

An Investigation into Eco-linguistics Representation in Pakistani High School English Textbooks

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ABSTRACT

This study employs the Stibbe's framework to assess the English textbooks for grades 9th and 10th from an ecolinguistic perspective. This framework is composed of different categories, but only three were chosen for this study. These categories are erasure, metaphor, and Adjectives. Corpus and qualitative research designs are applied to evaluate erasure, Adjectives, and metaphors. The corpus creation process is divided into two steps. Initially, these books in PDF format were obtained from the freebooks.pk website. Second, all of the pdf files were manually converted to TXT forms so that they could be searched and edited, and they could be used for general research. Throughout the process, AntConc software is used. The findings demonstrate the extensive use of ecolinguistics-related adjectives in English textbooks for grades 9th and 10th. A total of eighty adjectives are found. Metaphors are twenty-nine and their frequency is 9.666% and passive voices are eleven (3.666%). Evaluation is the most utilized story, with a frequency of 26.666 percent. This study suggested that schools should employ systematic measures to equip students with the knowledge and abilities they need to comprehend the environment through evaluation, erasure, and metaphors in primary and secondary education.

Keywords: Eco linguistics, erasure, evaluation, metaphor, Stories-We live by

INTRODUCTION

The environment and its problems have now become a big issue in society. If environmental pressure grows, it will have an impact on other social issues as well. This suggests that even global climate change will impact societal transformation. As a result, people's perspectives on their lives and how they must live are influenced by environmental difficulties and construction. Eco linguistics is a new discipline of linguistics that studies how language, nature, and society interact. Eco linguistics, according to Stibbe (2015), is about identifying language patterns that contribute to ecological extinction and assisting in searching for new forms of language that influence people to preserve the natural world. Students should be able to create a connection between what they are learning in the classroom and the nature or environment with which they come into contact in their daily lives, according to one way to introduce and teach ecolinguistics. This study is conducted

to explore the ways to use passive voice to obscure agents of environmental destruction and to find out the frequency of related ecological metaphors and their impact on the environment. It also evaluated the frequency of adjectives in the academic corpus of textbooks and their impact.

Consequently, the study is significant to find out to linguistic features of the Pakistani English Textbooks at the secondary level. Much research has been conducted over the last few decades to see how successful it is to present Eco linguistics topics in textbooks. To the authors' knowledge, no research has been done on Pakistani English textbooks in this area. This study's findings may help clarify the significance of addressing ecolinguistic issues in Pakistani textbooks. The study revealed how often the topic of ecolinguistics is discussed in Pakistani high school English textbooks. This study seeks to determine the prevalence of ecologically connected metaphors and their effects on the environment, as well as how the passive voice obscures those responsible for environmental harm. Adjectives' frequency and impact in the academic corpus of textbooks were also assessed.

The interaction between language and its biological and physical environment is the focus of natural ecology. Ecology, variety, relationships, and ecosystem are key phrases. Erasure, evaluation, and metaphors were the major of these which were found within the Grade 9 and 10 books linked to Eco linguistics.

Objectives of the Study

- to explore how the use of passive voice obscures agents of environmental destruction
- to find out the frequency of ecological related metaphors and their intended impact
- to measure the frequency of adjectives in the academic corpus of textbooks and their intended impact

Research Questions

- How does passive voice obscure agents of environmental destruction?
- What is the frequency of ecological related metaphors and their intended impact?
- Which adjectives are used most frequently in the academic corpus of textbooks and their intended impact?

LITERATURE REVIEW

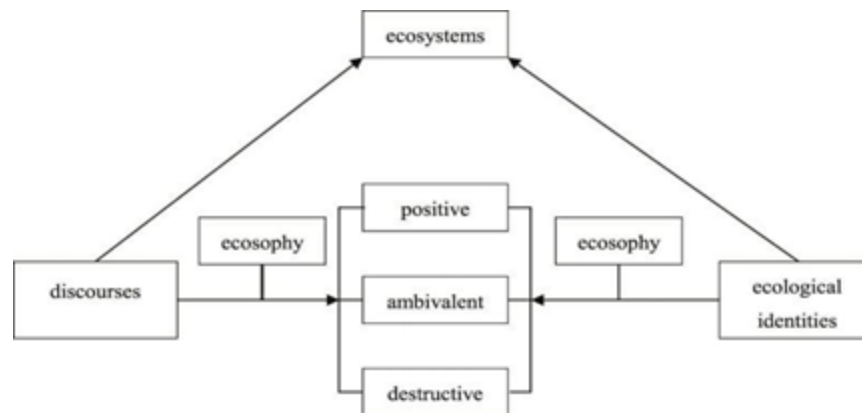
Stibbe's theory of Ecolinguistics (2015) served as the theoretical foundation for developing a framework for studying ecological discourse analysis in the current study. Stibbe presented, *The Stories We Live By*. A comprehensive method for analyzing stories in the recently published book *Ecolinguistics: Language, Ecology, and the Stories We Live By* (Stibbe 2015), a cognitive framework is proposed that combines critical discourse analysis, cognitive science, social psychology, identity theory, and appraisal theory with the concept of "stories we live by" from human ecology. According to this paradigm, stories are underlying cognitive models that appear in the text and exist in people's brains or the collective minds of many people in society. Stories, We live by are prevalent within a society because they shape the way people think, speak, and behave, which affects how we

treat the ecosystems on which life depends. If a story contradicts ecosophy, it is deemed detrimental (i.e., encourages people to undermine the systems that support life) and is met with resistance (e.g., by raising critical language awareness of the potential impact of the stories). They are ambivalent if they disagree with the ecosophy in part but also partially; in this situation, it could be viable to cooperate with those who utilize the tale to effect change. Additionally, if a story is promoted because it is thought to correspond with and support ecosophy, it is considered to be useful. Promoting a "narrative" entails highlighting the linguistic elements that work together to create the story rather than the particular texts that do so.

1. THE STORIES WE	What they are	Types of story
LIVE BY	Stories in the minds of numerous people in a culture influence how they think, talk, and act.	Ideologies, framings, metaphors, evaluations, identities, convictions, erasure, and salience

Using Stibbe's theory, the researcher created a framework (2015).

(See the figure below)



Stibbe's theory of Ecolinguistics served as the theoretical foundation for developing a framework for studying ecological discourse analysis in the current study (2015). Three stories of Stibbe's (2015) out of eight were selected. The researcher worked on metaphor, erasure, and evaluation.

Type of stories

Metaphor (What it is)

Stibbe (2015) explains metaphor is a form of framing in which the source frame originates from a concretely possible sphere of existence that is not the target domain.

Examining how specific frames and metaphors encourage ecologically beneficial or damaging behavior has been one of the most fruitful areas of ecolinguistic research. The phrase "metaphors we live by," coined by Lakoff and Johnson in 1980, is rephrased as "metaphors we die by" by Romaine (1996) and Nerlich and Jaspal (2012), referring to metaphors that incite us to destroy the systems that are essential to our survival. Metaphors and framings are occasionally studied in relation to specific discourses, but there are other instances when the cognitive structures are relevant in and of themselves across many different discourses. For instance, many discourses and commonplace ways of thinking about climate change reflect the frame that *climate change is a problem to be solved*. It conveys the message that once a solution is found, the issue of climate change will no longer exist. Although common, it is not the only way to conceptualize climate change. They evaluate frames primarily in terms of whether they arouse extrinsic values—such as profit, status, and self-interest, which are linked to ecologically harmful behavior, or intrinsic values—such as empathy, which are linked to pro-environmental behavior.

What to look for?

Words that bring the source frame to mind as a trigger, for instance, Earth is a single starship with no limitless reserves of anything, either for extraction or pollution.

Evaluation

Stibbe (2015) points out that evaluation is a story in people's minds about whether an area of life is good or bad.

Evaluation is a way of telling whether anything in life is excellent or poor, and it usually shows up in evaluation patterns (Stibbe 2021: 17). In his keynote address to the International Association of Applied Linguistics, Halliday (2001) emphasized how modernity continuously views some things as positive and others as bad, such as "more is better than less," "large is better than little," and "grow is better than shrink." The goal of ecolinguistics is to identify which regions of the world are consistently rated as good or terrible and to determine whether they are genuinely beneficial or bad for those who want to maintain the ecosystems.

What to look for?

Language usage patterns that portray things favorably or unfavorably are called appraisal patterns. Low sales, for instance, are negative. terrible, slump

Erasure

Stibbe (2015) explains a belief that a particular aspect of life is uninteresting or unworthy of attention. An erasure pattern is a literary device that, by deliberate omission or distortion, portrays a certain area of life as irrelevant, peripheral, or unimportant.

Language can be used to highlight some specific facets or perspectives of events while downplaying others. A critical reader should always be able to identify not only what is explicitly conveyed in a story, but also what is hidden, left out, or ignored. Stibbe (2014) claims that when he uses the word "erasure," he feels a tinge of grief since it implies the disappearance of something significant.

This study investigated the use of the erasure, evaluation, and metaphors strategies in ecolinguistics discourse analysis to investigate the deletion or replacement of agents, the identification of adjectives and their links to ecology, and the identification of metaphors and their domains. For this study, two textbooks were used. The data was analyzed using Stibbe's (2015) framework of erasure, metaphors, and evaluation as a model. He claims that specific linguistic tactics are used to marginalize the natural world in texts; these strategies are used throughout the discourse to build the erasure, metaphors, and adjectives of the ecosystem. The goal of the study was to find erasure, metaphors, and adjectives in order to examine them ecolinguistically. Seven stories are mentioned by Stibbe (2015). These are fascinating tales. Ideologies, framings, metaphors, evaluations, identities, beliefs, erasure, and salience are some of the terms used by researchers to describe the stories of erasure, metaphors, and evaluation. Passivization has been discovered to be prevalent in speech, obliterating the agent and creating emptiness. The study presents new ways to look at the language of ecological discourses and calls for more research into how euphemistic language in these discourses might have a negative impact on readers.

One approach to addressing language ecology is Stibbe's ecolinguistics framework. Because it has a practical method for analyzing linguistic traits to reveal the narratives and ecological position of a discourse that is established through language, it supports the thesis of the current study. Starting from the premise that some stories are common in society but are not standard narratives but rather mental models that lie within the lines of discourses, Stibbe proceeds. These cognitive structures, which he referred to as "tales we live by," are problematic because they are so prevalent that members of a community do not perceive them as stories but rather as facts (p.06). These tales eventually influence how people behave. The goal of Stibbe's paradigm is to identify and refute any narratives that harm the ecosystem. The same framework also makes an effort to highlight and publicize eco-friendly stories. Such constructive discourses are encouraged to generate further discourses of the same caliber. Ideology, framing, metaphor, appraisal, identification, conviction, erasure, and salience are the eight distinct types of stories that Stibbe (2015) has identified. Only three stories: erasure, metaphor, and evaluation—were analyzed in the current study.

RESEARCH DESIGN AND METHODOLOGY

Methodology

To analyze Stibbe's stories (2015), a qualitative and corpus approach was applied in this study. Three stories: evaluation, erasure, and metaphor, out of eight were selected by the researcher as these three stories were relevant to the research objectives and the questions. Purposive sampling was used to collect data from the English, Punjab Text Book Board of grades 9th and 10th. The study sample consisted of twelve chapters and six from each grade.

Data Collection Technique

A corpus of English from the Punjab Text Book Board's 9th and 10th grades was produced for this study. These books were acquired in PDF format from Free books.pk website. Six chapters were selected from grade 9 and 6 chapters were selected from grade 10. The corpus creation process is divided into two steps. Initially, these books in PDF format were obtained from the freebooks.pk website. Second, all of the pdf files were manually converted to TXT forms so that they could be searched and edited, and they could be used for general research. Throughout the process, AntConc software is used.

To process the data for this study, descriptive qualitative is used. The growth of environmental themes that center on nature protection and natural damage is described in this study using qualitative research. Reading environmental materials served as the study's primary source of data.

Research Instruments

AntConc, a corpus software, and the researcher herself were the key study instruments. In reading and writing about this research, the software and the researcher both had a significant role. The information was gathered, entered into the AntConc software, and then analyzed and interpreted.

Data Analysis Procedures

The data collected through the Textbooks were analyzed by the software, AntConc. At First, the data is compared through the CORPUS study, and the whole collective data be elaborated through Stibbe's theory (2015). The present study examined some linguistic structures, namely adjectives, metaphors, and passive voice in Pakistani secondary school English textbooks. Particularly, it attempted to explain that the exaggerated use of evaluation, erasure, metaphor, and over-adoption of adjectives could influence the meaning in environment texts by evaluating whether they are good or bad for the environment.

FINDINGS

The process of organizing the data reduction findings into tables is known as a data display. The researcher evaluated the study's objectives and questions before reading the English textbooks for grades 9 and 10 published by the Lahore Board to gather data. The researcher discovered erasure, metaphor, and evaluation that was connected to ecology. Data was gathered from both English books in accordance with the study's goals and inquiries. The information was also gathered using the AntConc program. The accurate data was divided into three categories based on a metaphor and erasure before being entered into the tables.

Table Number of words and sentences and frequency in environment text grades 9 and 10th

Themes	Sentences	words	midpoint	Frequency
1 Noise Pollution	16	231	35	560
2 Environment	04	57	90.5	362
3 beauty of woods	03	26	150.5	451.5
4 snowing evening	03	19	210.5	631.5
5 peaceful to existence	07	99	270.5	1893.5
qualities of a good orator				

6 nature and rebirth of land	07	42	330.5	2313.5
8 media discourse in Ecolinguistics	03	40	390.5	1171.5
9 Arabian land Beauty	02	34	450.5	901
10 Chinese New Year	03	65	510.5	1531.5
festivity				
11 emergency situation	03	40	570.5	1711.5
first aid				
12 nature	06	32	630.5	378.3
13 nature gives lesson	03	34	690.5	2071.5
wind water and mountains				
14 population growth land	06	91	750.5	450.3
water				
15 flooded the market	01	08	810.5	810.5
Total	67	818	5378.5	22695.5

$$\bar{x} = 22695.5 / 67 = 338.73$$

Table 5.1.6 explains that the theme noise pollution got 16 sentences, 231 words, midpoint was 35 and frequency was 560. Environment got 4 sentences, 57 words, midpoint was 90.5 and frequency was 362. Beauty of woods got 3 sentences, 26 words, midpoint was 150.5 and frequency was 451.5. The theme snowy evening got 3 sentences, 19 words, midpoint was 201.5 and frequency was 631.5. Peaceful to existence, qualities of a good orator got 7 sentences, 99 words, midpoint was 270.5 and frequency was 1893.5. Nature and rebirth of land got 7 sentences, 42 words, midpoint was 330.5 and frequency was 2313.5. Media discourse in ecolinguistics got 3 sentences, 40 words and midpoint was 390.5 and frequency was 1171.5. Arabian land and beauty got 2 sentences, 34 words, midpoint was 450.5 and frequency was 901. Chinese new year festivity got 3 sentences, 65 words and 510.5 and frequency was 1531.5. Emergency situation and first aid got 3 sentences, 40 words, midpoint was 570.5 and frequency was 1711.5. Nature has 6 sentences, 32 words, midpoint was 630.5 and frequency was 378.3. Nature gives lesson and wind water and mountain

got 3 sentences, 34 words, midpoint was 690.5 and frequency was 2072.5. The theme population growth and land water got 6 sentences, 91 words, midpoint was 790.5 and frequency was 450.3. The theme flooded the market got 1 sentence, 8 words, midpoint was 810.5 and frequency was 810.5. Total number of sentences in grade 9th and 10th were 67, 818 words, midpoint was 5378.5 and frequency was 22695.5. The theme noise pollution got the highest frequency among all while flooded the market was with lowest frequency. Its x value was 338.73.

CONCLUSION

Ideology, evaluation, erasure, salience, identification, narrative, framing, and metaphor are just a few examples of the properties of language that can be examined using ecosophy and linguistic theories to reveal their positive or negative effects on the health of the planet and its inhabitants. Stibbe's *Stories, We Live By* (2015) urges us to oppose violent, bigoted, and self-centered ways of viewing our world by being careful with the words we use to characterize the world as a web of supporting links between humans and one another, other organisms, and the physical environment via Erasure, Metaphors, and Evaluation. Stibbe (2015) states by inference, that three kinds of stories (erasure, metaphor, evaluation) contributed to human health and environment, and care for the ecosystems that sustain life are the ones we should champion and celebrate to put our society on a just, moral, and sustainable course out of social unrest and ecological crises (Basheer et al., 2021).

The study of all forms of interactions between people and nature is the focus of ecolinguistics, a relatively recent subfield of applied linguistics. Numerous catastrophes are caused by human exploitation of nature. These situations have the potential to endanger human life and safety. People should have some level of environmental knowledge. Therefore, students' textbooks should provide information about environmental education.

This study based on Stibbe's *Stories We Live By* (2015) used the three stories to analyze the ecological text and how erasure, evaluation, and metaphors can be applied to show climate change and attempt to uncover the ecological ideology in this regard (Abdulmuhsin et al., 2021). This analysis further confirmed the operational and practical value of erasure, metaphor, and evaluation when used as the framework in ecological analysis and to uncover the ideology. Through analysis of the books, the researcher discovered that it calls on each of us to take ownership of the planet and act quickly to address environmental issues. Additionally, this study called on linguists to employ ecological analysis to illuminate the connection between language and ecological phenomena, inspire people to adopt an ecological ideology, and help them develop a newfound appreciation for nature (Raof, et al., 2021).

Thus, Eco linguistic analysis is very interdisciplinary and applies considerations from various fields to the analysis of texts, including ethics, the environment, ecology, economics, and society. It necessitates shifting the focus of critical discourse analysis away from the oppression of some human groups by other human groups and toward a broader understanding of the influence of language on how we treat the ecosystems on which all life depends.

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