

A SEMANTIC ANALYSIS OF HYPONYMIC RELATIONSHIPS AND NAMING PATTERNS OF BIRDS IN NANKA IGBO

**Chukwunonyelum Esther Okoli,
Eberechi Chinenye Amadi
&
Charity Oluchi Mbah**

Abstract

This research focuses on the hyponymic relationships and naming patterns of birds in Nanka Igbo with the aim of identifying the common hyponyms for birds in Nanka, and examining the peculiar names of the lexical words. It examines the features of the co-hyponyms of birds using the binary matrix. Twenty-three hyponyms of birds were analysed using Nida's (1975) componential theory. Data for this research were collected through interview from competent native speakers. The research finds out, among others, that hyponyms of birds in Nanka are co-hyponyms of the superordinate "nnunu". The findings indicate that Nanka speech community has a diverse vocabulary for classifying various species of birds. The findings show that names of birds in Nanka are typically structured around a few key components such as physical properties, habitat, and behaviour. This research contributes to the preservation and documentation of Nanka speech community and the Igbo language.

Key words: Sense relations, Hyponym, Componential analysis, Nanka, Co-hyponyms, Hyponym

Introduction

Semantics as a branch of Linguistics, is the study of meaning in a language. The meaning of a language is often seen from the relation

of a word with other words. It indicates what the word embraces (how it relates to the world outside of language) and the entailment possibilities which the word gives to sentences (Griffiths, 2006:22). Hurford et al. (2007:29) states that the *sense* of an expression is a meaning relationship of the expression with other expressions in the language. It is concerned with the sense relationships that exist between lexical words in a language. This is seen as a sense relation and it includes: homonymy, hyponymy, polysemy, synonymy, etc. Sense relation is the semantic relation between a word and another.

Hyponymy is the inclusiveness sense relation that can be described by the phrase: kind of/type of/sort of. That is, the meaning of A is included in the meaning of B, or A is a kind or type or sort of B. For instance, the meaning of *chair* is included in the meaning of *furniture*, or *chair* is a kind of *furniture* (Wenxu, 2012:75). Hyponymy is one of the sense relations by which the meaning of a word is included in the meaning of another word. Thus, a hyponym is a word whose semantic field is included within that of another word; its superordinate or hyponym. For example, *goat*, *dog*, *sheep*, *cow* and *pig* are all hyponyms of *animal*. Also, *nzā*, *ùdèlè*, *ap̄ia*, *egbe* and *ndürü* are hyponyms of the term 'nn̄un̄'. In the above example, 'nn̄un̄' is the superordinate term or hyponym. It means that the meaning of 'nn̄un̄' includes all its hyponyms. These hyponyms of the same hyponym 'nn̄un̄' are related to one another because they are co-hyponyms.

On the other hand, Componential Analysis (CA) is a method adopted in structural semantics to explain the components of a word's meaning. It reveals the essential features by which native speakers of the language distinguish different lexical items in a semantic field or domain (Ottenthalmer, 2006). The CA theory accounts for word meaning and how words are composed of indivisible semantic components. It is the method of semantic analysis by which the meaning of a lexical item can be decomposed into smaller units or described by a set of semantic features. It is used to analyse the structure of the meaning of words to show the significant features by which

speakers of a language differentiate different words in the same domain. CA does not have any universal features that are applied in distinguishing lexical items in languages. For Saeed (2009:260), componential analysis is applicable to distinguishing the meanings of lexemes that are semantically related or in the same semantic domain.

It is often seen as a method of breaking down the sense of a word into its minimal distinctive features. It refers to the description of the meaning of words through sets of semantic features, which are given as “present”, “absent” or “indifferent with reference to feature”. To describe the presence and absence of a semantic feature, binary rules are used. The symbol ‘+’ means the feature is present, while ‘-’ means the feature is absent. According to Nwaozuzu (2013:13), binary features (+) are used to characterize the inherent features of the lexical items in componential analysis. Examples:

Man is expressed as:

- + Human
- + Adult
- + Male

Boy is expressed as:

- + Human
- Adult
- + Male

Woman is expressed as:

- + Human
- + Adult
- Male

Girl is expressed as:

- + Human
- Adult
- Male

The Igbo language is one of the major languages in Nigeria. Igbo language comprises of numerous dialects and over 10 million speakers. The dialects of Igbo are so large that they cannot be estimated although some of the dialects are not mutually intelligible. The Igbo language belongs to the Benue-Congo group of the Niger-Congo language family. It is spoken in the South East (Anambra, Enugu, Imo, Abja and Ebonyi) and South (Delta, Rivers) regions of Nigeria. All speech communities of every language have different terms for different lexical words. Nanka variety of Igbo is not an exception. Nanka variety of Igbo is spoken by people of Nanka which is in Orumba North Local Government Area in Anambra State. It has boundary with Isuofia/Umuona in the North,

Awgbu/Amaokpala in the South, Ekwulobija/Okò in the East and Agulù/Aguluzoigbo in the West respectively.

This research aims to investigate the semantic relations of hyponyms of birds in Igbo using a componential approach. It identifies and examines the peculiar names of each lexical word, as well as the features of the co-hyponyms of insects and birds. In this research, some components of superordinate terms, insect and birds, will be used to identify the distinctive features among co-hyponyms of the superordinate terms using the binary matrix. The study of hyponymy in the Igbo semantics has adopted a lot of approaches. Some of the studies adopted the descriptive approach and they aim at analysing mainly the Igbo verbs. For example, the Igbo language has benefitted from the descriptive approach in the works of Onwukwe (2015) and Ejinwa (2019), but not much works have applied the Componential Analysis approach on hyponymy of birds in Nanka Igbo. Hence, this research seeks to fill this gap. It is a way of documenting such names because most of these names are going into extinction as a result that most young people are not familiar with them. It will also bring to light the subordinate term to which all named insects and birds belong. The research work will also serve as a way of enriching Igbo vocabularies and as a reference material for further researches in the area. Finally, the study could be beneficial to the Igbo language scholars especially in the areas of sense relations and lexical semantics.

Tone marking convention

In this present study, the tone marking convention adopted in this research study is Green and Igwe's (1963) tone marking system where the high tones are left unmarked, and the low (') and down step tones (-) are fully marked. For example:

isi	'head'
isi	'blindness'
isi	'smell'
isī	'to cook'

Literature Review: Sense Relations

A traditional way of investigating the meaning of a word is to study the relationships between its meaning and the meanings of other words: which words have the same meaning, opposite meanings, etc. Strictly speaking, these relations hold between specific senses, rather than between words; that is why they are referred to as sense relations. For example, one sense of *mad* is a synonym of *angry*, while another sense is a synonym of *crazy* (Kroeger, 2018). According to Anagbogu, Mbah and Eme (2010:223), sense relation is “the meaning relation between words; it refers to how the meanings of individual words are either different or similar.” Ndimele (1999) posits that words or grammatical units in any human language exhibit quite a number of interesting meaning relations. Such meaning relations at word level according to him are called *sense relations*. Riemer (2010:136) views that describing, accounting and knowing an expression's meaning involve not only its definition but also its relation to other words of the language. Such relations examine relationships among words meanings, in terms of similarity (synonymy), differences (antonymy), a part- whole relation (meronymy), class inclusion (hyponymy), etc.

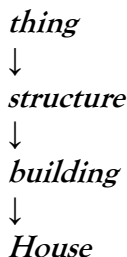
Classification of Sense Relation

Cruse (2004:148) classifies sense relations into two classes. They include sense relations that express identity and inclusion between word meanings (hyponymy, homonymy, polysemy, synonymy, etc.) and those that express opposition and exclusion (antonymy, incompatibility, complementariness, converses, etc.). The first class discusses the sense relations between words whose meanings are similar or included in the meaning of others. The second class discusses the sense relations between words whose meanings are opposite or excluded from other words.

Hyponymy

Crystal (2008) views hyponymy as a term used in semantics as part of the study of the sense relations which relate lexical items. It is the relationship which obtains between specific and general lexical items such that the former is included in the later. For example, *cat* is a hyponym of *animal*, *flute* of *instrument*, and so on. In each term, there is a *superordinate term* sometimes called a ‘*hyponym or hyperonym*’ with reference to which the *subordinate term* could be defined. The set of terms which are hyponyms of the same superordinate term are ‘*co-hyponyms*’. Richards and Schmidt (2002:241) give another example which figures in the description of verbs: the meaning of *walk* refers to a type of *move*, and *move* is a wider category that embraces narrower categories as *walk*, *run*, *swim*, etc. The class denoted by the superordinate term embraces the class denoted by the hyponym as subclass; therefore the class of acts of *moving* includes subclasses of acts of *walking*, *running*, *swimming*.

Griffiths (2006:47) shows a hyponym hierarchy where the hyponym relation can work at more than one level by the following example: *house* is a hyponym of the superordinate *building*, *building* is, a hyponym of the superordinate term *structure*, and *structure* is a hyponym of the superordinate *thing*. This can be seen below:



Empirical Studies

Onwukwe (2015) examined verbs of cooking in Igbo Language using hyponymy as a tool of descriptive analysis. The study investigated the relationship of inclusion within a semantic field of the verbs of

cooking in Igbo and selectional restrictions on their co-occurring elements. It was found that the verb *isi* ('to cook') is a generic superordinate term which embedded the meaning of other verbs of cooking of variety of items in Igbo. This is possible from the dialects or varieties of Igbo Language. In the study, nine hyponyms which are co-hyponyms and the selectional restrictions of the verbs in terms of their co-occurring elements were identified. It was concluded that Igbo verbs of cooking are rich in hyponymy.

Ejinwa (2019) examined the lexico-semantic relations of verbs of lighting wood fire in Okigwe dialect of Igbo. He examined the semantic relations of these verbs of lighting wood fire in Okigwe Igbo with the purpose of showing the specific lexical or meaning relations that exist among these verbs, their selectional restrictions and the individual entailment of these verbs. The data were collected through oral interview and analysed using the Semantic Field Theory. The examined verbs were grouped into two categories: verbs of putting on and verbs of putting off fire in Okigwe and the study identified five verbs of putting on and five verbs of putting on fire. The study found out that these verbs entail sense of inclusion and usually co-occur with the lexical word *oku* (fire) as their nominal complement.

Eze et al. (2020) investigated the hyponyms of insect in Ovoko lect. The objectives of the study are to identify hyponyms of insects in Ovoko lect and classify them based on their superordinate terms or hyponyms. The study employed componential analysis in the analysis of data which were drawn from introspection and confirmed by selected native speakers of Ovoko lect. The study discovers that there are so many hyponyms of insect in the lect under study, and all the hyponyms of insect therein are hyponyms in other levels. The study also shows that all the co-hyponyms in every superordinate term, though have their peculiar features, share some features in common which include them under such superordinate term.

Theoretical Framework

The theory of Componential Analysis (CA) was propounded by Katz and Fodor (1963). In this research, the CA modified by Nida (1975) shall be adopted in the analysing hyponyms of insects and birds in Nanka. Componential analysis (CA) is a theory of semantics which claims that meaning of any lexical item can be decomposed into its basic components. In other words, for any lexical item, there are isolable properties that can be used to determine its true semantic content. In Componential Analysis, words are deconstructed into semantic components, which constitute the total sum of the meaning in a word (Katz & Fodor, 1963).

Nida (1975) categorizes semantic components of lexical items into two types. These are:

a. Common component - This is the primary feature which is commonly shared by every word in the same semantic domain.

b. Diagnostic/distinctive components- They are those components that are features of one or more of the meaning but not for all. They serve to differentiate between the meanings of one lexical item from others in the same semantic domain. Words such as: man, woman, boy, girl, belong to the semantic field of 'human' and the relation between them may be presented by the following matrix:

Components	man	woman	boy	girl
Human	+	+	+	+
Adult	+	+	-	-
Male	+	-	+	-

Table 1: Common and Distinctive components of man, woman, boy and girl

In the semantic domain of *man*, *woman*, *boy* and *girl*, [human] is the **common component** and they are distinguished by [adult], [male],

[female] as the **distinctive components**. The meanings of the individual items can then be expressed by combinations of these features:

Man + [human] + [Adult] + [Male]

Woman + [Human] + [Adult] - [Male]

Boy + [Human] - [Adult] + [Male]

Girl + [Human] - [Adult] - [Male]

Method of data collection

The elicitation method of data collection was adopted using an interview technique. Twenty-three (23) names of birds shall be collected. In this research study, interviews were conducted with two participants who are competent speakers of Nanka Igbo. The purposive sampling procedure was used where knowledgeable elders who know about local bird names and have spent greater part of their lives in the speech community were selected. After audio recording, the researchers identified, classified and analysed hyponyms of birds in Nanka Igbo. Also, researchers' intuitive knowledge of the speech community as a native shall be applied.

Method of data Analysis

The research will employ Nida's (1975) theory of componential analysis to analyse the hyponymic relationships of birds and insects in Igbo. In this research, some components of superordinate terms; insect and birds, will be used to identify the distinctive features among co-hyponyms of the superordinate terms using the binary matrix (+presence) and (- absence).

Data presentation and Analysis

To examine the hyponyms of birds in Nanka using the componential analysis, we shall identify the semantic features that are shared by birds in Nanka, as well as the features that distinguish different types of birds from one another. Here, we shall present and analyse the twenty names of birds collected. The naming patterns of

birds in Nanka are typically structured using three components which include physical properties, habitat, and behaviour, and others.

Hyponyms of Birds in Nanka

Here, the list of birds in Nanka Igbo shall be grouped based on their physical properties (colour, size, shape, etc.), habitat, and behaviour (flight patterns, calls, feeding habits, etc.).

Physical Properties

- | | | |
|----|--------------|----------------|
| a. | Tòlotòlo | 'Turkey' |
| b. | Enyi Nnụ̀nụ̀ | 'Ostrish' |
| c. | Ìkwìkwii | 'owl' |
| d. | Ùgò | 'Eagle' |
| e. | Nzā | 'sparrow' |
| f. | chakèrekē | 'cattle egret' |
| g. | Ọ̀bọ̀gwù | 'Duck' |
| h. | apịa | 'heron' |
| i. | Elekēntịọbā | 'swallow' |
| j. | Ọ̀kwà | 'Quail' |
| k. | ezè nnụ̀nụ̀ | 'Peacock' |

Habitat

- | | | |
|----|----------------|--------|
| l. | ọ̀bọ̀gwù mmīlī | 'Swan' |
| m. | egbe | 'Kite' |

Behaviour

- | | | |
|----|--------------|---------------|
| n. | ọ̀tùrùkpọkpọ | 'Woodpecker' |
| o. | icheòkù | 'Parrot' |
| p. | nnụ̀nụ̀ ọ̀kà | 'Weaver bird' |
| q. | nkwo | 'Hawk' |
| r. | Ùdènè | 'Vulture' |
| s. | Ọ̀kukò | 'Fowl' |
| t. | ndùlù | 'Pigeon/Dove' |

- u. Ògàzì ‘Guinea Fowl’
- v. Òkpoko ‘hornbill’
- w. Ugòlòmà ‘crow’

The naming patterns for these birds seem to be based on their habitat, behaviour, and physical properties such as size and their unique features. These names often reflect the birds’ ecological roles, habitats, and distinctive components. For instance, birds such as ‘òbògwù mmílí’ (12) have names that reflect their adaptation to aquatic environments. Predatory birds like ‘egbe’ and ‘nkwò’ (13, 17) have names that highlight their hunting behaviours. Vocal and social birds like ‘òtùrùkpòkpò’ and ‘icheòkù’ (14, 15) have names that reference their communal and communicative tendencies. Large birds such as ‘tòlotòlo’ and ‘enyi nnùnù’ (1, 2) have names that reflect their impressive size and physical stature while small birds like ‘nzā’ (5) have names that suggest their diminutive size. Birds like udènè (18) have names that indicate their role in the ecosystem as carrion feeders.

Having grouped these names based on their descriptive nature (habitat, physical properties and behaviours), it is observed that these names are of Igbo origin. These names have evolved within the Igbo linguistic and cultural context.

S/ No	Names	Bird	Flying	Long Beak	Edible	Domesticated	Prey	Vertebrate	Oviparous
1	Egbe	+	+	+	+	-	+	+	+
2	Apia	+	+	+	+	-	+	+	+
3	òkùkò	+	-	-	+	+	-	+	+
4	Udene	+	+	+	-	-	-	+	+
5	òtùrùkpòkpò	+	+	+/-	-	-	-	+	+
6	Ugo	+	+	+	+	-	-	+	+

7	Nduru	+	+	-	-	-	-	+	+
8	Icheoku	+	+	-	-	-	-	+	+
9	ogazi	+	-	-	+	+	-	+	+
10	Nza	+	+	-	+	-	-	+	+

Table 2: Componential Matrix of birds in Nanka

The table above indicates some the components/features of birds which include flying, long beak, edible, domesticated, prey, vertebrate and oviparous. Using the componential approach, it reveals that bird, vertebrate, and oviparous are the common components of Igbo bird names because they are the primary features shared by all co-hyponyms of the super-ordinate term 'nnunu'. The table above shows that some birds are more related than others although all of them are co-hyponym of the super-ordinate term. For instance, 'egbe' and 'udene' differ only in 'edible'. Hence, 'udene' and 'egbe' are more related than 'udene' and 'ogazi'. 'Okuko' and 'ogazi' are more related than 'Okuko' and 'ndulu'. Also, the above findings show that Nanka speech community is very rich in vocabulary. It has a diverse vocabulary for classifying various species of birds. The findings show that naming patterns of birds in Nanka are typically structured around a few key components such as physical properties (nza), habitat (obogwu mmili), behaviour (icheoku) and others (Okuko). Also, the findings reveal that there are a number of hyponymic relationships between birds in Nanka.

Summary and Conclusion

This research focuses on the hyponymic relationships and naming patterns of birds in Nanka Igbo with the aim of identifying the common hyponyms for birds in Igbo. It examines the features and the naming patterns of the co-hyponyms of birds using the binary matrix. Also, this research aims to analyse the hierarchical relationships between hyponyms (general terms) and hyponyms (specific terms) within the categories of birds in Nanka as well as to investigate the

specific semantic components that are used to name different birds in the speech community such as colour, size, behaviour, appearance, and other features incorporated into such names. Thirty hyponyms of birds shall be analysed using the componential theory. Data for this research were collected through oral interview from competent native speakers. The research finds out that hyponyms of birds in Nanka are co-hyponyms of the superordinate “nnunu”. The findings indicate that Nanka speech community has a diverse vocabulary for classifying various species of birds. The findings show that names of birds in Nanka are typically structured around a few key components such as physical properties, habitat, and behaviour. Also, the findings reveal that there are a number of hyponymic relationships between birds in Nanka. This research contributes to the preservation and documentation of Nanka speech community and the Igbo language. The naming patterns for these birds seem to be based on their habitat, behaviour, and physical properties such as size and their unique features. These names often reflect the birds’ ecological roles, habitats, and distinctive components.

The findings of this research can be used to develop new educational materials and resources for Igbo language learners. Teachers can use the findings to develop lessons on the meaning and classification of Igbo birds and insect names.

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