

Green Development in Action: A Corpus-Assisted Harmonious Discourse Analysis of “China’s Green Development in the New Era”

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Abstract

This paper examines the discourse and underlying ideologies of an official white paper called “China’s Green Development in the New Era,” utilizing a corpus-assisted method within the framework of Harmonious Discourse Analysis (HDA) from the perspectives of people-orientedness assumption and HDA’s principles of conscience, proximity, and regulation. The transitivity analysis investigates the distribution of processes, participants, and circumstances in the white paper, aims to reveal the presence of HDA’s principles and explore the conveyed concepts of green development. In addition, high-frequency words were retrieved from the corpus to reflect the themes and ideas of the paper, showing the embodiment of harmonious discourse in the text from a quantitative perspective. This study contributes to the fields of ecolinguistics and discourse analysis, providing empirical insights into ecological policy and consciousness. It also offers practical implications for translation learners, aiming to provide strategies for translating Chinese official documents related to the topic of green development.

Keywords: Harmonious Discourse Analysis, green development, transitivity, corpus-assisted discourse analysis

1. Introduction

The aggravation of environmental issues, as global temperatures soar to historic levels and climate disasters become more frequent, the urgency for effective and planned global climate governance is more evident than ever. China, as a significant participant in global environmental governance, has demonstrated firm dedication to the United Nations Framework Convention on Climate Change (UNFCCC). This dedication was further emphasized at the 28th Conference of the Parties (COP28) in Dubai in December

2023. This meeting was the largest climate conference ever held, with over 70,000 participants. It also served as a crucial assessment of global environmental governance following the Paris Agreement. COP28 focused on four transformative pillars: accelerating the energy transition, addressing climate crisis, and prioritizing people, livelihoods, and inclusiveness. However, despite significant outcomes, the final agreements revealed gaps between achievements and expectations, particularly regarding the reduction of fossil

fuel use, which promises to be a focal point at COP29.

During this pressing moment, the language and discourse surrounding environmental policies and actions become crucial elements in shaping public perception and international cooperation. This research aims to contribute to this dialogue by examining the linguistic constructions and ideological underpinnings within China's green development policies, particularly through the method of transitivity analysis and corpus-based approach of an official white paper released by Chinese government in 2023, "Chinese Green Development in the New Era," within the framework of Harmonious Discourse Analysis (HDA). The integration of transitivity analysis and corpus-based approach aligns with the people-orientedness assumption and the principles of conscience, proximity, and regulation inherent to HDA, reflecting the Chinese philosophical tradition of harmony between humans and nature (Huang, 2016).

Hence, the research questions guiding this inquiry are as follows:

Q1: What characterises the distribution of processes, participants, and circumstance in the text?

Q2: Are the assumption and the three principles present in the text?

Q3: What concepts of green development in China are presented in the text?

This study situates itself at the intersection of ecolinguistics and discourse analysis, fields that have seen a paradigm shift towards understanding language within human ecosystems (Haugen, 1972; Fill & Penz, 2004). The incorporation of corpus-assisted method within HDA offers empirical precision in analysing extensive textual data, providing insights into linguistic patterns that shape ecological policy and consciousness.

2. Review of Literature

2.1 Ecolinguistics and Harmonious Discourse: Intersecting Path

The advancement of ecolinguistics emerges at the confluence of linguistic inquiry and ecological concern, marking a shift toward a more holistic understanding of language within human ecosystems (Haugen, 1972; Fill & Penz, 2004). As global industrialization parallel material progress with environmental degradation, ecolinguistics responds by

contextualising language as both a contributor to and a potential mitigator of ecological challenges (Halliday, 1990). This discipline's evolution reveals the reciprocity between linguistic structures and ecological practice, embedding itself within the broader narrative of sustainable development (Pang, 2022).

In its infancy, ecolinguistics gravitated towards descriptive accounts of language-environment dynamics, integrating the psychological and social dimensions of linguistic interaction within ecosystems (Haugen, 1972). However, a crucial turn occurred with Halliday's (1990) theory, which considered language as an influential actor within the environmental discourse, effectively launching ecolinguistics onto a path of interventionist engagement. The development of ecolinguistics in China mirrors this global pattern, transitioning from a nascent stage to a more proactive stage in ecosystem protection, exemplified by the increasing volume of scholarship and the institutionalization of the discipline (Pang, 2022).

Ecolinguistics now stands at a juncture where the need for theoretical robustness converges with the importance for practical action. Scholars advocate for a pragmatic approach that extends beyond linguistic theorization to include fieldwork and technological applications in language preservation (Xiong, 2023). This advocacy reflects a growing recognition of the role of linguistic diversity as integral to the health of the global ecosystem and the sustainability of cultural practices.

The development of ecolinguistics has, in part, been characterized by its critical approach to ecological discourse, a perspective that seeks to uncover the ideologies shaping our interactions with the natural world (Alexander & Stibbe, 2014). This approach not only examines ecological discourse but also promotes ecological knowledge, aiming to inform and transform societal practices toward ecological harmony (Alexander, 2009; Stamou & Paraskevopoulos, 2008).

The critique of eco-discourse analysis, particularly from a Western-centric viewpoint, raises questions about the universality of its applicability, especially in varied sociocultural and philosophical contexts like China (Huang & Zhou, 2021). This has paved the way for the formulation of Harmonious Discourse Analysis (HDA), an ecolinguistic approach that relate

with China's cultural ethos and ecological civilization goals. HDA endeavours to analyse discourse at both the micro and macro levels, scrutinizing language patterns and systems within the tapestry of social praxis (Huang & Zhou, 2021).

HAD's distinctive focus lies in its dual commitment: to decipher ecological narratives within discourses and to actively participate in shaping the societal discourse around ecological issues. It is predicated on the understanding that language is not merely a passive mirror of reality but a potent agent of change (Martin, 2000). Thus, HDA's analytical lens is both reflexive and directive, seeking to influence cognition and catalyse the transformation of ecological relations.

As ecolinguistics continues to diversify and mature, HDA represents an innovative frontier, one that not only interprets ecological discourses but also aspires to harmonize the discursive praxis with the intricate web of life. Its inception is a testament to ecolinguistics' adaptive capacity and its potential for cross-cultural and interdisciplinary expansion.

2.2 *Ecological Transformation: Expanding the Horizons of Discourse Analysis*

Building on the previously established relationship between ecolinguistics and Harmonious Discourse Analysis (HDA), we now shift our focus to the ecological extension of discourse analysis, particularly through the lens of Critical Discourse Analysis (CDA). This transition is significant, since it places our following discussion within the broader ecological concerns that have captured scholarly attention.

Critical Discourse Analysis (CDA) has traditionally served as a framework for investigating society structures by analysing linguistic patterns, particularly in relation to power dynamics and socioeconomic inequalities (Fairclough, 1995; van Dijk, 2004). The application of this concept in media studies has been proven to be effective in revealing how discourse, both digital and traditional, functions as a social practice that shapes and is shaped by overarching social structures, hence influencing societal change (Fairclough, 2000; Moustakes, 2022; Teo, 2023).

The evolution of CDA has not been without critique, particularly concerning its representativeness and text selection processes

(Chilton, 2005; Lanchukorn et al., 2017). In response, there has been a push for more inclusive methodologies that integrate cognitive insights to enhance the depth of CDA's analysis (Chilton, 2005). Furthermore, the advent of social media has necessitated a re-evaluation of CDA's frameworks to account for the new modalities of author-reader interaction and ideological construction (Bouvier & Machin, 2018; Sahmeni & Afifah, 2019).

Amidst these developments, an "ecological turn" within discourse studies has emerged, expanding the scope of CDA to address not only human-centred power relations but also ecological concerns with the entire ecosystem (Fill & Mühlhäusler, 2001; Stibbe, 2015). This eco-critical discourse analysis (ECDA) seeks to evaluate and critique language behaviors and ideologies contributing to ecological degradation, thereby broadening the spectrum of discourse analysis to include topics like climate change and resource consumption (Huang, 2018).

ECDA shares a symbiotic relationship with CDA but distinguishes itself by targeting a wider range of ecological issues, thus fulfilling a complementary role in the discourse analysis arena (Fill & Mühlhäusler, 2001; Huang, 2018). Where CDA focuses on power struggles reflected within human societies, ECDA leverages discourse as a means to reveal ecological problems, communicating ecological philosophies, and enhancing eco-consciousness among readers (Huang, 2018).

Within the Chinese context, the integration of HDA into the fabric of ECDA is seen as a progressive step. HDA not only uncovers ecological narratives within discourse but also aspires to harmonize discursive practices with the principles of ecological wisdom rooted in Chinese philosophy. This approach underscores a positive and harmonious analysis of ecological relations, contrasting with the traditionally critical perspective of ECDA.

2.3 *Corpus-Assisted Harmonious Discourse Analysis: Insight in Discourse Analysis*

As discourse analysis matures, the introduction of corpus methodologies has invigorated the field with empirical precision (Baker & McEnery, 2015). The integration of corpus linguistics tools within HAD provides a powerful mechanism for unpacking the layers of language that shape ecological consciousness and policy.

HDA, an approach rooted in systemic-functional linguistics (SFL), diverges from eco-critical discourse analysis by not only critiquing human ideologies and activities surrounding environmental protection but also by illustrating harmonious relationships fostering sustainable development (Huang & Zhou, 2021). This distinction is crucial; where eco-critical analysis often aligns with the voices of the marginalized, HDA encapsulates a broader societal perspective, considering the majority of participants within a societal ecosystem. This approach reflects an inherent difference from Western analytical frameworks, embodying the Chinese philosophical tradition that harmonizes humanity with nature (Meng, 2004).

The theoretical underpinning of HDA is informed by Halliday's notion of systemic ecolinguistics, which considers the impact of our meaning-making on the environment (Halliday, 2007). Emphasizing the interventional role of language, HDA situates linguistic research within social praxis, asserting that language research must be embedded in political contexts to address real-world ecological challenges (Huang & Zhou, 2021).

This research seeks to combine HDA with corpus-assisted discourse studies (CADS), an advancement that allows for the analysis of extensive textual data, revealing patterns in keywords, collocations, and concordances (Sinclair, 2004; Xu, 2019). Such a corpus-assisted approach enhances the empirical rigor of HDA, enabling a comprehensive, data-based examination of governmental texts. This innovative combination of methodologies is set to offer nuanced insights into the linguistic realization of ecological harmony as promoted by the Chinese government.

This research aims to enhance the discourse analysis field by providing a corpus-assisted exploration of Chinese governmental discourse. Furthermore, it seeks to contextualise this discourse within a framework that reflects China's distinct ecological philosophy. This study not only makes an academic contribution to the field of ecolinguistics but also has practical implications for better understanding and improving the global dialogue on sustainable development.

3. Data and Methods

Methods of this study are divided in two distinct phases, each designed to analysis the

data both quantitatively and qualitatively. Initially, the research employs a corpus-assisted transitivity analysis to examine the roles and actions attributed to subjects within the discourse, thereby revealing underlying actor relationships. Subsequently, a corpus-based analysis will be conducted, using high-frequency word retrieval to identify prevalent lexical patterns. This dual approach ensures a comprehensive examination of the discourse, combining qualitative insights with quantitative method.

3.1 Data Collection

The selected text of this research is a white paper titled "China's Green Development in the New Era," which was issued by the General Office of the State Council in 2023. This document serves as a reliable and comprehensive source, offering a detailed examination of China's green development philosophy, practices, and effects since the 18th National Congress of the Communist Party of China. The text expresses the China's dedication to prioritizing the environment and implementing sustainable practices, emphasizing China's accomplishments in ecological conservation and its vision for a balanced relationship between humans and nature in recent years.

Selecting this white paper offers several advantages over media reports for corpus analysis. Firstly, the white paper presents an unmediated, formal articulation of policy and intent, reflecting the government's official stance on ecological issues. Unlike media reports, which may present a variety of perspectives and could be influenced by journalistic styles or editorial policies, the white paper provides a focused, coherent narrative free from such variability. Furthermore, it applies a structured exposition divided into seven distinct parts, each detailing a specific aspect of green development. This organization lends itself well to systematic analysis, allowing for the extraction of themes and linguistic patterns pertinent to the principles of Harmonious Discourse Analysis.

Moreover, the white paper's language is expected to embody the people-orientedness assumption, principles of conscience, proximity, and regulation that are central to HDA. This makes it an ideal corpus for assessing how green development is discursively constructed to resonate with Chinese ecological ethos. The

white paper not only reflect China's green development journey but also offers insights into how the nation plans to fulfil its global ecological responsibilities. In contrast, media representations might offer fragmented narratives, thus providing a less comprehensive view of these principles in action. Hence, this document's selection ensures a direct engagement with the language of policy, foregrounding the official discourse as it aims to transform commitments into action and contribute to a sustainable and ecologically conscious global community.

3.2 Analytical Framework

In this research, transitivity analysis, rooted in Halliday's Systemic Functional Linguistics (SFL), will be employed to dissect the official document "China's Green Development in the New Era." This methodological approach is essential for understanding how linguistic choices in the text reflect the principles of Harmonious Discourse Analysis (HDA), a framework which posits that language not only mirrors societal values but also has the capacity to shape and influence ecological consciousness and behaviour (Halliday, 1994; Huang, 2018).

HDA is founded upon one central assumption and three guiding principles (Huang & Zhou, 2021). The assumption of people-orientedness suggests that discourse should prioritize human welfare and societal well-being. The principle of conscience calls for a moral responsibility toward the environment, advocating for linguistic expressions that foster ethical considerations. The principle of proximity emphasizes the closeness and connectedness of humans to nature, requiring a language that reflects this relationship. Lastly, the principle of regulation involves norms and laws guiding ecological conduct, underscoring the need for discourse that supports ecological preservation and sustainability.

Through transitivity analysis, this research examines the types of processes (i.e., material, mental, relational, verbal, behavioural, and existential) and their corresponding participants (goal, actor, attribute, carrier, identified, identifier, existential, sensor, phenomenon, sayers, receiver, and verbiage) and circumstances (cause, manner, location, accompaniment, matter, angle, extent, role, and contingency) (Halliday, 1994). This will reveal how the text articulates actions and actors concerning

ecological matters. For instance, material processes may highlight actual environmental actions taken or proposed, while mental processes could indicate the psychological engagement with ecological concerns.

Simultaneously, a corpus-assisted approach will identify high-frequency words related to this selected text. This lexical analysis will uncover the patterns that suggest the prevalence of the HDA principles within the document. For example, a high frequency of terms associated with environmental stewardship or sustainable practices would signal the operationalization of the people-orientedness assumption and the principle of conscience.

The analytical framework thus integrates quantitative qualitative data of the official discourse, combining corpus analysis with the depth of transitivity analysis. This dual approach will illuminate how the language used in the white paper aligns with the HDA principles, offering insights into the discursive construction of China's commitment to ecological harmony and green development.

3.3 Analytical Tools

To conduct this research, two corpus tools are used to analyse the data, the UAM CorpusTool and AntConc. Firstly, UAM CorpusTool 6.2 is utilised for transitivity analysis, this research will import the text to annotate and categorize processes, participants, and circumstances, as outlined by Halliday's (1994) framework automatically and manually. This software facilitates a granular examination of the transitivity features within the corpus, allowing for the quantification and classification of linguistic patterns in the document.

Additionally, AntConc 4.2.4 will be employed to convert the text into a mini corpus, comprising 10,178 tokens, to perform a frequency analysis of key lexemes. This tool will enable the identification of certain collocations and concordances, thereby illuminating the lexico-grammatical choices that underpin the document's thematic content. By combining the analytical strengths of UAM CorpusTool for qualitative analysis and AntConc for quantitative insights, this research will construct a powerful linguistic profile of the official discourse, contributing to the broader understanding of how language is used to shape and reflect ecological policy and practice within a pivotal governmental text.

4. Data Analysis

The text was imported into UAM CorpusTool and analysed using automatic annotation to determine the distribution of processes, participants, and circumstances throughout the text. The frequency and proportion of each component in each system were then calculated by analysing these three parts manually. After that, AntConc was used to extract high-frequency words and then classified them according to their grammatical categories.

4.1 Analysis of Processes

Table 1. The number and proportion of process types

Types of processes	Number	Percentage
Material	889	87.59%
Relational	103	10.15%
Mental	14	1.38%
Existential	5	0.49%
Behavioural	3	0.30%
Verbal	1	0.01%
Total	1015	100%

The data (Table 1) reveals a predominant use of material processes, accounting for 87.59% of all process types. These processes, characterized by verbs such as “improve,” “explore,” and “promote,” significantly contribute to illustrating action and change within the context of eco-environmental quality improvement. For instance, in this text, a sentence like:

“China has vigorously improved the quality of the eco-environment in the bay area, explored green and low-carbon urban construction and operation models, and promoted sustainable development, making its skies bluer, mountains greener, and water clearer,”

exemplifies how material processes are employed to depict tangible actions and their outcomes. This not only reflects the principle of conscience in HDA, but also vividly portrays the proactive measures taken towards environmental betterment.

Besides, relational processes, comprising 10.15% of the data, primarily utilize the “be” verb in this text to articulate characteristics and attributes related to “green” and “green development.” These processes are essential in defining and explaining key concepts, thereby underlining

the significance of green development. For example,

“By the end of 2021, 80.5 percent of e-commerce parcels were free of secondary packaging, all express delivery packages were sealed with thinner (45mm) tape, and all transit bags used in the sector were renewable.”

The example provided, detailing the advancements in e-commerce packaging and the shift towards renewable materials, illustrates the application of relational processes in establishing the link between current practices and their sustainable attributes. This sentence also reflects the principle of conscience.

Mental processes, although less prevalent at 1.38%, are crucial in depicting human emotions, thoughts, and perceptions. In this text, for instance:

“It has made use of mountains, waters, and other unique landscapes to integrate cities into nature, so that urban dwellers can enjoy the view and are reminded of their rural origins.”

The example discussing the integration of cities into nature, allowing urban dwellers to “enjoy the view” and recall their rural origins, is indicative of this process type. It demonstrates the ‘people-orientedness’ assumption in HDA, emphasizing the importance of people’s psychological and emotional connections to the environment.

The other three components occur infrequently that they will not be analysed in this paper. In short, the predominance of material processes in the data highlights a focus on tangible actions and results in environmental improvement efforts. Relational and mental processes, while less frequent, provide critical insights into the conceptual understanding and emotional engagement with green development.

4.2 Analysis of Participants

According to the Table 2, goals are the most frequent participant type, accounting for 61.40% of occurrences. This is followed by actors at 25.30%, and then other types like attributes, carriers, and identifiers in smaller proportions. The predominance of goals highlights the forward-looking and objective-driven nature of the discourse, while the presence of actors and other participant types illustrates the various entities and elements involved in achieving these objectives.

Table 2. The number and proportion of participant types

Types of participants	Number	Percentage
Goal	840	61.40%
Actor	346	25.30%
Attribute	52	3.80%
Carrier	52	3.80%
Identified	32	2.34%
Identifier	29	2.12%
Existential	5	0.37%
Sensor	4	0.29%
Phenomenon	4	0.29%
Sayer	1	0.07%
Receiver	1	0.07%
Verbiage	1	0.07%
Total	1367	100%

A higher frequency of goals than actors in material processes, indicating an emphasis on the objectives and outcomes of actions rather than the agents performing them. This could suggest that the text aims to emphasize the importance and urgency of the environmental goals themselves over the entities carrying out these actions. The participant “China” is frequently mentioned as an actor, along with references to “it” and “China’s + N” structures. This frequent mention positions China as a proactive and engaged entity in the realm of green development, indicating a strong sense of agency and commitment. The text also highlights China’s role in international cooperation, showcasing its involvement in global environmental efforts alongside other countries and regions. This not only illustrates China’s active participation but also situates it within a broader international context. This demonstrates the discourse echoes the principle of proximity. For instance, the two sentences show China’s domestic and international cooperation:

“Pushing for breakthroughs in environmental protection in the coordinated development of the Beijing-Tianjin-Hebei region.”

“China has also carried out cooperation with other countries and regions — including India, Brazil, South Africa, the United States, Japan, Germany, France, and ASEAN countries — in the fields of

energy conservation...”

On the other hand, the term “law” also appears frequently, which reflects the importance of legal frameworks and regulations in environmental conservation efforts. This points to a principle of regulation, suggesting that progress in eco-environmental conservation is closely tied to the rule of law and regulatory measures.

In a word, the analysis of participants in the discourse reveals an emphasis on goals and objectives, with a specific focus on the roles of China and legal frameworks. This reflects China prioritizes the outcomes of green development efforts and the regulations guiding these efforts, while also recognizing the importance of agency and international cooperation.

4.3 Analysis of Circumstances

The most frequent circumstance type is “cause,” (Table 3) accounting for 26.47% of occurrences. This prevalence illustrates that the text often emphasizes the reasons or purposes behind actions and policies. For instance, the text uses expressions like “To strengthen national and regional eco-environmental security” and “To make a major contribution to the sustainable development of global resources,” which not only demonstrates the purpose of China’s green action but also reflect a people-orientedness assumption and the principles of consciousness and proximity in HDA.

“Manner” is the second most common type in this table, making up 19.17% of the circumstances. This indicates a significant focus on the way actions are carried out. For instance:

“China has ... set protection lines for all types of sea areas, in a coordinated manner.”

The text also articulates China’s approach to green development, mentioning how it has set protection lines for various sea areas and carried out large-scale afforestation projects “steadily” and “effectively.” For example:

“China has carried out large-scale afforestation projects, steadily increased the area of forests, grasslands, wetlands, rivers and lakes, and effectively reversed the trend of desertification.”

In this sentence, the use of adverbs like “steadily” and “effectively” represents the methodical and successful implementation of these initiatives. On the other hand, these sentences also demonstrate the principle of proximity.

Other notable circumstance types include “location,” “accompaniment,” and “matter,” emphasizing the importance of where actions take place, who or what accompanies them, and additional explanatory details. Location is a description of a dative such as time and place; Accompaniment is often expressed through “with”; Matter indicates additional description;

Angle indicates the identity represented; Span includes both time span and place span, indicating duration or scope of influence; Role is an elaboration of identity; Contingency expresses conditionality, transitions, etc. The variety of circumstances reflects the complexity of environmental policies and actions.

Table 3. The number and proportion of circumstance types

Types of circumstances	Number	Percentage
Cause	203	26.47%
Manner	147	19.17%
Location	107	13.95%
Accompaniment	106	13.82%
Matter	71	9.26%
Angle	51	6.65%
Extent	43	5.61%
Role	28	3.65%
Contingency	11	1.43%
Total	767	100%

4.4 Analysis of High-Frequency Words

For the quantitative analysis of the text, high-frequency words were manually classified according to the automatically generated high-frequency word lists by AntConc, and the

nouns, verbs, and adjectives with the highest frequency of occurrence were extracted. Besides, the various forms of the auxiliary verbs “have” and “be” were combined and presented in their respective prototypes.

Table 4. High-frequency words in the white paper

Nouns	Frequency	Verbs	Frequency	Adjectives	Frequency
China	177	have	247	green	146
development	137	be	185	environmental	98
energy	84	control	24	economic	29
water	60	promoted	24	national	29
environment	48	made	23	industrial	23
protection	45	waste	17	rural	21
resources	45	improved	14	beautiful	19
conservation	42	saving	14	clean	18
carbon	32	build	13	sustainable	18
industries	30	change	13	agricultural	16

According to the corpus of this text, the lexical choices prominently reflect the paper’s thematic focus and actions. The nouns such as “China,” “development,” and “environment” are the

most frequent, illustrating the central subjects of this white paper. These terms emphasize the primary areas of focus and concern, namely China’s role in and commitment to sustainable

and environmental development. The high frequency of “China” indicates the nation’s centrality in this narrative, while “development” and “environment” suggest a relationship between economic growth and ecological responsibility. Verbs like “have” and “be” dominate, portraying China’s past contributions to green development and providing explanations of specific sustainable measures. The prevalence of “have” suggests an emphasis on the achievements and actions taken, while “be” is often used to describe the state or quality of green development initiatives. This linguistic pattern indicates a descriptive and affirmative tone in the discourse, emphasizing China’s proactive stance and ongoing efforts in environmental governance. Put it another way, these words reflect the principle of “conscience” in HDA.

On top of that, adjectives such as “green,” “environmental,” and “beautiful” further colour the narrative, imbuing it with positive connotations and reflecting a strong determination for environmental governance. The use of “green” and “environmental” frequently throughout the text not only signifies the focus on eco-friendly practices but also reflect the principle of “conscience” in HDA, indicating a moral and ethical commitment to ecological harmony. The occurrence of words like “national” and “rural” reflects the government’s consideration of both the broader national perspective and the specific issues related to China’s vast rural areas, embodying the “proximity” principle of HDA and indicating a comprehensive and inclusive approach to environmental policy.

5. Discussion

The aim of this discussion is to synthesize the findings from a transitivity and lexical analysis of a corpus-based approach on discourse analysis. The utility of these methods in ecological discourse analysis is examined, revealing how they reveal the thematic and ideological underpinnings of the text. The discussion first reflects on the methodological insights gained, considering the implications of a corpus-based approach for understanding the lexico-grammatical choices in official narratives about environmental policy and action. Subsequently, the discussion turns to the broader implications of these findings. It explores the role of HDA in interpreting and addressing global environmental issues,

emphasizing the potential of discourse analysis in understanding international policy debates. Finally, the implications for translation learners and the broader impact of these findings on the understanding and dissemination of China’s environmental narrative are considered.

5.1 Transitivity and Corpus-Based Approach to Discourse Analysis

Firstly, this research examines the efficacy of integrating transitivity and corpus-based approaches in discourse analysis, specifically within the field of ecological discourse. The transitivity framework, as proposed by Halliday (1994), offers a useful method for deconstructing the lexical and grammatical structures of a text, thereby revealing the inherent thematic patterns and actor relationships within the discourse. In applying this framework to the selected text, a predominance of material processes emerged, indicating a discourse mainly focuses on action and tangibility. Such a finding not only reveals the proactive nature of the discourse but also aligns with the broader narrative of China’s commitment to environmental stewardship and sustainable development.

Furthermore, the corpus-based approach has proven instrumental in this analysis, facilitating an examination of high-frequency lexical items. This methodological strategy is particularly adept at uncovering the thematic and ideological orientations embedded within the text. For instance, the frequent occurrence of terms like “green,” “development,” and “China” not only highlights the central themes but also reflects the underlying ethos of ecological consciousness and national identity. The lexical analysis, when viewed through the framework of transitivity, provides a more textured understanding of the discourse, revealing how specific actors are positioned and how actions are framed. This integration of transitivity and corpus-based analysis offers an insight to understanding the multiple layers of meaning in environmental discourse, thereby contributing to a better understanding of how language shapes and is shaped by ecological and ideological issues.

5.2 Addressing Global Environmental Challenges Through HDA

The second part of this discussion pays attention to the applicability and significance of Harmonious Discourse Analysis (HDA) in addressing global environmental challenges.

HDA, with its focus on the principles of conscience, proximity and regulation, provides a specific perspective for understanding how ecological issues are framed and discussed at the international level. The analysis of white paper related to China's green development, through the HDA, reveals a deliberate attempt to harmonize economic progress with environmental development, emphasising a narrative that is both locally grounded and globally aware. The frequent use of terms like "green," "sustainable," and "development" within the corpus reflects a discourse strategy that seeks to balance the often-competing demands of economic growth and environmental conservation.

Moreover, the global implications of this discourse are profound. In an era where climate change and ecological degradation pose significant threats to humanity, understanding the linguistic strategies employed in environmental narratives becomes crucial. The discourse, as analysed, not only reflects China's domestic environmental policies but also its stance and role in the global environmental dialogue. The principles of HDA, particularly the emphasis on conscience, proximity, and regulation, provide a framework for interpreting how nations like China articulate their environmental commitments and strategies. This understanding is vital for fostering international cooperation and collective action. By dissecting the discourse through HDA, we gain insights into the potential for such analysis to bridge gaps in understanding and to facilitate a more cohesive and unified global response to environmental challenges.

5.3 Implication for Translation Learning and External Publicity

The final segment of this discussion switches to the practical implications of this research, particularly for translation learners and the methods of external publicity. Through transitivity and corpus-based analysis of Chinese discourse, offers an insight for those engaged in the translation and interpretation of official texts. For translation learners, the ability to understanding the underlying thematic and ideological currents within a text is crucial. This research demonstrates the importance of not merely translating words but also conveying the subtleties of meaning and cultural context embedded within the discourse. Furthermore, the analysis can provide insights for the

methods of external promotion, especially in how China's environmental policies and initiatives are presented to an international audience. Understanding the strategic use of language in official narratives is crucial for accurately representing a nation's intentions and actions on the global stage. This research, therefore, not only contributes to the academic field of discourse analysis but also has real-world applications in enhancing the effectiveness and sensitivity of translation and external practices, particularly in the context of international environmental dialogue and diplomacy.

6. Conclusion

The white paper "China's Green Development in the New Era" explicitly reflects the assumption and three principles of Harmonious Discourse Analysis (HDA). Through transitivity analysis and corpus-assisted examination, the white paper demonstrates China's equal and ecological philosophy, advocating for a harmonious coexistence between humans and nature and promoting sustainable development across industries. The research concludes that China actively shoulders social responsibility, persistently seeking to maintain the healthy functioning of natural ecosystems and ensuring a symbiotic relationship between humanity and the environment. It is clear that China is not only pioneering new pathways for green development for the international community but also contributing new ideas that may aid in constructing an ecologically harmonious Earth. Additionally, this analysis confirms the suitability of HDA for discourse studies with Chinese characteristics, enriching the framework for discourse studies in China. However, limitations such as a small sample size and a relatively simplistic overall research design are acknowledged. Future studies could benefit from a more extensive or diversified data to explore deeper into the China's green development discourse and its global implications.

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