

A Review of Ecolinguistics: Paradigms, Developments, and Prospects

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Abstract: Ecolinguistics, emerging in the 1970s, has now become a highly dynamic field in linguistics. In simple terms, it primarily investigates the intricate relationships among language, users, and their surrounding environments. This article aims to trace the development of ecolinguistics, and clarify its two foundational paradigms: Einar Haugen's metaphorical ecology of language paradigm and M.A.K. Halliday's critical discourse paradigm. Additionally, the article systematically reviews the major achievements in core areas of the field, such as linguistic diversity, ecological discourse analysis, ecosophy, and multimodality and interdisciplinary applications. Over the years, the research direction of ecolinguistics has continuously evolved: theoretical construction has gradually shifted towards practical application, monomodal analysis is turning into multimodal integration, and the research focus has gradually expanded from focusing on the natural ecosystem to social ecosystems. Currently, scholars are actively seeking a unified theoretical framework to integrate various perspectives. Of course, the field also faces numerous challenges. Finally, the article provides an outlook on future trends.

Keywords: Ecolinguistics; Ecological Discourse Analysis; Ecology; Haugenian Paradigm; Hallidayan Paradigm

1. Introduction

Nowadays, the global environmental crisis is becoming increasingly severe, and cultural diversity is gradually eroding. The field of linguistics has long recognized that studying the internal structure of language cannot explain these changes. Researchers have begun to pay attention to the interaction between language and its environment. This shift gave rise to the emergence of the discipline "Ecolinguistics". Ecolinguistics makes a clear, well-structured

critique of mainstream 20th-century formal linguistics, especially the theories of Saussure and Chomsky, which viewed language as a closed system and therefore focused only on internal circulation while ignoring the external world. Hence, Ecolinguistics naturally and convincingly argues that language must be studied in its real ecological context, taking natural, social, cultural, and cognitive dimensions into account (Steffensen & Fill, 2014). The article provides a very clear and balanced discussion of how socio-cultural factors influence language and then moves logically to examine how language affects the environment, specifically the linguistic practices that cause ecological imbalance or social injustice. Therefore it is an excellent opportunity to review relevant literature, trace the development of ecolinguistics from its theoretical origins to present stages, and finally consider its future directions.

2. Historical Trajectory and Core Paradigms

Because the pioneering work of two linguists is so fundamental to the development of ecolinguistics, it is appropriate to note that they developed two complementary, sometimes tension-filled, research paradigms which together define the field.

2.1 The Haugenian Paradigm: Ecology of Language as Metaphor

Norwegian-American linguist Einar Haugen first presented the concept of the ecology of language in 1972, viewing language as a biological organism whose environment consists of the other languages with which it comes into contact, as well as the psychological and social worlds of its speakers (Steffensen & Fill, 2014). Therefore, the Haugenian paradigm naturally and systematically emphasizes the mutual relationship between language and the socio-cultural environment. The research topics discussed are the mutual influence, competition,

and substitution of languages in a multilingual environment, the reasons why a language is on the verge of extinction or disappearance, how to assess the vitality of a language, and the role of language planning and policy in maintaining linguistic diversity. Haugen ingeniously borrowed the concept of biodiversity and applied it to language, making a clear, compelling case for the cultural and cognitive value of linguistic diversity itself, which aligns very naturally with language rights movements (Steffensen & Fill, 2014). Therefore, his theory has had a direct and profound impact on academic discourse and policy discussions in China regarding the protection of minority languages and dialects.

2.2 The Hallidayan Paradigm: Ecolinguistics as a Critical Tool

Halliday's approach is clearly and systematically different from Haugen's, since he already argued in 1990 that applied linguistics ought not only to deal with traditional topics but also to give serious attention to ecological crises like species extinction and pollution (Halliday, 1990). Moreover, he convincingly maintained that non-ecological ideologies, particularly anthropocentrism, are not merely present in environmental discourse but are deeply embedded in it. The fact that grammatical structures of language itself embed certain concepts is clearly illustrated by the way English treats resources such as air, water, and oil as uncountable nouns, hence naturally conveying the idea that these resources are inexhaustible (Wang, 2007). Therefore, the theory later called the Hallidayan paradigm represents a deliberate and elegant shift from the ecology of language itself to the role of language in ecological issues, allowing for a critical examination of the discursive and grammatical structures that underpin and reproduce anti-ecological social practices.

The two paradigms developed in parallel, with the Haugenian Paradigm naturally labeled metaphorical ecolinguistics and the Hallidayan Paradigm representing non-metaphorical ecolinguistics from the perspective of applied linguistics (Wang, 2007). In recent years, an increasing number of scholars have advocated for combining the two paradigms, and there is now a clear, well-grounded tendency to see them as an integration of two complementary aspects: one view treats language as a part of the ecosystem and examines the survival state of

language itself, while the other explores the application of language and its interaction with the environment, focusing on how language affects the health of natural and social ecosystems. Therefore, ecolinguistics must take both aspects into account fully, and neither can be neglected.

3. The Development of Core Research Topics

Because ecological linguistic research is guided by the foregoing paradigms, it is natural for several major, interrelated topics to emerge.

3.1 Linguistic Diversity and Biodiversity

Because the Haugenian paradigm has had such a strong influence, many scholars have already examined the geographical links between linguistic diversity and biodiversity, and a clear and important conclusion has emerged: language is not merely a means of communication but also a vehicle for transmitting cultural knowledge, including indigenous environmental knowledge. Hence the loss of a language is the loss of that knowledge (Halliday, 1990). Protecting endangered languages has now rightfully been recognized as an essential component of global biocultural diversity conservation, and since it is intimately connected to linguistics, anthropology, and ecology, language protection takes on deeper ecological and ethical significance. Moreover, a critical discourse analysis approach is ideally suited to examining how language diversity is presented in public discourse. Equally important is the fact that the mainstream narrative on linguistic diversity itself is a rich object of analysis. Analyzing the same sentence from different disciplinary perspectives reveals power relations and thus enriches our understanding of language diversity

3.2 Ecological Discourse Analysis

Ecological Discourse Analysis is unquestionably the most widely used analytical method in the Hallidayan paradigm, and therefore this study appropriately applies systemic functional linguistics to analyze discourse types such as news, policies, advertisements, and textbooks, from which it draws conclusions about how human-nature and human-society relations are constructed. Since ecological discourse analysis requires the establishment of a clear ecological philosophical stance grounded in values, and the use of that stance as the criterion for judgement, it is natural and fruitful to consider principles

such as diversity and harmony, interaction and symbiosis, which are commonly discussed by Chinese scholars (He & Wei, 2018). With such a stance, discourse or texts can therefore be profitably classified as beneficial, destructive, or ambivalent.

Since a clear ecological philosophical stance has been established as the value foundation for analysis, translating the corresponding value principle into an operational critical approach naturally becomes the key point of entry for corpus and discourse analysis in ecological linguistics.

The vast body of corpus research and discourse analysis in ecological linguistics has long and systematically focused on the system of transitivity, with analysts typically examining who the participants are, what processes occur, and what role contextual factors play, thereby naturally leading to conclusions about how agency is distributed, who is evading responsibility, and how various power relations are justified. This approach is clearly illustrated in analyses of news reports. It is possible to determine whether the media regard natural disasters simply as natural phenomena or also discuss the role of human factors, whether the comprehensive corporate social responsibility reports are genuinely committed to promoting sustainable development or are merely engaged in green whitewashing, and whether international joint statements encourage confrontation or foster cooperation and symbiosis (Wu & Li, 2025).

3.3 Ecosophy: The Foundational Stance for Analysis

Ecological Discourse Analysis is firmly grounded in an explicit ecological philosophical stance, which therefore provides a clear and coherent criterion for judging whether discourse practices are beneficial or detrimental to ecological relationships. In the Western tradition, the basic concepts of ecological philosophy stem from deep ecology, whose central principle is self-realization: moving from the narrow self of the individual to an ecological self that identifies with all life and the whole ecosystem, and thus achieving the self-realization of all existence. In contrast, Chinese scholars have developed a distinctive ecological philosophy from a Chinese perspective by integrating indigenous wisdom with a critical, reflective engagement with international theories.

Arran Stibbe (2021) has given a most admirable and clearly articulated extension to the existing tradition by developing an ecological philosophy rooted in the concept of living, which systematically and elegantly incorporates the ideas of intrinsic valuing of life, wellbeing, now and the future, care, environmental limits, social justice, and deep adaption. More importantly, his view of living harmony aligns very closely with the Chinese ideal of harmonious coexistence, thus providing compelling cross-cultural evidence for the claim that ecological health and ethical relations are inseparable.

An international ecological philosophy characterized by diversity and harmony, interaction and co-existence has been very systematically constructed (He & Wei, 2018), and it makes a clear, perspicuous distinction between the static structural dimension of diversity and harmony and the dynamic process dimension of interaction and co-existence, thereby offering an excellent analytical framework that combines descriptive and normative elements for examining international relations and humanity's relation to nature.

In the Chinese context, Huang Guowen and his collaborators have further developed it into what they term "Harmonious Discourse Analysis", which integrates traditional Chinese ecological philosophy, such as Confucian and Taoist ideals of harmony, with systemic functional linguistics. HDA explicitly positions itself as a localized approach to ecological discourse analysis, aiming to reconstruct the linguistic metaphors that govern the relationship between humans and nature towards mutual care and sustainable co-existence (Huang & Zhao, 2021; Zhao & Huang, 2021).

Intrinsically, both self-realization and the essence of diversity and harmony, interaction and co-existence involve a fundamental transformation in cognition and ways of thinking. This aligns precisely with Lakoff and Johnson's (1980) that metaphor is essentially a cognitive mechanism, and the conceptual system on which we depend for survival is fundamentally metaphorical. This implies that any philosophical stance in ecological discourse analysis, whether it is Western living ethics or Chinese harmonious discourse, is essentially reconstructing the fundamental metaphor governing the relationship between humans and nature.

3.4 Multimodality, Interdisciplinary Expansions and Integrated Applications

Since research has been proceeding smoothly, ecolinguistics has been expanding its boundaries, going from theoretical studies to a variety of integrated applications.

The first is Multimodal Ecological Discourse Analysis (MEDA). This approach to discourse analysis, which goes beyond pure text, aims to analyze how multimodal signs—such as images, sounds, and layout design—work together to construct ecological narratives and images, thereby promoting their application in areas like tourism promotion, environmental advertising, and public engagement (Qi, 2024). Taking the analysis of an ecological tourism brochure as an example, MEDA researchers not only deconstruct how the text describes the original nature, but also analyze the shooting angle, color tones, and layout design of the accompanying images, thereby revealing the underlying ecological perspective, whether it leans towards human conquest of nature or human abandonment of subjectivity to revere nature.

MEDA is currently working in close collaboration with cognitive linguistics to investigate how visual metaphors shape public ecological cognition and how image illustrations shape the public cognitive framework on climate change, while at the same time it is having productive discussions with sociolinguistics about how multimodal resources construct social identities such as green consumer identity or environmental activist identity, thus enabling a nuanced analysis of public attitudes and choices toward environmental protection.

In addition, ecolinguistics has demonstrated extensive interdisciplinary potential through interdisciplinary applications. Its principles are being applied in areas, such as language education (constructing harmonious foreign language teaching ecosystem), eco-oriented language policies, and translation studies. This interdisciplinary nature indicates that ecological linguistics is evolving from an analytical tool to a means of influencing social practices.

4. Methodological Advances and Attempts at Theoretical Integration

In fact, the methods of ecolinguistics have become increasingly diverse, no longer confined to qualitative critique. There is now a greater preference for empirical and mixed methods. Besides commonly used Critical Discourse

Analysis and Systemic Functional Linguistics, scholars have also incorporated Multimodal Discourse Analysis, corpus linguistics for analyzing overall patterns in discourse, and complexity theory for simulating the dynamic relationship between language and environment. The discipline internally resembles an archipelago, with its four ecological dimensions—symbolic, natural, socio-cultural, and cognitive—fragmented and distant from one another. It was precisely in response to this situation that Steffensen and Fill (2014) proposed their own reflections and integration ideas. It is argued that the problem is not whether ecology is a metaphor, but that traditional linguistics treats language as a rigid object. They advocate for a more natural way of viewing language and propose the Extended Ecology Hypothesis, viewing language as a unique way for humans or organisms to engage and coordinate in real-time, with their whole being, within a meaning-saturated ecosystem. From their theoretical perspective, the four ecologies—symbolic, natural, socio-cultural, and cognitive—can finally be integrated: cognitive ecology is the site of real-time human interaction, where socio-cultural behaviors and natural influences collide with each other; socio-cultural and natural ecologies provide the long-term resources and structures utilized in interaction and constantly generated interaction; symbolic ecology is like a resource bank, containing signs that can be drawn upon during interaction, which can be either complementary or oppositional. This attempt provides a grand theoretical framework for unifying ecolinguistics.

5. Challenges and Future Outlook

Ecolinguistics has developed very rapidly, but it is undeniable that the four dimensions of the field—symbolic, natural, socio-cultural, and cognitive ecology—rest on quite different theoretical foundations, so integrating them, particularly combining the tradition of Haugen and Halliday with new cognitive approaches, needs sustained, careful reflection. A natural next step is therefore to promote cross-paradigm collaboration. The text presents a clear picture of collaborative research on ecological issues, the use of complementary theoretical tools in practice, and the development of meta-theoretical frameworks such as the extended ecological hypothesis, all supported by empirical evidence. But it also rightly raises an

important methodological concern: Ecological Discourse Analysis rests on philosophical standards that are inherently subject to significant subjective bias, and therefore different researchers may arrive at divergent conclusions. Because conclusions drawn from the analysis of the same text lack a generally accepted evaluation mechanism, the reliability and verifiability of such conclusions remain major problems. Therefore, it is naturally and elegantly suggested to embed EDA within clear ecological philosophical frameworks, namely deep ecology or Diversity and Harmony, Interaction and Coexistence, to provide value anchors and thereby reduce subjectivity. Since search necessarily has an effect on environmental policies, public awareness, and education, it makes sense to extend analysis from international texts to real-world documents such as corporate reports and international organization files, thus naturally leading to practical consequences: influencing negotiation discourse, evaluating “greenwashing” behavior of enterprises, guiding ecological translation, and fostering a harmonious language education ecosystem.

In the future, ecolinguistics would likely to develop in a more empirical and interventionist research, integrating field investigations, experimental designs, and participatory action research to test critical goals. Technology will be deeply integrated through the utilization of big data and natural language processing to analyze vast ecological corpora and critically examine discourses in the era of artificial intelligence. The connotation of ecology will expand beyond the natural environment to critique socio-economic systems such as neoliberalism and consumerism. Global dialogue will become even more vital, transcending mainstream Western theories. Traditional cultures from all over the world, including the harmonious concepts of human and nature in China and the ecological wisdom of indigenous peoples, will be included to construct a truly global theoretical framework. Crucially, international and expanded applications will be unified under a single trajectory from philosophical grounding to interdisciplinary, multilingual, and multimodal practices, ensuring that ecolinguistics becomes not just a scholarly field, but a transformative force across sectors

6. Conclusion

Ecolinguistics has developed nicely from a marginal interdisciplinary starting point into a field that now has ample content, a variety of methods, and a clear commitment to practical issues, originating from the seeds planted by Haugen and Halliday. Therefore, it can fairly be described as a multidimensional research framework addressing language survival, discourse critique, multimodal discourse, and real-world connections. Since the discipline is now in a stage of integration and deepening, it naturally calls for both the internal construction of a more unified theoretical framework and the external demonstration of its relevance to ecological and social problems, hence the ongoing interdisciplinary dialogue among linguists, ecologists, philosophers, and social activists, coupled with direct empirical research on the environment in which humans live, constitutes the most straightforward and necessary path for ecolinguistics to fulfill its original aspiration of reconnecting language and life.

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