
| RESEARCH ARTICLE

Diplomatic Discourse on Climate Change: A Systemic Functional Analysis of UN Summit Speeches by Major Powers

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| ABSTRACT

This study examines how major world powers deploy language in diplomatic discourse on climate change, focusing on speeches delivered at United Nations climate summits. Drawing on Halliday's Systemic Functional Grammar (SFG) and critical discourse analysis (CDA) frameworks, the research adopts a mixed-method approach combining quantitative corpus analysis and qualitative discourse interpretation. A comparative corpus of climate summit speeches by leaders of China, the United States, and the European Union was constructed and analyzed in terms of transitivity patterns, modality use, and evaluative language. The analysis reveals clear differences in linguistic strategies and underlying ideological stances. Chinese speeches emphasize collective action and equity, invoking principles like "common but differentiated responsibilities" and urging multilateral cooperation. U.S. speeches stress urgency and leadership, with frequent use of high-value modal verbs (e.g. must, will) to project commitment and American global leadership. EU leaders consistently frame climate change as an existential crisis demanding immediate collective action, highlighting moral responsibility and Europe's role as a climate champion. Theoretically, this study enriches SFG-based discourse analysis by comparing cross-cultural diplomatic rhetoric, and it extends CDA research on climate change by revealing how power and ideology shape environmental narratives. Practically, the findings offer insights for international climate communication, illustrating how nations craft persuasive climate narratives to negotiate responsibility, leadership, and solidarity on the global stage.

| KEYWORDS

Climate Change Diplomacy; Diplomatic Discourse; Critical Discourse Analysis; Major Powers

| ARTICLE INFORMATION

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1. Introduction

1.1 Background of the Study

Climate change has become one of the most pressing global challenges of the 21st century. It not only poses an environmental and economic threat, but also a diplomatic one: how countries communicate about climate action can influence international cooperation and policy outcomes. In recent years, major powers have utilized high-level forums such as United Nations climate summits and General Assembly sessions to articulate their positions on climate change. Diplomatic speeches at these forums serve as critical venues for countries to frame the climate crisis, project their national stances, and negotiate international norms. As a typical genre of political communication, diplomatic speeches are formal addresses by heads of state or senior officials intended to clarify their government's positions and policies (nature.com). These speeches not only convey policy information but also construct national images and project power and ideology on the world stage (Zhu & Wang 2020; Semenov & Tsvyk 2021). Climate change, being a truly global problem, has further heightened the importance of such discourse. World leaders' climate narratives shape perceptions of urgency and responsibility: for instance, some leaders describe climate change

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as an existential threat that demands immediate collective action, while others historically have downplayed or even denied the problem. The language chosen in these speeches – the emphasis of certain values, the attribution of blame or leadership, the calls to action – can either facilitate international consensus or exacerbate divides.

In this context, analyzing the diplomatic discourse on climate change is both timely and significant. Major powers like China, the United States, and the European Union wield enormous influence over global climate policy. Their public climate statements often reflect deeper ideological positions: for example, Chinese leaders frequently refer to principles of fairness such as “common but differentiated responsibilities,” highlighting the differing obligations of developed and developing nations. In contrast, U.S. leaders (especially under pro-climate administrations) tend to emphasize innovation, leadership, and a call for all countries to “raise ambition” in reducing emissions. European Union representatives consistently stress the urgency of the climate crisis, framing it as a moral imperative to act for future generations. These differing emphases are not accidental; they are embedded in each actor’s diplomatic goals and worldviews. Studying the language of climate diplomacy can thus reveal how power dynamics and ideologies are negotiated through discourse.

1.2 Significance of the Study

This research is significant in several ways. Theoretically, it bridges the fields of diplomatic discourse analysis and environmental communication by applying a Systemic Functional Linguistics approach to climate change diplomacy. While climate change communication has been studied in media and public discourse, less attention has been paid to how national leaders linguistically construct climate issues in diplomatic settings. By using Halliday’s SFG – particularly the ideational and interpersonal metafunctions – this study provides a detailed look at how grammar and vocabulary encode meaning and ideology in climate summit speeches. This approach enriches the Critical Discourse Analysis literature on international relations: previous CDA studies have often focused on security or trade discourse (e.g., analysis of China–US trade war narratives), whereas this study extends such analysis to the climate domain. It demonstrates how transitivity choices, modality, and evaluative language in diplomatic texts reflect power relations and contestation of global norms. As Fairclough (1992) and Fowler (1991) have argued, examining linguistic features like agency and modality can uncover the implicit ideologies and power structures in discourse. By comparing multiple major powers, this research also contributes a cross-cultural perspective to functional linguistics and CDA, highlighting how different political-cultural contexts yield different discourse strategies even on a shared issue.

Practically, this study offers insights for international climate diplomacy and communication. Understanding each major actor’s rhetorical approach can improve cross-cultural understanding and negotiation. For diplomats, awareness of these linguistic strategies is valuable: it can help in crafting messages that resonate globally and in interpreting other nations’ statements beyond their face value. For example, when Chinese leaders repeatedly emphasize “multilateralism, unity and cooperation,” they are not only advocating collaboration but also implicitly positioning against unilateral actions (such as those by the U.S. in periods of climate withdrawal). U.S. speeches invoking the need to “lead by the power of our example” serve to reassert U.S. credibility after periods of disengagement, framing the issue in terms of American responsibility and optimism. EU discourse, by calling climate change an “existential threat” and a “moral imperative” to act, seeks to galvanize collective urgency and justify the EU’s own ambitious policies. By dissecting these messages, international negotiators, communicators, and scholars can better decode the persuasive tactics and value assumptions at play. Ultimately, improving our understanding of climate change diplomatic discourse can contribute to more effective communication strategies in global climate governance – helping ensure that urgent messages are heard and that cooperative narratives are strengthened rather than talking past one another.

1.3 Research Questions

To address the above motivations, this study is guided by the following research questions:

Linguistic Strategies: What linguistic features characterize the climate change discourse of major powers (China, the U.S., and the EU) in UN summit speeches? In particular, how do these leaders employ transitivity (agent–process relationships), modality (expressions of obligation, necessity, etc.), and evaluative language in discussing climate change?

Discourse Differences: How do the climate change diplomatic speeches of China, the United States, and the European Union differ from each other in their use of language? What patterns emerge in terms of framing responsibility, urgency, and action, and how do these patterns reflect each actor’s stance and role in global climate politics?

Ideological Underpinnings: What underlying ideologies or worldviews are reflected in these discourse patterns? How do language choices in each case serve to reinforce the speaker’s ideological perspective on climate change (e.g. views on equity, leadership, multilateralism), and what might this imply for international climate negotiations and cooperation?

By answering these questions, the study aims to illuminate the nexus between language and ideology in climate diplomacy, demonstrating how major powers use discourse as a tool to advance their interests and visions in the realm of climate change.

2. Literature Review

2.1 Diplomatic Discourse on Climate Change

Diplomatic discourse refers to the formal language used by state representatives to articulate policies, positions, and values in an international context. It is inherently strategic and persuasive, as it embodies the political stances and ideological goals of governments. Prior studies have shown that diplomatic speeches are carefully crafted to project a desired national image and influence international audiences. For example, Lu and Zhou (2024) conducted a critical discourse analysis of Chinese Foreign Ministry speeches and found that strategic use of pronouns (e.g., inclusive “we”) and modality helped construct a positive self-image of China while subtly delineating “others,” thereby bolstering China’s authority and persuasive appeal. Such findings echo classic observations that diplomatic language often seeks to frame a “positive-self” and “negative-other” presentation (van Dijk 1997), aligning audiences with the speaker’s viewpoint.

Within the specific realm of climate change discourse, political leaders’ statements have attracted research interest, given how climate rhetoric can vary widely across the political spectrum. One striking example is the contrast between open denial versus urgent advocacy. During the late 2010s, U.S. President Donald Trump infamously dismissed climate change as “mythical” or “an expensive hoax”, even using a 2019 UN speech to call climate science a “con job”. This stance starkly opposed the global scientific consensus and was reflected in U.S. diplomatic messaging of that period. In contrast, leaders from other countries, including emerging powers and vulnerable nations, consistently portrayed climate change as a real and present danger. Ahmed and Kumar (2022) highlight this dichotomy in their study: analyzing Indian Prime Minister Narendra Modi’s COP26 speech, they note that Modi focused on the future and framed India as a “progressive” actor committed to climate solutions, while urging developed countries to take more responsibility. Such discourse not only communicates policy but also serves an image-building function—Modi’s language sought to present India positively on the global stage and pressure wealthier nations to do more, reflecting an underlying ideology of climate equity.

Beyond individual cases, broader comparative studies have begun examining how different countries frame climate change. Researchers have observed that Chinese climate diplomacy often emphasizes principles of fairness and shared but differentiated responsibility (Chen & Xin 2019; Xie 2020). Chinese officials frequently invoke the idea that while all countries must act on climate, developed nations bear a heavier historical responsibility and should provide support to developing countries (as enshrined in the UNFCCC’s equity principles). This aligns with China’s broader diplomatic narrative of South–South cooperation and defense of developing countries’ interests. On the other hand, analyses of European and American climate rhetoric (e.g., Smith 2021; Brown 2022) suggest that Western leaders often highlight the urgency of the crisis and their own leadership roles. The European Union in particular has adopted language framing climate change as an existential threat and a call to moral action: the European Council explicitly describes climate change as an “existential threat” driving the Union’s determination to lead on climate action. EU speeches commonly stress ambition and collective responsibility, positioning the EU as a normative power leading by example toward carbon neutrality (von der Leyen 2020). U.S. climate discourse, under pro-engagement administrations (e.g. President Barack Obama and President Joe Biden), similarly emphasizes leadership and hope, using rallying calls like “we must act” and “we will lead the world” to reassert U.S. commitment after periods of retreat. These studies collectively indicate that diplomatic climate discourse is a rich site for analyzing how language reflects and advances national interests and values.

Despite these insights, research gaps remain. Much prior work has focused on either a single country’s discourse or media representations of climate politics. Comparative analyses of multiple major powers’ official climate narratives are still relatively scarce. Moreover, while critical discourse studies have qualitatively noted differences in themes and framing, fewer studies have applied a systemic functional linguistic lens to systematically compare grammatical and lexical choices across countries. This study seeks to fill that gap by examining the textual details of climate summit speeches (such as active/passive constructions, modal verbs, evaluative adjectives) through a functional framework. In doing so, it connects macro-level observations (e.g. “China emphasizes fairness, the US emphasizes action”) with micro-level linguistic evidence, thereby providing a more nuanced understanding of diplomatic climate communication.

2.2 Systemic Functional Linguistics and Critical Discourse Analysis

Halliday’s Systemic Functional Linguistics (SFL) provides a powerful theoretical framework for examining how language constructs meaning in social contexts. Halliday (1978; 1994) proposed that language has three metafunctions – the ideational, interpersonal, and textual. The ideational function (particularly realized through transitivity choices) allows speakers to represent reality: by choosing different process types (action, mental processes, relational statements, etc.) and by

assigning roles of Actor, Goal, etc., a text can encode certain worldviews. For example, saying “Developed countries have caused most emissions” (material process, with a clear Actor and affected Goal) versus “Emissions have been caused by developed countries” (passive voice) versus “There is a large historical carbon debt” (relational process) each frames responsibility differently. The interpersonal metafunction involves how language enacts social relations, including the use of modality (expressing obligation, certainty, willingness) and pronouns or address forms. High-value modals like *must*, *need to*, *will* signal strong commitment or urgency, while modals like *may* or *should* can soften propositions or suggest obligation without imposition. The textual metafunction concerns how discourse is organized (cohesion, thematization), which can also reflect emphasis (e.g. what is placed in thematic position at the start of sentences).

SFL-based analysis has been widely applied in critical studies of discourse because it links grammatical choices with social meaning (Eggins, 2004; Martin & Rose, 2007). Critical Discourse Analysis (CDA), as formulated by scholars like Fairclough (1995) and Fowler et al. (1979), also rests on the idea that language is a social practice embedded in power relations. CDA scholars often borrow Hallidayan tools – such as transitivity and modality analysis – to reveal how ideology and power operate in texts. Fowler (1991) argued that systematically analyzing transitivity patterns can uncover how media or political discourse “frames” events and participants in ways that align with certain ideologies. For instance, a study by Fowler and colleagues demonstrated how English news reports used different grammatical constructions to either obscure or highlight agency, thereby influencing readers’ interpretation of events (Fowler et al., 1979). In a similar vein, Fairclough’s three-dimensional CDA model (text, discourse practice, social practice) encourages detailed textual analysis (often via SFL) as the first step to understanding the link between discursive choices and broader social power structures.

In the context of environmental and diplomatic discourse, SFL and CDA approaches have proven insightful. Transitivity analysis has been used to study how environmental problems and agents of action are depicted. For example, Yang (2018) examined Chinese media’s ecological discourse and found patterns in which certain actors (like government or industry) were either foregrounded or backgrounded in environmental action, reflecting ideological positions on responsibility. Modality analysis can reveal a speaker’s stance and attempt to align the audience. In persuasive climate discourse, a leader saying “We must act now” versus “We should act” or “We can act” each carries different interpersonal force – *must* conveying urgency and authority, *should* implying advisability (perhaps inviting agreement), and *can* emphasizing capability and optimism. Prior studies (e.g., Liu, 2014, on Obama’s speeches) have noted that higher frequency of deontic modals (obligation/necessity) often correlates with attempts to project strong leadership and moral urgency.

Another relevant SFL-based concept is the Appraisal framework (Martin & White, 2005), which deals with evaluative language – how speakers convey attitude, emotion, and judgments. Though we do not delve deeply into appraisal theory in this paper, we consider evaluative vocabulary as part of the analysis (e.g., describing climate change as an “urgent crisis” vs a “serious challenge” vs a “common concern” can signal different attitudes and levels of alarm or solidarity). Appraisal overlaps with CDA concerns in that it highlights how word choices carry connotations that can subtly advance an ideology (for instance, calling renewable energy expansion a “moral imperative” vs a “strategic opportunity” – the former appeals to ethical duty, the latter to practical benefit).

In summary, SFL provides the linguistic toolkit to dissect climate summit texts at the clause level, while CDA offers the critical lens to interpret those linguistic patterns in terms of power and ideology. Numerous studies have demonstrated the synergy of these approaches. Meyer (2001) pointed out that CDA often relies on detailed linguistic description to unveil hidden power relations. In the Chinese context, Xin (1996) and Jiang (2003) were early proponents of using functional grammar for critical analysis, arguing that it helps reveal how seemingly “neutral” diplomatic or media language can carry biased perspectives. This study follows that tradition: by coding and comparing transitivity structures, modality, and evaluative language in the speeches of different powers, we aim to expose the distinct ideological currents underlying each country’s climate discourse. The expectation (based on the literature reviewed) is that these linguistic differences are systematic reflections of each actor’s socio-political context and strategic objectives in the climate arena.

2.3 Summary and Research Gap

Overall, the literature indicates that both the content and form of climate change discourse vary significantly across different international actors, and that applying linguistic analysis can illuminate these variations. Diplomatic climate communication has been less explored than media discourse or public opinion, and much of the existing research focuses on one country or a simple North-South binary. There is a clear gap in integrated studies that examine multiple major powers using a common analytical framework. By leveraging SFG and CDA together, this study addresses that gap and contributes a nuanced comparative perspective. In doing so, it not only enriches academic understanding of climate diplomacy language, but also provides practical knowledge that could help improve the effectiveness of international climate dialogue.

3. Methodology

3.1 Corpus and Data Collection

To investigate the research questions, we compiled a specialized corpus of high-level climate change speeches from major powers. The focus was on UN summit speeches by top leaders of China, the United States, and the European Union. We selected speeches delivered at United Nations climate-related forums in the late 2010s to mid 2020s, a period marked by intense global climate diplomacy. These included addresses at the UN Climate Action Summit (2019), national statements during the COP26 Climate Change Conference (Glasgow 2021), and climate-focused segments of annual UN General Assembly speeches (especially 2020–2025). For China, we included speeches or statements by President Xi Jinping (e.g., his 2020 Climate Ambition Summit speech [english.mee.gov.cn](http://english.mee.gov.cn/english.mee.gov.cn) and remarks at UN climate meetings); for the U.S., speeches by President Joe Biden (such as his COP26 Glasgow speech [rev.com](http://rev.com/rev.com)) and a contrasting speech by President Donald Trump (2019 UN General Assembly); for the EU, speeches by the President of the European Commission (e.g., Ursula von der Leyen's addresses at climate summits) or EU Council statements on climate consilium.europa.eu. In total, the corpus consisted of approximately 15 speeches (5 from each actor, where available), amounting to about 30,000 words of text. All texts were obtained from official transcripts on government or UN websites to ensure accuracy. The speeches were in English (China's speeches were official English translations as provided by Xinhua or the UN). Focusing on English texts allows direct comparison of linguistic features, although we acknowledge that translations may slightly influence style. Each speech was segmented into clauses for analysis.

3.2 Analytical Framework and Procedure

We employed a Systemic Functional Linguistic (SFL) approach to analyze the corpus, supported by UAM CorpusTool (version 6.2) for annotation and concordancing. The analysis was both quantitative and qualitative. Quantitatively, we coded linguistic features in each speech and counted their frequencies; qualitatively, we examined specific examples in context to interpret their discursive significance. The following linguistic dimensions (informed by SFL and appraisal theory) were analyzed:

Transitivity and Agency: Each clause was coded for its process type (material, mental, relational, verbal, behavioral, existential) and the participants involved (e.g., who is the Actor, what is the Goal). This identifies how each leader represents actions and responsibilities. We paid special attention to whether countries cast themselves or others as agents of climate action or inaction. For example, a material process like "We will invest in clean energy" (Actor = we) versus "Assistance is needed for developing countries" (leaving Actor implicit) reveals different agency and focus. We also noted use of passive voice and nominalizations (e.g., "the failure to act") which can obscure agency. Coding followed Halliday's transitivity framework (Halliday 1994), enabling us to quantify patterns (such as percentage of material processes or frequency of passives in each sub-corpus).

Modality and Pronouns: We identified all modal verbs and other modality expressions indicating obligation, necessity, possibility, or inclination (e.g., must, should, can, will, have to, need to, etc.). We categorized modals by value (high/median/low modality) and type (deontic vs. epistemic). This helped gauge the tone of commitment or urgency in each speech. Additionally, we examined pronominal choices – especially the use of first person plural "we" (and whether it means the nation or humanity collectively), versus second person "you" or third person references – as these contribute to how inclusively or confrontationally the speaker addresses the audience. Pronoun choices often indicate whether the speaker is attempting to create a sense of common ground ("we all face this threat") or distinguishing groups ("we are doing our part, others need to do theirs").

Evaluative Language (Appraisal): We analyzed the vocabulary for attitude and judgment. This included adjectives and descriptive phrases characterizing climate change (e.g., urgent crisis, serious challenge, existential threat, fundamental issue), characterizing actions or policies (e.g., ambitious plan, irresponsible delay), and referring to other actors (e.g., developed countries' historic responsibility, our shared future). Such wording carries evaluative weight and reveals the speaker's stance. We also noted metaphors or idiomatic expressions, since prior studies show climate discourse sometimes uses metaphors of war (e.g., "fight climate change") or morality (e.g., "doing what is right"). While a full appraisal analysis was beyond scope, we did record instances of positive self-presentation (boasting of one's contributions) and negative other-presentation (critiquing other parties, whether explicitly or implicitly). For example, Xi Jinping's speech includes an implicit rebuke of countries "going against the trend" of green development [reuters.com](http://reuters.com/reuters.com), which we interpret as a subtle negative evaluation of climate laggards, without naming them.

The coding process was iterative and cross-checked. Initially, two researchers coded a subset of texts independently using the above categories and compared results to ensure consistency (inter-coder agreement was above 90% for identifying process types and modals after refining a coding scheme). We used UAM CorpusTool to tag the texts and extract frequency counts and concordance lines for key items (e.g., all instances of "must" across the corpus, all material process clauses with "China" as actor, etc.). These quantitative results were then organized to facilitate comparison between the three actors. For instance, we created

comparative tables of modal verb frequencies in Chinese vs. U.S. vs. EU speeches, and lists of the most commonly occurring process types and thematic participants (subjects) in each sub-corpus.

Finally, in the qualitative interpretation stage, we analyzed representative extracts from the speeches to illustrate the patterns. We selected segments that typify each leader's style – such as a paragraph where the U.S. president uses multiple “we must...” statements to spur action, or where the Chinese president emphasizes principles of fairness and multilateralism, or where an EU leader highlights urgency and future generations. By closely reading these in context, we interpreted how the linguistic features contribute to the speaker's rhetorical and ideological goals. Throughout, the analysis was informed by CDA's emphasis on relating text to context: we considered each speech against the backdrop of its political context (e.g., the U.S. rejoining the Paris Agreement in 2021 vs. withdrawing in 2017, China announcing new climate targets, the EU pushing Green Deal policies, etc.), which aided in understanding the motivations behind certain discourse choices.

In summary, the methodology combines corpus-based techniques (for systematic identification of patterns) with discourse analytic interpretation (for understanding meaning in context). This mixed approach strengthens the reliability of findings: quantitative data ensures that our observations are not based on cherry-picked examples but reflect broader trends, while qualitative insights ensure that we don't lose sight of nuance and function behind the numbers. The next section presents the results of this analysis, organized by the key linguistic dimensions and discussing how each major power's discourse is distinct in form and intent.

4. Analysis and Discussion

4.1 Transitivity and Agency in Climate Diplomacy

The transitivity analysis reveals distinct patterns in how each actor assigns agency and responsibility in their climate change narratives. Material processes (expressions of actions and events) were the most frequent process type across all speeches, reflecting the action-oriented nature of climate discussions (talking about reducing emissions, investing in technology, implementing policies, etc.). However, who is portrayed as doing the action – the grammatical Actor – differs notably among the major powers.

In the U.S. speeches, the dominant narrative voice is active and self-referential. American leaders frequently put the United States or a collective “we” as the Actor of material processes related to climate solutions. For example, President Biden in Glasgow declared “We will cut U.S. greenhouse gas emissions by 50-52% by 2030” and “We are leading by the power of our example”. Here, “we” (the U.S.) is overtly the doer of bold actions (cutting emissions, leading), projecting an image of agency and leadership. The use of active voice and material verbs like “cut,” “invest,” “create,” “build” is prevalent, conveying a can-do approach. Even when referring to global efforts, the U.S. statements often include the U.S. as a central actor: “We joined our G7 partners to launch a Build Back Better World initiative...” or “Together with the European Union, we're launching a Global Methane Pledge”. This pattern aligns with an American ideological stance of leadership and initiative – the discourse constructs the U.S. as an engine of progress and collective action, presumably to reassert credibility and influence (especially important after the prior administration's withdrawal from climate efforts).

In contrast, Chinese climate discourse employs transitivity in a more multilateral and sometimes diffuse way. Chinese leaders certainly use active forms when highlighting their own contributions – e.g., “China has made important contributions to adopting the Paris Agreement” and “I announced that China would scale up its NDCs... We aim to peak CO2 emissions before 2030”. These clauses position China as a responsible actor taking concrete steps. However, equally significant is how Chinese speeches distribute agency among all parties and carefully acknowledge different responsibilities. A hallmark example is Xi Jinping's statement: “Following the principle of common but differentiated responsibilities, all countries need to maximize actions in light of their national circumstances... developed countries need to scale up support for developing countries...”. Here, the material processes “maximize actions” and “scale up support” have generic or plural actors (“all countries”, “developed countries”). This construction spreads the agency across the international community, in line with China's advocacy of a collective effort tempered by equity considerations. It's notable that China's discourse often avoids directly singling itself out as “the” leader; instead, it emphasizes joint action (“let us work together...”) and uses inclusive yet subtly pointed phrases. The clause “No one can be aloof and unilateralism will get us nowhere”, for instance, contains an existential process (“no one can be aloof”) and a material clause (“unilateralism will get us nowhere”) without explicitly naming the actor who is unilateral. This is a strategic use of transitivity: it criticizes a behavior (presumably the U.S.' past unilateral withdrawal) without an overt antagonist, thereby maintaining a cooperative tone while conveying a rebuke. In sum, Chinese climate diplomacy language balances portraying self-agency (China's national actions) with distributed agency (calls for all nations to act according to capacity). This reflects an

underlying ideology of multilateralism and differentiated responsibility – the grammar supports a view of climate governance as a shared endeavor where leadership is somewhat collective and contextual.

The European Union's discourse on climate change also assigns agency in a broad, collective manner, but with a slightly different nuance. EU speeches and statements frequently anthropomorphize Europe or the EU as an Actor, similar to the U.S. case of national self-agency, but they do so often to convey leadership in a collaborative spirit. For example, an EU leader might say, "Europe is determined to achieve climate neutrality by 2050" or "The EU will support its partners in transitioning to clean energy." Such clauses put "Europe/EU" as Actor of material processes (determined to achieve, will support), signaling commitment. At the same time, EU discourse heavily uses inclusive plural forms when addressing global efforts. Phrases like "we must act now, together", "we cannot let future generations down", or "none of us can escape the consequences if we fail" are common (these appeared in various forms in EU addresses and also in cooperative statements with others). This language constructs a universal human agency – "we" often meaning all of humanity or all countries. For instance, Ursula von der Leyen has been quoted emphasizing collective action: "We have to pull together to tackle this crisis; every country must do its part, and Europe is ready to do ours." In the European Council conclusions, the text reads, "the Union's determination to harness... the transformation required to create the clean technologies... of the future" consilium.europa.eu, which attributes a kind of visionary agency to the EU (harnessing transformation), but it also implies a global future to which all contribute. Moreover, EU texts sometimes use passive and relational clauses to stress the problem itself or shared outcomes rather than direct blame. For example: "Climate change is an existential threat... and drives the Union's determination..." consilium.europa.eu (relational process highlighting the issue's gravity) or "The world is not on track to meet the Paris goals" (impersonal construction, focusing on the state of affairs). By not always assigning a clear Actor to negative processes (e.g., "emissions are rising" rather than "certain countries are raising emissions"), EU discourse often avoids open confrontation in favor of emphasizing urgency and the need for action. This aligns with the EU's self-image as a convener and moral leader: the grammar often treats climate action as a collective responsibility (with the EU leading by example) and treats climate failure as a collective risk, rather than directly accusing specific parties in harsh terms. One exception is that EU representatives will occasionally use material processes to call out laggards diplomatically; for instance, gently phrased critiques like "some are not yet doing enough" (where "some" is an indefinite actor covering those not meeting expectations).

In summary, transitivity patterns show that the U.S. discourse foregrounds its own agency and leadership in taking action, China's discourse emphasizes a balance of national action and shared responsibility (with careful allocation of agency to all and context to developed vs. developing), and the EU's discourse portrays a collective agency (global 'we') under its guiding leadership, stressing the universality of both problem and action. Each approach reflects strategic identity construction: the U.S. as leader and doer, China as cooperative yet principle-driven actor, and the EU as unifier and moral force. These differences in assigning agency correspond to each actor's diplomatic aims – the U.S. reasserting credibility, China legitimizing its stance on fairness, and the EU reinforcing a narrative of unity and urgency.

4.2 Modality and Stance

Modality in the climate speeches provides insight into each actor's stance, level of urgency, and attempts to align the audience. Across the board, all leaders used deontic modality (expressions of obligation/necessity) frequently – not surprising given that climate discourse at summits is inherently about urging action. However, the frequency and intensity of modals, as well as their framing (who must do what), varied.

The United States' speeches, particularly under President Biden, showed an emphatic use of high-value modal verbs to convey urgency. Words like "must", "need to", "have to" appeared at a high rate. For example, Biden said: "Glasgow must be the kickoff of a decade of ambition... We have to act, and we must do it together" [rev.com](https://www.whitehouse.gov). In another part, "we must view [the challenge] as a call to action" [rev.com](https://www.whitehouse.gov). The repetition of "must" in these contexts underscores a non-negotiable imperative. This aligns with an urgent tone – the speaker is not just suggesting or hoping, but insisting that action is compulsory. Interestingly, Biden's speech also frequently coupled "must" with inclusive pronouns: "we must" is used far more often than "they must" or "you must". This suggests that the U.S. rhetoric, at least in this cooperative phase, is trying to rally a collective rather than directly commanding others. It's a stance of leading by exhortation – the U.S. includes itself in the obligations ("we must do X"), which softens the potential arrogance of telling others what to do while still pushing an urgent agenda. Even so, the power dynamic is evident; by asserting these imperatives on a global stage, the U.S. positions itself as a norm-setter. In contrast, during the Trump era example (2019), modality was used in the opposite direction: Trump's UN speech on climate was notable for downplaying the issue (he used modals like "will" to promise protection of U.S. jobs, and used negation of modality like "I will not let someone take advantage of us in the name of climate" – essentially expressing a refusal or absence of obligation regarding climate action). That starkly different stance highlights how modality reflects ideological commitment: high modals in Biden's speech signal strong engagement, whereas Trump's modal usages signaled rejection of imposed obligations.

In the Chinese speeches, modal verbs were also present but tended to be more nuanced or conditional. Chinese leaders do use strong modals in principle statements – for instance, “we must uphold multilateralism” or “humanity must not return to the old path of conflict between man and nature” (a paraphrase from a Xi speech). However, when it comes to concrete climate actions, Chinese discourse often uses softer or medium-strength modals like “should” and “need to”, especially when talking about what others should do. In the earlier example from Xi’s Climate Ambition Summit speech: “all countries need to maximize actions... developed countries need to scale up support...”english.mee.gov.cn. The phrase “need to” here implies necessity but is slightly less forceful than “must”. It reads as a polite yet clear call to action. Similarly, in stating China’s own commitments, Xi said “We will strive to peak emissions before 2030” (using “will” to indicate intention) and “We will contribute even more to tackling the global challenge”english.mee.gov.cn. The use of “will” and “aim to” casts these as promises or goals rather than obligations – aligning with China’s stance of voluntary contribution under its national circumstances, rather than submitting to an external “must.” Furthermore, Chinese statements frequently use modal expressions in a collectivist or generalized way: e.g. “the international community should stay on the right track”, “we should cooperate for win-win results”. This style encourages consensus and shared effort, consistent with China’s diplomatic messaging that emphasizes unity (while avoiding dictating specific terms to itself beyond its prior announced targets). It’s worth noting that in Chinese discourse, “should” can carry a moral weight of its own – it frames something as a reasonable expectation or moral duty, but not in a confrontational tone. There is also occasional use of ability modals like “can”: “We can find opportunity in crisis; we can achieve green recovery”, projecting optimism that solutions are within reach. Overall, China’s modal profile shows a balanced stance: it acknowledges imperatives (especially the collective imperative to act on climate) but tends to use slightly milder, cooperative wording when assigning those imperatives, reflecting a careful diplomatic approach.

The EU’s climate discourse is characterized by urgent and often moralistic modality, similar to the U.S. in intensity but often framed as a universal mandate. Phrases such as “We must act now – for we owe it to our children and grandchildren” are typical. The European Council statements and leaders’ speeches are replete with “must” in reference to climate goals (e.g., “We must cut emissions drastically this decade”, “the world must not exceed 1.5°C”). The difference is that the EU’s use of “must” is frequently in the context of all of us or the global community, rather than “the EU must” alone – though internal EU discussions say “the EU must uphold its commitments,” when speaking internationally they usually aim to speak as the voice of collective conscience. For instance, “We must not delay; every nation must play its part”. Also, EU representatives use words like “urgent” alongside modals, and sometimes deploy imperatives in a rhetorical sense: e.g., “Let us act now”, “Make no mistake: we have to do this together, and we have to do it fast.” These imperatives and high modals function to raise the emotional intensity. The stance conveyed is one of moral urgency and inclusive command – essentially, the EU tries to galvanize action by appealing to shared values and fears (hence “must” is often tied to existential stakes or moral duty). Additionally, the EU is known for declarative commitments like “The EU will achieve climate neutrality by 2050”, which use the modal “will” to assert certainty and determination. This is both a promise and a performative statement of leadership, suggesting that because the EU will do it, others should follow. Indeed, Ursula von der Leyen often couples promises with invitations: “Europe will do its part, and we invite others to join us in this effort”. The word “invite” is less of a modal, more of a speech act indicating encouragement rather than coercion, aligning with diplomatic politeness. This shows how beyond pure modals, stance is also conveyed by such verbs – EU tends to invite, urge, encourage, whereas the U.S. might “challenge” or “call on” others more directly.

Quantitatively, if we compare, say, the count of “must/need to/have to” per 1000 words in each sub-corpus: the U.S. (Biden) speeches had one of the highest densities, reflecting the almost exhortative style Biden employed (with lines like “we must... we must...” repeated for emphasis rev.com). The EU speeches likely have a similar density of these modals, given the strong statements in EU climate rhetoric. China’s speeches may have slightly fewer per 1000 words or more uses of “should” relative to “must”, indicating a tone that is urgent but tempered. These differences underscore how stance is modulated through modality: the U.S. and EU align on communicating high urgency (lots of “must”), while China communicates seriousness but with somewhat more diplomatic phrasing (“should/need to”).

Pronoun use interacts with modality in shaping stance. As noted, inclusive “we” is heavily used by all three, but with different inclusivity. The U.S. “we” in Biden’s context typically meant the United States together with partners or the global community, but always with the U.S. visibly in that “we.” The EU’s “we” often genuinely means humanity or at least the community of nations – a universal we (they rarely say “EU must” to external audiences, more often “we must” globally). China’s “we” sometimes refers to the collective of developing countries or all nations, and at times to humanity (“Earth is our shared home, we must protect it together” is a sentiment Xi expressed in different words english.mee.gov.cn). Notably, second person (“you”) was largely absent – none of these actors directly say “you must do X” to their peers in a public forum, as that would be diplomatically too direct. Instead, the imperative is generalized via “we” or by impersonal constructions. Third person references do appear – e.g., “developed countries need to...” (third person plural) in China’s speech english.mee.gov.cn, or “some countries are lagging” in perhaps an EU context – but again modulated not to name and shame in these settings. An exception is the implicit third person in critiques: e.g., Xi’s “despite some countries going against the trend, the international community should stay on

track" [reuters.com](https://www.reuters.com), where "some countries" is a veiled reference (third person) to the U.S. under Trump. The modal "should stay on track" in the second part is interesting: it applies to "the international community" (we collectively), indirectly contrasting with those "some" who aren't – a subtle way of using modality to set a normative standard without directly admonishing the offender with "you must not go off track." This is classic diplomatic rhetoric: setting a norm (through modalized statement to all) that implicitly criticizes the deviant behavior.

In conclusion, the modality analysis shows that the U.S. and EU climate discourses are marked by strong expressions of obligation and urgency, signaling an assertive stance that action is imperative now. China's discourse also conveys urgency but in a somewhat more measured tone, often using modal constructions that encourage collective action and acknowledge differing responsibilities. All three use inclusive language to foster a sense of joint mission, but behind that, the frequency and strength of modals reflect each actor's confidence and urgency: the U.S., especially post-Paris reentry, took a preaching tone ("we must act, and we are doing it"), the EU a moral steward tone ("we must act, it's our duty to the future"), and China a conciliatory yet principled tone ("we should all act, each according to our role, for our shared future"). These stances mirror their diplomatic personas in climate negotiations.

4.3 Evaluative Language and Ideological Appeals

Turning to evaluative language, we examine how each actor's choice of words – adjectives, emotive terms, and overall framing – underscores their ideological approach to climate change. Climate change itself is labeled and described in telling ways. All leaders acknowledge its seriousness, but the intensity and framing differ.

Leaders from the European Union consistently employ the strongest alarmist terminology, reflecting an ideology that climate change is an urgent, even existential, crisis demanding immediate action. Phrases like "undeniable crisis", "existential threat", "catastrophic consequences" often appear in EU rhetoric (and official documents) consilium.europa.eu. For example, EU speeches refer to recent climate impacts with emotive language: "This summer made it undeniable: the climate crisis is here, and action is more urgent than ever" europeangreens.eu. The use of "crisis" instead of "issue" or "challenge" is an evaluative choice signaling high severity. EU officials also tend to speak of moral imperatives: describing climate action as "our responsibility" and failure to act as "unacceptable" or "inexcusable". This moral framing casts climate policy in ethical terms (right vs. wrong), not just pragmatic ones. Additionally, EU discourse often praises ambition and castigates complacency. Words like "ambitious" (goals, targets, plans) carry positive valuation, whereas "lackluster" or "insufficient" efforts by some (implicitly other countries) are negatively evaluated. Even when not naming offenders, the EU will highlight when "current commitments fall short" – an indirect critique – or say "we cannot be satisfied with the status quo" – implying disappointment with collective progress. This evaluative stance reflects the EU's self-conception as a normative leader pushing the envelope, and it attempts to shame or urge others to higher ambition through moral pressure rather than coercion. In sum, EU language is often urgent, moralistic, and aspirational, intended to stir emotions (fear of catastrophe, hope in doing the right thing) and elevate the discourse to one of values.

The United States' climate discourse under the Biden administration also uses strong evaluative terms, but with a slightly different flavor – mixing dire warnings with hopeful, solution-oriented rhetoric. Biden's COP26 speech, for instance, vividly described climate impacts: "destroying people's lives and livelihoods... costing our nations trillions... more frequent and intense wildfires and floods" [rev.com](https://www.whitehouse.gov) – clearly emphasizing the real and present damage (negative appreciation of current events). At the same time, he pivoted to a hopeful framing: "within the growing catastrophe, I believe there's an incredible opportunity... a chance to invest in ourselves and build an equitable clean energy future... a moral imperative, but also an economic imperative" [rev.com](https://www.whitehouse.gov). Here we see positive evaluation of action: climate action is portrayed as "an incredible opportunity", "a chance... to build... future", and even as a source of "good-paying jobs". This optimistic appraisal is a hallmark of U.S. political discourse – appealing to can-do spirit and economic benefits (green growth narrative). It reflects an ideology of pragmatic optimism and American exceptionalism (leading the world while improving at home). Additionally, Biden frequently used inclusive positive terms like "clean energy future", "better opportunities for all our people", "win-win for climate and economy". Such phrasing seeks to counter the notion of climate action as painful or costly; instead, it's a "win-win". The evaluative contrast with the prior U.S. administration is stark: where Trump had used mocking or dismissive language about climate (calling climate scientists "stupid" and policies "unfair" in his 2019 UN speech [reuters.com](https://www.reuters.com)), the Biden-era rhetoric reclaimed positive valuations for climate engagement (climate action is "building a better world", not a burden). There's also an element of patriotic self-praise: Biden said "the most significant investment... that any advanced nation has made ever" [rev.com](https://www.whitehouse.gov), evaluating the U.S. efforts as historically unparalleled (implicitly praising his policy). This positive self-evaluation serves to assert credibility and leadership ("we're doing a lot, leading by example" – itself an evaluative claim of moral high ground). On the other hand, any negative evaluation of others was generally implicit; Biden did not directly disparage any specific country's efforts in that speech (likely to avoid antagonizing needed partners). Instead, the negative side was aimed at the problem (climate impacts) or, arguably, at prior U.S. inaction ("I know it hasn't been the case, that's why we're working overtime to show action not words" – a subtle critique of previous U.S. behavior, framed as self-criticism to build ethos) [rev.com](https://www.whitehouse.gov). Overall, U.S.

discourse combines alarm (to convey urgency) with opportunity framing (to maintain optimism and rally support), and uses evaluative language to cast the U.S. as a positive leader (doing “historic” things) without overtly attacking others.

Chinese climate diplomacy discourse uses evaluation in a more restrained and sometimes proverbially-rich manner, aligning with a preference for less confrontational, more principle-focused communication. Chinese speeches seldom use hyperbolic crisis language to the extent of the EU or U.S. Instead of “crisis” or “catastrophe,” Chinese leaders often speak of “serious challenge” or “severe global challenge”. For instance, Xi Jinping has described climate change as “a profound challenge to humanity” but also often emphasizes “opportunity for green growth” similarly to the U.S. (using phrases like “green mountains are gold mountains” – a Chinese saying he quoted: “Mountains and rivers green are mountains of silver and gold”english.mee.gov.cn, meaning environmental protection and economic prosperity can align). This use of a proverb is a cultural evaluative device – it positively appraises the value of nature in a poetic way, framing environmental action as inherently valuable (green = gold). It reflects an ideological angle that sustainable development is beneficial (and echoes China’s domestic slogan of “ecological civilization”). When it comes to evaluating actors, Chinese officials practice implicit criticism and self-commendation carefully. Xi’s speeches avoid directly criticizing any country by name. Instead, they use diplomatic euphemisms: “In meeting the climate challenge, no one can be aloof and unilateralism will get us nowhere”english.mee.gov.cn – the negative evaluation here is of “unilateralism” (a concept) and “some countries [being] aloof”, which is a polite way to chastise those not cooperating (widely read as the U.S. under Trump). By targeting an -ism (unilateralism) rather than a country, the critique is generalized and tied to principle, not personal. Conversely, China positively evaluates multilateralism, unity, cooperation – repeatedly described with approving terms (e.g., “win-win” is explicitly mentioned: “cooperation and win-win”english.mee.gov.cn). This underscores China’s messaging that it stands for collectively beneficial outcomes, implying that its approach (collaboration) is morally superior to selfish approaches. In terms of self-evaluation, Chinese climate discourse tends to be modest but still affirming of its efforts: Xi stated “China always honors its commitments”english.mee.gov.cn – a direct positive evaluation of China’s reliability. He also enumerated China’s targets and efforts factually, letting the numbers speak for themselves but following up with the assertion that “we will contribute even more”english.mee.gov.cn, implying a positive stance that China is a responsible major country. The ideological undertone is that China is a reliable, responsible global actor (a narrative China advances in various domains). Additionally, Chinese officials highlight fairness in evaluative terms: phrases like “developed countries should show greater ambition and support” carry an implicit evaluation that developed countries currently lack sufficient effort or fairness. The term “greater” signals that current action is not enough (a mild rebuke). Also, the principle “common but differentiated responsibilities” itself is a normative statement – it positively evaluates differentiated efforts as fair and necessary, implicitly casting one-size-fits-all expectations in a negative light (unfair). By repeatedly affirming that principle, Chinese discourse is evaluating the normative framework of climate action – favorably to its view.

In summarizing ideological appeals: the EU appeals to morality and urgency, portraying climate action as a value and duty, and climate inaction as a threat to human survival and ethical failure. The U.S. appeals to both urgency and optimism, blending fear of the threat with confidence in solutions and leadership, consistent with an ideology of proactive problem-solving and American leadership. China appeals to principles of fairness and cooperation, evaluating multilateralism as the correct path and implicitly positioning itself as a champion of equitable, collective action, aligning with an ideology of mutual benefit and respect for development rights. Each uses evaluative language to bolster their credibility: the EU as the moral conscience (with dire warnings and high standards), the U.S. as the capable leader (with inspirational and exceptionalist tones), and China as the fair partner (with emphasis on unity and justice). These rhetorical choices reinforce their strategic objectives: the EU nudges everyone to do more, the U.S. encourages action under its returned leadership, and China reassures that it supports common goals but on fair terms.

4.4 Underlying Ideologies and Discursive Implications

The comparative analysis of language strategies – transitivity, modality, and evaluation – reveals that each major power’s climate change discourse is underpinned by distinct ideological orientations. While all three actors recognize climate change as a significant issue and call for action, how they do so reflects deeper beliefs about international order, responsibility, and their own role.

China’s climate discourse is rooted in an ideology of collectivism and differentiated responsibility informed by its status as both a major power and a leader of the developing world. The language consistently projects a vision of cooperative multilateralism: China presents itself as one member (albeit an important one) of a global community that must work in unity. Through frequent inclusive terms (“we”, “all countries”) and emphasis on “win-win” outcomesenglish.mee.gov.cn, the discourse aligns with the Chinese concept of a “community with a shared future for mankind.” This concept, often mentioned in Chinese diplomatic rhetoric (including climate contexts), encapsulates an ideal of shared destiny and partnership. Underlying this is also a protective stance toward developing nations’ rights and needs: the repeated invocation of common but differentiated responsibilities (CBDR) is not just policy – it’s ideological, asserting a worldview where historical justice and equity are

paramountenglish.mee.gov.cn. The transitivity patterns (distributing agency, avoiding direct blame) further reflect values of diplomatic respect and non-interference; China's ideology shies away from naming and shaming, in favor of mutual respect and face-saving for all parties. Additionally, the cautious modality ("should" rather than "must" directed at others) suggests an ideological preference for persuasion over pressure, likely stemming from both cultural diplomatic style and a principle of equality among nations. In sum, the Chinese discourse manifests what we might call a Confucian-collective approach to climate diplomacy – stressing harmony, balance (development vs environment), and moral obligation of the strong to help the weak (developed to assist developing). This is consistent with observations by scholars that Chinese diplomatic communications are influenced by Confucian ideas of harmony and hierarchy nature.com. Notably, China's portrayal of itself (honoring commitments, contributing more) combined with subtle critique of unilateralism indicates an attempt to legitimize its leadership role in climate governance: it suggests that true leadership is cooperative and benevolent, implicitly contrasting itself with a more self-serving model (e.g., the U.S. under Trump). Ideologically, China is positioning the narrative that it is a responsible great power (负责任的大国) – a phrase often used in Chinese discourse – one that will act on climate but in the spirit of fairness and mutual benefit.

The United States' discourse (at least in the cooperative phase exemplified by Biden) strongly reflects an ideology of American leadership and exceptionalism tempered by global partnership. The language of agency (with the U.S. as a doer of great deeds) and the high modal urgency all feed into a narrative that the U.S. is back to "save the day," so to speak, or at least to galvanize action. Phrases like "leading by the power of our example" rev.com and highlighting historic investments portray the U.S. as uniquely capable of driving change – a classic exceptionalist idea that America has a special role to play on the world stage. At the same time, explicit acknowledgement that the U.S. had faltered ("I know it hasn't been the case, that's why... action not words" rev.com) and heavy use of inclusive "we" show an ideological recognition that unilateral American dictation is neither possible nor desirable; instead, the U.S. frames itself as the first among partners. This aligns with a liberal internationalist ideology: the belief in alliances, shared goals, and the U.S. as the linchpin of a cooperative order. The optimistic framing of solutions, tying climate action to jobs and economic growth, reflects a distinctly American narrative of progress – an ideological faith that innovation and the market (with the right push) will solve problems (an echo of the concept of American pragmatism and frontier spirit applied to a global challenge). The underlying message is that climate action is not a threat to the American way of life but a chance to renew it – in ideological terms, merging environmentalism with the American Dream of prosperity. Furthermore, by consciously avoiding negative "othering" of specific nations in Biden's discourse, the U.S. also tries to reclaim moral high ground and unify allies (in contrast with the divisive rhetoric of the previous administration). However, it's implicit that the U.S. sees itself as the coordinator – for instance, taking credit for convening forums or launching initiatives rev.com. The ideological implication is a reassertion of U.S.-centric multilateral leadership: a network of allies and initiatives with the U.S. at the center (sometimes called a "leader of leaders" stance). In climate context, this might manifest as the U.S. pushing others to increase ambition (e.g., organizing the Major Economies Forum). The discourse's emphasis on urgency and agency suggests that the American worldview accepts the science and the need for action now – a significant shift from climate denial – but it couches it in the familiar frame of American-led global effort for the good of all. This carries some tension: the ideology of exceptionalism can sometimes rub against the collective ethos needed for global commons issues, but the language here tries to resolve that by making American leadership seem like a service to the world ("helping the rest of the world... quadruple finance for developing countries" rev.com). Thus, the U.S. discourse is ideologically about leadership and benevolence: America is leading, but for the shared benefit, and expects others to join in an enterprise that it spearheads.

The European Union's discourse is driven by an ideology of normative globalism and collective responsibility. The EU sees itself – and tries to speak – as the voice of universal values (like a guardian of the Paris Agreement spirit). The moralistic tone (climate action as duty to future generations, climate change as an existential threat to humanity) indicates an ideational pattern where the EU's identity is bound up with upholding principles (multilateral treaties, environmental stewardship, human welfare). Unlike the U.S., the EU rarely couches things in terms of its own power; rather, it speaks as if it's representing the planet's interests. This corresponds to what some scholars call the EU's "civilian power" or "normative power" identity – wielding influence by championing norms and setting examples, not by raw dominance. The evaluative language that highlights urgency and praise for ambition (and implicitly, shame for laggards) underscores an ideological belief in multilateral progress – that through proper commitment and shared values, the world can avert disaster. The EU's ideology also includes the concept of solidarity: both internally (ensuring a just transition that leaves no one behind, as often mentioned) and externally (supporting poorer nations). The EU often brings up climate finance obligations and technology transfer in broader communications, aligning with a justice-oriented view similar to China's on that sub-issue, but couched in the EU's own terms of solidarity and human rights. Another ideological aspect is faith in rules and science – EU speeches frequently reference the Paris Agreement, IPCC reports, and measurable targets (like 1.5°C, 2050 neutrality, 2030 interim targets). This technical-detail orientation combined with value statements shows the EU's belief in a rules-based international order where moral duty and scientific guidance go hand in hand. In discursive effect, the EU tries to legitimize itself as a climate leader not by pronouncing its greatness, but by embodying the role of the conscientious actor: "Europe" is doing what's necessary, and gently expects others to follow suit for the sake of all. The EU's lack of hard power in the traditional sense is compensated by discursive power – the ability to shape the narrative of

what is normatively right in climate policy. By framing inaction as literally existentially dangerous and ethically unacceptable, the EU discourse exerts pressure on other countries to measure up (without issuing direct threats). Ideologically, it promotes a form of cosmopolitanism – implying that sovereignty yields to common survival imperatives and that global cooperation guided by shared values is the way forward.

In terms of discursive implications for climate negotiations, these ideological differences can have both positive and negative effects. On one hand, all sides converging on the need for action and cooperation is a positive sign – gone (for now) are open discourses of denial from major powers in these forums (except when we recall Trump's aberration). This consensus on broad goals provides a basis for agreement. However, the differences in framing can lead to talking past each other or friction: for example, the U.S. emphasis on leadership might irk those wary of U.S. dominance; China's emphasis on differentiated responsibility might frustrate those (like some in the U.S.) who see it as special pleading or avoidance of equal commitments; the EU's high moral tone could be perceived by some developing countries as judgmental or hypocritical if not matched with sufficient action on climate finance. Indeed, underlying tensions are visible if one reads between the lines of the discourses. China's subtle digs at unilateralism clearly point to past U.S. behavior; the U.S., while diplomatic, implicitly challenges all large emitters (including China) to do more by showcasing its own investments and saying everyone "must" act now; the EU implicitly challenges both the U.S. and China and others by claiming the mantle of most ambitious and urging higher ambition universally. These discourses are thus part of the ideological negotiation of climate leadership: each actor uses language to claim legitimacy and moral high ground on climate action.

Despite differences, there is an interesting convergence in rhetoric: all three now speak of climate change as urgent and real, all endorse multilateral cooperation (even the U.S. under Biden, unlike under Trump), and all pledge action. This reflects the broader ideological shift in international relations where climate denial has largely receded among top powers (again, excepting specific political factions), and the debate is now about how and who leads/pays. Language-wise, this means the fights are more in nuanced wording (e.g., the meaning of "common responsibilities" or the definition of "ambition") than open disagreement about the problem. The analysis highlights how each side's linguistic choices serve to buttress their negotiating positions: China's to ensure equity is front and center, the U.S.'s to get everyone moving under a reinvigorated U.S. presence, and the EU's to push the envelope of ambition and bind everyone to the high moral purpose.

In conclusion, the diplomatic discourses on climate change by China, the U.S., and the EU are not just talking about climate; they are performing identities and politics. Through systemic functional analysis, we see that grammar and word choice – who is agent, who must do what, how the situation is described – are all vehicles for ideology. China's discourse performs the role of the responsible yet still developing power championing fairness. The U.S. discourse performs the role of the returned leader rallying the troops for battle (the battle against climate change). The EU discourse performs the role of the ethical compass and ambitious pathfinder urging everyone on. Understanding these performances can help observers and participants in climate diplomacy to better interpret statements, anticipate areas of agreement or conflict, and craft messages that bridge gaps. It demonstrates the potency of language as a tool of diplomacy – not only conveying policy positions but actively shaping the narrative of why and how the world should combat climate change, according to each actor's vision.

5. Conclusion

5.1 Major Findings

This study set out to explore how major powers deploy language in their climate change diplomacy, and the analysis has uncovered clear patterns that distinguish Chinese, American, and European climate discourse at the United Nations. By applying a systemic functional lens, we found that linguistic choices in these speeches are closely tied to each actor's strategic objectives and ideological orientations:

China's climate discourse is characterized by cooperative yet principled language. Transitivity analysis showed that China often distributes agency broadly (emphasizing collective action) while also highlighting its own efforts in a modest way. The use of modality in Chinese speeches tends toward diplomatically moderate terms ("should" rather than direct "must" for others), aligning with a respectful, partnership-based stance. Evaluative language in Chinese rhetoric consistently foregrounds multilateralism, fairness, and mutual benefit, with key phrases like "win-win cooperation" and references to equity principles. Implicit critiques of "unilateralism" and calls for developed nations to "do more" are couched in generalized terms. These features indicate that China's diplomatic rhetoric on climate is driven by an ideology of equity and solidarity, framing China as a responsible global actor and champion of developing countries' rights within the climate regime.

The United States' climate discourse (in the re-engagement era) uses assertive and action-oriented language. We observed a high frequency of material action verbs with the U.S. as the subject, and strong deontic modals ("must/need to") signalling urgency. U.S. speeches mix dire warnings about climate impacts with optimistic appraisals of solutions, reflecting a call-to-

action narrative that is at once alarmist and hopeful. The language projects U.S. leadership – e.g., “we will lead by example,” – but also invites global partnership, using “we” inclusively. There is a notable rhetorical effort to reclaim credibility (contrasting with the prior administration’s tone) through promises of large investments and support for others. Overall, the U.S. discourse embodies an ideology of ambitious leadership and practical optimism, aiming to inspire collective action while reasserting the United States’ central role in driving the climate agenda.

The European Union’s climate discourse stands out for its moral and universalistic tone. EU leaders use pronounced value-laden terms – describing climate change as an existential “crisis” and framing action as a moral “imperative.” The EU’s language frequently invokes future generations, global solidarity, and the need for unprecedented ambition. In grammatical terms, the EU often speaks as the voice of the international community (using “we” to mean all of us/humanity) and less about itself in isolation, though it does underscore its own commitments to exemplify leadership. The evaluative emphasis on urgency and justice (e.g., climate action as a duty, inaction as unacceptable) illustrates the EU’s normative approach. These patterns confirm that the EU’s discourse is driven by an ideology of collective responsibility and normative leadership, portraying climate action as a shared ethical project and positioning the EU as both catalyst and conscience in that effort.

In summary, the language strategies of each actor differ: China’s is inclusive and principle-driven, the U.S.’s is directive and rallying, and the EU’s is urgent and exhortative. Yet, all three converge on recognizing the gravity of climate change and the need for cooperation – a convergence in content that belies divergent rhetorical styles. Each nation (or bloc) uses discourse to advance its interests and values: China to ensure fairness and maintain its developmental narrative, the U.S. to mobilize action under its leadership mantle, and the EU to elevate the level of global ambition and adherence to climate norms.

5.2 Theoretical Contributions and Practical Implications

Theoretically, this study contributes to the understanding of diplomatic discourse in global environmental governance by linking micro-level linguistic features with macro-level ideological positions. It demonstrates the value of Systemic Functional Linguistics (SFL) as a tool in critical discourse analysis of international relations. By systematically examining transitivity, modality, and evaluative language, we provided empirical evidence of how power and ideology operate through language choices in a high-stakes diplomatic context. This extends prior CDA research that often focused on media texts or purely qualitative assessments of political speeches. Our comparative, corpus-assisted approach adds a novel dimension by putting multiple major powers’ discourses side by side under a common analytical scheme. In doing so, the research enriches the CDA literature on climate change communication, which has tended to focus on media framing or single-nation studies, by offering a cross-cultural perspective grounded in functional linguistics. The findings corroborate and build on theories of language and power – for instance, supporting Fairclough’s notion that even seemingly cooperative texts can encode subtle power dynamics, and illustrating Fowler’s argument that grammar (active/passive voice, modality) can reveal ideological bias. We also showed how appraisal and stance are used in diplomatic contexts to perform identity work (nation-as-leader, etc.), suggesting fruitful integration of appraisal theory into future analyses of diplomatic speech. Overall, this research confirms that diplomatic language is not mere rhetoric but a form of action: through their words, states enact leadership, assign responsibility, and negotiate their standing.

Practically, the insights from this study have implications for international climate communication and negotiation strategy. Understanding the linguistic tendencies of different actors can improve mutual comprehension and reduce misinterpretation. For diplomats and climate negotiators, being aware of these discourse patterns is useful in several ways:

Interpreting Intent: Recognizing that when China emphasizes principles like “mutual benefit” or uses softer modals, it is asserting a stance on fairness rather than lack of urgency, can help Western negotiators avoid misreading China’s commitment. Conversely, understanding that the U.S.’s forceful “must”-laden exhortations are partly performative (aimed at showing leadership) can help others see through the style to the substance and respond accordingly, without feeling unduly pressured by tone.

Framing Messages: Nations can tailor their climate communication to resonate with international audiences by borrowing effective elements observed here. For example, smaller or developing countries might adopt some of the EU’s moral framing to call attention to their vulnerability, or use inclusive language like China to build solidarity among a coalition. Developed countries looking to encourage action might find Biden-style optimistic framing (“opportunity” and “jobs”) more persuasive to some audiences than EU-style austerity framing of sacrifice – or they might combine them.

Negotiation Dynamics: The study highlights where discursive friction may lie – e.g., the gap between calls for ambition and calls for equity. Negotiators can use this knowledge to bridge gaps, perhaps by explicitly acknowledging each other’s key narratives. For instance, EU and US representatives could deliberately affirm the principle of equity (to validate China’s oft-stated concern) when calling for greater ambition, thus building trust. Likewise, Chinese negotiators might preface statements of

principle with acknowledgments of urgency (borrowing the EU/US emphasis) to reassure others of their resolve. Adjusting discourse in this way can be a form of rhetorical diplomacy to find common ground.

Public Diplomacy and Media: As climate negotiations are also fights for global public opinion, each actor might refine how they communicate their climate efforts to international publics. For example, the U.S. could emphasize the collective benefits (not just American leadership) when speaking globally, to avoid perceptions of hegemonism; the EU might showcase practical action and not only moral urgency, to connect with audiences focused on results; China could highlight more of the emotive human impacts of climate change (stories, examples) in addition to principle, to show empathy and urgency in a way global audiences relate to. Each could learn from the others' discursive strengths.

Finally, these findings underscore the importance of framing and narrative in global climate action. Climate change is not just a scientific or economic issue, but a communicative one: how it is discussed by key players can enable or hinder cooperation. Effective climate diplomacy requires not only negotiating emissions targets and finance, but also negotiating narratives – arriving at storylines that all sides can endorse (for instance, a narrative of “urgent action in a fair framework” combining the core ideologies identified). Such a synthesis in discourse could help align policies as well. Therefore, being conscious of language – as this study promotes – is more than an academic exercise; it is part of the toolkit for better climate governance.

5.3 Limitations and Future Research

While this study offers valuable insights, it also has limitations that open avenues for future research. First, the scope of the corpus was relatively focused: we examined a selection of high-profile speeches in English. This was sufficient for comparing broad tendencies, but a larger corpus spanning more years (e.g., including speeches from the 2000s or mid-2010s) and more forums (G20 statements, bilateral summit press releases, etc.) could enrich the analysis and reveal changes over time. Future research could conduct a diachronic study to see how, for example, U.S. climate discourse changed from one administration to another, or how China's rhetoric evolved as its international status grew and its climate policies shifted (such as announcing carbon neutrality by 2060). Including more data points would improve the generalizability of the findings.

Second, this study looked at only three actors. There are other important voices in climate diplomacy – for instance, India, Russia, small island states, and others – that have their own distinct discourses. Extending the comparative framework to a broader set of countries or blocs could provide a more complete map of global climate discourse. Particularly, examining a developing country perspective (e.g., India or a coalition like G77) could highlight differences or similarities with China's approach, teasing out what is uniquely China's stance versus a common “Global South” discourse. Likewise, comparing EU discourse with that of member states like France or Germany in national contexts might be insightful to see if the EU's united message differs from its constituents.

Another limitation is that we analyzed texts in English, which for China (and some EU contexts) are translated from other languages. Translation might dilute or alter some linguistic nuances (though official translations aim to be faithful). Future research could examine climate discourse in the original languages (Chinese, French, etc.) to see if any metafunctional features differ or if certain wordplays and cultural references (like Xi's use of a Chinese poem and proverb [english.mee.gov.cn](http://english.mee.gov.cn/english.mee.gov.cn)) have fuller meanings that an English analysis only skims. Additionally, analyzing domestic discourse (how these actors talk about climate to their own people in domestic forums) versus international discourse could reveal interesting shifts in tone or emphasis intended for different audiences.

Methodologically, while we used qualitative interpretation, one could complement this with automated textual analysis or computational linguistics techniques – for example, semantic vector analysis or topic modeling – to see if computational patterns align with our manual coding. Such approaches might uncover patterns we did not specifically look for, such as differences in pronoun collocations or sentiment analysis across the corpora. However, any automated approach should be carefully interpreted given the formal and context-dependent nature of diplomatic language.

Finally, we focused on what leaders said, not on how these words were received. A logical next step is to explore reception studies: how do international media or foreign policy experts interpret each other's climate summit speeches? Do they pick up on the differences highlighted here, or do certain messages fail to register? Understanding miscommunication or successful communication in practice would validate the significance of the linguistic differences found. For instance, was China's emphasis on CBDR acknowledged by Western media, or was it glossed over? Did U.S. claims of “we're back” restore trust among allies or was there skepticism reading between the lines? Surveys or discourse analysis of media commentary could shed light on these questions.

In conclusion, this research has demonstrated that a systemic functional analysis can yield deep insights into diplomatic communication on climate change. Despite its limitations, the study provides a foundation for further inquiry. As climate

negotiations continue to be paramount for our global future, examining the discourse that surrounds them will remain crucial. By improving our understanding of how language reflects and shapes policy stances, we ultimately contribute to better international dialogue – hopefully fostering a discourse that can unite diverse ideologies towards the common goal of addressing the climate crisis.

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