

## ECOLINGUISTIC ANALYSIS OF ENVIRONMENTAL SIGNS

**Kristine Marie B. Narcida<sup>1</sup> and Rowena V. Sosas, PhD<sup>2</sup>**

<sup>1</sup>University of Southern Mindanao, Kidapawan City, 9400 Philippines

<sup>2</sup>University of Southern Mindanao, Kidapawan City, 9400 Philippines

### **Abstract:**

*Environmental signs are put into public for safety and orientation. It uses language to denote types of warnings, prohibitions, and information. However, features of language used are not that common to the reading public. This qualitative study focuses on investigating the linguistic features of environmental signs in Kidapawan City, Philippines, the city of fruits and highland springs. It uses 100 environmental signs in Kidapawan City as the data. Results revealed that environmental signs use linguistic features such as prohibitions, imperatives, nouns, jargons, negative fronting, and politeness markers. Specifically, environmental signs use prohibition to imply caution that sends warning to avoid danger or risk; imperative tasks to command or request a certain act; noun labels the name of a specific object or place; jargon displays a specialized terms used by a group or profession; negative fronting denotes a strong emphasis of the action not to be taken; and politeness marker concerns a strategy to convey request or command. The findings of this study show that linguistic features of environmental signs suggest caution, warning, command, and information for safety and orderly city.*

**Keywords:** *ecolinguistic, environmental sign, linguistic features, Philippines*

### **Introduction**

The individuals who acquire, adopt, and interpret speech are primarily responsible for shaping its environment (Haugen, 2001). Environmental signs are put into public for safety and orientation. However, features of language used are not common to the reading public. Souman, Sreenivasa and Ernst (2009) suggests that everyone will end up going in circles if there were no signposts to serve as a guide. In a wide range of locations or places to visit, signs are important part of the human environment and language.

Additionally, the term ecolinguistics and its related concept of language and ecology first appeared in Einar Haugen, the one who established the ecological-linguistic coexistence in 1972, emphasizing the relevance of environmental and syntactic research of environment (Chen, 2016). It investigates the relationships between discourse and its surroundings, and the topic has grown steadily since then as an emergent multidisciplinary field of literature and environmental science. Crystal (2000) stated that if diversity is necessary for the success of human civilization, then linguistic diversity must be preserved because language is at the center of humankind. Signage criteria are proposed with the goal of creating sign displays that aid in way finding while also

being compatible with existing natural features, resulting in harmony in the built environment (Denis & Pontille, 2010).

This paper seeks to investigate the use of signs on the facades in the environment since the primary function of signs is to map the ecosystem that is to tell people where they might find what. Since the idea of science as a nonlinear movement toward deeper insights, better methods, and human progress must be challenged, and that ecolinguistics, with its commitment to ecological and dialectical theories, has significant theoretical and practical implications for human collective responses to the major crisis of global ecological crises (Steffensen & Fill, 2014).

Furthermore, ecolinguistics describes the effect of language on the life-sustaining relationships that exist between humans and the physical environment. It is normatively oriented toward the preservation of relationship that supports life (Alexander & Stibbe, 2014). Thus, the existence of these issues and problems prompted the researcher to conduct research focusing on the linguistic features present in environmental signs. Since she believed that exploring such concern is deemed important. Specifically, this study features structure of written signs to create a more meaningful interpretation of the study.

This qualitative research study aims to describe the linguistic feature that can be found in environmental signs. Specifically, this sought to answer the question:

1. What linguistic features can be found in environmental signs?

### **Theoretical framework**

This study is seen through the lens of Haugen (1970) which interpreted language ecology as a conceptual ecology and claimed that a psychological aspect of language ecology is its connection with multiple languages in the consciousness of multilingual individuals. Additional aspect of its ecology is social, which involves its relationship with the civilization in which it serves as a communication channel. A written language in environment is essentially defined by the individuals who learn, practice, and transfer it to everyone else. As a result, mental interaction with other languages in the minds of bilingual individuals is a part of its biodiversity.

In addition, Stibbe (2020), which suggests the use of linguistic analysis techniques to reveal the stories we live by, opening them up to question and challenge from an environmental standpoint. The key message is that the stories that industrial civilization have is based on are not working and we need to find new stories to live by. Additionally, the role of language in matters of great global importance and why it is important to examine it since language shapes how we see the world. A lot of things are complex and require a lot of interpretation and thought for us to structure them in our minds. Furthermore, language plays a really important role in this social construction of the reality that we see since the stories are the secret reservoirs of values. If we change the stories that people and nations live by, we change the people and nations themselves. So, if we truly want to make a difference in the world, we must address and change the underlying concepts on which we base our perception of reality. Additionally, language is the means by which those concepts can be altered. Furthermore, language shapes the world views of people that influence their behavior and any kind of change whether its positive change or negative change arises from changes in language. It is inevitable that shifting language will

change the society around us and what we need to do is to shift language in the right direction to build a more ecological harmony.

This study is also viewed through the lens of Chen (2016) language and ecology which describes the content of ecolinguistics that lies in the diversification of the field. The worrying state of the environment necessitates global responses that diversify activities in two ways: one, it should be anchored locally while thinking globally by integrating epistemologies to gain a better and deeper understanding of human-nature relationships, and the second, it should be anchored locally while thinking globally by integrating epistemologies to gain a better and deeper understanding of human-nature relationships. Furthermore, the deterioration of our natural environment has caused us to rethink the positivist approach that is commonly assumed by corpus linguistics. As Steffensen and Fill (2014) argues that with its emphasis on environmental and dialectal paradigms, ecolinguistics has conceptual and practical implications for human collective solutions to the deteriorating state of global ecological catastrophes.

## Literature Review

### *Language Ecology*

Fill and Penz (2017) exhibits that ecolinguistics is facilitated by the concept of ecology, which dates to the 19th century, when Charles Darwin studied the evolution of creatures and the role of humans in this evolution. This marked the start of an ecological perspective to all life phenomena, wherein the intrinsic relationships between different forms of life and living and nonliving substances were investigated. Language ecology was first coined by Haugen (1970) to imply the study of relations between a dialect and its surroundings. Language, according to Haugen, is best understood in its social context. More than that, linguistic ecology examines the connections between what is said or written and the settings in which it is generated. The extra-relationships of language and climate are at the heart of the linguistic ecology definition, which takes environmental interactions into account. Haugen (Fill & Muhlhausler, 2001) emphasizes the importance of understanding linguistic action in its social environment.

In addition, language exists in a symbolic ecology (Steffensen & Fill, 2014). This technique investigates the coexistence of languages or symbol systems within a specific topic. Furthermore, language ecology cannot be reduced to simple symbol systems, cultural circles, physical environments, or cognitive concepts. In Leo van Lier (2004) perspective, it is stated that the environment as the material, psychological, and cognitive concepts allow people to engage in activities.

Furthermore, the term ecology, as well as the variety of disciplines that are to surround language in an integrationist perspective, so that linguistic conduct is perceived in terms of social systems, spatial criteria, value systems, political spheres, education levels, psychological factors, and other norms that characterize a government, is novel aspects of the ecolinguistic pattern. Linguistic ecology is a brand-new concept. It deals with the multiplicity of perspectives and assumptions regarding human language and the context in which it is utilized. Sapir (1921), Haugen (1966), and Harris (2001) have all contributed in showing the tenets of ecolinguistics through pointing out the correlation of language to environment including culture, society, politics, economy and biology.

### *Ecological Analysis*

Stibbe (2014) asserts that the normative framework of ecolinguistics in which it functions considers human relationships not only with other humans but also with the larger ecological systems on which all life is dependent. Ecolinguistics examines a wide range of discourses, from consumerism to nature poetry, condemning those that promote environmentally destructive behavior and promoting those that promote connections of respect and care for the natural world. The expanded context of ecolinguistics complicates power relations between oppressors and oppressed since it considers impacts on non-human subjects and future generations not yet born, necessitating both theoretical development ecolinguistic analysis and an application of an ecologically based normative framework for judging discourses against.

### *Environmental Signs*

Maran (2017) asserts that physically manifested signs that we and other animals detect and interpret in the natural environment are referred to as environmental signs. Moreover, Denis and Pontille (2010) explains how it operates the process of graphical ordering within which the standardized shape, content and emplacement of each sign are crucial. The placement task, on the other hand, does not merely entail following instructions. Workers must first study the area and harmonize the sign placement policy with the ecology of local locations to determine the correct spot for boards, stickers, and posters. Workers do not merely find a space for a sign for they enact it, employing a variety of embodied actions in the process. Signs are not viewed as stable entities during this process. Instead, they bounce between what the authors refer to as practical qualities that originate from the interaction of objects, bodies, and environment. Moreover, Denis and Pontille (2010) describes that the importance of homogeneous design, substance, and placement is emphasized in this geometric ordering process.

Moreover, Mautner (2012) released a study researching warning and prohibition signs in urban environments, which contributes to the study of linguistic landscapes. It describes how directive signals reflect the interaction of language, law, space, and society based on the information gathered. The essay examines how the performativity of directive signs is constituted, on the one hand, by where they are put and, on the other hand, by implicit or explicit allusions to legal authority. It is mostly conceptual in nature, but it has a strong empirical foundation. The study addresses difficulties previously overlooked in linguistic language by taking a socio-legal approach and considering intertextual linkages between signals and the legal code.

### *Review of Related Study*

Fill and Muhlhausler (2006), discussed the term environment had not yet gained its current ecological connotation when Edward Sapir penned his comments on language and environment in 1912, but only meant physical and social surroundings. In actuality, participants in real-life speech events negotiate meanings, and the interpretation of terms like pollution, harmless, development, and safe is the outcome of negotiation and power games rather than a fact of dictionary definitions. Ecolinguists are now critically examining the language system, which supports ecological fragmentation and separation of humans from other animate and inanimate things in many cases. Furthermore, language and the ecological catastrophe condemn

linguistic dialectic materialism and consumerism: that is, language depicts the world not just from the perspective of humans, but also from the perspective of nature's utility to humans and their economic interests.

Ecolinguistics is also concerned with criticizing forms of language that contribute to environmental degradation and assisting in the quest for new forms of language that encourage people to safeguard the physical universe (Fill & Penz, 2017). Additionally, ecolinguistics stated by Døør and Madren (2007) leads to a new holistic vision in which everything is interrelated, intertwined, and engaging, and the earth is a life unified and centralized interplay.

These ecolinguistic studies gain their coherence, above all, through their emphasis on diversity. Crystal (2000) elicits that if diversity is a prerequisite for successful humanity, then the preservation of linguistic diversity is essential, for the language lies at the heart of what it means to be human. Steffensen and Fill (2014) added that if we stick with the metaphor, linguistics also needs a sign of the powers that bring language to life – and life to language.

In addition, Derni (2008) asserts the physical environment of a region refers to its geological configuration. Lands, hills, coastlines, forests, breezes, sunshine, agricultural, and other natural phenomena that force a specific manner of life on a population based on these geographical parameters should all be considered. As a result, the natural world is more than just a place to live, and geographic criteria are critical in linguistic research because factors in our physical environment influence human behavior. However, because language is a social phenomenon, social influences are significant. Sapir (1912) emphasizes the relevance of this is his remark that if people's physical characteristics are reflected to a big part in their language, the same is true to an even greater extent in their social context. While the physical environment includes both natural and non-natural factors, the social environment includes social influences that are environmental in nature. Language is severely limited by a number of strong criteria because it is largely a social tool. These driving factors have been referred to as demographic or social influences by linguists working in the fields of sociolinguistics and language sociology.

Moreover, the study of Wu (2018) explains that ecology must decide the world view in the twenty-first century, which is characterized by consumerism culture and post-globalization, and ecological perspective has become necessary in light of the increasing threat of extinction to ecosystems, the planet earth, and languages. Ecolinguistics investigates the harmony and discord between humans, nature, language, and culture, with the goal of achieving long-term, mutually beneficial growth while honoring linguistic, biological, and cultural variety. As a result, ecolinguistics researches language ecology, examines writings about environmentally significant challenges, and provides frameworks for studying discourses that have the capacity to affect life-supporting systems. By harnessing, developing, and promoting both language and ecology, ecolinguistics has successfully attempted to meet the demand for a linguistics that can safeguard ecology through language teaching through environmental conservation.

## Methodology

This qualitative research study investigated the linguistic features of environmental signs. This study used one hundred environmental signs in Kidapawan City, North Cotabato, Philippines as corpora. The materials collected were delimited to the parameters within the city

area. Thematic analysis, data display, reduction and conclusion and verification were used to analyze the data to shed results.

## Results and Discussions

Table 1. Linguistic features of environmental signs.

Features	Frequency of Occurrence	Sample Texts
Prohibition	Variant	<i>Gina-dili ang pagpanigarilyo sa mga pampublikong lugar ug mga sakyanan.</i> <sup>ES72</sup> (No smoking in public places and vehicles.)  <i>Bawal magtapon ng basura dito.</i> <sup>ES22</sup> (Do not throw garbage here.)  <i>SMOKING IS NOT ALLOWED HERE!</i> <sup>ES28</sup>
Imperatives	Typical	<i>Itapon ang inyung basurasa basurahan.</i> <sup>ES78</sup> (Throw your garbage in the trash can)  <i>SLOW DOWN DEEP EXCAVATION</i> <sup>ES14</sup>  <i>WATCH OUT FALLING BRANCHES</i> <sup>ES54</sup>
Noun	Variant	<i>ISOLATION ROOM</i> <sup>ES95</sup>  <i>NON-BIODEGRADABLE (DILI MALATA)/ BIODEGRADABLE (MALATA)</i> <sup>ES26</sup>  <i>TOUCH-ME-NOT</i> <sup>ES40</sup>

Legend:

General 50% up

Typical 25% - 40%

Variant 20% down

Table 1 shows the linguistic features of environmental signs. Findings reveal that prohibition, imperatives, and nouns are some of linguistic features that can be found in environmental signs. The first linguistic feature found is prohibition. It is a warning sign that prohibits an action that could lead to danger of personal health or safety. This linguistic feature is detailed below:

*Gina-dili ang pagpanigarilyo sa mga pampublikong lugar ug mga sakyanan.*<sup>ES72</sup>  
(No smoking in public places and vehicles.)

*Bawal magbilin og gamit dito.*<sup>ES4</sup>  
(Do not leave things here.)

*SMOKING IS NOT ALLOWED HERE!*<sup>ES28</sup>

Statements above reveal that environmental signs have linguistic feature of prohibition. This occurs when there is danger ahead or within the place that the sign is posted and visible. It implies that prohibitions on environmental signs were used to display caution or protection for danger and risk.



In the first example – *Gina-dili ang pagpanigarilyo sa mga pampublikong lugar ug mga sakyanan* – the word **gina-dili** means *forbidden*. The sign phrase when translated into English means *no smoking in public places and vehicles*. The structure of the sentence follows a pattern of subject-verb-object. The subject is *–gina-dili* which means forbidden, the verb – *pagpanigarilyo* means smoking and the object is *–sa mga pampublikong lugar ug mga sakyanan*. The language used in the signage is purely Visayan language.

The second statement –*Bawal magbilin og gamit dito* –**bawal** when translated into English means *–forbidden*, a phrase which signifies prohibition. Additionally, this second example differs from the first since it uses bilingual language – *mag bilin og* is a Visayan term while – *bawal* and *gamit dito* is a Filipino term. The structure of the sentence follows a subject-verb-object pattern.

Another linguistic feature found is imperatives. It is expressed in a variety of ways, as demonstrated below:

***Itapon ang inyung basura sa basurahan.***<sub>ES78</sub>  
(Throw your garbage in the trash can)

***SLOW DOWN DEEP EXCAVATION***<sub>ES14</sub>

***WATCH OUT FALLING BRANCHES***<sub>ES54</sub>

***Let's Practice SOCIAL DISTANCING***<sub>ES56</sub>

Imperatives are commonly used to persuade the public to do or not to do something. It implies that, in the linguistic field, imperatives are statements that have the illocutionary power of commanding, proposing, allowing, or requesting.

The first example –*Itapon ang inyung basura sa basurahan* can be translated into English as *Throw your garbage in the trash can*. **Itapon** means *throw* or *throw away* which is considered as a command. The language used in the signage is a Filipino language. The pattern of the statement if it is based on the original phrase is verb-subject-object. The verb is – *itapon ang*, the subject is – *inyung basura* and the object is *–sa basurahan*. Furthermore, the signage has an imperative linguistic feature because of the command *itapon* which means *throw* or *throw away*.

The second and third statements –***SLOW DOWN DEEP EXCAVATION*** and ***WATCH OUT FALLING BRANCHES*** – are regarded as imperatives because of the word *slow down* and *watch out*. These signs are written in capital letters to cite an urgency to *slow down* and *watch out*.

The fourth phrase –***Let's Practice SOCIAL DISTANCING*** is presented as a command for the verb *let's* or *let us*, implying that everyone in the community is encouraged to follow.

Another linguistic feature found is the use of noun. Environmental signs also label a specific location, thing, or concept. The diversity of nouns in environmental signs are presented as follows:

***ISOLATION ROOM***<sub>ES95</sub>

***NON-BIODEGRADABLE***  
(*DILI MALATA*)

*BIODEGRADABLE**(MALATA)*<sub>ES26</sub>*TOUCH-ME-NOT*<sub>ES40</sub>

The above examples are considered as noun since it is a name of a specific place or thing. The environmental signs labelled as a noun are written in capital letters. The first example, *ISOLATION ROOM* is a label of a special hospital rooms that keep patients with certain medical conditions separate from other people while they receive medical care. It is a noun since it specifies a name.

*NON-BIODEGRADABLE (DILI MALATA) /BIODEGRADABLE (MALATA)* is written in capitalized form with the translation in Visayan language. It is a name of a specific thing. Biodegradable substances are those that break down naturally. Non-biodegradable substances are those that do not break down easily. The last example *TOUCH-ME-NOT* is an environmental sign that labels a particular plant *Mimosa Pudica* which is a small herb that grows like a weed in a short period of time. The leaves are arranged symmetrically and close on touch, hence the name, sensitive plant.

Table 1 continuation. Linguistic features of environmental signs.

Features	Frequency of Occurrence	Sample Text
Jargons	Variant	<i>Please...transact outside the RES office.</i> <sub>ES7</sub> <i>PROPERTY OF KIMMMSODAI.</i> <sub>ES57</sub>
Negative Fronting	Variant	<i>No parking.</i> <sub>ES55</sub> <i>No movement on Sundays.</i> <sub>ES76</sub> <i>NO LEFT TURN 3:00 PM-8:00PM.</i> <sub>ES74</sub>
Politeness Markers	Variant	<i>Palihugayawlingkuri. Salamat</i> <sub>ES97</sub> (Please don't seat here.Thanks)  <i>Pls. remove your shoes nay tsinelassasulod. Thanks.</i> <sub>ES80</sub> (Please remove your shoes there is a slipper inside. Thanks.)  <i>Palihugbanlawbagomaligosa swimming pool.</i> <sub>ES39</sub> (Please wash before bathing in the swimming pool.)  <i>Please deposit your firearms and deadly weapons here.</i> <sub>ES41</sub>

Table 1 continuation shows the linguistic features of environmental signs. Findings reveal that jargons, negative fronting, and politeness markers are linguistic features that are also found in environmental signs.

Jargons in environmental signs are diversely shown since it appears four times out of a hundred environmental signs. There are example phrases below:

*Please...transact outside the RES office.*<sub>ES7</sub>



*PROPERTY OF KIMMMSODAI.*<sup>ES57</sup>

Statements above reveal that unique phrases or expressions used by a specific profession or group that are difficult to understand by others are the specialty of jargons. They are influenced by a variety of elements, including the social occasion, setting, purpose, and target audience.

The given examples – *Please...transact outside the RES office* and *PROPERTY OF KIMMMSODAI* – are jargons because of the term *RES* and *KIMMMSODAI*. The jargon *RES* means *Research Extension and Services* and *KIMMMSODAI* stands for *Kidapawan, Makilala, Magpet, M'lang Skylab of Drivers Association Incorporated*. Furthermore, jargon is a sort of language that is employed in a certain context and may be difficult to comprehend outside of that context. Jargon is most commonly associated with a certain occupation like a trade, profession, or academic discipline.

Additionally, environmental signs show phrases such as negative fronting. The sample phrases are detailed below:

*No parking.*<sup>ES55</sup>

*No movement on Sundays.*<sup>ES76</sup>

*NO LEFT TURN 3:00 PM-8:00PM.*<sup>ES74</sup>

Negative fronting is placed in the beginning of a phrase or a sentence to imply a strong emphasis of the action not to be taken by the people.

The first example, *No parking*, starts with a negative fronting *no* followed by a gerund *parking*. Furthermore, the meaning of the signage is no driver is allowed to leave a vehicle unattended.

The second example, *No movement on Sundays*, the signage is imposed by the government that everyone in the area should follow. The phrase follows a pattern subject-preposition-object. The subject – *No movement* is a noun which means not in motion, followed by the preposition – *on* and the object – *Sundays*. The meaning of the signage is restricting movement and transit and enforcing the authority's control over the general public.

The third example, *NO LEFT TURN 3:00 PM-8:00PM*, the sign does instruct the driver not to turn left between three in the afternoon to eight in the evening. The structure of the sign comes with the determiner *no*, noun *left turn* and the object *3:00 PM-8:00PM*.

Lastly, politeness marker is another linguistic feature present in environmental signs. Sample statements are detailed below:

*Palihug* ayaw lingkuri. *Salamat*<sup>ES97</sup>  
(Please don't sit here. Thanks)

*Please fall in line.*<sup>ES94</sup>

*Pls. remove your shoes nay tsinelas sa sulod. Thanks.*<sup>ES80</sup>  
(Please remove your shoes there is a slipper inside. Thanks.)

Samples above are utterances that request for cooperation. The objective of politeness is to establish excellent relationships with others. Nevertheless, being courteous may also increase mutual respect. People employ communication methods to express their intentions.

In the first example – *Palihug ayaw lingkuri. Salamat* – when translated into English is – *Please don't sit here. Thanks.* – carries politeness marker *palihug* or *please*. It is composed of variety of languages, first is Visayan dialect – *palihug ayaw lingkuri* and second is Filipino term – *salamat*.

The second example, *Please fall in line*, in the English language is used to express politeness and respect while making a request and is written in a complete English expression.

The last phrase – *Pls. remove your shoes nay tsinelas sa sulod. Thanks* – *pls* is the abbreviation form of *please*. The translation of the phrase in English is – *Please remove your shoes there are slippers inside. Thanks.* Additionally, the statement is written in English and Visayan languages, *pls remove your shoes thanks* and *naay tsinelas sa sulod* respectively.

### Conclusion

Results of the study on the ecolinguistic analysis of environmental signs run parallel with the study of Stibbe (2015) which states that it requires the emergence of a different kind of society based on different stories. Furthermore, environmental signs use linguistic features such as prohibitions, imperatives, nouns, jargons, negative fronting, and politeness markers. Specifically, environmental signs use prohibition to imply caution that sends a warning to avoid danger or risk; imperative tasks to command or request a certain act; noun labels the name of a specific object or place; jargon displays a specialized terms used by a group or profession; negative fronting denotes a strong emphasis of the action not to be taken; and politeness marker concerns a strategy to convey request or command. The findings of this study show that linguistic features of environmental signs suggest caution, warning, command, and information.

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