The Ecolinguistic Paradigm: An Integrationist Trend in Language Study

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Abstract

Linguistics or the scientific study of human language has always been focus to heated issues and contrasting assumptions, as the object of empiricism is in itself a highly debated entity. The present paper sheds light on a recent trend in the field, ecolinguistics, per se. This new paradigm, which relates language to the environment it is used and practised in, determines relations between what is said or written and the circumstances under which linguistic forms are produced in a three-dimensional relationship of social praxis that links linguistic behaviour to ideological, sociological, and biological dimensions. Such a combination allows the establishment of three kinds of relations at the intra, the inter, and the extra level. Language can therefore be speculated in terms of these relations and the relations of these relations. Hence, the ecolinguistic approach has developed in an integrationist way to include features from different disciplines like geography, economy, and politics to explain linguistic findings both qualitatively and quantitatively. This paper entitled 'The Ecolinguistic Paradigm: An Integrationist Trend in Language Study' explains how combinations of language to ecology, or sociology and biology are established to make of language study a 'life science'.

***Keywords*:** microlinguistics, macrolinguistics ecolinguistics, language environment, ecological structure, language ecology.

Preliminaries

The emergence, the use and the evolution of human language have been focus of interest and inquiry for a long time. In the history of modern linguistics, the scientific study of language has gone through many schools and movements such as Historicism, Structuralism, Functionalism, and Generativism.

Basically, there are two levels of linguistic studies, a micro- and a maco- level. The former is concerned solely with the study of the structure of a language system where no complementary issues are referred to. At this level, the structures of a system are identified, described, and explained to include levels like phonology, morphology, and syntax. The linguist's aim is to analyse language with an explicit attention to the linguistic features as they are structured in the system. Structuralism as a theory implies the split of a linguistic structure into signs, or categories of objects, conceived as speech sounds, categories of speech sounds i.e. phonemes, morphemes, and other grammatical units that build up language. The structuralist paradigm in the second half of the twentieth century has been regarded as stuck as its main focus is the synchronic view in particular. Structuralists, though their contribution in formal grammar is undeniable, and though they paved the way to discrepancies between language as an individual phenomenon (parole) and language as a communal fact (langue) allowing in this way a correlation between the linguistic system and the social dimension, did not demonstrate how to incorporate social or psychological constraints to verbal behaviour, thereby language was conceived as independent of the world it is used in.

In macrolinguistics, to understand the role of the individual within the system of language, issues like why the individual relates to a particular science, and how he relates to this science, are taken into consideration. Relationships between human language and human life are therefore explored by subjecting them to critical observation and examination. The macro level has a broad scope. It is concerned with anything that pertains to language. It therefore merges overlapping interests from the study of language with other fields of enquiry like sociology, psychology, biology, ethnography, and ecology. Linguistic behaviour is explained in terms of one of the many disciplines that may interfere in

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language use. Sociolinguistics, psycholinguistics, biolinguistics, ethnolinguistics, and ecolinguistics are all instances of macrolinguistic studies.

Accordingly, a social correlation explains how social constraints come to control and manipulate language use, so that a sharp link is made between language and its social context. A psychological one deals with language as a product of interpersonal and intrapersonal motives and explains linguistic behaviour in correlation with the human mind and the different psychological mechanisms. A biological perception rises up questions that relate language with biology. It determines biological factors that make humans able to acquire and use a verbal system of communication. In this way, biological preconditions of language capacities are subjected to empirical works. An ethnographic correlation however raises issues that link linguistic behaviour to ethnographic findings so that language is perceived as a cultural phenomenon. An ecological perspective; however, supports the view that language is used in unpredictable and unconstrained ways. Ecolinguistic criteria like the affiliation of language to the identity of the speaker and the ecological structure he belongs to, as a member of a particular speech community, living in a given environment characterized by identical social and cultural values and governed by an ecological milieu, do bring to light the conditions under which linguistic forms are used. Such a trend has gained more importance in the last decade in the course of explaining language use.

The Rise of Ecolinguistic Issues

The fact that language includes a wide range of concepts in itself, and the fact that it enters into almost every aspect of human life, make the application of linguistic analysis of a broad type. This human means of interaction can be speculated from different standpoints. Ecolinguistics is the study of language according to the environment it is used in. The term emerged in the 1990's as a new paradigm of language study that speculates not only the intra- relations, the inter-relations, and the extra-relations of language and environment, but also combinations of these relations. This new trend in the conceptualisation of human language eventually leads to linguistic criteria to overlap with many other aspects that correlate with linguistic behaviour.

Language and Environment

The ascription of elements of human culture including linguistic phenomena to environmental issues was first advocated by Edward Sapir about a century ago in an article entitled "*Language and Environment*". In relating language to environment, Sapir (1912) goes beyond the description of language as a combination of linguistic units to reach the physical and the geographical surroundings. The social context and the demographic factors that attribute linguistic diversity are also worth of conjecture. Environment according to Sapir (1912):

> …can act directly only on an individual and in those cases where we find that a purely environmental influence is responsible for a communal trait, this common trait must be interpreted as a summation of distinct processes of environmental influences on individuals…The important point remains that in actual society even the simplest environmental influence is either supported or transformed by social forces.

> (Sapir, quoted in Fill and Mühlhaüsler 2001: 13)

Environmental matters, on the light of Sapir's notion about language exceed natural landscapes and geographical issues to reach communal and societal experiences. Such a speculation indeed appeals for the correlation of geography and sociology to explain linguistic phenomena. Environment in Sapir's perspective is both physical and societal.

The physical environment according to Sapir is about the geographical structure of an area. Plains, mountains, oceans, plants, winds, rainfall, agriculture, and all natural factors that do impose on a particular community certain modes of life that are fitting to these geographical criteria, are worth of consideration here. Natural environment is therefore more than a mere place to live. Because human behaviour depends on elements that are part of our physical surroundings, geographical criteria are of a significant value in linguistic enquiries. Yet, social forces are of more significance, as language itself is a social phenomenon. Sapir (1912) highlights this importance in the following statement:

> If the characteristic physical environment of a people is to a large extent reflected in its language, this is true to an even greater extent of its social environment.

> (Sapir, quoted in Fill and Mühlhaüsler 2001: 17)

While the physical environment covers geographical characters that involve themselves natural and non-natural parameters, the social environment includes social forces that are '*looked upon as environmental in character'* (Sapir, 1912). Because language is primarily a social mechanism, it becomes highly constrained by a number of strong parameters. These influencing dimensions have been referred to as demographic or social factors by linguists working in the fields of sociolinguistics or in the sociology of language[2]. They are to do with the speaker's age, his sex, social class, profession, network, region of origin, and place of residence.

The social aspect of environment has been previously pointed out through the use of *'communal trait'* in Sapir's terms. Social constraints are so of a great importance in determining the choice of certain linguistic forms over some others. Such a view has always been focus to many sociolinguists like Hymes (1964), Labov (1970), Fishman (1972), and Hudson (1996). In this respect, Haugen (1972) asserts environment as a piece of evidence that:

> *… might lead one's thoughts first of all to the referential world to which language provides an index. However this is the environment not of the language but of its lexicon and grammar. The true environment of a language is the society that uses it as one of its codes. Language exists only in the mind of its users, and it only functions in relating these users to one another, and to nature, their social and natural environment.*

(Haugen, quoted in Fill and Mühlhaüsler 2001: 57)

A mere speculation about this statement leads to the assumption that the natural occurrence of language involves besides the natural or the physical environment and the social aspect of human speech, a psychological dimension based on the fact that language is determined primarily by the persons who learn it, use it, and make it pass on from one generation to another. The contours of human language are therefore embedded in natural social spheres that are themselves defined by individual use of language and psychological criteria. What seem important regarding this view are the communal and the individual aspects of language.

Bang and Døør set out a dialogue model to explain the environmental constitution of human language (Bundsgaard and Steffensen, 2000). This model, based on the three dimensionality of social praxis, depicts three types of dimensions, an *ideo-logical*, a *socio-logical,* and a *bio-logical* one. The first dimension involves individual mental, cognitive, and psychological aspects. The second one includes collections of individuals ranging from the family, which is the basis of social organisation, to include members of neighbourhood, speech communities, and whole societies. The last dimension is about '*biological collectivity'* (Bundsgaard and Steffensen, 2000) and the coexistence of human beings with other species.

Indeed, the structuralist approach to linguistic systems makes use of the ideological dimension and rejects the sociological and the biological perspectives. The sociolinguistic paradigm in its turn tackles in addition to the ideological aspect a sociological scope and excludes the biological aspect. The ecolinguistic perspective, and as it is pointed out in the following dialogue model, is primarily described as an overall approach where the three dimensions are incorporated.

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[2] For more details see (Fishman: 1972) and (Hudson: 1996).
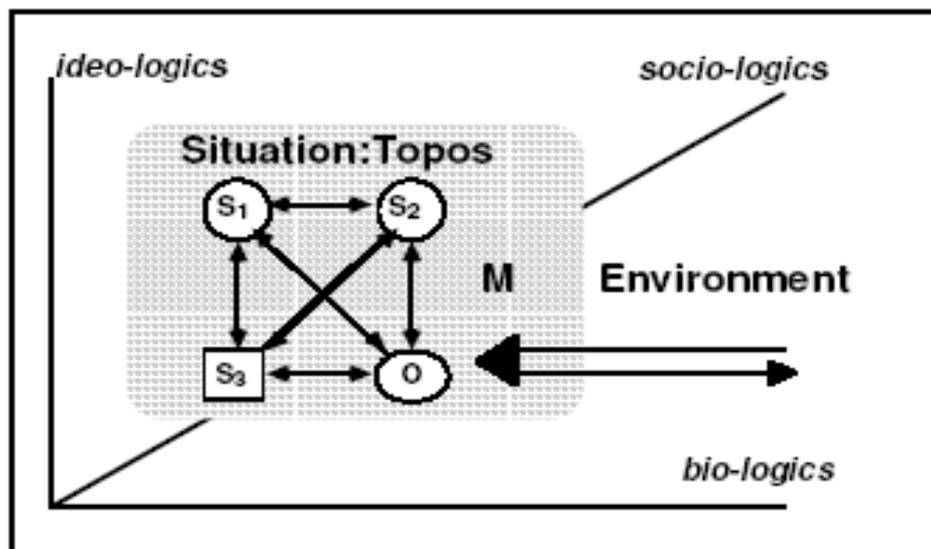
Figure 3.1. A Dialogue Model about the Three Dimensionality of Social Praxis (Bang and Døør, in Bundsgaard and Steffensen, 2000: 10)

The Ecolinguistic Paradigm

Ecolinguistics has been referred to as *'…an 'umbrella term' which covers a rich diversity of theoretical approaches'.* (Bundsgaard and Steffensen, 2000: 9). Within this recent perspective, linguistic research is associated to issues and particularities proper to the new millennium. In this respect, two sorts of ecological studies are asserted; eco-critical discourse analysis and linguistic ecology.

Eco-Critical Discourse Analysis

As a branch of the ecolinguistic paradigm, eco-critical discourse analysis aims at showing correlations in discourse between language and ecological phenomena. Eco-critical discourse analysis includes the application of critical discourse analysis to texts and documents about the environment. It has as subjects of investigation besides to natural ecological phenomena like earthquakes, volcanoes, and even agriculture and animal farming, other products of technology in the light of wireless communication, economic growth, political decisions, and all what characterizes modern life in the age of globalization. The aim beyond such an analysis is to reveal underlying ideologies in discourse.

In eco-critical discourse analysis, interdependencies between language and the rest of the world (Mühlhaüsler 1994) are fostered so that a link between linguistic diversity and biological diversity is raised to explain ecosystems[3] in accordance with non linguistic interests. In such an analysis, relations are referred to as types of textual interferences. According to Bundsgaard and Steffensen (2000), there exist three types of relations that are to be considered in an eco-discourse analysis. These are the inter-relations, the intra-relations and the extra-relations. They essentially consider:

> *…every individuality (ie. Person, group, word, text, etc.) to exist in three relational dimensions: Intra-relationality, inter-relationality and extra-relationality. Intra-relations are relations within the individuality. Inter-relations are between an individuality and other individualities of the same kind or species. Extra-relations are relations between an individuality and other individualities of other kinds or species.*

> (Bundsgaard and Steffensen, 2000: 17)

The eco-discourse analysis is based on a model called *'the Triple Model of Reference'.* This theoretical basis was elaborated by Jørgen Chr. Bang, Jørgen Døør, and Harry Perridon in 1990. The model describes, in addition to the dimension of reference which is the traditional term used to globalise the

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[3] An ecosystem in ecolinguistics is a broad term used to refer to a linguistic system and the interdependencies of non linguistic affiliations evoked when making research. According to (Cadora: 1992) it evokes mainly the social structure of a speech community.

referential parts of a text, the dominating reference which includes the intra, the inter, and the extra relations, and the referred part of the text. This triple model of reference is illustrated in the table below:

DIMENSION OF REFERENCE	DOMINATING REFERENCE	REFERENCE TO			
Lexical	Inter-textual	COtext	social & individual		Lexicon & Grammar
Anaphoric	Intra-textual	INtext	cataphoric anaphoric symphoric	(forward) (backward) (simultaneous)	
Deictic	Extra-textual	CONtext	C-prod C-comm C-cons C-derived		Persons Time Place Logics

C-prod = the context of the producer(s)

C-comm = the context of the communicator(s)

C-cons = the context of the consumer(s)

C-derived = the context of the recontextualizer(s)

Table 4.1. Bang and Døør Triple Model of Reference

Furthermore these three types of relations scrutinized at the inter, the intra, and the extra levels correspond to three other types of categories. These are respectively the semantic, the syntactic, and the paragmatic levels. In this respect, Bundsgaard and Steffensen (2000: 17) contend that:

> …the inter-textual reference is primarily a semantic category, the intra-textual reference primarily a syntactic category, and the extra-textual reference primarily a pragmatic category.

The point is that in showing the inter-relation of linguistic units to natural environment, semantic comparisons are to be made. The emphasis at this level is therefore on the semantic properties or simply the meanings these linguistic forms may bear. The intra-relation level and the association of internal factors to linguistic forms are viewed in terms of syntactic attributions; that is the way these units are structured and the rules for their combination. The extra-relation in its turn encounters linguistic choices vis à vis some external motives that are related to the environment in which language can be used. In this way the relationship between speakers and ecolinguistic structures are referred to when dealing with acts of communication. The following figure demonstrates the semantic, syntactic, and pragmatic scopes of human communication in reference to the inter-relationality, intra-relationality, and extra-relationality of a text respectively:
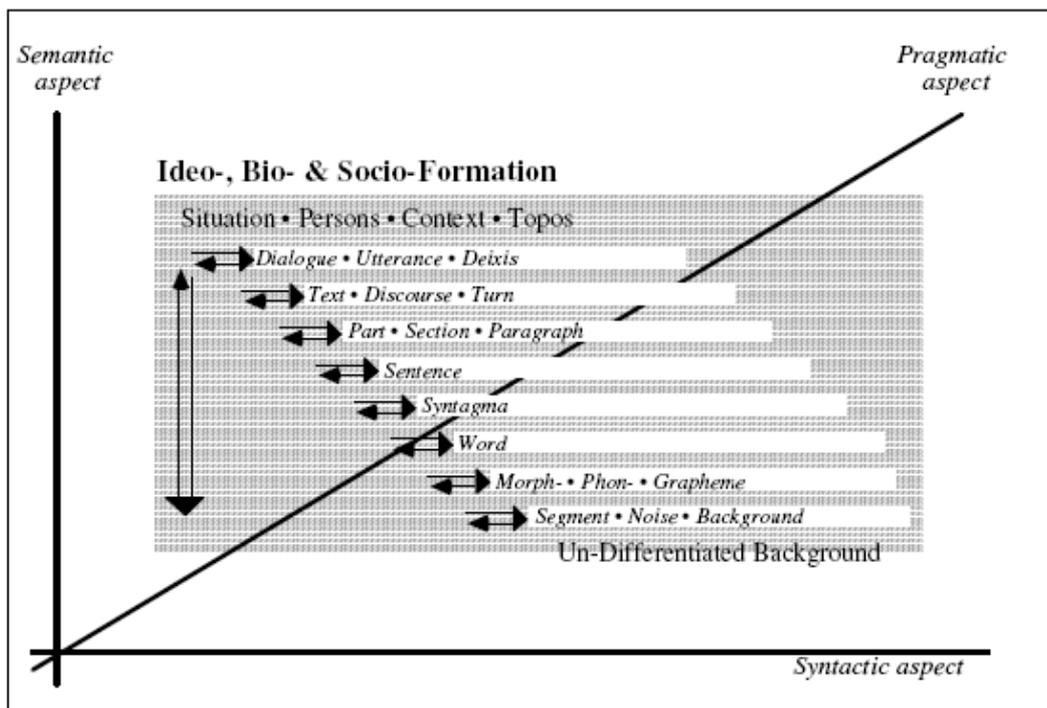
Figure 4.1. Dialectal Hierarchy of the Parts of Text and Communication (Døør and Bang, 2000: 60)

Language Ecology

The term '*Language ecology*' was first coined by Haugen (1970: 57) to mean *'…the study of interactions between any given language and its environment'.* For Haugen, language can be best understood in its social context. Such a context is indispensable in specifying conditions under which a child acquires his first language. More than that, it determines situations under which certain forms of speech are more appropriate than others. This scrutiny of linguistic ecology determines relations between what is said or written and the circumstances under which discourse[4] is produced. Indeed, Haugen's definition of linguistic ecology, in which he recognises environmental interactions, is first and foremost about the extra-relations of language and environment. Such a dimension was previously denied by linguists subscribing to the tenets of structuralism and generativism.

Through the use of such a concept, Haugen raises the point that linguistic behaviour can be best understood in its social context. Indeed, a perception of this type has been subject to speculation by many scholars working in the fields of sociolinguistics and anthropological linguistics at many occasions when dealing with language in relation to social factors like age, gender, social class, and literacy for example. Furthermore, he puts forward ten principal questions that are to be considered when conducting research in any language community. These are as follows:

1- What is a language classification in relation to other languages?

2- Who are its users?

3- What are its domains of use?

4- What concurrent languages are employed by its users?

5- What internal varieties does the language show?

6- What is the nature of its written tradition?

7- To what degree has its written form been standardized?

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[4] The term is used here to refer to not only spoken utterances but also written texts.

8- What kind of institutional support has it won?

9- What are its users' attitudes?

10- Where does the language stand in comparison with other languages?

A close stare at these questions leads to the view that 'ecology' is the new term advocated to deal with the social milieu for all what is stated above has been subject to speculation by many linguists who correlated language to society. Yet, it is worth mentioning that society, in its broad sense, is after all only one part of the environment or the ecology where a child is grown up. Other parts are commentated upon through the following statement:

> *Part of its ecology is therefore psychological: its interaction with other languages in the minds of bi- and multilingual speakers. Another part of its ecology is sociological: its interaction with the society in which it functions as a medium of communication.*

(Haugen, quoted in Fill and Mühlhaüsler 2001: 57)

The assumption that linguistic behaviour is to a degree psychological and to another degree sociological allows the correlation of linguistic forms to physical and natural environments including the social milieu and the mental and the emotional forces that necessitate certain choices in appropriate contexts. It also stresses the association of language ecology to language diversity. This diversity is suggested through the use of the word *'minds'* in the plural form, since not all humans conceive things and behave in the same way.

Through the introduction of *'Language ecology'* to talk about the interrelations between languages in the human minds and in multilingual societies, Haugen combines linguistics to psychology and sociology. Drawing upon the interdisciplinary and the multidisciplinary nature of language studies is not new. The macro level of linguistics (Lyons: 1981) has already built relations with other sciences like neurology, anthropology, and mathematics. The novelty of the ecolinguistic trend is the term *'ecology'* in itself and the variety of disciplines that are to surround language in an integrationist point of view, so that the linguistic behaviour is interpreted in terms of social structures, geographic criteria, cultural values, political spheres, educational backgrounds, psychological factors, and other norms that characterize a particular environment.

Linguistic ecology is an innovative issue. It works with the proliferation of different views and assumptions about human language and the environment in which it is used. And so, the study of linguistic forms according to this recent trend is done in relation to other widely recognised fields that are allied to human life such as economy, sociology, politics, geography, anthropology, and education. Sapir (1921), Hymes (1964), Gumperz (1964), Haugen (1966), Lenneberg (1967), Mackey (1980), Weinrich (1990), Schultz (1992), Berman (1994), 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.

The purpose of making ecolinguistic research is to speculate language in its spoken and written forms alike in accordance with what has been called intra-relations, inter-relations, and extra-relations. Structuralists, whose contribution was great and undeniable, have already been dealing with the intra-level. The inter- level and the extra- level are exactly what they have ignored when they have talked about the units of a system, and the rules that make that system work without paying attention to any specific content, as long as communication is taking place in a given context and under certain circumstances.

Ecolinguists believe that language is not an autonomous faculty, but it is rather related to other human functions that interconnect with many domains of human life like economy and politics and with other disciplines such as psychology and biology. For this reason, their main object of study is not the system itself. They are relatively captivated by the idea of inter-relating a linguistic structure that is linguistic units and inter-relations of these units with environment, and here the extra-relations of language are conceived in a dynamic and a global way.

The assumption that the faculty of language has the general properties of other biological systems was first undertaken in Lenneberg's (1967) *Biological Foundations of Language* where a synopsis of the faculty of language is made on the basis of some applicable biological relevance. The book calls upon the concept of the biological basis of language capacities and illustrates critically some of the most common claims relating to the biological nature of human language.

According to (Lenneberg: 1967) there are three factors that enter into the growth of language in the individual in the light of evolution and genetics. These are genetic endowment, experience, and language-independent principles of data processing, structural architecture, and computational efficiency[5]; thereby he supplies relevant answers to some fundamental questions of biology in correlation with language, its nature and use, and even its evolution.

In showing the relation of language to biology, Haugen (1972) makes some pertinent statements; pertinent in the sense that they hold an intact view about human language as a whole *'organism'*. He affirms that:

> *… Languages were born and died, like living organisms. They had their life spans, they grew and changed like men and animals, they had their little ills which could be cured by appropriate remedies prescribed by good grammarians.*

(Haugen, quoted in Fill and Mühlhaüsler 2001: 57-58)

Haugen, and through this comparison, depicts language as a *'living organism'* that lives, evolves, and dies. More than that, he ensures the survival of the fittest of all the languages. The *'fitness'* of a particular language is measured by the number of its users and its spread over the world. Minority languages are endangered species that need an overall program to survive. Such a program is achieved in the light of clear assumptions about social, economic, political, and religious factors which are of crucial importance in characterising a community and its needs. The procedure is similar to a doctor's cure for a specific illness. A diagnosis is required at first to spot the damaged or the ill-functioning area in the organism. Then, appropriate strategies are identified in the light of this diagnosis, and if there are any changes that occur, suitable alternations are made on the basis of these changing situations.

Linguistic ecology seeks to integrate many levels of explanation. To achieve a global understanding of human language, many disciplinary perspectives are carried out as sources of insight. The interdependences between linguistic behaviour and the ecological milieu make the wholeness of the ecolinguistic paradigm.

Actually, the scope of language ecology has soon widened, and so the concept has been applied to many fields interrelated with human life. The notion of environment, which reflects more than the natural and the social milieu of interactions, has extended to include terms that are linked with pollution, endangerment, biological diversity, and technology. In the last decades, connections between language and ecology have been established to include a wide range of sciences. This has enabled ecolinguists to work with a variety of methods and tactics to take in orthography designs, linguistic and ethnographic analysis, strategic literacy schedules, translation operations, and so on…

Indeed, these interrelations have also allowed research groups to plan suitable programs to save endangered languages or to salve intricate linguistic problems in multilingual societies. The ecolinguistic approach has therefore developed in an integrationist way where combinations of language and ecology are established to consider language study as a *'life science'* (Døør and Bang, 2000) since the subjects of study in any linguistic inquiry are solely living humans and not speaking machines or walking animals. The paradigm according to (Finke: 1983) stands in contrast to structural models with which only a language itself, not its environment can be investigated.

This has allowed the study of language to include other challenging fields of research, so that not only human and social sciences are interconnected, but even *'life sciences'* (Døør and Bang, 2000) like biology and medicine can be attached to language inquiries. Meanwhile, the ecological context and the consequences of language practice are focus to enquiry in the light of world wide concerns of the twenty first century.

Conclusion

The study of language is pertinent to many other fields of inquiry. Its relevance to sociology, psychology, anthropology, biology, medicine, and almost all human, social, and natural sciences makes linguistic investigations encroach upon many aspects of human behaviour. This paper, based chiefly on theoretical data, claims that the ecolinguistic perspective involves, in addition to the structural and the social properties of human language, other criteria that are part of its environment. Hence, all what is related to linguistic behaviour can be subject of enquiry in an integrationist way.

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[5] For more details see (Lenneberg : 1967) and (Chomsky:2004).

Because language is part of the environment where we live, it is to be speculated in accordance with this environment. And as language enters into almost every aspect of human life, many disciplines dealing with various aspects of human life can be used in correspondence with linguistic study. Such a wholistic view about human language can be achieved through the contemplation of the intra-relations, the inter- relations, and the extra-relations in an integrationist way so that an individual is contemplated in terms of self-centred criteria, in accordance with other individuals or speakers who belong to the same speech community, or in relation to other species that are part of the ecological structure he is part of. The establishment of suitable connections between these three levels can also be attained in a number of relevant purposes, so that a reliable expansion of the scope of research is allowed in linguistics.

From all what has been assumed about the wholeness of the ecolinguistic approach, one may deeply immerse in the field of linguistic science. An introspective view about language is therefore more guaranteed through the recognition of environmental considerations.

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