical blogs. Previous research already enabled detailed insight into the climate sceptical blogosphere as this proves to be the main outlet for the dissemination of climate sceptical views (Elgesem et al., 2015). Contrastingly, research on discourse in the climate scientific blogosphere is sparse. Earlier work revealed that discourse on climate science is primarily centred around the environmental impacts of climate change (van Eck & Feindt, 2021) or the political side of the issue considering mitigation policies, for instance (Elgesem et al., 2015). Nonetheless, only a few studies attempted to compare climate science blogs with climate sceptical blogs.

In order to shed light on the discursive constructions of climate change, the discursive strategies employed by the authors from both blogs will be analysed to enable a clearer picture of

the utilised rhetorical and discursive tactics. Therefore, this thesis aims to fill this gap to explore the manner in which both climate scientists and climate sceptics comparatively construct climate change in blogs online, explicitly focusing on the discursive level. This is because language is a powerful tool that can be utilised to deceive others intentionally (Kahn-Harris, 2021), as a means to legitimise actions or organised power (Rickens, 2019) or as neutral means of reflecting or describing in constructing (social) life (Gill, 2000). Thus, language opens a pathway to comprehending how a certain construction of climate change is formed in discourse and highlighted by rhetorical and linguistic details.

It is vital to, firstly, conceptualise climate scepticism and the various dimensions linked to it. Studies investigating climate sceptic or denialist networks found that climate scepticism is constructed in a network composed of political actors, individual organisations, conservative think tanks (CTTs) and the media (Harvey et al., 2017; Jacques, 2006; Jacques et al., 2008; Rickens, 2019). Conservative think tanks (CCTs) are playing a significant role in the production and dissemination of climate change misinformation. Specifically, they are selling the idea of an *alternative science* that is posing a juxtaposition to the validated scientific findings of anthropogenic global warming to the audience (Jacques, 2006; Rickens, 2019). In this way, climate sceptical accounts attempt to come across as scientific while paradoxically misrepresenting science and using this misrepresentation to reinforce the idea that climate change is a debatable topic (Toivonen, 2022). Overall, CTTs are composed of a network of both institutional stakeholders and private stakeholders that generate a steadily increasing amount of data in the form of articles and books about their own climate science with the objective of delaying policy action regarding climate change (Jacques et al., 2008). As a result, the alternative climate science constructed by CTTs is circulating around, whether it be on the internet, the blogosphere or in the media in general.

Internet blogs, especially, became a crucial outlet for CTTs and climate science opponents after the 'Climategate' affair, where hacked emails of scientific findings have been presented out of their respective context and distributed to the public, conveying the image that climate scientists have been deliberately withholding information or deceiving the public with false information (Elgesem et al., 2015). In a similar manner, Kahn-Harris (2021, p.1) describes climate scepticism and denialism as it occurs in online blogs as "the transformation of the everyday practice of denial into a whole new way of seeing the world" and, therefore, as the construction of a new and better alternative science under the guise of climate scepticism. As can be seen, climate scepticism as a

discursive phenomenon seemingly fuels a mistrust towards any scientific evidence on climate change, which eventually compromises the trust in both science and scientific evidence as a whole, thereby debilitating policy-makers decisions and mitigation policies (Rowland et al., 2022).

In contrast to climate sceptical blogs, the information in climate science blogs is frequently illustrated in the frame of “established scientific certainties and supported arguments with the published literature” (Harvey et al., 2017, p. 283). In other words, this means that scientists share information in context to previously recognised findings of climate science to provide scientifically valid information. Moreover, the arguments provided in climate science blogs tend to criticise the current industrial practices and economic systems considering the capitalist framework that climate scepticism is trying to sustain (Jacques et al., 2008). However, it should be noted that not all blogs constructing climate science are published by climatologists themselves but by proponents of climate science, which is why careful observation of the authors, who are publishing information on climate science, is necessary. Furthermore, in contrast to the anonymity that the internet provides, climate scientists (e.g. Richard Dawkins) state findings of climate science under their own names, making them vulnerable to being threatened or being insulted by opponents. (Koteyko et al., 2015; Trench, 2011). They frequently have to deal with condemnation for promoting their findings, while their opponents often disregard the fact that climate science is a verified science (Jaspal et al., 2016). As a result, climate scientists tend to stay away from online discourse or move away from it, because of this highly polarised atmosphere marked by hostile accusations, especially in the blogosphere (Sharman, 2014).

In relation to that, the media tends to rile the heated discussion between the two sides up, supporting a further polarization of the discourse on climate change. The information that is shared with the public is rated on the newsworthiness of the issue and on the attention the topic will generate, therefore, conveying the image that climate science is only about new breakthrough stories and debatable information (Banks & di Martino, 2019; Carvalho, 2007; Rickens, 2019). This underlines the problem of climate science being illustrated as “temporary, changeable and constantly revising itself”, with its findings being easily dismissed (Banks & di Martino, 2019, p. 187). Additionally, media outlets consistently support the notion of uncertainty in relation to climate change, presenting the scientific community as “divided in the middle when the existence of anthropogenic climate change is brought into question” (Rickens, 2019, p. 28). In this way, public perception and understanding of climate change as a topic are impacted, not the least because

the term 'climate debate' itself entails that climate scientific evidence is debatable (Carvalho, 2007; Roper et al., 2016).

Overall, to be able to explore the variety of constructions of climate change in climate change discourse, it is necessary, first to take a look at the discursive strategies that are commonly employed in this regard. Previous literature gives some insight, for instance, Roper et al. (2016, p. 780) found out that a common tactic of climate sceptical accounts is to focus on three major counterclaims, namely that “firstly, the evidence for global warming is weak or wrong; secondly, that global warming will be beneficial if it occurs; and thirdly, that policies to address global warming are potentially more harmful than helpful.”. The first counterclaim, for instance, is used in relation to understanding the threats associated with global warming as normal fluctuations, stating that the global temperature and arctic ice loss vary naturally over time or that the temperature in the past has also been warmer and thus, the future is not predictable (Harvey et al., 2017). Climate scepticism underlines its argumentation by focusing on the remaining uncertainties of established research and, therefore, trying to create doubt and scepticism in the mind of the reader (Rickens, 2019). Additionally, previous research notes that climate sceptics tend to use religious metaphors to talk down on proponents of climate science in the way that they either represent climate science as faith or religion or call proponents 'extremists' that are intolerant of criticism (Woods et al., 2010). Nerlich (2010, p. 424) states in relation to this phenomenon that "by framing or conceptualising science as religion or myth, opponents to the theory of AGW¹ and its political consequences created their own myth or story of science as fraud or untruth. This then made the conclusions they drew from their stories and arguments (e.g. no political actions needed regarding climate change) feel natural and like common sense”.

Taking into account the aforementioned information, it can be concluded that research on the comparative portrayal of how climate change is constructed in a climate science and a climate sceptic blog proves to be beneficial as research in this area is sparse. Previous research illustrates overlap in the discursive categorisation of climate change in the climate sceptical and the climate science blogosphere. Notwithstanding, the discursive construction of climate change tends to differ depending on the author's perspective (Poberezhskaya, 2017). To put it more simply, this suggests that the discursive construction of climate change relies on whether the author is a climate science

¹ The abbreviation AGW refers to anthropogenic global warming (human-induced warming)

proponent or an opponent. Consequently, a comparative portrayal of the discursive constructions of climate change would allow disclosing similarities and differences in how climate change is constructed. This would ultimately aid in providing a complete picture of the climate change constructed in discourse online as part of our shared reality. For this reason, this thesis aims to answer the following research question:

RQ: How is climate change discursively constructed in a climate science and a climate sceptical blog?

Methods

For this research, I chose two specific blogs to be able to compare the way climate change is constructed in both blogs with each other. I selected these blogs carefully based on their connection, either to the climate science blogosphere or the climate sceptical blogosphere. In this regard, it is essential to note that small-scale case studies like this have the major benefit of enabling in-depth and detailed discursive analysis that can produce contextually important insights into the various climate change constructions. Hence, it was important that each blog that I chose at least generated a steady amount of discussion underneath the blog posts, which is why I ultimately decided to analyse the following blogs on how they discursively construct climate change: Skeptical Science (skepticalscience.com) as a climate science blog and Watts Up With That (wattsupwiththat.com) as a climate sceptical blog.

Notably, Watts Up With That (WUWT) proved to be the most suitable blog constructing climate scepticism, as it serves as one of the primary sources for criticising mainstream climatology. This status became especially prevalent when comparing WUWT with other climate sceptical blogs that do not generate a similar amount of discussion underneath each thread. Moreover, prior research on WUWT stresses that the blog provides hyperlinks to other blogs constructing climate scepticism and is seen as one of the most influential doing so on the internet (Bloomfield & Tillery, 2018). The blog was established by Anthony Watts, who is also the founder of a Facebook Group with the same name, "Watts up With That", which follows a similar objective.

Initially, I started my search for a post on the blog platform using the search term "climate change", which generated 26.218 search results, which is why I ultimately tried to narrow the

search by looking for "climate change threat" which resulted in 14.260 search results. Afterwards, I sorted the results from newest to oldest, which allowed me to choose one specific thread called "Climate Hype leads to climate anxiety and undermines constructive efforts". This post proved to be the most interesting for me as it represents the discursive strategy of presenting climate change as a dramatised issue and the consequences of such an amplified representation for the public. The thread was posted as a guest entry on February 10th 2022, by Cliff Mass, who opened up his blog called the *Cliff Mass Weather Blog*, where the post was published before. The post generated a total of 116 comments that can be sorted into different categories, such as "most reacted comment", "hottest comment on thread", "most voted", "oldest", and "newest".

In comparison, Skeptical Science stood out compared to the other climate science blogs because it provides the reader with a ranking of the most 'popular' climate myths that are presented in juxtaposition to the scientific evidence of climate change. These arguments are then distributed in three different ways, namely on a *basic level*, an *intermediate level*, and an *advanced level*. By taking into account the different levels of proficiency in climate science, the authors enable readers with different educational backgrounds and knowledge of climatology to understand the postulated information without having to deal with complex terminology beforehand. Nevertheless, I decided to narrow the focus to the *intermediate level* for this thesis. This is because the *intermediate level* aims to translate difficult climate scientific evidence into a more facilitated level of understanding without leaving out too much of the necessary terminology and explanations for the reader to grasp the whole picture of the climate change debate. Besides, Skeptical Science is written and edited by a team composed of environmental scientists, physicists, and astrophysicists who all seem to have a background in working with climate science or related environmental topics.

In this blog, the authors present climate myths and use arguments and scientific data to counter those. These myths are ranked according to their popularity or taxonomy and presented in contrast to "what the science says". To be able to compare the way both authors construct climate change information in a certain way to some degree, I chose the thread called "Positives and Negatives of global warming". The function of the blog post is to deconstruct the climate sceptical myth of "global warming not being bad". This proved to be exceptionally insightful, considering that the blog post from WUWT aims to illustrate that climate change is overdramatised and that the claimed dangers of climate change are not real. Moreover, the post from Skeptical Science generated a total of 405 comments from the community and was last updated on November 14th,

2020. The post did not display the person establishing the thread in the first place, only presenting who edited the post last. There was no information on the website on the blogger, but a Google search presented her as a communications intern at the Centre for Climate Change Communication.

Both chosen blog posts were written and published voluntarily by the authors and were open to the public. In this regard, it is also noteworthy to acknowledge that the analysis is based on publicly available blog posts on the internet. Nonetheless, I obtained ethical approval for the study from the ethical committee in order to advance with the study.

The focus of my thesis is on climate change discourse online, which is why I decided to draw from Discourse Analysis (DA) which follows a deductive approach. To be more precise, DA represents a method that aims to reveal how the world or specific phenomena and aspects (e.g., climate change) are understood and constructed in discourse, whether it be face-to-face or online and how they, in turn, influence social reality (Calliari, 2016; Gill, 2000; Potter, 2004; Potter & Wetherell, 1987). In this way, discourse itself represents the central medium for human interaction and can abstractly be described as verbal interchanges where phenomena, opinions, topics, and so forth are constructed alike as part of our somewhat shared reality (Potter, 2004). Potter and Wetherell (1987) argue that phenomena can be constructed in various ways depending on the writer's orientation, therefore, implying that texts, talk or discourse in general construct the world we live in.

Hence, DA enables more than just a content-level analysis by looking beyond the literal content of the statements. This allows for taking a critical stance to add to and deepen our understanding of how socially embedded phenomena like climate change are being constructed in discourse. Furthermore, by focusing on the authors' rhetoric in the blog posts, DA is complemented by a rhetorical approach that enables more contextually relevant insights. Essentially, familiarity with rhetoric in discourse proves to be vital because "words convey intentions, emotions and feelings" (Komulainen et al., 2019, p. 398). Thus, rhetoric can be employed to affect people's beliefs, and through discourse, these beliefs can be reinforced and may lead to action (Bonet, 2014). Accordingly, a new reality can be constructed through discourse, so it is helpful to analyse the rhetoric of the authors discussing climate change to understand how language is employed to present a particular perspective (Stokowski, 2013).

For this thesis, I first started by diving into the blog posts. Firstly, I went through the blog posts from Skeptical Science and WUWT for the first time to make notes on the initial

constructions of climate change that I found. Next to that, I made notes on linguistic and rhetorical peculiarities that were salient when going through the data for the first time. After the initial categorisation of the constructions, I reviewed the materials again to see whether both blog posts have similar constructions of climate change and sorted them under the same name. In this second step, I looked at the constructions in more detail and noted any observations I made when engaging with the data.

Then, I looked at the comment section to check whether there have been similar or different constructions of climate change in the blog posts to strengthen this study's validity. Subsequently, I decided to include complementary comments, displaying the same constructions already observed in the blog posts. However, I also decided to exclude those comments where climate change or its consequences were defined to other readers. They have been observed relatively frequently in this comment section and are not directly relevant to this thesis since the authors merely repeated scientific findings.

All in all, as the process of discourse analysis is described in Toivonen (2019), the iterative nature of this research allows the exploration of climate change as a discursive phenomenon in a more open manner that enables continuously adapting and refining categorisations while re-reading the data throughout the whole analytical process. With this in mind, I could move between the earlier stages of the analysis to continuously revise the report. In this way, I refined my research question and the constructions of climate change so that everything fit my data. After the final categorisation, I went over the observed constructions with another researcher to cross-check the observed constructions and, similarly, I participated in consensus meetings with my supervisor. This was all done in an attempt to strengthen the validity of the observed constructions.

Results

The study at hand aims at answering the previously proposed research question, “*How is climate change discursively constructed in a climate science and a climate sceptical blog?*”. This was done by means of conducting discourse analysis with the data obtained from both blog posts. Accordingly, Table 1 provides an overview of the observed constructions of climate change in both blogs. The left column displays the title of the respective constructions of climate change, followed by the description of the related construction. The next two columns are titled according to the

analysed blog. There, they are marked either by ‘Yes’ or ‘No’, depending on whether the mentioned construction was observed in the blog post. For the final analysis, I decided to focus mainly on the blog post and use the comment section as complementary to the analysis established from the blog posts. Lastly, the frequencies of the constructions have been included to provide an overview of the data. Overall, I found ten constructions of climate change which will be described in detail later.

Table 1

Constructions of Climate Change found on Skeptical Science and Watts Up With That

Climate Change is constructed as...	Description	Skeptical Science	Watts Up With That	Frequencies (Skeptical Science vs. WUWT)
1. ... an existential threat	authors construct climate change as an existential threat to ecosystems and society	Yes	No	15
2. ... as a topic of science	authors construct climate change as a phenomenon based on scientific research	Yes (+)*	Yes	9 (7 vs. 2)
3. ... as a topic drawing from seemingly logical discourse	climate change is represented as irrational and false by mainstream climate science and contrastingly presented as realistic and logical as presented by climate sceptics	No (+)	Yes (+)	8
4. ... a phenomenon influenced by people in power positions	authors state that politicians and the media influence how climate change (policies) is perceived by the public	No (+)	Yes (+)	7
5. ... an emotional topic	authors construct climate change in connection to emotions or express emotions as influenced by climate change	Yes (+)	Yes (+)	6 (3 vs. 3)

6. ... apocalyptic	climate change is compared to the end of the world (apocalypse); expressions tied to religion, believe	Yes (+)	Yes (+)	6 (2 vs. 4)
7. ... exaggerated	authors state that climate change as a phenomenon is blown out of proportion and is falsely alarming individuals	No (+)	Yes (+)	5
8. ... scepticism towards the status quo in climate science	authors express scepticism and denial towards established climate science	Yes (+)	Yes (+)	4 (3 vs. 1)
9. ... leading to health risks for individuals	authors state that climate change is a leading factor in developing health problems, either physiological or psychological	Yes	Yes	4 (1 vs. 3)
10. ... a topic for self-education	authors express that people need to research the topic of climate change themselves	No (+)	Yes (+)	2

* The plus-icon (+) behind the 'Yes' or 'No' indicates whether the construction was also observed in the comment section.

1. Climate Change as an existential threat

This construction was observed in the blog post from Skeptical Science. It is made up of expressions of the authors stating that climate change poses an existential threat either to the ecosystems as a whole or to societies in general. This construction was mostly composed either of stand-alone sentences or of a composition of more than one sentence. All in all, the construction functions to conceptualise climate change as a phenomenon with the inherent ability to eradicate current societal order through the destruction of inhabited environments.

Skeptical Science

“The changing climate is expected to send up to 16 million people below the poverty line and possibly displace millions from their homelands. Data suggests that hunger, thirst, and economic hardship due to climate change will increase social unrest and conflicts by 14%” (Skeptical Science, 2020)

The argumentative structure of this construction strongly conceptualises climate change as inheriting the potential to destroy current inhabited environments with ‘millions being displaced from their homelands’. Moreover, by utilising the rule of three (hunger, thirst and hardship), the author uses a rhetorical strategy that leads to more effective processing of the articulated threatening potential of climate change (Barry, 2018). To be more precise, the author wants to underline the expected shortages and economic consequences of climate change, especially by emphasising the potential destruction to inhabited environments and socio-economical risk factors like hunger and thirst or economic hardship that arise as a result. Using numbers like ‘16 million’ or ‘14%’ aid in conveying a sophisticated impression to the reader to underline that the person writing knows what they are talking about (Kalavasis, 2017).

“Food and water scarcity can lead to higher prices and disputes over access to these necessities; therefore, nations experiencing low food production and poor water quality with an unhealthy population will inevitably experience severe economic distress and social unrest.” (Skeptical Science, 2020)

A sense of urgency is created by presenting a potential inner societal conflict that may arise after shortages in food production and water availability and quality since food and water availability are linked to the survival of populations. Along with that, in the second part of this sentence, the author addresses that these populations ‘inevitably’ will experience these consequences, therefore, emphasising that low food production and poor water quality are outcomes bound to happen if mitigating actions are not taken. Similarly, the author presents poor and unhealthy populations that already suffer without climate change consequences as those at most risk when climate change predictions become true. In this way, the author appeals to the emotions of the reader in order to let the reader grasp the extent of these existentially threatening

consequences and the influence it has on societies and environments.

2. Climate Change as a topic of science

Here, climate change is constructed as a topic based on carefully researched scientific evidence and predictions. Hence, this implies that these statements are more trustworthy because the information is based on carefully calculated research. This underlines the superiority of science in this construction because the facts are underlined by validated climate models and predictions. Generally, this construction appears in both blog posts with different variations that will be described using examples.

Skeptical Science

In Skeptical Science, this construction was utilised in an attempt to persuade the reader to confide in climate science through the use of deductive reasoning, which is rhetorically referred to as logos (Higgins & Walker, 2012).

“It is important to note that although climate models suggest these shifts in weather events, scientists believe these predictions are subject to change, but are still likely to happen, due to the numerous other factors that affect the development of meteorological events.”
(Skeptical Science, 2020)

Here, the author embeds a vital point regarding climate change as a phenomenon, namely that science is based on scientific predictions that are subject to fluctuations and changes (Harvey et al., 2017). By acknowledging this fact, opposing arguments that are often used by climate sceptics regarding the variability of the climate are undermined. Moreover, the author emphasises that scientists are aware of and acknowledge these variabilities while still emphasising that they are based on scientific evidence and predictions. Interestingly, the author uses a long and convoluted sentence to convey the appearance of being more scientific and trustworthy, which likely aims to legitimise the postulated statements (Toh, 2005).

“But, if we listen to the science, we will have within our power the ability to take action to save not only ourselves, but also our planet.” (Skeptical Science, 2020)

In this construction, the author makes use of several rhetorical strategies. Firstly, in comparison to the general factual language of this blog post, the author uses the word 'we' in their closing argument to mirror a connectedness to the reader, illustrating that 'everyone is in the same boat' (Kuo, 1999). Furthermore, the phrase 'listen to the science' is commonly used by climate proponents in climate change discourse to underline that listening to science is the only way to mitigate climate change because then 'we will have within our ability to take action' (Ojala, 2020). In this way, the author implies that trust in climate science is the only way to achieve change, and contrastingly, by not listening to science, change will not happen. Moreover, by appealing to the reader to trust climate science, as this allows for the salvation of the planet and 'ourselves', the author conveys that mitigating climate change is linked to the planet's survival, which in turn is intertwined with the very survival of humanity.

Watts Up With That

Interestingly, on WUWT, the author equally tries to underline his argumentation by referring to science. However, in contrast to Skeptical Science, the author focused on what science did not say instead of presenting scientific postulates.

“Science does not suggest that global warming will lead to the end of humanity or even the termination of mankind’s progression towards longer, healthier, and better lives.”
(WUWT, 2022)

In this excerpt, the author makes use of a typical rhetorical move observed in climate sceptical discourse, namely shifting the focus of argumentation on something that 'science does not suggest' (Bloomfield & Tillery, 2018). In this way, he can avoid presenting science as it is. This strategy of using an argument made by climate scientists, in this case, that climate change is existentially threatening, is reconstructed through the author's interpretation, suggesting that climate change will lead to the extinction of the human race or diminishes a healthy life progression. This new interpretation is then rejected on the basis that climate science does not predict these outcomes, hence, conveying the image that the author has superior knowledge on this topic because he is aware of what science actually states compared to what is told to the public and

lay-people.

3. Climate Change as a topic drawing from seemingly logical discourse

On WUWT, climate sceptical views were constructed as logical and realistic, which, conversely, aims to display climate proponents as overly emotionally involved and irrational (Bloomfield & Tillery, 2018). This construction was solely observed in the blog post from WUWT. Here, the author distinctively positions himself above the reader because he can look at climate change from a more deductive and realistic perspective compared to those manipulated to believe climate change. Hence, climate change is connected to a deficit in knowledge of the reader, which is then used to position oneself above in order to present a more logical presentation of climate change.

“Worried about forest fires in the western U.S.? By restoring (e.g., thinning, proscribed burns) our overgrown forests (damaged by nearly a century of fire suppression), we can greatly reduce large catastrophic fires. Flooding a concern? We need to move people living near rivers or on historical floodplains—or take the necessary steps for their safety (e.g., better levees, improve warning systems)” (WUWT, 2022)

This excerpt is rhetorically very fascinating because the author addresses common concerns related to the consequences of climate change as rhetorical questions and directly offers a solution to those problems. In doing so, the consequences of climate change are reduced to a minimum that is presented as easily solved, therefore, giving the impression that climate change is not as bad as science says, which is employed as a tool to seed further scepticism about climate change as a phenomenon. Overall, the excerpt conveys the impression that the author is trying to sell a product to the reader. By using the personal pronoun ‘we’, he creates a sense of connectedness to the reader, which further enables utopian thinking. This utopian thinking becomes evident when the author presents a solution to flooding by vaguely suggesting to ‘move people living near rivers’ or ‘to take necessary steps for safety’. This completely disregards that consequences like flooding would not be caused to this extent without climate change. Thus, the necessary suggested measures become obsolete when trying to mitigate climate change effectively. Along with that, the simplistic solutions offered by the author do not consider the

effort and the difficulties that arise when people need to be relocated because of natural disasters. In this sense, the author wants to appear as logical even though his argumentation is not.

4. Climate Change as a phenomenon influenced by people in power positions

On WUWT, the author discursively constructed climate change as a topic influenced by people obtaining positions in power. To be more precise, this could either refer to the media or politicians that are used as powerful devices to influence a larger audience. Thereupon, the sceptical discourse on climate change is significantly marked by distrust in political decisions concerning climate change.

“Irresponsible media, such as the Seattle Times, the Washington Post, the Guardian, National Public Radio (e.g., local KNKX) are pushing a terrifying message unconnected with science or reality. So are a number of politicians. You can imagine why they are doing it—and often it is not for benevolent reasons.” (WUWT, 2022)

Most notably, the author treats the media as equivalent to politicians. Both parties are accused of 'pushing terrifying messages' that are 'unconnected with science or reality', aiming at delegitimising the climate change information provided by both sources. Calling the media irresponsible further undermines the source's trustworthiness and, reversely, strengthens the reader's acceptance of the author's claims. Next to that, he somewhat employs conspiratorial thinking when accusing politicians of acting out of their own interest and 'not for benevolent reasons'. This fuels the distrust in politicians that are proponents of climate science in an attempt to expose the hidden agendas and objectives they follow (Roper et al., 2016). Hereby, the author proposes that climate change is used as a proxy to cover up the real interests of those in power.

5. Climate Change as an emotional topic

The construction of climate change as an emotional topic occurs in two ways. On the one hand, it is strongly linked to the author's emotions, and on the other hand, it is employed as a strategy to appeal to the reader's emotions. This latter strategy is rhetorically referred to as pathos (Higgins & Walker, 2012). This included constructions of climate change in relation to various emotions, like worries related to the uncertainty of the future and feelings of hopelessness,

optimism or anger.

Skeptical Science

In Skeptical Science, these kinds of emotions were used as an argumentative device to underline the impact of climate change as a phenomenon and to appeal to the emotions of the reader correspondingly.

“One particularly extreme and, frankly, frightening topic that vastly outweighs any possible beneficial impacts is what climate scientists call tipping points.” (Skeptical Science, 2020)

The use of adverbs like ‘particularly’ and ‘frankly’ aid in providing a somewhat visual presentation of the extent of the impact of tipping points in climate science. As a result, the emotionality related to climate change as a topic is emphasised. Along with that, by distancing themselves from the field of science, they position themselves as a moderator that serves as a link to distribute scientific facts to the public. Thus, enabling a connection to the reader by presenting oneself as someone who is equally emotionally involved in this topic.

Watts Up With That

Notably, on WUWT, climate change is more commonly constructed in relation to feelings of hopelessness, anger, and feelings of worry. Especially noteworthy in this following example is that the future is portrayed as unclear and frightening to the extent that climate change actively affects significant life decisions.

“I get dozens of emails and calls a year from worried folks, including individuals wondering whether they should have kids, considering the world will end soon.” (WUWT, 2022)

By proactively presenting himself as a person that worried people confide in, the author creates the impression that he wants to strengthen the credibility of his statements. Next to that, climate change is portrayed as restricting personal choices in the future (‘wondering whether they should have kids’) through which the author appears to display the feelings of worry that are voiced

concerning the unpredictable development of climate events. Nonetheless, the statement seems to be irony-driven which becomes evident when looking at the end of the sentence ('considering the world will end soon'). The use of irony aids in displaying the proposed consequences of climate change as being nonsensical, therefore, implying that the threatening consequences of climate change are obsolete (Kaltenbacher & Drews, 2020).

“More than 50% reported feeling sad, anxious, angry, powerless, helpless, and guilty, and 75% said that they think the future is frightening.” (WUWT, 2022)

In another, more direct expression of this construction, the author uses numbers ('more than 50%'; '75%') to appear factual and sophisticated. In this way, the presented information is more convincing to the reader because numbers convey a more objective illustration of the statement that is independent of the author's viewpoint (Kalavasis, 2017). This conveys the impression to, on the one hand, appeal to the reader's emotions and, on the other hand, make them aware of the influence climate change can have on an individual's emotions.

6. Climate Change as apocalyptic

Overall, I included every indirect or direct account of the authors expressing the forthcoming doom and destruction that climate change will bring about in the future. Often, the construction was tied to religious beliefs or thinking. In this way, the apocalypse trope is ostensibly utilised either to create feelings of fear in the reader or as a way to delegitimise the trust in climate science.

Skeptical Science

On Skeptical Science, the construction was more subtle and indirect in comparison to WUWT. Hereby, the author does not create a direct connection to religious symbolism but instead uses this apocalypse trope to create a fear appeal to the reader.

“Climate scientists believe that reaching tipping points in ice melt, ocean circulation, rainforest deforestation, and coral reef bleaching may push the climate system as a whole to a new state.” (Skeptical Science, 2020)

This is a more subtle and indirect account through which the tipping point metaphor essentially marks the foundation for this construction. To be more precise, the term ‘tipping points’ is frequently used in climate science discourse as a metaphor to recognise the catastrophic outcome of climate change (van der Hel et al., 2018). Additionally, these tipping points are conceptualised as inheriting the potential to ‘push the climate system as a whole to a new state’, which further conveys the image of an uncertain future. Thus, the impression is made as if the author wants to evoke feelings of fear, which is a commonly used rhetorical strategy to create a sense of urgency in the reader to take action (O’Neill & Nicholson-Cole, 2009). All in all, this statement conveys the impression that the author aims to warn the reader in order to protect them from these impending consequences.

WUWT

Climate Change was discursively constructed as apocalyptic on WUWT and is made up of the author's accounts comparing climate change predictions to the end of the world, or more specifically, the apocalypse. As a result, climate change is portrayed as a topic that transcends human logic and is closely tied to religious beliefs. In this way, climate change is discursively constructed as irrational and based on blinded beliefs. Thus, the construction functions as persuasion to demonstrate that climate change has nothing to do with the rationality of science and instead, climate science proponents are presented as overly emotional when discussing the issue (Bloomfield & Lake, 2013).

“Apocalyptic predictions calling for immediate action have gotten our nation into trouble many times in the past, resulting in major errors.” (WUWT, 2020)

In a more vivid account, the author directly compares climate change predictions with apocalyptic predictions to emphasise these predictions' exaggerated nature. Moreover, erroneous past events are evaluated to draw conclusions about the present, although those past events remain unspecified. Accordingly, the invalidation of past predictions is used to debilitate the trust in climate science further. Also, by referring to 'our nation', the author creates a connectedness to the reader, emphasising that everyone is equally affected.

“Young people are doomed” (WUWT, 2020)

This is a more indirect construction in which the author presents young people as doomed based on the apocalyptic climate change predictions. The word doom itself refers to an unavoidable fate or judgment executed by a higher power, therefore, drawing from religious symbolism in connection to climate change (Bloomfield & Lake, 2013; Poberezhskaya, 2017). This construction, hence, serves to persuade individuals that climate change is not scientific, but the opposite of it, so based on religious dogmas and beliefs.

7. Climate Change as exaggerated

Here, climate change is discursively constructed as an overly exaggerated topic that falsely alarms individuals and, as a result, enables a state of panic associated with climate change. This construction was composed of predominantly direct expressions in which the author proposes that climate change as a phenomenon is being hyped up or exaggerated excessively by climate change proponents.

Skeptical Science

The blog post did not include constructions of climate change as an exaggerated topic. However, this construction was still found repeatedly in the comment section of the blog post.

“It is unlikely to be as catastrophic as some people fear - and that may be the best good news of all, even as we dream up news ways to keep alive, and even flourish, under a climate change regime.” (Commenter on Skeptical Science, 2011)

This is a section of a longer comment. The commenter discursively constructs climate change as an exaggerated topic by stating that it is unlikely to be as catastrophic 'as some people fear'. In this way, he clearly distances himself from those believing in the catastrophic outcomes of climate change. Moreover, he emphasises this distance by using the personal pronoun 'we' to refer to people like him that are sceptical about climate change. In this way, a dichotomy is created between *us vs. them*, with the latter referring to climate change proponents. Overall, this dichotomy

fosters a dehumanisation of the proponents of climate change and simultaneously conveys the impression to strengthen the identification with the author's view (Gales, 2011).

Interestingly, the author seems to rationalise the catastrophic events of climate change but simultaneously uses the phrase 'dream up new ways to keep alive', which somewhat contradicts the rationality postulated by his statement. This is because he is trying to convey that climate change will not be as bad as expected but simultaneously uses the word 'dream up' to describe new possibilities for humanity, conveying the impression of a fantasy or imagined future far away from reality. Next, he refers to a government marked by climate change mitigation efforts as 'climate regimes'. Usually, the term regime is primarily used in association with authoritarian regimes, implying that freedom and personal choices would be restricted under such a 'climate regime'. In this way, climate scepticism marks the protection of those potential costs related to new government policies concerning climate change.

Watts Up With That

“Folks hyping climate change are harming the mental state of the most vulnerable in society” (WUWT, 2022)

By constructing climate change as a phenomenon of hype, the author conveys the impression that climate change is a topic that is used to generate an excessive amount of attention to shine a light on the topic and capture people’s attention. Moreover, hype usually does not last long. It is instead marked by a restricted time frame in which a specific topic is blown up entirely out of proportion, seemingly enabling a distortion of the presented topic (Carvalho & Burgess, 2005). Overall, the exaggeration of climate change and the hype surrounding the phenomenon are seen as predictors of a decrease in mental well-being in individuals. This ignores the fact that climate change is challenging to tackle without it being acknowledged as a global phenomenon that is actually happening. Instead, the author shifts the focus from climate change and its predicted negative consequences for individuals to the consequences that arise out of the whole debate on climate change.

8. Climate Change as scepticism towards the status quo in climate science

Under this construction, I included every account where scepticism or denial towards current climate change policies or climate change as a phenomenon, in general, was constructed.

These authors, most notably, do not consider the status quo in climate science as valid but instead, display climate science as untrustworthy or misrepresented.

Skeptical Science

In this blog, interestingly, this construction was used by the author to expose the argumentative structure commonly employed by climate sceptics. In this way, the author aims to reveal how climate sceptics use arguments so that the reader can, ultimately, make sense of climate scepticism themselves.

“A common climate myth states that climate change may be beneficial. This myth commits the fallacy known as cherry picking, meaning that climate science deniers essentially ‘pick’ out information that could be used to support their argument while simultaneously ignoring scientific facts that prove the opposite.” (Skeptical Science, 2020)

By conceptualising climate change benefits as myths, the author creates some form of religious symbolism or an ideological belief that cannot be justified or rendered plausible. This conveys the impression that the advantages of climate change can be compared to irrational belief systems (e.g. religion), which present a juxtaposition to climate science that is based on scientifically validated facts (Nerlich, 2010). These false beliefs are connected to climate scepticism in that opponents of climate science are presented as ‘climate science deniers’. More specifically, by connecting climate scepticism to the strategy of cherry-picking, the impression is created that climate sceptics deliberately misrepresent their argumentation so that it fits their personal perspective on climate change.

Watts Up With That

Contrastingly, on WUWT, climate scepticism is constructed in explicit accounts that either deny the existence of climate change in general or deny climate science as represented by different channels, persons or institutions.

*“The existential threat business is not based on science or facts. One of the most frequent refrains of the media and activists is that global warming is an **existential threat**. Just a*

*reminder, an existential threat is a threat to your **VERY EXISTENCE**. We are talking about death.” (WUWT, 2022)*

This is an apparent construction of climate scepticism as it directly contradicts the predicted climate consequences stated by climate scientists. The author seemingly uses the above-described strategy of ‘cherry-picking’ by postulating that no scientific report on climate change conceptualises climate change as an existential threat while not considering that climate change predictions are provided factually by climate scientists (Farmer & Cook, 2013). Hence, ratings of the severity of the consequences or definitions of the kind of threat expected are obsolete because it is based on the fact that consequences that may be existentially threatening to individuals will arise. Moreover, by describing it as an ‘existential threat business’, the author conveys that conceptualising climate change as existentially threatening is something that one does not need to take seriously as it is untrue (and not based on science or facts). Besides, he repeatedly uses the word existential threat in a manner to somewhat mock individuals using this term while directly referring to media and activists that refer to climate change as an existential threat. In this way, he fuels distrust in media and activists because they are displayed as misrepresenting climate change. This allows him to position himself as superior to the reader because he is in the position to denote what an existential threat really is compared to what climate change appears to be. His strong position is, furthermore, underlined by the capitalisation of the words ‘very existence’.

9. Climate Change as leading to health risks for individuals

This construction proves to be interesting because both blogs constructed climate change as an enabling factor for developing health risks in the future. However, both blogs also provided differing arguments on how climate change is responsible for enabling health issues of individuals. Overall, this construction is somewhat related to the construction of climate change as an emotional topic. Nonetheless, in these following expressions, the direct focus was on the resulting health risks, which is why I chose to sort them under a separate construction.

Skeptical Science

On Skeptical Science, climate change was discursively constructed as an enabling factor for developing health risks. These health risks are generally related to the physiological well-being

of individuals.

“The elderly, children, low-income families, and those with pre-existing conditions are among the populations with greatest climate change-induced health risk. Higher temperatures and degrading air quality will allow for increasing cases of diseases such as malaria, respiratory illnesses, and heat exhaustion.” (Skeptical Science, 2020)

Initially, they present already vulnerable groups in society ('elderly', 'children') as those who will suffer the most in considering climate change-induced health risks. By referring mainly to those groups, the author aims to appeal to the reader's emotions (pathos) to illustrate the consequences on those vulnerable groups (Higgins & Walker, 2012). Moreover, exemplifying possible risks resulting from a changing climate ('malaria, respiratory illnesses, heat exhaustion') aids in emphasising the severe impact climate change will pose. Furthermore, the author mentions malaria, a severe infectious disease associated with warmer regions and a potentially malignant progression of the disease, which functions in two ways. On the one hand, it is a fear appeal to take climate change seriously. On the other hand, it creates a sense of urgency in the reader to take action to mitigate climate change (O'Neill & Nicholson-Cole, 2009).

WUWT

In comparison, on WUWT, health risks are ascribed to the representation of climate change by the media and its related hype. Along with that, the health risks mentioned in this construction are related to the psychological well-being of individuals.

“Climate Hype leads to climate anxiety and undermines constructive efforts” (WUWT, 2022)

The blog post title contains a straightforward expression because here, the author clearly deems climate hype generated by the media as a causal factor for developing climate anxiety. Accordingly, reversing the focus of health issues that climate change predicts to arise to health issues that arise as a consequence of the polarised discourse of climate change and the amount of attention the topic generates. Moreover, by providing a focus on mental health issues in

comparison to the focus on physiological issues as, for example, in the blog post of Skeptical Science, the author aims to emphasise the lack of knowledge on these issues and presents them as misrepresented in the sense that they ‘undermine constructive efforts’.

“The front page of the Seattle Times yesterday contained a story (reprinted from the NY Times) about the rapid growth in climate change anxiety and the burgeoning industry providing therapy to those in desperation and pain.” (WUWT, 2022)

By describing climate change as ‘rapidly’ growing and the related industry providing therapy as ‘burgeoning’, the author creates the impression that all these changes are happening very fast and, therefore, implies that interference is needed. Moreover, conceptualising those affected by climate change anxiety as being in desperation and pain, the author wants the reader to understand that the heated climate change discourse and its hype in the media are responsible for those accompanying mental health issues that have been developed as a consequence of the polarisation in climate change discourse. Nonetheless, it should be noted that the author uses the same newspaper as a source to underline his arguments, which he previously regarded as untrustworthy and attention-seeking, resulting in his decreased credibility.

10. Climate Change as a topic for self-education

In this construction, most accounts that were included consisted of the authors of both blogs frequently phrasing an appeal to the reader to educate themselves on climate change. In doing this, they conveyed the impression that they consider themselves superiorly informed about climate change in comparison to the reader.

Skeptical Science

Most importantly, this construction was not observed in the blog post itself but instead very commonly used by commenters underneath the blog posts, which is why I ultimately decided to include an example from the comment section.

“However, the facts are against you there — in actuality, the human causation is very close to 100% (as you will discover if you educate yourself about the issue). And therefore your denial of reversibility carries no weight.” (Eclectic on Skeptical Science, 2017)

The observed construction in this example, ‘if you educate yourself about the issue,’ is composed of a few words. Lack of knowledge or unfounded claims are discursively constructed based on the lack of self-education on the topic. In this way, the commenter equates denial of climate change or false claims with a general lack of knowledge of climate change. He simultaneously presents himself as more sophisticated and educated on the topic.

Watts Up With That

In this blog post, constructions were commonly marked by the keyword ‘read’ and were used to enlighten the reader on the misrepresentation of climate change.

*“Read the latest IPCC (Intergovernmental Panel on Climate Change) report, created by leading scientists: **there is no existential threat noted.**”* (WUWT, 2022).

The author uses a direct appeal to the reader to ‘read’ the latest climate change reports themselves in order to be able to reveal that climate scientists do not refer to climate change as an existential threat in their scientific reports. Subsequently, he is discursively positioning himself as more educated as the reader in the way that he phrases an appeal to the reader to ‘Read the latest IPCC report’. With this, he gives the impression that he already did so, and in this way, the reader has the potential to become as educated as the author on the topic.

Discussion

To answer the research question: *How is climate change discursively constructed in a climate science and a climate sceptical blog?* I focused on the discursive constructions of climate change in the blog posts from Skeptical Science and WUWT. As a result, I have presented ten different constructions of climate change. Overall, the results show great variety in how individuals construct the phenomenon, with a few dominant discourses commonly present. Not

including the comment section, I observed six constructions of climate change on Skeptical Science (Climate Change as an existential threat; as a topic of science; as an emotional topic; as apocalyptic; as scepticism towards the status quo in climate science; as leading to health risks) and nine constructions of climate change on WUWT (Climate Change as topic of science; as an emotional topic; as scepticism towards the status quo in climate science; as a topic of self-education; as exaggerated; as influenced by people in power positions; as apocalyptic; as drawing from seemingly logical discourse; as leading to health risks).

Hereby, it becomes evident that the results show overlap in the discursive constructions in both blogs, especially considering climate change as a topic of science, as an emotional topic, as apocalyptic, as leading to health risks and as scepticism towards the status quo in climate science. Notably, even though both authors from Skeptical Science and WUWT employed the same discursive constructions of climate change, the overall impression they convey and the manner in which they bring messages across differ considerably. These overall findings of the present study align with the results from Poberezhskaya (2017), who similarly found that there is overlap in discursive categorisation of climate change in scientific and sceptical accounts. Nonetheless, how exactly climate change is constructed in these discursive categories tends to differ depending on the author's perspective, either being a climate science proponent or a climate science opponent. Most striking were the similarities to my study considering the construction of climate change in relation to the apocalypse, the influences of political actors and the construction of climate change as a conspiracy.

The most overlap between the analysed blog posts occurred in the discursive construction of climate change as a topic of science. Noticeably, both blog authors used arguments in connection to science or scientific data which gives us reason to believe that they both aimed at underlining their argumentation to legitimise their statements. This becomes evident, for instance, when the authors employ logos, a rhetorical strategy to present information through deductive reasoning (Higgins & Walker, 2012).

Nonetheless, the manner in which climate change as a scientific topic was constructed differed in both blogs. While on Skeptical Science, scientific argumentation is used to tell the reader what science says about climate change, the author from WUWT instead shifted the focus to what science does not postulate. In this way, instead of focusing on the established certainties of climate science, the author from WUWT focused on, for instance, very concrete expressions

(e.g., existential threat) that are obsolete in climate prediction reports but are used in mainstream media or by politicians. This proved to be an insightful observation because, on the one hand, the author from WUWT constructs climate change as being based on science and scientific evidence. However, on the other hand, he somewhat dismisses the general point of climate science by solely focusing on specific words or expressions that have not been included in the reports, which then somewhat limits the trustworthiness of climate science. This contradiction resonates with the findings of Toivonen (2022), who found that climate sceptical accounts are often crafted by employing seemingly scientific reasoning while simultaneously objecting to climate science as presented by climate proponents.

Emotional talk was also prevalent in both blogs and illustrates that climate change is a phenomenon that is strongly linked to the sentiments of affected individuals. Nevertheless, even though climate change was constructed as an emotional topic on Skeptical Science, the overall tone of the language in the blog post was factual and sophisticated compared to the very emotional discourse employed by the author from WUWT. This emphasises the discursive construction employed in Skeptical Science, whether intentional or not, by making emotional statements stand out compared to the generally factual manner in which information is provided in this blog.

Moreover, both authors frequently appealed to the reader's emotions to create a feeling of connectedness and reliability to the statements (pathos). The employment of pathos has been criticised in the climate sceptical blogosphere because appealing to the reader's emotions is described to deteriorate the main point of climate science. Instead, emotional appeals are often regarded as extensively exaggerated and are used as an argument against rationality and legitimisation of climate science. In this way, rhetoric seemingly directs to a specific construction of climate change, for instance, when climate change is constructed as exaggerated.

Similarly, the apocalyptic discourse was also apparent in both blog posts. In alignment with the results of previous research, in the blog post from Skeptical Science, the 'tipping point' metaphor is connected to apocalyptic discourse to emphasise the uncertainty of the future regarding climate change (van der Hel et al., 2018). In this way, the construction functions as a warning which gives the feeling that the author conveying this message is acting out of benevolence or care for the reader, which may lead to a strengthened trust in the author. Contrastingly, on WUWT, constructing climate change as apocalyptic does not aim at a legitimisation of climate science or the author but instead is used to represent climate science as

a hoax or blinded belief. This is in line with previous research that notes that religious metaphors like ‘doom’ and ‘apocalypse’ are frequently used to undermine the trustworthiness of climate proponents by constructing climate science in relation to biblical symbolism (Poberezhskaya, 2017; Woods et al., 2010). Consequently, this creates the potential for climate science to be seen as fraud or myth, which in turn, seemingly displays climate scepticism as common sense (Nerlich, 2010).

One of the most noteworthy differences in constructions of climate change between both blogs included, for instance, manufacturing climate change as an existential threat on Skeptical Science. While this construction includes the highest frequency, it was nonetheless not observed on WUWT. This can be explained by the author from WUWT, who stated himself that “climate change is not an existential threat” and that “the existential threat business is not based on facts”. In this way, he actively distances himself from the term and overall from acknowledging climate change as inheriting the potential to be existentially threatening.

Other prevalent differences between both blogs have been observed in the construction of climate change as being influenced by the media and politicians. With this, the author from WUWT framed the media and politicians as following their personal agenda to achieve their goals which are, according to the author's expressions, not related to the common good of society. In this way, the author connects his argumentation to conspiracy-related narratives and the domain of climate scepticism. Generally, conspiracy theories can be conceptualised as "unsubstantiated explanations of events or circumstances that accuse powerful malevolent groups of plotting in secret for their own benefit against the common good" (Uscinski et al., 2017, p. 2). This observation is in line with findings of other studies where it has been observed that individuals denying or being sceptical about the existence or the severity of climate change were more likely to engage in conspiratorial thinking (Lewandowsky et al., 2013; Uscinski et al., 2017). A different view is provided by Poberezhskaya (2017), who states that conspiracies of climate change are not solely connected to climate sceptical accounts but are frequently used by climate proponents as well, for instance, in relation to industrial practices. In this way, climate proponents aim to achieve change in climate change policies, irrespective of the fact that if both sides engage in conspiratorial thinking, an environment of suspicion and distrust is created.

Finally, the last key difference was observed on WUWT, where climate change was frequently constructed as exaggerated. Hereby, the author criticises the manner in which climate

change as a phenomenon and scientific data is presented to the public as falsely alarming and blown out of proportion. Similarly to previous research, the author then relies on unreliable or distorted representations of climate change and uses them as an explanation in order to cast doubt on the credibility of climate science (Treen et al., 2020).

Besides, it becomes evident that individuals engaging in these blogs seemingly felt the need to talk about climate change, which becomes especially visible when looking at the lively discussions in the comment section. Both blog posts generated a large number of comments (WUWT -116 comments; Skeptical Science - 405 comments) which further reinforced the constructions observed in the data, especially the following constructions: Climate Change as a topic for constructing scepticism towards the status quo in climate science; as exaggerated; as a topic of self-education and; as a phenomenon influenced by people in power positions. The latter, specifically, is, as previously mentioned, discursively constructed in relation to conspiracy theories that aim to delegitimise the scientific aspect of climate change. Correspondingly, ad hominem attacks against politicians, activists and environmentalists are commonly employed by climate sceptics as a way to increase distrust in those parties, especially by accusing them of acting out of their own interest. On the contrary, climate proponents frequently use hyperlinks to articles that underline their argumentation to defend the status quo of climate science and debunk the false climate change information frequently postulated on the internet. Nevertheless, by doing so, climate proponents actively demarcate themselves from climate scepticism, leading to them throwing insults to offend climate opponents by calling them denialists or sceptics, both being labels that they often reject themselves (Kahn-Harris, 2021).

Furthermore, it should be considered that climate sceptics employ a similar discursive strategy, for instance, when presenting themselves as being able to draw from logical and realistic discourse. In this way, the author from WUWT distances himself from climate proponents and presents them as irrational and emotionally involved individuals. In the climate sceptical blogosphere, this strategy is also referred to as *hysteria-reason*, which “defines AGW and its proponents as irrational, alarmist, and nonsensical, with sceptics, in turn, being cast as the voice of sanity and reason” (Roper et al., 2016, p. 788). Overall, the results convey the impression that the discourse in the climate science and climate sceptical blogosphere is coloured by denunciation and condemnation of the opposing perspective, which may explain the general polarisation of the discourse on climate change.

The discrepancy in views on climate change becomes evident in both types of blogs, even though there are similarities in the manner in which climate change is constructed by both sides. Current researchers offer some explanations for this division in views, namely by illustrating that when people are on the internet, their algorithms are increasingly shaped and fit to the narratives they are already engaging in, thus, enabling an algorithmic bubble where one's own opinion is echoed (Koteyko et al., 2015; Treen et al., 2020). To name one example, this means that if one is engaging in a blog constructing climate scepticism (e.g., WUWT), the following blog post suggestions or the advertisements that are generated start building on this climate sceptic narrative, thereby enabling suggestions of related content to the topic of climate scepticism. Conversely, this echo chamber then allows for the aggravation and reinforcement of similar opinions, strengthening one's own views in the process as they are validated by others while simultaneously devaluing opposing views (Bloomfield & Tillery, 2018; Harvey et al., 2017; Rickens, 2019; Treen et al., 2020).

Next to amplifying one's own opinions, another difficulty that needs to be considered is the general stream of misinformation and the resulting unreliability of climate change information on the internet. In relation to this, Bertolotti et al. (2021) found that this distrust in postulated (science) information leads to a trend where people are unsure what they can believe, which ultimately affects the public's trust in the government. In that sense, it is argued that a situation of 'abortion politics' may have been established, which describes a state where "no amount of scientific information can reconcile the different values held on a topic" (Sharman, 2014, p. 160). In other words, it does not matter how much climate scientists validate climate change as a phenomenon, as there is already a rift too deep in society regarding the existence and consequences of global warming.

Limitations

In consideration of the described findings of this study, it is also important to address related limitations. Overall, I decided not to include the comments in the final analysis because including the combined amount of 521 comments in addition to the analysis of both blog posts would, first of all, not have fit the scope of this research and second of all, distort the main focus of the analysis. Nonetheless, the comment section proves to be a driving factor in the discourse on climate change which is why I decided to include the comment section as complementary to

the analysis of the blog posts. Additionally, the nature of qualitative research entails providing more detailed information on one specific or complex issue, in this case, climate change, which is why a limitation is the missing generalisability of the results to other blog posts. Most importantly, discourse analysis can address certain questions, but it cannot address certain others. To put this into perspective, this means that in this thesis, for instance, I explored the language level of discourse, which then, in turn, does not allow me to infer the intentions behind the expressed statements from the authors. This would simply not be possible within the scope of discourse analysis as the data for this thesis was not collected in interaction with the authors themselves, but the blog posts were used as stand-alone data.

Implications

Based on this, a complementing implication for future research on this topic might be to study the reasons as to why climate change is constructed in such a variety, so what are the intentions, thoughts, feelings and so forth of the individuals constructing a certain kind of climate change. This could be done, for instance, by conducting interviews with individuals engaging in online discussions about climate change. Next to that another factor that is very important since climate change is a global phenomenon is whether similar or different constructions of climate change appear in other cultures. My research focused solely on the Western aspect of climate change discourse; however, climate change is a global phenomenon and should be approached as such. Hence, it might be valuable to understand whether there is a consensus or dissensus in other cultures that might explain the variety of climate change constructions or adds to the previously established findings of climate change constructions. In this regard, the study by Poberezhskaya (2017), for instance, already enabled insights into the discursive constructions of climate change in the Russian blogosphere. Moreover, as previously mentioned, the present study generated similar results to the study on the Russian blogosphere. Hence, an overlap in discursive constructions of climate change in diverging cultures has already been illustrated and could be used as a starting point for further research.

Conclusion

In conclusion, the outcomes of discourse analysis demonstrate that there is a great variety in how climate change is discursively constructed on Skeptical Science and WUWT. Overall, there

appear to be some overlaps in how climate change is constructed in both types of blogs. Both authors discursively constructed climate change as a topic that is based on science by presenting seemingly logical reasoning. Moreover, appealing to the emotions of the reader in general or by referring to possible health risks associated with climate change is common in both blogs. Lastly, both authors frequently used the ‘us vs. them’ dichotomy. This dichotomy creates a distance between both viewpoints because perspectives that do not resonate with one’s perspective are automatically attributed to the opposing group. In this way, the rhetoric from both authors conveys the impression that the ‘us vs. them’ dichotomies further polarise discourse on climate change as the focus is on opposing viewpoints instead of recognising a possible middle ground.

Nonetheless, it should be noted that how climate change is constructed depends on their respective viewpoint toward climate science. To give an illustrative example, this means that, in *Skeptical Science*, when climate change is constructed as a topic for constructing scepticism towards climate change, the author did not express natural scepticism towards climate change. Instead, he constructed scepticism to exemplify how climate scepticism is usually constructed in climate sceptical accounts.

Still, both climate proponents and climate opponents employed similar rhetorical strategies to underline their argumentation. In this regard, specifically, the general tendency to appear factual and scientific to strengthen the legitimisation of the expressed statements needs to be taken into account. Along with that, both authors frequently use a fear appeal as a rhetorical strategy that adds a sense of urgency to their expressions and makes them appear more salient. Besides, while constructions of climate change on *Skeptical Science* were mainly used to underline the importance of climate change and its resulting consequences, the constructions observed on *WUWT* were mainly employed by conveying that climate science is unreliable or false by focusing, as illustrated by the data, on misrepresentations of the media, political actors or climate proponents in general.

All in all, the results of this thesis illustrate that climate change is a complex phenomenon that is discursively constructed in various ways in the blogosphere, both in climate science and sceptical accounts. These results prove to be especially relevant considering that the discourse happens online, and we have nearly unlimited opportunities to engage with other individuals on the internet (Kahn-Harris, 2021). By enabling an overview of the variety of constructions of climate change, it becomes evident that there is not just one single climate change formed in discourse but that its construction is interconnected with different viewpoints, feelings, or thoughts towards

climate change. In this way, the observed constructions illustrate a variety of seemingly conflicting formations of climate change that establish an understanding of the framework for the perception of reality (Poberezhskaya, 2017). The comparative analysis allows for acknowledging not only the differences but also the similarities between both blog posts, which may increase awareness of potential middle ground in the discursive construction of climate change.

Notably, focusing on the similarities may aid in creating a more collaborative discourse which may allow for an enhanced collective effort in tackling the complex issue of climate change. Understanding how rhetoric is employed to underline a specific construction is essential in increasing the awareness of how language can influence the perception of the respective reader. Thus, language opens a pathway to comprehending how a particular construction of climate change is formed in discourse and highlighted by rhetorical and linguistic details.

Finally, the ten discursive constructions of climate change illustrate that climate change can be framed, conceptualised, and constructed in various ways depending on the author's worldview and perspective. The respective blogs then act as 'echo chambers' where the blogger's worldview is reinforced through similar perspectives and viewpoints. Concludingly, the results of this study illustrate that theoretical understandings of the constructions of climate change could benefit from a holistic perspective that integrates a quantitative approach through which, for instance, intentions or respective sentiments can be analysed. If our understanding of how climate change is constructed as part of our shared reality increases, it is possible to encourage and support shared notions of climate change which then could increase adaptation and mitigation efforts concerning climate change.

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