UNIVERSITY OF POTSDAM

MASTER'S THESIS

A Multi-Dimensional Analysis of the Climate Change Discourse in the Party "Alternative für Deutschland"

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Declaration of Authorship

I, Ronja MEMMINGER, declare that this thesis titled, "A Multi-Dimensional Analysis of the Climate Change Discourse in the Party "Alternative für Deutschland"" and the work presented in it are my own. I confirm that:

- This work was done wholly or mainly while in candidature for a research degree at this University.

- Where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated.

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Signed:

Date: 25.08.2025

"Climate change will manifest as a series of disasters viewed through phones with footage that gets closer and closer to where you live until you're the one filming it."

@PerthshireMags, *Twitter*

UNIVERSITY OF POTSDAM

Abstract

Faculty of Human Sciences

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Master of Science in Cognitive Systems

**A Multi-Dimensional Analysis of the Climate Change Discourse in the
Party "Alternative für Deutschland"**

by Ronja MEMMINGER

The populist, right-wing extremist party *Alternative für Deutschland* (AfD) has
been rapidly gaining popularity over the last years and currently represents
the second strongest party in the German parliament. This thesis contributes
to research on populist right-wing stances on climate change (CC) by compil-
ing a corpus of texts by AfD officials on the topic. The corpus spans multiple
communication media, such as parliamentary speeches in the German and
European parliaments and social media content, facilitating detailed analy-
sis of the party's CC discourse. Using computational approaches, this work
examines several dimensions of the AfD's communication of this global is-
sue, focusing on language, sentiment, the most frequent topics, and refer-
ences to climate denialist think tanks. Results show that the tonality of the
discourse is primarily angry, more so than for the other two largest parties
in the German parliament. When discussing CC, the AfD is found to cen-
tre topics of energy policy and economic concerns. This thesis substantiates
previous findings on the dominance of CC sceptic language in terms such as
Klimahysterie. It aids future research by making the corpus partially available
to the public.

UNIVERSITÄT POTSDAM

Zusammenfassung

Humanwissenschaftliche Fakultät

Department für Linguistik

Master of Science in Cognitive Systems

A Multi-Dimensional Analysis of the Climate Change Discourse in the Party "Alternative für Deutschland"

by Ronja MEMMINGER

Die populistische, rechtsextremistische Party *Alternative für Deutschland* (AfD) hat innerhalb der letzten Jahre deutlich an Zufindung gewonnen und ist derzeit die zweit-stärkste Partei im deutschen Bundestag. Die vorliegende Masterarbeit trägt zur Forschung hinsichtlich der Einstellungen von rechtspopulistischen Parteien zum Klimawandel bei, indem sie ein Korpus von themenrelevanten Texten von Funktionär:innnen der AfD zusammenträgt. Das Korpus beinhaltet Texte aus verschiedenen Kommunikationsmedien, wie beispielsweise Reden im Bundestag und Europaparlament und Beiträge auf sozialen Medien. Mithilfe von computergestützten Analysen untersucht die vorliegende Arbeit auf mehreren Ebenen den Klimawandeldiskurs der AfD. Hierbei liegt der Fokus auf den sprachlichen und emotionalen Ebenen, häufig aufkommenden Themen und Verweisen auf bekannte Klimaleugner Think-Tanks. Die Ergebnisse zeigen, dass der Diskurs hauptsächlich von Wut gekennzeichnet ist, und das mehr als in den anderen größten Parteien. Die AfD fokussiert sich außerdem auf Themen der Energiepolitik und ökonomische Bedenken. Die vorliegende Arbeit bestätigt frühere Studien, die die Dominanz von klimaskeptischer Sprache durch Begriffe wie *Klimahysterie* festgestellt haben. Um weitere Forschung zu unterstützen, wird das neue Korpus teilweise öffentlich verfügbar gemacht.

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Finally, my deepest gratitude to my family, friends, and my wonderful partner, all of whose boundless encouragement, emotional support, and proofreading efforts helped me through this process.

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List of Abbreviations

AfD	Alternative für Deutschland
API	Application Programming Interface
BERT	Bidirectional Encoder Representations from Transformers
BT	Bundestag (German Parliament)
CC	Climate change
CDU	Christlich Demokratische Union Deutschlands
CFACT	Committee for a Constructive Tomorrow
CSU	Christlich-soziale Union in Bayern
(C-)TF-IDF	(Class-based) term frequency-inverse document frequency
CTT	Conservative think tanks
CV	Cross-validation
DIP	Dokumentations- und Informationssystem für Parlamentsmaterialien[1]
EIKE	Europäisches Institut für Klima und Energie
EP	European Parliament
EU	European Union
FPÖ	Freiheitliche Partei Österreichs
IDF	Inverse document frequency
IPCC	Intergovernmental Panel on Climate Change
IUF	Institut für Unternehmerische Freiheit
JA	Junge Alternative
LDA	Latent Dirichlet Allocation
MP	Member of Parliament
N-N	Noun-noun
NLP	Natural Language Processing
PRRP	Populist radical-right party
RWP	Right-wing populist
SPD	Sozialdemokratische Partei Deutschlands
SVM	Support Vector Machine
UKIP	United Kingdom Independence Party
UN	United Nations
XGBoost	Extreme Gradient Boost

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[1]System for Documentation and Information on Parliamentary Material

Chapter 1

Introduction

At a party conference in January 2025, Alice Weidel, the chancellor candidate for the *Alternative für Deutschland* (AfD), spoke on the party's stance on renewable energy: "And I will say this, when we are in power we will tear down all wind power plants. Down with these windmills of shame"[1] (ZDF, 2025). In the following national elections in March, the AfD received 20.8 per cent of votes, making them the second strongest party and doubling their result in the previous elections (10.4 per cent in 2017)[2]. While the party did not succeed in entering the governing coalition, made up of the Christian Democratic Union and the Social Democrats, it currently represents the strongest opposition party. In May of 2025, the German Federal Office for the Protection of the Constitution concluded a several year-long investigation and declared the AfD to be a "right-wing extremist" party[3]. The PopuList 3.0 (Van Kessel et al., 2023) classifies the AfD as populist and far-right. The AfD is considered to be a populist radical-right party (PRRP).

As the AfD's popularity grows and it gains more and more influence in the German parliament, it is in the public interest to understand precisely where this party stands on and how it communicates global issues such as climate

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[1]Original wording: "Und ich kann [I]hnen sagen, wenn wir am Ruder sind, wir reißen alle Windkraftwerke nieder. Nieder mit diesen Windmühlen der Schande."

[2]Via *Bundeswahlleiterin:* https://bundeswahlleiterin.de/info/presse/mitteilungen/bundestagswahl-2025/29_25_endgueltiges-ergebnis.html, accessed: 12/08/2025.

[3]https://www.tagesschau.de/inland/innenpolitik/verfassungsschutz-afd-102.html, accessed: 29/06/2025.

change. It is a well-documented phenomenon that right-wing populist parties are often sceptical of climate change, though they can differ in extent and nature of their scepticism (Lockwood, 2018; Huber, 2020; Jylhä, Strimling, and Rydgren, 2020, among others). This also applies to the AfD. In its latest election manifesto, the party states that the "supposed scientific consensus of 'anthropogenic climate change' has been politically constructed" (AfD, 2025, p. 77). The party also successfully attracts climate-sceptic voters, as a study has shown that climate sceptics and those who oppose renewable energy projects were more likely to sympathise with the AfD than other German parties (Otteni and Weisskircher, 2022).

This thesis aims to examine the language of Germany's largest right-wing populist party around the topic of climate change (CC). This involves the construction of a newly assembled corpus of texts by the AfD thematising CC and conducting multi-dimensional analyses on these texts. Documents in the corpus cover a variety of communication channels from parliamentary settings, press releases, articles, and social media postings. As a result, the corpus is able to represent the AfD's language around the topic across multiple domains, channels, and audiences. This provides the basis for the analyses, which centre around three dimensions: (1) the language and sentiment that characterises the discourse, (2) the subtopics of CC which the party focuses on, and lastly (3) the explicit callbacks to climate change denialist institutions. To provide further context for interpretation, some analyses are also performed on similar data for the currently governing parties and the results compared with those on AfD data.

Previous analyses of the AfD's CC-rhetoric have focused on smaller collections or single text domains. Additionally, previous work on the AfD in particular, with the exception of Schaefer et al. (2023), has relied heavily on manual coding. This thesis is able to go beyond previous work by making use of computational approaches and a larger dataset newly compiled for this study. Through multiple analyses utilising Natural Language Processing (NLP) techniques, I present an exploration of the new corpus and point to potential future applications. The expansive nature of the corpus, with texts dating up to the end of the last legislative period of the German government

in the spring of 2025, enables a greater scope of analysis. Furthermore, the variety of sources allows for comparisons between communication channels. Not only can results be compared between parliamentary and social media settings, but between the German and European parliaments, and between different types of online communication, such as Twitter[4] and Telegram.

This work facilitates future studies by releasing a majority of the corpus for public access. The repository is available on GitUP[5]. A public version is to be released shortly. Preliminary results of analyses done on an earlier version of the corpus have been published in Stede and Memminger (2025).

In order to place the AfD in the context of its ideological peers and provide the frameworks for the analyses, Chapter 2 gives an overview of the relationship between populism and climate change, the types of climate change scepticism and approaches to their automated extraction, and the linguistic characteristics of populism. It then introduces the AfD in more detail and outlines three previous studies of the party's CC discourse. Chapter 3 describes the corpus and its construction process, including the training of a binary text classifier for topic filtering. The next three chapters represent the dimensions of analysis: language, emotion, sentiment, and populist language are explored in Chapter 4, topics in Chapter 5, and expressions of denialism through explicit links to CC-denialist institutions in Chapter 6. Chapters outline the methodological set up of these experiments and present the respective results. Finally, overall results and limitations of this thesis are discussed in Chapter 7, which also gives an outlook for potential future work, before concluding in Chapter 8.

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[4]The social media platform previously known as 'Twitter' has since been renamed 'X'. Some of the data acquired for this thesis was collected before this renaming and still utilises terminology like 'tweet'. For the sake of uniformity, as well as to more easily differentiate tweets from other texts and compare with previous works, this thesis will refer to the platform as 'Twitter' and posts on it as 'tweets'.

[5]https://gitup.uni-potsdam.de/memminger/afd-klima

Chapter 2

Background & Related Work

As the most prominent populist right party in Germany, the AfD's stance and rhetoric around climate change (CC) has been the subject of both qualitative and quantitative studies on various text domains. Section 2.1 first gives an overview of work on the general relationship between populism—with a focus on right-wing populism—and climate change scepticism. To inform the later analysis, Section 2.2 gives an overview of theoretical frameworks and computational approaches to analysing and extracting CC-sceptic positions. Previous work on analysing and quantifying populist language is explored in Section 2.3. The AfD is introduced in Section 2.4, where its history, stance on CC, and previous work on the party's CC-related rhetoric are outlined.

2.1 Populism & Climate Change

The definition of populism most commonly adopted is that of Mudde (2004, p. 543), which states that it is:

> an ideology that considers society to be ultimately separated into two homogeneous and antagonistic groups, 'the pure people' versus 'the corrupt elite', and which argues that politics should be an expression of the *volonté générale* (general will) of the people.

In this definition, anti-elitism and an opposition to pluralism form the core principles of populism. Furthermore, populism is considered a 'thin-centred

ideology', which may be easily combined with other 'host' ideologies (Freeden, 1998). Mudde (2004) argues that populism does not in itself seek action to improve the lives of 'the pure people' through change *within* the group. Rather, they call for 'common sense' as the basis for politics and assign moral value to the people-vs-elites distinction. This manifests in opposition to compromise with the elites, "as it 'corrupts' the purity [of the people]" (Mudde, 2004, p. 544). This collective in-vs-out group distinction lends itself well to nationalist thought, as he points out: "[t]he step from 'the nation' to 'the people' is easily taken" (Mudde, 2004, p. 549). Nationalism thus presents a viable host ideology for populism.

The focus of this chapter is on (Western) right-wing populist thought. Right-wing populist parties are, however, not homogenous, as one may further distinguish levels of extremism, such as the far-right, or radical-right. To avoid a chaotic amalgamation of sub-categorisations and focus on ideological 'peers' of the AfD, this thesis will primarily distinguish generally right-wing populist thought and populist radical-right parties as a subgroup of this ideology. Mudde (2007) defines populist radical-right parties (PRRP) as centred around three core principles: nativism, authoritarianism, and populism.

The linkage of CC-sceptic sentiment and populist—particularly right-wing populist (RWP)—ideology has been examined in several studies (Forchtner and Kølvraa, 2015; Lockwood, 2018; Huber, 2020; Sturm, 2020; Jylhä, Strimling, and Rydgren, 2020; Jylhä and Hellmer, 2020; Vihma, Reischl, and Nonbo Andersen, 2021; Sommer and Schad, 2023, among others). Lockwood (2018, p. 726) argues that the ideological framework of RWP allows for CC-scepticism as a kind of "collateral damage". The prevalence of said scepticism in these parties is seen not simply as a product of structural shifts resulting from globalisation—albeit still related—but a natural consequence of RWP and its focus on nationalism, authoritarianism, and anti-elitism (Lockwood, 2018). He further points to the "attraction to conspiracy theories [in RWP], which is a consistent facet of climate scepticism" (Lockwood, 2018, p. 726). CC is treated by nationalists in particular as a political issue rather than a scientific

one (Forchtner and Kølvraa, 2015). Through fostering distrust in scientific institutions, whose findings form the basis of arguments for CC-mitigating policy, RWP actors may substitute the idea of danger resulting from a changing climate with the populist thought of a cosmopolitan elite using the climate conspiracy to control the populace.

It has been suggested that climate protective policy agreements through international institutions or accords, such as the Paris Agreement, or other transnational approaches to mitigating CC, are viewed by these parties as threatening national sovereignty (Forchtner and Kølvraa, 2015; Lockwood, 2018; Huber et al., 2021). For the Paris Agreement in particular, however, this is not entirely true, as the power of decision-making is left to the individual nations and no sanctions are defined (Malm and Collective, 2021). While other accords, such as the European Green Deal, formulate more specific goals, Malm and Collective (2021) argue that the focus on national sovereignty does not explain why the far-right would be opposed to any sort of CC-mitigating action, even by other nations. However, this would require some concession toward or belief in the reality of anthropogenic CC. If the position is that CC is either happening but not man-made and therefore cannot be influenced by such attempts, or that CC as a whole is a hoax, any discussion of global action on national and international levels is easily framed as an overreach and an attempt at undermining national sovereignty.

The politicisation of CC by RWP may not be fully separable from its other primary interests. This thesis has thus far adopted the definition of populism by Mudde (2004). Ostiguy and Casullo (2017) suggest, however, that the duality of 'the people' and 'the elites' in this definition is not exhaustive. Rather, they argue that left- and right-wing populism contain the concept of a third entity, a "sociological (nefarious) Other" (Ostiguy and Casullo, 2017, p. 6). For the left, this is the wealthy class, while right-wing populists direct their antagonism toward immigrants, Muslims, and other less wealthy and othered communities (Ostiguy and Casullo, 2017). They argue that this antagonism is foundational to an ideology that seeks to absolve 'the people' of blame for their circumstances. Williams (2006, p. 54) has posed that the far-right has constructed immigration as an "omnibus issue through which

other socioeconomic concerns of the day could be funneled". Expanding on
this, Malm and Collective (2021) suggest an interpretation where far-right
parties may paint CC as a problem only if it relates to the issue of immigra-
tion. What is discussed, then, is not first and foremost the impact of CC on
the nation, but the threat of people from the global south becoming climate
refugees. This rhetoric is used by several European PRRP, including the AfD,
the French *Front Nationale*, the Austrian *Freiheitliche Partei Österreichs* (Aus-
trian Freedom Party, FPÖ), and the Italian *Lega* (Malm and Collective, 2021).
The real threat is seen as not CC itself, but migrants from the global South
who will use it as an excuse to pour into European nations and threaten the
purity and economic stability of the West.

Despite the negative effects of both CC and the fossil fuel industry on the
natural landscape, a desire to protect the environment does not necessar-
ily entail support for CC-mitigating policy (Forchtner and Kølvraa, 2015;
Forchtner, Kroneder, and Wetzel, 2018; Schaller and Carius, 2019). *Nature*
and *climate* are not linked in the eyes of nationalists. Nature and by exten-
sion the homeland present an important aspect of nationalist thought, while
the climate is abstract and more easily politicised as an ideological conflict
(Forchtner and Kølvraa, 2015). For RWP actors, whose ideology centres na-
tionalism (Lockwood, 2018), protection of nature is paramount for economic
stability, independence through reliance on local resources, and the 'native'
people's purity (Forchtner and Kølvraa, 2015). In the case of Germany in par-
ticular, the parallel between nature protection and nationalism is long linked
through the historically charged language of *Naturschutz* and *Heimatschutz*,
which can be traced back to the late nineteenth century, as well as the *Re-
ichsnaturschutzgesetz*, implemented by the National Socialist regime in 1935
(Brüggemeier, Cioc, and Zeller, 2015).

There has been ample discussion of facets of particularly RWP ideology pro-
viding fertile grounds for CC-sceptic attitudes. However, another approach
to an explanation for antagonism to CC-policy and, for example, interna-
tional climate accords, can be found when returning to core elements of pop-
ulism, independent of its 'host ideology'. In fact, Huber (2020) criticises pre-
vious work's focus on political (right/left) ideology and instead explicitly

examines the populist elements at play. Huber (2020, pp. 961f.) argues:

> [...] individuals who exhibit strong populist attitudes feel under-represented in both climate and environmental politics. When individuals perceive climate change issues as elite-driven concepts detached from their everyday needs, climate-related and environmental politics are eventually rejected. Populist attitudes, climate skepticism, and policy support for climate and environmental policy are thus inter-dependent.

Anti-elitism and science scepticism are found to be primary factors of opposition to CC-related policy (Huber, Greussing, and Eberl, 2022). They form the basis upon which the very notion of CC posing a threat to 'the people' is questioned. This is an explicitly populist element, irrespective of party alignment. It has been shown that the respective ideology populism is attached to can exacerbate CC-scepticism through additional perspectives and interests, such as nationalism or authoritarianism (Forchtner and Kølvraa, 2015; Forchtner, Kroneder, and Wetzel, 2018; Lockwood, 2018). However, the primary source of scepticism itself is populist, arising from anti-establishment attitudes spanning not only the political sphere, but also the scientific. Populist actors position themselves on the side of 'the people', who are being deceived by the political and cosmopolitan elites, as well as scientists whose findings are called into question on the basis of their intention.

In summary, populism creates fertile ground for CC-sceptic positions through its focus on anti-elitism and the narrative of a good 'people' being misled by a corrupt 'elite'. An expansion of the 'elite' from the political and cosmopolitan to include scientific institutions fosters distrust in scientists, which consequently undermines the urgency of taking action to halt CC. This allows for the focus to be switched from the threats of CC to factors surrounding it: the cost on the taxpayer, changes in the natural landscape through projects like wind farms, anxieties over energy supply, and potential immigration under the guise of climate refugee status. This perspective is particularly salient for the right, attaching to questions of nationalism, nativism, and authoritarianism. It further explains why PRRP especially display CC-sceptic positions

and opposition to climate action. Separately from political alignment, however, the root of this scepticism is a populist element.

2.2 Analysing Scepticism

CC-sceptic and denialist attitudes vary in their extent and targeting. While some may outright deny the scientific evidence for anthropogenic CC and reject all climate action, others can be more nuanced. The following section provides a brief overview of theoretical frameworks for classifications of attitudes toward CC and their sub-divisions. A selection of past computational approaches to extracting sceptic claims using supervised and unsupervised machine learning is outlined thereafter.

2.2.1 Theoretical Frameworks

There have been several classifications of stances on CC and categorisations of scepticism on various levels. In a 2019 study of the 21 largest right-wing populist European parties, Schaller and Carius (2019, pp. 10ff.) find that their stances on CC can be grouped into three types:

- **Denialist/Sceptical** parties cast doubt on the scientific consensus on human-induced climate change or explicitly reject evidence beyond reasonable doubt.

- **Disengaged/Cautious** parties either have no position on climate change or attribute little importance to the problem.

- **Affirmative** parties support the scientific mainstream and recognise the danger that climate change poses to the world and their own countries.

Only three parties fall into the affirmative category, with seven as denialist/sceptical and eleven as disengaged/cautious. The AfD is, alongside the British *United Kingdom Independence Party* (UKIP) and Austria's *Freiheitliche Partei Österreichs* (FPÖ), found to be firmly in the denialist/sceptical category. They identify four core arguments behind criticism of climate policy,

namely that "they are perceived as expensive, unjust, harmful to the environment or not worthwhile" (Schaller and Carius, 2019, p. 14). Additionally, Schaller and Carius (2019, p. 14) present four frames found to support these arguments and adding "sometimes moral or emotional dimension" to the parties' messaging: *economic decline, homeland ("Heimat") and nature, national independence*, and *scientific dissent*. With regard to support for climate policy, Schaller and Carius (2019) point out that some RWP, whether or not they are CC-sceptic, support renewable energy projects primarily on the grounds of national independence and protection of the homeland and its nature.

In a study of populist Nordic parties (Denmark, Finland, Sweden), Vihma, Reischl, and Nonbo Andersen (2021) examine the relationship between populism and climate change policy, and formulate three perspectives regarding opposition of CC-related policy: climate denialist, nationalist, and conservative. The denialist position rejects the science on CC entirely, accuses a liberal elite of the climate conspiracy, and consequently calls for the cessation of climate-protective policy. The nationalist and conservative positions do not outright deny the scientific evidence for CC, but may still call it into question. While the climate nationalist position calls for other nations to 'do their part', the climate conservative reluctantly agrees to CC-mitigating measures. Here, the "emphasis is on the costs and risks of the policies, not on the costs of inaction via climate impacts" (Vihma, Reischl, and Nonbo Andersen, 2021, p. 223).

With regard to scepticism itself, Van Rensburg (2015) presents a conceptual hierarchy with two types of critiques ('core' and 'concomitant'), targeting different centres of scepticism (see Figure 2.1). 'Core' criticism manifests in *evidence scepticism*, which calls into question the (1) trend, (2) cause, and (3) impact of climate change. 'Concomitant' arguments on the other hand may show *process* or *response scepticism*. The former questions the processes behind climate science and decision making with regard to climate issues. The latter, *response scepticism*, is again as the name suggests: CC-related policy is called into question, both in its style and how it is implemented.
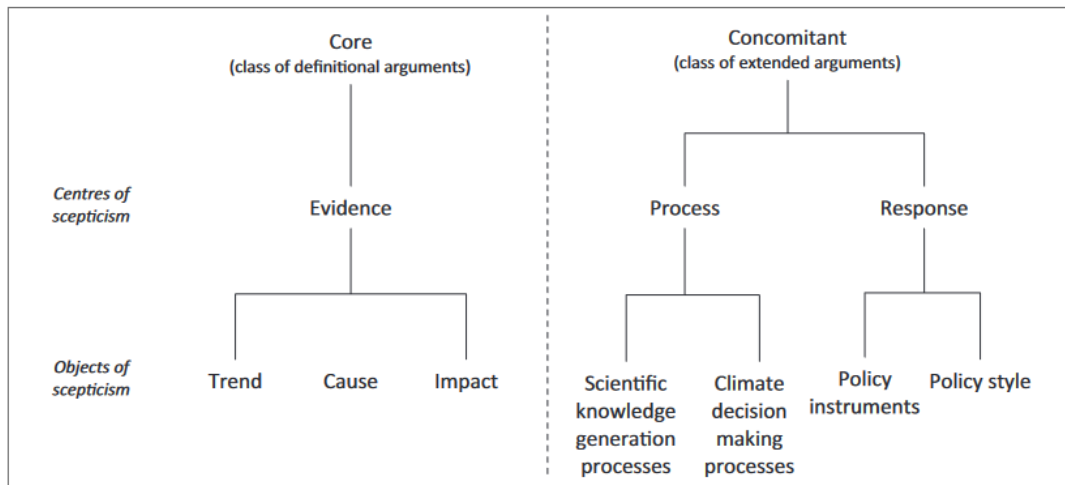
FIGURE 2.1: Conceptual hierarchy of sceptic critiques (Van Rensburg, 2015, p. 6, Figure 1).

These theoretical frameworks regarding stances on CC allow for categorisation of attitudes on multiple levels. The three stances in Schaller and Carius (2019) form the broadest category, informing parties' general attitude toward the existence and urgency of anthropogenic CC. The climate denialist, nationalist, and conservative perspectives defined by Vihma, Reischl, and Nonbo Andersen (2021) allow for further sub-categorisation of the denialist/sceptical stance. Finally, the conceptual hierarchy by Van Rensburg (2015) provides a structure for the analysis of the centres and objects of scepticism specifically. In combination, they form a useful tool for categorisations within the spectrum of CC-sceptic and denialist positions.

2.2.2 Automatic Extraction of Scepticism

Computational approaches to extracting CC-sceptic claims have applied both supervised and unsupervised learning methods to circumvent the cost of manual coding. Similarly to manual coding, topics and claims are the primary subject of analysis, as they allow for an insight into the types of scepticism displayed. The following section outlines a selection of exemplary past approaches to the automated extraction of scepticism.

In an unsupervised approach, Boussalis and Coan (2016) extract CC-sceptic

claims from a set of texts from 19 North American conservative think tanks (CTT) from 1998-2013. They perform probabilistic topic modelling using Latent Dirichlet Allocation (LDA) and divide the resulting topics into relating to climate science or climate policy. They find that the claims include a broad variety of topics, ranging from domestic and international politics, to science, and energy and emission topics.

Stecula and Merkley (2019) analyse articles from the most prominent US-American news media: the New York Times, Wall Street Journal, the Washington Post, and the Associated Press, from 1988-2014. On these articles, they perform supervised frame classification. They manually code a subset of the data to train Support Vector Machines (SVM) to identify three major frames: economic cost and benefits (of climate action), appeals to conservative and free-market ideology, and uncertainty and risk of CC. One SVM was trained on each frame (with a subdivision, where one was trained for economic cost and benefit respectively) and accuracy scores averaged around 80%. Stecula and Merkley (2019) find that the presence of economic cost frames (29%) is greater than that of economic benefit (21%), but with the latter having increased since 2006. Uncertainty frames are less frequent (20%) and have declined over time. Appeals to conservative ideology are least common (6%). Results indicate a development toward more pro-climate action reporting in these media, with scientific scepticism on the decline.

Coan et al. (2021) present a three-level taxonomy of CC-contrarian super-, sub-, and sub-sub-claims. To identify these within texts, they train an ensemble model with RoBERTa (Liu et al., 2019) and a logistic regression model to classify claims in a (subset of a) corpus of texts by CTT and CC-contrarian blogs from 2000-2020. A majority of documents from both sources were from the US, with some Canadian, Oceanic, and European sources as well. Coan et al. (2021) report that claims are centred primarily around response and evidence scepticism, criticising climate legislation and scientists. The former has been found to increase after 2008, while "claims which outright deny the existence and severity of anthropogenic climate change [...] have been stable or have declined in relative terms in recent years" (Coan et al., 2021, p. 3).

2.3 The Language of Populism

Given populism at the centre of CC-sceptic argumentation, a next step calls for the question of how to detect populist language in texts. How may we measure a party's populist rhetoric? It has been suggested that populist language tends to be simpler, namely that "the populist style of language is characteri[s]ed by short sentences, one-liners, common sense, and direct speech to the people" (Hameleers, Bos, and Vreese, 2016, p. 143) (see also Albertazzi and McDonnell (2008)). This serves its purpose of reaching a broader public, regardless of education levels. In fact, higher complexity of language and vocabulary may be seen as a signifier of elitism, the very opposite of what a populist speaker would want to convey.

While the notion of populist language being generally simpler than non-populist language has found some empirical support (Bischof and Senninger, 2018; Decadri and Boussalis, 2020), other studies have disputed it (Schoonvelde et al., 2017; McDonnell and Ondelli, 2024; Kittel, 2025). For example, Kittel (2025) finds that for German parliamentary debates, complexity does not correlate with populism, and in fact varies depending on the topic. It was found that left-wing parties generally used simpler language than right-wing parties, and the complexity of the language used in the German parliament in general was found to decrease over time between 1991 and 2021 (Kittel, 2025). In their study on IMPAQTS (Cominetti et al., 2024), a corpus of Italian parliamentary speeches, Zanotto, Frassinelli, and Butt (2024) conclude that textual, lexical, and syntactic complexity cannot be used as reliable predictors of populist language. However, they find that some other presumed characteristics of populist language, such as a tendency toward using proper nouns, absolutist language, and repetitive subjunctive clauses, are present in the corpus (Zanotto, Frassinelli, and Butt, 2024).

One quantitative approach is that of dictionaries, whereby particular sets of typically populist words and phrases are collected and then counted across a corpus (Rooduijn and Pauwels, 2011; Bonikowski and Gidron, 2015; Bischof and Senninger, 2018; Gründl, 2022). Gründl (2022) presents such a dictionary for the German language in particular, containing singular tokens and

multi-word expressions given in regular expression format which allows for precise grammatical capturing and takes negation structures into account. The dictionary was compiled through a study of populist language on social media posts by political figures from the German-speaking region (Germany, Austria, Switzerland). Gründl (2022) finds populist language to be especially dense on social media, which allows for more precise capturing of linguistic structures typical of such rhetoric. The dictionary approach cannot be considered exhaustive, as it simply presents a numerical estimation of populist language through relative frequency of specific n-grams. It may still capture a tendency toward populist language, however, especially in the form established by Gründl (2022), which goes beyond single lemmata and thereby allows for more precise matching procedures.

2.4 The Party *Alternative für Deutschland*

The *Alternative für Deutschland* (AfD) was founded in 2013, largely in response to the economic crises in Europe at the time. At its inception, the party was EU-sceptic and attracted economists dissatisfied with the established parties, and particularly then-chancellor Angela Merkel's vote in 2010 to financially support Greece through its crisis (Kleinert, 2018). The founding manifesto[1] reflects this by calling for Germany to exit out of the Euro and focusing on national sovereignty in political and financial decision-making.

The party's focus turned to immigration after Merkel's decision to open the borders to refugees from the Middle East and northern Africa in 2015 (Kleinert, 2018). The AfD has since adopted a strong Islamophobic position, as they stated in their 2016 electoral manifesto: "Der Islam gehört nicht zu Deutschland"[2] (AfD, 2016, p. 49). In 2019, the party declared climate change to be its third major topic. Alexander Gauland, who was the party leader at the time, stated: "Die Kritik an der sogenannten Klimaschutzpolitik ist nach dem

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[1]via *Abgeordnetenwatch*: `https://www.abgeordnetenwatch.de/sites/default/files/election-program-files/afd_1.pdf`, accessed: 26/06/2025.

[2]Translation: "Islam has no place in Germany".

Euro und der Zuwanderung das dritte große Thema für die AfD"[3] (Kamann, 2019). These three central stances still form the core principles of the party today, which is reflected in the party's manifesto for the 2025 national elections (AfD, 2025).

2.4.1 The AfD and Climate Change

Climate change is not mentioned directly in the party's founding manifesto. Its section on energy policy is still moderate, advocating for renewable and affordable energy. Yet, it already hints at scepticism in a populist framing; the party criticises the renewable energy act (*Eneuerbare-Energien-Gesetz*, EEG for short), demanding reform in its subsidies. Over the years, the AfD has formed a clearer stance on the matter. In their 2016 manifesto for the national elections (AfD, 2016), the party casts doubt on the IPCC and scientific evidence for anthropogenic CC, and accuses the German government of defrauding the public on the basis of false claims regarding carbon emissions. The EEG, they state now, cannot be reformed and must be fully abolished. Rather than climate action, they call for a focus on environmental protection.

A study by Otteni and Weisskircher (2022) showed that 37 per cent of people who self-expressed to be most sympathetic to the AfD (within the German political party spectrum) do not believe in the existence of CC. 20 per cent believed that CC is primarily natural, and only 18 per cent believed that CC is a primarily man-made issue. By contrast, 73 per cent of people identifying most with the Green party believed in anthropogenic CC, and only 12 per cent did not believe in CC at all. Otteni and Weisskircher (2022) further report that people who considered CC to be real were less seven percentage points less likely than climate denialists to express sympathy for the AfD. Finally, 45 per cent of those who opposed renewable energy projects considered themselves AfD sympathisers (Otteni and Weisskircher, 2022). This indicates that the AfD strongly attracts climate sceptic voters.

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[3]Translation: "Criticism of so-called climate-protective policy is the third big topic for the AfD, following the Euro and immigration."

Notably, the AfD does see danger in CC—not for the environment or humankind at large, but in the concept of 'climate refugees'. In 2020, the UN Human Rights Committee ruled that people fleeing CC must have legal protections, such as being granted asylum. Alice Weidel, the party leader, harshly criticised the ruling. In a press release, she demanded that Germany create harsher border enforcements, lest "we become Africa ourselves"[4].

In 2023, the AfD submitted motion No. 20/8417 to the German government, titled "Freedom instead of Ideology – Termination of all International Climate Accords"[5]. In it, the party calls into question the science behind climate protective movements and policy, and for the German government to immediately and irrevocably withdraw from all international climate accords and agreements, as well as cease all national spending on climate protection. They further demand the German government "take measures to adapt to general climate change, which is dominated by natural factors", which they consider to be the more economical approach (AfD, 2023: 3 (II)). The statements made in the motion can be summarised as follows:

1. The science behind climate protection is faulty and anthropogenic CC has not been proven.

2. CC is natural and may even have benefits; painting it as a catastrophe to be averted is not only alarmist, but false.

3. Only a wealthy society can weather environmental crises; the way to preserve wealth is by adapting to natural CC.

4. Climate protective policies, such as the transition to renewable energy, further harm an economy already in crisis by placing financial burdens on the public.

The party is not found to deny CC itself, but downplaying its extent and gravity, in fact arguing that there may be positive aspects to it. These claims are still reflected in the most recent manifesto for the 2025 national elections

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[4]https://afdbundestag.de/weidel-asylanspruch-fuer-sogenannte-klimafluechtlinge, accessed: 29/06/2025

[5]https://dserver.bundestag.de/btd/20/084/2008417.pdf, accessed 12/06/2025.

(AfD, 2025). It contains denial of scientific evidence, rejection of climate policy and accords like the EU's Green Deal, and a desire to exit out of the Paris Climate Accords. They argue that climate policy only benefits the elites, while the public suffers under the financial burdens.

Recalling the frameworks of scepticism outlined in Section 2.2.1, the classification of the AfD as a climate denialist/sceptical party by Schaller and Carius (2019) is apt based on the claims outlined above. In the three-fold paradigm of climate scepticism presented by Vihma, Reischl, and Nonbo Andersen (2021), the AfD falls under the denialist category, which includes claims that while CC is real, it is not proven to be man-made, or that it may even have positive effects (Vihma, Reischl, and Nonbo Andersen, 2021). Finally, in the conceptual hierarchy by Van Rensburg (2015), the AfD primarily displays evidence and response scepticism.

2.4.2 Previous Work

There have been previous studies of the AfD's CC rhetoric, with some focusing on the AfD in particular and others addressing all parties in the German *Bundestag* (BT). This section gives an outline of three recent studies involving the AfD and CC.

In order to study the party's ability to "address populist protest potential", Sturm (2020) analyses 29 press releases by the AfD on the climate topic from 2019. This year in particular is of interest to the analysis, as several national and international events brought CC to the forefront of public discourse. On September 20th, the world saw large-scale climate strikes happening globally. On the same day, the Climate Cabinet of the German government held talks over the Climate Action Programme 2030, which was then adopted on October 9th of the same year[6]. December of 2019 also saw the UN Climate Conference in Madrid and the announcement of the European Green Deal,

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[6]`https://www.bundesregierung.de/breg-en/service/archive/government-climate-policy-1779414`, accessed 07/06/2025.

which aimed to make Europe CO_2-neutral by 2050[7]. As mentioned previously, this was also the year then-leader of the AfD, Alexander Gauland, declared CC to be one of the party's top three central issues.

On these 29 press releases, Sturm (2020) performs qualitative and quantitative text analysis, focused on categories of populist characteristics. He centres analysis around three main supra-categories: *economic insecurity*, *cultural value shift*, and *political alienation* (Sturm, 2020, p. 77). This follows an exploration of three main explanations for the rise in populism, according to Sturm (2020): the economic, cultural, and political explanation. These are then subdivided through automated inductive derivation of frames from the source material. A fourth category of *Klimahysterie* (climate hysteria) is added as a result of the analysis to summarise the frames *common sense instead of ideology*, *climate change denial*, and *accusations of socialism*. He argues this is necessary, as these frames cannot fit into the other categories because they constitute their basis: the AfD's general rejection of climate-protective policy.

Sturm (2020) finds that the AfD's framing of CC-related topics is primarily economic, with *Klimahysterie* as the second-most common category. Cross-categorically, the three most common frames are found to be *endangering of wealth and employment*, *citizens pay for climate-protection*, and *common sense instead of ideology*. On this, Sturm (2020, p. 87) concludes:

> In ihren Stellungnahmen zum Thema Klima adressiert die AfD besonders häufig die Angst vor ökonomischen Einbußen und soziale Abstiegsängste, die in Deutschland insbesondere in den unteren Gesellschaftsschichten, aber auch darüber hinaus weitverbreitet sind (vgl. [Kohlrausch (2018, p. 5)]). Steigende Ungleichheit, Lohnstagnation und -verluste sowie eine zunehmende Prekarisierung bilden die Grundlage dafür, dass das AfD-Narrativ vom Klimaschutz als milliardenschweres Arbeitsplatz und Industrievernichtungsprogramm, das von den „einfachen Leuten" bezahlt werden müsse,

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[7]https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal_en, accessed 07/06/2025.

auf fruchtbaren Boden fällt.[8]

The focus, then, is not primarily on CC denial; rather it is found to be on the consequences of national and international efforts to mitigate the effects of CC, the economic effects of which on the everyday-man are considered detrimental and not proportionate to the risk CC presents. This is still reflected in the party's ideology four years later, outlined in motion No. 20/8417 in 2023 (cf. Section 2.4.1).

Sturm (2020) is not alone in this conclusion. Using the AfD as a case study for the climate-sceptic framing in populist radical right parties (PRRPs) in Europe, Küppers (2022) analyses 204 short articles (150-400 words) from 2016-2020 on the topic of climate from the AfD's online membership magazine *AfD Kompakt*[9]. She performs manual coding on the articles of CC-sceptic frames which are divided into three groups following Van Rensburg (2015)'s centres of scepticism. Results corroborate Sturm (2020), as she finds that "response scepticism is [found to be] employed way more frequently than outright denial of the scientific evidence" and arguments centre primarily around economic aspects (Küppers, 2022, pp. 2f.). Climate mitigation measures are framed as socialist or totalitarian (e.g., 'eco-dictatorship') and threatening individual freedom. On the prevalence of economic arguments, deemed to be untypical for PRRPs, she speculates that (Küppers, 2022, p. 17):

> This abundance of economic arguments in PRRP climate change communication could be a German peculiarity, reflecting the still high fossil fuel dependency of Germany's economy as well as its many employees in industries affected by a transition to a 'green' economy (e.g. the car industry).

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[8]Translation: "In their statements on the topic of climate, the AfD addresses fears of economic detriment and losing social status that are widespread in Germany, particularly in the lower social stratum, but also beyond that (cf. [Kohlrausch (2018, p. 5)]). An increase in inequality, stagnation and loss of wages, as well as increasing casualisation form the foundation that allows the AfD's narrative of climate-protection as a program costing billions and destroying jobs and industry, paid for by 'ordinary people', to thrive."

[9]Not to be confused with *Compact*, a right-wing extremist magazine by COMPACT-Magazin GmbH.

It should be noted that a focus on economic and social arguments have been commonly employed in CC-sceptic positions (Schaller and Carius, 2019). The factor of Germany's reliance on the auto mobile industry ought to be considered, and may indeed focus more on related topics than sceptic parties in other nations. Economic arguments are, however, not unique to the AfD.

Turning to computational approaches, Schaefer et al. (2023) compare CC-related tweets by members of the German parliament (MPs) and parliamentary speeches through 2016-2022. They examine the terminology used to refer to CC and related policy, and how it may represent the party's stance on the matter. In a second step, they perform topic modelling to retrieve the sub-topics parties focus on when speaking on CC. Statistical analysis of hashtags, and more tellingly, 'stance-conveying climate compounds' showed that among the 7 parties studied, the AfD speaks of climate protection the least, and instead is the only party applying denialist language (found both in tweets and speeches) through compounds such as *Klimahysterie* ('climate hysteria'), *Klimawahn* ('climate madness') and *Klimareligion* ('climate religion') (Schaefer et al., 2023). In comparison, the more left-leaning parties (Social-Democrats, the Greens and the Left party) were found to focus on the crisis aspect (*Klimakrise*) and climate justice (*Klimagerechtigkeit*). The results of topic modelling on the data using BERTopic were similar for the AfD, where topics "include climate hysteria and socialism on Twitter and climate religion as well as climate dogma in parliament speeches" (Schaefer et al., 2023, p. 486).

In summary, previous work has found that the AfD's focus on the topic of CC has been primarily on economic concerns and its rhetoric is characterised by painting climate action as hysterical and quasi-religious. While the party has expressly criticised the scientific consensus of anthropogenic CC, it has been found to exhibit mostly response scepticism, focusing on economic and social concerns. Additionally, language painting CC as an ideology or even a religion is heavily present. This represents a core populist element and the AfD's centring of CC as a political issue, removed from the scientific sphere.

Chapter 3

Data

The data utilised in this study is a corpus of texts produced by members of the AfD or its former youth organisation *Junge Alternative*. The corpus is newly constructed for the purposes of this thesis and covers several text domains. While some texts have been compiled from previously existing corpora, such as OpenDiscourse (Richter et al., 2020) and ParlLawSpeech (Schwalbach et al., 2025), a portion of it has been newly assembled. This chapter outlines the corpus's composition and its construction process. Additionally, a comparison dataset was compiled in order to evaluate the results of the AfD's rhetoric in relation to the two other major parties in the German government[1]: the Social Democratic party (SPD) and the Christian Democratic party union of the CDU (*Christlich Demokratische Union Deutschlands*, Christian Democratic Union of Germany) and the CSU (*Christlich-Soziale Union in Bayern*, Christian Social Union in Bavaria).

3.1   The AfD Climate Change Corpus

In order to analyse the AfD's rhetoric on climate change, a dataset was first required. As discussed in Section 2.4.2, previous studies of the party's stance on CC focused on only specific text domains, such as the party's press releases (Sturm, 2020), the membership magazine *AfD Kompakt* (Küppers, 2022), or comparing German parliament speech transcripts with tweets (Schaefer

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[1]As of the elections of the 21st German Bundestag on February 23, 2025.

et al., 2023). This study therefore aimed to not only contribute more recent texts, but to collect a broader range of communication media with the goal of examining the party's language around CC in both parliamentary contexts and in addressing the public. This thesis presents the AfD Climate Change Corpus (AfD-CCC). This newly constructed dataset consists of 7,826 texts with a total of 505,105 tokens authored by AfD officials or members of its youth group. This section outlines the corpus and gives an overview of its construction process.

3.1.1 Text Domains

The corpus is made up of texts from several domains. Official transcripts of speeches (and discussions) held in the German and European Parliaments constitute a large part of the dataset. Other texts are of written origin, namely press releases and tweets by AfD MPs, messages in public AfD and JA Telegram channels, as well as articles published online in the AfD's membership magazine *AfD Kompakt*. The corpus therefore contains both oral and written delivery, addressed to several different audiences. While parliamentary speeches address fellow MPs, tweets, press releases, articles, and Telegram messages are directed at the voter. The corpus is thus able to represent the party's messaging on the topic more broadly, both in the politically internal (within government institutions) and external (to the voting public) dimension. Additionally, this thesis considers speeches held in the European Parliament, which have not been studied in the context of CC before. Table 3.1 displays the sizes of the domain subsets within the topic-filtered corpus. Sentence counts are given as well, as several analyses will be done on a sentence-level.

Parliamentary speeches make up the greatest subset with respect to text, with a total of 268,919 tokens. The set of speeches from the European Parliament is comparatively small, spanning 48,025 tokens over 668 paragraphs. Press releases contribute 911 paragraphs with 85,356 tokens. While there are 3,035 paragraphs from Tweets in the dataset, the maximum character restriction

Domain	Paragraphs	Sentences	Tokens	Time
German Parliament	2,284	15,005	220,894	2017-2025
European Parliament	668	3,050	48,025	2014-2024
Press releases	911	5,267	85,356	2017-2021
Tweets	3,035	15,261	93,345	2017-2024
Telegram messages	766	3,845	41,487	2019-2025
AfD Kompakt articles	162	986	15,998	2018-2020, 2023-2025
Total	**7,826**	**43,414**	**505,105**	

TABLE 3.1: Composition of the AfD-CCC, given in number of paragraphs, sentences, and tokens.

the platform enforces results in them containing fewer tokens. At 93,345 tokens, they still present a sizeable subset however. Telegram messages similarly tend to contain fewer tokens (41,487 over 766 paragraphs in the corpus). The smallest subset is the magazine articles, with 162 paragraphs containing 15,998 tokens.

3.1.2 Data Collection

To construct the corpus, data was extracted from several sources. This section outlines the process of data collection, sources, and time frames of the retrieved texts.

German Parliament

Transcripts of speeches from the German Parliament (*Bundestag*, henceforth BT) from the years 2017-2022, were retrieved from the *OpenDiscourse* dataset (Richter et al., 2020). For more recent speeches (up to the end of the 20th legislation period in March, 2025), transcripts were directly sourced from the German government's records via the API of the DIP (*Dokumentations- und Informationssystems für Parlamentsmaterialien*, System for Documentation and Information on Parliamentary Material)[2]. As speaker name and party membership are given in the records, filtering for AfD MPs' speeches was done

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[2]https://dip.bundestag.de

purely based on the speaker's party. Before topic filtering, the BT speeches subset was made up of 12,049 paragraphs with 1,359,619 tokens.

European Parliament

The recently published ParlLawSpeech corpus[3] (Schwalbach et al., 2025) contains, among other European national parliament records, speech transcripts from the European Parliament (EP). It was thus a primary source for the construction of the AfD-CCC, Speeches date from the party's entry into the EP in 2014 to April, 2024. As only European party affiliation was given in the dataset and AfD MPs have transitioned between parties in the EP, speeches were filtered for AfD members through cross-referencing the speaker on record with a list of names of AfD MPs and the duration of their party membership. For individuals who left the party during their time in the EP, speeches held after their exit date were not considered. A total of 3,246 paragraphs, containing 318,985 tokens were extracted as candidates for the AfD corpus.

Press releases

Press releases by the AfD were retrieved from part of the data presented by Schaefer et al. (2023). Alongside the title and text, publication date, url, and–if applicable–author are extracted from the data. The corpus contains press releases by AfD MPs from 2017-2021. It contributed a total of 1,434 candidate paragraphs (143,477 tokens).

Tweets

Tweets by AfD MPs, as well as the official AfD account, were collected from two sources. A majority of the Twitter dataset is comprised of tweets collected by Lasser et al. (2022) and span 2017-2022. For the AfD corpus, before topic filtering, this dataset contributed 2,135 paragraphs (61,401 tokens). Additionally, a set of tweets made by the same accounts in the years 2023 and 2024 was supplied, but cannot be made publicly available at this time. From

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[3]https://parllawspeech.org/data/

this set, 5,258 paragraphs containing 165,778 tokens were retrieved as corpus candidates.

Telegram

To retrieve Telegram posts by the AfD and its youth organisation, a total of 8 public channels[4] were scraped using the FROG tool (Primig and Fröschl, 2024). The tool allowed for the retrieval of all messages posted in these channels from the date of their creation to the last message a the time of scraping. No personal data, such as names, telephone numbers, or other identifying information for both owners and subscribers/members of these groups was stored in the process and all channels scraped were, at the time of retrieval, open to public viewing. Metadata collected contained the channel's name and public ID on Telegram, the ID of the last message at time of access, the exact date-time of messages, as well as types and counts of emoji reactions. An overview of the scraped channels can be found in Appendix A, Table A.1. Before topic filtering, the Telegram dataset contained 5,970 paragraphs of 407,603 tokens.

In order to restrict data to official AfD communication media, channels were chosen only if they were publicly advertised by party websites or the federal state's youth organisation. It cannot, however, be verified whether the channel operators are direct party members, making this the only subset of the corpus not restricted to MP authors. Given the public endorsement by the party, these texts are nonetheless considered relevant, and represent more direct messaging to the voter.

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[4]These channels may be considered a short-form newsletter embedded in a traditional direct messaging application. They are open to the public for (free) subscription, allowing a subscriber to receive messages from the channel's operator(s) in the same format as a traditional chat window, only without the ability to send messages in return. A subscriber's ability to interact with channel messages is restricted to "reactions", a system where they may apply any one of a pre-selected range of emojis to a message.

Magazine *AfD Kompakt*

Another voter-oriented channel of communication is the AfD's membership magazine *AfD Kompakt*[5]. It is made up of short articles hosted online. Archived articles from the years 2018-2020 were kindly supplied by Dr. Küppers of the University of Jena, from her work on examining the CC rhetoric in these articles (Küppers, 2022). This was expanded with manual retrieval of 31 articles from 2023-2025. They were collected through a first search with the keyword "Klima" on the website, and manual saving of the articles the search returned. A total of 519 paragraphs (55,527 tokens) were collected as corpus candidates.

3.1.3   Preprocessing

In order to restrict text lengths and ensure uniformity for analysis, texts were split into paragraphs. This allows for more precise retrieval of topic-relevant passages, while retaining context. Paragraphing was performed using a semantic text-splitter[6]. Initially, the maximum character limit was set to 500. However, it was discovered during manual annotation that this was insufficient, as texts were at times too short to retrieve a stance. Following the annotation, texts were thus re-split with a maximum character limit of 1000.

Texts were tokenised using spacy's German model `de_core_news_lg`[7]. Punctuation, emojis, and extra spaces were removed. Telegram messages required additional pre-processing. Special characters and promotional segments found frequently at the end of messages were trimmed as much as possible. There were two phases of text segmentation. In the first phase, before annotation and automated topic filtering, stop words were excluded from token counts, and the length requirement set to =>8. This was revised after the annotation process in order to allow for more texts from social media contexts, and because stop words removal was not relevant to most experiments. Therefore, in the final version of the corpus, stop words are retained in the token counts,

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[5]https://afdkompakt.de/
[6]Text-splitter, Ben Brandt: https://github.com/benbrandt/text-splitter.
[7]https://spacy.io/models/de

and the minimum length requirement set to =>10 tokens. After topic filtering, which will be described in the next section, the paragraphs making up the AfD-CCC were between 10 and 162 tokens in length, with the average paragraph being 65 tokens long.

3.1.4   Topic Filtering

Restricting the dataset to only texts relating to CC required multiple steps. A first experiment was done using purely keyword filtering. In this approach, texts were deemed topic-related if one or more from a list of keywords appeared in them. The keywords were adapted from Schaefer et al. (2023) and were as follows:

> *klima* (climate), *erwärmung* (warming), *treibhaus* (greenhouse), *co2*, *kohle* (coal), *energiewende* (energy transition), *verkehrswende* (transport transition), *fridays for future*, *extinction rebellion*

They were allowed as substrings, i.e. a compound *Kohleausstieg* or *Klimahysterie* would suffice for a match. When removing texts below 8 tokens in length[8], this matching procedure resulted in a total of 7,915 topic-relevant texts for the AfD-CCC

This approach had to be expanded, however, as texts were found to contain uses of the word *Klima* in other or metaphorical contexts, such as speaking about the country's political climate. Furthermore, mentions of CC as a topic within a broader listing of issues addressed by the party, and without any stance-conveying language or additional criticism, are not sufficient material to assess the AfD's language around the matter. To this end, topic filtering was expanded to consist of a hybrid approach following Grasso, Patz, and Stede (2024) and their construction of the NYTAC-CC. This consisted of manual annotation of a subset of the keyword-filtered texts and training an XGBoost classifier to recognise topic-relevant text in a binary classification task. The annotation instruction was a modified version of the classification

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[8]This was done during phase one of segmentation, where stop words were excluded from the token count. As mentioned previously, the minimum length of 10 tokens incl. stop words was adopted later.

rule given by Grasso, Patz, and Stede (2024, p. 3). The definition of texts considered relevant was as follows, with the bolded section being the addition:

> Texts considered relevant for the climate change (CC) topic must not merely mention CC in passing, but should discuss aspects of anthropogenic CC, relate substantial information—**for example on key climate protective policy**—or convey a stance on its existence or urgency.

The definition was expanded in order to capture CC-rhetoric more specific to the task. As the AfD tended to speak less on CC itself and more on policies planned or implemented by the *Bundestag* or other institutions, topic relevancy had to be expanded to include such indirect CC-related claims as well.

Texts for the first two phases of annotation were chosen randomly from the pool of paragraphs containing at least one keyword. Labels for manual annotation were 0 (not CC-relevant), 1 (CC-relevant), and 2 (unsure). Two annotators (the author (A1) and a university-internal employee (A2)) each annotated 500 texts before reviewing. During review, texts labelled 2 were discussed and uncertainties resolved. In the second phase of annotation, A2 annotated an additional 1.500 texts and A1 an additional 500. At the end of the annotation process, texts were only labelled 2 if they were incomplete and a full stance could not be extracted[9]. This totalled 51 paragraphs, which were removed, resulting in exclusively binary labelling (0, 1) on 2,949 paragraphs. In a third and final phase, an additional 200 paragraphs which did not contain any keywords and were manually assessed by A1 for their topic relevance. They were annotated and added to the annotated dataset. This resulted in a final count of 3,149 annotated paragraphs.

An XGBoost classifier (Chen and Guestrin, 2016)[10] was trained using the annotated paragraphs. This classifier uses gradient descent to boost the learning of a decision tree ensemble. In order to pass them into the classifier, texts were converted into numerical format using BERT embeddings with

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[9]This issue was due to the maximum character limit imposed when splitting text into paragraphs. To resolve it, splits were re-done with a new limit of 1000 characters per paragraph before the classifier was deployed.

[10]Python package: https://xgboost.readthedocs.io/en/stable/python/index.html

`bert-base-german-cased`[11]. Following hyperparameter tuning using scikit-learn's RandomizedSearchCV with 5-fold cross-validation over 10 combinations, the classifier's parameters were set as follows:

- number of estimators: 100

- max tree depth: 10

- learning rate: 0.1

- gamma: 0.2

On the holdout test set (20% of the annotated data), the classifier achieved an F1-score of 0.89, with a Precision of 0.82 and a Recall of 0.96. Applying the classifier to the full AfD dataset, following the aforementioned improvements to paragraph segmentation and length restriction, resulted in 7,826 paragraphs labelled 1 for topic-relevant, and 22,785 labelled 0, or not relevant. This results in the composition of the AfD-CCC in Table 3.1.

3.2 Comparison Datasets

In order to meaningfully compare results on the AfD-CCC, similar datasets were compiled for the two other largest parties in the German government as of the 2025 federal elections. These parties are the CDU/CSU (*Christlich Demokratische Union (Deutschlands)*, Christian Democrat Union (of Germany), and *Christlich-Soziale Union (in Bayern), Christian Social Union (in Bavaria)*, often simply referred to as the *Union* as they make up a joint faction of the BT, and the SPD (*Sozialdemokratische Partei Deutschlands*, Social-Democratic Party of Germany). In the 2025 elections, the CDU/CSU received 28.6% of votes and the SPD 16.4%[12]. They currently make up governing coalition and together hold the majority in parliament.

The process for retrieval, pre-processing, and topic-filtering for the comparison datasets was identical to that for the AfD. Parliamentary speeches in the BT and EP, as well as press releases and tweets were collected from the same

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[11]https://huggingface.co/dbmdz/bert-base-german-cased
[12]https://www.bundestag.de/wahl

	SPD			CDU/CSU		
Text Domain	Paragr.	Sents.	Tokens	Paragr.	Sents.	Tokens
German Parl.	4,121	28,925	420,389	4,318	29,538	420,971
Europ. Parl	752	3,325	55,439	1,354	6,252	103,553
Press releases	289	1,742	26,884	98	898	11,302
Tweets	3,657	13,788	110,392	2,975	12,163	91,722
Sum	**8,819**	**47,780**	**613,104**	**8,745**	**48,851**	**627,548**

TABLE 3.2: Composition of the comparison datasets for SPD and CDU/CSU, given in number of paragraphs, sentences, and tokens.

sources. Telegram and magazine data is not available for the comparison parties. In order to delimit the dataset and reflect the rhetorical climate of the political landscape since the founding of the AfD, only texts from the year 2013 and onward were considered. For topic filtering, the classifier trained on AfD data was applied. Separate tests by Dietmar Benndorf showed that the classifier was not significantly biased toward AfD-specific language and is able to correctly label texts across party lines. The compositions of the final, topic-filtered datasets for each comparison party are given in Table 3.2.

Despite having fewer text domain sources, the comparison datasets are slightly larger than the AfD-CCC in volume (roughly 8,800 paragraphs and 620,000 tokens as opposed to roughly 7,800 paragraphs and 505,000 tokens for the AfD). Particularly the BT speeches present greater token counts for the comparison parties. This is likely in part due to the fact that both the number of MPs allowed to speak per party and the time allotted to them is dependent on the size of the party's faction in government. Until the 2025 elections where the AfD achieved the second highest number of seats in the BT, the party had previously held fewer seats than the comparison parties and thus had less opportunity to speak. The AfD also only entered the national parliament in 2017, while both SPD and CDU/CSU datasets contain speeches dating back to 2013.

Chapter 4

Language, Emotion & Populism

The first and primary dimension that this thesis examines the AfD's CC communication is that of its language. As Küppers (2022, p. 11) points out, "the AfD frequently refrains from explaining its denialism in more detail and simply uses terms such as 'hypothetical man-made greenhouse effect' or 'CO_2 climate fairy-tale'". The party's discourse around the topic is riddled with language mocking climate activism and expressing CC-scepticism or outright denialism. An example of this can be found in MPs' usage of stance-conveying compounds (e.g. *Klimahysterie/Klimawahn* 'climate hysteria/madness', *Klimareligion* 'climate religion'), phrases (e.g. *auf dem Altar der Klimareligion geopfert* 'sacrificed upon the altar of climate religion'), and hedging with sceptic qualifiers such as 'so-called [climate change]'. If the discourse does not centre science-based argumentation, but attitudes are conveyed primarily through word choice (Küppers, 2022), then pragmatics are the key to understanding how the AfD communicates the topic both in parliamentary settings and to its voter base. Through examining the linguistic structures that dominate the discourse, we can gain a deeper insight into the foci of the party's CC rhetoric and the response it may intend to evoke in the listener.

This chapter reports on several experiments analysing the linguistic dimension of the party's CC rhetoric, focusing on different aspects of communication. Sentiment analysis and emotion detection are performed to examine the tonality of the discourse. A third experiment utilising a populism dictionary assesses the frequency of expressly populist language. This is informative

in that it highlights the distinction between the AfD as a PRRP and the non-populist comparison parties. Furthermore, it shows which structures typical of populist speech are particularly common in CC-centred discourse. Finally, the usage of stance-conveying compounds associated with CC is analysed for the AfD-CCC and comparison parties using the *Klimadiskurs* glossary, which is expanded in this process. In combination, these experiments present an insight into the linguistic characteristics of the AfD's CC discourse.

4.1 Sentiment Classification

As a first analysis, I perform sentiment classification on the AfD-CCC and comparison datasets to examine the overall sentiment of the discourse. While this does not necessarily link to stances on CC, it gives an insight into the rhetoric's broader tonality.

4.1.1 Methodology

Sentiment classification is performed using `German-Sentiment-BERT`[1] (Guhr et al., 2020). This BERT-based model classifies texts as one of three sentiment values: (1) positive, (2) negative, and (3) neutral. In accordance with Guhr et al. (2020), the model is applied on a sentence level. It was applied to the AfD-CCC, as well as the comparison datasets for SPD and the Union.

4.1.2 Results

The results of sentiment classification are given in Table 4.1. They are displayed in percentages in relation to the corpus, i.e. the number of sentences classified as the respective sentiment (*n*) divided by the total number of sentences in the dataset (*N* = 43,414 (AfD), 47,780 (SPD), and 48,851 (CDU/CSU), see Tables 3.1 & 3.2). For all three parties, a majority of sentences are classified as *neutral*. The second-most common sentiment overall is *negative*. The AfD displays almost double the amount of *negative* sentiment, with 21.87%

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[1] https://huggingface.co/oliverguhr/german-sentiment-bert

of sentences classified as such, as opposed to 14.07% for the SPD and 13.06% for the CDU/CSU. The SPD dataset contains the highest amount of sentences classified as *positive* with 7.21% (6.49% for the Union). Finally, only 5.6% of sentences in the AfD-CCC are classified as *positive*. This shows that, while the CC-discourse is predominantly *neutral* across party-lines, the proportionality of *positive/negative* differs between the AfD and the comparison parties.

	AfD		SPD		CDU/CSU	
Sentiment	%	*n*	%	*n*	%	*n*
positive	5.6	2,431	7.21	3,445	6.49	3,172
negative	21.87	9,495	14.07	6,722	13.6	6,645
neutral	72.53	31,488	78.72	37,613	79.9	39,034

TABLE 4.1: Results of sentiment analysis of CC-texts by the AfD, SPD, and CDU/CSU, given in per cent and number (*n*) of sentences in the dataset .

4.2 Emotion Detection

Following sentiment classification, a second analysis entails emotion detection. As with the previous experiment, emotional aspects of language do not inherently convey a stance toward the issue at hand. However, they make up a qualitative aspect of communication that underpins the discourse. The emotions with which the party communicates and which it evokes in its audience, whether intentionally or not, necessarily influence the listener or reader's reception of and response to the rhetoric. Examining the presence or absence of certain emotions within the language is therefore informative of the general tonality of the party's CC discourse. The following section reports on an analysis to determine exactly this.

4.2.1 Methodology

In order to detect emotional language in the discourse, the transformer-based model `pol_emo_mDeBERTa2`[2] (Widmann and Wich, 2023) is applied to the dataset.

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[2] https://github.com/tweedmann/pol_emo_mDeBERTa2

This model was developed following the original paper by Widmann and Wich (2023), which presents *ed8*, an emotion dictionary intended specifically for German political discourse. It contains 20,582 terms and "is capable of measuring language associated with eight different emotions: anger, fear, disgust, sadness, joy, enthusiasm, pride, and hope" (Widmann and Wich, 2023, pp. 629f.). Importantly, they claim the dictionary is not only capable of detecting "emotional terms", but also "words that hint toward the presence of a specific emotional appeal that might be appraised by humans as such" (Widmann and Wich, 2023, p. 630). It is therefore not only particularly suited to the task given its tailoring to the political sphere, but allows for the detection of more subtle emotional communication.

`Pol_emo_mDeBERTa2` is a fine-tuned version of the multilingual BERT-model `mDeBERTa-v3-base`[3]. It performs multi-label classification based on the emotions in the ed8 dictionary, whereby a binary score is returned for each emotion's presence (1) or absence (0). A sentence may contain no or any number of emotions. For this study, `Pol_emo_mDeBERTa2` is applied according to the implementation suggested in its repository, which sets the decision threshold at 0.65. Detection is done on a sentence level.

4.2.2 Results

Figure 4.1 displays the results of running `pol_emo_mDeBERTa2` on the AfD-CCC, as well as the comparison datasets. Results are given in percentages of sentences classified as the respective emotion over the total number of sentences in the dataset for the party. Pearson correlation coefficients for emotions within each party were calculated as well and are given in Appendix B. No relevant correlations could be identified, however, as coefficients remained in a range of -0.1 to 0.1.

The primary emotion found across parties is *anger*. The SPD scores lowest, at just below 7% of sentences classified as containing *anger*, with the Union at 9%. The AfD-CCC displays almost three times as much, with a rate of 24%. Other emotions are found at lower rates, remaining below 2% for

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[3]https://huggingface.co/microsoft/mdeberta-v3-base
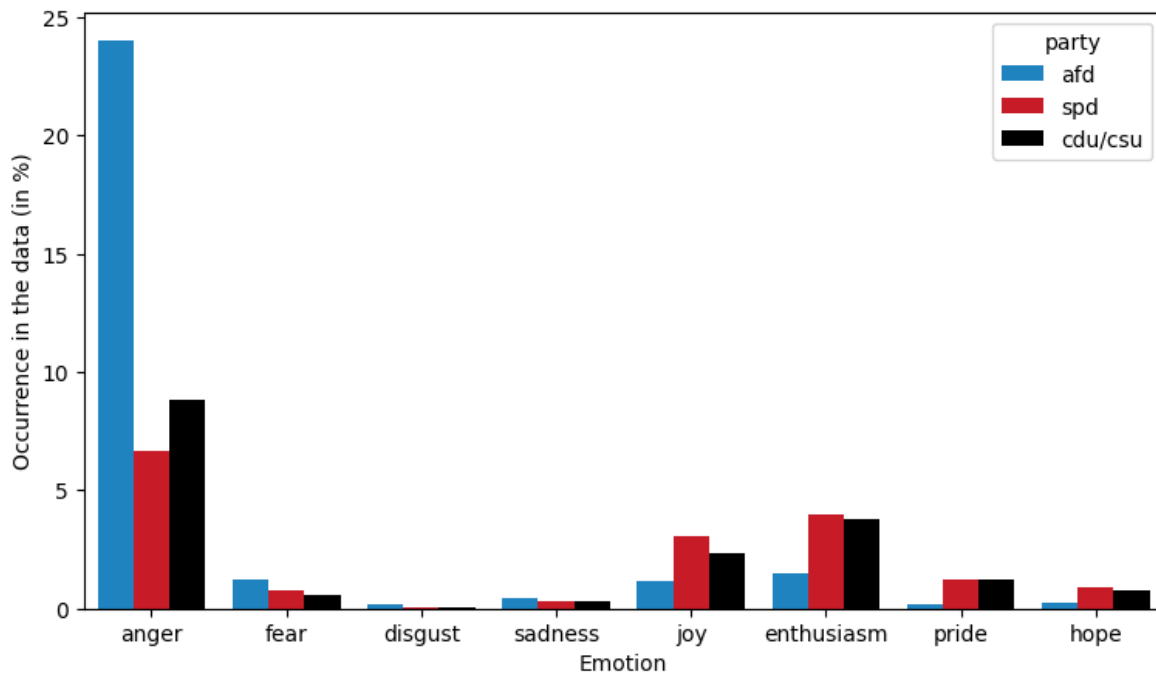
FIGURE 4.1: Results of emotion detection on the AfD-CCC and
comparison datasets, given in percentage of sentences classified
as the respective emotion.

the AfD. Comparison parties show somewhat higher rates of positive emotions, averaging 3-4% for *joy* and *enthusiasm*, with the SPD slightly above the CDU/CSU.

Rates of the most prominent negative (anger) and positive (enthusiasm) emotions over time are given in Figure 4.2. For the AfD, rates of *anger* display a sharp incline in 2017, rising from 16% in 2016 to 28% in the following year. Until 2024, they remain around the 25% mark, and decline again in 2025 (16-17%). It should be noted that only the first quarter of 2025 is represented in the data, however. Comparison parties meanwhile largely remain below 10%, with the SPD showing a peak of 14% in 2014 and a slow but steady incline from 2021 onward, passing the 10% mark in 2025. The Union passes the 10% mark for the first time in 2022, reaching a peak of 16% in 2024 before declining again. Turning to *enthusiasm*, the AfD remains below 3%, although there has been a slow increase over time following an initial drop from nearly 3% to almost 0% in 2015. Comparison parties fluctuate between 2-5%. Rates
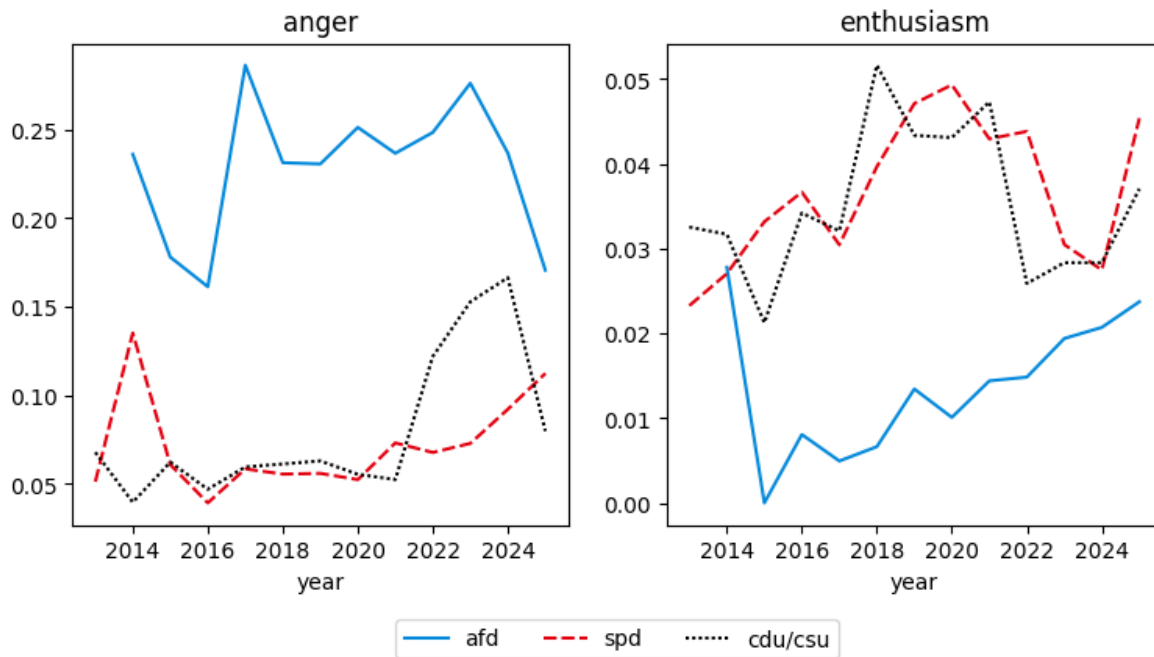
FIGURE 4.2: Proportion of sentences classified as *anger* (left) and *enthusiasm* (right) for all three parties over time.

of enthusiasm are similar for comparison parties. For the SPD, *enthusiasm* rose from 3% in 2017 to a peak of roughly 4.9% in 2020. The Union similarly displayed more *enthusiasm* between 2018-2021 (4-5%) than previous years. Both parties' rates dropped below 3% in 2022 (CDU/CSU) and 2023 (SPD). All three parties show a slight rise in *enthusiasm* from 2024 to 2025.

Assessing accuracy of this labelling is beyond the scope of this thesis. Manual review of a small number of examples did not indicate gravely false classifications, but a large-scale evaluation was not performed. It also showed, however, that many instances classified as *joy* were expressions of gratitude. These were often customary phrases particularly at the end of parliamentary speeches to thank the audience. Example sentences for each emotion from the AfD-CCC are given in Appendix B.

In summary, the CC discourse of all three parties is dominated by *anger*, where the AfD-CCC contains three times as many sentences classified as *anger* compared to the SPD and CDU/CSU datasets. *Fear* is less present,

as are positive emotions, such as *joy* and *enthusiasm*. This is not inherently indicative of a stance toward CC and related policy. However, it shows a significant difference in discourse tonality. Intuitively, following the AfD's approach to CC policy, as outlined in Section 2.4.1, and using small scale manual reviews, their anger is likely directed at the political establishment and policy approaches to mitigating CC. This could be examined by future studies.

4.3 Populist Language

While the AfD can be categorised as a PRRP ideologically (cf. Section 2.4), this section explores a measurement of the linguistic manifestation of their populist characteristics. Using the Populism Dictionary by Gründl (2022), this experiment seeks to quantify the frequency of populist language in the present corpus, as well as comparison datasets for non-populist parties.

4.3.1 Methodology

Frequencies of populist language in the AfD-CCC are analysed using the Populism Dictionary by Gründl (2022) that was introduced in Section 2.3. The dictionary contains 238 multi-word expressions given in regular expression format (Gründl, 2022). This format is more flexible than simple lemmata and thereby allows for the capturing of different syntactic contexts by including variations for case forms and word order. While the dictionary was originally designed for social media contexts, it is here applied to the whole corpus as well as the comparison datasets in order to examine potential differences not only between parties but the spectrum of text domains represented.

In order to measure the frequency of occurrences, the dictionary entries are matched with texts and counts for each entry, as well as matches per text, are tallied. Scoring is done using aggregated scores following the approach by Gründl (2022). This score will be referred to as the *populism score* and is defined as the sum of all documents containing at least one dictionary item,

over the total number of documents. The populism score therefore represents the percentage of posts and sentences containing at least one dictionary item. For this thesis, paragraphs are considered instead of posts.

4.3.2 Results

Populism scores on paragraph and sentence level for the AfD and comparison parties are given in Table 4.2. We find that overall, 17.91% of paragraphs and 3.45% of sentences in the AfD-CCC contain at least one match to the Populism Dictionary (Gründl, 2022). This amounts to sentence-scores over five times as high as those of comparison parties. For the SPD's dataset, 3.04% of paragraphs and 0.48% of sentences contained one or more matches, and for the CDU/CSU 4.03% of paragraphs and 0.63% of sentences.

	AfD		SPD		CDU/CSU	
	para.	sent.	para.	sent.	para.	sent.
German P.	25.04	4.09	4.66	0.56	5.4	0.66
European P.	15.27	3.61	3.86	0.66	4.14	0.86
Press	21.73	4.1	3.46	0.52	3.06	0.22
Twitter	11.1	2.24	1.01	0.26	2.02	0.48
Telegram	19.58	4.45	-	-	-	-
Magazine	26.54	4.67	-	-	-	-
Total	**17.91**	**3.45**	**3.04**	**0.48**	**4.03**	**0.63**

TABLE 4.2: Populism scores for the AfD and comparison parties, given per text domain in percent on paragraph (para.) and sentence (sent.) level.

On a paragraph level, populism scores for the AfD are found to be highest in the membership magazine (26.54) and the German Parliament (25.04). When considering sentences, however, the text domains with the highest frequencies are magazine articles (4.67) and Telegram messages (4.45). In order to mitigate variability in paragraph length compared to sentence length, the analysis will focus on sentence-level populism scores as a more balanced metric.

The comparison parties show the highest scores in parliamentary texts (on paragraph and sentence levels both). While Telegram and magazine data

was not available for them, it is still notable that scores for the SPD and the Union remain somewhat stable between German and European parliamentary speeches, even being slightly higher in the EP. Press releases, on the other hand, achieve a lower score for both parties. The AfD in turn has a lower score in the EP (3.61) than the BT (4.09), with press releases also scoring higher than the EP (4.1). Comparison parties generally score lower, but display higher rates of populist language in government settings. The AfD produces more populist language in communication channels addressing the public directly: through Telegram channel messages, magazine articles. Tweets score generally lowest for all three parties, however, which is somewhat surprising considering Gründl (2022) tailored the dictionary used for these measurements to social media contexts, including Twitter.

	AfD		SPD		CDU		CSU	
	posts	sent.	posts	sent.	posts	sent.	posts	sent.
Facebook	33.98	5.05	3.36	0.86	1.49	0.47	2.36	0.93
Twitter	7.31	2.68	0.98	0.41	0.65	0.27	1.51	0.59
Combined	**17.91**	**4.42**	**1.45**	**0.55**	**0.85**	**0.33**	**1.91**	**0.75**

TABLE 4.3: Excerpt of populist messages by parties on social media (2014-February 2020) by Gründl (2022, p. 1490, Table 1).

For further comparison, Table 4.3 lists an excerpt of results presented by Gründl (2022, p. 1490). He reports generally higher scores for the AfD on Facebook posts than tweets, and notes that the length of posts were above average compared to other parties (Gründl, 2022). As mentioned previously, this issue is mitigated by the sentence-level scoring. On the common text domain of tweets, scores are comparable, but slightly lower in the AfD-CCC, with Gründl (2022) reporting 2.68% of sentences containing at least one dictionary entry compared to this study's 2.24%. For the SPD, the score on tweets is in a comparable range (Gründl: 0.41, here: 0.26), and similarly remains comparable for the Union parties, albeit slightly higher in this study. Curiously, the overall score on a text level reported by Gründl (2022) for the AfD is exactly the same as in the present study (17.91).

Looking into the particular dictionary entries discovered in the data, we find

that the most common matches are (including inflection/syntactical variations of) *sogenannte(r)* ('so-called', n=435), *Altparteien* ('established (lit. 'old') parties', n=157), and *Irrsinn* ('insanity', n=92). A full listing of the top 15 most common dictionary matches for the AfD are given in Appendix B. Relative to the size of the party's vocabulary (unique tokens over all texts), the AfD-CCC contains 149 unique matches over a vocabulary of 46,493 tokens, amounting to 0.32% of the vocabulary being populist according to the dictionary. For the SPD, this was 0.15% (60 unique matches over a vocabulary of 39,499 tokens) and for the Union 0.19% (75 unique matches over a vocabulary of 38,751 tokens). While these rates are low, they show that the AfD's vocabulary contains almost double the amount of populist rhetoric as comparison parties'.
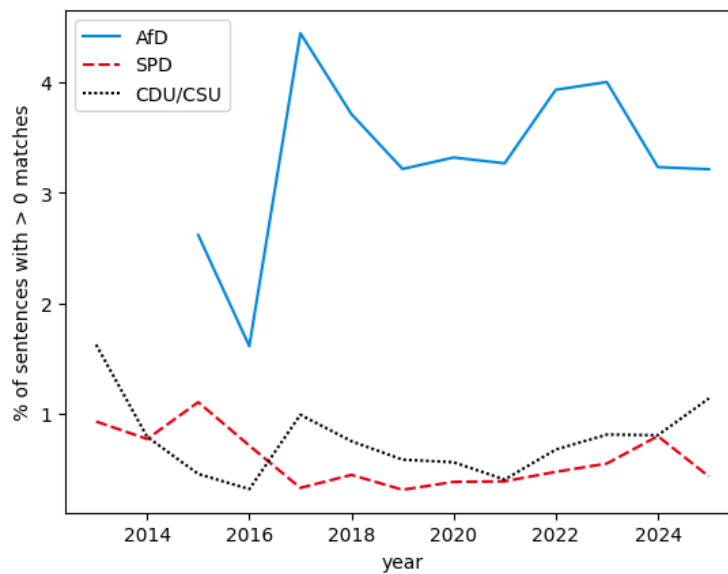

FIGURE 4.3: Populism scores on a sentence level of all three parties over time (2013-2025).

Figure 4.3 displays the sentence-level populism scores for each party as a function of time from the years 2013 to 2025. No data was available for the AfD for 2013, but scores for SPD and Union are still included to represent the trend. In 2014, no sentences in the AfD-CCC contained a match, which

explains the graph only beginning in 2015. While populism scores for comparison parties generally remain below 1, the AfD showed an incline in populism score from 2016 (<2) to 2017 (>4). It has since remained in the range of a score of 3.5 to 4.

The up-tick in populist messaging in 2017 coincides with a national election year, which saw the party's entry into the BT. The same year also saw shifts in party leadership, then-leader Frauke Petry leaving the party due to waning support from an increasingly radical party (Kleinert, 2018; Decker, 2022). At the same time, the AfD managed to enter several federal parliaments and more than doubled its votes in the national elections compared to the previous election in 2013[4]. The rise in populism scores may reflect the increasing radicalisation of the party, as well as more intense messaging campaigns in this important election year. However, significant increases are not observed in the following election years (2021, 2025).

Overall, results are representative of the fact that the AfD as a populist party is expected to exhibit greater levels of populist language than comparison parties who are not categorised as populist. The dictionary by Gründl (2022) and the associated populism score are able to capture this difference. For the AfD, populist language is found to be especially frequent in communication media directed toward the public, but also in BT speeches. Examining the scores over time showed that they additionally reflect periods of increasing radicalisation and, potentially, election year rhetoric displaying higher frequencies of populist language.

4.4 Climate Glossary

The *Klimadiskurs* glossary[5] (Stede et al., 2025) contains 248 CC related N-N compounds that express some stance toward CC. It was previously applied by Schaefer et al. (2023) to examine the most frequent compounds found in

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[4]https://www.bundeswahlleiterin.de/bundestagswahlen/2017/ergebnisse.html, accessed: 22/07/2025.

[5]http://www.klimadiskurs.info/

tweets and BT speeches for the major German parties, as outlined in Section 2.4.2. In the following experiment, the AfD-CCC is matched with the glossary, after expanding it with additional entries extracted from the corpus. This is done to examine the type and frequency of stance-conveying language exhibited by the AfD.

4.4.1 Methodology

Similarly to the matching procedure with the Populism Dictionary in the previous section, we perform matching with the glossary entries over the corpus. While not explicitly stance-conveying, the word *Klimaflüchtlinge* (climate refugees) was added to examine its frequency. Additionally, and in accordance with Schaefer et al. (2023), the adjective *klimafreundlich* was added to the glossary as an exception to the N-N compound format for comparability with previous results.

Before matching, compounds were slightly pre-processed into a regular expression format containing plural forms and other case, as well as grammatical gender markers. As all compounds begin with *Klima*, potential hyphenation was additionally accounted for, as a small experiment showed that this led to higher detection rates. For example, *Klimahysterie* was converted to *klima-?hysteri(e|ker(in(nen)?)?)*, therefore also containing *Klimahysteriker* and its feminine and plural forms. After this, the glossary contained 228 entries.

Additionally, potential other compound candidates were collected using the regular expression `klima-?[a-z]{3,}\b`. This expression matches all tokens beginning with *klima(-)* followed by three or more letters before a word-boundary. Compounds extracted by this expression and which were not already matched by one contained in the glossary were collected in a separate file. This resulted in a total of 523 additional candidates drawn from the AfD-CCC. They were manually edited to remove any that were not N-N compounds or not stance-conveying. After summarising different case- and gender-forms into single regular expressions, the 79 remaining compounds were added to the glossary. The new additions are listed in Appendix B. The

AfD-CCC is matched with the final glossary and occurrence counts for each of the 307 compounds are tallied.

4.4.2 Results

A total of 1,345 matches for the glossary are found across the AfD-CCC, with 149 unique compounds occurring at least once. By comparison, the SPD dataset contained 406 matches (30 unique compounds) and the CDU/CSU 231 (31 unique compounds). Table 4.4 lists the ten most frequent matches for each party, giving absolute counts and proportions (in brackets) relative to the number of compound matches found in total for the party. For the sake of legibility, only the compound heads are displayed–meaning the initial *Klima-* is omitted. They are given in lemma form and the generic masculine where applicable.

Results largely corroborate those reported by Schaefer et al. (2023). The AfD's compounds primarily express a sceptic or outright denialist stance toward CC, with the most frequent compounds being *Klimahysteri(e|ker)* 'climate hysteri(a|cs)' and *Klimawahn(sinn)* 'climate craze/insanity'. Schaefer et al. (2023) similarly reported these compounds as most frequent for the AfD in their Twitter dataset. In the present study, *Klimahysteri(e|ker)* makes up a quarter of all compounds found in the AfD-CCC (24%). The SPD and Union meanwhile no not use these terms very frequently[6], focusing instead on *Klimakrise* 'climate crisis' (SPD: 54%, CDU/CSU: 25%) and *klimafreundlich* 'climate-friendly' (SPD: 15%, CDU/CSU: 24%). By comparison, only 5% of the AfD's compounds refer to a crisis. Climate refugees (*Klimaflüchtlinge*) are mentioned by all three parties as 2-3% of the total compounds. The AfD calls the climate movement a 'religion' and 'ideology' (5% respectively), while comparison parties, again, do not frequently employ this rhetoric[7].

Table 4.5 gives the distributions of the five most common compounds in the AfD-CCC over the different text domains in absolute counts and weighted

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[6]The compound *Klimahysteri(e|ker)* was used 6 times by the Union and 4 times by the SPD. *Klimawahn(sinn)* was used once by the Union, and not at all by the SPD.

[7]There was a single instance of *Klimaideologie* expressed by the CDU/CSU.

AfD		SPD		CDU/CSU	
head	C (P)	head	C (P)	head	C (P)
Hyster(ie | ker) 'hysteri(a | cs)'	322 (.24)	*Krise* 'crisis'	218 (.54)	*Krise* 'crisis'	58 (.25)
Wahn(sinn) 'craze, insanity'	113 (.08)	*freundlich* 'friendly'	61 (.15)	*freundlich* 'friendly'	55 (.24)
Ideolog(ie | en) 'igeolog(y | ues)'	68 (.05)	*Diplomatie* 'diplomacy'	24 (.06)	*Probelm(atik)* 'problem'	17 (.07)
Rettung 'salvation'	67 (.05)	*Gerechtigkeit* 'equality'	14 (.03)	*Konsens* 'consensus'	14 (.06)
Krise 'crisis'	64 (.05)	*Klub* 'club'	13 (.03)	*Aktivis(t | mus)* 'activis(t | m)'	13 (.06)
Religion 'religion'	59 (.04)	*Leugn(er | ung)* 'deni(er | al)'	11 (.03)	*Kanzler* 'chancellor'	9 (.04)
Voodoo 'voodoo'	48 (.04)	*Flüchtling* 'refugee'	10 (.02)	*Leugn(er | ung)* 'deni(er | al)'	8 (.03)
Flüchtling 'refugee'	40 (.03)	*Kanzler* 'chancellor'	8 (.02)	*Flüchtling* 'refugee'	7 (.03)
Aktivis(t | mus) 'activis(t | m)'	35 (.03)	*Aktivis(t | mus)* 'activis(t | m)'	7 (.02)	*Kompetenz* 'competency'	7 (.03)
Sekte, Sektierer 'sect, sectary'	33 (.02)	*Freundlichkeit* 'friendliness'	5 (.01)	*Diplomatie* 'diplomacy'	6 (.03)

TABLE 4.4: Heads of the ten most frequent climate compounds and their translations for each party, given in counts and proportions (in brackets).

frequencies to account for the domain subset size. Weighting is done by dividing the absolute count with the number of tokens in the domain subset and multiplying by 100. The Twitter subset displays the highest density of common compounds. *Klimahysteri(e \| ker)*, *Klimawahn(sinn)*, and *Klimakrise* are most frequently found in this subset. In the EP, the AfD is found to use *Klimarettung* more frequently than in other contexts. The normalised frequencies of these compounds over time can be found in Appendix B, Figure B.1. The trend over time reflects the party's focus shifting to include the topic of CC in 2019, with all usage of compounds increasing. *Klimahysteri(e \| ker)* particularly peaks from 2019 to 2020, indicating that the AfD's reponse to a general increase in global climate action during this time was to dismiss it as hysterical. Usage has decreased as of 2021.

Domain	Hysteri(e | ker)		Wahn(sinn)		Ideolog(ie | en)		Rettung		Krise	
	C	F	C	F	C	F	C	F	C	F
BT	66	.03	16	.01	27	.01	17	.01	21	.01
EP	1	<.01	5	.01	2	<.01	24	.05	4	.01
Press	44	.05	13	.02	15	.02	6	.01	10	.01
Twitter	200	.21	65	.07	19	.02	18	.02	26	.03
Magazine	6	.04	0	0	0	0	2	.01	2	.01
Telegram	5	.01	14	.03	5	.01	0	0	1	<.01

TABLE 4.5: Absolute counts (C) and weighted frequencies (F) for the 5 most frequent compound (heads) in the AfD-CCC, given by text domain.

Overall, we find that the AfD's usage of climate-compounds largely revolves around criticising climate action and the concept of CC. Where SPD and Union focus on the climate crisis and terms like climate-friendly and climate equality, the AfD's usage of climate compounds skews more heavily toward denialist language. The party is found to focus particularly on 'hysteria' and to favour terms with religious connotations, such as 'salvation', 'religion', 'voodoo', and 'sect'.

Chapter 5

Topics

Beyond language, another dimension of interest to studying the AfD's CC-rhetoric is the types of topics the party centres their discourse around. In order to extrapolate these topics, I perform topic modelling on the corpus with BERTopic[1] (Grootendorst, 2022). This transformer-based model groups documents into topic-clusters and returns a list of representative n-grams and documents for each topic. This method has also been applied by Schaefer et al. (2023) on BT speeches and tweets for the six major parties in the BT with a similar implementation, allowing for comparison of results. This chapter first outlines the experimental set up before presenting results. The comparison to Schaefer et al. (2023) will be done in Chapter 7.

5.1 Methodology

BERTopic (Grootendorst, 2022) applies a 6-step process to extract topics and their representation. Different options are possible for each step and can be set within BERTopic itself. The following outlines the set-up with specifications for the implementation in this thesis.

1. **Embedding**: Documents must be embedded in order to be passed into the model. For this project, embedding is done using sentence-BERT (SBERT) (Reimers and Gurevych, 2019). Specifically, the multilingual model `paraphrase-multilingual-MiniLM-L12-v2` is used.

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[1]`https://maartengr.github.io/BERTopic/index.html`

2. **Dimensionality Reduction**: The dimensionality of the input embeddings may be reduced before clustering. My implementation follows the standard approach and applies Uniform Manifold Approximation and Projection (UMAP) (McInnes, Healy, and Melville, 2020) with the following parameters: number of neighbours=10, number of components=5, minimum distance=0.0, and cosine similarity as a distance metric. A random state is set to ensure reproducibility of results.

3. **Clustering**: In a third step, the embedded input documents are clustered into groups. I use the standard recommended Hierarchical Density Based Spatial Clustering of Applications with Noise (HBDSCAN) (McInnes, Healy, and Astels, 2017) with a minimum cluster size of 15 and Euclidean distance as the measuring metric.

4. **Vectoriser**: A vectorising algorithm is applied to tokenise topic representations. Again, the implementation follows the standard by BERTopic by applying the CountVectoriser. The tokenisation process may include stop-word removal, which is applied in this case. As German stop-words are not included by default, they are imported from NLTK. The n-gram range is set to 1-2.

5. **C-TF-IDF**: In order to generate topic representations, BERTopic applies a modified version of TF-IDF representation that takes clusters into account, namely c-TF-IDF. It is involves a class-specific IDF and is calculated as:

$$w_{x,c} = ||tf_{x,c}|| \times log(1 + \frac{A}{f_x})$$

where $tf_{x,c}$ is the frequency of term x in cluster c (L1-normalised), A is the average number of words in a cluster, and f_x is the frequency of term x across all clusters. This can be extended by applying bm25-weighting to the class-based IDF value, as well as taking the square-root of the L1-normalised TF value in order to reduce frequent words. Both of these options are applied in this implementation, resulting in the following calculation of c-TF-IDF:

$$w_{x,c} = \sqrt{||tf_{x,c}||} \times log(1 + \frac{A - f_x + 0.5}{f_x + 0.5})$$

6. **Representation Fine-Tuning**: Finally, topics can optionally be fine-tuned to improve representations. For this step, my implementation applies the Maximal Marginal Relevance algorithm (Carbonell and Goldstein, 1998) in order to diversify representation keywords. Diversity can be set on a range from 0-1, whereby 0 is no and 1 is maximal diversity. In this implementation it is set to 0.2.

BERTopic is initialised with this set-up. Topic model parameters are set as:

- N-gram range: `n_gram_range=(1,2)`

- Number words extracted for representations: `top_n_words=15`

- Minimum cluster size required for a topic: `min_topic_size=30`

- Number of topics: `num_topics='auto'`

Parameters were optimised through manual experimentation. The goal was to retain topic diversity and minimise the 'noise' cluster size, while avoiding small clusters of hyper-specific topics. Topic modelling is performed once on the corpus as a whole, and then on each text domain separately. When modelling on domain subsets, parameters were adjusted to improve granularity for smaller datasets. To this end, the number of components in UMAP is increased to 10, and the minimum cluster and topic sizes decreased to 10. For the Twitter dataset, which contains the most paragraphs, the minimum was set to 20.

5.2 Results

BERTopic returned a total of 26 topics for the corpus. From these, the 10 most frequent ones were manually labelled based on the topic representation terms. The resulting topics are listed in order of frequency in Table 5.1, given by name, count, and proportionality in relation to the whole corpus (in number of texts). A more detailed listing including the topic representation n-grams is given in Appendix C, Table C.1. The representation was manually edited to exclude terms differing only in case ending and some incomplete phrasings.

Topic	C	P	Topic	C	P
T1: CO_2 emissions	1138	.15	T6: finance	231	.03
T2: climate science & hysteria	428	.05	T7: energy policy	198	.03
T3: immigration	367	.05	T8: CO_2 tax	118	.02
T4: political establishment	339	.04	T9: agriculture	118	.02
T5: EU	337	.04	T10: coal	113	.01

TABLE 5.1: Labels of the 10 most frequent topics returned by BERTopic, given in absolute counts (C) and proportions of the corpus (P).

The most frequent topic (T1, n=1,138) is that of emissions, also containing general discussions about Germany's CO_2 policy and the impacts on the economy and auto-mobile industry. T2 (n=428) is largely focused around CC, climate science, hysteria, and global warming. Representative n-grams contain several climate compounds, which were discussed on Section 4.4. T3 on immigration (n=367) also includes *Klimaflüchtlinge* 'climate refugees' in its representative terms. However, representative documents are largely focused around immigration policy in general, one of the primary topics for the AfD. This will be further discussed in Section 7.1. T4 (n=339) and T5 (n=337) criticise the political establishment, primarily the CDU for T4 and the EU Commission for T5. The EU Green Deal is included in T5. T6-T8 are largely financial in nature, focusing on inflation, the climate fund, taxes, and the financial burden of Germany's energy policy on the German taxpayer. T9 (n=118) contains texts addressing agricultural policy, and T10 (n=113) is focused on coal power plants as an energy source in Germany.

In addition to the above results on the corpus as a whole, topic modelling was also applied to each text domain individually. Table 5.2 lists the top 5 topics found per text domain with their most frequent n-grams. They are given in order of frequency, with T1 being the most and T5 the least frequent. Excluding the T-1 'noise topic', 27 topics were found for the BT, 14 for the EP, 2 for press releases, and 10 for the Twitter subset. Telegram messages and *AfD Kompakt* magazine articles were too few in number for topic modelling. For BT topics, one topic around the Russia-Ukraine war was excluded.

	BT	EP	Press	Twitter
T1	*energy transition, nuclear energy, climate change*	*euro, germany, billions of euros*	*co2, germany, berlin*	*germany, energy transition, economy*
T2	*germany, green, economy*	*environmental protection, green, green deal*	*wind power plants, forests, nature*	*energy transition, tax, co2 tax*
T3	*fdp, politics, union*	*co2, cars, batteries*		*climate change, climate, climate hysteria*
T4	*greens, green deal, emissions 2030*	*europe, parliament, democratic*		*immigration, migrants, refugees*
T5	*(so-called) transport transition, trains, transport policy*	*(illegal) migrants, immigration, bangladesh*		*greens, green politics, green ideology*

TABLE 5.2: Top 5 topics for 4 of the text domain subsets of the AfD-CCC, given in top 3 representation n-grams.

As is to be expected, the topics within the different text domains remain focused around energy policy and finance, but notable differences can be observed. While the party speaks on German national policy in the BT more often, with T1 referencing the energy transition and T5 the transportation transition, the EP speeches address European climate policy (T2, Green Deal) and institutions (T4). Voter-directed media (press releases and tweets) contained more topics centred around energy sources and prices. Furthermore, Twitter's most frequent topics include 'climate hysteria', and immigration was identified as a common topic in the EP and Twitter datasets.

Curiously, the prominence of the topic of CO_2 emissions across the corpus (cf. Table 5.1) is not reflected in the subdomains. While topics containing CO_2 and emissions are found for all 4 subsets, they are not as frequent. It is unclear why this is the case. It should be noted that BERTopic does not categorise all texts into topic clusters. Some are returned as topic -1, which

represents documents which could not be clustered into separate topics. It is possible that the dominance of the topic of emissions broadly is only captured by BERTopic when viewing all documents.

The goal of topic modelling was to extrapolate the specific sub-topics the AfD focuses on in its CC-discourse. Results show that the primary focus of the discussion is placed on policy and economic topics. CO_2 emissions, the energy transition, and financial aspects of CC-mitigating policy are thematised most frequently. The science behind CC and potential counter-arguments are discussed, but not at the centre of the discourse. These results largely corroborate previous findings in both (partially manual) coding of frames in AfD texts by Sturm (2020) and Küppers (2022), and an analogous application of BERTopic by Schaefer et al. (2023). The latter will be further discussed and more specific comparisons drawn in Section 7.1. A new finding in this thesis is the topic of migration, which was not previously reported. Finally, it was found that topic distributions differ slightly between text domains. For example, topics of taxation and fuels were primarily found in the Twitter subset, while the EP subset–unsurprisingly–contained more topics focusing on EU policy.

Chapter 6

Denialism

The third and final dimension of the AfD's CC communication this thesis explores is the denialism. The focus lies here on the sources and evidence given for scientific claims made by the party, and particularly on the connections between the AfD and known climate-denialist think tanks. It has been noted that, in their expressions of CC-scepticism or denialism, the AfD focuses less on scientific arguments (Küppers, 2022). Some claims are still made however, such as the argument that an increased level of CO_2 in the atmosphere does not harm the environment or accelerate global warming, and that current scientific evidence for CC is faulty or exaggerated (cf. Section 2.4.1). These claims often reflect those made by previously mentioned think tanks. This is not surprising when taking into account the connections between the party and these institutions.

The AfD is particularly connected to the European Institute for Climate and Energy (*Europäisches Institut für Klima und Energie*, EIKE for short). Most prominently, AfD MP Michael Limburg is the vice president of EIKE, and MP Horst-Joachim Lüdecke its media spokesperson[1]. In its policy paper on climate[2], EIKE outlines its stance on CC. They state, for example, that there is no evidence for an increase in weather extremes, that man-made CO2 emissions do not play a part in naturally rising sea levels, and that global warming in the northern hemisphere has been minimal. They characterise climate

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[1] https://eike-klima-energie.eu/impressum/, accessed: 06/08/2025.
[2] https://eike-klima-energie.eu/die-mission/grundsatzpapier-klima/, accessed: 06/08/2025.

science as "politically and ideologically instrumentalised" and state:

> Ein anthropogener Klimaeinfluss des beschriebenen Ausmaßes kann in Wirklichkeit nirgendwo festgestellt werden. Wir haben es hier ganz offensichtlich mit einer maßlos übertriebenen Aussage zu tun, die von vorn herein in der Absicht des IPCC gelegen hat.[3]

EIKE itself is in turn linked to the German *Institut für Unternehmerische Freiheit* (IUF), the US-American Committee for a Constructive Tomorrow (CFACT), and Heartland Institute, all of which represent CC-denialist positions (Fiedler, 2019; Plehwe, 2023).

This chapter explores how these connections manifest in the party's CC discourse. The goal is not to extract specific claims, but a broader overview of the frequency with which the party calls back to these institutions and associated persons. Two analyses are performed to quantify this frequency: Named Entity Recognition (NER) and a review of hyperlinks found in the data. While this is only a surface-level investigation, as the particular claims made or being linked are not taken into account, it is nonetheless indicative of how frequently the party's ties to these institutions are made explicit in the discourse through explicit mentions.

6.1 Named Entity Recognition

Named Entity Recognition (NER) refers to the process of automated extraction of named entities (e.g., persons in the public eye, institutions, or locations) from text. In this section, NER is performed on the AfD-CCC to extract mentions of the think tanks listed above, as well as leading figures and known authors for EIKE in particular.

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[3]Translation: "In reality, anthropogenic influence on the climate is nowhere to be found. We are clearly dealing with an exorbitantly exaggerated statement, which has been the IPCC's intention from the very beginning."

6.1.1   Methodology

NER is performed using the spaCy pipeline `de_core_news_lg`, which is specific to German texts and contains an NER tagger. It extracts named entities and categorises them with task-typical tags, such as ORG (organisation), PER (person), or LOC (location). Entities are returned in a tuple of format ([name], [tag]). AfD texts are passed through the pipeline and the resulting NER tags filtered for the categories ORG (organisation) and PER (person) respectively. These tags are then searched for the names of the four previously mentioned CC-denialist think tanks (EIKE, CFACT, IUF, and the Heartland Institute), as well as the official EIKE authors, excluding AfD members[4]. For ORG-type entities, the full name as well as the acronym are searched. For PER-type entities, full names, with and without academic titles, as well as last names and alternative spellings (e.g., Thuss instead of Thuß) are searched. Counts are tallied for each occurrence of a name. As a safety check for the reliability of spaCy's NER tagger, a simple regular expression matching operation is performed for the same entities. Matches are verified by manual review of the text in which they were identified.

6.1.2   Results

Table 6.1 gives the absolute counts of mentions for each ORG-type entity. The spaCy NER tagger returned one instance of EIKE tagged as ORG, while the regular expression safety check returned two matches. IUF, CFACT, and the Heartland Institute were not extracted by either procedure, indicating that they were not mentioned in the corpus at all. For person-type entities, the full list is given in Appendix D, Table D.1. Only one mention of an EIKE author (Prof. Dr. Friedrich-Karl Ewert) was found both with spaCy and the safety check. Manual review confirmed that he was indeed mentioned in the context of climate science; in a tweet in 2017, Robert Farle (AfD MP at the time) wrote that Ewert had disproven the "lie of anthropogenic climate change"[5]. No other mentions of official authors were found in the corpus.

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[4]Official author names were retrieved from: `https://eike-klima-energie.eu/publikationen/`. The list of authors is given in Appendix D.

[5]Tweet ID: 940866999193866240.

ORG	spaCy	RE
Europäisches Institut für Klima und Energie (EIKE)	1	2
Institut für Unternehmerische Freiheit (IUF)	0	0
Committee for a Constructive Tomorrow (CFACT)	0	0
Heartland Institute	0	0

TABLE 6.1: Counts of ORG-type entities in the AfD-CCC, as detected by spaCy and regular expression matching (RE).

Results indicate that the ideological and social connections between the AfD and CC-denialist think tanks are not explicitly reflected in the party's CC rhetoric. Callbacks to these institutions and associated persons are rare, with only 3 instances naming these entities identified over 7,826 texts.

6.2 Hyperlinks

Moving away from explicit mentions of named entities, a second analysis is done to analyse the hyperlinks found in the Twitter and Telegram data subsets. Here, the goal is to identify the third parties the AfD references in social media posts about CC, and whether they can be tied back to known climate denialists. The focus lies here on EIKE and associated persons, as its ties to the party are most explicit.

6.2.1 Methodology

Links were retrieved using a regular expression that matches most common urls[6]. Shortened (`t.co`) links were pre-processed using the `requests`[7] library to retrieve their full form. All links were collected and stored alongside their domain and whether they were found in the Twitter or Telegram subset. Finally, links that did not lead to party-owned pages or profiles were manually analysed and annotated. The linked page's author was retrieved where possible and annotations made for whether the linked content was relevant to CC, whether the author was an official EIKE author or had published on

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[6]Allowed top level domains were: de/co/be/at/ch/com/org/gov/net/edu.
[7]https://pypi.org/project/requests/

their website (`eike_writer`), and whether the author had been cited by EIKE in the past (`cited_by_eike`).

6.2.2 Results

A total of 901 hyperlinks were extracted from the dataset. 37 stemmed from the Telegram dataset and 864 from Twitter. A majority (691) of the hyperlinks were self-promotional, leading to AfD MP tweets, blogs, official AfD websites (including the online magazine), YouTube channels, and party manifestos. Another primary category of domains were news media unaffiliated with the party. A small number of links were unavailable. Some links led to alternative online magazines and news media (primarily Tichys Einblick, NiUS, Junge Freiheit, and Apollo News). Of 173 links that were not self-promotional, only 26 were both accessible and led to CC-relevant content (2 from Telegram, 24 from Twitter). Of these, 14 had listed authors.

	# relevant links	eike_writer	cited_by_eike
Twitter	24	1	1
Telegram	2	0	0
Total	**26**	**1**	**1**

TABLE 6.2: Results of hyperlink extraction and annotation on the Twitter and Telegram subsets for topic relevant hyperlinks.

Table 6.2 displays the results of manual annotation. Telegram messages were not found to contain links to webpages whose content was authored by someone that could be tied back to EIKE. In the Twitter subset, one linked website contained content written by Stefan Millius (*weltwoche.ch*), who has been cited by EIKE to support their position, and one whose content was authored by Holger Douglas (*Tichys Einblick*), who had written a post on the EIKE website in the past.

Similarly to results on NER, the AfD is not found to link to EIKE sources, and rarely directs their audience to articles written by authors demonstrably tied to EIKE. While the party is openly connected to this think tank, with two AfD MPs in leading positions and listed as official authors, their CC discourse does not frequently call back to them explicitly.

Chapter 7

Discussion

The analyses in Chapters 4, 5, and 6 have outlined results on several dimensions of the AfD's CC discourse over a corpus containing texts from various communication channels. Results have thus far been discussed only within their respective domains, such as language or topics. This chapter presents a broader discussion, with Section 7.1 reflecting on all results and their implications for the discourse as a whole, as well as tying back to theoretical concepts and background introduced in Chapter 2. Following that, Section 7.2 outlines the limitations and difficulties of the study. Finally, Section 7.3 gives an outlook on potential future work.

7.1 The AfD's CC Discourse

Klimahysterie. This compound has come up across almost every dimension of analysis. It remains the most salient and telling representation of the AfD's stance on CC. Climate activists and anyone advocating for CC mitigating policy are branded by the party as being hysterical. Sick of mind and lost in delusion (*Klimawahn(sinn)*), these zealots of the *Klimareligion* worship the false God of climate protection and sacrifice the people's economic wellbeing for *Klimavoodoo*. Through the use of such polarising language, AfD MPs and spokespersons communicate CC-scepticism without the need to expressly refute scientific claims. The framing of the matter as ideological, politically instrumentalised (potentially with ulterior motives), and hysterical, allows for the discourse to leave the scientific sphere. This is directly intertwined with

the party's populist rhetoric (cf. Section 2.4.1), as is the case for CC-scepticism in populist parties generally (Huber, 2020). The language is inherently othering, positioning the AfD and its ideological peers as those with 'common sense' against the 'propaganda' of 'lunatics' who believe in and fear the consequences of anthropogenic CC. This manifests in topic modelling results as well; T2 'climate science & hysteria' shows the prevalence of such language even when engaging in scientific debate. An example of this can be found in one of the topic's representative documents, which contains the statement: "Alles, was die Klimahysteriker haben, sind Modelle, die weder die Zukunft noch die bereits bekannte Vergangenheit korrekt darstellen können"[1] (Karsten Hilse, 2024/04/26, sp20_23181).

Another example of rhetoric painting CC and related movements as religious or ideological in nature is the compound *Klimavoodoo*. This is a new addition to the glossary with this thesis and a term used exclusively by the AfD. This term is, in context, most frequently applied to refer to climate protective policy as harmful and ineffective. An example of this term in use is found in the following paragraph from a BT speech delivered by AfD MP Dr. Rainer Kraft[2] in 2018 (id: sp19_695):

> Der Klimakaiser ist nackt und arm, und Fledermäuse, Vögel und Bäume werden zu Tausenden auf seinem Altar des Klimavoodoo geopfert. Hören Sie auf damit, unsere Natur und unseren Wirtschaftsstandort Deutschland zu gefährden, und begeben Sie sich auf den Boden seriöser Wissenschaft! Unser Land braucht endlich wieder sachorientierte Politik und keine rot-grünen Heilsversprechungen und Erlösersekten.[3]

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[1]Translation: "All the climate hysterics have are models that are unable to correctly represent both the future and the past."

[2]In fact, Kraft is the primary user of this term, with most occurrences found in texts authored or speeches held by him.

[3]Translation: "The climate emperor is naked and poor, and bats, birds, and trees are sacrificed by the thousands upon the altar of climate-voodoo. Stop endangering our natural environment and Germany's economic position, and return to serious science! Our country needs a return to fact-oriented politics at last, and no red-green [author's note: referring to the SPD (red) and the Greens] promises of salvation and cults of redemption."

Here, the line of argument is not explicitly disputing scientific evidence, simply calling it 'unserious'. Renewable energy projects are characterised as harmful to the German economy and the natural environment. The reference to the fairy tale 'The Emperor's New Clothes' also calls back to the populist principle of 'common sense'. The 'climate emperor' is naked, i.e., there is no evidence supporting climate action, and anyone who claims otherwise is giving into a public delusion.

Previous studies have already noted that the AfD primarily raises economic concerns regarding climate action (Sturm, 2020; Küppers, 2022). In the scepticism framework by Van Rensburg (2015), this constitutes response scepticism. Present results corroborate this finding; economic topics and those related to criticism of climate and related energy policy dominate the discourse. The topic of climate science is comparatively rare (5% of documents), though it is possible that scientific claims are also found in emission topic documents. While evidence scepticism is present, it is outweighed by response sceptic discourse. Furthermore, we did not find that the party frequently cited climate denialist think tanks or their authors of pseudoscientific studies. It cannot be conclusively derived that this lack of evidence points to the party generally not citing sources for its denialism. However, it does show that the AfD rarely makes explicit references to these institutions, including EIKE, to which it has significant connections (cf. Chapter 6).

Comparing the results of topic modelling on the AfD-CCC to Schaefer et al. (2023), who presented topics for Twitter (2016-2022) and BT speeches (2013-2021) for major German political parties, there is some overlap. In their study, the topic of CO_2 emissions was also dominant in both text domains. Discussions of climate hysteria have increased in frequency, particularly on Twitter T3 in Schaefer et al. (2023), T1 in the present dataset). However, the previous co-occurrence with *socialism* is not found in this study. The German energy transition remains a common topic of discussion in both spheres, retaining its rank of T1 in the BT and moving from T5 to T1/T2 on Twitter). The topic of cars and diesel remains restricted to Twitter (T4 in Schaefer et al. (2023), not listed in the present results as it was not as common). Migration is a new addition; it was not reported as a topic by Schaefer et al. (2023), potentially

due to its prevalence in the EP subset, which was not included in their study. Overall, however, results reported here are consistent with previous work.

The matter of 'climate refugees' has not found much discussion in previous studies. Küppers (2022, p. 12) points out that the concept comes up in only a small number (2.9%) of the magazine articles she analysed and notes that the party, contrary to expectations, did not "invoke the argument that climate change is not a pressing concern compared to the 'real' threats of immigration and criminality". This proportionality is reflected in the AfD-CCC as well, where 3% of texts explicitly mention *Klimaflüchtlinge* (40 mentions total). The topic of migration is similarly detected in 5% of documents, though it cannot be stated with absolute certainty whether all of the texts in this topic cluster thematise migration as a consequence of CC in particular, especially given how frequently the party voices its anti-immigration stance.

Examples of the term's use in the corpus show that it is applied in the context of casting doubt on climate action. How could the climate be bad in Germany, when 'so-called climate refugees' are trying to enter the country? See, for example, the following statement by Maximilian Krah in the EP (2021/05/17, eu9_45385):

> Was, bitte schön, ist ein Klimaflüchtling? Es gibt derzeit keine. Alle entsprechenden Untersuchungen sind angezweifelt und stammen von linken Lobbygruppen. Es wird natürlich behauptet, es gäbe 140 Millionen Klimaflüchtlinge bis 2050. Selbst wenn dem so sein sollte: Wollen Sie die in die EU holen? Was Sie hier fordern, das sind offene Grenzen für jedermann.[4]

Results indicate that 'climate refugees' do not represent one of the party's primary issues. While its leadership has expressed criticism of legislation granting such refugees asylum (cf. Section 2.4.1) and the party is critical of the term in general, the overall focus of the CC discourse is placed more on response-sceptic topics. The frequency of the migration topic reported in

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[4]Translation: "What, pray tell, is a climate refugee? There is no such thing currently. All related studies are doubted and come from leftist lobby groups. Of course, it is said that there will be 140 million climate refugees until 2050. Even if this were the case: do you want to bring them to the EU? What you are demanding here is open borders for everyone."

topic modelling cannot be taken as evidence to the contrary; its representative documents (listed in Appendix C) did not discuss 'climate refugees' as a serious problem, but rather list immigration as one of the party's most important topics alongside climate policy. The topic is therefore likely a side effect of both the fact that it, alongside CC and the Euro, represents one of the AfD's focal topics (cf. Section 2.4.1), and imprecise topic filtering, which in these documents failed to recognise that they do not primarily thematise CC, but only mention it in passing.

Overall, results of language and emotion analyses, as well as topic modelling, are complementary. Higher rates of anger and negative sentiment in the AfD-CCC compared to the SPD and CDU/CSU do not by themselves present a stance on CC. When viewed in the context of the party's overall rhetoric and the topics it focuses on, however, they can be explained. As the AfD expresses criticism of the 'established' parties and their energy and climate policy, the discourse is inherently tilted to the negative, consisting in large parts of outrage. Of course, other parties may express outrage in turn. But the AfD's strongest line of attack is in line with its populist core; they are outraged for the common people (people-centrism) who are being deceived and financially exploited by the elites (anti-elitism) in the name of 'climate hysteria'.

7.2   Limitations

A primary contribution of this thesis is the text corpus that covers various text domains. However, the collection of data from different sources resulted in some gaps in the time periods covered by each domain. For example, the set of BT speeches spans 2017-2025, while press releases could only be retrieved for 2017-2021. The impact of these gaps is limited, however, and most domain subsets cover the time period since the party's entry into the BT in 2017 up until 2024.

Another difficulty of this study was the segmentation of texts. Paragraph segmentation was performed in order to create uniformity of text length.

This was done both by focusing only on relevant text spans from longer source documents, e.g., parliamentary speeches, and by delimiting the length to minimise variability. However, this segmentation cannot make up for the differences inherent in the publication mediums of the source texts. Twitter as a platform imposes a character limit, which leads to posts often containing shorter sentences. This can be observed when considering the ratio of sentences and tokens to paragraphs in the corpus. The BT subset comprises of 2,284 paragraphs with 15,005 sentences and 220,894 tokens, resulting in an average of 6.6 sentences and 97 tokens per paragraph. Tweets by comparison make up 3,035 paragraphs with 15,261 sentences and 93,345 tokens. The resulting averages are 5 sentences and 31 tokens per paragraph. This shows that, while text length in sentences is comparable, BT subset paragraphs on average contain more than three times as many tokens as tweets.

Omission of texts with fewer than ten tokens during corpus construction further attempted to minimise document length variability. However, this issue is inherent to the different domains and cannot entirely be addressed by segmentation techniques and minimum length restrictions. Increasing the minimum number of tokens required for a paragraph to be added to the corpus would necessarily exclude a higher amount of tweets than speeches. This would jeopardise the goal of the corpus, namely to collect texts from a variety of communication channels. Decreasing the maximum paragraph length too much would, on the other hand, result in the loss of relevant context and information presented in parliamentary and press contexts, where the limitations for text length imposed by the environment are less strict. A certain amount of variability will therefore always remain. The length discrepancies should nonetheless be taken into account when considering the amount of information that can be extracted from the texts in the corpus.

7.3 Outlook

This work has been primarily exploratory. Future work using the AfD-CCC presented here can serve to expand the corpus, both by patching "timeline holes" with more recent data where it was not possible here, and adding

texts from other communication channels. Social media posts, for example on Facebook, TikTok, and YouTube, could provide further insight into the party's voter-directed communication. Administrative and campaign documents, such as electoral manifestos, motions presented in parliaments, and speeches at party conferences, would also make valuable additions to the corpus.

In contrast with national and European climate action, the addition of speeches from the state parliaments would facilitate analysis of the discourse around local climate policy. In 2024, the AfD gained blocking minority status in the Thuringia[5] and Saxony[6] state parliaments. This allows them to block decisions requiring a two-thirds majority, which grants the party considerable influence on policy despite not being part of the governing coalitions. Local CC discourse therefore has the potential to be highly influential, and should be studied in the future as well.

When examining the language of the discourse, this work has primarily focused on the word-level and (in the case of the dictionary) short phrases. Future work could examine the discourse on a structural level instead. For example, as was suggested Section 2.3, the directionality of the emotions as classified by `pol_emo_mDeBERTa2`, particularly the targets of *anger*, would provide further insight into the differences observed between parties and how they relate to stances on CC action. Argumentation mining could also serve to extract the party's claims and premises more clearly, and in combination with the results presented here, provide a more detailed picture of the discourse. It would additionally allow for comparisons of the AfD's claims regarding CC to the positions presented by climate-denialist think tanks (e.g., EIKE, CFACT). Studies of semantic similarity between texts published by these institutions and the AfD could also inform a measure of proximity between their standpoints.

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[5] https://wahlen.thueringen.de/datenbank/wahl1/wahl.asp?wahlart=LW&wJahr=2024&zeigeErg=Land, accessed: 15/08/2025.

[6] https://wahlen.sachsen.de/landtagswahl-2024-wahlergebnisse.php, accessed: 15/08/2025.

Chapter 8

Conclusion

This thesis sought to create a comprehensive corpus of texts authored by AfD officials, surrounding the topic of CC. I have presented such a corpus in the form of the AfD-CCC, which covers the party's CC discourse in parliamentary settings, party publications, and social media contexts over the last decade. To this end, I trained a climate change text classifier, which is able to filter texts based on whether or not they address the topic of CC. Finally, I conducted multiple computational analyses on this newly created dataset in order to explore the CC discourse of this populist radical right-wing party.

Results of these analyses over several dimensions have shown that the AfD's CC discourse is primarily characterised by anger and scepticism. Emotion detection with `pol_emo_mDeBERTa2` showed that a quarter of sentences in the corpus were classified as *anger*, which is almost three times as much as in comparison party datasets. Populist language analysis further showed that the AfD frequently talks about the 'established parties' (*Altparteien*). While emotional language cannot by itself be considered indicative of a stance, it nonetheless provides an insight into the tonality of the discourse. As the party's primary criticism regarding CC is directed at climate policy implemented by governing coalitions, it could be inferred that at least a portion of this anger is directed at these parties.

I have shown that the AfD makes frequent use of compounds such as *Klimahysterie*, *Klimawahn*, and *Klimareligion*. Through employing language characterising climate activists and policy makers as 'hysterical', the party moves

away the scientific debate by undermining the credibility of climate scientists, activists, and policy makers. This underlines their argument that CC is a politicised, ideological matter removed from reality, rather than a true global concern based on scientific consensus. The dominance of terms like *Klimahysterie* corroborates previous work, particularly Küppers (2022) and Schaefer et al. (2023), who reported analogous results. Scientific topics are rarely discussed, with economic topics and energy policy making up the primary targets of discussion.

The party centres response scepticism, while also expressing evidence scepticism. Response scepticism has been found implicitly in the above mentioned rhetoric, and more explicitly in the dominance of topics such as the energy transition, emission reduction, and coal and nuclear power. Recalling that the AfD largely opposes renewable energy projects (cf. Section 2.4.1), and combined with the heavy emphasis on the cost of these projects as observed in economic and financial topics, it can be inferred that documents in these topics are critical of CC mitigating energy policy. This is in line with results by Sturm (2020) and Küppers (2022).

Evidence scepticism manifests in topic modelling results, as well as the usage of climate related compounds. The topic of climate science makes up only a small fraction of the dataset, and is represented by phrases reflective of the AfD's general CC claims: it is a natural process that has been ongoing for millions of years. While the AfD also makes use of compounds such as *Klimarettung* ('climate salvation/saving') and *Klimakrise* ('climate crisis'), they occur far less frequently than in comparison datasets. These terms may have also been used in quotation marks or with qualifiers, such as 'so-called', which was a term frequently observed over the corpus. Future work could more closely examine the contexts in which these compounds are used in order to investigate this.

The party's populist ideology particularly shines throughout its CC communication. Not only does the framing of the climate movement as 'hysterical' paint the AfD as those who see through its supposed 'delusion' and 'speak truth to power', but topics and language frequently centre the people. Due

to the diversity of the corpus, some differences could be observed regarding the communication channels texts were produced in. In parliamentary speeches, the AfD focuses on broader questions of funding and economics, citing inflation and the costs of the energy transition on the tax payer. On social media and in online publications, they prioritise matters that directly affect the voter: energy prices, CO_2 taxes, and the natural landscape. While topics differ slightly between communication channels, the overall focus on the 'people' remains. The AfD styles itself as the people's advocate, seeking to alleviate the financial burden placed on the everyday man by 'climate ideologues'.

These results have implications for future work. Emotion detection and the high rates of *anger* in particular beg the question of who or what this anger is directed at. I have argued that it is likely that the 'established parties' form the primary target. This is speculative, however, and future studies could examine the argumentation and syntactic structures behind these expressions of anger, thereby drawing more quantifiable conclusions. Furthermore, analysing the general lines of argumentation, as well as scientific claims (or lack thereof) would inform the nature of the discourse more conclusively.

In conclusion, this thesis has contributed a novel corpus of texts by Germany's strongest PRRP on the topic of climate change. The analyses presented here have already shown telling results for the party's CC discourse and substantiated findings by previous work. As the climate crisis continues, this topic is certain to remain relevant in the future. The AfD-CCC and the topic classifier will therefore be made publicly available for future expansion and refinement.

Appendix A

Additional Material: Data

Overview of the public telegram channels scraped for the purposes of AfD corpus construction: Table A.1

ID	Description	# Mssg.	# Para.
1247807423	JA Bavaria (Generation Deutschland)	978	449
1297353987	JA Germany	1,759	902
1234770005	JA Saxony	1,108	496
1341800022	JA in Baden-Wuerttemberg	1,013	496
1234638587	JA in North Rhine-Westphalia	1,365	787
1326276537	AfD in Brandenburg gov.	1,763	1,635
1665003217	AfD in the Bundestag	725	411
1498819263	AfD in Rhineland-Palatinate	1,321	794
Total		**10,032**	**5,970**

TABLE A.1: Public Telegram channels scraped to collect data, with number of messages (Mssg.) and paragraphs (Para.) (JA = Junge Alternative).

Appendix B

Additional Material: Language, Emotion & Populism

B.1   Emotion Detection

- Example sentences for each emotion: Table B.1

- Pearson Correlation Coefficients of emotions for the AfD: Figure B.2

- Pearson Correlation Coefficients of emotions for comparison parties: Figure B.3

B.2   Populist Language

- Top 15 n-grams from the Populism Dictionary found in the AfD-CCC: Table B.2

- Top 15 n-grams from the Populism Dictionary found in the SPD data: Table B.3

- Top 15 n-grams from the Populism Dictionary found in the CDU/CSU data: Table B.4

B.3 Climate Glossary

- Normalised occurrences of the 5 most frequent stance-conveying compounds in the AfD-CCC over time: Table B.1

- New climate compounds added to the glossary with this thesis:

Klimaagenda, Klimaagitprop, Klimaalleingang, Klimaaltar, Klimaangst, Klimaaskese, Klimaaugur(en)?, Klimaberufsheulsusen?, Klimaburgeoisie, Klimachaot(en)?, Klimaclan, Klimadirigismus, Klimaeifer, Klimaengel, Klimafanatismus, Klima(f|ph)antasien?, Klimafasten, Klimafegefeuer, Klimagaga, Klimagegner, Klimagekreische, Klimagottesdienste?, Klimagulag, Klimageiligen?, Klimahetze, Klimaheuchler(in(nen)?)?, Klimahohn, Klimaholocaust, Klimahorrorprognosen?, Klimahorrorszenarios?, Klimaidiot(en)?, Klimaidol, Klimainferno, Klimainquisitor(en)?, Klimaintifada, Klimairrweg, Klimajoch, Klimakaiser, Klimakalb, Klimakaspern?, Klimakatastrophen?, Klimakeule, Klimakeynesianismus, Klimaklimbim, Klimaklub, Klimaknechtschaft, Klimakriminellen?, Klimakrise, Klimakuh, Klimakults?, Klimalobbyist(en)?, Klimalockdowns?, Klimamogelpackung, Klimamythos, Klimanazis?, Klimaneurotiker, Klimaopfer, Klimaparanoia, Klimaphobien?, Klimaproblem(atik)?, Klimaprophet(e|i)n, Klimapsychose, Klimaraubzug, Klimarebellion, Klimaritter, Klimaschaman(en?|ismus), Klimaschikeria, Klimaschizophrenie, Klimasumpf, Klimaterror(is(mus|t(en)?)), Klimathron, Klimatreiber, Klimatruppe, Klimatyrannen, Klimautopien?, Klimaverbrechern? Klimavoodoo, Klimaweltmeister
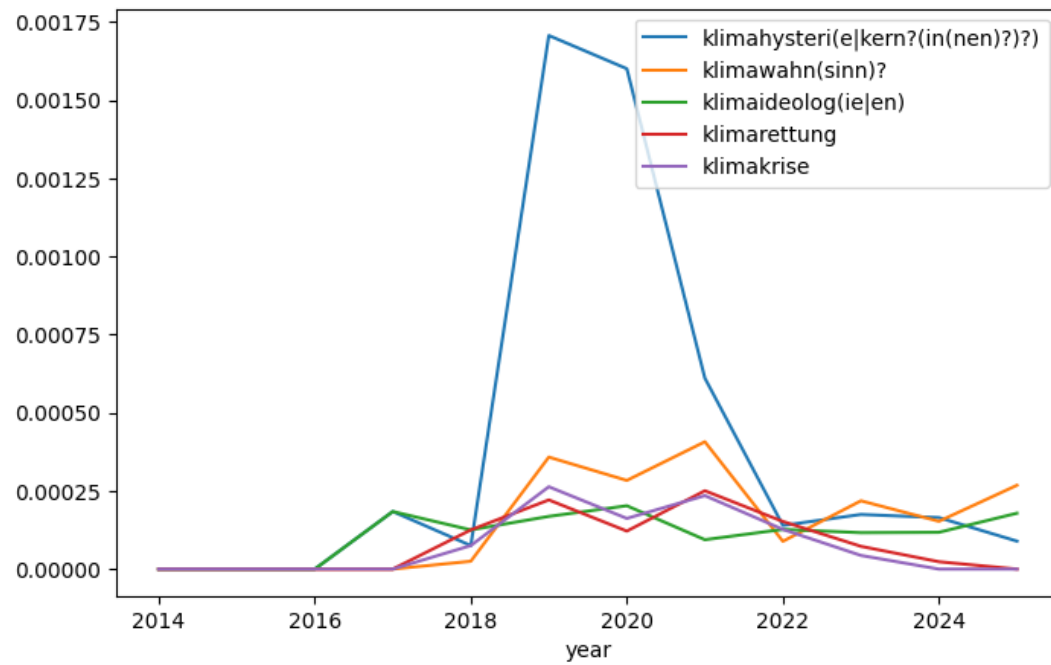
FIGURE B.1: Normalised occurrences of the 5 most frequent stance-conveying compounds in the AfD-CCC over time.

Emotion	Sentence
anger	"Das grüne Hirngespinst der sogenannten Energiewende kann niemals funktionieren."
fear	"Und mehr noch: Diese Politik ist gemeingefährlich;"
disgust	"Und wenn meine Enkelkinder mit Hühner- oder Entenküken spielen, dann erscheint der maschinelle Tod für diese kleinen, fluffigen Geschöpfe noch grausamer, geradezu unmenschlich zu sein."
sadness	"Ich schaue mir das traurige Spektakel mit einem lachenden und einem weinenden Auge an."
joy	"Und zum Glück sind immer mehr Bürger dabei."
enthusiasm	"Deswegen ist es an der Zeit, das Ruder endlich herumzureißen, und eine AfD-geführte Bundesregierung wird genau das tun."
pride	"Deutsche Verlässlichkeit, Standards und Technologie werden weltweit noch immer sehr geschätzt."
hope	"Griechenland stünde nicht unter Kuratel, sondern wäre immer noch eine souveräne Demokratie, und Europa wäre jetzt nicht in Unfrieden gespalten, sondern in Frieden vereint – das wäre mein Wunsch."

TABLE B.1: Examples of (AfD) sentences classified as the respective emotion for each emotion within the ed8.
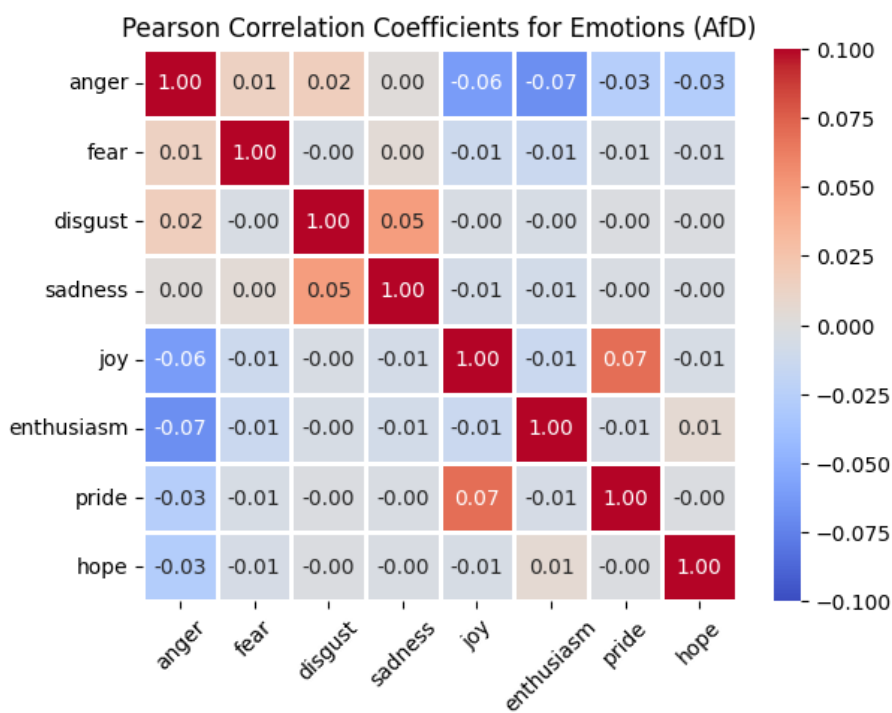
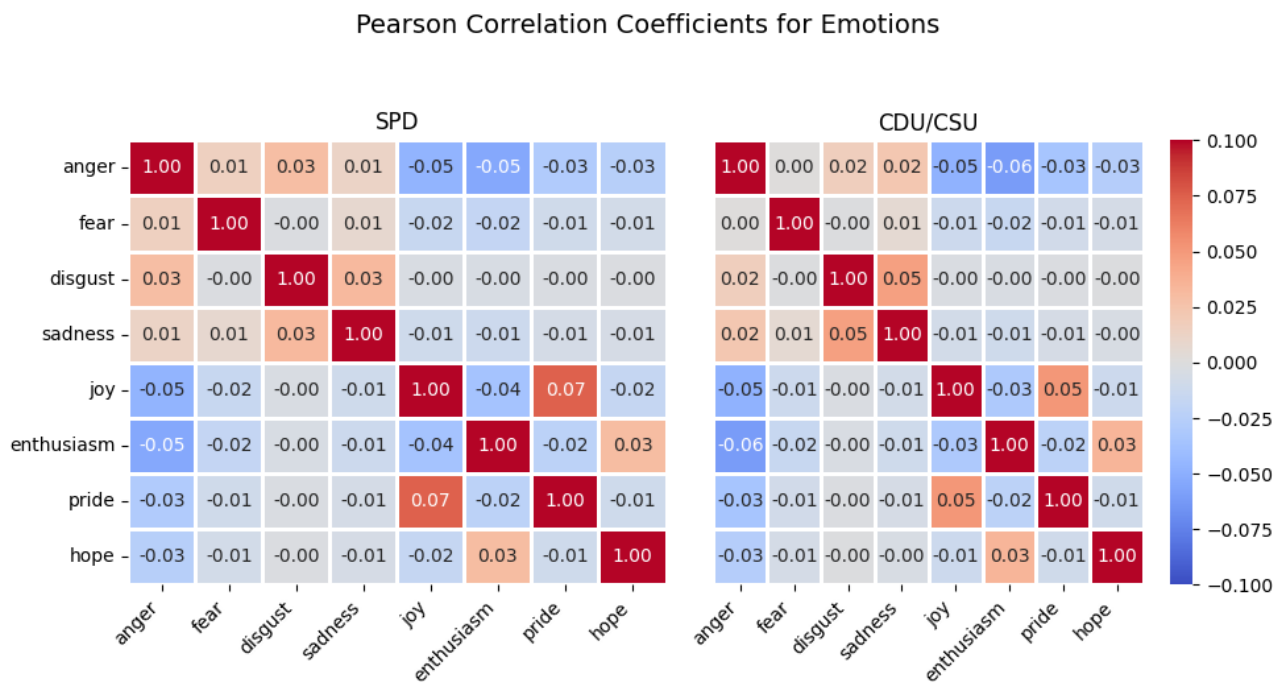FIGURE B.2: Heatmap of Pearson Correlation Coefficients for ed8 emotion classification on the AfD-CCC.

Pearson Correlation Coefficients for Emotions

FIGURE B.3: Heatmaps of Pearson Correlation Coefficients for ed8 emotion classification on the SPD (left) and CDU/CSU (right).

N-gram	Translation	Count
so(- |)?genannt(e | er | es | en | em)?	so-called	435
alt(-)?partei(en)?	established (lit. ′old′) parties	157
irrsinn	insanity	92
uns(er(e | er | en))? bürger(n | innen)?	our citizen(s)?	79
bürger(innen | in)? (.*)? (wollen | (ein)?fordern | möchten | mögen | verlangen | beanspruchen | wünschen)	citizens (want | demand | like | desire | wish for)	65
(will | (ein)?fordert | möchte | mag | verlangt | beansprucht | wünscht) (.*)? bürger(innen | in)?	(wants | demands | likes | desires | wishes for) (.*)?citizen(s)?	58
propagand(.*)	propagand(.*)	45
(wollen | (ein)?fordern | möchten | mögen | verlangen | beanspruchen | wünschen) (.*)?bürger(innen)?	(want | demand | like | desire | wish for) (.*)? citizen(s)?	44
(.*)desaster(s)?	(.*)disaster(s)?	42
bürger(innen | in)? (.*)?(will | (ein)?fordert | möchte | mag | verlangt | beansprucht | wünscht)	citizen(s)? (.*)? (wants | demands | likes | desires | wishes for)	32
dreist(e | er | es | en | em)?	audacious, brazen	31
gesunde(m | n | r)? menschenverstand(s | es)?	common sense	29
(.*)elite(n)?	(.*)elite(s)?	28
mehrheit (der | im | in der | unter den | aller)	majority of	28
realitätsfern(e | er | es | en | em)?	unrealistic, far from reality	21

TABLE B.2: Top 15 n-grams from the populism dictionary found in the AfD-CCC, given in absolute counts.

N-gram	Translation	Count
so(-|)?genannt(e|er|es|en|em)?	so-called	85
bürger(innen|in)? (.*)? (wollen|(ein)?fordern|möchten| mögen|verlangen|beanspruchen|wünschen)	citizens (want| demand|like|desire| wish for)	27
(wollen|(ein)?fordern|möchten| mögen|verlangen|beanspruchen|wünschen) (.*)?bürger(innen)?	(want|demand|like| desire|wish for) (.*)? citizen(s)?	23
mehrheit (der|im|in der|unter den|aller)	majority of	15
bürger(innen|in)? (.*)?(will|(ein)?fordert| möchte|mag|verlangt|beansprucht| wünscht)	citizen(s)? (.*)? (wants|demands| likes|desires| wishes for)	13
arroganz	arrogance	8
uns(er(e|er|en))? bürger(n|innen)?	our citizen(s)?	8
(will|(ein)?fordert|möchte|mag|verlangt| beansprucht|wünscht) (.*)? bürger(innen|in)?	(wants|demands|likes| desires|wishes for) (.*)?citizen(s)?	8
arrogant(e|er|es|en|em)?	arrogant	6
(.*)desaster(s)?	(.*)disaster(s)?	6
tradition(en)?	tradition(s)?	6
korrupt(e|er|es|en|em)?	corrupt	5
propagand(.*)	propagand(.*)	5
(will|(ein)?fordert|möchte|mag|verlangt| beansprucht|wünscht) (.*)?bevölkerung	(wants|demands|likes| desires|wishes for) (.*)?citizenry	5
zugeben	admit	5

TABLE B.3: Top 15 n-grams from the populism dictionary found in the SPD dataset, given in absolute counts.

N-gram	Translation	Count
so(-│)?genannt(e│er│es│en│em)?	so-called	106
(wollen│(ein)?fordern│möchten│ mögen│verlangen│beanspruchen│wünschen) (.*)?bürger(innen)?	(want│demand│like│ desire│wish for) (.*)? citizen(s)?	30
bürger(innen│in)? (.*)? (wollen│(ein)?fordern│möchten│ mögen│verlangen│beanspruchen│wünschen)	citizens (want│demand│ like│desire│wish for)	29
(will│(ein)?fordert│möchte│mag│verlangt│ beansprucht│wünscht) (.*)? bürger(innen│in)?	(wants│demands│likes│ desires│wishes for) (.*)?citizen(s)?	23
uns(er(e│er│en))? bürger(n│innen)?	our citizen(s)?	21
gängelung(en)?	patronising	16
mehrheit (der│im│in der│unter den│aller)	majority of	16
bürger(innen│in)? (.*)?(will│(ein)?fordert│ möchte│mag│verlangt│beansprucht│ wünscht)	citizen(s)? (.*)? (wants│demands│ likes│desires│ wishes for)	13
(.*)desaster(s)?	(.*)disaster(s)?	9
bevormunde(t│n)	patronise(d)	7
arroganz	arrogance	6
irrsinn	insanity	6
propagand(.*)	propagand(.*)	6
realitätsfern(e│er│es│en│em)?	unrealistic, far from reality	6
arrogant(e│er│es│en│em)?	arrogant	5

TABLE B.4: Top 15 n-grams from the populism dictionary found in the CDU/CSU dataset, given in absolute counts.

Appendix C

Additional Material: Topics

- Ten most frequent topics, detailed listing: Table C.1

- Representative documents for T3: immigration: Table C.2

Topic	C	P	Representation
T1: CO_2 emissions	1138	0.15	deutschland, deutsche(n), berlin, emissionen, diesel, wirtschaft, autos, co2 emissionen
T2: climate science & hysteria	428	0.05	klimawandel, klima, klimahysterie, wissenschaftler, klimaerwärmung, klimakatastrophe, hypothese, regnet, menschengemachten klimawandel, klimanotstand
T3: immigration	367	0.05	migrationspolitik, flüchtlinge, migrationswende, massenmigration, illegale migration, klimaflüchtlinge, zuwanderung, israel, migrantengewalt
T4: political establishment	339	0.04	demokratie, koalition, opposition, regierung, medien, merz cdu, altparteien, politik, politischen
T5: EU	337	0.04	europäische(n), kommission, green deal, euro, parlament, europäische(n) union, milliarden euro, steuerzahler
T6: finance	231	0.03	inflation, geld, millarden euro, mehrwertsteuer, sparen, klimafonds, energie, energie klimafonds, radwege peru, steuer
T7: energy policy	198	0.03	energiewende, energiepolitik, wind, energien, frau präsidentin, erneuerbare energien, kernenergie, energieversorgung
T8: CO_2 tax	118	0.02	steuer, co2 steuer, co2, benzin, co2 preis, co2 abgabe, co2 kompensation, neuen co2, emissionen
T9: agriculture	118	0.02	agrarpolitik, landwirte(n), deutsche landwirte, landwirtschaftliche, stephan protschka, agrarpolitische, deutschen bauern, landwirtschaftlichen familienbetriebe, agrarpolitik gap, agrarpolitische sprecher
T10: coal	113	0.01	2038, kohlekraftwerke, strukturwandel, gigawatt, china, bundesregierung, 40 milliarden, kohleverstromung, betroffenen regionen, stromversorgung

TABLE C.1: Results of topic labelling in top 10 topics, given in absolute counts (C) and proportions of the corpus (P), and representation n-grams.

domain	text_id	author	text
BT	sp20_22710	Bernd Baumann	Die jetzige Migrationspolitik der CDU in allen Bundesländern unterscheidet sich in nichts von Rot-Grün – in gar nichts! Das ist die Wahrheit, liebe CDU. Die Union hat also in der vergangenen Bundesregierung – man muss es so sagen – die Bevölkerung betrogen. Sie tut es in der Gegenwart in allen sieben Bundesländern, Herr Merz, und sie wird es auch in Zukunft tun. Sollte sie an die Regierung kommen, will sie ja nur mit SPD und Grünen regieren, also mit genau den beiden Parteien, die eingeschworene Feinde gegen jede Änderung der Migrationspolitik sind. Mit denen werden Sie nichts von dem umsetzen – und das wissen Sie –, was Sie heute fordern. Dabei gibt es doch längst breite Mehrheiten von Bürgerlich-Konservativen in Deutschland. Sofort ließen sich die Grenzen schließen. Sofort ließe sich die ganze verrückte Klimapolitik beenden. Sofort ließen sich Heizungsgesetz, Atomausstieg, Gender-Gaga, Industrieabwanderung stoppen und der ganze links-grüne Wahnsinn, aber nicht mit SPD und Grünen.
telegram		1341800022	Kundgebung in Gera: Deutsche Jugend steht zusammen! Sonntag (23.06.) - Vorplatz Kultur- und Kongresszentrum Gera - 15:00 Ein deutscher Jugendlicher wurde von einer Gruppe Migranten in Gera angegriffen. Diese Tat entsetzte deutschlandweit hunderttausende Menschen. Der Hass gegen Deutsche ist ein Problem der seit 2015 anhaltenden Migrationspolitik, die tagtäglich neue Probleme zum Vorschein bringt. Wir werden diese Zustände nicht akzeptieren und gehen gegen alle Fälle von Migrantengewalt auf die Straße.

TABLE C.2: Representative Documents for T3 returned by BERTopic for the AfD-CCC.

Appendix D

Additional Material: Denialism

- Mentions of EIKE authors in the AfD-CCC: Table D.1

- Domains of hyperlinks found in the Telegram subset: Table D.2

PER	spaCy	RE
Dr. Holger Thuß	0	0
Prof. Dr. Gisela Müller-Plath	0	0
Dr. Albrecht Glatzle	0	0
Dr. Rainer Link	0	0
Prof. Dr. Carl-Otto Weiss	0	0
Prof. Dr. Friedrich-Karl Ewert	1	1

TABLE D.1: Mentions of EIKE authors in the AfD-CCC, as detected by spaCy and regular expression matching (RE).

Domain	Count	Domain	Count
afdbundestag.de	9	generationdeutschland.de	1
sebastian-muenzenmaier.de	7	twitter.com/jurgenelsasser	1
youtu.be	3	afdkompakt.de	1
youtube.com	3	bpb.de	1
alternative-rlp.de	3	landtag.brandenburg.de	1
muenzenmaiers-magazin.de	2	twitter.com/JA_Deutschland	1
welt.de	2	chip.de	1

TABLE D.2: Domains of hyperlinks found in the Telegram subset.

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