

A Contrastive Analysis of Nominal Compounds in German and Igbo Languages

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Abstract

This paper identifies nominal compounds in German and Igbo languages. The German nominal compounds derived from Wolf Haas (Der Brenner und Der Liebe Gott and Igbo nominal compounds sourced from Tony Ubesie's Juo Obinna are the sources of data for the study. The study examines the morphological structures of nominal compounds in both languages and compares these with a view to identifying the similarities and differences of the nominal compounds in both languages. Using the Contrastive Analysis Theory of Robert Lado, the study revealed that the constituents of both German and Igbo nominal compounds were stems or undeclined word forms. However, while the German nominal compounds exhibited a variety of linkers (or interfixes), the Igbo nominal compounds lack these characteristics. The nominal compounds in Igbo are, however, separated by a gap or they are written together as a word in cases where the constituents of the nominal compounds have weak internal boundaries.

Keywords: German language; Igbo language; Morphology; Nominal compound.

1. Introduction

Globalisation requires the learning of foreign languages in order to enable people all over the world communicate, share information and ideas with ease. One remarkable thing a learner of the German language will notice as he/she learns the language is the large number of compounds which are one of the major characteristics of the language. From simple nominal compounds like 'Haustür' to very complex, lengthy and legendary compounds like 'Donaudampfschiffahrtsgesellschaftskapitänswitwenkassenwart', German language demonstrate varieties of compounding. In general, this study will add to the existing body of knowledge in the field of morphological structures of languages. The research findings will contribute to the ongoing discussion on linguistic typology and language universals.

Word formation processes are morphological processes, which serve as a means of increasing the vocabulary of a language. Compounding has been seen to be one of the major word formation processes, beside derivation. As a result of the important role which compounding plays in different languages, a good number of research work have been carried out on it. These include Haspelmath, Martin (2007) *Understanding Morphology*, Henschel & Vogel (2009) *Deutsche Morphologie* among others. Some Nigerian authors have also carried out research on this all-important topic. They include but are not limited to: Owolabi (1995), Awobuluyi (2005), Taiwo (2008, 2009), and Olagunju (2010, 2012), Anagbogu (1995, 2000), Oluikpe & Nwaozuzu (1995) and Iloene (2007), Aziza (2007) and Anagbogu (2011).

Some of these authors, like Olagunju (2012) undertook a systematic and scientific contrastive analysis of German and Yoruba morphological processes. However, to the best of the knowledge of this writer, no such contrastive analysis of German and Igbo nominal compounds has been undertaken. Such an analysis is not only important, but also essential. This is because in order to establish acceptable generalizations as regards linguistic processes, language specific as well as cross linguistic investigations play a very important role.

Despite the knowledge that a complete description of the linguistic constituents of any language requires not only language specific but also cross linguistic comparison, only a few contrastive research of languages have been carried out. Majority of the contrastive analysis undertaken in Nigeria have concentrated on German and Yoruba. Undertaking a contrastive analysis of German and Igbo languages will reveal the linguistic peculiarities of the two languages.

1.1 Definition of Key Terms

In order to ensure a better understanding of the topic, key words like ‘language’, ‘tone’, ‘vowel harmony’, and ‘morphology’ will be concisely defined and explained.

1.2 What is language?

Different linguists have proffered various definitions for this all-important word. There are almost as many definitions of the word ‘language’ as there are linguists. Here are just a few of the many definitions:

According to Chomsky in Olagunju (2010:6), language is a set of sentences, which are formed from a limited number of elements. For Saussure¹, *‘Language is a structure, a functioning whole in which the different parts are determined by one another.’*

Sapir² conceives of language as an exclusively human belonging, which is not an instinctive (but acquired) method of expressing thoughts, feelings and wishes by means of a system of freely created symbols. Trager concurs with Sapir but in a slightly different manner, defining language as a system of arbitrary symbols, with which members of a community interact within the totality of their culture.

All these definitions have one thing in common. Besides being in agreement that language is used as a means of communication, they all attest to the fact that language is made up of component. Simply put, language can therefore be defined as an entity comprising of different components, each with its own peculiarity and duty, through which humans communicate feelings, thoughts, actions and exchange ideas.

The two languages under investigation are: German, a west Germanic linguistic group referred to as an Indo-European language and Igbo, which is a Kwa language (like Yoruba) – a subdivision of the Niger-Congo linguistic group. German is said to have a population of 109 million speakers in Europe alone, with Igbo having 16.6% (about 18 million) of the Nigerian population as Igbo speakers.

1.3 The place of tone in both languages

Mbah (2012) explains tone as

‘the use of pitch to distinguish the meaning of two or more words with identical spellings. Languages that make use of pitch in this way are called tone languages.’

This means that tone is used as a distinguishing factor to differentiate the meaning of morphemes with similar forms. For instance, the Igbo language uses tone to differentiate four different meanings (egg, cry, bed, cloth) for the same morpheme ‘akwa’. Therefore, the meaning of the word ‘akwa’ depends largely on the user’s choice of tone. Nwachukwu (1995), who identifies Igbo as a tonal language, claims that in comparison to other African languages, Igbo makes the highest use of tone.

1.4 Vowel harmony

Vowel harmony can be simply defined as a process in which all the vowels in a particular group co-occur among themselves in words. Childs (2003) cites German as an example of a language which exhibits vowel harmony. He explains that it is attested in the German language in cases where the stem vowel agrees with the suffix and refers to it as the process called *Umlaut*.

Hulst & Weijer in Childs (2003:71) claim that this feature is also characteristic of the Igbo language and identify the ATR (advanced tongue root) harmony as the one peculiar to Niger-Congo and Nilo-Saharan languages. The Igbo language falls under the Niger-Congo group and Williamson (1966:67) in Nweke explains that the vowel harmony system divides the eight vowels in the Igbo language into the two. However, Nweke rejects Williamson’s division as erroneous and categorises them as follows:

- a) Light or group A vowels – a, i, o, u; and
- b) Heavy or group E vowels – e, i, o, u.

Although several instances where the rule of vowel harmony was broken were cited, by default, according to the rule of vowel harmony, all group A vowels ought to co-occur in words with all group E vowels doing same.

¹ www.123hepme.com (18/11/2022)

² www.titus.fkidg1.uni-frankfurt.de (18/11/2022)

Cases of non-adherence to the vowel harmony rule included loan words and words formed by compounding. This goes to buttress Childs (2003:71) and Nweke's claim that compounding is not the domain of vowel harmony.

2. Morphology

Morphology is a concept which was first applied in the field of linguistics by August Schleicher³ in the year 1860 to describe typical word formation patterns. Originally, this term was a coinage by Johann Wolfgang von Goethe in Arokoyo (2013), which was used to describe the study of forms especially in the field of Botany. The word derived from Greek and comprises of two words: 'morph' meaning 'form', and 'logos' meaning 'study'. Therefore, morphology can simply be defined as the study of forms, and is a concept being used in other scientific fields including Biology and Geology. Important basic morphological concepts worthy of mention are 'word', 'lexeme', 'morpheme', and 'Fuge'.

2.1 Word

Haspelmath (2002) describes a word as '...whatever corresponds to a contiguous sequence of letters'. For Maibauer, Demske et al (2007) words occur as building blocks for sentences. While Arokoyo (2013) conceives of a word as 'a unit of expression which is minimally free and may have different sense realizations.'

Although each of these definitions illuminate some of the characteristic features of the word, that of Maibauer, Demske et al (although not perfectly) portrays the feature of a word which is relevant to this study. This is because words are actually building blocks, not just for sentences, but also for other words as is the case in compounding.

2.2 Lexeme

With the reason that the mental dictionary which is situated in the human brain is called the 'lexicon' by linguists, Haspelmath (2002) simply defines a lexeme as a dictionary word. For Arokoyo (2013:4), 'A lexeme is an abstract word with no phonological form. It has specific sound and meaning and the shape changes depending on syntactic concept.' She goes further to distinguish between a word and a lexeme, saying that while words are basic, lexemes are abstract. This means that lexemes in contrast to words can occur in various forms (e.g., the lexeme 'Haus' can occur as 'Häuses', 'Häuser'), whereas the form of a word is basic and almost always fixed.

2.3 Morpheme and morpheme variations

Howard and Etienne in Arokoyo (2013) define morphology as the study of morphemes and their arrangement in word formation. For Emenanjo (2015:148), a morphem is

'...the basic or smallest, indivisible units of language with their own separate forms, separate existence, separate meanings and distributions.'

On the other hand, Maibauer, Demske et al (2007) see the morpheme as the most important morphological basic concept, while Haspelmath (2002) calls them 'morphological atoms.' All these definitions explain the morpheme as meaning-bearing building blocks for words, which cannot be further divided into smaller meaningful units and underscore its importance as the most basic morphological concept.

According to Emenanjo (2005), morphemes can be distinguished based on their form, size and structure. In terms of structure, morphemes can comprise of one, two or more syllables. Based on their meaning and level of independence, two major types of morphemes can be identified: free morphemes and bound morphemes.

While a free morpheme refers to one which is the core of words and that can occur alone as a word with a specific meaning, a bound morpheme on the other hand is one which always occurs bound to another (other) morpheme(s) because they lack the ability to meaningfully occur alone. Free morphemes are further divided into basic/ lexical morphemes and functional morphemes. The former refers to information-bearing morphemes (e.g., nouns, adjectives, verbs and adverbs), whereas the later describes morphemes which do not bear a lexical meaning and belong to the closed word class (e.g., prepositions, conjunctions, articles and interjections). Bound morphemes comprise of affixes (suffix, prefix, infix, suprafix and circumfix). They are only meaning/information bearing elements when they occur bound to other morphemes and occur as derivational and inflectional morphemes.

2.4 Interfix

This is a semantically empty morpheme. Fleischer & Barz (1995) describe the interfix as the morpheme boundary between the constituents of a word formation construction. Lohde (2006) asserts that the main function of the interfix is to close up the empty space between the constituents of a composition and agrees with Donalies (2005) claims that the

³www.home.uni-leipzig.de (18/11/2022)

interfix is semantically empty, with the assertion that over one-third of the present-day German compounds do not require an interfix.

Although Fleischer & Barz (1995) are of the opinion that the choice of the Fuge is not precisely dependent either on the first or second constituent of a word formation construction, Lohde (2006) claims that the choice of an interfix depends mainly on the characteristics (word form, inflectional class, sound structure and word formation structure) of the first constituent.

What constitutes an interfix and how many German interfixes there are remains a controversy among linguists. Lohde (2006) identifies *es-*, *-n-*, *-s-*, *-er-*, and *-en* as composition interfixes; and *,es‘* in *Chi-es-e*, *,n‘* in *Amerika-n-er*, *er‘* in *Büch-er-ei* and *logisch-er-weise*, *,at‘* in *problem-at-isch* and *,nt‘* in *name-nt-lich* as derivational interfixes while Fleischer & Barz (1995) listed *-(e)n-*, *-(e)s-*, *-e-*, *-er-*, *-ens-*, and *-0-* (Nullmorphem) as the existing morphemes. In addition to the first five, Duden Grammatik (2009:712) identifies the interfix *-s-*.

Although Arokoyo (2013) identifies the interfix in both Yoruba and Igbo languages, the situation in Igbo language appears to be quite different from that of the German language. Firstly, with some exceptions, the Igbo interfix occurs mostly between identical morphemes e.g. *ogo-l-ogo* = long (*ogo* meaning ‘height’); *uwa-t-uwa* = Eternity (*uwa* meaning ‘the world’). Secondly, as seen from the examples, the Igbo interfix bears a semantic function and as such adds to the meaning of the newly formed word. More so, Arokoyo (2013) does not refer to the Igbo interfix as an element which occurs in compounds.

2.5 Morphological processes

These are processes through which new words are created or derived in a language. This arises as a result of the constant need for words to name and describe new ideas, things, and situations. Hentschel und Vogel (eds.) (2009) distinguish three types of word formation processes, namely combinatory, modifying and reductive word formation types. The major word formation processes compounding and derivation belong to the combinatory type.

2.5.1 Compounding

Compounding according to Hentschel & Vogel (2009:897)

‘...is one of the major processes available in language for the formation of new words. It denotes the combining of two free forms or stems to form a new complex word referred to as a compound.’

In other words, a compound is a new complex word formed by the concatenation of two or more free and lexical morphemes or stems.

The four major types of compounds include: noun compounds, adjective compounds, verb compounds and adverb compounds. The variations of the noun compounds are: N + N, A + N, V + N and P + N; those of adjective compounds include N + A, A + A and V + A; with those of verb compounds as N + V, A + V and V + V.

Although not much has been written on the types of compounds existing in the Igbo language, two basic types have been identified in the literature – nominal (N + N) compounds and verbal (V + V) compounds.

2.5.1.1 Nominal compounds (NC)

Although basically all word classes, confixes, syntactic constructions, single alphabets and numerals can occupy the first position in noun compounds, compound with nouns as the first element (N + N compounds) form the majority of noun compounds. This research lays emphasis on this category of compounds, also known as nominal compounds.

Semantically, three types of nominal compounds can be identified: determinative, copulative and possessive (bahuvrihi) compounds. Determinative compounds (DC) refer to compounds in which the first constituent (Determinans) restricts or specifies the meaning of the second (Determinatum) while the head word or head as it is usually called (second constituent) determines the meaning, gender, and declination of the whole compound e.g., *Haustiür* is a type of *Tür*. Copulative compounds (CC), on the other hand, describe a type of composition in which both constituents are in a coordinative relationship. This means that the meaning of the compound comprises of an equal meaning of the first as well as the second component e.g., *Dichter-Komponist*, *Strumpfhose*. While possessive compounds (PC) according to Lohde (2006) are a special type of determinative compounds, where the second constituent does not designate a hyperonym whose meaning is being constrained as is the case in determinative endocentric compounds. For example, *Rotbart* is not a type of *Bart* like *Haustiür* is a type of *Tür*. Rather *Rotbart* describes someone who has a red beard. Whereas DCs are usually endocentric, PCs are exocentric compounds. Morphologically, nominal compounds exhibit a binary structure by default. This means that despite their number of constituents there is the possibility of dividing the compound into two parts. The three forms of branching exhibited by NCs are the right branching, left branching and double-sided branching.

3. Aim Of The Study

This study has the following aims:

- i) identification of nominal compounds in German and Igbo;
- ii) examination of the morphological structures of nominal compounds in German and Igbo and
- iii) comparison of the morphological structures in the two languages.

4. Research Questions

The research questions are as follows:

- i) do nominal compounds exist in German and Igbo?
- ii) what are the morphological structures of German and Igbo nominal compounds?
- iii) do similarities and/or differences exist between the German and Igbo nominal compounds?

5. Methodology

The study will employ both primary and secondary sources of data collection. The primary data will be collected from two randomly selected literary works – Wolf Haas' *Der Brenner und der liebe Gott* and Tony Ubesie's *Juọ Obinna*. Secondary sources will include books, journal articles, and the Internet.

Theoretical insights will be drawn from the Contrastive Analysis Theory of Robert Lado propounded in 1957, and the lexeme approach of Aronoff Mark to the Construction Morphology Theory.

6. Literature Review

This section of the study highlights the contrastive analysis theory of Robert Lado. Furthermore, literature relevant to the study are briefly discussed.

6.1 Contrastive Analysis (CA)

This is a theory propounded by Lado in the 1960s with the aim of proffering solutions to the difficulties encountered in learning a foreign language. Its major claim is that the systematic comparison of the structures of the learner's mother tongue to the foreign language will bring to light the areas where the learner may experience difficulty in learning. It went ahead to claim that the structures of the foreign language which differ from that of the learner's mother tongue will almost likely present difficulty in learning, whereas areas of similarity will not. It went further to assert that the structures which were to be learned by a language learner can be derived by subtracting the areas of similarity to the mother tongue from the total structures present in the language.

These claims were seen not to be totally true and predictions made by CA were seen not to always occur. This soon led to disappointment and strong criticism of the CA theory. However, James in Yang (2012) makes counter arguments against a number of these criticisms, saying that CA doesn't claim to account for all errors made by foreign language learners and that mother tongue interference was said to be the chief source of difficulty in learning a foreign language, not the only source.

It is important to note that this study is mainly interested in contrasting the morphological structures to highlight the similarities and differences that exist between the two languages, and not to predict errors.

6.2 Literature review of works on contrastive analysis, compounding and nominal compounds

Sharaf (2012) carries out a contrastive analysis of two German and Arabic linguistic systems namely word formation and change of word category with the aim of revealing the processes behind the change in word category in the two languages. He opines that a lot of literature on the contrast of German and other languages exist, but for the Arabic language, that was not the case. Attaviriyapap (2009) is also of the same opinion as regards Thailandish language.

Attaviriyapap (2009) carries out a synthesis of all the German-Thailand linguistic contrastive analysis carried out in Thailand between 1978 and 2008. The literature which met up to the criteria of his contrast were a total of 20 works, made up of 15 monographs (9 master's/bachelor thesis, 3 Ph.D. dissertations and 3 independent research projects) and 5 articles. Although he criticizes the only contrastive study carried out in the area of morphology, saying that the fields of phonetics/phonology and morphosyntax/syntax are more viable fields of research, he acknowledges it as the only study carried out in that field.

Olagunju (2010) also carries out a contrastive study of German and Yoruba noun formation and stresses the few numbers of contrastive analysis carried out in these two languages. He defines a number of relevant terms and internal structure of noun formation in both languages. Finally, he highlights the similarities and differences between the nominal compounds in the two languages.

A contrastive analysis worthy of note is that of Abubakare (2009) in which she compares the three major Nigerian languages: Hausa, Yoruba and Igbo. She identifies the presence/absence of the following processes in these languages: gender and case marking, tonal changes, assimilation, deletion, and insertion in nominal compounds.

Schlücker & Hüning (2009) investigate the semantic characteristics of A + N compounds and their corresponding phrases. They describe compounds as naming tools while phrases are used as descriptive tools. Although they finally conclude that there is no strict designation for compounds or phrases as naming or descriptive tools as some languages apply both forms equally in naming and description.

In her work '*Non-classifying Compounds*', Schlücker (2013) identifies other functions besides the qualifying and classifying functions of the first constituent (Determinans) of an endocentric compound, which restricts the meaning of the head word (Determinatum). These functions include behavioural, quantifying and locational functions.

Oluikpe & Nwaozuzu (1995) use the polysemy theory to establish the existence of nominal compounds in the Igbo language. They see the semantic criteria as the criteria which best suits in justifying if a construction is a nominal compound or genitival construction in Igbo language. The following four semantic criteria were used to test the constructions which proved to be not only genitival constructions, but also nominal compounds: (a) unity of concept; (b) semantic specialization; (c) permanent aspect; and (d) unitary representation of concept.

7. Discussion Of Analysis

The nominal compounds identified in the two literary works were a total of 739 in German and 171 in Igbo. However, because the Igbo novel contained a total of 175 pages and the German 224, 49 pages were left out of the German novel, leaving us with a total of 175 pages of the German novel (from which the nominal compounds were collected) just as the Igbo novel. This was done to ensure that both languages were put at an equal advantage to enhance the credibility of the research findings.

The morphological structures of the nominal compounds examined are:

- A. The hierarchical/binary structure of the nominal compounds.
- B. The combination/possible number of constituents of the nominal compounds.
- C. Headedness in the nominal compounds.
- D. Interfixation in the nominal compounds.

A) The hierarchical/binary structure of nominal compounds

This refers to the occurrence of the constituents of nominal compounds in pairs, even in cases where the constituents are more than two. This binary structure was seen to manifest in three different ways known as headhood/branchings. These include left branching, right branching and double-sided branching (i.e., to both the left and the right).

In German, all three types of branching were attested. (See Figure A below)

Igbo nominal compounds exhibited the binary structuring, with all three forms of branching duly represented. (See Figure B below)

B) The combination/possible number of constituents of the nominal compounds (NCs)

According to Haspelmath (2002), constituents of compounds are stems (not inflected/declined word forms). This means that the words that combine to form nominal compounds are not declined for case or number. This was seen to be the case in German. Also, the German NCs attested a high number of constituents coming together to form a compound. Although Olagunju (2012) identified NCs with as many as six constituents, the highest number of constituents exhibited by the NCs in this study are four. The percentage is represented as follows: NCs with four constituents are 0.8%, three constituents 11.6% and the remaining 87.6% have two constituents. See Figure C below. In Igbo, there were only eight NCs with more than two constituents, this corresponds to 4.68% of the total number of NCs. The rest which comprises of 95.32% were made up of two constituents. Also, only 0.6% of the 4.68% had four constituents. See Figure D below.

C) Headhood in the nominal compounds

Headhood refers to the constituent in a NC which functions as the head word, determining the meaning, gender and declination of the whole compound.

The German NCs were seen to be right-headed by default like all German determinative endocentric compounds in agreement with Donalies (2005) claim. Only a few possessive exocentric NCs were identified. Among these are: *Baulöwe, Bierbauch*.

In agreement with the findings of Abubakare (2009), the Igbo NCs attested the left-headedness like other major Nigerian languages: Yoruba and Hausa.

D) Interfixation in the nominal compounds

An interfix is a semantically empty sign which occurs between the constituents of a NC. These linkers are called Fuge or Fugenelement in German. The interfix serves a purely phonetic purpose – for ease of pronunciation of the newly formed word. It has several realisations: the empty interfix, deletion/replacement of the last alphabet(s) of the first constituent of a NC and the use of a hyphen between the constituents. Other linkers include: *-e*, *-s*, *-n*, *-es*, *-er*, *-ens*.

German NCs were seen to exhibit all of the variations of the interfixes with the NCs exhibiting an empty interfix being the majority at 63.3%, those exhibiting deletion/replacement totalled 1.7%, those with a hyphen 5%, those with an *-e* as linker represented 0.7%, *-n* 11%, *-s* 11.2%, *-en* 3.4%, *-es* 1.4%, *-er* 1.5%, *-ens* 0.1%. Two other hypothetical realisations of the linker were discovered during the course of the study, these are *-l* having 0.4% of the NCs and *-r* 0.3% in words like *Mittelohr* and *Mitternacht*. Interfix is not a feature of Igbo NCs. Although the “interfix” which occurs in Igbo occupies a similar position (between two morphemes), it does not exhibit the same linguistic functions. Whereas the German interfix is known to be semantically empty, the Igbo “interfix” adds to or changes the meaning of the combination of morphemes in between which it is inserted. Majority of the Igbo NCs were seen to have a space between the constituents, with a few written together as one word.

8. Result Of Analysis

The comparison of the nominal compounds in both languages yielded the following results:

Similarities	Differences
i) Presence of binary structuring and all forms of branching.	i) Constituents of German NCs can be as much as six, but Igbo has maximum of four constituents.
ii) Undeclined word forms form constituents of NCs.	ii) German NCs are right-headed, while those of Igbo are left-headed.
iii) NCs with two constituents constitute the majority.	iii) German like Igbo NCs exhibit a variety of interfixes. However, the NCs in Igbo language exhibit interfixes which have meaning-bearing/meaning-changing features.
iv) NCs are endocentric determinative combinations by default.	iv) Phoneme deletion and vowel replacement are characteristic of German NCs, deletion and vowel assimilation are characteristics of Igbo NCs.

9. Conclusion

The differences between the NCs in both languages are convincing proofs that each language is unique. On the other hand, the similarities attest to the fact that almost all languages possess a common factor. This buttresses the theory of Language Universals.

The research findings will be beneficial to German teachers/learners, German native speakers and the public at large. This is because in addition to giving a clear and simple description of the morphological structures of both languages, it also provides a fairly detailed contrast of the NCs of German and one of Nigeria’s major languages. Worthy of note is the identification of the interfixes *-l* and *-r* among the other forms of linkers present in German NCs. Finally, this research agrees with the number of existing literatures which support the existence of nominal compounds in Igbo language.

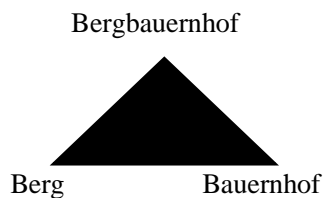
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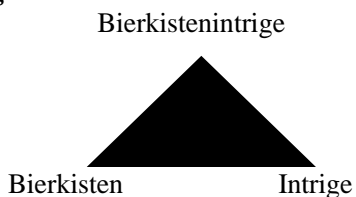
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FIGURE A: Headhood/Branching in German

i) **Right branching**



ii) **Left branching**



iii) **Double-sided branching**

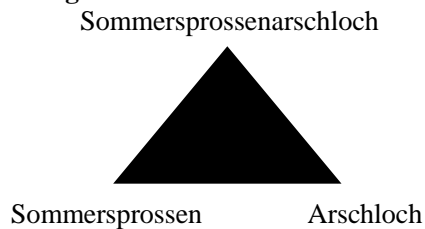
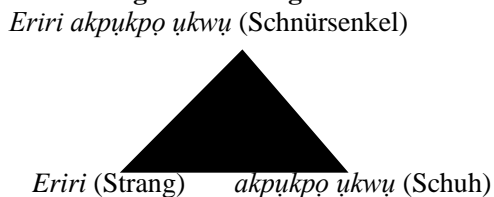
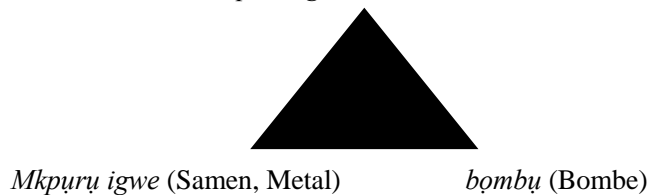


FIGURE B: Headhood/Branching in Igbo

i) **Right branching**



ii) **Left branching**
Mkpuru igwe bombu (Bombe)



iii) **Double-sided branching**

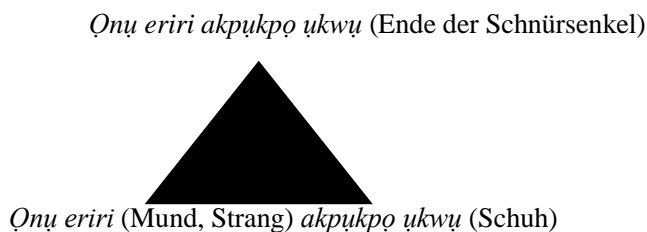


FIGURE C: Possible number of constituents of nominal compounds in German

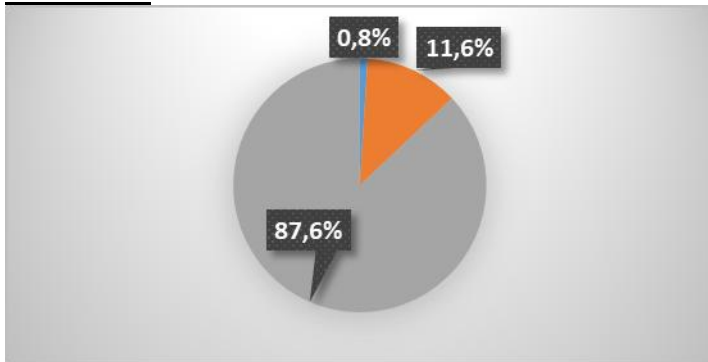


FIGURE D: Possible number of constituents of nominal compounds in Igbo

