

MORPHOLOGICAL COMPLEXITIES IN ISOKO LANGUAGE

BY

EKRAKE PRECIOUS OGHENEFEGOR (Miss)

MAT. NO. ART2004721

**DEPARTMENT OF LINGUISTICS STUDIES
FACULTY OF ARTS, UNIVERSITY OF BENIN
BENIN CITY, NIGERIA**

DECEMBER, 2024

MORPHOLOGICAL COMPLEXITIES IN ISOKO LANGUAGE

RESEARCH WORK

BY

EKRAKE PRECIOUS OGHENEFEGOR (Miss)

MAT. NO. ART2004721

**A PROJECT WORK SUBMITTED IN PARTIAL FULFILMENT OF
THE REQUIREMENTS FOR THE DEGREE OF BACHELOR OF ART
(B.A) IN LINGUISTICS STUDIES, UNIVERSITY OF BENIN, BENIN
CITY**

DECEMBER, 2024.

APPROVAL PAGE

I certify that this research was carried out by Ekrake Precious Oghenefegor, in the Department of Linguistics Studies, Faculty of Arts, University of Benin, under my supervision.

DR. A. E. IDEH

(Project Supervisor)

Date _____

Confirmed by

Prof. M. S. AGBO

(Head of Department)

Date: _____

PLAGIARISM CERTIFICATION

I, **EKRAKE, Precious Oghenefegor (Miss)** with matriculation number **ART2004721** declare that this work titled “**Morphological Complexities in Isoko Language**” has successfully passed the anti-plagiarism test and so does not violate any copyright regulations.

Sign: _____

Precious Oghenefegor EKRAKE (Miss)

Date: _____

DEDICATION

In humble reverence, this project is dedicated to God almighty, the source of wisdom and knowledge, whose divine guidance and inspiration saw me through every step of this journey.

ACKNOWLEDGEMENTS

I give special thanks to God Almighty who was faithful to me and who gave me the courage and the wisdom throughout the journey of this research. I extend my sincere gratitude to my supervisor, Dr. A. E. Ideh, whose guidance and support were invaluable throughout the completion of this project. I am also deeply appreciative of the contributions and mentorship of Prof. M. S. Agbo, the Head of Department, and Prof. C. Yuka, the former Dean of the Faculty of Arts. I also wish to express my heartfelt thanks to my dedicated lecturers for their teachings, encouragement, and enthusiasm, which played a crucial role in completing this work. Special thanks to Dr. J. O. Onu, Dr. (Mrs.) P. O. Solomon-Etefia, Dr. O. Evbuomwan, Late Dr. W. Aigbedo, Mr. F. Ajala, Prof (Mrs) E. M. Omoregbe, Prof (Mrs) E. O. Ikoyo-Eweto, Dr. (Mrs) O. V. Evbayiro, Dr (Mrs) I. N. George-Essien, Mr. G. O. Agharuwa, Mr. J. E. Edionhon, Dr (Mrs) R.O. Osewa, Mr. A. Evbayiro and other staff members in the Department of Linguistics Studies, Faculty of Arts, University of Benin, Benin City. Thank you all for being part of this journey.

Furthermore, I wish to express my heart felt gratitude to my parents, Mr & Mrs Francis Ekrake. Your unwavering support and encouragement have been my source of strength throughout this journey. To my siblings; Esther Ekrake and Ogheneyole Ekrake and also to my very good friends; Ufuoma Gloria, Okojo promise, and Orji Kingsley your love and encouragement has been my motivation. Thank you all for being part of this journey.

TABLE OF CONTENTS

Title page	-	-	-	-	-	-	-	-	-	i
Approval page-	-	-	-	-	-	-	-	-	-	ii
Plagiarism certification	-	-	-	-	-	-	-	-	-	iii
Dedication	-	-	-	-	-	-	-	-	-	iv
Acknowledgement	-	-	-	-	-	-	-	-	-	v
Table of contents	-	-	-	-	-	-	-	-	-	vi
Abstract-	-	-	-	-	-	-	-	-	-	ix

CHAPTER ONE: BACKGROUND TO THE STUDY

1.0	Introduction	-	-	-	-	-	-	-	-	-
1.1	Isoko Dialect and Its Speakers	-	-	-	-	-	-	-	-	-
1.2	Statement of the problem	-	-	-	-	-	-	-	-	-
1.3	Research questions	-	-	-	-	-	-	-	-	-
1.4	Aim and Objectives of the study	-	-	-	-	-	-	-	-	-
1.5	Methodology	-	-	-	-	-	-	-	-	-
1.6	Significance of the study	-	-	-	-	-	-	-	-	-
1.7	Scope/limitations of the study	-	-	-	-	-	-	-	-	-

CHAPTER TWO: LITERATURE REVIEW

2.0	Introduction-	-	-	-	-	-	-	-	-	-
2.1	Conceptual review of literature	-	-	-	-	-	-	-	-	-
2.1.1	Morphemes	-	-	-	-	-	-	-	-	-
2.1.2	Morphology	-	-	-	-	-	-	-	-	-
2.1.2	Morphological complexity-	-	-	-	-	-	-	-	-	-
2.1.3	Morphemes	-	-	-	-	-	-	-	-	-
2.1.4	Word-Formation	-	-	-	-	-	-	-	-	-
2.1.4.1	Affixation	-	-	-	-	-	-	-	-	-
2.1.4.2	Reduplication	-	-	-	-	-	-	-	-	-

2.1.4.3 Compounding	-	-	-	-	-	-	-	-
2.2 Previous studies	-	-	-	-	-	-	-	-
2.3 Concern of the present study	-	-	-	-	-	-	-	-

CHAPTER THREE: THEORETICAL FRAMEWORK

3.0 Introduction	-	-	-	-	-	-	-	-
3.1 Basic Linguistic Theory	-	-	-	-	-	-	-	-
3.2. Theoretical Application to the Current Study	-	-	-	-	-	-	-	-

CHAPTER FOUR: DATA PRESENTATION AND ANALYSIS

4.0 Introduction-	-	-	-	-	-	-	-	-
4.1 Data Presentation	-	-	-	-	-	-	-	-
4.1.1 Table 1 & 2: Affixation in Isoko Language	-	-	-	-	-	-	-	-
4.1.2 Table 3: Reduplication in Isoko Language	-	-	-	-	-	-	-	-
4.1.3 Table 4: Compounding in Isoko Language	-	-	-	-	-	-	-	-
4.2 Data Analysis	-	-	-	-	-	-	-	-
4.2.1 Prefixation in Isoko Language	-	-	-	-	-	-	-	-
4.2.2 Suffixation in Isoko Language	-	-	-	-	-	-	-	-
4.2.3 Reduplication in Isoko Language-	-	-	-	-	-	-	-	-
4.2.4 Compounding in Isoko Language-	-	-	-	-	-	-	-	-

CHAPTER FIVE: SUMMARY AND CONCLUSIONS

5.0 Introduction-	-	-	-	-	-	-	-	-
5.1 Summary	-	-	-	-	-	-	-	-
5.2 Findings	-	-	-	-	-	-	-	-
5.3 Conclusion	-	-	-	-	-	-	-	-
5.4 Recommendation	-	-	-	-	-	-	-	-
References	-	-	-	-	-	-	-	-

ABSTRACT

This research work is a study of morphological complexity in Isoko Language. This study examined the structural composition of complex words in the Isoko language. Various morphological processes that contribute to the formation of complex words with distinct meanings, including, affixation (prefixation and suffixation), reduplication and compounding were examined using appropriate examples. The study adopts Dixon's (2010) Basic Linguistic Theory, a dominant theoretical framework for describing languages, particularly emphasizing grammatical understandings and linguistic typology. The research aims to thoroughly examine morphological complexity in the Isoko language, and the different strategies used to create complex words in Isoko, the research also lay emphasis on word-formation patterns and how these strategies, influence the meaning and function of words in Isoko. The methodology employed for data analysis is a descriptive approach, combining information from both primary and secondary sources. The findings of the study emphasize that Isoko morphology involves various mechanisms, such as affixation which include; prefixation, suffixation, reduplication and compounding in creating different complex words.

Keywords: *Complex words, Morpheme, word formation processes.*

CHAPTER ONE

BACKGROUND OF THE STUDY

1.0 Introduction

Languages can be seen as complex adaptive systems, because they involve a significant number of units and modules that generate a structural complexity at various levels (Gong and Coupé, 2011; 370). Morphological complexity means the level of difficulty present in the structure and creation of words within a language. It is a complex phenomenon, manifested in different ways and to different degrees in different dimensions. Recently, this concept has been widely studied in typological linguistics, with a focus on the structural details of language systems (e.g., Baechler & Seiler, 2012; Baerman et al., 2015; Shosted, 2006; Stump & Finkel, 2013). This study primarily examines the complexity of inflectional patterns across Isoko dialect, providing an understanding of its organization of word structures and inflected forms.

In the framework of morphological analysis, the term ‘complex word’ usually sets apart words formed by a root, a stem index and inflectional affixes, from words formed by derivation, modification or compounding. Villava and Silvestre (2015) highlighted that the lexicon contains several kinds of lexical units, namely roots, affixes, words and lexicalised phrases. Languages are complex adaptive systems because their agents- the speakers- have the ability to change the system itself (cf. STEELS, 1997, 2000; BECKNER et al., 2009). In

this study, the researcher intends to look at the morphological complexity of Isoko dialect.

1.1 Isoko Dialect and Its Speakers

The Isoko language is spoken by approximately 681,000 people, mainly in the Isoko South, Isoko North, and parts of Ndokwa East Local Government Areas in Delta State, Nigeria. Additional speakers are found in Sagbama LGA of Bayelsa State and Orhionmwon LGA in Edo State. Dialectal variations exist within Isoko, influenced by geographical and social factors, though mutual intelligibility remains high among speakers. Neighboring languages include Urhobo and Itsekiri, with which Isoko shares some linguistic similarities, reflecting the close-knit linguistic landscape of the region.

Isoko utilizes a standardized orthography based on the Latin alphabet, which has been instrumental in literacy initiatives and the creation of educational materials. The language is largely agglutinative, meaning that words are often formed by combining morphemes in a systematic way. The syntactic word order in Isoko follows a Subject-Verb-Object (SVO) structure. Efforts continue to develop materials that further support the literacy and education of the Isoko language.

Isoko is a member of the larger Niger-Congo language family, the largest language phylum in Africa, which includes over 1,500 languages spoken across the continent. Within Niger-Congo, Isoko is classified as a part of the

Southwestern Edoid branch of the Volta-Niger language family, which encompasses several languages spoken in Nigeria. This classification highlights Isoko's place within Nigeria's rich linguistic diversity and emphasizes its role within the Edoid linguistic group, a subset of the Niger-Congo phylum.

1.2 Statement of the Problem

The concept of morphological complexity might seem to add unnecessary difficulty to learning and using language. While many words in Isoko are formed from multiple parts, not all of them are truly complex. Evaluating the complexity of these words is challenging, especially given that little research has been conducted on this topic for the Isoko language. Understanding morphological complexity in Isoko requires acknowledging certain gaps. One main issue is that there are very few detailed studies on how Isoko words are structured. The unique way Isoko speakers form words also complicates the study of its morphology, presenting additional challenges.

Another pressing issue is the gradual shift among younger generations to dominant languages, like English, which has led to a decrease in the daily use of Isoko and a decline in its transmission to future generations. This shift threatens the survival of the language, reducing its role in formal and educational contexts. Resources to support Isoko language learning and documentation are limited, and research on topics like morphological complexity is scarce, leaving significant gaps in understanding its structure. Beyond that, studying the word

structure of Isoko adds useful information to the bigger picture of how languages evolve globally.

1.3 Research Questions

This project addresses the following research questions.

- i. What is the structure of complex words in the Isoko language?
- ii. What strategies are used to create complex words in Isoko?
- iii. How do these strategies influence the meaning and function of words in Isoko?

1.4 Aim and Objectives of the Study

The aim of this study is to examine morphological complexity in the Isoko language. The study seeks to achieve the following objectives.

- i. To examine the structure of complex words in the Isoko language.
- ii. To establish different strategies used to create complex words in Isoko.
- iii. To investigate how these strategies, influence the meaning and function of words in Isoko.

1.5 Methodology

This study employs a qualitative research approach because it allows for detailed examination of Isoko grammar, from sounds and word formation to vocabulary. Data were gathered from both primary and secondary sources. For the primary data, native Isoko speakers residing in Isoko-speaking areas such as Delta and Benin were interviewed. These sessions were recorded, translated,

and written in Isoko orthography to capture accurate linguistic details. Secondary data included reviewing prior research on morphology complexities, particularly studies by Villalva and Pinto (2018), Obianika (2017), Okafor and Ejiofor (2016), Ajiroghene & Itiveh (2016) and Toluspayeva, Shubina, Apshe, Shukan, Nurguzhina, & Mirambaevna (2024), which helped in understanding Isoko word structure and complexity.

For data analysis, a descriptive approach was used. The data collected were first verified, then organized into categories based on key morphological features like inflection and tone changes in complex words. The analysis highlighted the different ways Isoko words are formed, focusing on changes both in sounds and tones. This method enable the understanding of the unique structures of Igbo morphology and how complex words are built in the language. Both Isoko dialect and English translation were written side by side.

1.6 Significance of Study

This study is important because it educates us on how words are formed and structured in Isoko language. By examining aspects like inflection, derivation, and the distinctive ways this language create complex words, the research provides useful knowledge for teaching and learning. This can help educators develop better language materials, making it easier for younger generations to learn and keep these languages alive. This research also adds to linguistic studies by offering new data on Isoko morphology. These findings can

help compare Isoko to other African languages, especially within the Niger-Congo family. Such comparisons increase our understanding of how languages in this family are structured and support efforts to document and preserve these languages as valuable cultural resources.

1.7 Scope/Limitation of the Study

This study focuses on the morphology of the Isoko language, specifically examining word-formation processes, including inflection and derivation, and the complexity of these processes. By analyzing structures within complex words, the study aims to investigate the linguistic patterns and morphological features within the language. However, this study is limited by data collection, as it is constrained to accessible native speakers and existing literature, which may not fully capture all dialectal variations. More so, while this study examines general morphological structures, it does not look into phonological aspects in depth or the impact of syntactic patterns on morphology.

CHAPTER TWO

REVIEW OF RELEVANT LITERATURE

2.0 Introduction

This chapter provides a review of the literature related to morphological complexity. It is organized into three main sections. The first section examines key concepts essential for understanding the topic and lays the foundation for the analysis presented in later chapters. The second section examines selected previous studies on the subject, while the third section outlines the concerns of the present study.

2.1. Conceptual Review of Literature

This section discusses the key concepts relevant to this study, including morphemes, morphology, morphological complexity and word-formation processes.

2.1.1 Morphemes

Morpheme is the smallest units of a language that carry meaning. In all languages, sounds combine to make morphemes, morphemes combine to make words, and words combine to make sentences. Haspelmath and Sims (2010) outlined that a morpheme is the smallest meaningful segment of a linguistic expression that can be identified through segmentation. We combine morphemes in new ways to create new words that can easily be understood. Morphemes can be words on their own, and can often be combined with other

morphemes to make words. Morphemes enter into relationship on the basis of addition, substitution and subtraction (Ayodele 2001:78).

Aronoff and Fudeman (2011) define a morpheme as either a complete word or a meaningful component of a word that cannot be further divided into smaller meaningful parts. Each word contains at least one morpheme, and several morphemes can serve as full words by themselves. Morphemes that can function independently as words are called free morphemes. In contrast, those that cannot exist on their own are known as bound morphemes. Examples of bound morphemes include prefixes such as "re-" and "un-" and suffixes like "-est," "-er," and "-ed." These bound morphemes modify the meaning of the free morphemes they attach to. In other words, a morpheme 'free' or 'bound' may be added to another in order to produce a word, and this type of addition is called affixation.

2.1.2 Morphology

The morphology of something is its form and structure. Morphology is the branch of linguistics that deals with the structure and formation of words in a language. In linguistics, it refers to the way words are constructed with stems, prefixes, and suffixes, their internal structure, and how they transform to convey different meanings or grammatical information.

According to Arranoff and Funderman (2005), morphology is the branch of linguistics that deals with words, their internal structure or how they are

formed. As the study of forms, Lowie (1998) describe morphology as the study of the internal structure of words and of the rules for forming words from their subparts, which we shall call morphemes. Levin and Hovav (2011:248) posited that morphology is the study of structure and derivation of complex signs and the relation between them. As an essential subfield of linguistics, by extension morphological analysis is a necessary process in Isoko language.

2.1.3 Morphological Complexity

Complexity refers to a state where many different parts are linked or related in a complicated manner. In language, complexity means the number and variety of elements and how they are organized (Rescher, 1998:1). Languages are complex systems made up of various interconnected components that function together to manage different aspects of communication. This include all the different ways words are created, even those that might not be very practical. When comparing languages, some, like inflecting-fusional languages, combine morphemes in a more complex way, while strongly agglutinating languages keep morphemes more distinct, leading to a different type of complexity (Dressler, 2011).

Morphological complexity is how complex or detailed the structure of words is in a language, by looking at the way smaller units (i. e. morphemes) come together to form words. According to Anderson (2015), the typology of morphological complexity operates based on two dimensions: the complexity of

the overall system and the complexity of exponence. The complexity can differ, influenced by factors like the number of morphemes in a word and the presence of different word-building processes. Essentially, it is about understanding how complex or simple the internal makeup of words is in a language.

2.1.4 Word-Formation Processes

Word formation concerns the processes that allow us to create new words with grammatical resources already available within a language. Tanvir (2016) refer to word formation as morphological process by which new words are produced either by modification of existing words or by complete innovation, which in turn become a part of the language. In linguistics, new words are created, either by modifying existing ones or inventing entirely new terms.

This process follows the grammatical rules of the language and involves forming new words from other words or morphemes, which eventually become part of the language. Lieb (2013) defines word formation as the process of creating new lexical words from existing ones through specific word formation methods. Similarly, Okeke and Obasi (2014) explain that word formation can involve introducing completely new words into a language or creating complex words by building on simpler, existing ones. In Isoko language, some word formation processes are productive, which will be treated in the later chapter four. Morphological processes involving morphemes in the Isoko language

illustrated through affixation, reduplication, compounding are outlined as follows:

2.1.4.1 Affixation

Affixation refers to the process of forming new words by adding morphemes to a root word. Morphemes can be placed either at the beginning, known as a prefix, or at the end, known as a suffix. In some cases, both prefixes and suffixes may be applied to the root word, resulting in more complex word structures. Different scholars have different views of the concept of affixation. Offiong (2005: 11) defined affixation ‘as the process of appending elements to established words’. Affixation occurs by adding affixes to lexical units to form new words, but affixation also needs to be studied as a mechanism of word formation and a representation of cultural characteristics (Temirgazina & Andryushchenko, 2023)

Affixation, as a morphological process is a common method used in languages worldwide to form new words through derivational affixation or modify a word’s form to fit its morphosyntactic context through inflectional affixation. The most common affixes are suffixes, which are attached after the base word, and prefixes, which are placed before the base word. In the Isoko language, prefixation occurs more frequently than suffixation. According to Anagbogu et al. (2010), prefixation is a morphological process in which a bound morpheme is attached to the beginning of a root or stem. Finegan (2004:49) emphasizes this form of affixation, describing it as a prefix that is

positioned at the front of a stem. Likewise, Ballard (2001:51) defines a prefix as an affix added to the initial part of a word.

Suffixation on the other hand is a morphological process involving the addition of a bound morpheme, known as a suffix, to the end of a root or stem. This process modifies or creates new words, serving as a fundamental aspect of morphological construction. Less common forms of affixation include circumfixation, interfixation, and infixation.

2.1.4.2 Reduplication

Reduplication is generally considered a morphological process where a morpheme or whole word is repeated, often causing phonological alterations in the resulting word. It is a morpho-phonological method of forming a new word by duplicating either the entire root or part of it. The duplicated portion is referred to as the Reduplicant (RED), while the original root or stem from which it is derived is called the base (BASE). In other word, it involves the morphological doubling of elements. When the repetition happens three times, it transforms into triplication, often considered a form of playing with sound (Inkelas, 2005).

Reduplication takes various forms in different languages and can manifest at any position within a word. It can be either partial or complete, depending on how much of the word is repeated. Partial reduplication involves copying only part of a word, while total reduplication involves duplicating the

entire word. Sometimes, changes are made to the base or the final word during this process. Reduplication often serves to create grammatical or meaning-based differences (Pei, 1996).

2.1.4.3 Compounding:

Compounding is a morphological process where two or more words are combined to form a single, longer word. In linguistics, a compound refers to a lexeme (or word) made up of multiple stems. According to Ndimele (2015: 70), “Compounding is a process of joining two or more formerly independent roots to form a single word”. It is also a part of derivational morphology that is universally recognized and commonly used for enlarging the vocabulary of any language (Fromkin Redman and Hyams 2011).

Yule (2010:55), says that compounding is a joining of two separate words to produce a single form. Bauer (2003) in his own definition, says that, compounding is the creation of a new lexeme by combining two or more already existing lexemes. For Booij (2005) compounds have a binary structure, That is a compound consists of a combination of two words in which one word modifies the meaning of the other. In other words, the outcome of this process is referred to as a compound word.

This word formation process involves the direct combination of free morphemes to create new words. Compounding is one of the methods used for word creation in the Isoko language, enabling the combination of either similar

or different word classes. In Isoko, these combinations can take the form of N+N (noun-noun), V+V (verb-verb), N+V (noun-verb), V+N (verb-noun), and N+A (noun-adjective). Compounding can also derive complex words through the fusion of a sequence of words that represent a complete sentence; such internally complex words may/ may not have derivational affixes as well.

2.2 Previous Studies

Morphological complexities have been addressed by various scholars across different languages, including Villalva and Pinto (2018), who studied “Morphological complexity and lexical processing costs in Portuguese”. They noted that while many words consist of more than one morphological component, not all such words qualify as complex. In morphological analysis, "complex words" typically refer to those formed with a root, a stem index, and inflectional affixes, distinguishing them from words created through derivation, modification, or compounding. However, this distinction is somewhat oversimplified, as all words have some degree of complexity. The study suggests that the structure of morphology significantly influences word processing, but it often overlooks the level of morphological complexity. The study aims to enhance the understanding of how morphological structure affects written word processing by examining the complexity level of specific Portuguese derived words. They conducted a priming experiment with a lexical decision task on three sets of derivatives ending in -oso: the first set consisted of

compositional structures, the second included words with an allomorph of the suffix (–oso ~ –uoso), and the third contained words with an allomorphic base. The findings indicated that the processing of derived words is influenced by their morphological structure, with compositional structures resulting in lower processing costs. This leads to the conclusion that the degree of morphological complexity in complex words should be considered when studying written word processing.

Obianika (2017) examined Affixes and tone in Aguata Igbo: A critical appraisal. The study investigated significant variations in affixes among the Aguata dialects. It aims to examine how tone functions within the affixes that contribute to three aspects of Aguata Igbo. This dialect group includes three main dialects: Amaiyi, Orumba, and Aguata. To represent each dialect, three respondents were chosen, and data were gathered through personal interviews. The analysis was conducted descriptively to understand how these aspects manifest in each dialect and to identify their similarities and differences. The findings reveal notable variations in both the affixes and tone patterns, demonstrating that these dialects, while related, are distinct from one another, challenging the common belief that they all belong to the same dialect of the Igbo language.

Okafor and Ejiofor (2016) examines affixes in the Idemili and Onicha dialects, focusing on the morphological variations between them. The research

identified distinct differences in affix usage across various constructions, including perfective, past tense, present participle, present progressive, and negative forms. To gather data, the researchers used participant observation and audio recordings, followed by descriptive analysis for interpretation. The findings indicated that Idemili employs the affix ‘-na’ as a perfective marker, while Ọnichá uses ‘-go’. Both dialects share ‘-lụ’ or ‘-li’ as past tense markers. In terms of negation, Idemili uses ‘-họ’, whereas Ọnichá employs ‘-rọ’. The present progressive is indicated by ‘-ba’ in both dialects. More so, Idemili and Ọnichá use 'e-' and 'a-' respectively for present participles. The study concludes that, despite being part of the same dialect group, Idemili and Ọnichá demonstrate notable morphological differences.

Ajiroghene & Itiveh (2016) in their study on the concept of affixation and its usage in Isoko language, explain that morphology examines the forms of words in various contexts and constructions. They investigated the concept of affixation, which is a morphological process involving the addition of bound morphemes to free morphemes to create new words, specifically in relation to the Isoko language. The study categorizes this process into prefixation, infixation, and suffixation. However, the researchers found that prefixes and suffixes are the most prevalent in the language. They provide a thorough discussion on the usage of these two processes, highlighting that a significant number of words in Isoko are formed through prefixation.

Toluspayeva, Shubina, Apshe, Shukan, Nurguzhina, & Mirambaevna (2024) conducted a study on “Affixation in morphological word formation and construction of lexemes in the English and Kazakh languages”. The study analyzes the role of affixation within the context of morphological word formation in both languages. Affixation is the process of adding affixes to the base word, which consequently leads to the formation of new words with changed lexical and grammatical meanings of the derived word. Affixation, having a different impact on the lexical composition of the presented phraseological units, is one of the most important components of word formation. The study aims to classify different types of affixations and examine their effects on the structure, meaning, and grammar of words. A relational analysis of affixes in the two languages was also carried out to identify specificities and differences in the use of affixes. The findings enhance the understanding of word formation and linguistic structures in both languages, contributing to modern linguistic research and intercultural communication.

2.3 Concern of the Present Study

The primary concern of this study is to describe the structure of complex words in the Isoko language. It focusses on identifying and analyzing various morphological elements, including prefixes, suffixes, and other bound morphemes, and their roles in constructing complex words. By examining inflections, derivations and word-formation processes, the study hopes to

contribute to a comprehensive understanding of the morphology of the Isoko language.

CHAPTER THREE

THEORETICAL FRAMEWORK

3.0 Introduction

The theoretical framework adopted in this work is based on Basic Linguistic Theory (BLT), as proposed by Dixon (2010). This theory is a comprehensive framework that provides tools for analyzing and describing languages. BLT is rooted in functional-typological approaches, focusing on the description of actual language use and structural variation across languages.

3.1 Basic Linguistic Theory (BLT)

One approach that has been fruitful for the discussion and description of many languages is Dixon's "Basic Linguistic Theory" (BLT) (Dixon 2010a, b). The Basic Linguistic Theory refers to the set of descriptive notions that is commonly used in language description. Its status as a 'real linguistic theory' has been brought to the fore by Matthew S. Dryer, who notes that no set of descriptive notions can be entirely void of theoretical presuppositions. BLT "consists in the study and comparison of the grammatical patterns of individual languages" (Dixon 2010a: 5) and centers on the fact that "every grammar is an integrated system. Each part relates to the whole; its role can only be understood and appreciated in terms of the overall system to which it belongs" (Dixon 2010a: 24). Along these lines, Dixon also characterizes grammar as "an abstract system of interlocking elements" (2010a: 34). This descriptive theory focuses

on analyzing and representing the structures and patterns of languages, highlighting the interrelation of linguistic components such as morphology, phonology, and syntax in creating effective communication systems.

BLT takes a universal approach, suggesting that some rules apply to all languages despite their differences. For example, Dixon argues that no language has only prefixes without also having suffixes. This universalist perspective emphasizes that certain grammatical principles surpass linguistic variety. The theory emphasizes studying linguistic features within their system to reveal the interaction between individual elements and the overall grammatical structure. This concept of language structure helps to focus analysis not just on individual components of language but on how these parts interrelate within the entire system. The foundational principle of BLT lies in the interconnectedness of linguistic elements and their integration into cohesive grammatical systems.

The theory focuses on understanding both the relationships between parts of a language and how they appear in actual use. It examines how languages use morphology to mark features like tense, aspect, modality, evidentiality, and number systems, emphasizing how grammatical features are expressed through word formation. BLT also explains functional aspects of language, such as how passive and antipassive constructions, causatives, and applicatives work. Additionally, the theory incorporates a pragmatic perspective, looking at how these features contribute to discourse, maintain arguments, and influence syntax.

By combining structural and functional perspectives, BLT emphasizes a whole orientation, ensuring that linguistic analysis captures both the abstract and practical aspects of language.

Basic Linguistic Theory is a widely used framework for analyzing and describing languages, particularly in understanding entire linguistic systems and their grammar. It provides field linguists with a comprehensive approach, advising against collecting isolated language details and encouraging them to understand the broader context and connections among linguistic elements. For instance, BLT offers a framework to analyze and understand the complexities of morphology by focusing on essential grammatical aspects such as number systems, negation, reflexives, reciprocals, passives, causatives, comparative constructions, and questions. Dixon provides a clear explanation of how linguistic analysis is conducted, demonstrating how grammatical rules and structures can be identified through inductive reasoning. The theory outlines the steps for constructing a comprehensive grammar and lexicon based on observed language data and guides cross-linguistic comparisons to identify shared patterns and unique features among languages.

3.2 Theoretical Application to the Current Study

The application of Dixon's Basic Linguistic Theory (BLT) to the current study on the structure of complex words in the Isoko language provides a comprehensive framework for understanding the morphological organization

and interconnections within the language's grammatical system. BLT emphasizes the examination of grammatical systems as integrated wholes, where the relationships between individual elements and their roles in the larger system are important. In this study, BLT aids the analysis of how complex words in Isoko are formed and structured, focusing on their morphological and syntactic characteristics.

The theoretical foundation of BLT aligns with the study's aim to identify the morphological processes involved in forming complex words, such as compounding, derivation, and affixation. For instance, the investigation of how prefixes and suffixes interact with root words in Isoko aligns with BLT's focus on the systematic relationships within word formation processes. Furthermore, BLT's functional approach supports the examination of how complex words in Isoko contribute to syntactic and semantic clarity.

CHAPTER FOUR

DATA PRESENTATION AND DATA ANALYSIS

4.0 Introduction

This section presents the collected data and focuses on the analysis of complex words in the Isoko language, along with their English translations. It will examine various aspects of morphological complexity in Isoko, including processes like prefixation (where nouns are formed by prefixing verbs, adjectives, and phrases), suffixation, compounding, and reduplication, as well as the complex semantic relationships these processes convey.

4.1 DATA PRESENTATION

AFFIXATION:

Table 1: Prefixation in Isoko Language

	Verb Root	Suffix	Derived Words
1	o	le (pray)	ole (prayer)
2	i	roro (think)	iroro (thought)
3	a	zoho (contribute)	azoho (contribution)
4	e	ba (undress)	eba (nakedness)
5	o	lele (follow)	olele (apprentice/disciple)
6	o	gaga (strong)	ogaga (power)
7	e	wuhre (learn)	ewuhre (teaching)

8	O	kẹ (give)	okẹ (gift)
9	e	lọlọhọ (easy)	elọlọhọ (soft)
10	i	whowho (proclaim)	iwhowho (proclaimer)

Table 2: Suffixation in Isoko Language

	Verb Root	Suffix	Derived Words
1	nya (walk)	vre	Nyavre (gone)
2	ru (do)	o	ruo (doing)
3	egu (judge)	o	eguo (judging)
4	ru (enter)	ẹ	ruẹ (enter it)

Table 3: Reduplication in Isoko Language

	Base Form	Reduplicate
1	ta (speak)	ọtota (spokesman)
2	na (the)	onana (this)
3	ebi (dark)	ibiebi (black)
4	le (pursue)	ilele (followers)
5	ga (stronger)	gaga (powerful)
6	bu (more/much)	buobu (plenty/many)
7	kwa (move/moving)	ekwakwa (properties)
8	ghọ (forbid)	ghọghọ (rejoice)

9	o _v o (one)	o _v u _v o _v o (only one)
10	o _h o _h (wrong)	o _h o _h o _h o _h (negative)

Table 4: Compounding in Isoko Language

	Word 1	Word 2	Derived Words
1	o _m o _m (child)	o _z a (man)	o _m o _z ae (son)
2	o _m o _m (child)	o _s e (father)	o _m o _s e (brother/sister)
3	o _n i _v o _v o (sibling)	o _m o _z ae (boy)	o _n i _v o _v o _m o _z ae (brother)
4	u _d i (drink)	o _g agan (strong)	u _d i _o gagan (alcohol)
5	si (write)	o _b e (book)	o _s i _o b _e (writer/secretary)
6	Ewoma (Goodness)	o _g h _e ne (God)	Ewoma _o g _h e _n e (goodness of god)
7	o _k e (gift)	e _z i (spirit)	o _k e _z i (spiritual gift)
8	u _s i (news)	u _w oma (good)	u _s i _u woma (good news)
9	k _r u (hold)	i _g ho (money)	o _k righo (treasurer)
10	o _h w _o (person)	e _w uh _r e (teaching)	o _w uh _r e (teacher)

4.2 DATA ANALYSIS:

4.2.1 Prefixation in Isoko Language

In the provided examples (1-10) in table (1), the process of word formation in Isoko is exemplified, resulting in the creation of a distinct word class. This phenomenon is a testament to the complex morphological structure of Isoko, particularly the use of prefixes, which are affixed to the root verbs to give rise to new and meaningful expressions. It explains the changes that occur when syllabic structure is attached to the root. The prefixes attached change the grammatical class of the words from verb to noun. This shows that prefixation in Isoko can change the lexical class of the root words.

In illustration (1), the word *ole* “prayer” is formed with *le* “pray” which is the root word, and a prefix *o-* *changing the lexical class and of the word from a verb to a noun*. The word *iroro* ‘thought’ in (2) is made up of a prefix *i-* and a root *roro* which means ‘think’. It could be observed that *roro* on its own is a root (i.e. verbal morpheme), but the prefix *i-* attached to it changed the grammatical tense to a past action. Similarly, instance (3) showcases the affixation of the prefix *a* to the verb *zoho* ‘contribute’, giving rise to the term *azoho* which means ‘contribution’. The word class has changed from verb to noun.

In example (4), the verb *ba* ‘undress’ undergoes a morphological transformation when the prefix *e-* is added, resulting in the derived form *eba*, which conveys the noun form meaning ‘nakedness.’ This process demonstrates how prefixes function as derivational morphemes, altering the lexical category

of the base word. In this case, *ba*, originally a verb denoting an action, shifts to a noun, *ɛba*, signifying a state or condition associated with the action.

In example (5), *lele* is a verb meaning ‘follow,’ which denotes the action of adhering to someone. When prefixed by *o-*, the word shifts from a verb to a noun, *olele*, signifying a person who follows, such as an apprentice or disciple. In (6), the base word *gaga* (adjective), meaning ‘strong,’ transforms into *ogaga* (Noun), meaning ‘power,’ when prefixed by *o-*. This shift represents the conceptualization of the quality of strength as an abstract entity.

Similarly, in (7), the verb *wuhre* ‘learn’ changes into *ewuhre* ‘teaching’ when the prefix *e-* is added. The prefix converts the verb into a noun, redefining the base word from an action to the process or result of that action. In (8), the verb *ke* ‘give’ becomes *oke* ‘gift’ with the addition of *o-*. This morphological change reclassifies the base word from a verb to a noun, signifying the outcome of the action performed. The derived form summarizes the result of giving rather than the act itself.

For the example (9), *loloho* ‘easy’ is an adjective that turns into *eloloho* ‘soft’ with the prefix *e-*. This transformation shifts the word’s meaning to represent an abstract or tangible quality rather than describing a characteristic. The prefix emphasizes the morphological and semantic role of affixation in creating new lexical items. Lastly, in (10), the verb *whowho* ‘proclaim’ is modified by the prefix *i-* to form *iwhowho* ‘proclaimer’. Observing these

examples, it becomes evident that the prefixes are complexly affixed before the respective verb roots. This morphological process not only alters the grammatical category of the word, transforming it from a verb to a noun in these instances but also instils it with a specific meaning associated with the added prefix.

4.2.2 Suffixation in Isoko Language

In the examples in table (2) 1-4, suffixation is the morphological process at work, where suffixes are added to verb roots to create derived forms that modify or expand their meanings. For instance, in example (1) the verb root *nya* ‘walk’ is suffixed with *-vrẹ*, resulting in the derived form *nyavrẹ*, which means ‘gone.’ The suffix *-vrẹ* shifts the lexical aspect of the verb, indicating completion or a past state, transforming the action of walking into the outcome of having walked (perfective aspect).

In Example (2), the verb root *ru* ‘do’ is suffixed with *-o*, forming *ruo*, meaning ‘doing.’ The suffix *-o* retains the verb’s actional quality but emphasizes ongoing or continuous activity, marking it as a gerund-like form. In the same note, in Example (c), *egu* ‘judge’ which is the verb root takes the suffix *-o*, resulting in *eguo*, meaning ‘judging.’ Similar to (3), the addition of *-o* emphasizes the process or act of judgment, emphasizing the active nature of the activity without shifting the lexical class. Then observing example (4), the verb root *ru* ‘enter’ combines with the suffix *-ẹ*, producing *ruẹ*, meaning ‘enter it.’

Here, the suffix *-e* functions as a marker indicating a command or imperative-like form, aligning the action of entering with a directive, thus specifying its application in context.

4.2.3 Reduplication in Isoko Language

Examining the examples (1-10) provided in table (3) above, one can observe instances of reduplication in Isoko, including; nominal, numeral, and verbal reduplication processes. The base words “*ta* - ‘speak’, *na* - ‘the’, *ebi* - ‘dark’, *le* - ‘pursue’, *ga* - ‘stronger’, *bu* - ‘more/much’, *kwa* - ‘move/moving’, *gho* - ‘forbid’, *ovo* - ‘one’, *otho* - ‘wrong’” are reduplicated to form complex words such as *otota* ‘spokesman’, *onana* ‘this’, *ibiebi* ‘black’, *ilele* ‘followers’, *gaga* ‘powerful’, *buobu* ‘plenty/many’, *ekwakwa* ‘properties’, *ghoghoh* ‘rejoice’, *ovuovo* ‘only one’ and *othotho* ‘negative’ in examples (1-10).

Reduplication as a morphological process operates at the lexical level, often serving semantic, grammatical, or emphatic functions. For instance, in Example (1), the base form *ta* ‘speak’ is wholly reduplicated to create *otota*, meaning ‘spokesman.’ The repetition emphasizes the role of one who speaks, deriving a noun to indicate an individual designated to speak on behalf of others. Similarly, in example (2), the base form *na* ‘the’ is reduplicated to form *onana* ‘this.’ Here, the reduplication adds specificity, transforming the article into a demonstrative that refers to a particular object or entity close to the speaker.

Another case is example (3), where the verb root *ebi* ‘dark’ is reduplicated to form *ibiebi* ‘black.’ This intensifies the adjective, creating a term that emphasizes the state of being completely dark or black. For *le* ‘pursue’ in example (4), its reduplication to *ilele* shifts its meaning from a verb to a nominal form, referring to ‘followers’ or those who pursue or follow someone. Then in example (5), the base form *ga* ‘stronger’ becomes *gaga* ‘powerful’ through reduplication. This emphasizes the adjective, producing a form that conveys an intensified state of strength.

Similarly, *bu* ‘more/much’ in example (6) is reduplicated as *buobu*, meaning ‘plenty’ or ‘many,’ extending the meaning of abundance and emphasizing quantity or multitude. In another, example (7), the base form *kwa* ‘move/moving’ is reduplicated to produce *ekwakwa*, meaning ‘properties.’ The repetition shifts the meaning from the action of moving to tangible possessions, derived from the idea of objects being transported.

For the example (8), *gho* ‘forbid’ reduplication creates *ghoghō* ‘rejoice’, where the meaning semantically transforms into an antonym, highlighting the role of context in interpreting meaning. Then *ovo* ‘one’ in example (9) is reduplicated to become *ovuovo* ‘only one’, emphasizing exclusivity and strengthening the singularity of the referent. More so, *otho* ‘wrong’ in example (10) is reduplicated to form *othotho*, meaning ‘negative.’ This repetition shows the concept of wrongness, producing a more abstract or intensified expression.

4.2.4 Compounding in Isoko Language

In table 4, examples (1-10), we examine compounding in Isoko language. The data reveals a consistent pattern of combining identical or different word classes, including N+N (noun-noun), N+V (noun-verb), V+N (verb-noun), and N+A (noun-adjective) to create new words. In Isoko, compounding is derivational in the language, and enables the formation of words that convey more complex meanings than their individual components. as seen in example (1), the words *om̩o* ‘child’ and *oza* ‘man’ combine to form *om̩ozae*, which means ‘son’. This word highlights a direct familial relationship, signifying a male child in relation to a man. In example (2), the words *om̩o* ‘child’ combined with *ose* ‘father’ to form *om̩ose*, meaning ‘half sibling (brother/sister)’. Same as in example (3), where *oniovo* ‘sibling’ and *om̩ozae* ‘boy’ combines to create *oniovoom̩ozae*, meaning ‘brother’. Then in example (4), the words *udi* ‘drink’ and *ogagan* ‘strong’ combine to form *udiogagan*, meaning ‘alcohol’.

Observing example (5), the combination of *si* ‘write’ a verb and *obe* ‘book’ a noun results in *osiobe*, meaning ‘writer’ or ‘secretary’. This compound shifts the focus from the act of writing to the person who carries out that action, indicating a professional role. This shows how compounding in language can transform a verb into a noun that denotes a specific occupation or function. In example (6), *Ewoma* ‘Goodness’ and *oghene* ‘God’ are combined to form *Ewomaoghene*, which means ‘goodness of good’. Similarly, in the combination

of words *okẹ* ‘gift’ and *ẹzi* ‘spirit’ in example (7) results in *okẹzi*, meaning ‘spiritual gift’.

Similarly, example (8) *usi* ‘news’ and *uwoma* ‘good’ form *usiuwoma*, meaning ‘good news’. This compound shows how language can use compounding to express states of being associated with an event or piece of information. In example (9) *kru* ‘hold’ and *igho* ‘money’ create *okrigho*, meaning ‘treasurer’. And in example (10), the noun *ohwo* ‘person’ and the verb *ewuhre* ‘teaching’ combine to form *owuhre* ‘teacher’.

Morphological complexity in Isoko is evident through different word-formation processes, including affixation, reduplication, and compounding. Isoko also exhibits morphophonemic adjustments to ensure phonotactic harmony and semantic shifts that extend the meaning of base words. Nominalization and verbalization processes transform verbs into nouns or vice versa, adding flexibility to word usage. Furthermore, complex words often encode grammatical information, such as tense, aspect, and plurality, reducing reliance on auxiliary words.

CHAPTER FIVE

SUMMARY, FINDING AND CONCLUSION

5.0 Introduction

This chapter presents the research findings based on the collected data, along with a summary of the research work, conclusion and recommendations.

5.1 Summary

This study examines the morphological processes of prefixation, suffixation, reduplication, and compounding in the Isoko language, emphasizing on how these processes shape the language's structure and expand its vocabulary. Prefixes in Isoko, such as i-, e-, a-, ẹ-, and o-, are used to turn verbs into nouns, indicating actions, states, or results. They also mark past actions. Example, suffixation. It involves adding suffixes to verb roots, which changes the tense, aspect, or grammatical function of the word, such as turning *nya* ('walk') into *nyavrẹ* ('gone'), or *ru* ('do') into *ruo* ('doing'). Reduplication is another key process, where repeating base words like *ta* ('speak') becomes *ọtota* ('spokesman'), intensifying or altering the meaning, and sometimes changing the word class, as seen in *le* ('pursue') becoming *ilele* ('followers'). Compounding in Isoko combines two or more words to create new, complex meanings. For example, *omọ* ('child') and *ọza* ('man') combine to form *omọzae* ('son'). Other combinations, such as *si* ('write') and *ọbe* ('book') creating *osiọbe* ('writer'), show how compounding can indicate roles or relationships.

5.2 Finding

One of the findings of the study is that prefixes in Isoko, such as *i-*, *a-*, *e-*, *e-* and *o-*, are primarily used to convert verbs into nouns, often representing actions, states, or results. Some prefixes also indicate past actions, demonstrating their role in altering the meaning and grammatical category of words.

The data reveals that suffixes in Isoko usually modifies verbs to reflect changes in tense, aspect, and grammatical function. For instance, suffixes like *-vre* turn verbs into completed actions, while *-o* emphasizes ongoing activities, and *-e* marks imperative forms. This process emphasizes how suffixation helps express various grammatical and semantic features within the language. Furthermore, reduplication in Isoko involves repeating base words to convey emphasis, intensification, or shifts in meaning. It serves various functions, such as transforming verbs into nouns or creating more specific, intensified forms. For example, *ta* ('speak') becomes *otota* ('spokesman'), and *ga* ('stronger') becomes *gaga* ('powerful'). Reduplication also enables the creation of demonstratives, intensifiers, and abstract concepts.

The study also reveals that compounding in Isoko involves combining two or more words to form new, more complex meanings. This process includes combinations of nouns, verbs, and adjectives to express familial relationships, occupations, and abstract ideas. Examples include *omọ* ('child') and *ọza* ('man')

forming *omọzae* ('son'), and *si* ('write') and *ọbe* ('book') forming *osiọbe* ('writer'). Also from the data, it is observed that vowel harmony is evident in Isoko language. As seen in the following examples, *omọ* (child) *ọza* (man), *ọse* (father), *omọse* (brother/sister), *oniọvo* (sibling), *omọzae* (boy).

5.3 Conclusion

In summary, the study of word-formation processes in Isoko offers a thorough understanding of its structural complexity. Isoko morphology includes various methods such as compounding, affixation, and reduplication, all contributing to the creation of complex words. Reduplication, in particular, stands out as a powerful tool for creating semantic variations, allowing for the formation of distinct meanings across different word categories, such as nouns, verbs, adverbs, and prepositions. The analysis also highlights the creativity of Isoko speakers in generating new words by combining these processes, showcasing the language's ability to express innovative ideas. Also, the data effectively addresses the research questions, providing understanding of the structure of complex words in Isoko.

5.4 Recommendations

In this study, we examined various aspects of morphological complexities in the Isoko language, particularly focusing on processes like compounding, affixation (including prefixation and suffixation), and reduplication. These processes were examined in detail to understand how they contribute to the

creation of complex words with specific meanings in the language. However, there are areas of Isoko morphology that require further investigation to add to our understanding of Isoko morphology. For instance, future research could examine additional word-formation processes such as circumfixation, interfixation, infixation, conversion, clipping, backformation, and blending, which may also be present in Isoko but were not covered in this study.

REFERENCES

- Ajiroghene, O., & Itiveh, J. O. (2016). The concept of affixation and its usage in Isoko language. *Journal of Teacher Perspective*, 11(2), December, 1-7.
- Anagbogu, P., Mbah, M. B. & Eme, c. A. (2010). *Introduction to Linguistics* (2nd ed.). Awka: Amaka Dreams.
- Anderson, Stephen R. (2015). The morpheme: Its nature and use. In Matthew Baerman (ed.), *Oxford handbook of inflection*. Oxford: Oxford University Press. Pp. 11–33.
- Aronoff, M., & Fudeman, K. (2005). *What is Morphology?* Oxford: Blackwell Publishing.
- Aronoff, M., & Fudeman, K. A. (2011). *What is morphology?* (2nd ed). Wiley-Blackwell.
- Ayodele, A. (2001). ‘Morphology: An Introduction’ in Osoba, G. & Fakoya, A. Fakoya, A. and Osoba, G. (eds.). (1991). *The English Compendium*. Lagos: TIMIgrafik Production. Pp. 75-78.
- Baechler R and Seiler G (2012) Simplification, complexification, and microvariation: Towards a quantification of inflectional complexity in closely related varieties. In: Ralli A, Booij G, Scalise S, and Karasimos A (eds) Morphology and the architecture of grammar: On-line proceedings of the eighth Mediterranean Morphology Meeting. Patras: University of Patras, pp. 23–41. Available at: [http://www.lilec-mmm.it/wp-content/uploads/2013/09/23-40-Baechler_ Seiler. pdf](http://www.lilec-mmm.it/wp-content/uploads/2013/09/23-40-Baechler_Seiler.pdf) (accessed March 2016).
- Baerman M, Brown D, and Corbett GG (eds) (2015) Understanding and measuring morphological complexity. Oxford: Oxford University Press.

- Ballard, K. (2001). *The Framework of English: Introducing Language Structures*. China: Palgrave Publishers.
- Bauer, L. (2003). *Introducing Linguistic Morphology*. Edinburgh University Press. <http://www.jstor.org/stable/10.3366/j.ctvxcrdv8> 20 Jan. 2025.
- Beckner, C., Blythe, R., Bybee, J., Christiansen, M. H., Croft, W., Ellis, N., & Schoenemann, T. (2009). Language is a complex adaptive system: Position paper. *Language Learning*, 59, 1–26.
- Booij, G. (2005). The Demarcation of Derivation and Compounding: Evidence for Construction Morphology, in Dressler, W.U. et al. (eds.), *Demarcation in Morphology*, Amsterdam / Philadelphia, John Benjamins, 111–132.
- Dixon, R. M. W. (2010a). *Basic linguistic theory: Volume 1. Methodology*. Oxford University Press.
- Dixon, R. M. W. (2010b). *Basic linguistic theory: Volume 2. Grammatical topics*. Oxford University Press.
- Dressler, W. (2011). The rise of complexity in inflectional morphology. *Poznan Studies in Contemporary Linguistics*, 47(2), 159–176.
- Finegan, E. (2004). *Language: Its Structure and Use* (4th ed.). USA: Wadsworth.
- Fromkin, V., Rodman, R., & Hyams, N. (2011). *An Introduction to Language* (Int. ed.). Boston, MA: Wadsworth.
- Gong, T., & Coupé, C. (2011). A report on the workshop on complexity in language: Developmental and evolutionary perspectives. *Biolinguistics*, 4, 370–380.

- Haspelmath, M. & Sims, A. D. (2010). *Understanding morphology* (2nd edition). London: Hodder.
- Inkelas, S. (2005). *Morphological doubling theory: Evidence for morphological doubling in reduplication*.
 linguistics.berkeley.edu/~inkelas/Papers/StudiesOnRedup/Inkelas2005.pdf (5 August 2012).
- Levin, B., & Rappaport Hovav, M. (2011). "Lexical Conceptual Structure", in K. von Stechow, C. Maienborn, and P. Portner, (eds.), *Semantics: An International Handbook of Natural Language Meaning I*, Mouton de Gruyter, Berlin, 418-438.
- Lieb, H. H. (2013). *Towards a general theory of word formation: The process model*. Berlin: Freie Universität Berlin, (An open access publication).
- Lowie, W. (1998). *The acquisition of interlanguage morphology: A study into the role of morphology in the L2 learner's mental lexicon*. (Unpublished doctoral dissertation). University of Groningen].
- Ndimele, O.M. (2015). *A First Course on Morphology and Syntax*. Port Harcourt: Emilia Printing.
- Obianika, C. E. (2017). Affixes and Tone in Aguata Igbo: A Critical Appraisal. *IOSR Journal of Humanities and Social Science*, 22(06), 27–33.
<https://doi.org/10.9790/0837-2206122733>
- Offiong, O. A. (2005). On Efik Affixes. *Nduonde: Calabar Journal of Humanities*, 6(1), 8-21.
- Okafor, Amaka Yvonne & Ejiofor, Eugene. (2016). Affixes in Idemili and Onicha, 10, 50-65.

- Okeke, C. O., & Obasi, G. T. (2014). Word formation processes in Nigerian short message service. *Theory and Practice in Language Studies*, 4(11), 2215-2222. <https://doi.org/10.4304/tpsls.4.11.2215-2222>. (28/11/2013)
- Pei, M. A. (1966). *Glossary of linguistic terminology*. New York: Garden City.
- Rescher, N. (1998). *Complexity: A Philosophical Overview*. Transaction Publishers.
- Shosted, R. K. (2006) Correlating complexity: A typological approach. *Linguistic Typology* 10: 1–40
- Steels, L. (1997). The synthetic modeling of language origins. *Evolution of Communication Journal*, 1(1), 1–3.
- Steels, L. (2000). Language as a complex adaptive system. In M. Schoenauer, K. Deb, G. Rudolph, X. Yao, E. Lutten, J.J. Merelo, & H.-P. Schwefel (Eds.), *Proceedings of the 6th International Conference on Parallel Problem Solving from Nature* (Vol. 1917, pp. 17–26).
- Stump, G. & Finkel R. A. (2013) *Morphological typology: From word to paradigm*. Cambridge: Cambridge University Press.
- Tanvir, S. (2016). Word formation process. <https://tanvirdhaka.blogspot.com/2016/08/wordformation-process>
- Toluspayeva, D., Shubina, O., Apshe, K., Shukan, A., Nurguzhina, G., & Mirambaevna, A. (2024). Affixation in Morphological Word Formation and Construction of Lexemes in the English and Kazakh Languages. *International Journal of Society, Culture & Language*, 12(1), 326-336. doi: 10.22034/ijscsl.2024.2019058.3318

Villalva, A., & Pinto, C. (2018). Morphological complexity and lexical processing costs. *Alfa: Revista de Linguística*, 62(1), 149–168. <https://doi.org/10.1590/1981-5794-1804-7>

Villalva, A., & Silvestre, J. (2015). *Introdução ao estudo do léxico: Descrição e análise do português*. Petrópolis: Vozes.