

## Erasure of Plants and Animals through Passivization and Nominalization: An Ecolinguistic Analysis



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**Abstract:** *This research examines environmental science discourses' use of erasure to delete the actor or the subject. Two environmental science selected textbooks are examined. An aspect of Stibbe's (2015) model of erasure has been used to analyse the data. So, the methodology used in the article is quantitative. The model claims that environmental science discourses marginalise nature through language that erase the environment from the textbooks. The researchers explore erasure through passivisation and nominalization, which finds out that the agent is completely removed from such discourse. Researchers examined passivisation and nominalization for void construction. These methods are ubiquitous in discourse, neutralising the agent and creating voids and majorly find out that erasure is extremely visible in the selected textbooks of environmental science. Moreover, the claim is that environmental science discourse contains these approaches i.e. passivization and nominalization to develop erasure. The paper recommends a new perspective on ecological discourse on language and research on how euphemistic terminology can harm readers.*

**Keywords:** Erasure, Passivisation, Nominalization, Environmental Discourse

### Introduction

Many species have gone extinct due to human activity, harming Earth's biodiversity. To reduce that loss, it is important for schools to teach environmental education and utilise proper textbook vocabulary to raise students' awareness of their part in ecosystem destruction. According to Mliless et al. (2018), EE raises awareness of environmental concerns and prepares environmentally conscious people to solve ecological issues.

Similarly, ecolinguistics studies language-environment and it's relation with one another. According to Muhlhausler (2003), ecolinguistics

examines language and ecosystems. It seeks to uncover linguistic patterns that harm or protect the environment and encourage or discourage damaging language. Discourses that affect human-ecosystem interactions, particularly harmful ones, are also examined in the discipline. Ecolinguistics investigates and challenges the portrayal of nature as an inanimate thing without life or consciousness. It also addresses the separation of humans and animals, how environmentally destructive discourses affect the principles of society and culture, and how ecolinguists might promote an improved, environmentally appropriate vision. It also suggests eliminating or restoring animals

and nature in literature and discourse to highlight them.

Ecolinguistics studies how language shapes the world at large, including the livestock marketplace's use of pronouns, terms, and passives to kill animals. Furthermore, Penz & Fill (2022) say it creates "simulacra" and twisted beings. Educational discourse's terminology is more vital for ideology assessment and environmental protection. Eco linguists analyse language themes and examine how people build animal and plant ideas, often eliminating, omitting or marginalising them to emphasise their relevance.

On the other hand, erasure is a concept that alienates and marginalises a way of life. Ecolinguistic analysis analyses how language excludes and changes reality, which and only makes sense in context. Moreover, Cook (2015) claims that modern people have eliminated nonliving items from their lives.

The research paper uses environmental research, environmental education, and erasure in environmental linguistics and ecolinguistics to improve the reader's understanding of environmental issues.

First, environmental studies examine ecological systems, assets, and human activity. Environmental education (EE) is taught in high schools and secondary schools worldwide to enhance students' awareness and teach them to protect the environment. The National Environment Policy (2005) of Pakistan promotes environmental education, clubs, and training institutes. Environmental studies textbooks are criticised for their language and lack of action against environmental damage. Second, ecolinguistics studies how language affects human behaviour and ecosystems. Environmentalism, biological conservation, and damaging discourses, including animal industry handbooks, are examined. Environmental justice, water shortages, and energy conservation are eco-linguistic focuses. It presents alternatives, counter-discourses, and analyses ecosystem erasure and discrimination. Finally, an eco-linguistic study shows how messages delete or are discriminatory against

the ecosystem, as result leads to isolation. Erasure is a recall process in literature. Further, pasivization and nominalization, unused of Stibbe's paradigm of erasing, dominate the paper's language. These patterns remove key parts from words, sentences, and paragraphs, finally deleting or omitting them from the text.

In environmental discourse, passive voice is initially used to free humans. Kahn (1992) shows how scientists utilise euphemisms to avoid criticism and accountability by removing the actor from scientific language. Next, nominalization removes the subject's identity or actor from phrases, clauses, and sentences, leaving the action. Halliday and Martin (1993) say this mechanism hides the agent. Schleppegrell (1997) further, investigates environmental discourse degradation, because of exotic species interaction with the environment. Human actions like pollution and habitat destruction often cause biodiversity loss.

Stibbe (2012) also investigates animal business discourses and language attempts to eradicate wildlife. As animals disappear from language and cognition, they become "simulacra," copies without originals. Advertisements depict "speaking animals" marketing their products under terrible conditions and non-living creatures being camouflaged by depicting them as non-living. Euphemistic language hides the natural reality, making it easier to sympathise with sacrificed animals. By utilising identical language such as "killing cats and dogs by lethal injection because no one wanted them" and "eating the swollen liver of a force-fed goose," people might sympathise with the sacrificed animals.

### **Research Question**

How far are passivisation and nominalization constructed within the environmental science discourse in the selected textbooks?

### **Analysis**

Stibbe (2015) provides several ways of erasure from the text, i.e., passive voice, nominalization, metonymy, hyponymy, co-hyponymy, massification, noun phrase construction, metaphors, and transitivity patterns. Erasure is

divided into three groups. He further adds that void is the entire removal of a life from the discourse and thought of the reader. Moreover, researchers explore the passivisation and nominalization of voids through the deletion of the human agent and the omission of agents from text. The study uncovered the textbooks' passivisation and nominalization tactics for void construction and highlighted Stibbe's erasure in the selected discourse.

## 1. Passive Voice

The passive voice means the focus is on an action or verb in the preference of the subject. The emphasis is directed towards the action itself, not the actor who executed it.

### 1.1. Passive Voice in Environmental Science Textbook: *Essentials of Ecology*

This research incorporates several instances of passive voice that have been identified in selected textbooks. These are outlined as follows:

- 1.1. "natural vegetation has been removed or destroyed" (p.11)
- 1.2. "trees and other vegetation have been destroyed" (p.31)
- 1.3. "burning of fossil fuels, have been the main cause of the observed atmospheric warming" (p.38)
- 1.4. "killed thousands of domesticated animals" (p.93)
- 1.5. "Sharks are also killed for their livers, meat, hides, and jaws" (p.96)
- 1.6. "habitat has been degraded or destroyed" (p.109)
- 1.7. "ecosystem has been disturbed, removed, or destroyed" (p.117)
- 1.8. "most of the predators have been killed or displaced, and the dominant mammal species often is the white-tailed deer....., raccoons, and mice." (p.155)
- 1.9. "biome has been disturbed" (p.155)
- 1.10. elephants were killed" (p.191)
- 1.11. vultures were being poisoned" (p.197)

- 1.12. food for the vultures, were consumed by wild dogs and rats" (p.197)
- 1.13. increased bush meat hunting because local fish harvests have declined due to overfishing" (p.205)
- 1.14. This loss of habitat, along with hunting, has killed off many species" (p.240)
- 1.15. countless fish that ingest, become entangled in, or are poisoned" (p.253)
- 1.16. Overfishing usually results..... depletion of fish stocks" (p.254)
- 1.17. overfishing of big sharks" (p.255)
- 1.18. killed large numbers of dolphins" (p.257)
- 1.19. Whale hunters became efficient at hunting and killing whales" (p.257)
- 1.20. have been destroyed, aquatic species have been crowded out of at least half of their habitat areas, worldwide" (p.269)

In accordance with Stibbe (2015), discourses do not explicitly label a particular event or entity as worthless or unworthy of attention; instead, they do so subtly through the omission of its existence or the discussion of it in a manner that degrade it to the background. To achieve this, passivisation is utilised, that means the performer of the act is inconsequential. The identity of the representative or actor responsible for performing the acts remains undisclosed, as evidenced by the words, phrases, and sentences raised earlier. Humanity, which is responsible for ecological destruction for its own benefit, is not held answerable. The impact of fossil fuel combustion on the climate is alluded as shown in example 1.3, despite the fact that the individual accountable for the emission of carbon dioxide remains anonymous. In a comparable fashion, while the action has been duly noted in other instances as well, the actor has been consistently omitted.

Examples 1.1, 1.2, 1.3, and 1.8 state that the depletion of natural vegetation, the extinction of the majority of predators on their prey, and the slaughter of several million creatures that were domesticated have all occurred; however, the culpability for these events remains unspecified. Are human beings accountable for the destruction, displacement, or slaughter of plants and animals? Or is the substantial increase in demand attributable to consumers (such as

ourselves)? Or are they corporations that slaughter animals or produce for the purpose of extracting a particular product from their bodies? Due to the absence of accountability on the part of the actor, doubts enter the minds of the audience, which causes them to suspect that an undisclosed outsider was responsible for the crime. As readers, our inability to discern the identity of the wrongdoer results in a lack of recognition regarding our personal involvement in these detrimental activities that cause ecological harm.

Merely highlighting detrimental behaviours that inflict damage on the surrounding environment and living organisms is inadequate; the responsible actor must also be identified and brought to account. By identifying those responsible for ecologically deleterious behaviours, active construction could inform the reader of their damaging effects on the ecosystem. Disclosure of this information will contribute to the mitigation of such detrimental behaviours.

## **1.2. Passive Voice in Environmental Science Textbook: *Basics of Environmental Science***

In a similar vein, the book extensively employs the technique of passive voice to accomplish the deletion of the agent or representative's identity.

- 2.1. "tropical closed forest and that by 1970 this had been reduced." (p.8)
- 2.2. "the absence of birds, killed by poisons accumulated through feeding on poisoned insects,..." (p.9)
- 2.3. "agricultural insecticides were being used." (p.9)
- 2.4. "the 'wildwood', had been cleared by the time of the Norman invasion, in 1066." (p.14)
- 2.5. "atmospheric carbon dioxide concentration....has been due entirely to emissions from the burning of fossil fuels." (p.46)
- 2.6. "Vast quantities of animal bones have been found in certain places, sometimes at the foot of cliffs over which entire herds appear

to have been driven," (p.72)

- 2.7. "In other words, animal species have come into existence ... and then have disappeared and their places have been taken by others," (p.74)
- 2.8. "a mixture of urine, faeces, and water that has been used for washing and cooking" (p.92)
- 2.9. "freshwater aquatic plant life would be severely restricted" (p.96)

Stibbe (2015) argues that since erasure is inherent to the very essence of subjects, certain facets of everyday life will unavoidably be omitted from texts. It is the analyst's duty to flag significant subjects that have been omitted from discussion and to shed light on them. Human agency is an essential aspect that is frequently overlooked in ecological discourse. Despite the book's consistent emphasis on the degradation of environmental conditions due to various damaging activities, the identity of the party responsible for these actions remains concealed. Who, despite the fact that animals are slaughtered, is responsible? As the reader, one might infer that accountability for these actions is limited to business people, hunters, or predators since no other events are disclosed, thereby absolving me of responsibility.

Additionally, the author of the book frequently emphasizes how the environment is deteriorating, though the exact reason why is still unknown. It is indisputable that the loss of goods occurs when an ecosystem benefit is wasted. Although it is the fault of every individual, we do not hold anyone responsible for resource exploitation through the use of ambiguous statements that absolve the perpetrator. Likewise, notwithstanding the individual nature of the act, the readers are unable to ascribe responsibility to themselves for the devastation of the mangroves in light of examples 2.1 and 2.4. Individuals clear the area by felling trees and subsequently construct on the cleared-up land. Nevertheless, considering the previously mentioned remark, it appears that liability could be limited to construction companies exclusively, thereby exonerating us from any responsibility. As illustrated in Sample

2.5, the urban atmosphere has become polluted; however, the origin of this pollution remains unidentified.

Likewise, as demonstrated in examples 2.3 and 2.6, particular approaches have been utilised to obscure the originators of the identity issues. The preceding examples demonstrate that the primary function of passive voice is to eliminate the agent from the scene, thereby leaving an empty space and failing to convey the intended message of ecosystem destruction. According to Stibbe (2015), something significant that needs our attention has been disregarded, marginalised, or neglected in a piece of writing. A few times, we have heard allegations that assets are being exploited and misapplied, but the perpetrator, an ordinary citizen, has remained concealed.

## **2. Nominalisation**

The nominalization technique is often observed in discourses. This involves transforming one element of speech into another to form a new word, as in the case of "to destroy" becoming "destruction" or a verb receiving the suffix "-ion" to transform it into a noun. Such formations eliminate the subject of the work from the frame in order to emphasise the action. This strategy is similarly implemented within ecological discourse, however, where the participant is excluded, thereby creating an empty space.

### **2.1. Nominalisation in Environmental Science Textbook: *Essentials of Ecology***

With regard to the specified textbook, multiple instances have been explained.

- 2.1. "resource depletion and degradation" (p.32)
- 2.2. "resource exploitation" (p.32)
- 2.3. "misuse of their soils, water supplies, and other resources" (p.32)
- 2.4. "emissions of carbon dioxide" (p.33)
- 2.5. "exploitation of valuable resources" (p.36)
- 2.6. "widespread destruction of eco systems" (p.85)
- 2.7. "highly endangered because of a combination of habitat loss," (p.92)
- 2.8. "The loss of a keystone species" (p.95)
- 2.9. "over depletion of some species" (p.96)

2.10. Habitat destruction and uncontrolled hunting" (p.114)

2.11. Destruction and degradation of these centers of terrestrial biodiversity is increasing" (p.153)

2.12. Environmental destruction" (p.158)

2.13. Degradation of coral reef" (p.193)

2.14. Habitat loss and degradation" (p.193)

2.15. Biodiversity loss and degradation" (p.211)

2.16. Depletion and degradation of the earth's natural capital" (p.227)

2.17. Environmental degradation," (p.229)

2.18. Resource removal and degradation" (p.236)

2.19. Depletion of a target fish species" (p.254)

The word "noun" does not formally necessitate an agent; therefore, the agent is eliminated from discourses through the use of language. Stibbe (2015) claims that nominalizations possess a notable capacity to function as instruments of erasure. Several instances mentioned above illustrate the way the nominalized version of the verbs has been employed to conceal the human agent. This renders individuals exempt from any responsibility for their actions; in the eyes of the reader, the offender disappears to an unidentified, abstraction object. The verb forms "to exploit," "to emit," "to destruct," "to deplete," and "to degrade" have been substituted with the respective nouns "exploitation," "emissions," "destruction," and "degradation." As a result, the readers remain unaware of their own responsibility for these damaging tasks, as it is impossible to ascertain the individuals or entities accountable for the exploitation, degradation, depletion, and emission levels. The writer must not incorporate a representation with nominalized versions from a grammatical standpoint; furthermore, employing such structures exonerates him from any liability.

The audience could get to know the person who did the act through dynamic verbal formulations instead of nominalized forms. This means that the authors would have to specify the person who did the act. Effective communication regarding ecosystem depletion requires the use of verbal structures in their active phases (A exploit B).

## 2.2. Nominalization in Environmental Science

**Textbook:** *Basics of Environmental Science*

- 2.2. This textbook, like previous versions, employs a great deal of the nominalization strategy to establish the absence of human agents.
- 2.3. "quality of a natural habitat...deterioration as the loss of species." (p.8)
- 2.4. "examples of environmental deterioration we have..." (p.8)
- 2.5. "exploitation of indigenous resources" (p.16)
- 2.6. "plates move towards one another there is a destructive margin..." (p.21)
- 2.7. "land have been degraded by water erosion..." (p.30)
- 2.8. "the removal of natural vegetation and deforestation" (p.30)
- 2.9. "exploitation of vegetation" (p.30)
- 2.10. "emissions from the burning of fossil fuels..." (p.46)
- 2.11. industrial and vehicle emissions are the only source of carbon dioxide" (p.46)
- 2.12. "emissions of greenhouse gases..." (p.81)
- 2.13. "over-exploitation of a resource..." (p.92)
- 2.14. "exploitation of the resource brings an additional hazard" (p.105)
- 2.15. "increased exploitation of reserves." (p.127)
- 2.16. "depletion of natural resources..." (p.132)
- 2.17. "environmental disruption..." (p.132)
- 2.18. "the environmental problems associated with their exploitation can be contained" (p.134)

The nominalization of verbs such as "to deteriorate," "to erode," "to emit," and "to degrade" has occurred via the application of phrases such as "deterioration," "emission," and

"degradation." It leaves a void when the person, as a participant, is left out of the discourse. In line with Stibbe (2015), the participant A is eliminated from the fundamental structures "A degraded B" and "A exploit B" by reducing them to a pair of nouns such as "exploitation" and "degradation." Hence, nominalized forms absolve researchers of any ethical responsibility to include agents, as their grammatical structure does not necessitate it.

The prevalence of this approach in academic textbooks indicates that nominalization is widespread and not regarded as a concern. This demonstrates that environmental discourse frequently fails to effectively tackle ecological challenges, despite the best efforts of those involved.

### The findings

The principal findings of the study are outlined below:

1. According to the findings of the researcher, the deletion of the agent is extremely prevalent in the specified environmental science textbooks
2. These textbooks have passivization and nominalization as a technique of erasure.
3. It has been observed that two linguistic techniques of Stibbe's erasure is utilized in the research paper.
4. Environmental Science: essentials of ecology contains 48 instances of passivization and nominalization as a whole and in Environmental Science: introduction to environmental science almost 28 instances of nominalization and passivization by the researchers.
5. Both nominalization and passive voice have been utilised in the construction of the agent's deletion.
6. A total of one hundred 29 occurrences of passive voice and 36 occurrences of nominalization were identified across the two specific textbooks.

### Discussion

Passivisation is the process of eliminating or

downplaying human beings from discourses and placing more emphasis on the act. Using this technique, the action takes position of the subject of an expression, changing its active construction. In cases where human activity poses a threat to the natural world, the person responsible is left out in order to shift responsibility. Kahn (1992) examined these passive buildings in a Wildlife Society Bulletin article. The results of his research show that there is an obvious absence of active voice or action in environmental science discourse on animals testing; as a result, the actor responsible for these tests and the horrors committed against the animals used as samples is eliminated. These results are consistent with the current studies, which shows that passivisation is common in the specified environmental science textbooks. Kahn (1992) studied scientific discourses even though one aspect of the study differed which the the researchers explored in environmental science discourses. Schleppegrell (1997), has examined nominalizations in the context of educational texts about environmental issues. He found that environmental writings are formed with the application of nominalization and are buried in abstractions. Ecological problems such as pollution, loss of habitat, new species, and other issues are incorporated into nominalizations that are not acceptable when offered as nouns. In these discourses, reducing human accountability is a common practise that results in loss of individuality. The results of this research and Schleppegrell's (1997) study are similar in that the texts heavily use nominalization and passivisation to hide the subject. Moreover, the study of erasure in ecological discourse is crucial for educating readers about environmental issues and their participation, as it highlights language euphemisms, highlighting erasure and providing solutions.

### Conclusion:

Language plays a crucial role in shaping societies, but it can also have undesirable effects. In environmental science, the exclusion of humans as subjects can lead to inadequate messages about ecological degradation. Passive voice and nominalization are common language

techniques used to exclude humans, but focusing solely on negative activities is insufficient. To prioritize the human actor, the language used in environmental sciences needs to be reevaluated. The researchers believe that highlighting the harmful applications of nominalization and passive voice is essential. The human agent must be prominently featured in ecologically damaging situations to draw readers' attention to their harmful effects.

### Recommendations:

The following are the recommendations derived from the current study:

1. It is possible to carry out research on how photos are analysed and how they create passivization and nominalization in it.
2. It might be investigated how environmental discourses affect learners and if the text makes them more aware of their negative involvement in the ecosystem.
3. It was possible to observe how readers were affected by the erasing technique and the usage of euphemism in the text.

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