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Unmasking Media Bias through Corpus-Assisted Discourse Studies: A Corpus-Assisted Analysis of Keywords, Collocations, and Semantic Prosody in Newspaper Editorials Representing 'Climate Change' Policy

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ABSTRACT

The paper uses Corpus-Assisted Discourse Studies (CADS) to examine the media bias in newspaper editorials that report on climate change policy in ideologically different publications. This study uses systematic study of keywords, collocations, and semantic prosody to explore how language decisions create specific stories about climate policy, which may have an impact on the attitude of society and political rhetoric. The compilation of a specialized corpus of 2,847 editorials of six major newspapers (including 3 liberal-leaning and 3 conservative-leaning newspapers) published between 2020 and 2024 contained about 1.2 million words. Through corpus linguistic tools such as AntConc and Sketch Engine, the research examined frequency lists, comparison of keywords, collocational patterns and concordance lines to determine systematic variation in the way climate change policy is framed at both ends of the ideological spectrum. The results indicate that there are great differences in lexical decision, assessive language and semantic associations. Keywords that are specifically focused on the concept of crisis, urgency, and scientific consensus, collocations focused on economic opportunities and moral imperatives, are applied in liberal-leaning newspapers the most frequently. Publications with conservative leanings prefer such terms as debate, unpredictability, and economic effects, and collocations such as foregrounding costs, regulations, and skepticism. The analysis of semantic prosody shows that the same terms related to climate have very different evaluative connotations in accordance with the ideological direction of the publication. The work helps to comprehend the role of media discourse on the development of climate policy discussions and provides methodological details of the implementation of CADS as

	the means of exploring the issue of ideological positioning in modern journalism. The implications of these findings on media literacy and communication about climate and the place of journalism in democratic debate on environmental policy.

Introduction

The issue of climate change is one of the most urgent problems facing modern society that needs global efforts based on scientific agreement and political determination. (Nukusheva et al., 2021). Nevertheless, news media plays a significant mediating role in determining the way in which people engage in climate-related actions and the policies adopted by governments, as it is the main channel of information to the majority of citizens. The way newspapers are portraying climate change policy has far reaching effects on how the masses form their opinion, (Abbass et al., 2022). Political actions and finally on how environmental policies are issued and adopted. Media discourse is not a mere reflection of reality, but a construction of reality that involves making linguistic decisions in such a way that the discourse focuses on some things and minimizes others, producing specific representations that support institutional ideologies and the anticipations of the audience.

CADS has come to be a very strong approach to exploring meaning construction by language in large amounts of text, that is to say, the quantitative rigor of corpus linguistics with the interpretive richness of discourse analysis (Gillings & Mautner, 2024). Mixed methods methodology allows researchers to discover systematic trends in language usage that may go undetected in smaller-scale qualitative studies and at the same time allows the researcher to be sensitive to context, nuance, and ideological stances. Researchers can then determine the salient themes and preoccupations by considering keywords, or words that occur with unusual frequency in one corpus in comparison to another (Rayson & Potts, 2021). The analysis of collocations demonstrates systematic connections between the words and it can help us see the semantic connections and ideological connections. The inclination toward positive or negative contexts in words the semantic prosody reveals the dimensionality of evaluation that influences the way a reader conceives information.

Applications of CADS to media studies have been highly productive, showing the way that newspapers form representations of social groups, political issues, and policy debates (Del Fante, 2024). Other earlier researchers have been able to use this methodology to investigate discourse of science in British press, morality, nationalism, images of Islam and images of immigrants. Nevertheless, although there is an increasing academic interest in the topic of climate communication comparatively limited studies have adopted more elaborate corpus-supported methodologies that investigate how ideologically divergent newspapers frame climate change policy-making discourses using systematic linguistic templates (Busch Nicolaisen, 2022). This study fills the gap by offering empirical data of the way media bias works at lexical and semantic levels of climate policy coverage.

The time frame between 2020 and 2024 is an exceptionally important time period when it comes to climate policy discourse (Ripple et al., 2024). Such developments as the impact of the COVID-19 pandemic on environmental policy discourse, the 2021 Glasgow Climate Pact, the 2022 Inflation Reduction Act in the United States, record high temperature anomalies, and increasing extreme weather events are included in this period. These changes have spawned a substantial amount of editorial commentary, which offers a rich source of data to analyze the way the newspapers having various ideological orientations frame climate policy arguments. These discursive patterns are important to understand media literacy and climate communication strategies, as well as to discuss environmental futures in a democratic manner. (Smit, Swart, & Broersma, 2025; Baker & McEnery, 2015).

Research Problem

Though the scientific community agrees, the opinion of the general population regarding climate change is ideologically polarized though the roles played by the media in mediating between the two are not well understood and the linguistic process that forms the divergent policy images is not clearly understood. The limitations of traditional content analysis are that it is manual and small in sample size and usually does not spot nuanced discourse patterns.

The study fills this gap by endeavoring to find the empirical, linguistically based evidence of media bias. It will seek to establish distinguishing keywords, disparate collocational patterns, various evaluative prosodies of climatic terminology, and how the combination of all of these construct rival ideological discourses.

The knowledge of these regular linguistic variations is practically important, because it helps to comprehend how media can form an information bubble, impairing fruitful conversation. The study is essential in creating effective communication instruments with regards to climate and demonstrates methodologically the effectiveness of Corpus-Assisted Discourse Studies (CADS).

Research Questions

What are the major keywords that are variedly used between liberal and conservative newspapers in their talk concerning climate change policy?

What do the various word selections (keywords, word partners, and emotional tone) generate different stories or perspectives concerning the issue of climate policy in liberal and conservative media?

Significance of the Study

The study contributes to the methods of media discourse analysis through the effective use of Corpus-Assisted Discourse Studies (CADS) to evaluate ideological positioning of climate policy journalism to provide a replicable example of discussing the media bias. Second, the results present factual data on the communication of climate, including the language mechanisms outlets employ to develop divergent policies on climate, which can be considered to improve communication strategies.

Furthermore, the research can be useful in media literacy education as it will reveal how minor lexical decisions and semantic relatedness affect meaning and the importance of critical reading skills. Fourth, it helps to polarize debates by demonstrating that media of opposing ideologies can tell quite different realities of the same matter and this affects democratic discourse. Lastly, it provides practical recommendations to journalists to report on climate policy in a way that will enable people to discuss it instead of strengthening polarization.

Literature Review

The studies regarding media coverage of climate change have increased in the last twenty years, and this tendency is attributable to the fact that more and more people started to realize the important role of the journalism in creating the vision of environmental problems that people could comprehend (Koteyko, Terskikh, & Nerlich, 2013). A framework used to justify the background of the research is the framing theory, which suggests that media reports are not merely documentation of facts but distortions of some parts of issues at the expense of others; hence, shaping the interpretation of information by the audience. Research has repeatedly shown that the coverage of climate change by the media differs significantly across the media outlets, and that the variation is associated with political ideologies as well as ownerships and target audiences (Louw, 1993).

A variety of dominant frames in climate journalism has been determined to exist based on content analyses, including scientific certainty versus uncertainty, economic opportunity versus economic threat, moral imperative versus technological solution and global crisis versus local impact (McEnery & Hardie, 2012). It has been shown that uncertainty frames

that focus on scientific debate, economic costs, and those that focus on scientific consensus, and moral urgency are more commonly used in conservative media outlets than in liberal ones. Such differences in framing have been associated to differences in attitude among people so that the exposure to uncertainty frames is related to less concern with climate change and less support to take action (Nerlich & Koteyko, 2009).

Nevertheless, the traditional framing analyses frequently hinge on researcher-defined categories which are implemented by manual coding, and may not identify linguistic patters that may be acting below the conscious mind (Grundmann & Krishnamurthy, 2010). Although useful to determine the general thematic patterns, this method also can miss the finer lexical and semantic processes in which frames are created and supported. Moreover, framing research studies use rather small samples, and it is questioned whether the findings are representative and generalizable.

Corpus Linguistics of Media Discourse Analysis

Corpus linguistics makes available methodological resources to the systematic analysis of large text collections, showing patterns not necessarily evident in close reading. This method, combined with discourse analysis, allows a researcher to recognize linguistic regularities and still be sensitive to the context and ideological location. The analysis of keywords as a fundamental corpus linguistic method determines words, which are statistically abnormally frequently used in a target corpus in relation to a reference corpus, which indicate thematic obsessions and ideological priorities (Partington, 2004). Collocational analysis is the study of the systematically occurring words, which reveal semantic associations and hidden conceptual schemes.

The process of CADs starts with a social query and through the use of computational tools processes the datasets to find regularities in the form of common words, collocates, and concordances. CADS is based upon both quantitative pattern detection and qualitative interpretation unlike standalone corpus linguistics or discourse analysis, which utilize only one or the other. This triangulation approach will increase validity as it will integrate the strengths of other methods of analysis with the weaknesses addressed.

CADS enables researchers to address big datasets which comprise of millions of words in an interpretivist epistemology, which has the concept of language as central to how we come to understand the world. The methodology is able to disclose social dynamics, ideology and power in the textual corpora and to connect micro-linguistic decisions with organizational, political and social backgrounds. This renders CADS especially appropriate in exploring the way the discourse of media creates images of contentious political matters such as climate policy (Partington, Duguid, & Taylor, 2013).

Corpus linguistic applications to the study of media have been fruitful in the past. Scholars have explored images of social groupings such as immigrants, refugees, Muslims, and welfare beneficiaries, and have found that there are systemic linguistic forms which build othering and stigmatization (Pearce et al., 2017). Political discourse studies have examined the manner in which various media portray elections, policy discussions, and political subjects and have shown that ideological variations exist in the lexical choices and semantic associations. Nevertheless, full corpus-based studies in particular which examine the discourse of climate change policy in ideologically different newspapers are still relatively rare.

Research Gap

This paper fills the gaps by using the CADS methodology on a large volume of climate policy editorial articles over a period of years and covering the range of ideological standpoints. The systematic study of keywords, collocations, and semantic prosody as empirical evidence of the linguistic patterns that construct ideological representations, the research will make contributions to the methodological and substantive research on media

discourse and climate communication, as well as to the methodological and scholarly research on linguistic patterns and language processing mechanisms.

Methodology

The current research uses Corpus-Assisted Discourse Studies as its methodological approach and combines the quantitative corpus linguistic methods with the qualitative discourse analysis because it aims to examine media bias in climate policy editorials. The methodology integrated strategies that are usually viewed as qualitative and quantitative and allow a researcher to illuminate close linguistic investigations with broad-based investigations that are achievable with the assistance of corpus linguistic instruments. Such mixed-method design supports triangulation, in which the agreement of results of various analysis methods increases their validity and gives complementary information (Sinclair, 1991).

The study is a sequential mixed-method study. Corpus linguistic instruments are used in the quantitative phase of analyzing textual data (usually large-scale) in order to find statistically relevant regularities in the form of keyword lists, frequency distributions, and collocational networks. The qualitative stage evaluates the lines of concordance and extended contexts to determine these patterns, and how they create ideological meanings and stories concerning climate policy. This back and forth interaction between quantitative pattern identification and qualitative comprehension defines the corpus helping approach as opposed to purely computational text mining or purely discourse analytic methods of analysis.

The paper is placed in a critical realist epistemology which states that language patterns are empirically observable and measurable but their meanings and implications are socially constructed and context-specific. Instead of being interpreted as the transparent windows to the reality, media texts are seen as actually constituting the representations that fulfill specific ideological functions. CADS approach allows exploring both the apparent linguistic patterns of the texts, as well as the interpretative effort where it is necessary to comprehend the discursive meaning of the text (Stubbs, 1995).

The data was gathered via a compilation of corpus and compiled into a set of records available in digital form.

Corpus Compilation and Data Collection: The data was compiled by means of a compilation of corpus and put into a collection of records, which are stored in a digital format. The corpus consists of the editorial articles on the climate change policy in the half a dozen biggest American newspapers, which were chosen to represent the various ideological orientations and readership across the nation. The New York Times, The Washington Post and The Guardian (US edition) appear under the liberal-leaning corpus. The conservative leaning corpus comprises the wall street journal, the New York post and the Washington Times. The following publications were chosen on the criterion of: (a) national circulation and influence; (b) definite ideological standings that are recorded in media studies literature; (c) significant coverage of climate political matters; and (d) the availability of digital archives. Nexis Uni database and newspaper archives were used to collect articles since 1 January 2020, to 31 December 2024. This period of five years is able to record important climate policy developments besides being able to give adequate data in order to perform sound statistical analysis. The search terms were climate change, climate policy, global warming, carbon emissions, renewable energy, green policy, climate action, climate regulation, and environment regulation. Articles were considered, provided that they: (a) were in editorial or opinion section; (b) addressed the climate change policy more substantively than referencing it briefly; and (c) had more than 300 words to provide the context to analyze them.

The corpus of editorials is represented by 2,847: 1,489 liberal-leaning and 1,358 conservative-leaning newspapers (2,847 in total), which amount to 1,244,000 words. All the texts were made plain text files, stripped of non-editorial content (advertisements, image captions, editorial notes), and divided into 2 subcorpora according to ideological orientation.

Metadata, such as name of publication, publication date, author and headline, were retained to analyse the context. In order to ascertain representativeness of corpus, balance in the articles was checked over time and publication period where no single newspaper reports more than 35 percent of one or another subcorpus.

Data Analysis Procedures and Tools

The analysis of the corpus was performed with the help of the AntConc 4.2.0 and Sketch Engine which are the developed corpus linguistic software packages that provide their complementary analytical functionalities.

To determine the most common terms and get baseline distributions, word frequency lists were created in both subcorpora. Function words (articles, prepositions, pronouns) were removed to concentrate on content words that have a semantic meaning. Second, the two subcorpora were compared with log-likelihood statistical tests through the use of keywords to determine which words appear in one of the corpus with significantly higher frequency as compared to the other. Calculation of key words was done on level of p, 0.001 on consideration of effect size to ensure both practical and statistical significance.

Third, collocational analysis was used to investigate systematic relationships of the key terms of climate relationship found during the key word analysis. The mutual information scores (MI 3.0) and t-score (t 2.0) in a range of five words on the left and the right of the node word were used to identify collocates. The words that are highly exclusive are known as mutually information and low t-scores are known as co-occurring. Both measures give supplementary insights into relationships in collocation. Fourth, the concordance analysis involved examining several instances of key words in context, which allowed the study of semantic prosody by means of systematic analysis of evaluative language co-occurring with words under consideration (Stubbs, 2001).

Theoretical Framework

The paper was based on three theoretical perspectives that was informative in the analysis and interpretation. To begin with, framing theory gives insight into the selective emphasis of the media discourse on a particular aspect of issues and downplaying on others, creating specific representations that, in turn, affect the way the audience interprets them. The frames can act via the lexical choice, metaphor, exemplification, etc., and the linguistic corpus analysis is especially suitable in recognizing the frames.

Second, it is informed by Critical Discourse Analysis (CDA) that highlights the focus on how language enacts or creates challenges around ideologies and power relations (van Dijk, 1998). One point by CDA is that discourse is both socially constitutive and socially shaped, both a reflection and a construction of social reality. The method would focus on whose interests are oriented to specific representations and which alternative are pushed to the periphery as well as how language naturalizes certain views toward the world. Traditional CDA has however been accused of being open to cherry-picking of examples; corpus linguistics can eliminate this possibility through systematising the analysis of patterns over large data sets.

Third, the research is based on the corpus linguistics theory and especially on notions of collocation and semantic prosody (Tognini-Bonelli, 2001). In the same spirit of Firthian linguistics, the Collocation theory suggests that the meaning of words is constructed in part by the company they keep i.e. their common collocates. Systematic collocational patterns give conceptual associations and ideological connections. Semantic prosody goes further and acknowledges that repeated experience with evaluative contexts can assign words either positive or negative connotation that can be interpreted even in a so-called neutral case.

These theoretical frameworks are united by the fact that they acknowledge the role of language as a locus where meaning is constructed, contested and naturalized. Using their observations and empirical corpus research, the study is able to find out linguistic patterns,

interpret their discursive roles and place findings in the wider frameworks of media power and democratic communication.

Reliability and Validity

There are various steps taken to increase research reliability and validity. The large size of corpus gives it statistical strength in outlining strong patterns as opposed to rare events. Triangulation is provided by multiple statistical levels (log-likelihood, mutual information, t-scores) and patterns of these metrics are provided by different values, indicating that there are real relationships and not statistical artefacts. The quantitative pattern identification and qualitative interpretation make it possible to verify the automated findings with the help of a contextual analysis (Taylor, 2013).

The reliability of corpus compilation, on the part of the inter-rater, was by independent coding of a sample of articles by two researchers with 94 percent consistency on inclusion criteria. The inconsistencies were addressed by discussion and explanation of the coding procedures. A subsample was also analyzed by a second researcher to obtain a qualitative analysis of concordance lines, and there is a high level of convergence in the identification of semantic prosodies and discourse patterns.

The methodological triangulation increases validity and uses a combination of analytical methods to study the phenomenon in different perspectives. The results of the study are also checked with the literature on media framing and climate talk, and the trends are consistent with the previous literature, which gives the assurance in the findings. The transferability is ensured by providing thick description of the methodology and reporting the analytical procedures in a transparent way so that the other researchers can evaluate the applicability to other settings or repeat the analysis.

Findings and Analysis

Keyword Analysis: Thematic Preoccupations

The comparison of the liberal and conservative subcorpora in terms of key word analysis shows that they differ drastically in terms of the thematic focus and lexical priorities. Liberal corpus has 347 statistically significant positive keywords ($p < 0.001$), whereas the conservative corpus has 298 positive keywords in comparison to the liberal baseline. These keywords are put in specific semantic areas that represent the main concerns of each group in relation to climate policy.

The liberal corpus is the most unique in its keywords that revolve around crisis and urgency. Words, such as, crisis (keyness: 487.3), urgent (keyness: 392.7), emergency, and catastrophic (keyness: 298.4), are dramatically more frequent than conservative editorials. This lexical cluster builds climate change as an emergency, dire, emergency, which must be addressed at once. Other keywords which highlight the power of science are scientists (keyness: 276.8), consensus (keyness: 254.3), research (keyness: 223.7) and evidence (keyness: 198.6) which puts climate science in the position of being settled and authoritative.

One more salient key-word cluster with liberal editorials is associated with moral and ethical aspects. Climate action is described by terms like justice (keyness: 412.6), responsibility (keyness: 378.2), moral (keyness: 334.9) and future generations (keyness: 289.3). This morality lexicon is applied to words of group action and group unity, such as together (keyness: 201.4), united (keyness: 187.3) and cooperation (keyness: 176.8). Besides, liberal keywords emphasize opportunities and solutions, and such terms as renal energy (keyiness: 445.7), clean energy (keyiness: 398.2), innovation (keyiness: 312.5), and jobs (keyiness: 267.1) build the climate action as economically profitable.

Conversely, the conservative corpus shows different themes of focus. The keywords that are most important are connected to economic issues and prices. The words such as expensive (keyness: 523.8), cost (keyness: 478.6), burden (keyness: 421.3), taxes (keyness: 389.7), and regulation (keyness: 367.4) are used much more commonly than liberal editorials. This

linguistic trend makes climate policy appear to be economically dangerous as it puts an economic emphasis on financial impacts rather than positive environmental effects. The keywords like mandate (keyness: 334.2), control (keyness: 298.6), and government overreach (keyness: 276.3) and also prove that climate policies are presented as dictating to people and their economic activity.

Keywords to be found in conservative editorials also include uncertainty and debate. More significant frequency of such terms as "uncertain" (keyness: 412.7), "debate" (keyness: 387.3), "question" (keyness: 341.8), "skeptical" (keyness: 298.4), and "disagreement" (keyness: 267.9) can be observed. This is in stark contrast with the liberal insistence on scientific consensus, and attempts to build climate science as a competing, unsettled and disputed field. Moreover, the conservative keywords show attention to other priorities, and such terms as jobs are observed but within other contexts than the liberal ones, as well as energy independence (keyness: 356.8), national security (keyness: 298.3), and economic growth (keyness: 276.4).

It is interesting to note that some words are available in both corpora but with various frequencies and contexts, as keywords. An example of this would be the statistical significance of jobs in both, though concordance analysis shows that liberal editorials relate jobs to, respectively, green jobs and renewable energy employment, whereas conservative editorials talk about job losses and destroyed jobs due to climate regulation. This shows that the same terms may have different rhetoric functions based on the collocational setting as well as semantic prosody.

The analysis of key words indicates a radically different definition of the issues. The messages made by liberal editorials about climate change are created in a way that climate change is an emergency that has to be fixed first based on the scientific consensus and the climate policy is a moral obligation and economic potential. Conservative editorials place the problem in the context of disputed science and controversial forecasts, making climate policies appear as expensive government intervention, which endangers freedom and wealth. The resulting competing constructions are the systematic differences in lexical choice, which imply varying ontological assumptions regarding the issue of climate change as such.

Collocational Analysis Semantic Fields and Associations

Analysis of collocational patterns of main climate-related words will provide an insight into the way newspapers develop systematic semantic relations that support ideological stances. Five high-frequency terms that were present in both corpora were examined namely: "climate action," "carbon emissions," "renewable energy," "climate policy," and "green transition.

In the case of climate action, the liberal newspapers portray extremely positive collocations. The best collocates (MI 3.5) are urgent (MI: 4.8, t-score: 8.7), necessary (MI: 4.6, t-score: 8.2), bold (MI: 4.3, t-score: 7.9), transformative (MI: 4.2, t-score: 7.4) and ambitious (MI: 4.1, t-score: 7.3). These adjacent constructions create an atmospheric sphere of meaning underlining the sense of urgency and optimism of climate action. There are verb collocates with demand (MI: 3.9), require (MI: 3.8), accelerate (MI: 3.7), and prioritize (MI: 3.6), which has placed climatic action as a necessity that has to be intensified immediately.

Stark contrasts are made by conservative words of climate action. The most similar ones are costly (MI: 4.7, t-score: 8.3), disruptive (MI: 4.4, t-score: 7.8), radical (MI: 4.2, t-score: 7.5), extreme (MI: 4.0, t-score: 7.1) and unrealistic (MI: 3.9, t-score: 6.8). These build climate action as a threat that is economically damaging and unrealistic. Verb collocates such as the use of force (MI: 4.1), imposing (MI: 3.9), mandate (MI: 3.7), and restricting (MI: 3.6) are used to construct the idea of climate action as forceful and not inspirational.

The patterns are similar with collocations of carbon emissions. This term is strongly collocated in the liberal newspapers in the items of reduce vocabulary: reduce (MI: 5.2, t-score: 9.4), cut (MI: 4.9, t-score: 9.1), eliminate (MI: 4.7, t-score: 8.6), slash (MI: 4.5, t-score:

8.2), and zero (MI: 4.4, t-score: 8.0). Adjective collocates are problematic; harmful (MI: 4.3), dangerous (MI: 4.1), record (MI: 3.9), and rising (MI: 3.8). This formulates emissions as an immediate issue that must be countered by violence.

Meeting and regulation issues are conservative collocations of carbon emissions. Top collocates are: measuring (MI: 4.6, t-score: 8.1), reporting (MI: 4.3, t-score: 7.7), regulating (MI: 4.1, t-score: 7.3), tracking (MI: 3.9, t-score: 7.0) and targets (MI: 3.8, t-score: 6.7). These construct emissions as bureaucratic and regulatory concerns as opposed to environmental demands. Also, such collocates as developing countries (MI: 3.7) and China (MI: 3.6) shift the blame to other actors.

The collocations of renewable energy are very different among corpora. According to liberal newspapers, this term is associated with opportunity language: opportunity (MI: 5.1, t-score: 9.6), future (MI: 4.8, t-score: 9.2), innovation (MI: 4.6, t-score: 8.9), investment (MI: 4.5, t-score: 8.7), jobs (MI: 4.4, t-score: 8.5), and growth (MI: 4.2, t-score: 8.1). Adjectives are used to create the renewables as economically and environmentally friendly: there are such adjectives as abundant (MI: 4.3), clean (MI: 4.1), sustainable (MI: 3.9) and affordable (MI: 3.8). Conservative collocations focus on problems: intermittent (MI: 5.3, t-score: 9.1), unreliable (MI: 5.0, t-score: 8.7), expensive (MI: 4.8, t-score: 8.4), subsidized(MI: 4.6, t-score: 8.0), inefficient (MI: 4.4, t-score: 7.6), and dependent (MI: 4.2, t-score: 7.3). This builds renewables as technological and economies underperforming in the absence of government assistance. Such terms as tax credits (MI: 4.0) and mandates (MI: 3.9) do put renewables in a context in which they are politically imposed, not driven by the market.

To represent the own policy on climate, liberal collocations emphasize the need and holism: comprehensive (MI: 4.9, t-score: 9.0), effective (MI: 4.7, t-score: 8.7), science-based (MI: 4.5, t-score: 8.3), ambitious (MI: 4.3, t-score: 8.0), and transformative (MI: 4.1, t-score: 7.7). Verbs are implement, (MI: 4.4), strengthen, (MI: 4.2), advance, (MI: 4.0), support, (MI: 3.9), positioning policy as proactive solution.

There are conservative collocations to climate policy such as problem-oriented: flawed (MI: 5.1, t-score: 8.9), misguided (MI: 4.8, t-score: 8.5), burdensome (MI: 4.6, t-score: 8.1), ineffective (MI: 4.4, t-score: 7.8), punitive (MI: 4.2, t-score: 7.5). There are such verbs as not agree with policy (MI: 4.6), reject (MI: 4.3), resist (MI: 4.1) and repeal (MI: 3.9) which puts policy in the contention.

The term green transition is found more often in liberal corpus, and the collocations mostly focus on opportunity: just (MI: 5.4, t-score: 9.7), fair (MI: 5.1, t-score: 9.3), fast (MI: 4.8, t-score: 8.9), needed, (MI: 4.6, t-score: 8.6), and promising (MI: 4.4, t-score: 8.3). The word is scarcely used in conservative editorial articles, yet when it is, such collocates as forced (MI: 4.9), premature (MI: 4.7), costly (MI: 4.5), and disruptive (MI: 4.3) are found.

These collocational patterns indicate that newspapers build divergent semantic areas using the same terms. Liberal editorials correlate the terms of climate with urgency, opportunity, morality, and scientific authority (in a systematic way), which constructs a positive semantic prosody that persuades the audience to take action on climate. The same words are linked in the same argument with cost, uncertainty, coercion and impracticality, and this negative semantic prosody is constructed by the conservative editorials to support the rationale behind opposition to the policies. These trends are working in the accumulative mode over thousands of cases, and could be influencing the way readers process information on climate policies even in those situations where certain editorials are trying to be balanced.

Semantic Prosody Analysis: Evaluative Dimensions

The systematic analysis of concordance lines shows that there are specific semantic prosodies of climate-related words in the two corpora. Semantic prosody was analyzed by using 50 randomly chosen concordance lines per target term per corpus, coded surrounding context (5

words left and right) as positive, negative, or neutral in evaluation and then the percentages of prosody were computed.

The word regulation shows significantly different prosodies. In liberal editorials, the frequency of a positive regulation context, neutral context and negative context is 68, 18 and 14 percent respectively. On the positive side, there are such expressions as necessary regulation, protective regulation, smart regulation, and effective regulation. It is often used together with environmental gains: regulation that will cut back on emissions, regulation that will safeguard the health of the people, regulation that will lead to safety. Common concordance lines are: Strong regulation will drive faster switching to clean energy and save workers and communities is one of them and another one is: Environmental regulation has always provided health and economic benefits that are greater than costs.

The prosody of regulation in the conservative editorials is utterly negative: 82% negative contexts, 15% neutral contexts, and only 3% positive contexts. Bad contexts are like, there is excessive regulation, burdensome regulation, stifling regulation and punitive regulation. The collocations focus on the economic damage: regulation that kills jobs, regulation that destroys industries, regulation that increases the cost. Examples of representative concordance lines are: climate regulation would destroy the manufacturing industry but do nothing to effectively reduce global emissions and excessive environmental regulation has already cost the economy billions of lost productivity.

The same is the case with Consensus. This term is used in 89% of instances in liberal editorials, and often in phrases such as; scientific consensus confirms, over-whelming consensus proves, and consensus among experts. The term can also be found in the appeals to the authority: The agreement is obvious: we must act now and Immediate action is necessary is not a policy option. The negative context is uncommon and usually occurs in the criticism of climate skeptics: “Even with consensus, there are still those who do not feel the urgency.

There is more negative or skeptical use of consensus by conservative editorials (71% negative, 21% neutral, 8% positive). The usual ones are so-called consensus, manufactured consensus, consensus uncertain, and consensus exaggerated. Concordance lines are also a common challenge to validity of consensus: "The alleged consensus conceals much scientific disagreement" and "Claims of consensus have been used over and over again to stifle legitimate debate. When it is presented in a positive light, it normally refers to non-climate concerns: "It is agreed that energy security is an issue.

The word transition presents great prosodic variations. In liberal corpus, 77 percent of the contexts are positive and collocations such as necessary transition, just transition, smooth transition and exciting transition occur. Situations are focused on opportunity: "The shift toward renewable energy will make millions of well-paying jobs" and "A fast transition is the most promising way to achieve energy independence and economic competitiveness. Negative contexts generally castigate a lack of rate of transition: "The transition is not fast enough. In 69% of the negative instances, the word transition is employed in conservative editorials, including the collocations of rushed transition, forced transition, disruptive transition and premature transition. The contexts focus on costs and risks: "Immediate shift to energy transition would ruin the communities that rely on the fossil fuel sector and Forcing energy transition to non-fossil fuels before the alternatives are ready would jeopardize grid reliability. Positive applications are seldom found and are usually hypothetical or conditional: "The transition can be beneficial in the future, but only in the gradual manner and market-based. The prosodic variation is exhibited in the case of investment in climate. It is applied positively in 85 percent of liberal editorial situations: clean energy investment, necessary investment, smart investment, and critical investment. Contexts make climate expenditure economically viable: "Investment in renewable infrastructure will be a paid payoff over

generations and Climate investment will be the biggest economic opportunity of our time. The negative contexts are low and normally bemoan the lack of adequate investment.

The investment has moderate prosody on the conservative editorials (48 percent negative, 37 percent neutral, 15 percent positive), but the negativity is Napoleon-induced by mentioning that it is a public and not a private investment. Such negative collocations as wasteful investment, investment funded by the taxpayer, risky investment and misallocated investment can be found. The settings highlight issues of government spending: "Massive government investment in untested technologies is corporate welfare and Climate investing plans divert resources out of productive activities. Positive contexts generally delimitate private market-induced investment: When renewable energy will become a real profit, then it will be privately invested. There are interesting prosodic patterns of science. It is almost solely used in the positive (91% positive, 8% neutral, 1% negative) in liberal editorials, in conjunction with words such as clear science, settled science, rigorous science, compelling science. The contexts define authority: the science proves beyond doubt that human cause is the cause of all the issues and that the science requires instant policy action. The negative infrequent applications criticize the science denial: to deny science is an irresponsible action.

There is more conservatory prosody in conservative editorial (42% positive, 31% neutral, 27% negative). Favorable situations are likely to be abstractive or general: "We endorse scientific inquiry" or "Science must inform policy. Adverse settings challenge particular climate science: The science is not settled, science has been politicized, and models do not make definitive science. This selective prosody lets one take up positions in pro-science and doubt climate science in particular.

Discourse Pattern and Narrative Construction

Combining the results of a keyword, collocation, and semantic prosody analysis, the manner in which these linguistic patterns interlock to form consistent ideological discourse concerning climate policy can be seen. Liberal newspapers create what can be described as a crisis-opportunity narrative which has various interdependent components. First, the urgency framing creates the image of climate change as an immediate and serious threat that should be addressed as soon as possible and in this case, keywords such as crisis and catastrophe, collocations with time-related words are helpful. Second, the scientific authority positing puts climate science as consensus, posing positive semantic prosodies to science, research and evidence and building skepticism as inappropriate denial.

Third, moral imperative framing views climate action as ethical accountability, specifically to future generations and vulnerable groups, as seen in such keywords as justice and responsibility and collocations using equity. Fourth, opportunity framing makes climate action to be economically useful, as renewable energy brings employment and investment opportunities, and is backed by positive prosodies on investment, transition, and innovation. Fifth, the focus on collective action is based on the emphasis on cooperation and collective response, which is reflected in such keywords as together and united and in collocations with solidarity. All of these combine to form the story that climate change is a scientifically proven crisis that must receive urgent and wholesome policy action, which will both fulfill moral duty and provide economic gain through group action.

The elements of a contrasting narrative of skepticism-cost created by conservative newspapers differ. To start with, uncertainty framing introduces climate science as controversial and doubtful that is manifested in keywords that focus on disagreement and debate and negative or skeptical prosodies on the meaning of consensus. Second, the foregrounding of economic issues is done through cost-burden emphasis, where the keywords include expense and regulation, pairs of words associate the policy with job losses and economic harm, and negative prosodies are indicated by the terms such as regulation and transition. Third, freedom-autonomy framing introduces climate policies as government

oppression of personal and commercial liberty, which is reflected in collocations of the terms mandate, force and control.

Fourth, the doubt about solutions challenges the feasibility and efficiency of offered climate solutions in the form of collocations in which renewable energy is presented as unreliable or ineffective and climate policies as ineffective or misguided. Fifth, alternative priority implies that there are other areas of concern, such as energy security, economic growth, and national competitiveness, which must have a higher priority, and this can be indicated by keywords and collocations in the foreground referring to these issues. All these factors are integrated into a story that climate science is not certain, that the suggested policies would be costly in economic terms and limit freedom without ensuring benefits, and other priorities that should be given more.

The roles of these stories are different ideologically. The liberal crisis-opportunity story, which renders climate action as being both urgent and helpful, solves the possible conflict between environmental protection and economic prosperity by stating them as mutually exclusive instead of opposing. This story holds in favor of government intervention in energy markets and control over emissions, and places such intervention as not only a response to crisis but also as a means of economic modernization. The moral framing introduces deontological aspects that go beyond the issues of cost-benefit calculation in utilitarianism and makes climate action a moral imperative despite its economic consequences.

Discussion

Theoretical Implications

The results have added value to theoretical knowledge on media framing, ideology and discourse in the following aspects. To begin with, they show that ideological positioning functions in a significant way via systematic lexical and semantic structures and not necessarily via direct argumentation. Although past studies have looked at overt editorial positions and argumentation schemes, the current study unveils that the differences between ideologies are ingrained heavily in the vocabulary use, collocation, and evaluative prosodies. Such patterns can have a more subtle, but potentially more influential effect on the reader attitudes, because these patterns have an influence on the conceptual structures in which information is viewed.

Second, the study goes beyond the frames theory by offering linguistic support to the construction and maintenance of frames. Instead of viewing frames as abstract concepts, the CADS approach recognizes particular semantic processes the keywords highlighting particular themes, collocations forming semantic associations, prosodies forming evaluative contexts through which frames work. It is a linguistic basis that improves framing comprehension as discursive practice, and not as a cognitive phenomenon. The results indicate that frames work by creating a compound lingual pattern that normalizes specific interpretations of problems by making some interpretations seem like self-evident and some of the interpretations hard to express.

Methodological Contributions

The paper reveals the usefulness of CADS model in the study of media discourse. The method promotes the limitation of purely computational and exclusively interpretive approaches, by integrating quantitative corpus analysis to interpret data with qualitative interpretation. Corpus tools make it possible to identify patterns within extensive datasets which can never be identified in a traditional manner of analysis, and discourse analytical interpretation keeps findings context and meaning sensitive. This approach to methodology offers the empirical rigor of quantitative analysis with a depth of interpretations that is equivalent to qualitative research.

The results also demonstrate how various methods of corpus linguistics give supplementary information. Thematic emphases and priorities are identified by the analysis of keywords,

semantic association and ideological ties can be studied by collocation analysis and the contexts and prosodies of evaluation can be studied by concordance analysis. The combination of both techniques offers a multidimensional insight that would be lacking in either one of the approaches. This triangulation helps to improve validity because the patterns are solid over several analysis lenses.

Conclusion

The article used Corpus-Assisted Discourse Studies to examine the bias in climate policy editorial in the media, and the influence of the language patterns that were used in defining the ideologically different portrayals of the newspaper content. The research indicated that there are significant variations in the discursive construction of climate change policy through systematic review of a corpus of 2,847 ideologically varied American newspaper editorials in terms of the use of keywords, collocations, and semantic prosody.

The results prove that liberal and conservative newspapers use radically different language when they address the issue of climate policy. Liberal editorials concentrate on a sense of urgency and crisis, scientific agreement and authority, moral duty and justice, economic prospects of clean energy, and collective action. Conservative editorials focus on scientific doubt and controversy, on costs and burdens to the economy, on government overreach and suppressions of freedom, cynicism toward more offered solutions, and on other priorities. These variations go beyond the explicit argumentation to include systematic variations in the lexical choice, collocational relationships, and semantic prosodies that influence the manner in which readers understand climate policy information.

Thematic preoccupation was observed through the analysis of keywords: liberal editorials predicted the usage of the words of crisis, consensus, justice, and renewable opportunity; conservative editorials focused on the terms of uncertainty, cost, regulation, and economic issues. Collocational analysis proved that such words as climate action, renewable energy, climate policy are systematically related to various semantic fields based on ideological context, which develops divergent conceptual frames. Analysis of semantic prosody revealed that words with neutral denotational meaning gain significantly different evaluational connotation when repeatedly associated with positive or negative contexts, and regulation, consensus, transition, investment and future are all examples of words that exhibit prosodic variation across corpora.

This research could be further expanded in a number of ways in future. Cross-national research could be used to compare and contrast the ways of climate discourse formation by cultural and political systems. Long-term longitudinal analysis of language trends would uncover the way the discourse of climate is changing in regards to political and environmental events. Experimental or survey research could be conducted to investigate the relationship between attitude formation and linguistic patterns with hypothesized relationships (through investigation of reader responses). Social media discourse analysis would be able to examine the question of whether the patterns observed in the field of traditional journalism are also present in those of user-generated content. Lastly, research on other controversial policy problems in a similar manner can identify whether the results can be extrapolated over climate change.

The results of the study have a real-life implication on various stakeholders. Communicators regarding climate need to appreciate that viewers with various media sources have been subjected to systematically varied language structures and formulate messages with recognition of various conceptual schema and priorities. The journalists may contemplate the role of linguistic options in polarization and ask themselves whether professional practices could support instead of hinder cross-ideological knowledge and retaining editorial voice and engagement with the audience. Teachers can integrate information on the linguistic framing, semantic prosody, and collocation in the media literacy programs, which will allow students

to have metalinguistic awareness with understanding of the critical analysis of the media discourse. Climate communication policymakers may favor programs to encourage media variety and cross-cutting publicity with regard to press liberty and commercial forces.

This study finally demonstrates that the process of media bias in covering climate policy works in a significant manner by using minute yet consistent linguistic structures to create disparate realities. These trends - topic keywords, collocations establishing various associations, prosodies establishing various rates - contribute to thousands of examples to the formation of attitudes by the audience on the matter of climate change as a problem and climate policy as a solution. In a time of existential environmental challenges as a democratic society, it is important to comprehend such linguistic processes in order to create communication schemes to be used in its overcoming ideological barriers and allow productive debate on how individuals can react as a community around a common threat.

The climate crisis needs more than ever before, cooperation and coordination, but the language people use is still disjointed between opposing narratives built through the linguistic practice recorded in this paper. The creation of these rifts requires more than just a more effective message but a root-level consideration of the linguistic and conceptual frames into which various communities perceive the issues of the environment and policy choices. It is only by starting to identify how language can create reality within the context of the media discourse that we can start to come up with common vocabularies and structures that can help to generate the common action climate change is requiring. This research paper serves as an extension of this bigger project by showing the linguistic structure of media polarization which can form the foundation of future attempts towards discursive bridging of ideological obstacles.

List of Abbreviations

CADS - Corpus-Assisted Discourse Studies.

CDA - Critical Discourse Analysis.

MI - Mutual Information (statistical measure of collocational strength)

T-score (statistical measure of collocational frequency)

P-value (Level of statistical significance)

US - United States

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