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Ecolinguistics: A half-century overview

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Abstract: The last 50 years have witnessed ecolinguistics come into bloom as a mature domain. This paper aims to examine the half-century development of ecolinguistics by reviewing its backgrounds, definitions, strands, and approaches, and also briefly previewing its future horizons. The birth of ecolinguistics can be attributed to such ecological necessities as the ecological crisis as an essential root, and an ecological perspective for linguistics as a linguistic necessity, together with six ecolinguistic turns in this domain (Section 2). Since the emergence of ecolinguistics in the 1970s, various definitions for ecolinguistics as an evolving concept have come into being, involving the geographical, conceptual, disciplinary, methodological, and practical sides (Section 3). Figures who have contributed to the development of this domain can be divided into old strands like Haugenian and Hallidayan ecolinguistics, as well as new strands such as strong ecolinguistics and the latest radical embodied ecolinguistics (Section 4). Given the diverse definitions and strands, a set of approaches have taken shape, ranging from the Haugenian approach to ecological discourse analysis (Section 5). Due to major problems found in reviewing four parts of ecolinguistics, it is high time three shifts in perspective be put into effect in ecolinguistics that can promise its future horizons.

Keywords: approaches; backgrounds; definitions; ecolinguistics; shifts in perspective; strands

1 Introduction

The year 2021 may mark the arrival of the post-pandemic era after the COVID-19 pandemic triggered social resets at macro, micro, and individual scales (Schwab and Malleret 2020) around the world. It also bears witness to a fifty-year journey of ecolinguistics since Einar Haugen's seminal work "The Ecology of Language" (Haugen 2001 [1972]). According to Arran Stibbe (personal communication,¹ also see

¹ Arran Stibbe shared his opinion on the relationship between the coronavirus crisis and ecolinguistics with the author in an email on December 7, 2021.

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Stibbe 2021a), although there is no particular relationship between the coronavirus crisis and ecolinguistics, it's possible to make great changes to the society when an external threat is recognized and has caused a lot of people to think about building a better society after the emergence of COVID-19 pandemic. Therefore, he maintains the opportunity for ecolinguistics is to insist on building an ecological civilization given the huge ecological threats we are facing. Today, one can ask what role ecolinguistics should or will play in face of much wider and more severe ecological problems that beset this blue planet.² The prospect or the future becoming of ecolinguistics will, of course, hinge on how we retrospect its birth or emergence as, indeed, this bears on its being and becoming. Accordingly, we can recall five grand questions or “ultimate goals” for linguistics that were set out by Fred Householder in 1968 and, even today, retain great thought-provoking power:

Why become a linguist? What is a linguistics? What good is it? What is a linguist? What does he hope to learn? (Householder 1968: 7)

The current paper expands five questions in reviewing the past and the present and envisaging the prospects for the future of ecolinguistics: (1) why do ecolinguistics? (2) what is ecolinguistics? (3) who are doing ecolinguistics? (4) how do ecolinguistics? (5) where is ecolinguistics going? Those five questions can tap into five parts of ecolinguistics: its backgrounds, definitions, strands, approaches, and shifts in perspective correspondingly.

Since the 1970s ontological and epistemological ecolinguistic inquiries have developed along varying trajectories. Once re-examined, they can throw light on how to approach the truth(s) of what makes language, linguistics, and ecolinguistics possible. While the discipline has taken an ontological position over its first half-century based on a widespread consensus prompted by Haugen (2001 [1972]), the epistemological questions raised have proved inadequate. Questions such as the following remain unanswered: how can language be known to ecolinguists, or what is the epistemological object of ecolinguistics? what constitutes the disciplinary field of ecolinguistics, or what disciplinary sources can ecolinguistics draw on? how is ecolinguistic knowledge constructed?

Accordingly, in what follows (see Table 1), in Section 2, I present the backgrounds for the emergence of ecolinguistics, or why the birth of ecolinguistics was essentially a matter of tapping into something old, something new, and something previously unsaid. In Section 3, I stress the definitions of ecolinguistics as an

² The author agrees with one reviewer on the valuable observation that there has been no more discussion about the link between the coronavirus crisis and ecolinguistics, except for Stibbe's concerned account (Stibbe 2021a).

evolving concept that is traced to five sides in its developmental trajectories and end with something undiscussed. Section 4 illustrates the strands of ecolinguistics, that is, the persons who are essential to ecolinguists and how old and new strands intertwine. In so doing, I stress the underestimated and unexplored human dimension in current ecolinguistics. Section 5 turns to the ecolinguistic approaches as a systematic ecolinguistic methodology. This covers, among others, older and newer ecolinguistic approaches that attach central importance to ecological discourse analysis as well as new methods such as harmonious discourse analysis and “a tale of two orders” (first-order languaging and second-order language). Given major problems in reviewing ecolinguistics, I conclude by identifying three shifts in perspective.

Table 1: Five parts for reviewing and previewing ecolinguistics.

Five parts	Keywords	Dimensions	Major problems
Backgrounds (why)	Birth/emergence	Two necessary inquiries Six ecolinguistic turns	Two cruxes
Definitions (what)	Being/existence	Five sides	Three issues
Strands (who)		Two ecolinguistic strands	One dimension
Approaches (how)		Two sets of approaches	A tale of two orders
Shifts in perspective (where)	Becoming/transcendence	Three perspective shifts	

2 Backgrounds: Why do ecolinguistics?

There is an increasing consensus that every newly-established discipline emerges in, not a vacuum, but as ways of engaging with social, historical, academic, and philosophical backgrounds. When one looks back on why ecolinguistics emerged, one can address reasons for its birth and how these bear on the changing missions of ecolinguistic being and becoming. To some considerable extent, the historical backdrop to ecolinguistics is the ecological crisis that is said to characterize the Anthropocene. As argued below, this concerns four ecological necessities and one linguistic necessity that address: why should one do ecolinguistics? I elaborate on the matter further with six ecolinguistic turns that bear on the post-pandemic era.

2.1 Something old: Ecological and linguistic necessities

2.1.1 Four ecological necessities: The ecological crisis as an essential root

Traced to a point of departure in response to the ecological crisis, ecolinguistics must necessarily address four main issues: (1) the birth of the ecology of language as an ecological metaphor, (2) the contributions of linguists to ideological problems like anthropocentrism in a literal sense, (3) the contemporary disconnection between ecological problems and linguistics, and (4) some preliminary consequences how the environmental crisis is reflected in both linguistic studies and how language bears on linguistic actions and habits that affect environmental issues. The first ecological necessity is identified by Haugen in what follows:

Languages do have *life, purpose, and form* [italics in original], each of which can be studied and analyzed as soon as we strip them of their metaphorical or mystical content and look upon them as aspects of human behavior. (Haugen 2001 [1972]: 58)

The second necessity is for what Halliday (2001 [1990]) calls an active presence of linguists in challenging unecological ideologies like classism or, more practically, the need for humanists and linguists to work with scientists such as biologists and ecologists. The third necessity is to address what Trampe (2001) viewed as the unsatisfactory situation in the linguistics of the 1990s:

As far as I am aware, a systematic linguistic debate about the phenomenon ‘ecological crisis’ has not as yet taken place. Consequently, we are at present still far removed from seeing the close connection which exists between the violation, destruction and estrangement from our natural environment and linguistic actions. (Trampe 2001: 232)

Such a practical suggestion for linguists and academic isolation from ecological perspectives underpin the fourth necessity: the themes of explorations of language-environment relationship can be topics such as ecological problems of language and linguistic roots of the environmental crisis, and vice versa.

Typical accounts of ecological necessities respond to such questions as “Why ecology” (Bang and Døør 2007; van Lier 2004) and “Is Ecolinguistics Necessary” (Nash 2016; italics in original). For van Lier (2004: 4), ecology can offer an ecocentric worldview which, regardless of whether it uses deep or shallow ecology, can offer “an overt ideology of transformation” (van Lier 2004: 4) for linguistics and the role of ecology in language education. These can overtly oppose unecological ideologies as the classism, growthism, and speciesism criticized by Halliday (2001 [1990]). Likewise, Bang and Døør (2007) explicate ecology to offer a framework of dialectical ecolinguistics that captures the main two senses by identifying ecological problems and ecological philosophy. Similarly, Nash (2016) critically asserts that ecolinguistics can make a worthy contribution to both linguistics and environmental

studies even if, in an interesting metaphor, he calls it “an old linguistic wine freshly housed in new ecologically focused bottles” (Nash 2016: 38).

2.1.2 One linguistic necessity: An ecological perspective for linguistics

Whereas some ecolinguists start with ecological necessities, others begin with linguistic. For this reason, ecolinguistics can be seen as necessary to linguistics proper in that it queries the widespread abstraction associated with the concept of language in contemporary mainstream western linguistics and how this bears on epistemological reifications that characterize thinking patterns that are based in the Greek philosophical tradition. Steffensen and Fill (2014) account for “why linguistics needs ecology” to the point:

For the last few decades, ecological linguists have addressed this daunting task: they have sought to re-orientate linguistics to “external landmarks” that could lead the language wanderer from the structural wasteland into a fertile terrain of human activity, saturated by language, interactivity, and co-existence. (Steffensen and Fill 2014: 7)

Kravchenko (2020) orients ecolinguistics as a new field connecting linguistics and life science in his response to the inquiry on “why do ecolinguistics”. In making the case for why one should do ecolinguistics, he builds on criticism of ignorance and insufficiency that are associated with Cartesian influences on linguistics. More specifically, many seek to come to ‘know’ language, not as a biological phenomenon, but as a structured system that is somehow “out there”. In other words, they advocate a reified abstraction that can be ‘known’ to experts. Countering, Kravchenko proposes that individuals be seen as a third order of living organisms. Once this is done, he believes ecolinguistics can make the necessary epistemological turn.

2.2 Something new: Six ecolinguistic turns

In addressing the need to explain the birth of ecolinguistics, one can look to both ecological and linguistic issues. However, ecolinguists have proposed many turns that are deemed critical (Halliday 2001 [1990]), environmental (Harré et al. 1999) in the 1990s; and ecological (Steffensen 2007; Stibbe 2012, 2015), epistemological (Kravchenko 2016), and scientific (Finke 2018). Most recently, Li et al. (2020) have proposed a radical turn. While each offers something new to ecolinguistics, each turn is easier to identify than to define. In attempting this task, I tap into three issues: (1) what is each ecolinguistic turn? (2) who are major figures contributing to such a turn? (3) in what ways it is significant for ecolinguistics? (see Table 2).

Table 2: Six ecolinguistic turns.

Duration	Ecolinguistic turns	Definitions	Pioneers	Significances
The 1990s	The critical turn	(1) Thinking critically	(1) Michael A. K. Halliday	(1) Critical ecolinguistics
		(2) Researching critically	(2) Peter Mühlhäusler	(2) Systemic ecolinguistics
		(3) Analyzing critically		
	The environmental turn	(1) A linguistic turn for environmental studies	(1) Rom Harré	(1) Environmental discourse analysis
		(2) An environmental turn for linguistics	(2) Peter Mühlhäusler	(2) Metalinguistic awareness
The last two decades	The ecological turn	(1) The ecological concern and the ecological crisis in dialectical linguistics	(1) Sune Vork Steffensen	(1) Dialectical ecolinguistics
		(2) Ecological dependence and an awareness of ecological embedding in humanities and social sciences	(2) Arran Stibbe	(2) Ecological discourse analysis
	The epistemological turn	(1) The epistemological trap of language	Alexander Kravchenko	Ecology not as a metaphor but as an epistemology
		(2) The epistemological foundation for linguistics		
		(3) Multiple epistemological realities for observers		
	The scientific turn	(1) Priority to scientific diversity	Peter Finke	(1) A strong ecolinguistics
		(2) Reassessment of the role of diversity		(2) Ecolinguistics as a trans-discipline/transdisciplinary ecolinguistics
		(3) A new understanding of boundaries		
	The radical turn	(1) One radical view	(1) Stephen Cowley	(1) Cognitive ecolinguistics
		(2) One radical hypothesis	(2) Sune Vork Steffensen	(2) Radical embodied ecolinguistics
		(3) One new radical ecolinguistics		

2.2.1 Two turns in the 1990s

What Steffensen and Fill (2014) call the critical turn in ecolinguistics can be traced to a landmark paper by Michael Halliday (2001 [1990]). Alongside this work, the other figure who stands out from the 1990s is Peter Mühlhäusler who contributed to ecolinguistics that focuses on the environment. In “Ecolinguistics: The State of the Art and Future Horizons”, Steffensen and Fill (2014) write:

Mühlhäusler’s contribution to ecolinguistics has inspired many environmentally concerned linguists to study how linguistic practices have contributed to the current ecological crisis, and this work laid the ground for the ‘critical turn’ of ecolinguistics in the 1990s.

Another important impetus for the ‘critical turn’ in ecolinguistics was Michael Halliday’s keynote paper “New Ways of Meaning: the Challenge to Applied Linguistics”, given at the 9th world conference of applied linguistics in 1990. (Steffensen and Fill 2014: 10)

What on Earth is the critical turn? It can be defined broadly as a critical move towards questioning fundamental premises of linguistic theories and methods that involves three main facets: (1) thinking critically; (2) researching critically; and (3) developing a critical ecolinguistic voice. In thinking critically, one is bound to take an epistemological stance that used an eco-critical perspective in rethinking the concepts of language and the consequent linguistic actions. If this is to be done, one must be critical in one’s research or, in other words, take an eco-critical perspective that falls within the framework of linguistic theories. And, last but not least, one must adopt an eco-critical discursive approach to discourse (and discourses) by exploring topics such as inequalities between human beings and other life forms. Importantly, the turn led to the birth of both critical ecolinguistics and systemic ecolinguistics (Halliday 2007 [2002]).

The environmental turn can be understood in two senses of “environmental” and “turn”. Harré et al. (1999) indicate the first environmental sense by identifying the dangers of “greenspeak” in environmental discourses. In terms of environmental studies, this is a linguistic ‘turn’ that has many benefits by promoting, above all, environmental discourse analysis. In the second sense, as Mühlhäusler (2019) points out, greenspeak can open up an environmental turn for linguistics. It can be used to promote metalinguistic awareness among scientists and linguists. Recent ecolinguistic research has focused strongly on the second sense. However, according to Mühlhäusler (2019), concerning the first sense, outcomes have not been satisfactory.

2.2.2 Three turns in the last two decades

A wider ecological turn arose after the 1990s as “ecological” came to be defined in the two dimensions of (1) the ecological concern and the ecological crisis as

presented in dialectical linguistics (Steffensen 2007); and also (2) enabling the humanities and social sciences to explore human ecological dependence and ecological embedding (Stibbe 2012, 2015), including ecolinguistics. Descriptions of the ecological turn in both fields can clarify what makes is, not critical or environmental, but ecological.

In relation to ecological concerns, Steffensen (2007: 5) observes: “In the late 1980s and 1990s an ecological turn took place within Dialectical Linguistics”. This dimension gave birth to dialectical ecolinguistics. So how is the second dimension important to ecolinguistics? Stibbe presents it thus:

More practically, the ecological turn has helped give a role to humanities subjects in addressing some of the overarching ecological challenges that humanity is facing in the twenty-first century [...]. Or, put more positively, it enables humanities to contribute to building a more ecological civilization where people meet their physical needs, their needs for wellbeing, and their need to find meaning, in ways which protect and enhance the ecosystems that life depends on. (Stibbe 2021a: 7)

The focus on ecological challenges has stimulated ecological approaches to discourse analysis and ecological discourse analysis (see Section 5 for further discussion).

The epistemological turn is largely due to Kravchenko (2016) even if epistemological ecolinguistics was not new (Garner 2004, 2014; Steffensen and Fill 2014). It highlights the epistemological trap of language at a historical level, attempts to establish an epistemological foundation at a conceptual level, and insists that there are many epistemological realities for observers at a practical/methodological level. In identifying an epistemological ‘trap’, a figurative appeal is made to incomplete and inadequate situations from which mainstream studies of language, linguistics, and ecolinguistics struggle to escape or avoid. Historically, the epistemological trap can be traced to Kravchenko’s long-standing challenges to Cartesian views that make linguistics into an empirical *priori* science where language is studied as a code-model tool or thing (Kravchenko 2016, 2020). Given the danger of the trap for linguistics and ecolinguistics, it is of value to explore the epistemological foundation of linguistics and ecolinguistics at a conceptual level and, thus, acknowledge the multiple realities of how language can be observed and the objects of the study that linguists as observers (or subjects) encounter at a practical level (Kravchenko 2016). He summarizes the epistemological turn as follows:

Instead, language is viewed as biologically grounded, socially determined, cognitively motivated orientational (semiotic) activity in a consensual domain. Linguistic interactions that define and sustain the cognitive niche of the human society as a living system are a crucial ecological factor, affecting human evolution. (Kravchenko 2016: 104)

This offers an alternative epistemological foundation for linguistics and ecolinguistics, one that opens a key debate: should ecolinguists view ecology as a metaphor or as an epistemology? One response is that by making the epistemological turn, language and interaction are redefined from a cognitive-ecological perspective. If this is so, the following step further concerns how to realize epistemological outcomes. By recognizing that, for observers, there are multiple linguistic realities (cf. Kravchenko 2020), Kravchenko aims to eliminate “a so-called ‘epistemic cut’ between what is observed (language as a kind of human recursive behavior) and the observer (a language human describing language)” (Kravchenko 2016: 108).

The scientific turn appears in the context of a scientific change, and for Peter Finke, its main proponent, the main argument is clear:

There is a ‘wind of change’ driven by the insight that we cannot solve a problem by using the same methods that did create it. This is why we need a scientific turn. (Finke 2018: 406)

The scientific turn “aims to stop the current lack or misunderstanding of diversity, including even scientific diversity itself” by “practicing connective knowledge” and “a reassessment of the role of diversity and a new understanding of boundaries” (Finke 2018: 410). In appealing to connective knowledge, Finke (2020) proposes that we embrace a new epoch of the Gaiacene where connective knowledge can mesh knowledge, culture, and the corona crisis. Such a new era can replace the Anthropocene by integrating connective knowledge with anthropogenic activities. This turn is important, as Fill and Penz (2018) view the future of ecolinguistics, because it grants ecolinguistics the role of a pacemaker in a transdisciplinary age that embodies transdisciplinary ecolinguistics. They suggest:

The new scientific age, it is forecast, will be one in which disciplines merge and lose their boundaries, and ecolinguistics will be one of the main contributors to this development. (Fill and Penz 2018: 437)

2.2.3 The latest turn (2020)

The most recent radical turn in ecolinguistics is described by Li et al. (2020) as bringing new topics and methodologies to ecolinguistics within the framework of where language is distributed in that it is part of the living world, dialogical and partly non-local: given its historicity, it has no privileged locus (cf. Cowley 2011). This turn can be further summed up around a radical hypothesis. But what makes ecolinguistics radical? For one radical view, one pioneer of the flourishing Distributed Language Movement, Cowley maintains the radical position that the study of languaging can be the basis for ecolinguistics (Cowley 2018, 2019).

One radical hypothesis, viz. Extended Ecology Hypothesis insists that one can integrate the sociocultural and the natural ecologies into human beings' small-scale cognitive ecologies by extending the importance of human values and meanings as part of ecological structures (Steffensen 2011; Steffensen and Fill 2014). The radical hypothesis draws on cognitive ecolinguistics and, because of the importance given to the unsaid and how the non-local affects our understanding can be called radical embodied ecolinguistics (Steffensen and Cowley 2021).

2.3 Something unsaid: Two crucial issues

In this section, two crucial issues are considered: (1) why will the post-pandemic era need ecolinguistics? (2) why does ecolinguistics need an epistemology?

2.3.1 Why the post-pandemic era will need ecolinguistics

Stibbe (2021a) calls for new stories in the post-pandemic world that draw on the ecolinguistic turns of the last 50 years. By extending the well-recognized notions of “the stories we live by” (Stibbe 2015), Stibbe proposes identifying new stories for the post-pandemic society. He writes optimistically:

We are now in a position where the old stories are crumbling due to coronavirus and the increasingly harmful impacts of climate change and biodiversity loss. There has never been a more urgent time or greater opportunity to find new stories. (Stibbe 2021a: 2)

Challenges that arise in overcoming the coronavirus crisis demand new stories and, some would argue, a new civilization that combines radical views on language, environment, and ecolinguistics. The outcome can arise from combining four ecolinguistic turns. Specifically, the ecological turn and the radical turn can contribute to building a new ecological civilization. Further, this can build on a concept like languaging to enrich the environment by approaching a notion like “con-vironment” (Fill 2001), or more radically, bio-ecological awareness (Cowley 2014). Using ecolinguistics as a pacesetter into a new scientific age can use connective knowledge embodied in ecolinguistics to cope with the ethical and axiological issues in forms of languages and discourses called “coronaspeak” (Fill 2020). For example, Xue and Xu (2021) offer an ecological discourse analysis by contrasting COVID-19 coverage in *The Times* and *The New York Times*.

2.3.2 Why ecolinguistics needs epistemology

Based on Gregory Bateson's influential diagnosis of the ecological crisis as a crisis of epistemological errors (Bateson 1972) in the ecology of mind, one can seek to

address the coronavirus crisis epistemologically. Definitely, it is not adequate for one epistemological turn and the unsystematic epistemological inquiries in ecolinguistics to respond to such errors. Accordingly, ecolinguistics needs to open a new epistemological chapter to rectify the more complex epistemological errors in the current coronavirus crisis. Bateson’s ominous warning on dangers of epistemological errors in the ecological and environmental senses can provide further significance for facing up to two cruxes:

Let us now consider what happens when you make the epistemological error of choosing the wrong unit: you end up with the species versus the other species around it or versus the environment in which it operates. (Bateson 1972: 340)

3 Definitions: What is ecolinguistics?

3.1 Ecolinguistics as an evolving concept: Five sides

Ecolinguistics has evolved during the last five decades. In pursuing ecolinguistics as an evolving concept, it will be shown to have become both more diverse and more complex. Naturally enough, this reflects on stages in the history of the ecolinguistic enterprise (cf. Zhou 2017). The concept’s trajectories can be pursued in relation to five sides: geographical, conceptual, disciplinary, methodological, and practical (see Table 3).

Table 3: Five sides of ecolinguistics.

Five sides	Terms: ecolinguistics as
Geographical	Changing from a European idea to a global ideology
Conceptual	Changing from a subsequent term after “the ecology of language” to an umbrella term
Disciplinary	Diverse options: A sub-discipline, or a discipline, or a trans-discipline, or an inter-discipline, or a meta-discipline, or a multi-discipline
Methodological	Diverse options: An approach, or a paradigm, or a methodology
Practical	Diverse options: A pacesetter, or a platform, or a philosophy

3.1.1 The geographical side

Haugen’s ecology of language pre-dated the birth of ecolinguistics. Nevertheless, geographically, ecolinguistics began as a European idea. Accordingly, it was a

group of European linguists, represented by Halliday, who created a new ecolinguistic paradigm by taking a new task of creating ecological awareness (Fill 1997). With time going on, ecolinguistics has become a global ideology and activity, as ecolinguistic research has spread to non-European areas like China, Africa, and Brazil:

Ecolinguistics has extended its area of activity to several countries in which it was formerly not present, where it is set to play an increasingly central role. (Fill and Penz 2018: 437)

Likewise, ecolinguistics is “an intensely international movement, with strong activity across countries in all continents” (Stibbe 2021a: 211). On the whole, the geographical extension of ecolinguistics is striking for two reasons. First, the larger areas it encompasses, the more philosophical diversity can be used as joint efforts to foster a deeper sense of interdependency. Further, the booming popularity of ecolinguistics as a young discipline can be attributed to the severity of the ecological crisis. In that it applies to most life forms on this planet, there are strong expectations for ecolinguistics proper to address sophisticated epistemological problems in the post-pandemic era.

3.1.2 The conceptual side

When it comes to the conceptual side, ecolinguistics as a concept began as a derivation from “the ecology of language”, and slowly became an umbrella term that covers any linguistic research that adopts an ecological perspective (or ecological research that attends to language):

As opposed to this [the ecology of language], European ecolinguistics takes ecology literally, as it were, and explores the role of language in the current ecological and environmental crisis. (Fill 1997: 455)

The term ‘ecolinguistics’ has turned out to be the best word to comprise all approaches to language and ecology. (Fill 2018: 2)

Briefly from the above two definitions of ecolinguistics, it is self-evident that the conceptual scope of ecolinguistics as a concept has expanded to cover the ecology of language. How has this situation occurred? The meta-level debate on ecology as a metaphor or epistemology offers some hints (see 5.1 for further discussion).

3.1.3 The disciplinary side

The disciplinary side places ecolinguistics within a larger picture of academic disciplines that include, for example, the ecological humanities. What on Earth is a

discipline? Halliday (2001: 176) offers a definition: “A discipline is defined according to its content: what it is that is under investigation”. On such a view the scopes and frames of a discipline depend on its disciplinary relations to others. In the case of ecolinguistics, it can find itself in diverse options: so far ecolinguistics has presented itself either as a sub-discipline, or a discipline, or a trans-discipline, or an inter-discipline, or a meta-discipline, or even a multi-discipline. Some ecolinguists take ecolinguistics as a sub-discipline within mainstream linguistics (Döring and Zunino 2014) that investigates language in the social and ecological contexts of an environment.

Likewise, ecolinguistics can be seen as a discipline of language study or an environmental discipline. For LeVasseur (2015), it deals with “the study of universal features of language relevant to the ecological issues” (Fill 2001: 51). Other ecolinguists see ecolinguistics as a trans-discipline (Bang and Trampe 2014; Fill 2001; Finke 2018; Halliday 2001 [1990]; Stibbe 2021b). Halliday (2001 [1990]) proposes a far-reaching “transdisciplinary perspective” for applied linguistics to create new forms of academic activities. Fill (2001) maintains that ecolinguistics is transdisciplinary in the sense that the notion of ecology has been transferred to linguistics.

Extending Fill’s claim (2001), Bang and Trampe (2014) explore three ecological perspectives or senses in ecolinguistics: biological, trans-disciplinary, and prescriptive. By trans-disciplinary, accordingly, it is meant by the notion that

a linguistic and trans-disciplinary approach that generates empirical hypotheses which describe and explain the manifestation and organization of linguistic processes in organism-environment relations. (Bang and Trampe 2014: 89)

More recently, ecolinguistics has been presented as being able to become a trans-discipline by Finke (2018) who seeks a stronger, more demanding focus that he calls *ecolinguistics proper*³ in the age of Big Transformation. Other ecolinguists consider ecolinguistics as an inter-discipline or an interdisciplinary subject for an interactive field of study where the natural sciences and humanities interrelate (cf. Li et al. 2020). A few ecolinguists even consider ecolinguistics either as a metadiscipline (Stibbe 2012) or a multi-discipline (cf. Döring 2018) within the framework of an ecological discourse analysis, which poses the vital query of what role ecolinguistics can play in contributing to a wider ecological turn (Stibbe 2012, 2014, 2015, 2021a).

There is a widespread consensus on the disciplinary side that ecolinguistics has connected two separate disciplines of ecology and linguistics (Alexander and

³ Accordingly ecolinguistics proper means a strong ecolinguistics which holds a different linguistic view of taking language as an eco-system.

Stibbe 2014; Zhou 2017). However, as Steffensen cautions, a crucial issue needs to be addressed:

[...] in spite of overwhelming environmental and linguistic evidence, the numbers of models that convincingly connect the two domains are few. (Steffensen 2018: 393)

3.1.4 The methodological side

Methodologically, ecolinguistics can be understood either as an approach, or a paradigm, or a method. As an approach, ecolinguistics can offer critical discourse analysis as a discursive practice about ecological systems (Stibbe 2014) and be introduced to ecolinguistics proper systematically (cf. Stibbe 2015, 2021a). Ecolinguists such as Stibbe and Alexander regard ecological discourse analysis as central to the field (Alexander and Stibbe 2014). As an umbrella term, ecolinguistics can be applied to any study of language and interaction that bears on stories we live by (Stibbe 2015, 2021a).

Ecolinguistics can also be seen as offering a post-Newtonian linguistic paradigm that rejects the materialistic, deterministic, and atomistic paradigm of structuralism as the “old linguistics”. Ecolinguistics becomes a “new linguistics” of holistic communication that uses ecopsychology and transpersonal psychology to define human communication as a life process (Bogusławska-Tafelska 2015, 2016; Zhou 2019).

Last but not least, ecolinguistic methodology has been developed by Joshua Nash’s long attempts to deal with what he calls a parameter-rich and conclusion-poor ecolinguistic dilemma – that of showing dynamic connections between toponymies of place names and ecolinguistics (Nash 2013, 2016, 2018). The focus of ecolinguistics as a methodology is as follows:

The challenge is to create functional interconnections between philosophical and empirical approaches to ecolinguistics and to apply such an integrated approach to practical problems faced by the users of languages. (Nash and Mühlhäusler 2014: 33)

3.1.5 The practical side

On a practical side, ecolinguistics can be positioned either as a pacesetter for a trans-discipline, or a platform, or a philosophy. Ecolinguistics as a pacesetter, echoing it as a trans-discipline, can help language science enter into a new scientific age, based epistemologically on connective knowledge (Finke 2018). For ecolinguistics as a platform, the Brazilian ecolinguist, Hildo Honório do Couto employs a vivid launch-pad simile to describe a practical dimension of ecolinguistics and claims:

Ecolinguistics as a platform would be like a launch-pad from which it is possible to take off in several directions. It would be a platform from which we study any language phenomena from a unified point of view. (Couto 2014: 127)

As a philosophy, some ecolinguists, as Fill (2018: 2) notes, tend to consider it more as an ecological worldview, which can find its reflections in both dialectical philosophy in the western scholarship (Bang and Døør 2007) or to a greater extent Confucianism and Daoism in the Chinese part (He et al. 2021; Huang and Zhao 2019, 2021; Zhang and He 2020; Zhou 2017).

Ecolinguistic practice can aspire to enhance the ecological turn in both humanities and social sciences by bringing ecolinguistic values to a larger landscape of ecological humanities and above all, seeking to rebuild a more ecological civilization in the post-pandemic era (Stibbe 2021a; Zhou 2021).

3.2 Something undiscussed: Three issues

A multidimensional view of the definitions of ecolinguistics can help clarify three conceptual issues. First, one can seek to connect the conceptual elements in striving to reach the ecolinguistic goal of a unified framework that can link the Extended Ecology Hypothesis with a naturalized view of language (Li et al. 2020; Steffensen and Fill 2014). If this is achieved, one can ask in Halliday's words:

Which then raises the further question: how are the institutional and the systemic factors interrelated? (Halliday 2007: 14)

The second issue is a wider corollary of the first in that, challengingly, it demands unity of the three elements highlighted by Haugen (2001 [1972]) – language, ecology or environment, and interaction. One attempt to do so is to trace languaging to living as in the distributed view that starts with activity adopted by ecolinguists such as Cowley (2018). The third issue is that of how ecolinguistics can become a trans-discipline that reaches beyond “all other sciences and paves the way to transdisciplinarity” (Fill 2018: 3).

4 Strands: Who are doing ecolinguistics?

4.1 Two preliminary aspects

There are two preliminary qualities that distinguish ecolinguists from others who study the language. First and foremost, an ecolinguist is a researcher or a linguist

who does ecolinguistics (Huang and Zhao 2019). In a similar vein, Couto defines ecolinguist as

any investigator who acknowledges that he/she is doing ecolinguistics, or is using ecological concepts in his/her linguistic research, and/or is dealing with environmental questions in relation to language. (Couto 2014: 123)

However, ecolinguists differ in how they construe notions like being “a linguist doing ecolinguistics” or “using ecological concepts”. For example, they can be classified into (1) schools such as the Odense School and Bielefeld School (cf. Steffensen and Fill 2014), and (2) strains such as the Haugenian tradition, the Hallidayan tradition, and those who study biolinguistic diversity (LeVasseur 2015); there are also (3) complementary strands (Fill 2018).

The second aspect comes to the fore in asking what ecolinguists have achieved so far. In this context, ecolinguistics can refer to enduring or emerging strands and branches that sustain ecolinguistic themes. These might include ecological, environmental, or linguistic concepts that include organism, constructionism, and Confucianism. They can, of course, inspire a range of ecolinguistic scholarship even where they remain implicit. For the same reason, the ecolinguistic scholarship can be traced with respect to chronologically defined old and new strands (see Table 4).

Table 4: Two ecolinguistic strands.

Two strands	Branches	Themes
The old strands	Haugenian ecolinguistics/the ecology of language/ institutional ecolinguistics	Organism
	Hallidayan ecolinguistics/critical ecolinguistics/systemic ecolinguistics	Linguistic constructionism, anti-anthropocentrism
		Ecosystem
The new strands	Constructive ecolinguistics/strong ecolinguistics	
	Applied ecolinguistics	
	Ecosystemic linguistics	Holism, pluricentrism
	Political ecolinguistics	Activism
	Cognitive ecolinguistics	
	Philosophical ecolinguistics	Confucianism and Daoism
	Radical embodied ecolinguistics	Anti-generativism

4.2 The old strands

The old classical or traditional strands refer to the pioneering branches of Haugenian and Hallidayan ecolinguistics (Zhou 2017). The former is known as the

ecology of language (Haugen 2001 [1972]) and is sometimes called institutional ecolinguistics (Halliday 2007 [2002]). Haugen's central tenets on the ecology of language can be summarized into one ecolinguistic theme, one definition, 10 questions, and later one model. One ecolinguistic thought refers to the organism embodied in Haugen's proposal of the ecology of language. Haugen (2001 [1972]: 57) states that in the nineteenth-century people thought: "Languages were born and died, like living organisms". Regarding this, Fill comments:

Einar Haugen's 1972 paper is seminal in extending Haeckel's term (coined in 1866) for the study of the relationship between organisms from biology and sociology to linguistics. (Fill 2001: 3)

Eliasson (2015) confirms that Haugen sets his ecolinguistic terminology of the ecological metaphor is by drawing on organisms.

Inspired by this ecolinguistic theme of organism, Haugen (2001 [1972]: 57) proposes an influential definition as "the study of interactions between any given language and its environment". This is the basis for defining 10 ecological questions that open up new areas in domains such as sociolinguistics, dialinguistics, and ethnolinguistics. In the subsequent exploration of ecolinguistics, Haugen (1987) offers an ecological model for bilingualism. Halliday terms the Haugenian approach as institutional ecolinguistics:

All these are considerations that arise within one component of ecolinguistics: what we might call institutional ecolinguistics, the relation between a language and those who speak it (and also, in this case, those who may be speaking it no longer). (Halliday 2007: 14)

In contrast, Hallidayan ecolinguistics mainly involves two ecolinguistic themes, three ideologies, and two sub-branches. According to Fill's observation, Halliday's ecolinguistic contribution has been engaged in linguistic constructionism, that is, language construes the world, and importantly, as Fill summarizes, anti-anthropocentrism (Fill 2001). The branch led to an eco-discursive practice that critiques three unecological ideologies – growthism, classicism, and speciesism (Fill 2001; Halliday 2001 [1990]).⁴ These triggered a sub-branch of what Fill (2001) call critical ecolinguistics that has two sub-branches. It includes, on the one hand, ecocriticism of the language system and, on the other ecocritical discourse analysis that promotes ecological awareness. Alastair Pennycook defines critical ecolinguistics briefly as "a form of environmentally-oriented critical discourse analysis, with a focus on how grammar or discourse leads to assumptions about

⁴ The author agrees with one reviewer that Halliday (2001 [1990]) was also concerned about consumerism in the system of English, apart from growthism, classicism, and speciesism. All four ideologies can be tapped into anthropocentrism.

the environment” (Pennycook 2004: 218). Later Halliday describes critical ecolinguistics as systemic ecolinguistics devoted to issues as “how do our ways of meaning affect the impact we have on the environment?” (Halliday 2007: 14).

4.3 The new strands

The new strands have emerged in the second divergent and the third emerging unified waves (Zhou 2017). On the geographical side, those new strands can be further divided into western scholarship and others in areas such as how recent active Sino-European ecolinguistic dialogues have enriched the work of ecolinguists such as Huang Guowen and He Wei.

Several western ecolinguistic branches stand out chronologically. Constructive or strong ecolinguistics (*ökologische konstruktive Linguistik*) (Finke 1983), now called ecolinguistics proper (Finke 2018), offers crucial constructive and ecological claims. The first tenet offers a doubly constructive perspective by linking empirical creativity to theories of constructive linguistics⁵ (*konstruktive Linguistik*) while developing explanatory instruments for the politicity of the language science (*die Politizität der Sprachwissenschaft*) (Finke 1983: 44). The second tenet suggests that an ecological linguistic science (*ökologischen Sprachwissenschaft*) can solve new problems with novel concepts and ideas from general ecology by stressing interrelationships between living beings and environments (Finke 1983).

Applied ecolinguistics turns to the practical utilization of ecolinguistic theories as associated with two linguists and one anthology. Fill makes a brief summary below:

Bang and Døør have also contributed to applied ecolinguistics by closely analyzing a number of texts ranging from newspaper articles to Acts of Parliament, council regulations and even literary texts. (Fill 2011: 8)

Later the specific anthology entitled *Sustaining Language: Essays in Applied Ecolinguistics* (Fill and Penz 2007) covers a wide range of applied topics.

Dialectical ecolinguistics can be regarded as a branch of applied ecolinguistics or a dialectical approach to ecolinguistics. Dialectical ecolinguistics can be defined as “the biological, the ideological and the sociological dimensions of the study of language phenomena” (Couto 2018: 150). What makes an ecolinguistics dialectical can be traced back to its origin of dialectical linguistics from the Odense School, which involves a complex web of dialectical relations and models (Bang

5 One distinction between constructive ecolinguistics and constructive linguistics lies in the ecological perspective of the former in addressing ecological issues based on the latter.

and Døør 2007). Similarly, ecosystemic linguistics as a branch of ecolinguistics has been advocated by Couto (2018) and Couto et al. (2021). By definition, the view refers to the study of language as interaction and also as communication as non-metaphorical ecological phenomena. Such an approach draws on ecosystemic thinking or worldviews that embrace holism and pluricentrism.

Political ecolinguistics, by contrast, proposed by Albert Bastardas-Boada (2018) places language contact at the heart of ecolinguistics by calling for linguistic activism that promotes equal rights between majority and minority languages in social and economic organizations. Cognitive ecolinguistics (Cowley 2018) draws on the cognitive ecology of language (Steffensen and Fill 2014) by starting with bio-ecology (Cowley 2014). Language and languaging are thus part of living: the view challenges linguists who focus on abstracta, content, and what Saussure called *langue* and *parole*. Languaging is irreducible to the verbal because it is an activity by living beings that is inseparable from being a person. Philosophical ecolinguistics, in contrast, takes a wider vision by exploring ethical and religious aspects of human ecology (Fill 2018: 5). This side appears in both the meta-level exploration of ecolinguistic thoughts and actions, or ecological ones such as 天人合一 (*tianren heyi*, ‘the unity of man and nature’), or what Huang and Zhao (2021) term 以人为本 (*yiren weiben*, ‘people-orientedness’).

Last but not least, radical embodied ecolinguistics (Steffensen and Cowley 2021) builds on a concept of languaging (or distributed language) to develop three main tenets: first, epistemologically, it rejects all kinds of structuralism for a post-Mertonian understanding of how languaging contributes to living (and vice versa). Axiologically, it opposes any disinterested linguistic theory by stressing the value of small-scale actions, the extended ecology, and bio-ecological awareness. Methodologically, it rejects reductionism and advocates a non-linear model of dynamic changes that contribute to natural innovation (Steffensen and Cowley 2021).

4.4 Something unexplored: The human dimension as the researchers

The human dimension of ecolinguistics can be understood both with respect to the researched (the objects of the ecolinguistic studies) and in relation to the researcher-observers (ecolinguists). There are two main reasons for drawing such a distinction. First, human activities have a double-edged role in the ecology of the Earth; in the Anthropocene, they have exerted devastating effects that on the blue planet. Second, as Halliday saw, linguists can bring ecological issues to account and, in so doing, researchers can ecologize human behavior. Hitherto,

ecolinguistic scholarship has given more attention to humans as research objects than to the researcher-observers. The human has been discussed in ecolinguistics in relation to themes such as the interaction between human and nature (Zhang and He 2020), human-animal studies, unecological ideologies like human exceptionalism, linguistic human rights, language, and human ecology. Nevertheless, three novel proposals bring the human as researcher-observers to the fore: (1) the normative role of ecosophy from ecolinguists in analyzing and judging the stories we live by (Stibbe 2015, 2021a); (2) the potential epistemological role of ecolinguists as the researchers in approaching language data ecologically in intercultural interaction (Uryu et al. 2014); and (3) a wider appeal to creating a worldwide community of ecolinguists with the reorganization of International Ecolinguistics Association as an example (Fill 2018), informed yet unformed. Given that, ecolinguists as researcher-observers should not only be sharpened but more critically, should be shifted from the researchers to knowers.

5 Approaches: How do ecolinguistics?

5.1 What is (not) an ecological approach to language/linguistics

How can one investigate ‘language’ under the umbrella of an ecological approach to language/linguistics? What makes a linguistic approach ecological? Garner defines it as follows:

An ecological approach sees language as an integral part of the complex of human behavior, which comprises patterns that are learned through interaction within a community of users. (Garner 2014: 112)

Conversely, what is a non-ecological approach? Broadly, there is a consensus that such linguistic approaches as underpinned by formalism and structuralism are non-ecological in that they reify language as an entity by using metaphors as chess, tool, and device (Zhou 2017). It is observed that ecolinguistics as a systematic methodology can be categorized into older approaches (Fill 2018) and newer ones. Fill defines the older approach as follows:

Chronologically, the older approach is that in which biological diversity is compared to linguistic diversity and in which topics such as the relations between languages in their individual environment (the human brain) and their social one (in a society, a state or on a particular continent) are dealt with. (Fill 2018: 3)

From the above definition, the older approach mainly refers to the Haugenian approach. But in this paper, the older approaches mainly involve two

complementary approaches. Consequently, five similar distinctions of approaches come into being: Haugenian versus Hallidayan, ecological versus non-ecological, metaphorical versus non-metaphorical, the older versus the newer, and *langue*-oriented versus *parole*-oriented, depending on whether ecology is treated metaphorically or literally. A further noteworthy meta-level debate arises: whether ecology is to be adopted as a metaphor and/or as epistemology? Garner's position of taking ecology as epistemology challenges the Haugenian position of dealing with ecological metaphor. Accordingly, there are two paradoxical entities in the ecology of language: on the one hand, language as a metaphorical organism, but on the other hand, environment as a literal entity (Garner 2004, 2014). Besides the older approaches, the newer ones such as ecological discourse analysis as an extension of the Hallidayan approach have become a central approach to ecolinguistics (Alexander and Stibbe 2014; Stibbe 2015, 2021a).

5.2 Ecological discourse analysis as a central approach

Ecological discourse analysis as a promising eco-analytical framework of discourse analysis has been developed by Stibbe (2015, 2021a). This burgeoning approach typically concerns itself with using an ecolinguist's ecosophy (e.g. deep adaptation, Stibbe 2021a) to explore methods such as eco-critical discourse analysis, positive discourse analysis, and narrative analysis.⁶ The approach aims to figure out beneficial, destructive, and ambivalent 'stories' that human beings live by (Zhou 2021). What distinguishes ecological discourse analysis from other methods is that analysts draw on ecosophies that may derive from different cultures. Ecological discourse analysis in the Chinese context is a case in point, which has given rise to new sub-branches like harmonious discourse analysis (Huang and Zhao 2021), ecological grammar (He et al. 2021; Zhang and He 2020), and international ecological discourse analysis (Wei 2021), to name just a few. These sub-branches tap into such Chinese ecological wisdom as Confucianism and Daoism (Zhou and Huang 2017). Other new branches of ecological discourse analysis are environmental discourse analysis (Mühlhäusler and Peace 2006) and ecosystemic discourse analysis (Couto et al. 2021).

⁶ Different from narrative analysis in narratology, narrative analysis in ecolinguistics refers to a type of ecological discourse analysis targeted to narrative as the most powerful story in "the stories we live by" (see Zhou 2021).

5.3 A tale of two orders: Efficiency and deficiency

Whichever approach an ecolinguist adopts, epistemologically, there is increasing consensus among the ecolinguistic circle that two orders of language, i.e. first-order languaging and second-order language (Love 2004, 2017) can help ecolinguistics transcend structuralism and dualism by granting priority to first-order activity (Cowley 2019; Zhou 2017). However, the application of languaging to ecolinguistics has hitherto been restricted to work influenced by the distributed perspective (Cowley 2011, 2019; Kravchenko 2016; Steffensen and Cowley 2021). Accordingly, I propose an ecological dimension of languaging (Steffensen 2011; Thibault 2021), that is, ecolanguaging that can grant it an epistemological role in connecting language and ecology. Chinese ecolinguist He Wei and her team maintain that ecological discourse analysis should be regarded as an independent paradigm based on the Hallidayan approach, which can offer a promising alternative to potential approaches to ecolinguistics (He et al. 2021).

6 Where is ecolinguistics going?

It is high time that current ecolinguistics should shift its perspectives historically, socially, and disciplinarily to address the problems discussed in the previous four sections (see Table 5).

Table 5: Three perspective shifts.

Three perspective shifts	Eight moves
Historical	(1) The Anthropocene→the Gaiacene
	(2) The ecological crisis→ the coronavirus crisis
Social	(3) Industrial civilization → ecological civilization
	(4) Ecological Awareness→con-vironmental awareness and bio-ecological awareness
Disciplinary	(5) Ecolinguistics as a unified framework→ecolinguistics as a theory complex
	(6) Ecolinguists as researchers→ecolinguists as knowers (or observer-researchers)
	(7) Languaging→eco-languaging
	(8) Ecospeak→coronaspeak

The paper traces five parts in a half-century of ecolinguistics with its emergence from linguistics to its present existence to its prospects for transcendence.

The whole offers a panoramic picture of where the field stands, where it came from, and what its prospects can be. The post-pandemic era has promised ecolinguistics with such a double-edged sword horizon of both challenges and chances.

Given that, it remains valuable to reconsider Halliday's challenge to classism, growthism, and speciesism and the need for scientists and humanists to take joint ecological responsibilities. It also remains valuable to reconsider Steffensen's (2011: 204) slogan: "If you want to learn about language, forget about language!" In the new era, it is crucial to ask how to "forget about language". A subsequent call became: "If you want to learn about ecolinguistics, forget about linguistics" (Zhou 2017: 135). In so doing, ecolinguistics can transcend both linguistics and old ecolinguistic dogmas to pursue a wider range of ecological and linguistic problems and a diverse variety of coronaspeak in the post-pandemic society. Rather than discard Haugen's three elements of language, environment, and interaction, each element can be enriched and extended. Trampe argues:

As the ecological crisis is also one of communication manifesting itself specifically in language, ecolinguistics may justifiably be expected to play an important role in the mastering of the crisis. A vision and a conviction shared by most ecolinguists is that research findings should contribute to sustaining diversity and the protection of animals. (Trampe 2018: 336)

On that account, ecolinguists should turn to three perspective shifts in dealing with those hard questions in the ecolinguistic domain.

References

- Alexander, Richard & Arran Stibbe. 2014. From the analysis of ecological discourse to the ecological analysis of discourse. *Language Sciences* 41. 104–110.
- Bang, Jorgen Christian & Jorgen Døør (eds.). 2007. *Language, ecology and society: A dialectical approach*. London: Continuum.
- Bang, Jorgen & Wilhelm Trampe. 2014. Aspects of an ecological theory of language. *Language Sciences* 41. 83–92.
- Bastardas-Boada, Albert. 2018. The ecology of language contact: Minority and majority languages. In Alwin Fill & Hermine Penz (eds.), *The Routledge handbook of ecolinguistics*, 26–40. London: Routledge.
- Bateson, Gregory. 1972. *Steps to an ecology of mind*. New York: Chandler.
- Bogusławska-Tafelska, Marta. 2015. *Towards the ecology of human communication*. Newcastle upon Tyne: Cambridge Scholars Publishing.
- Bogusławska-Tafelska, Marta. 2016. *Ecolinguistics: Communication processes at the seam of life*. New York: Peter Lang.
- Couto, Hildo Honório do. 2014. Ecological approaches in linguistics: A historical overview. *Language Sciences* 41. 122–128.

- Couto, Hildo Honório do. 2018. Ecosystemic linguistics. In Alwin Fill & Hermine Penz (eds.), *The Routledge handbook of ecolinguistics*, 149–161. London: Routledge.
- Couto, Hildo Honório do, Elza Kioko do Couto & Anderson Nowogrodzki da Silva. 2021. Ecosystemic discourse analysis (EDA). *Ecolinguística: Revista brasileira de ecologia e linguagem (ECO-REBEL)* 7(1). 5–17.
- Cowley, Stephen. 2011. Distributed language. In Stephen Cowley (ed.), *Distributed language*, 1–14. Amsterdam: John Benjamins.
- Cowley, Stephen. 2014. Bio-ecology and language: A necessary unity. *Language Sciences* 41. 60–70.
- Cowley, Stephen. 2018. Life and language: Is meaning biosemiotic? *Language Sciences* 67. 46–58.
- Cowley, Stephen. 2019. The return of languaging. *Chinese Semiotic Studies* 15(4). 483–512.
- Döring, Martin. 2018. Media reports about natural disasters: An ecolinguistic perspective. In Alwin Fill & Hermine Penz (eds.), *The Routledge handbook of ecolinguistics*, 293–308. London: Routledge.
- Döring, Martin & Francesca Zunino. 2014. Naturecultures in old and new worlds. Steps towards an ecolinguistic perspective on framing a ‘new’ continent. *Language Sciences* 41. 34–40.
- Eliasson, Stig. 2015. The birth of language ecology: Interdisciplinary influences in Einar Haugen’s “the ecology of language”. *Language Sciences* 50. 78–92.
- Fill, Alwin. 1997. Ecolinguistics as a European idea. *The European Legacy* 2(3). 450–455.
- Fill, Alwin. 2001. Ecolinguistics: State of the art 1998. In Alwin Fill & Peter Mühlhäusler (eds.), *The ecolinguistics reader: Language, ecology and environment*, 43–53. London: Continuum.
- Fill, Alwin. 2018. Introduction. In Alwin Fill & Hermine Penz (eds.), *The Routledge handbook of ecolinguistics*, 1–7. London: Routledge.
- Fill, Alwin. 2020. Newspeak as coronaspeak 2020. *Ecolinguística: Revista brasileira de ecologia e linguagem (ECO-REBEL)* 6(4). 13–18.
- Fill, Alwin & Hermine Penz (eds.). 2007. *Sustaining language: Essays in applied ecolinguistics*. Wien, Berlin: LIT.
- Fill, Alwin & Hermine Penz. 2018. Ecolinguistics in the 21st century. In Alwin Fill & Hermine Penz (eds.), *The Routledge handbook of ecolinguistics*, 437–443. London: Routledge.
- Finke, Peter. 1983. Politizität: zum verhältnis von theoretischer Härte und praktischer relevanz in der sprachwissenschaft [Politics: The relationship between theoretical hardness and practical relevance in linguistic science]. In Peter Finke (ed.), *Sprache im politischen context [Language in the political context]*, 44–75. Tübingen: Niemeyer.
- Finke, Peter. 2018. Transdisciplinary linguistics: Ecolinguistics as a pacemaker into a new scientific age. In Alwin Fill & Hermine Penz (eds.), *The Routledge handbook of ecolinguistics*, 406–419. London: Routledge.
- Finke, Peter. 2020. Go for the gaiacene! Knowledge, culture and corona. *Ecolinguística: Revista brasileira de ecologia e linguagem (ECO-REBEL)* 6(4). 4–12.
- Garner, Mark. 2004. *Language: An ecological view*. Bern: Peter Lang.
- Garner, Mark. 2014. Language rules and language ecology. *Language Sciences* 41. 111–121.
- Halliday, Michael Alexander Kirkwood. 2001 [1990]. New ways of meaning: The challenge to applied linguistics. In Alwin Fill & Peter Mühlhäusler (eds.), *The ecolinguistics reader: Language, ecology and environment*, 175–202. London: Continuum.
- Halliday, Michael Alexander Kirkwood. 2007 [2002]. Applied linguistics as an evolving theme. In Jonathan James Webster (ed.), *Language and education: Vol. 9 in the collected works of M.A.K. Halliday*, 1–19. London: Continuum.

- Harré, Rom, Jens Brockmeier & Peter Mühlhäusler. 1999. *Greenspeak: A study of environmental discourse*. London: Routledge.
- Haugen, Einar. 1987. *Blessings of babel. Bilingualism and language planning. Problems and pleasures*. Berlin: De Gruyter Mouton.
- Haugen, Einar. 2001 [1972]. The ecology of language. In Alwin Fill & Peter Mühlhäusler (eds.), *The ecolinguistics reader: Language, ecology and environment*, 57–66. London: Continuum.
- He, Wei, Ran Gao & Jiahuan Liu. 2021. *Shengtai huayu fenxi xinfazhan yanjiu [New developments of ecological discourse analysis]*. Beijing: Tsinghua University Press.
- Householder, Fred. 1968. The ultimate goals. *Language Sciences* 1(1). 7–11.
- Huang, Guowen & Ruihua Zhao. 2019. *Shenme shi shengtai yuyanxue [What is ecolinguistics]*. Shanghai: Shanghai Foreign Language Education Press.
- Huang, Guowen & Ruihua Zhao. 2021. Harmonious discourse analysis: Approaching peoples' problems in a Chinese context. *Language Sciences* 85. 101365.
- Kravchenko, Alexander. 2016. Two views on language ecology and ecolinguistics. *Language Sciences* 54. 102–113.
- Kravchenko, Alexander. 2020. Why ecolinguistics? *Ecolinguística: Revista brasileira de ecologia e linguagem (ECO-REBEL)* 6(2). 18–31.
- LeVasseur, Todd. 2015. Defining “ecolinguistics?": Challenging emic issues in an evolving environmental discipline. *Journal for Environmental Studies and Sciences* 5. 21–28.
- van Lier, Leo. 2004. *The ecology and semiotics of language learning: A sociocultural perspective*. Dordrecht: Kluwer.
- Li, Jia, Sune Vork Steffensen & Guowen Huang. 2020. Rethinking ecolinguistics from a distributed language perspective. *Language Sciences* 80. 101277.
- Love, Nigel. 2004. Cognition and the language myth. *Language Sciences* 26(6). 525–544.
- Love, Nigel. 2017. On languaging and languages. *Language Sciences* 61. 113–147.
- Mühlhäusler, Peter. 2019. Revisiting greenspeak. In Bo Allesøe Christensen (ed.), *The second cognitive revolution: A tribute to Rom Harré*, 81–88. Switzerland: Springer Nature.
- Mühlhäusler, Peter & Adrian Peace. 2006. Environmental discourses. *Annual Review of Anthropology* 35. 457–479.
- Nash, John. 2013. *Insular toponymies: Place-naming on Norfolk Island, South Pacific and Dudley Peninsula, Kangaroo Island*. Amsterdam: John Benjamins.
- Nash, John. 2016. Is ecolinguistics necessary? *Ecolinguística: Revista brasileira de ecologia e linguagem (ECO-REBEL)* 2(2). 36–43.
- Nash, John. 2018. Ecolinguistics and placenames. Interaction between humans and nature. In Alwin Fill & Hermine Penz (eds.), *The Routledge handbook of ecolinguistics*, 355–364. London: Routledge.
- Nash, John & Peter Mühlhäusler. 2014. Linking language and the environment: The case of Norfolk and Norfolk island. *Language Sciences* 41. 26–33.
- Pennycook, Alastair. 2004. Language policy and the ecological turn. *Language Policy* 3(3). 213–239.
- Schwab, Klaus & Thierry Malleret. 2020. *COVID-19: The great reset*. Geneva: Forum Publishing.
- Steffensen, Sune Vork. 2007. Language, ecology and society: An introduction to dialectical linguistics. In Jorgen Christian Bang & Jorgen Døør (eds.), *Language, ecology and society: A dialectical approach*, 3–31. London: Continuum.
- Steffensen, Sune Vork. 2011. Beyond mind: An extended ecology of languaging. In Stephen Cowley (ed.), *Distributed language*, 185–210. Amsterdam: John Benjamins.

- Steffensen, Sune Vork. 2018. The microecological grounding of language: How linguistic symbolcity extends and transforms the human ecology. In Alwin Fill & Hermine Penz (eds.), *The Routledge handbook of ecolinguistics*, 393–405. London: Routledge.
- Steffensen, Sune Vork & Stephen Cowley. 2021. Thinking on behalf of the world: Radical embodied ecolinguistics. In Xu Wen & John R. Taylor (eds.), *The Routledge handbook of cognitive linguistics*, 723–736. London: Routledge.
- Steffensen, Sune Vork & Alwin Fill. 2014. Ecolinguistics: The state of the art and future horizons. *Language Sciences* 41. 6–25.
- Stibbe, Arran. 2012. Ecolinguistics and globalization. In Nikolas Coupland (ed.), *The Handbook of language and globalization*, 406–425. Singapore: Wiley-Blackwell.
- Stibbe, Arran. 2014. An ecolinguistic approach to critical discourse studies. *Critical Discourse Studies* 11(1). 117–128.
- Stibbe, Arran. 2015. *Ecolinguistics: Language, ecology and the stories we live by*. London: Routledge.
- Stibbe, Arran. 2021a. *Ecolinguistics: Language, ecology and the stories we live by*, 2nd edn. London: Routledge.
- Stibbe, Arran. 2021b. Ecolinguistics as a transdisciplinary movement and a way of life. In Burkette Allison & Tamara Warhol (eds.), *Crossing borders, making connections: Interdisciplinarity in linguistics*, 71–88. Boston: De Gruyter Mouton.
- Thibault, Paul. 2021. *Distributed languaging, affective dynamics, and the human ecology volume I: The sense-making body*. London & New York: Routledge.
- Trampe, Wilhelm. 2001. Language and ecological crisis: Extracts from a dictionary of industrial agriculture. In Alwin Fill & Peter Mühlhäusler (eds.), *The ecolinguistics reader: Language, ecology and environment*, 232–240. London: Continuum.
- Trampe, Wilhelm. 2018. Transdisciplinary linguistics: Ecolinguistics as a pacemaker into a new scientific age. In Alwin Fill & Hermine Penz (eds.), *The Routledge of handbook of ecolinguistics*, 406–419. London: Routledge.
- Uryu, Michiko, Sune Vork Steffensen & Claire Kramsch. 2014. The ecology of intercultural interaction: Timescales, temporal ranges and identity dynamics. *Language Sciences* 41. 41–59.
- Wei, Ruby Rong. 2021. An interpersonal framework of international ecological discourse. *Journal of World Languages* 7(2). 305–333.
- Xue, Yahong & Qianqiu Xu. 2021. An ecological discourse analysis of news coverage of COVID-19 in China in *The Times* and *The New York Times*. *Journal of World Languages* 7(1). 80–103.
- Zhang, Ruijie & Wei He. 2020. Human-nature relationships in experiential meaning: Transitivity system of Chinese from an ecolinguistic perspective. *Journal of World Languages* 6(3). 217–235.
- Zhou, Wenjuan. 2017. Ecolinguistics: Toward a new harmony. *Language Sciences* 62. 124–138.
- Zhou, Wenjuan. 2019. An emerging communicative paradigm in ecolinguistics. *Chinese Journal of Applied Linguistics* 42(2). 258–262.
- Zhou, Wenjuan. 2021. Book review: *Ecolinguistics: Language, ecology and the stories we live by*, 2nd edn. *Discourse Studies* 23(3). 420–422.
- Zhou, Wenjuan & Guowen Huang. 2017. Chinese ecological discourse: A Confucian-Daoist inquiry. *Journal of Multicultural Discourses* 12(4). 264–281.