

# The Linguistic Ecologic Analysis of the Error-prone Emergency Prevention and Control Slogans during the COVID-19 Epidemic in China

LI Qiong\*

School of Chinese Language and Literature, Shaanxi Normal University, Xi'an, China  
liqiong@snnu.edu.cn

LAI Jianling

School of Chinese Language and Literature, Shaanxi Normal University, Xi'an, China

**Abstract:** As a typical form of emergency language service, the emergency prevention and control slogans (EPCS) play an important role in the prevention and control of social emergencies in China. However, due to the characteristics of “emergency”, the prevention and control slogans are error-prone, which can cause a negative impact on the language ecology. Based on the theory of linguistic ecology, this paper conducts a thorough analysis of the error-prone slogans during the COVID-19 epidemic in China. First, error-prone slogans can be divided into four categories from the internal language ecological environment: language standardization errors, application appropriateness errors, content adaptability errors, and ethical compliance errors. Second, this paper assesses three aspects of error-prone slogans from external social ecological environment: the degree of errors, the distribution of errors, and the citizens’ normative willingness. Finally, the paper puts forward suggestions to prevent language conflict, stop language exclusion, eliminate language dissent and govern the language environment in order to reduce error-prone emergency prevention and control slogans, improve the quality of emergency language services, and build a harmonious ecological environment inside and outside the language.

**Keywords:** Linguistic Ecology; Emergency Language Services; Error-prone Slogan; The COVID-19; China

## 1. Introduction

Since the outbreak of the COVID-19 in 2020, research into and creation of emergency language services in China has been developing at an unprecedented pace. Many scholars have enriched the emergency language service research by coining terminology, building the theoretical perspective, analyzing domestic and foreign practices, researching and developing technological products, and training professionals. Among them, emergency prevention and control slogans (EPCS) have also become a research hotspot as a typical and representative means of emergency language services. Scholars have been studying prevention and control slogans in terms of rhythm, rhetoric, syntax, semantics, pragmatics, applicability, and the power of the release subject. They have also been studying the influence of epidemic propaganda slogans on public persuasion from the perspective of media platforms.

Language serves the society and high-quality and standardized language services contribute to the operation of social life. However, during the COVID-19 epidemic in China, some nonstandard and uncivilized phenomena appeared in the emergency prevention and control slogans. The error-prone slogans caused widespread social disputes, which not only affected the language ecology and hindered emergency prevention and control, but also may bring additional social and governance issues. In the emergency language services for societal emergencies, error-prone emergency prevention and control slogans and the resulting language ecological problems seriously affect the harmonious integration of language practice and social ecology.

“Linguistic ecology,” “language ecology” or “the ecology of language” was proposed by John Trim,<sup>1</sup> Voegelin C. F. & Voegelin F. M.<sup>2</sup> and Einar Haugen.<sup>3</sup> Haugen defined “language ecology” as “the study of interaction between any given language and its environment” claiming that languages have life, purpose, and form that appear outwardly as action but “live in the mind as potential” and therefore the life of language should be treated as dynamic and interdisciplinary.<sup>3</sup> His ideas were a powerful impetus for

\* Corresponding Author

linguistic researchers seeking to address the interplay between the language, the language users, and the environment.

Taking the slogans during the COVID-19 epidemic in China as examples, this paper analyzes the type, level, distribution, and problem management of error-prone emergency prevention and control slogans from the perspective of linguistic ecology, so as to reduce the error level of emergency prevention and control slogans, improve the quality of emergency language services, and build a harmonious ecological environment inside and outside the language.

## 2. Methodology

We first collected 116 error-prone EPCS samples on the COVID-19 epidemic in China, then carried out quantitative statistics and analysis of the slogans through inductive reasoning methods and summarized the connotations and types of slogan errors. Next, a questionnaire survey was used to collect and analyze the errors-prone emergency prevention and control slogans during the COVID-19 epidemic in China in 2022. The survey covers 164 cities and towns across 22 provinces in China's mainland. Data collection started on July 16, 2022, and lasted for two months, and a total of 591 valid questionnaires were collected with good reliability and validity.

## 3. Results and Discussion

Feng explains the “ecological position” of language as a proper place of language in the linguistic ecosystem.<sup>4</sup> In the system, the language must be standardized, and the internal structural elements of language need to function under the premise of standardization and standardization. As a part of the linguistic ecosystem, EPCS must adhere to the rules of the internal structural elements of language as well as the social ecosystem's rules that exist outside the language so that they can effectively fulfill the original purpose of providing guidance and persuasion in emergency prevention and control. The error-prone EPCS results from violations of the rules governing their ecological system inside and outside the language.

### 3.1 Analysis of the Internal Language Ecology of Error-prone EPCS

The collected 116 error-prone EPCS were summarized and categorized into four categories: language standardization errors, application appropriateness errors, content adaptability errors, and ethical compliance errors, shown as follows:

**Table 1 The Internal Language Ecology of Error-prone EPCS**

| Type                               | Number | Percentage |
|------------------------------------|--------|------------|
| Language Standardization Errors    | 15     | 12.92%     |
| Application Appropriateness Errors | 9      | 7.75%      |
| Content Adaptability Errors        | 27     | 23.27%     |
| Ethical Compliance Errors          | 65     | 56.04%     |

#### (1) Language Standardization Errors

As language itself holds a prominent place in the linguistic ecology, the language and its inherent structural components must be according to standard. The lowest level of the linguistic non-ecology is the error-prone EPCS in pronunciation, vocabulary, grammar and semantics. According to the data, there are 15 EPCS with language standardization errors within the given sample, accounting for 12.92% of the total. Some examples are: four typos in the slogan of “接种心管（新冠）疫苗立（利）家立（利）国” (the correct ones are in the brackets) (to get vaccinated against the COVID-19, being beneficial to both the family and the nation). “请戴口罩 PLEASE WEAR MASK” belongs to the non-standard foreign language translation. The English translation should be “PLEASE WEAR A MASK”.

#### (2) Application Appropriateness Errors

Language practice makes up the first stage of ecological interaction between language and the

sociocultural environment. Application appropriateness is the measurement of the appropriateness in EPCS application based on language norms. After statistical analysis, application appropriateness errors occurred 9 times in the samples, accounting for 7.75%. For example, the internet buzzword of “贴贴” in the slogan of “不要贴贴，贴贴危险，还是密接” (Don't get close, getting close is dangerous and will turn you into close contactors). The term “贴贴” has ambiguous meanings: one indicates getting close, and the other indicates kisses and hugs. Another example is the misuse of dialectal word “冇” in the slogan of “疫情防控 人人有责”. (Nobody is responsible for epidemic prevention.) “冇” means “no” in Cantonese. It should be “有” here, that is, “疫情防控 人人有责”. (Everyone is responsible for epidemic prevention.)

### (3) Content Adaptability Errors

The interaction between language and social environment creates an open ecosystem. The EPCS, being a part of one language ecosystem, are inevitably closely related to social life. Moreover, specific external ecosystems have adaptive requirements for language phenomena. Thus, the question of whether language practice adapts to the social ecological environment is raised. After analysis, 27 content adaptability errors were found among the EPCS, accounting for 23.27% of the errors. For example, the slogan of “不带口罩就出门，这个杂种不是人” means “going out without a mask, this bastard is not a human being”. The word of “杂种” (bastard) is profane, which should not have been adapted in the slogan. Another example is “上门拜年就是贩毒，参加聚餐就是找死”，meaning “making a New Year's visit is drug trafficking; having a dinner party is courting death”, which are not appropriate explanations, and can cause misunderstandings and rumors.

### (4) Ethical Compliance Errors

As interaction between language and social life, politics, economy, culture, and other ecosystems grow, it is inevitable for language phenomena to be put under the question that whether they are appropriate for promoting a healthy social and spiritual life. Negative effects on language and ecology can be caused by the ethical compliance errors in the EPCS. Due to the long duration and difficulties of COVID-19 prevention and control, “hardcore slogans” have briefly emerged in grass-root epidemic prevention measures. These “hardcore slogans” are usually controversial, satirical, direct, aggressive, or even threatening. There are many slogans with ethical compliance errors within the collected samples: 65 occurrences, accounting for 56.04% of the total. One example, “出门打断腿 还嘴打掉牙” means “if you dare to leave the house, I would break your legs; if you dare to argue, I would punch out your teeth”, which are obvious violent threats and curses. The slogan of “发烧不说的人，都是潜伏在人民群众中的阶级敌人” (Those with fever and don't report are all class enemies lurking among the people.) contains violence and curse, while also attempts to ostracize individuals who conceal their illness as class enemies.

The error-prone EPCS are categorized from language standardization, to application appropriateness, to content adaptability, and finally to ethical compliance. In other words, the errors can consist of simply the construction of the slogan text, to the language practice problem of interaction between language and social ecology. The severity of harm also can range from a word misuse to a nation's policies. Therefore, the error-prone EPCS show that the errors are not only a departure from the normative rules underlying the text's construction but also a deviation from the requirements of social ecosystem for appropriate language practice during text construction.

## 3.2 Analysis of the External Ecology of Error-prone EPCS

Slogans are, after all, a discourse practice for the general public, who are significant members of the external ecological environment during the COVID-19 epidemic. Linguistically speaking, slogans are typically unidirectional, lacking feedback from the listener or viewer. Therefore, this study contains a thorough questionnaire survey and interviews on selected participants to examine public opinions on EPCS, including the level of errors, the distribution of errors, and people's willingness to regulate them.

### (1) Level of Errors

The poll particularly classified the level of errors of the EPCS as 1= “very low”, means that there is no error at all; 2= “low”, means that there is almost no error; 3= “average”, means that there is some degree of error; 4= “high”, means that there are many errors; and 5= “very high”, means that there are widespread errors.

Using the Statistical Product and Service Solutions (SPSS) analysis, the average level of errors is 3.14, which indicates that errors in EPCS are significant. 67.6% of residents have come across unstandardized and uncivilized language use, with roughly a quarter of them claiming that it is frequent. This demonstrates that EPCS are more prone to errors due to their emergency-related nature.

Correlation analysis (Pearson correlation) of SPSS was used to test the validity of the effect of each social variable on the perception of error-prone EPCS in order to better understand the correlation between various social variables and the level of error-prone EPCS. Low Pearson test results denote greater connection, and results lower than 0.05 denotes a significant correlation.

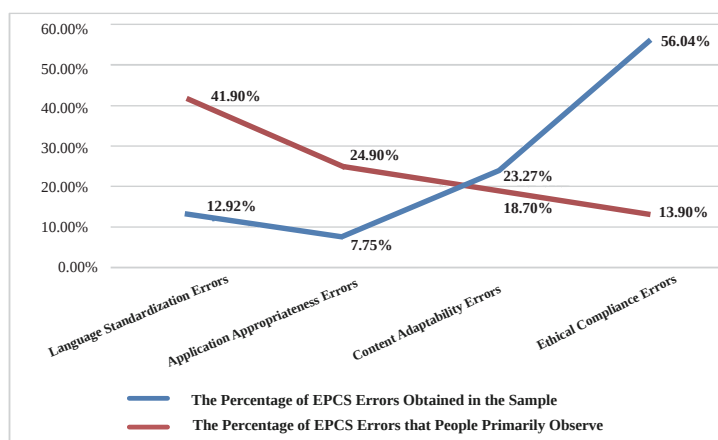
**Table 2 Correlation Coefficients Between Social Variables and Error-prone EPCS in Urban Areas of China's Mainland**

| Variable Type                           | Name of Variable                       | Correlation Coefficient |
|-----------------------------------------|----------------------------------------|-------------------------|
| Personal Background                     | Gender                                 | 0.821                   |
|                                         | Age                                    | 0.495                   |
|                                         | Education Level                        | 0.024                   |
|                                         | Occupation                             | 0.028                   |
|                                         | Region                                 | 0.785                   |
| Language Background                     | First Language / Dialect               | 0.451                   |
|                                         | Second Language / Dialect              | 0.150                   |
|                                         | Common Language / Dialect              | 0.884                   |
| Experience during the COVID-19 Epidemic | Your Role during the COVID-19 Epidemic | 0.786                   |

Education (0.024) and occupation (0.028), as shown in Table 2, have significant impacts on how error-prone EPCS are viewed. Citizens with lower levels of education believe that their local emergency language services are more biased. In other words, service workers, freelancers, workers, students, and unemployed individuals perceive their local EPCS to be more error-prone than the professionals, corporate employees, civil servants, employees in state units and institutions, and retirees. This is probably because people with higher levels of education are more inclusive and forgiving towards the errors in the EPCS.

## (2) Distribution of Errors

The categories of EPCS errors have been analyzed in the previous paper. Comparing the sample of EPCS errors gathered above with the types of EPCS errors that were most frequently encountered by the people during the COVID-19 epidemic, we have obtained the following figure:



**Figure 1 Distribution of EPCS Errors**

The proportion of EPCS errors that people primarily observe in actual life differs significantly from the proportion of EPCS errors obtained in the sample, as seen in the figure above. Despite the fact that language standardization errors and application appropriateness errors are very rare in the sampled data, they are quite likely to occur in day-to-day life; content adaptability errors and ethical compliance errors account for a sizable amount of the data in the sample, but they were unlikely to be present in real life.

The following information was obtained from further studying of the locations where the people mostly encounter the error-prone EPCS:

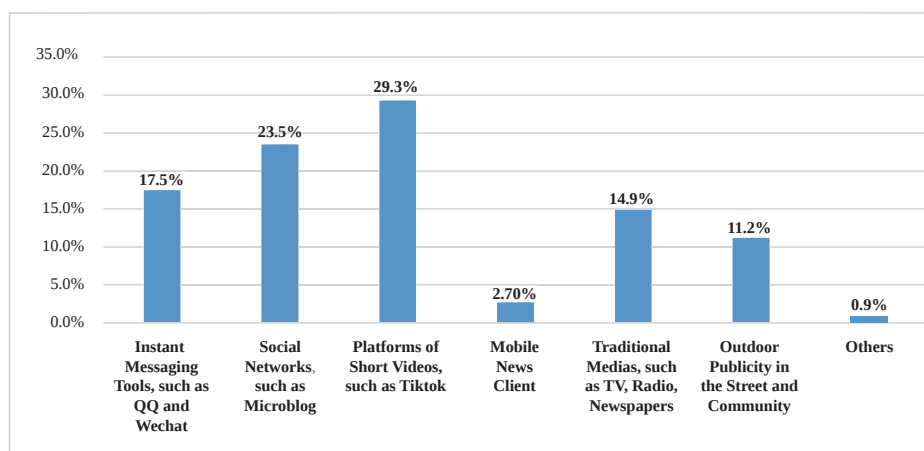


Figure 2 Locations of Error-prone EPCS

As shown in the Figure 2, people came across error-prone EPCS more often on short videos platforms such as Tiktok, social networks such as Weibo, and instant messaging tools such as QQ and WeChat than in traditional media platforms such as TV programs, radio broadcasts, newspaper, and posters and flyers in the street and community. It is obvious that there is a higher probability of EPCS errors occurring in private media than in official media, which dues to the fact that unofficial media lack text editing, review, supervision, objectivity, needs for private promotion, and transformative purposes for popularity.

### (3) People's Willingness for Regulation

In studying the external ecosystem of language, it is necessary to comprehend the people's willingness to regulate the EPCS errors.

This survey classifies people's willingness into five levels: 1= "very unwilling", referring to the people being completely unwilling to regulate the errors; 2= "relatively unwilling", referring to the people's being mostly unwilling to regulate them; 3= "average", referring to the people being indifferent to regulating them; 4= "relatively willing", referring to the people being mostly willing to regulate them; 5= "very willing", referring to the people being completely willing to regulate them. The larger the value, the stronger the adequacy. The findings by SPSS are displayed in Table 3:

Table 3 Scale of People's Willingness to Regulate

| Item                                                          | Mean Value |
|---------------------------------------------------------------|------------|
| Degree of People's Engagement in Regulation                   | 2.76       |
| Willingness of Regulating Official Media                      | 3.60       |
| Willingness of Regulating Unofficial Media                    | 3.70       |
| Willingness to Accept Diversity According to Local Conditions | 3.63       |

**a. Degree of people's engagement in regulation:** The degree of people's engagement in regulation refers to the degree of people's desire to correct them when facing EPCS errors actively. According to the

data, people's engagement in the regulation is low, as the value is only 2.76, between "relatively unwilling" and "average". It shows that people lack the understanding of language ecology and a sense of ownership. Even when nonstandard and uncivilized slogans are present, people are uninclined to actively provide feedback and engage in making corrections.

**b. Willingness of regulating official media:** The degree of willingness to regulate official media is the degree to which the population is willing to regulate the language use in official media during the fight against the epidemic. According to the data, the willingness of people to regulate the official media is generally higher (3.60), ranging from "average" to "relatively willing", which suggests that people are more willing to regulate the language use in official media and do not want to see EPCS errors presented in official media frequently.

**c. Willingness of regulating unofficial medias:** The degree of willingness to regulate unofficial media is the degree to which the population is willing to regulate the use of language in the self-published media during the fight against the epidemic. The data shows that people's willingness to regulate self-published media is strong, ranging from "average" to "relatively willing". Additionally, the public is more inclined to further regulate how language is used in self-published media, and this tendency is slightly stronger than that of official media. However, the public may have higher expectations and a lower tolerance for errors in official media, based on the findings of the previous analysis on the likelihood of error-prone EPCS in private media compared to official media.

**d. Willingness to accept diversity according to local conditions:** The willingness for diversity refers to that people are willing to adopt different styles and forms of slogans for different people in different regions and different cultural backgrounds. According to the data of Table 3, people's desire for diversity according to local conditions is high and ranges from "average" to "relatively willing". In a word, people want the language in official and unofficial media to be regulated as well as targeted and varied, while avoiding mechanical, rigid, and one-size-fits-all language standardization measures.

The internal ecological study of error-prone EPCS focuses on the connotations, types, and non-ecological factors, while the external ecological analysis concentrates on the interaction between the human being and language in level of errors, distribution of errors and people's willingness for regulation in the real life. In all, the error-prone level of EPCS is high, and education and occupation are important factors affecting the awareness of EPCS errors. The language standardization errors and application appropriateness errors are the most common errors in actual life with regards to the language, which mainly occur on unofficial media, social networks and conventional media. The public thinks it is necessary to regulate EPCS errors, but their enthusiasm and initiative for regulation are poor.

## 4. Conclusion

The essence of emergency language service is to combine the actual situation and specific characteristics of social emergencies, apply linguistic theory, and provide language-based service activities in pre-disaster prevention and detection, emergency rescue during disasters, and post-disaster recovery and reconstruction. As a result, emergency language services are focused, instant, and urgent in the face of social emergencies. These qualities are even more prevailing in the EPCS. This also leads to the EPCS becoming more error-prone. The EPCS errors are becoming the obstacles to improving the quality of emergency language services, optimizing institutional mechanisms, and the normalizing service models. It can also negatively affect the internal and external language ecosystem, the social-ecological environment, and cause additional language governance issues. In the face of sudden social and public events, we can improve the quality of emergency language services from the following aspects.<sup>5</sup>

### 4.1 Prevent Language Conflict: Emphasizing Language's Soothing Effect

Language conflict as a linguistic phenomenon cannot be ignored in language life. If language conflicts are not handled in a timely manner, they are likely to escalate into social conflict events with negative effects on the social ecology. For example, people who are in an emergency prevention and control state are prone to negative emotions such as anxiety and depression. If there is a slogan, like "接种心管(新冠)疫苗, 立(利)家立(利)国" with typos, people may question the official emergency response capability, which can lead to a decrease in the government's credibility. Additionally, the EPCS with violence,

intimidation and curses are more likely to cause dissatisfaction and resentment among the people, leading to language conflicts, increasing non-ecological factors of the language ecosystem, and bringing additional obstacles to emergency prevention and control.

As a result, it's important to adhere to the guidelines for constructing EPCS and accentuate language's soothing effect to calm people's negative emotions. We should eliminate errors in language standardization, application appropriateness, content adaptability, and ethical compliance in order to create a slogan text without language conflict factors. This way, EPCS can revert to their original purpose and properly fulfill the roles of guidance and persuasion. Furthermore, language is a vital tool for reaching goals related to one's physical and mental health.<sup>6</sup> Therefore, on the basis of analyzing the psychological needs of the public in emergency situations, the prevention and control slogans should build a reliable government image, gather prevention and control forces, and inspire and comfort the people to ensure the harmonious operation of the internal language ecosystem and social ecosystem.

## 4.2 Stop Language Exclusion: Guaranteeing the Right of Language Co-governance

Language itself is a means of communication for all, regardless of class. Yet linguistic exclusion happens frequently even in EPCS that should be equally oriented towards the public. This is not only reflected in the excessive use of Internet buzzwords or dialects to cause difficulties in understanding, but also reflected in the slogans aims at group ostracization, such as “发烧不说的人，都是潜伏在人民群众中的阶级敌人” (Those who have a fever and keep silent are all class enemies lurking among the people) and “进公司不戴口罩 同事全跟你绝交” (Entering the company without wearing a mask, you will be broken off relations by all colleagues). The effects of these language exclusion phenomena can range from confusing the public and affecting the local prevention and control efforts, to making prevention and control slogans a disguised tool of harm by targeting human's social animal attributes with isolation and hostility. Although it may have strengthened the effectiveness of prevention and control to a certain extent, the losses outweigh the gains. It damages the people emotionally, reduces the sense of belonging, and in the long run, is not conducive to the work of prevention and control.

Only by cautiously using language power, unblocking language feedback channels, and safeguarding the people's language co-governance rights can we stop language exclusion and build a well-functioning language and social ecological environment. Specifically, the writers of slogans should be cautious in using language power, consider the language background of the locals, standardize the language, utilize Internet buzzwords and dialects moderately, and expand the acceptance of the public. At the same time, it is necessary to enhance the participation of the public in standardization, strengthen the concept of the public's language ecology, unblock the channels for language supervision and feedback, and ensure the public's right to language co-governance in building an open and harmonious language ecosystem.<sup>7</sup>

## 4.3 Eliminate Language Differences: Reconciling Linguistic Pluralism

Today, language dissent is everywhere, but emergency prevention and control slogans should be vigilant against language dissent as a governance tool. The ethical compliance errors in EPCS are daunting, such as satire and intimidation slogans openly displaying death threats, or the violent threats and curses slogans which deviate from the laws and regulations, or even showing discrimination by openly congratulating other countries on their prolonged outbreak of the COVID-19 epidemic. These language dissidents actually disrupt the harmony of language life, which are not only detrimental to the construction of a healthy language ecosystem but also to the construction of a peaceful society and a cultural power.<sup>8</sup>

In a conclusion, it is necessary to establish a reliable supervision and inspection mechanism for slogan creation in order to eliminate language dissent, stop language violence, and reconcile the language needs of diverse subjects, while also promoting the development of a slogan ecology that reflects the spirit of fairness, friendship, and a community with a shared future. For both official and private media platforms, the public's willingness to regulate EPCS is relatively strong. At the same time, the public hopes to adopt targeted and diverse slogans tailored to the people with different backgrounds. As a result, language standardization should coexist with language diversity. In addition, the emergency regulation bodies need to clarify the language needs of different subjects, as well as enrich the forms, characteristics, and methods of slogan promotion on the basis of eliminating language differences.

#### 4.4 Govern Language Environment: Establishing an Ecological Language View

The language environment not only includes the internal environment of the language, but also includes the external environment of the language, that is, the social language ecological environment. The two are not clearly defined, but are integrated into a system as a whole and in an uninterrupted process of interaction, which is exactly what linguistic ecology studies. From the view of linguistic ecology, the error-prone EPCS reflect the non-ecological conditions inside and outside the language. In the natural environment, it is difficult to ignore language environment pollution, such as the indiscriminate posting and painting of anti-epidemic posters, unclear and non-standard printing of anti-epidemic banners, and unclear broadcasting slogans, etc.; in the cultural environment, as a unique language landscape in urban or rural areas, the EPCS with a higher degree of bias affects the basic values, concepts, and behaviors of the people; in the political environment, the error-prone EPCS poses additional obstacles to prevention and control publicity work, hinders the construction of a good image of the government both domestically and internationally, and disrupts improvements to government credibility.<sup>9</sup>

As a result, it is crucial to develop a good language ecological perspective and emphasize the role of EPCS in the social ecological environment. Firstly, it is necessary to improve the service quality of EPCS, standardize the environmental labeling of slogans, standardize the language of slogans, and use other languages or dialects according to local conditions. Secondly, we need to promote the development of EPCS resources, utilize information and technological elements to innovate the forms of slogans, and strengthen the role of slogans in work promotion, cultural education and action guidance in the new era of ecological environment.<sup>10</sup>

Although the error-prone EPCS has been used frequently during the COVID-19 epidemic with some negative effects on the internal and external language ecology, it gives us an opportunity to reconsider how language and environment interact. Through the analysis of the internal language ecology, error-prone EPCS emerge in the following four aspects: language standardization errors, application appropriateness errors, content adaptability errors, and ethical compliance errors. In terms of the external ecosystem, an analysis is conducted on the level of errors, the distribution of errors, and the people's willingness for regulation. Finally, suggestion and measures are proposed to prevent language conflict, stop language exclusion, eliminate language differences, and co-govern language environment in order to promote a better interaction between language and ecology.

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