

**WHEN ECOLINGUISTICS MEETS CORPUS LINGUISTICS – A CORPUS-ASSISTED
ECOLINGUISTIC STUDY OF CHINA’S ECOLOGICAL CIVILIZATION DISCOURSE
(ECD)**

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Resumo: O discurso da civilização ecológica é uma forma de expressão concreta do discurso harmonioso, é a construção do significado do discurso harmonioso para o contexto e a prática da civilização ecológica. Este estudo combinou as abordagens teóricas e metodológicas de duas disciplinas: Linguística de Corpus e Ecolinguística. Adotamos essa abordagem para examinar o ECD dentro do corpus BCC para verificar quais *insights* a Ecolinguística Assistida por Corpus pode fornecer em relação à ordem das palavras, seleção e frequência, bem como a interpretação e análise do discurso, seus sujeitos e ideologias. Descobrimos que, ao compreender e examinar o estabelecimento, o discurso e a implementação prospectiva da civilização ecológica, podemos adquirir perspectivas valiosas sobre a coexistência harmoniosa entre humanos, natureza e sociedade, bem como aprender coisas significativas – positivas e negativas – para mudar do discurso harmonioso e ecológico para um modo de vida harmonioso e ecológico.

Palavras-chave: Ecolinguística; Linguística de Corpus; China; Discurso da civilização ecológica.

Abstract: Ecological civilization discourse is the concrete expression form of harmonious discourse, it is the construction of the meaning of harmonious discourse to the context and practice of ecological civilization. This study combined the theoretical and methodological approaches from both disciplines Corpus Linguistics and Ecolinguistics. We adopted this approach to examine the ECD within the BCC corpus to ascertain what insights Corpus-Assisted Ecolinguistics can provide regarding word order, selection, and frequency, as well as the interpretation and analysis of discourse, its subjects, and ideologies. We discover that by comprehending and examining the establishment, discourse, and prospective implementation of ecological civilization, we can acquire valuable perspectives on the harmonious coexistence among humans, nature, and society, as well as learnt significant things --- positive and negative ones --- in order to change from harmonious and ecological discourse to harmonious and ecological way of living.

Key words: Ecolinguistics; Corpus Linguistics; China; Ecological civilization discourse

1. Introduction

The term ‘ecological civilization’ (*sheng tai wen ming* 生态文明) appears in 2007 as an ideology from China’s Communist Party. In the following years, it started to be developed, its meaning clearer and inserted in China’s laws, policies and constitution. Today, it can be defined as “a vision of a society characterized by ecologically sustainable modes of resource extraction, production and trade, inhabited by environmentally conscious and responsible citizens” (HANSEN ET AL., 2018, p. 195-196). Therefore, in this work, the Ecological Civilization Discourse (henceforth ECD) is understood as linguistic and social manifestations of the ideology of ecological civilization in specific contexts.

ECD intertwines Chinese culture and philosophy with political framework trying to continue China’s long historical tradition of harmony with nature and to react against the recent damage to environment. Therefore, ECD, based on Confucian (PAN 2007; ZHOU, HUANG 2017), also refers to the meaning of construction of a particular type of harmony among men, nature and society, in other words, “ecological civilization requires the harmonization of the relations between economy, politics, administration, culture, society, and nature” (HUANG; ZHAO, 2021 p. 8). In addition, Huang & Zhou (2021, p. 2) explain that ‘harmony’ is understood as “a perspective, a way of seeing and dealing with relations in the world, an approach to the exploration of the functions of language in identifying, presenting, and offering an alternative to solving ecological problems in a specific context”. Furthermore, the importance of the different types of interactions between humans and environment is one of the major themes of distinct ecolinguistic approaches as will be discussed below.

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Additionally, according to Zhou & Huang (2017), the Chinese ecological discourse distinguishes itself from the Western discourse by virtue of its deep-rooted Confucian and Daoist traditions, as well as its metaphysical, aesthetic, moral, and social dimensions. It is precisely these philosophical traditions that foster concepts of harmony, the pursuit of harmonization, holistic thinking, and ecological legitimacies within Chinese society. In contrast, the European ecological discourse is characterized by its anthropocentric, Cartesian, and dualistic nature, consequently resulting in ecological fallacies.

Another ECD feature is its jargon and sentences (e.g., ‘Clear waters and green mountains are as good as mountains of gold and silver’; ‘building a community with a shared future for mankind’) that share some characteristics with Western environmental discourses, but it displays distinct uses and meanings within Chinese society, which are analyzed in this text. Thus, we understand ECD as:

- The meaning construction of harmonious discourse to the contextualization and practices of ecological civilization;
- The concrete expression form of harmonious discourse;
- And the manifestation of harmonious discourse in everyday life as characteristics of the Chinese society of the present days.

This text is the first result of an ongoing investigation about the analysis of distinct ecological discourses within Chinese society. We began our project by analyzing the official discourse of ‘ecological civilization’ observing its frequency in the BCC corpus (Beijing Language and Culture University Corpus Center), which is the theme of the present paper. In this sense, we agree with Hansen et al. (2018: 202)’s statement in which:

(...) it calls for more research into alternative, or possibly even counter, narratives of eco-civilization and the environmental future of China, considering the fact that the CCP and government are persistently portrayed in official discourse in praising terms as the architect of eco-civilization (...)

Hence, we intend to elaborate an ecological discourse analysis on Xi Jinping’s speeches – the president of the People’s Republic of China since 2013 – about ecological and environmental preoccupation of Chinese government and society, based on the four volumes compilation, named

The Governance of China, as the corpus, followed by the elaboration of corpora – that are still under construction – composed by news, reports, and articles, which present opinions, evaluations, and the impact of the ecological civilization on everyday Chinese life. Thus, as a project in its initial stage, it is important to state that the findings and study reported here present limitations and can be revised in the future.

We believe that by analyzing the several ecological discourses emerging in Chinese society during the last years can help us to understand different instances and actors involved in language use and the important elements underlying them. Thus, this paper intends to conduct a corpus-assisted ecolinguistic analysis of the ECD in order to understand its meaning, ideologies, uses, and possible impacts in Chinese society. Therefore, we discuss the ecolinguistic approaches to study discourse, in section 2, followed by a description of the research methods used, section 3. In section 4, we present our findings and discuss the results. Finally, section 5, there are our concluding remarks.

2. The Ecolinguistics Framework to analyze discourses

During the 1970's, linguists began to notice the relationship between ecology and the study of language, especially after Haugen's seminal work *The Ecology of Language* (HAUGEN, 1972). In the last decades, following the publication of Harré et al. (1999), ecolinguists have started to develop approaches and methods for analyzing different types of discourse, particularly ecological and environmental discourses.

Therefore, ecolinguistics emerged as a comprehensive term that encompasses both traditional linguistic methods applied to texts and discourse of ecological significance, together with deeper reflections on language theories influenced by the holistic principles of ecology. Furthermore, despite this dual distinction, another one can be done relating to how 'ecology' is understood. Thus, the existing ecolinguistic approaches also can be separated into two as some used the concept of ecology metaphorically, while others non-metaphorically. What both approaches have in common is that they aim to develop theories rooted in ecological thinking, specifically designed to analyze human and linguistic practices relevant to ecological and environmental issues, that is, to examine the role of language in shaping, preserving, influencing, or dismantling connections among humans, other organisms, and the natural world.

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Moreover, as Alexander and Stibbe (2014) note, the concept of ‘humans’ is rather ambiguous. We use here their suggestion as it is defined as groups of humans organized into various cultural, societal, professional, industrial, and institutional structures. Yet, such groups coordinate their activities and perspectives through discourses, which, by their turn, are faced as clusters of linguistic and semiotic elements utilized by these same groups to articulate their understanding of the world. In addition, these understanding of the world serve their own interest in order to generate particular models of reality. Consequently, ecolinguistics is also concerned with such models and the linguistic features that comprise them.

Since the 1990’s, ecolinguists use Critical Discourse Analysis (CDA) framework to study manifestations and consequences of several types of ecological discourses (ALEXANDER; STIBBE, 2014). Decades later, it was developed by Alexander (2009), and recently expanded by Poole (2022), another method which combines CDA with corpus linguistic techniques. By relying on quantitative data obtained from a corpus, CDA results can be substantiated, thus showing empirically how linguistic features serve as a foundation for discourse processes like evaluations and arguments as well as ideological stances.

Alexander (2017) points out linguistic devices in texts that are important for an intertwined CDA and Corpus Linguistics analysis, which is called Corpus-Assisted Ecolinguistics, that are the observation of most frequent lexical items, the occurrence of purr-words, the presence of euphemisms – together with euphemization –, the use of nominalizations, verbs in future tense forms, and the attention to omission of specific words.

The observation of the frequency or omission of words, used with particular meaning, is considered by Stibbe (2017, p. 167) as a “positive angle that ecolinguistics has taken (...)”, specifically “to search for ‘correct’ lexical items”. Stibbe (2017) brings an example of such analysis conducted by Kemmerer (2006), who states the following about the use of word ‘animal’, but excluding the humans from it: “From an ecological perspective the exclusion of humans from the noun ‘animal’ is undesirable because it draws attention away from the fact that, like all other animals, humans depend on a physical environment for our survival” (STIBBE, 2017, p. 167).

Purr words were defined by Hayakawa (1947) as highly positive connotation words, while their opposite – snarl words – are negative connotation ones. Nowadays, they are associated, respectively, with politically correct and incorrect language (NAGY, 2021). The use of purr words is a strategy of greenwashing superficial discourses – called by Harré et al. (1999) ‘greenspeak’

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and by Fill (2001) ‘surface ecologization’ – which are elaborated by companies, governments or other powerful groups in order to maintain their ideological control and, at the same time, to pretend environmental preoccupation.

Euphemisms are words or expressions usually employed in particular situation with stylistic functions to soften words’ meaning. Trampe (2001, 2017) coined the term ‘euphemization’ to differ it from regular euphemism since the first is employed as concealing, fraud, and manipulative functions, while the latter works as whitewashing, downplaying, and thoughtfulness (TRAMPE, 2017, p. 327).

Nominalizations are a range of linguistic processes that change different word classes, more often verbs or adjectives, into noun class. According to the ecolinguistic view, even in CDA nominalizations serve to erase the actors, turning the sentences into an impersonal style, transforming it in a scientific writing together with the formation of abstract nouns (HALLIDAY, 1990; GOATLY, 1996).

The idea of future as a particular time can be expressed in any language via distinct strategies, while future tense and its grammatical marking in verb class are specific to some languages. An ecological interpretation of the use of future tense focus on how “the future orientation of projects is reflected in the way futurity is expressed grammatically” and “At the same time many modally unspecific targets proliferate” (ALEXANDER, 2017, p. 206).

In addition to CDA, there exists the concept of Positive Discourse Analysis (PDA), which was initially introduced and developed by Martin (1999, 2004). PDA can be defined as a method of exploring the positive applications of language that offer alternatives to what the analyst perceives as negative or harmful dominant discourses. Put simply, PDA strives to not only focus on the negative aspects but also on the positive aspects. It is an endeavor to discover novel ways of employing language that convey narratives distinct from those shaped by the current industrial civilization. These narratives can serve as inspiration to safeguard the ecosystems upon which life relies and construct more equitable societies (STIBBE, 2015, 2017).

3. Research Method

This paper analyses the occurrences and configuration of ‘ECD’ as a significant element within Chinese government discourse, specifically the frequency of the construction *sheng tai wen*

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ming (生态文明) ‘ecological civilization’ and which are the immediate words/ constructions before and after it in the BCC corpus (XUN ET AL., 2016),

The BCC Chinese corpus was chosen because it remains as the largest and most complete corpus of Chinese¹, and comprises different text genres. This corpus presents a total number of 15 billion words, including newspapers and periodicals (2 billion words), literature (3 billion words), *Weibo*² (3 billion words), science and technology (3 billion words), synthesis (1 billion words) and Ancient Chinese (2 billion words). In our view, such large-scale corpus can comprehensively reflect at least a significant part of today’s social language life and Chinese society.

The analysis of BCC elaborated here follows three steps: (1) Recognition of sentence examples of ECD; (2) Quantification of these sentence examples; (3) Contextual analysis of these sentence examples.

In this study, we begin by inserting the term “ecological civilization”, searching it and extracting it from the BCC corpus in order to obtain the exact number of occurrences on the left and right side. In other words, the recognition and quantification of sentence examples of ECD was conducted by inserting “ecological civilization” in the “search” column on the BCC corpus website, and then click on the “diachronic retrieval” (XUN ENDONG ET AL., 2015), which comes from *The People’s Daily*. The result of this initial search was of the 5,594 times of the search sentence with 30 characters.

We use Antconc 3, in its 3.4.3 version, to conduct all of the remaining quantitative analysis. The Antconc 3.4.3 was chosen because is a freeware that can be installed in any platform (multi-platform) and is designed to conduct several functions, specifically to work as concordancer and word frequency generator (ANTHONY, 2005). Furthermore, it is also a consensus the Antconc use in Corpus Linguistics and other Corpus-based research (ANTHONY; CHUJO; OGHIGIAN, 2011).

After obtaining the initial search results of the BCC corpus, it needs to be downloaded and saved in order to be imported into Antconc 3.4.3 freeware for further analysis. Finally, we use the Antconc 3.4.3 to find out the left and right collocations in the search sentences, their numbers and frequencies, and elaborate a quantitative analysis on the occurrence frequency.

¹ In this text, we referred to Chinese language as Mandarin since it is not our goal here to discuss sociolinguistics or dialectological aspects of Chinese official and local languages.

² Microblogging platform, similar to Twitter/ X, very popular in China.

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The data obtained after the quantitative analysis is interpreted according to Ecolinguistics approach, emphasizing ECD and PDA. Thus, it will be observed the aforementioned structures and categories – the meaning of high frequency of particular words and the omission of other, purr words, euphemisms, nominalization, and the use of future tense form – and what are the explanations about their incidences or absence in the data.

4. Results and Discussion

In this section, we describe the results founding when searching the term “ecological civilization” in the BCC corpus with Antconc 3.4.3, emphasizing the number of occurrences together with the frequencies of words on its left and right positions (4.1) followed by the interpretation and analysis of the data and words found, what can reveal about the ECD (4.2).

4.1 Results: ECD frequency and configuration in the BCC corpus

As was mentioned before, the BCC corpus is the biggest existing Chinese corpus comprising several genres with the amount of 15 billion words. Furthermore, the search on the BCC uses Antconc 3.4.3 to verify the frequency of “ecological civilization” revealed 5,594 sentences with 30 characters.

Our study begins by opening the Antconc 3.4.3 and clicking on the ‘collocate’ tool. After that, we type “ecological civilization” as a ‘Search Term’ and set the collocation word in the ‘Window Span’. In the following steps, we mark the position of the distance search term from 1 L to 1 R, that is, the collocation phrase of the left and the right of the search term. In ‘Min. Collocate Frequency’, we set the limit of the number of occurrences of the collocation word, which, by default is more than 1, and click ‘start’ to view the retrieval result of the peripheral context for the search term (see Fig.1).

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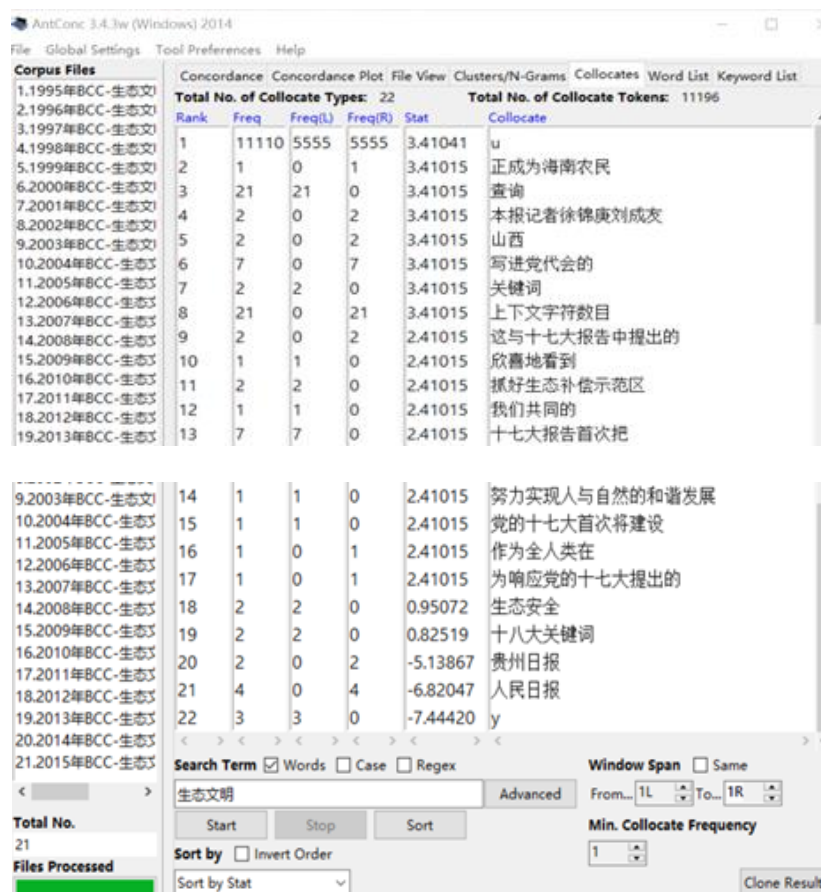


Fig. 1a-b Frequency diagram of left and right collocation phrases in the search term of “Ecological Civilization”

Figure 1 shows also that there are 22 types of collocation phrases in the left and the right of the search term, and the total amount is 11,196 times. The first column ‘Rank’ in the figure is the order number that occurs in terms of the word shape from high to low. Here, an order of 1 to 22 bits is selected, where ‘U’ in the sorting 1 is a separate symbol on the left and right of the search term, that is, the “<U> 生态文明<U>”, which can be used as an independent item. The second column ‘Freq’ is the total frequency of each word occurrence. The third column ‘Freq (L)’ and the fourth column ‘Freq (R)’, respectively, are the number of times a matching word appears on the left and right of the search term.

It is noteworthy that the two highest frequencies in both left and right columns are exactly the same. The frequency of the Freq (L) column sort 22 bits with the highest in Rank 13, *shiqidà bàogào shǒucì bǎ* (十七大报告首次把) ‘for the first time, the report of the 17th National Congress’, which appears seven times on the left side of “ecological civilization”. The highest of

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the Freq (R) is in the order 6, *xiějìn dǎngdàihuì de* (写进党代会的) ‘to write into the Party’s congress’, which also appears seven times to the right. Therefore, the sentence found in the corpus is a small sentence derived from the search result order 6 of 2007, which contains the search term, and the matching word on the left and on the right.

Judging from the retrieval results of the surrounding contextualization of the search term “ecological civilization” in Tab. 1, the key phrases, constructions or words found were “the 17th National Congress”, “for the first time”, “write(s)”, in(to) the political report”, and “CPC”. After checking the original text of the search sentence, they are different retrieval of left and right collocation words made by computer for the same sentence. The contextualization searched by the word cluster on the left and on the right sides of “ecological civilization” displayed the same structures and forms, appearing only small variations related to word order.

1.把 <u> 生态文明 <u> 首次写进十七大报告党代会的政治报告
Write <u> the ecological civilization <u> for the first time in the political report of the 17th National Congress of CPC.
2.把 <u> 生态文明 <u> 首次写进党代会十七大报告的政治报告
Write <u> the ecological civilization <u> for the first time into CPC of the political report of the 17th National Congress.
3.把 <u> 生态文明 <u> 首次写进政治报告的党代会十七大报告
Write <u> the ecological civilization <u> for the first time into the political report of CPC of the 17th National Congress.
4.党代会的十七大报告把 <u> 生态文明 <u> 首次写进政治报告
the 17th National Congress of CPC writes <u> the ecological civilization <u> for the first time into the political report.
5.党代会的十七大报告首次把 <u> 生态文明 <u> 写进政治报告
the 17th National Congress of CPC for the first time writes <u> the ecological civilization <u> into the political report.
6.十七大报告的党代会把 <u> 生态文明 <u> 首次写进政治报告
the 17th National Congress of CPC writes <u> the ecological civilization <u> for the first time into the political report.
7.十七大报告的党代会首次把 <u> 生态文明 <u> 写进政治报告
CPC of the 17th National Congress for the first time writes <u> the ecological civilization <u> into the political report.

8.首次把 <u> 生态文明 <u> 写进政治报告的党代会十七大报告
for the first time writes <u> the ecological civilization <u> into the political report of CPC of the 17th National Congress.
9.首次把 <u> 生态文明 <u> 写进党代会政治报告的十七大报告。
for the first time writes <u> the ecological civilization <u> into CPC the political report of the 17th National Congress.

Table. 1. Contextualization of “ecological civilization”

We have noticed that the retrieval term “the 17th National Congress for the first time writes < u > ecological civilization < u > into the political report of CPC” is the highest expression of the frequency of the syntagmatic relationship. On one hand, this reflect that ECD is limited to government and official use, on the other hand, this show the preferences of the subjects behind ECD regarding word configuration, that is word choices and word order, as it will be discussed in the next section (4.2).

The left side of the ecological civilization search term is matched with the word cluster, and the expression of the syntagmatic relationship is as follows: order 1, that is, the "social construction, <u> ecological civilization"; and order 4, that is, the "society, <u>ecological civilization". The sum of the frequency of the two appears to be the highest. In concert with this, the right side of the ecological civilization search term is matched with the word cluster. That is, as one of the reflecting paradigmatic relationship, the right side of the "ecological civilization <u> construction" is matched with the word cluster, and the frequency of occurrence is also the highest.

The left collocation results were made by clicking in the Antconc 3.4.3 clusters above the main interface to enter the "ecological civilization" at the search term, and set the Cluster Size (Min. Size is 2, Max. Size is 3, indicating that a phrase of 2 to 3 words, including the “ecological civilization” of the search term, is to be retrieved). The Min. Cluster Frequency is 1, the Sort by item is set to Sort by Freq, and on right is checked in Search Term Position, you can get 2 to 3 words with “ecological civilization” as the left side of the search term (see Fig. 2).

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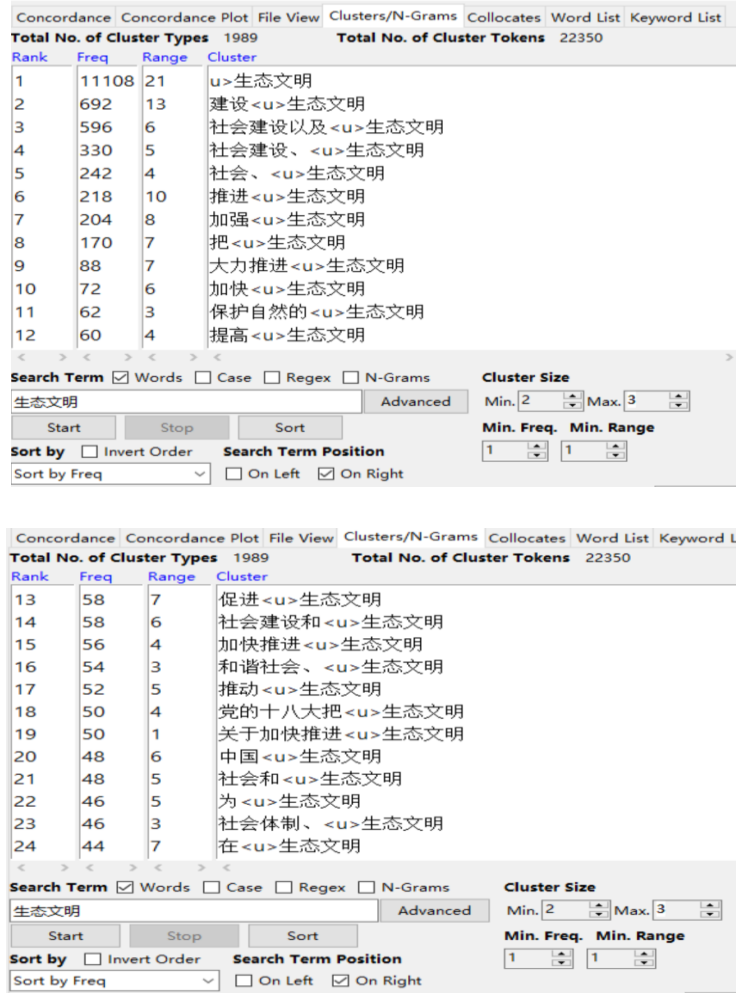


Fig. 2 The left collocation word cluster and its frequency ranking of the search term "Ecological Civilization"

In Fig. 3, by removing the redundant qualified words before nouns in the cluster, the conjunction symbols and conjunctions can be merged into “and”, the clusters of serial numbers 3, 4, 14 and 14 can be merged into “社会建设和social construction and”, and the clusters of serial numbers 5, 16 and 21 can be merged into "society and社会和". By removing the adverb adjuncts before verbs in the cluster, the serial numbers 6, 9, 13, 15, 17 and 19 can be merged into “push推进”, and the clusters of serial numbers 8 and 18 can be merged into “ecological civilization (built and other verbs) 把生态文明（建成等动词）”. Thus, the order of the first ten of the occurrence frequency of the collocation word cluster on the left side of search term of ecological civilization can be obtained (see Table 2A).

We conducted the same procedure in order to obtain the right collocation and frequency, using

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Antconc 3.4.3, clicking ‘clusters’, entering “Ecological Civilization” as search term, as well as setting up ‘Cluster Size’ and ‘Min. Cluster Frequency’ (see Fig. 3).

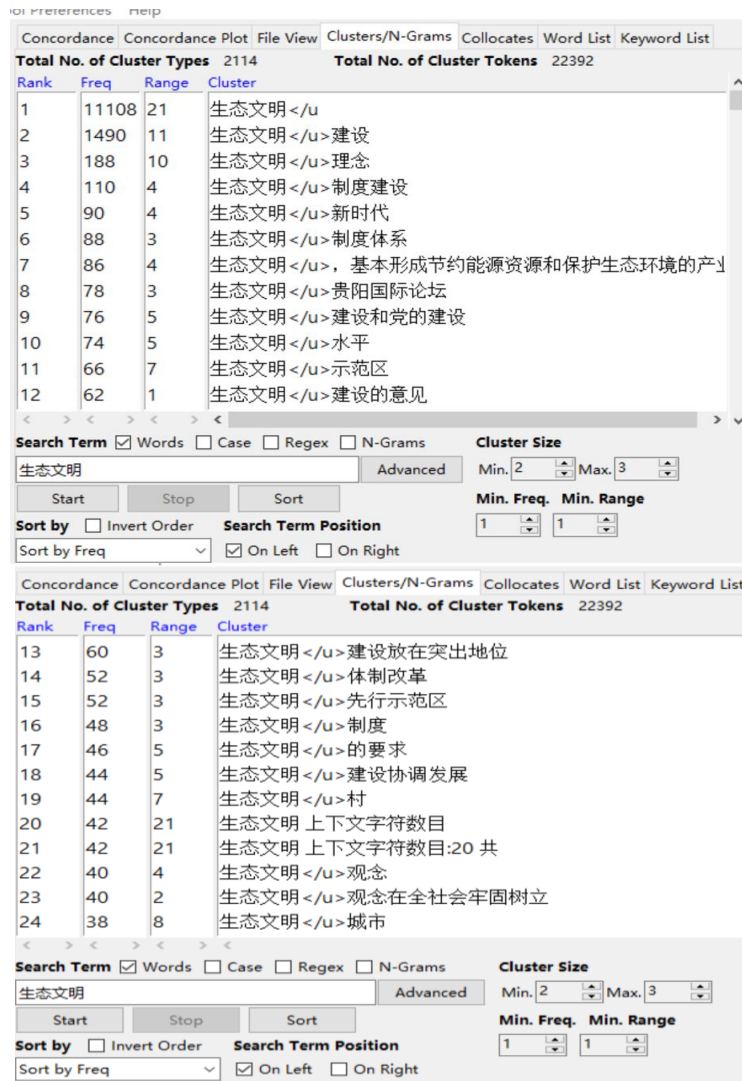


Fig. 3: The right collocation word cluster and its frequency ranking of the search term "ecological civilization"

Figure 3 shows the order of frequency of 2 to 3 collocation words on the right side of the “Ecological Civilization” search term. The total frequency of occurrence is 22,392 (including “ecological civilization”). Remove the uncleaned word string symbols and punctuation symbols such as “,” (order 7), sort out the rank column of figure 7, and get the order of the top ten of the occurrence frequency of the collocation word cluster on the right side of the search term (see Table 2B).

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Table 2 The left and right collocation cluster frequency of the search item "ecological civilization" ranking in the top ten places

A			B		
排序	左侧搭配词簇<u>	频数	排序	右侧搭配词簇<u>	频数
1	社会建设、<u>生态文明	984	1	生态文明<u>建设	1490
2	建设<u>生态文明	692	2	生态文明<u>理念	188
3	推进<u>生态文明	522	3	生态文明<u>制度建设	110
4	社会、<u>生态文明	344	4	生态文明<u>新时代	90
5	把<u>生态文明	220	5	生态文明<u>制度体系	88
6	加强<u>生态文明	204	6	生态文明<u>贵阳国际论坛	78
7	加快<u>生态文明	72	7	生态文明<u>建设和党的建设	76
8	保护自然的<u>生态文明	62	8	生态文明<u>水平	74
9	提高<u>生态文明	60	9	生态文明<u>示范区	66
10	中国<u>生态文明	48	10	生态文明<u>建设的意见	62
合计		3208	合计		3922

Table 3 The left and right collocations translated

Num	LEFT		Freq.	RIGHT		Freq.
	Chin.	Transl.		Chin.	Transl.	
1	社会建设	social construction	984	建设	construct	1490
2	建设	construct	692	理念	concept	188
3	推进	Push	522	制度建设	system construction	110
4	社会	society	344	新时代	new epoch	90
5	把	to promote	220	制度体系	institutional system	88
6	加强	Strengthening	204	贵阳国际论坛	Guiyang International Forum	78
7	加快	Quicken	72	建设和党的建设	construction and Party construction	76
8	保护自然的	protect the natural	62	水平	level	74
9	提高	Enhance	60	示范区	demonstration area	66
10	中国	China	48	建设的意见	opinions on construction	62

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					n	
Total			3208			3922

4.2 Discussion – An ecolinguistic view of ECD

The initial observation regarding the ECD is that it is confined to official discourse as it is exclusively documented in reports by the Chinese Communist Party, as illustrated in tab 1. The dating of the ECD is made possible by the extensive collection of approximately 2 billion words in Ancient Chinese within the BCC corpus, complemented by the Chinese government's official documentation. Moreover, with the inclusion of around 3 billion Chinese microblogging *Weibo* in the BCC corpus, it becomes evident that the ECD is neither utilized nor discussed in everyday Chinese life.

Furthermore, it can be inferred from Table 1 that the word selection and configuration align with the principles behind the ECD ideology. This is evident as it emphasizes two main pieces of information in both the left and right positions, namely the "National Congress of CPC" and "writes". This revelation underscores the significance of the ECD in relation to CPC meetings, highlighting its official origins and actions, as well as the act of writing, which showcases the written text as a guide for policies and rules. Thus, the word order within the ECD reflects its ideological nature as an official and legal guide formulated by the Chinese government, which must be followed by the population as laws. It is also contextualized within the CPC's activities and plans aimed at harmonizing economic growth, human quality of life, and environmental protection.

The following arguments support the notion that the ECD is a government-sanctioned discourse, policy, and ideology that is implemented from the top down. At this preliminary stage of our corpus research, the public remains unaware of its existence and does not perceive its impact or outcomes. Furthermore, it is imperative to curate diverse corpora to broaden our analysis and validate alternative perspectives, attitudes, and discourses regarding the ECD. Presently, within a limited sample of our ongoing scientific papers and reports corpus, it is apparent that the tangible effects on everyday life in China continue to be inadequately studied. The compiled texts thus far span from 2019 to 2023 and provide a modest amount of data on the economic, health, and environmental improvements in select Chinese provinces. However, they lack information on the

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adverse consequences of sustained economic growth on Chinese society. It is noteworthy that many of these texts even advocate for further research on the specific impacts and outcomes of the ecological civilization policy, as well as propose a more explicit policy framework with concrete actions and steps. Additionally, we acknowledge that the preceding comments represent a preliminary qualitative analysis of a limited number of texts and their concluding observations, which will be substantiated by an eventual quantitative analysis based on a larger text sample once our corpora are complete.

As Alexander (2009, 2017) states, the choice of words and the patterning of lexical arrangement play an important role in deflecting attention and downplaying actual and potential problems. Thus, the quantitative analysis of ECD in the BCC corpus most frequent words is revealing about the meanings and ideologies. We found that the main words and their frequencies are, at the left position (total of 3208), 社会建设 ‘social construction’ (1/ 984), 建设 ‘construct’ (2/ 692), 社会 ‘society’ (4/ 344), and 巴 ‘promote’ (5/ 220), and, at the right position (total of 3922), 建设 ‘construct’ (1/ 1490), 制度建设 ‘system construction’ (3/ 110), 建设和党的建设 ‘construction and Party construction’ (7/ 76), 建设的意见 ‘opinions on construction’ (10/ 62). It is easily noticed that the obfuscation here occurred due to the fact the ‘construction’ is in almost all examples agentless sentences, except in ‘Party construction’, with the actors/ subjects leading these constructions hidden; the term ‘construction’ is not well-defined since the reader cannot know what is going to be constructed; it also is not mentioned the practical and logistic part of constructions (e.g., companies, expenses, fundings, products, places/ lands, workers, environment, goods); the social and environmental problems that major constructions plans cause, such as displacing animals (including humans), pollutions, relocation of fundings. Therefore, according to the word frequencies mentioned, the main preoccupation and ideology in the ECD is a developmentalist attitude that seeks only to construct the imagined ecological civilization no matter what.

In addition to the points already mentioned, it is worth highlighting that the omission of words, meanings, and ideas or concepts can provide further insights and interpretations. The list we provided earlier touched on key aspects like ‘how’, ‘who’, ‘where’, and ‘why’ when it comes to constructing the ecological civilization. However, it is crucial to recognize that when a word is omitted, it also means that an idea is being left out. Therefore, when both words and meanings are omitted, it indicates a deliberate effort to hide something from the public or readers, keeping them

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unaware and leaving room for interpretation or even speculation. Because of its implicit nature, the message must be revealed through the reader's own efforts. In light of this, one might consider this a dishonest discursive strategy since, upon noticing such linguistic features, those who wish to endorse a particular type of discourse may offer superficial counterarguments in order to spread doubts, as the omission of content enables this strategy to be easily employed. Moreover, it is important to acknowledge that the concept of ECD not only omits various social, economic, and environmental problems and their negative impacts that can arise from a large-scale construction plan, but it also conceals the groups that stand to benefit from such detrimental actions in various ways. This deliberate concealment raises important questions and calls for a closer examination of the underlying motives and consequences.

The investigation also uncovers the existence of *purr-words*, which refer to the choice of vocabulary items that appear virtuous to the general public. However, these words actually mask the true intentions of the authors and the groups they represent, while simultaneously manipulating public opinion. Additionally, we have specifically identified the frequent usage of the following *purr-words*: 加强 'strengthening' (6/ 204), 加快 'quicken' (7/ 72), and 提高 'enhance' (9/ 60) – at the left side – and 新时代 'new epoch' (4/ 90) – at the right side. It is worth noting that these *purr-words* not only reflect the ideology of ECD, but also signify a desire to establish and construct a new civilization or, at the very least, a new/ different way of life ('new epoch') that promises economic growth, human development, and environmental protection. This ambitious objective emphasizes the potential conflicts and challenges that may arise, as these three elements are often incompatible in the majority of contemporary societies. Therefore, ECD pledges to achieve this objective and, in the process, 'strengthen', 'quicken', and 'enhance' various aspects of Chinese society. However, these particular words raise concerns as it remains unclear how the process will be executed or what exactly will be strengthened, quickened, and enhanced. The uncertainty surrounding the implementation of ECD and the ecological civilization is further compounded when considering the potential negative impacts of developmental policies on the environment and public health within society. As of now, with the unclear nature of ECD and its practical implications, we cannot be certain about what may or may not occur, or what will or will not be done in relation to the implementation of ECD and the ecological civilization. Despite these uncertainties, it is important to emphasize our concern regarding the potential use of puffery, which may either genuinely benefit Chinese society or simply serve as a rhetorical tool to obscure the

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intentions and ideology behind ECD.

The examination of euphemization within a discourse can occasionally exhibit resemblances to the investigations of purr-words. The disparities that can be highlighted are that euphemization unveils the prevailing worldview in the text or discourse, it effectively obscures negative meanings – denotation or connotation – associated with a specific word, and it demonstrates specific strategies – utilization, reification, and tabooing (TRAMPE, 2017). To avoid duplicating our analysis of the aforementioned elements, we solely focus on the concept of 保护自然的 ‘protect the natural’ (8/ 62) in this instance. Initially, we observe in this case the glossing over of the notion of ‘protection,’ as it can be inferred that the development of an ecological civilization could result in destruction and other detrimental consequences for nature. Furthermore, the concept of ‘nature’ is objectified, as it is used in a manner that implies it can be owned or treated as property in need of protection. Subsequently, it can be argued that ‘nature’ here is something that requires safeguarding because it is presently utilized and must continue to be utilized in the future for the betterment of humanity, government, and society. Thus, what the euphemization conceals in this scenario are the following aspects: the development of an ecological civilization can result in destruction and, simultaneously, will exploit nature in a capitalist and productive manner; nature will be protected, but it will also continue to be exploited.

Unfortunately, a comprehensive analysis of nominalizations and the use of future tense forms cannot be provided in this context. The corpus being examined is written in Chinese, a language which exhibits various linguistic structures that differ from those found in Standard Average European (SAE) languages, in the Whorfian sense. For instance, nominalization in Chinese showcases a complex organization that relies on predicate structure, arguments, different types of prepositions, and particles (XUE, 2006). Furthermore, with regards to tense, Chinese is considered a tenseless language (LIN, 2012), expressing the concept of the future periphrastically. Consequently, as this paper does not aim to undertake a descriptive study of specific Chinese grammatical phenomena, these two strategies are not addressed here.

Although it is possible to identify elements of Confucianism, Daoism, harmony, and ecological legitimacy within the philosophical background of the ECD, the data collected from the BCC corpus and the analysis conducted thus far demonstrate the exact opposite. This is because the use of purr-words, euphemisms, whitewashing, and concealing reveals that the ECD is filled with ecological fallacies and superficial ecologization. However, when viewed from the PDA

approach, we can highlight the presence of two philosophical frameworks that are considered by Stibbe (2017) as beneficial ecosophies (NAESS, 1995) – ecological philosophies. These frameworks are cornucopianism (LOMBORG, 2001), which advocates that environmental problems can be solved by technological progress, and sustainable development (BAKER, 2006), which posits to provide essential ecosystem services and resources to humans while also meeting human development goals. Both of these frameworks can be seen as beneficial to animals, including humans, and nature as they demonstrate concerns for humanity, the environment, future generations, and a better way of life for everyone. Until now, the implementation of the ECD in Chinese everyday life also appears to have positive results, as mentioned earlier. Only time will tell if these positive frameworks and impacts will continue to grow or diminish.

5. Conclusions

The study conducted here can be considered a Corpus-Assisted Ecolinguistics one as it combined the theoretical and methodological approaches from both disciplines – Corpus Linguistics and Ecolinguistics. It is important to note that Ecolinguistics takes a multidisciplinary approach and incorporates elements from other disciplines, such as CDA and PDA.

We adopted this approach to examine the ECD within the BCC corpus to ascertain what insights Corpus-Assisted Ecolinguistics can provide regarding word order, selection, and frequency, as well as the interpretation and analysis of discourse, its subjects, and ideologies. Thus, we hope also to show how the Corpus-Assisted Ecolinguistics can contribute to corpus and discourse studies in order to promote its application on further investigations by other researchers.

Based on the retrieval and analysis of the BCC corpus, it is evident that the use of ECD is limited to government and official instances within Chinese society, and is not utilized by the general population in everyday life. The subjects and ideology of ECD primarily revolve around its relationship with the CPC, its formal written style and guidelines, and a developmentalist ideology for constructing a new era (or civilization), which is still not clearly defined. Furthermore, while the investigation of the BCC corpus highlights the presence of purr-words and euphemistic terms in ECD, it also emphasizes the need for a better understanding of the implementation and potential consequences of this ecological civilization initiative.

Another aspect of ECD that is evident in the data is its transition from advocating and

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discussing its importance to Chinese society, to highlighting the necessity for its establishment not just within China but also through collaborations with various nations globally. This is due to the interconnectedness of all societies and their internal components. Once more, we can observe the aforementioned notion of harmonious discourse, as pointed out by Huang and Zhao (2021). Thus, by comprehending and examining the establishment, discourse, and prospective implementation of ecological civilization, we can acquire valuable perspectives on the harmonious coexistence among humans, nature, and society, as well as learn significant things – positive and negative ones – in order to change from harmonious and ecological discourse to harmonious and ecological way of living.

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