

Differentiation of Strategies Reflected by The Political Metaphor Use in Global Climate Negotiation: Comparison Between European **Union and China**

Zihuan Qu

School of Political Science and Public Administration, Shandong University, Qingdao, 266237,

Abstract: The positive attitude for global governance will be required in order to successfully address global climate change. Currently there are several examples in global climate negotiation, especially in COP 26, reflected the discordance among strategies of different international entities. In international negotiation, the specific political words that delegates used is efficient for clarifying the strategies, which are called political metaphors. In this study we are looking for metaphors by analyzing the documents from EU and China in UNFCCC. This study explored the domestic and international strategies of China and EU in international climate negotiation, which reflected by the political metaphor. The researcher first collect the documents of EU and China in website of UNFCCC. Meanwhile, we use the corpus tool, Wmatrix, which created by Lancaster University. The tendency of strategy is evaluated by the data we collected and the analysis about the metaphors. Our result show that although EU and China are both in positive attitude about dealing with climate change, they have difference in details. EU tends to formulate the rigid structure under the Paris Agreement. They concentrate on the immediate and most effective measures. By the contrast, China focuses on long-term action by using relevant metaphors. They are trying to establish the new and more sustainable structure, which will be more friendly with countries have high emission and high development requirement at the same time.

Keywords: The political metaphor; Climate negotiation; Strategies; European Union; China

1. Introduction

Previous research on political discourse often focuses on the use of metaphors. National think tanks around the world now pay significant attention to how metaphors shape political reputation and help achieve policy goals. Additionally, as highlighted by the United Nations' Sustainable Development Goal 13 (SDG 13), climate change has become an urgent priority for both international and domestic policy-making. Our research focuses on the strategies of two entities in global climate governance, particularly as reflected through their use of metaphors. Following the Paris Agreement, global climate governance entered a new era, marked by emerging international contradictions. However, there is a lack of comparative research on the strategies of these conflicting entities, which could elucidate the reasons behind the current carbon impasse.

It is important to note that our research aims to provide analysis rather than prescribe actions or offer recommendations. Unlike previous studies that often provided guidance to their own governments, we strive to deliver objective results and analyze the situation from a realist perspective. While past scholars have typically conducted single-case analyses to achieve depth and specificity, we believe that comparative analysis is also crucial. Such an approach can bridge gaps in international relations research by revealing the interconnections between different countries' strategies.

Thus, the purpose of this article is to evaluate what the roles that the EU and China as the major entities of global climate governance play in climate negotiation, especially in UNFCCC, which is the institution established by UN to facilitate the global climate governance. Since Paris Agreement, with the Clean Development Mechanism (CDM), every country will submit their National Determined Contribution (NDC) autonomously. Hence, the complexity of international climate governance cooperation and competition increased. It has great implication to give the comparison catering to understand the interaction. The study proceeds in four steps: In the next section, we discuss previous research and clarify the contribution of our examination. In the following section, we turn our attention to the methodology we will use. Next, we introduce the result and attendant discussion and analysis about the outputs we gain and the final section offers our main conclusions.

2. Literature Review

Climate change is significant for humanity. Although the international community achieved the Kyoto Protocol in 1997 and the Paris Agreement in 2017 to address it, the world still needs entities to actively participate in global climate governance. In the literature review section of this paper, we will summarize the current state of global climate governance and assess the impact of metaphors based on related research. Additionally, we will identify the research gap at the intersection of these fields and present our research questions.

2.1 The Background of Global Climate Governance

In 2017, after the Paris Agreement was launched at COP 21, global climate action became a prominent issue at the international level. Along with the development of regional cooperation and worldwide conflict in global climate governance, the fragmented nature of the global climate governance system gradually emerged (Isailovic et al., 2013). From the start of political discussions on global climate change, the international community has never achieved an integrated regime for governing efforts to limit the extent of climate change. Instead, a loosely-coupled set of specific regimes, characterized by decentralization, was built (Keohane & Victor, 2011). This means the world lacks an undisputed leader in global climate governance, a role that no single state can fulfill (Parker & Karlsson, 2018). While no central entity acts as the "leadiator" (leader and mediator) (Bäckstrand & Elgström, 2013), all the institutions and entities collectively form a comprehensive system, as illustrated in Figure 1 (Keohane & Victor, 2011).

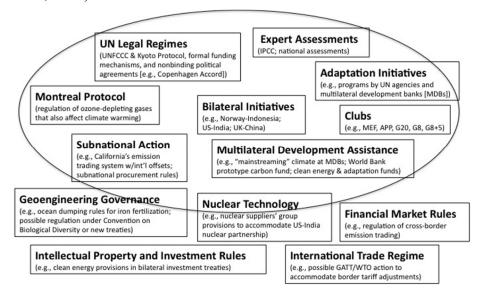


Figure 1. Keohane & Victor, 2011

After the Paris Agreement, the structure of global climate governance shifted from a top-down to a bottom-up approach (Torney, 2019). According to the Paris Agreement, the mechanism of Nationally Determined Contributions (NDCs), added to the Clean Development Mechanism (CDM), inspired the autonomy of international entities such as nation-states and international organizations. This change provided opportunities to reconstruct the leadership structure of global climate governance. Major international entities, notably the EU, China, and the USA, are vying for leadership. The USA's climate policy has been heavily influenced by its domestic political situation, with two opposing stances on international climate collaboration since 2017. Therefore, we focus on the EU and China as our research targets.

Past research has observed the EU's preference for multi-modal leadership and suggested a strategy of compromise (Parker & Karlsson, 2017). The EU's role has evolved from leader to "leadiator" (leader-cum-mediator) in the post-Paris era (Bäckstrand & Elgström, 2013). Scholars have also highlighted China's achievements and its significant role in climate governance (Engels, 2018; Zhang, 2017). Additionally, the global community has set expectations for China (Gill & Wacker, n.d.), and China has begun to develop a unique strategy to shape its leadership (Li, 2015). Numerous studies have explained the strategies of the EU and China in establishing global climate regime leadership (Bäckstrand & Elgström, 2013; Engels, 2018; Parker & Karlsson, 2017; Xu, 2015; Liu, 2016; Weng, 2013).

In conclusion, the EU and China are potential leaders in the climate governance system of the post-Paris era, which is currently experiencing difficulties. They are attempting to establish their leadership through different strategies.

2.2 The Effect of Metaphors

To establish, maintain, and strengthen their legitimacy, nations often use rhetorical skills to support their systems of meaning (Schimmelfennig, 2003). Their strategies to influence people's political recognition and actions include carefully controlling the media, skillfully crafting language, and purposefully selecting vocabulary (Sun, 2009). Thompson emphasized that politics without metaphor is like a fish without water (Thompson, 1996). Since politics is a highly abstract theory removed from people's daily lives, metaphors are commonly used in political communication, especially in international negotiations, to resonate with people globally. This helps the audience perceive their proposals as legal and reasonable (Wu & Pang, 2011).

Shaw and Nerlich (2015) indicated the connection between climate policy narratives and metaphors. Metaphors serve as anchoring devices, providing alternative structures in which people can integrate abstract and novel concepts into their daily experiences, helping them understand new phenomena by reconciling their beliefs with reality (Rein & Schön, 1996). Thus, a thorough understanding of metaphor mechanisms can enhance the effectiveness of political intentions. Furthermore, scholars have highlighted the importance of metaphors in promoting global climate governance (Bernstein & Hoffmann, 2019) and in building cross-cultural leadership (Grisham, 2006).

To sum up, metaphors play an essential role and have an effective mechanism in international climate negotiations.

2.3 The Research Gap and Research Questions

Past research has respectively explored leadership, global climate governance, and metaphors. Several studies have combined two of these elements, such as political metaphor use or leadership establishment in global climate governance. However, previous studies frequently neglected the effect of metaphors in political discourse aimed at forming climate governance leadership. Additionally, past scholars have mainly focused on the leadership strategy of a single entity. Only a few have attempted to compare the strategies of different entities (Xu, 2015; Weng, 2013).

With global climate governance stepping into the post-Paris era, China has recently sought to improve its international reputation and share its new concept of a community with a shared future for mankind by actively participating in and promoting global climate governance as a lead role.

Hence, in this study, we will concentrate on:

- 1. To what extent do the EU and China's use of metaphors in global climate negotiations differ from each other?
- 2. What is the leading strategy in global climate governance of these two countries as reflected by comparison?

3. Methods

3.1 Data Used in This study

We established 2 corpora of 100 texts of EU members and China's speeches and statements in global climate conference from the official website of UNFCCC. Three criteria regulated whether a text can be included in our corpora. First, the text must be written in English. English is the main language that used in global climate conference. Second, the text had to be launched by corresponding entities. To figure out the attitude tendency for leadership of EU and China, only the direct but not paraphrased texts were useful. Third, we only select the speeches and statements after Paris Agreement, 2016 till now. After the signing of the Paris Agreement in 2016, EU and China's strategies in leadership have changed. Hence, we need to focus on the post-Paris period in global climate governance.

3.2 Theory Basis

We used the conceptual metaphor theory (Lakoff & Johnson, 1980), which has had a significant impact on metaphor research. According to this theory, a metaphor is a process of recognition that reflects from the source domain to the target domain (Lakoff & Johnson, 1980). Leadership can be categorized into four types: structural, directional, intellectual, and instrumental (Parker & Karlsson, 2017). We aim to analyze how the EU and China use metaphors and, by combining this with leadership theory, identify the differences in their strategies for building leadership.

3.3 Corpus Tool: Wmatrix

Wmatrix is a unique web-based tool created by Paul Rayson and colleagues from Lancaster University. It has the ability to automatically encode the semantic domains of target texts using its internal system called USAS (UCREL Semantic Annotation System), which employs different tagsets from the USAS tagset categories (Figure 2).

A	В	С	E
General and abstract	The body and the	Arts and crafts	Emotional actions, states
terms	individual		and processes
F	G	н	I
Food and farming	Government and the public domain	Architecture, buildings, houses and the home	Money and commerce
K	L	M	N
Entertainment, sports and	Life and living things	Movement, location, travel	Numbers and
games		and transport	measurement
0	P	Q	s
Substances, materials,	Education	Linguistic actions, states	Social actions, states and
objects and equipment		and processes	processes
Т	w	X	Y
Time	The world and our	Psychological actions,	Science and technology
	environment	states and processes	
		Z	
	Names and gra	mmatical words	

Figure 2 The USAS tagset top-level domains

Additionally, Wmatrix can identify key semantic domains and overused semantic domains by comparing target texts with a reference corpus (BNC Sampler, including both BNC Sampler Written and BNC Sampler Spoken). This functionality will benefit the comparative research.

3.4 Research Process

3.4.1 Analyzing texts and forming key semantic domain

First, we uploaded our two corpora to Wmatrix and obtained the domain tagsets through automatic semantic domain analysis. Second, we chose BNC Sampler Spoken as the reference corpus for comparison and identified the key and overused semantic domains in our corpora. The key semantic domains represent the possible target domains for our research.

3.4.2 Affirming the source domain and word table of source domain

Based on the metaphor analysis of each corpus, we identified the possible source domains for the key semantic domains. Additionally, we used the broad sweep function of Wmatrix to determine the total types and tokens in each corpus and created a statistical table of words within the source domains.

3.4.3 Finding the use of metaphor

Group (2007) developed the Metaphor Identification Procedure (MIP) to identify metaphors in various corpora. In our research, we employed MIP to analyze the use of metaphors. Based on the results, we identified the differences in metaphor usage between the EU and China and attempted to analyze the reasons behind these differences.

4. Results and Discussion

4.1 To what extent do the EU and China differ in their use of metaphors in global climate negotiations?

In our research, the corpora for the EU and China were selected from documents on the UNFCCC website. Since the signing of the Paris Agreement in April 2016, the EU has submitted more than 50 documents, while China has submitted only 10 in total. The disparity in the number of documents highlights a difference in participation between China and the EU. More importantly, by analyzing the use of metaphors in these documents, we observed significant differences between the metaphor usage of China and the EU.

4.1.1 EU's metaphors

Table 1 presents the categories most frequently used in the EU's written documents. Except for fields that are not used in political discourse, the use of metaphors in these categories is more prevalent compared to the BNC Sampler Writing. The frequent use of metaphors related to wanting, giving, and helping likely indicates that the EU aims to enhance its international reputation by actively participating in global climate governance.

Item	O1	%1	O2	%2	Comparison	LogRatio
X7+	200	2.10	4809	0.50	+	Wanted
A9-	175	1.84	4474	0.46	+	Giving
S8+	126	1.32	4225	0.44	+	Helping
A2.1+	98	1.03	3939	0.41	+	Change
X9.2+	51	0.54	1382	0.14	+	Success
X9.2	9	0.09	51	0.01	+	Success and failure

Table 1. The Frequency of EU's Metaphor

First and foremost, "wanted" metaphors are used most frequently. After manually filtering out non-metaphorical instances identified by Wmatrix, "wanted" metaphors account for 2.10% of the total words. These metaphors likely reflect the EU's strong desire to demonstrate its ambition and commitment to participating in global climate governance. Following the Paris Agreement, the EU has increasingly expressed a willingness to advance global climate governance, partly due to its leadership role in establishing the Agreement. Additionally, the use of "wanted" metaphors aimed at urging other countries' actions potentially reveals the EU's strategic goals in climate issues. This includes positioning itself as a leader in the climate field, which is part of a broader strategy for

European revitalization in the international community. Nevertheless, the EU continues to act as an effective and energetic driver of global climate governance.

Secondly, action metaphors, including those related to giving, helping, and change, account for 1.84% of the total words. This illustrates the EU's tendency towards action and its desire to urge others, which may also reveal their strategic ambition in the climate field. Notably, action metaphors are primarily used to call for immediate action, suggesting that the EU aims to encourage actions that not only contribute to climate change mitigation but also support the maintenance of its status and leadership within the current international climate governance system.

Third, the use of metaphors categorized as X9.2 and X9.2+ indicates the EU's effort to create a dichotomous representation of the world concerning climate issues. They divide the world into two categories: impacted and non-impacted. By defining success and failure through these metaphors, the EU conveys its ideology of what is considered acceptable. In alignment with the Paris Agreement, this dichotomous approach likely aims to uphold an international system constrained by the common values of humanity, where developing countries, particularly those with significant emission needs for economic development, are strongly limited. Additionally, this system may facilitate the EU's ability to set agendas or regimes in climate governance according to its priorities and values. Moreover, the dichotomous representation created through language metaphors is often easier for the public to grasp compared to a comprehensive analysis, potentially increasing public motivation and participation in climate issues.

To briefly summarize, the EU uses metaphors to achieve a win-win situation in global climate governance in the post-Paris period, while also advancing its strategic goals of strengthening Europe's leadership and impact. The EU has made positive and significant efforts toward environmental protection. However, it is important to be aware of the potential challenges and risks this approach may pose for developing countries like China.

4.1.2 China's metaphors

Table 2 presents the frequency of metaphor use in Chinese written documents. We used manual selection to exclude less relevant categories. The use of time, geographical, and social action metaphors suggests that China, as the largest developing country, tends to focus on relatively long-term and mitigatory solutions for global climate governance.

Item	O1	%1	O2	%2	Comparison	LogRatio
Т3	101	1.21	722	0.07	+	Time: Old, new and young; age
W3	144	1.73	3466	0.36	+	Geographical terms
A2.1+	136	1.63	3939	0.41	+	Change
F4	55	0.66	912	0.09	+	Farming
S2	66	0.79	2896	0.30	+	People
I1.1-	20	0.24	242	0.02	+	Money: lack

Table 2. The Frequency of China's Metaphor

First, time metaphors are widely used in Chinese official documents at the UNFCCC. Under this label, the relevant metaphors focus on concepts such as old, new, and young. China uses these metaphors to frame climate governance as a long-term endeavor, emphasizing the present as a crucial milestone in development. The contrast between old and new underscores the importance of "new" approaches.

Additionally, following the Paris Agreement, the Clean Development Mechanism (CDM) allowed countries to set their own Nationally Determined Contributions (NDCs). However, the international community, particularly Western countries, continues to pressure nations like China and India to enhance their climate ambitions. The use of old and new time metaphors can also be interpreted as a reminder to Western countries to consider the developmental emissions needs of developing countries, similar to their own needs during periods of rapid development. This metaphorical approach may reflect China's adherence to the principle of Common but Differentiated Responsibilities.

Second, geographical terms account for 1.73% of the total corpus, which is significantly higher than their representation in the BNC Sampler Written. China is highly concerned with the differentiation between regions and aims to set climate goals and regimes based on comprehensive regional analysis. Unlike the EU's dichotomous representation of the world, China creates a practical model of global climate change that takes regional diversity into account. This multilevel perspective, while addressing regional variations, can also complicate the implementation of effective and immediate measures. The aim of China's multilevel approach is likely to slow down the process and make it more mitigatory, reflecting the necessity of traditional energy sources, such as fossil fuels, for China's economic development.

Third, China places significant emphasis on metaphors related to social actions. The ratio of social action metaphors to total words is 0.79%, indicating China's willingness to motivate public participation in climate governance. Additionally, change metaphors account for 1.63% of the corpus. These metaphors suggest dissatisfaction with the current status quo and express high expectations for the future, reflecting a strong desire to contribute to reorganizing the global climate governance system in line with the Paris Agreement.

4.1.3 Comparison

In this section, we will highlight the differences between the metaphors used by the EU and China and provide a thorough analysis of these differences.

4.1.3.1 General difference

Table 3 presents the major metaphors used by the EU and China in UNFCCC documents. The EU primarily employs "wanted" metaphors, while China focuses most on geographical metaphors. Additionally, the EU frequently uses metaphors related to psychological actions, states and processes, money, time, movement, location, travel, and transportation. In contrast, China emphasizes metaphors related to food and farming, government and public, time, and architecture. These differences in focus suggest that the EU and China engage in global climate governance at different levels of activity and have distinct interests in international negotiations.

% No.1 Metaphor % No.2 Metaphor No.3 Metaphor % **Entity** EU X7+ Wanted 2.10% A9- Giving 1.84% S8+ Helping 1.32% T3 Time: Old, W3 Geographical China 1.73% new and young; 1.21% A2.1+ Change 1.63% terms age

Table 3. The overarching metaphor used by the EU and China

The EU uses metaphors that convey a strong call for action and grand ambitions, while China employs more practical and material metaphors. The EU, benefiting from strong technical support and a solid economic foundation for a green economy and sustainable development, is likely keen to advance the climate regime established by the Paris Agreement, which it helped shape. On one hand, the EU seeks to bolster its international reputation by maintaining leadership in climate issues. On the other hand,

it might also impose constraints on other countries' development through mechanisms like the carbon market and ambitious NDCs, urging countries with fewer resources to contribute more by appealing to shared human values, such as those outlined in SDG 13.

In contrast, China uses fewer urging metaphors and focuses instead on those that highlight the ongoing nature of global climate governance. This approach may stem from China's reliance on traditional energy and industry, which contribute significantly to carbon emissions. China requires time to build the necessary infrastructure for green and sustainable development while balancing economic growth with environmental protection. Additionally, the impact of climate change on China is not as immediate as it is on vulnerable island nations.

As noted, the EU tends to frame the world in dichotomous terms, whereas China adopts a more comprehensive perspective on climate governance. While the EU advocates for immediate actions, such as phasing out fossil fuels, this approach has been resisted by countries like India and China. China acknowledges the importance of climate change governance and supports long-term actions and goals, such as carbon neutrality and SDG 13.

In conclusion, based on their strategic goals and domestic interests, the EU emphasizes the urgency of climate change, while China focuses on the continuity and sustainability of climate governance development.

4.1.3.2 The Difference in the use of Time metaphor

Table 4 presents the major time metaphors used by the EU and China in UNFCCC documents. The primary categories for both the EU and China are T1.3: period and T3: old, new, and young; age. Both entities frequently use T3-: new and young. Generally, the results indicate that China focuses on expectations and future development in its use of time metaphors, while the EU emphasizes the process and the present state of climate governance.

Entity	No.1 Metaphor	%	No.2 Metaphor	%	No.3 Metaphor	%
EU	T1.3 Time: Period	1.32%	T3- Time: New and young	0.48%	T1.1.2 Time: Present; stimultaneous	0.35%
China	T3 Time: Old, new and young; age	1.21%	T3- Time: New and young	0.40%	T2+ Time: Begining	0.40%

Table 4. The overarching Time metaphor used by the EU and China

The EU frequently uses the period time metaphor because, as the leader and guide during the Paris Agreement negotiations, the content of the agreement is particularly advantageous for developed countries, especially those in Europe, which have made significant advancements in green and sustainable economies. Consequently, after the global acceptance of the Paris Agreement's climate governance structure, the EU likely aims to maintain this system by emphasizing the extended duration of the climate governance process.

In contrast, under the Clean Development Mechanism (CDM), China has embraced the Nationally Determined Contributions (NDC) mechanism and has become increasingly ambitious in its climate governance. However, the current mechanism is challenging for large developing countries with significant emissions resulting from their development. Therefore, China focuses more on the new and young metaphors compared to the EU. This focus may reflect a desire to move away from the old system while also demonstrating China's commitment to participating actively in global climate governance.

4.1.3.3 The Difference in the use of Social Action metaphor

Table 5 shows the major social action metaphors used by the EU and China in UNFCCC documents. The EU predominantly uses helping metaphors, while China primarily uses metaphors related to people. Additionally, the total percentage of social action metaphors in the EU's documents is higher than in China's.

Entity	No.1 Metaphor	%	No.2 Metaphor	%	No.3 Metaphor	%
EU	S8+ Helping	1.32%	S5+ belonging to a group	1.08%	S6+ strong obligation and necessity	1.06%
China	S2 People	0.79%	S7.1+ in power	0.48%	S8+	0.44%

Table 5. The overarching Social Action metaphor used by the EU and China

Regarding social action metaphors, we observed that the EU primarily focuses on urging others based on its own principles. The EU often emphasizes the importance of global climate governance and highlights both their own obligations and those of others. They aim to encourage worldwide participation in the Paris Agreement framework, which helps enhance their reputation and international standing. Overall, the EU tends to use social action metaphors to exert influence from an external to an internal perspective, urging or pressuring other countries to cooperate based on shared human values and offering assistance.

In contrast, China appears to focus more on governance from an internal to an external perspective. China primarily uses metaphors related to people, indicating a strategy of calling for public actions rather than just governmental efforts. This approach is potentially more feasible for global climate governance compared to the EU's strategy, as China seeks to return rights and responsibilities to the public and encourage a sense of personal responsibility.

4.1.3.4 The Difference in the use of Psychological metaphor (Psychological actions states and processes)

The top three psychological metaphors used by the EU and China are nearly identical. Therefore, we selected two specific types of psychological metaphors—metaphors of success and metaphors of conceptual objects — to offer a nuanced analysis of their differences. Table 6 presents the usage of these two categories of metaphors in the documents of both the EU and China.

Entity	X9.2+ Success	X4.1 Mental object: Conceptual object
EU	0.54%	0.23%
China	0.17%	0.31%

Table 6. The comparison in metaphors of success and conceptual objects

For metaphors of success (X9.2+), we found that the EU places greater emphasis on the concept of success compared to China, which does not focus on this aspect. The reasons behind this are complex, but it is worth noting that success metaphors involve value judgments. Figure 3, a WordCloud generated based on usage frequency, provides detailed information on the use of X9.2+ metaphors. Words associated with value judgments, such as "effective" and "successful," appear most frequently. This reflects part of the dichotomous representation in climate governance. The EU likely aims to set certain standards for climate justice, maintain its influence in standard-setting, and simplify basic knowledge to encourage public participation in global climate change initiatives.



Figure 3. the frequency of EU's X9.2+ metaphors based WordCloud

China uses X9.2+ metaphors less frequently due to the complexity of its domestic situation. On one hand, the government recognizes the urgency of climate change. On the other hand, economic development remains a top priority for China to improve the quality of life for its people. China needs to balance emission reductions with economic development, rather than drastically cutting carbon emissions as the EU does. Additionally, under a firm humanitarian value system, a lack of knowledge can lead to confusion regarding the "self-contradictory" policies of the Chinese government, potentially causing social instability.

China prefers X4.1 metaphors more than the EU. Conceptual objects, such as "issue," "vision," "concept," and "matters," refer to highly abstract and conclusive semantic structures. The use of more X4.1 metaphors suggests that China is more inclined to engage in discussions about climate issues. Furthermore, the inner structure of X4.1 metaphors differs notably between the EU and China. Table 7 presents the words and corresponding frequencies for X4.1 metaphors. We find that the most prominent word in China's usage is "Issue," defined as an important topic of discussion or debate. This indicates that China is more focused on discussing global climate governance. In contrast, the EU prominently uses the word "Vision," which suggests a tendency to recognize the current framework and use "Vision" to outline a blueprint for future development in global climate change control.

Table 7. The words and corresponding frequency of X4.1 metaphors

Entity	X4.1 and frequency
EU	Subject (3), Principle(2), Topic(1), Issue(4), Vision(6), Consideration(1), Matter(3), Criteria(1)
China	Issue(14), Concept(4), Vision(1), Perspective(1), Ideology(3)

4.2 What strategies do the two countries employ towards climate change and the Paris Agreement in global climate governance, as reflected by their comparison?

Before the Paris Agreement, the international community was governed by the rigid framework of the Kyoto Protocol. However, the Kyoto Protocol's approach, which distinguished sharply between developed and developing countries, led to gaps in global climate governance. This dichotomous classification limited the effectiveness of multilateral governance. Due to the principle of "common but differentiated responsibilities and respective capabilities" (CBDR-RC), several countries sought

to adopt free-riding strategies (Yu, 2016). In response, the international community aimed for a change. The USA initiated the Asia-Pacific Partnership on Clean Development and Climate (APP), which, with its high degree of autonomy in policy and action-making, received widespread support. Subsequently, the Paris Agreement was adopted at COP 21 in 2015. It introduced the principle of "intended nationally determined contributions" (NDCs), which balanced the interests of both developed and developing countries. Under the new structure of the Paris Agreement, there are three characteristics that will affect entities' strategies. First, international climate governance in the twenty-first century has become polycentric. Second, the landscape of international climate politics has undergone significant changes, particularly with the rise of China and other emerging economies, which has shifted the political balance. Third, climate change has become a geopolitical issue (Oberthür & Dupont, 2021). Combining past research with our exploration, we can likely clarify the strategies of the EU and China through comparison.

4.2.1 EU's strategy

The EU has consistently played a leading role in global climate change governance (Bäckstrand & Elgström, 2013). An international actor is considered a 'leader' in global climate governance if it demonstrates greater ambition in pursuing the common good (Oberthür & Dupont, 2021). The EU has sought to establish its leadership by aiming to advance the global climate regime, with a particular focus on enhancing ambition. From Kyoto to Copenhagen to Paris, the EU's focus has shifted from the principle of CBDR-RC to NDCs, from being a skeptic to becoming a frontrunner, and from a leader to a "leadiator," combining leadership with mediation (Bäckstrand & Elgström, 2013; Christiansen & Wettestad, 2003).

Past research indicates that the EU has employed a strategy of leading by example, although this approach has sparked debates and criticisms from the international community. Scholars argue that Europe needs ambitious measures to ensure a prosperous and sustainable future that addresses the challenges of climate change and globalization. Europe aims to become a global leader in clean technologies and a driving force for economic growth and job creation (da Graça Carvalho, 2012). The EU consistently undertakes both domestic and international responsibilities to facilitate global climate governance and uphold shared human values.

Our research suggests that the EU uses political metaphors to advance the systematic development of the ongoing climate governance framework based on the leadership it has established. We can extend the conclusions of past research by noting that the EU, through its active participation in global climate governance, likely seeks to maintain the core principles of the Paris Agreement and NDCs. Additionally, the EU has made significant efforts to encourage increased climate ambition. While these efforts are crucial for advancing international climate governance, they also serve to reinforce EU leadership and limit the economic development of large developing economies like China and India. For example, at COP26 in 2021, India and other developing countries, including China, resisted initiatives to phase out fossil fuel use.

In general, we appreciate the EU's efforts to address the global issue of climate change. However, it is important to recognize the potential risks associated with the EU's push for increased climate ambition, particularly for developing countries with high carbon emissions and rapid development.

4.2.2 China's strategy

For China to balance the global climate governance and domestic economic development, the optimal solution lies in the transformation of the economy from relying on fossil fuels to being powered by renewable energy (Qi & Wu, 2013). In 14th FYP of China, China again initiated the strategy of carbon neutral and emphasize the role of active participator of themselves in global climate governance, which reflects the impressive climate ambitions of China. In addition, China started to recognize the climate issue as a part of the development issue. Under the structure formed by Paris Agreement, countries are asked to use CDM mechanism. China provided the NDCs as schedule and is willing to

establish the international carbon market with western countries like EU and USA. China actually has made their concession in adapting the international market mechanism. In the intervening period, looming biophysical changes will not likely wait for environmental and economic considerations to be sufficiently addressed. As the world's largest developing economy, China faces the dilemma more urgently than any other nation (Qi & Wu, 2013). Hence, China faced one of the greatest dilemma in the world. However, China always try to make contribution to provide the global goods in climate issue. Not only does China keep undertaking the climate responsibility in lessen the carbon emission, but also they emphasized the ecology characterized as low-carbon is the mutual goals of human-being (Yu, 2016). Past research indicates that China has experienced once strategy change, from trade-off to achieve the consensus and win-win situation (Qi & Wu, 2013) and is on the path to global climate governance leadership (Yu, 2016). By the contrast, our paper finds that China probably is conservative in short-term climate governance but still has high expectations and motivations for long-term governance.

In short term governance, China is still in deep misgivings. First, China, one of the largest countries with second large population, is in fast economic development that is crucial to improve people's lives. There are attendant much carbon intensive energy use, which caused a lower level of productivity. Second, because of the emergent international environment out of the strengthening ideological conflict, the potential negative effects of the climate governance system formed under the logic of market and by western countries leads the strategic misgiving. Third, China's difficulties actually lies in the process of implementation. With the hierarchy government structure, the center destructions' implement may be affected by the efficiency and capability of local government. During the period of government developing, the execution of climate policy like in 14th FYP needs a long period.

But China still shows their expectations and ambitions in global climate governance. Although facing numerous obstacles, China recognized the emergency of climate change and started to seek method to solve it. China has initiated the carbon neutral policy and made effort to build the community of human being for shared future. From the metaphor use, we found China always focus on the long future. There are two possible explanations that are in opposing sides, maintaining the on-going structure formed by western countries and playing an active role in or seeking to rebuild a new climate governance that is more beneficial for developing countries. We speculate in a short period, China may combine two methods above to achieve the delicate balance between participating the global climate governance and facilitating the domestic economic development.

5. Conclusion

The way we express our views about the world reflects the culture in which we live and its priorities and values (Larson, 2011). Based on the results of our survey, we can conclude that the differences in domestic and international contexts between the EU and China shape their use of metaphors in global climate negotiations. As the Paris Agreement stands as the most important climate mechanism, the differing responses of the EU and China are evident in their respective metaphors.

The EU's metaphor focuses on establishing a reputation as a "mediator" and a leader, aiming to maintain the ongoing system while encouraging and urging other international actors. Since 2016, the EU has consistently sought to utilize the carbon emission mechanism to limit the development of rapidly growing developing countries like China and India. Additionally, the EU's metaphor use tends to perpetuate dichotomous perspectives on the world (Shaw & Nerlich, 2015), which promotes public participation but can be less beneficial for national and international policymaking.

In contrast, China's use of metaphors reflects a pragmatic and accessible approach under the Paris Agreement. Given the high emissions involved, China generally adopts a conservative and calm stance on immediate climate governance. However, China still demonstrates high expectations and ambition in global climate governance, aiming to fulfill international climate responsibilities. China emphasizes the NDCs of countries, particularly developing nations, and focuses on the principle of

"common but differentiated responsibilities," which first appeared in the Kyoto Protocol. China seeks to position itself as a leader in taking on global climate responsibilities. These perspectives represent the mainstream attitudes of the respective countries towards climate governance. At COP26, a notable contradiction emerged between India and the EU—representing large developing countries and Western developed countries, respectively—over the issue of fossil fuel use. Such contradictions are likely to intensify in the future.

In our research, we introduced the research context in the introduction and literature review, explained the important corpus tool, Wmatrix, in the methodology, and outlined the design of our research. In the results and discussion section, we analyzed the findings, compared the metaphor use strategies of the EU and China, and provided a brief conclusion and analysis for each entity.

The methodology demonstrated in this paper represents only a portion of how corpus linguistic analyses can reveal the beliefs and motivations behind countries' use of metaphors. Furthermore, the materials selected from UNFCCC documents and publications by China and the EU reflect only a part of their strategies in the UNFCCC, rather than their entire strategic approaches. Additionally, our research may be influenced by subjective biases due to the manual selection process in our methodology.

Our research contributes to the development of climate politics research from a comparative politics perspective. While our findings provide insight, it should be noted that the differences between the EU and China highlight potential contradictions between Western developed countries and large developing countries. We hope that future scholars can build on this understanding of EU and China's strategies to further explore and provide guidance for China, which faces the challenge of balancing ambitious climate governance with the necessary emissions for development.

References

- [1] Bäckstrand, K., & Elgström, O. (2013). The EU's role in climate change negotiations: From leader to 'leadiator.' Journal of European Public Policy, 20(10), 1369–1386. https://doi.org/10.1080/13501763.2013.781781
- [2] Bernstein, S., & Hoffmann, M. (2019). Climate politics, metaphors and the fractal carbon trap. Nature Climate Change, 9(12), 919–925. https://doi.org/10.1038/s41558-019-0618-2
- [3] Christiansen, A. C., & Wettestad, J. (2003). The EU as a frontrunner on greenhouse gas emissions trading: How did it happen and will the EU succeed? Climate Policy, 3(1), 3–18. https://doi.org/10.3763/cpol.2003.0302
- [4] da Graça Carvalho, M. (2012). EU energy and climate change strategy. Energy, 40(1), 19–22. https://doi.org/10.1016/j.energy.2012.01.012
- [5] Engels, A. (2018). Understanding how China is championing climate change mitigation. PALGRAVE COMMUNICATIONS, 6.
- [6] Gill, B., & Wacker, G. (n.d.). China's Rise: Diverging U.S.-EU Perceptions and Approaches. 66.
- [7] Grisham, T. (2006). Metaphor, poetry, storytelling and cross-cultural leadership. Management Decision, 44(4), 486–503. https://doi.org/10.1108/00251740610663027
- [8] Isailovic, M., Widerberg, O., & Pattberg, P. (2013). Fragmentation of Global Environmental Governance Architectures: A Literature Review (SSRN Scholarly Paper ID 2479930). Social Science Research Network. https://doi.org/10.2139/ssrn.2479930
- [9] Keohane, R. O., & Victor, D. G. (2011). The Regime Complex for Climate Change. Perspectives on Politics, 9(1), 7–23. https://doi.org/10.1017/S1537592710004068
- [10] Lakoff, G., & Johnson, M. (1980). Metaphors we live by. https://pure.mpg.de/pubman/faces/ViewItemOverviewPage.jsp?itemId=item_2358831
- [11] Larson, B. (2011). Metaphors for Environmental Sustainability: Redefining Our Relationship with Nature. Yale University Press.
- [12] Oberthür, S., & Dupont, C. (2021). The European Union's international climate leadership: Towards a grand climate strategy? Journal of European Public Policy, 28(7), 1095–1114. https://doi.org/10.1080/13501763.2021.1918218
- [13] Parker, C. F., & Karlsson, C. (2017). The European Union as a global climate leader: Confronting aspiration with evidence. International Environmental Agreements: Politics, Law and Economics, 17(4), 445–461. https://doi.org/10.1007/s10784-016-9327-8

- [14] Parker, C. F., & Karlsson, C. (2018). The UN climate change negotiations and the role of the United States: Assessing American leadership from Copenhagen to Paris. Environmental Politics, 27(3), 519–540. https://doi.org/10.1080/09644016.2018.1442388
- [15] Qi, Y., & Wu, T. (2013). The politics of climate change in China. WIREs Climate Change, 4(4), 301–313. https://doi.org/10.1002/wcc.221
- [16] Rein, M., & Schön, D. (1996). Frame-critical policy analysis and frame-reflective policy practice. Knowledge and Policy, 9(1), 85–104. https://doi.org/10.1007/BF02832235
- [17] Schimmelfennig, F. (2003). The EU, NATO and the Integration of Europe: Rules and Rhetoric. Cambridge University Press.
- [18] Shaw, C., & Nerlich, B. (2015). Metaphor as a mechanism of global climate change governance: A study of international policies, 1992–2012. Ecological Economics, 109, 34–40. https://doi.org/10.1016/j.ecolecon.2014.11.001
- [19] Thompson, S. (1996). Politics without Metaphors is Like a Fish without Water. In Metaphor: Implications and Applications. Psychology Press.
- [20] Torney, D. (2019). Follow the leader? Conceptualising the relationship between leaders and followers in polycentric climate governance. Environmental Politics, 28(1), 167–186. https://doi.org/10.1080/09644016.2019.1522029
- [21] Zhang, Z. (2017). Are China's climate commitments in a post-Paris agreement sufficiently ambitious? WIREs Climate Change, 8(2), e443. https://doi.org/10.1002/wcc.443
- [22] Hongyuan Y. (2016). The Paris Agreement, new global climate governance, and China's strategic choices. Pacific Journal, 24(11), 88–96. https://doi.org/10.14015/j.cnki.1004-8049.2016.11.009. Chinese.
- [23] Danping W, & Jixian P. (2011). The Persuasive Function and Discourse Strategy of Metaphor in Political Discourse:

 A Corpus-based Study. Foreign Languages and Their Teaching, 04, 38-42+47. https://doi.org/10.13458/j.cnki.flatt.000396. Chinese.
- [24] Jisheng S. (2009). Linguistic Studies in International Relations Theory: A Review and a Prospect. Foreign Affairs Review, 26(01), 70–84. https://doi.org/10.13569/j.cnki.far.2009.01.006. Chinese.
- [25] Xiaojun X. (2015). The Construction of National Identity in Climate Diplomacy: A Case Study of the Speeches of United States, the European Union, and China at the UN Climate Change Conference in Warsaw. Heihe Journal, 07, 58–59. https://doi.org/10.14054/j.cnki.cn23-1120/c.2015.07.023. Chinese
- [26] Huiming L. (2015). International leadership in the era of fragmentation of the global climate governance system and China's strategic choice. Journal of Contemporary Asia-Pacific Studies, 04, 128-156+160. Chinese.
- [27] Sisi L. (2016). The construction of the EU's climate discourse and its reference to China. Deutschland-Studien, 31(02), 32-43+130.
- [28] Qingqing W. (2013). Metaphors and Identity Constructions in the Discourse of Climate Diplomacy: A Case Study of the Speeches of United Kingdom, Canada, and China at Previous Climate Conferences. Journal of Contemporary Asia-Pacific Studies 05, 139-156+160. Chinese.