

---

## Exploring Lexical Semantics: A Comparative Study of English and a Natural Language

**Dr. Shahab Ahmad Al Maaytah**<sup>1</sup>

Associate professor

Department of Languages and Humanities, Applied College,  
King Faisal University, Alhafof, The Eastern Province, Saudi Arabia.

[Salmaaytah@kfu.edu.sa](mailto:Salmaaytah@kfu.edu.sa)

**Joseph Philip Ayobami**<sup>2</sup>

Department of Linguistics and African Languages, Faculty of Arts,  
The University of Ibadan, Nigeria.

[pjoseph0494@stu.ui.edu.ng](mailto:pjoseph0494@stu.ui.edu.ng)

**Dr. Ibrahim abdelfattah Almajali**<sup>3</sup>

Art college , Department of Arabic language

King Faisal university, Alhafof ,The Eastern Province, Saudi Arabia

[ialmajali@kfu.edu.sa](mailto:ialmajali@kfu.edu.sa)

**Abstract:** *This article examines the relationship between semantics in English and the (Natural language) Yorùbá language, emphasizing how lexical meanings are constructed and interpreted in both linguistic contexts. By utilizing natural language examples, the study highlights the complexities of word meanings and their variations across languages. It begins with an overview of semantic theories and the significance of lexical semantics, followed by an exploration of how specific English terminologies can be understood within the Yorùbá language framework. This research not only aims to formalize these semantic connections but also contributes to the understanding of bilingualism and the dynamics of meaning in multilingual settings.*

**Keywords:** Semantics, lexical meaning, natural language, relations, binarity

### 1.0 Introduction

Semantics is the study of the meaning of words, phrases, clauses, sentences, and text. This field can be further categorized into formal semantics (which deals with the logical aspects of meaning), conceptual semantics (which focuses on the cognitive structure of meaning), and lexical semantics (which examines the meanings of words and phrases). Understanding Bloomfield's definition of a word, as cited by Saeed J.I. in 2003, is currently considered essential.

“A word, then, is a free form, which does not consist entirely of (two or more) lesser free forms; in brief, a word is a *minimum free form*”. (Bloomfield 1984).

With the definitional scope of a word excerpted above, we can now explain a word as a sequence of symbols that can possess various interpretations (beat: third person plural verb or mixed sounds for entertainment?; broiler: one who cooks by broiling a chicken suitable for broiling?; sow: a female bear or to plant “a seed”?). Although "sentence" refers to a collection of words that convey a complete idea. To completely grasp the significance of a sentence, it is essential to comprehend how words connect.

### 2.0 Word meaning

Taiwo (2022) defines a word as “a sound or combination of sounds or the tiniest element that can be expressed along with semantic or pragmatic content”.

Utilizing sentences allows us to articulate and convey complex ideas, while language serves as a medium for sharing and exchanging thoughts. Both of these aspects play a crucial role in contributing to truth-conditional content, which is the relationship between sentences and the world that makes them true or false. It is widely recognized in the field of linguistics and the philosophy of language that the meaning of a term within a specific context can often diverge from its inherent meaning within the broader framework of a language system. This distinction highlights the dynamic and context-dependent nature of language use and interpretation.

### 3.0 Lexical Semantics

Lexical semantics is a field within linguistics that investigates how individual words are understood and represented (Cruse, 2000). It's important to note that a single word can possess various meanings, complicating language analysis (Pustejovsky, 1995). Consequently, a deep comprehension of lexical semantic terminology is vital for effective and thorough linguistic analysis (Lyons, 1977). In the following sections, we will examine key terms in lexical semantics to highlight their importance in linguistic studies.

### 3.1 Polysemy

This linguistic phenomenon pertains to a word or phrase with several related meanings. It is important to distinguish this concept from homonymy, which refers to words with the same spelling or pronunciation but entirely different meanings (Lyons, 1995; Cruse, 2000; Saeed, 2016). In polysemy instances, a word's diverse meanings exhibit systematic organization, indicating a coherent relationship in their interpretations. For example, let us consider the following sentences:

- (a) The **bank** is located near the school.
- (b) It is good to **bank** with an established **bank** in Nigeria.

This concept, which we can label as "the bank," denotes something akin to "the physical structure owned by a financial institution." It seems that these dual meanings (referring to an institution and the physical structure associated with it) exist for many other terms as well (such as school, university, hospital, etc.). Therefore, there is a consistent link between the meanings that we can illustrate as building - organization. This suggests that there is an inherent connection between the physical infrastructure and the institution itself.

**Examples are given in Yoruba (Oyo dialect) language below:**

- (i) Apeja náà fẹ̀ràn láti máa lo **ìjẹ** fún ìwò rẹ.  
3sg the love to prog use bait for hook his.  
The fisherman enjoys utilizing bait for his hook.
- (ii) Adé ti di **ìjẹ** fún Lọlá.  
3sg has become bait for 3sg  
Ade has become a victim to Lola.

The sentence (i) above, **ìjẹ (bait)** is considered to be crucial to the angling technique of the fisherman. While **ìjẹ** in sentence (ii) denotes **Ade** as a victim of deceit. The two ideas are

meaningfully connected because **bait** is utilized as a means to mislead fish, thus, the second statement similarly illustrates a perspective of deceit.

### 3.2 Metonymy

This category of polysemy is commonly referred to as metonymy. Specifically, metonymy involves the use of one characteristic or attribute of a concept or entity to represent other characteristics associated with that entity or the entity as a whole. For instance, when we refer to "the White House" to denote the U.S. President's administration, we are using a metonymic expression. Metonymy is often contrasted with metaphor, as it relies on a relationship of contiguity rather than similarity. This nuanced distinction highlights how metonymy captures the essence of a concept through its attributes rather than an imaginative comparison (Lakoff & Johnson, 1980). In literary and rhetorical contexts, metonymy can serve to create vivid imagery or provoke emotional responses from an audience. For instance, saying "the crown" to refer to royal authority exemplifies this stylistic device (Culler, 2001).

The significance of metonymy extends into everyday language, where it allows for more concise and impactful expressions. The phrase "Hollywood" often signifies the American film industry, showcasing how metonymy enables communicators to convey complex ideas efficiently (Ferguson, 2007). Therefore, we are engaging in metonymy when we utilize the expression *the White House* to denote the governing body whose office is situated in the White House. Additional prevalent instances of metonymy encompass the connection between the subsequent pairings of senses:

- (i) Author (*Wole Soyinka* wrote *The Lion and the Jewel*.)
- (ii) Works of an Author (*I love Wole Soyinka*.)
- (iii) Livestock (*The rabbit* was domesticated in Asia)
- (iii) Meat (*The rabbit* was overcooked).

**Examples are provided in the Yoruba (Oyo dialect) language below:**

- (i) Igi (*Ògèdè ní ewé tó dára fún ẹran ní jìjẹ*)  
Tree (**Banana** has leaf that good for goat in eating)  
Banana leaves are nutritious for the feeding of goats.
- (ii) Ẹso (*Ògèdè dára ní bíbójẹ*)  
Fruit (**Banana** good in eating)  
Banana is good for human consumption.

Sentence (i) above indicates that the banana possesses a plant that features foliage, which can be beneficial for animal consumption. While sentence (ii) depicts banana as a type of fruit that can be so sweet for human consumption.

### 3.3 Homophones

We generally reserve the word **homonym** for two senses that exhibit both a pronunciation and a spelling. A particular instance of multiple meanings that leads to complications, particularly for voice recognition and spelling correction is **homophones**.

**Homophones**, therefore, are terms that sound alike but have different spellings, such as:

*Wood/would*

*To/two/*

*Break/brake*

Yoruba is a tonal language, instances of homophones are not particularly prominent in the Yoruba language. To this effect, words of the same spelling have different pronunciations and meanings through the attachment to totally different tone marks.

**Examples are provided in the Yoruba (Oyo dialect) language below:**

Igbá (calabash)

Ìgbá (garden egg)

Igba (two hundred)

Ìgbà (season)

### 3.4 Homograph

These are distinct senses of words that have identical spelling but distinct pronunciations.

Sometimes, these terms with identical spelling typically belong to distinct word classes.

Below are a few examples from the English and Yoruba languages respectively.

- (i) The **project** is costly and effective. (Noun)
- (ii) They **project** having a brighter future. (Verb)
- (iii) It took me a **minute** before I finished the task. (Noun)
- (iv) The situation was so **minute** beyond my thought. (Adjective)

**Examples are provided in the Yoruba (Oyo dialect) language below:**

- (i) **Jíjẹ** nìkan nì ó mò. (Noun/òrò-orúkọ)  
**Eating** only is RP know  
 He/she knows nothing except to eat.
- (ii) Ògèdè **jíjẹ** ló gbé wá. (Adjective/òrò-àpéjúwe)  
 Banana **eating** is carry come  
 He/she brought an edible banana.

The examples above give an obvious picture of homographs, the examples in English, a **project** in sentences (i) and (ii), and **minute** in sentences (iii) and (iv) have identical spelling yet possess different word classes and are pronounced differently. Likewise, the Yoruba (Oyo dialect) language sentences given as examples can also be used as a vivid example for homograph, **jíjẹ (eating)** has the same pronunciation in the two sentences, but different word classes, though the word has the same pronunciation.

### 3.4 Homonyms

Crystal (1997) defines homonymy as “a term used in semantic analysis to refer to lexical items which have the same form but different in meaning”.

The senses of a word might not have any particular relation between them; it may be almost coincidental that they share an orthographic form. Saeed (2009) categorises homonyms into four types, namely: (i) Lexemes which belong to the same syntactic category. (ii) Lexemes of the same syntactic category, but with different spelling. (iii) Lexemes which belong to different categories, but with the same spelling. (iv) Lexemes which belong to different categories, and with different spelling.

Let us consider these sentences as our examples:

(a) I can go to the **bank** anytime. (*financial institution*)

(b) Ola breaks the **bank**. (*a term in gambling*)

The word **bank** as used in the sentences above seems relatively unrelated. In such cases, we say that the two senses are **homonyms**.

#### Some examples in Yoruba (Oyo dialect) language:

(a) Ọláídé **pa** aṣọ rẹ láró.  
3sg **kill** cloth his dye  
Olaide **dyes** his clothes.

(b) Bàbá Olú **pa** iyá àti ọmọ láyò.  
3sg 3sg **kill** mother and child game  
Baba Olu **wins** a mother and her child in a game contest.

(c) Bísí **pa** ilẹ̀ mọ  
3sg **kill** floor neat  
Bisi puts the room in **order**.

The sentences above show how the word **pa** is being used in three different contexts that are not related to one another. This **pa** means three things in the above contexts: dye, win, and order respectively.

#### 4.0 The Relations between Senses

This section explores some of the relations that hold among word senses, focusing on a few that have received significant computational investigation, namely: **synonymy**, **antonymy**, and **hypernymy**, as well as a brief mention of other relations like **meronymy**.

#### 4.1 Synonymy and Antonymy

When the meaning of two senses of two different words are identical or nearly identical, we say the two senses are **synonymous**. Synonyms include such pairs as:

- (a) Ada has a **couch** in her living room.
- (b) I saw a beautiful **sofa** in his apartment when I went to visit him.
- (c) The boy can **vomit** if he eats.
- (d) The girl can **throw up** if she drinks water.

In the sentences above, sentences a and b have synonymous words (couch and sofa), while sentences c and d also have synonymous words (vomit and throw up).

#### Some other examples in Yoruba (Oyo dialect) language:

Àpótí/Ìjókòó (Stool)  
 Olómọge/Sísí (Lady)  
 Ìpẹ̀ẹ̀rẹ̀/Èwe, abbl. (Children, etc.)

A more formal definition of synonymy, specifically between words rather than senses, is that two words are deemed synonymous if they can be interchanged in any sentence without altering the truth conditions of the sentence. This implies that the two words possess the same propositional meaning. While certain word pairs such as "car/vehicle" or "start/inaugurate" allow for truth-preserving substitutions, the words are not identical in meaning. In reality, perhaps no two words share identical meanings. If we were to define synonymy as having identical meanings and connotations in all contexts, there would likely be no absolute synonyms. Apart from propositional meaning, there are numerous other facets of meaning that differentiate these words and are equally important. For instance, "inaugurate" is utilized in academic contexts and would be unsuitable in a dancing guide; this distinction in genre is an integral part of the word's meaning. In practical terms, the term "synonym" is often used to describe an approximate or rough synonymy relationship.

In this research, instead of characterizing two words as synonyms, we will define synonymy (and other relations such as hyponymy and meronymy) as a relationship between senses rather than words. We can appreciate the utility of this by examining the words "big" and "large." These words may appear to be synonymous in the given sentences, as we could substitute "big" with "large" and retain the same meaning.

- (a) How **big** is that plane?
- (b) Would I be flying on a **large** or small plane?

Note the following sentences below, where we cannot substitute *large* for *big*:

- (i) Mr Ojo is Ade's big brother.
- (ii) \*Mr Ojo is Ade's large brother.

That is because the word *big* has a sense that means being older, or grown up, while *large* lacks this sense. Thus, it will be convenient to say that some senses of *big* and *large* are (nearly) synonymous while other ones are not.

**Examples are given in Yoruba (Oyo dialect) language below:**

- (i) Igi náà **ga** fíofío.  
Tree that tall adv.  
The tree is so high.

- (ii) Igi náà **gùn** gbàn-àn-nà.  
Tree that long adv.  
The tree is extremely long.

- (iii) Baba náà **ga** fiofio  
Father that tall adv.  
The man is so tall.

- (iv) \*Baba náà **gùn** gbàn-àn-nà.  
Father that long adv.  
\*The man is so long.

In the sentences above, the first two sentences used **ga (tall)** and **gùn (long)** synonymously, but the last two sentences could not use the same words: **ga (tall)** and **gùn (long)** synonymously grammatically. This shows that two words cannot be used interchangeably in all contexts.

## 4.2 Antonymy

Synonyms are words that have the same or similar meanings. For example, "happy" and "joyful" are synonyms because they both convey a similar meaning. On the other hand,



antonyms are words that have opposite meanings. For instance, "hot" and "cold" are antonyms because they represent opposing concepts. Such as the following:

*Long/short*  
*Big/little*  
*Fast/slow*  
*Cold/hot*  
*Dark/light*  
*Rise/fall*  
*Up/down*

**Some other examples in Yoruba (Oyo dialect) language:**

sùn/jí (sleep/wake)  
òlẹ/alágbára (indolent/diligent)  
ìbànújẹ/ìdùnnú (sorrow/happiness)

It is a complex task to provide a formal definition of antonymy. Two senses can be considered antonyms if they represent a binary opposition or are situated at opposite ends of a scale. For example, words like long/short, fast/slow, or big/little are at opposite ends of the length or size scale, representing antonyms. Another category of antonyms is a reversing aspect, which describes opposing directions of change or movement. Such as:

*Rise/fall*  
*Up/down, etc.*

**Some other examples in Yoruba (Oyo dialect) language:**

Gòkè/jábọ́ (climb/fall)  
Òkè/ilẹ̀ (up/down)  
Òtún/òsì (right/left)

"Antonyms are words that have opposite meanings, but they can also have similar meanings in certain contexts. The main difference between antonyms and synonyms is their position on a measure or their direction. This makes it challenging to automatically differentiate between synonyms and antonyms."

### 4.3 Hyponymy

Hyponymy, as defined by Taiwo (2022), is a semantic relationship that categorizes words based on their inclusiveness within a class. This relationship implies that a hyponym represents a more specific subset of a broader term. A word is recognized as a hyponym of another when it conveys a more precise meaning and denotes a particular subclass within the general category (Cruse, 2011; Lyons, 1995; Murphy, 2003).

For example, a car is a hyponym of a vehicle, a dog is a hyponym of an animal, and a mango is a hyponym of a fruit. Conversely, we say that a vehicle is a hypernym of a car, and an animal is a hypernym of a dog. The term "hyponym" is used to describe words that are more specific and "hypernym" is used to describe more general words. Unfortunately, the two words (hypernym and hyponym) are very similar and hence easily confused; for this reason, the word superordinate is often used instead of hypernym.

<i>superordinate</i>	Vehicle	Fruit	Furniture	Animal
<i>Hyponym</i>	Car	Mango	Chair	Dog

#### Some other examples in Yoruba (Oyo dialect) language:

<i>superordinate</i>	Ọkò/vehicle	Èso/fruit	Pákó/furniture	Èranko/animal
<i>Hyponym</i>	Ayókélẹ́/car	Mángòrò/mango	Àga/chair	Ajá/dog

We can define **hypernymy** more formally by saying that the class denoted by superordinate extensionally includes the class denoted by the hyponym. Thus, the class of animals includes as members all dogs, and the class of moving actions includes all walking actions. So far, we have seen the relations of synonymy, antonymy, and hyponymy. Another very common relation is **meronymy**, the **part-whole** relation.

- (a) A *leg* is part of a *chair*.
- (b) A *wheel* is part of a *car*.

In the expressions a and b above, the *leg* is part of a chair, while the *wheel* is part of a car, these show the part of a whole.

#### Some other examples in Yoruba (Oyo dialect) language:

- (i) *Ojú jẹ ọkan lára èyà ara ènìyàn.*  
Eye is one of the body person  
The *eye* is one of the parts of the human body.
- (ii) *Fèrèsé jẹ ọkan lára ẹwà ilé.*  
Window is one among beauty house  
A *window* is one of the factors that beautifies the house.

In the sentences above, an *eye* is part of the human body, while a *window* is one of the equipment used in building a befitting house.

### **5.0 Conclusion**

The relationships we have been discussing are binary, meaning they involve two semantic field senses. A semantic field is an attempt to capture a more integrated or holistic relationship among entire sets of words from a single domain. In this article, we have explored various semantic entities. We defined a word as a sound or combination of sounds, or the smallest element that can be uttered in isolation with semantic or pragmatic content. We then discussed various word meaning relationships, such as synonymy (sameness of meaning), antonymy (oppositeness of meaning), polysemy (a word having different related meanings), homonymy (a word having more than one entirely different meaning), and hyponymy (a relation of inclusion).

**Conflict of interest:** The author declares that there is no conflict of interest.

**Acknowledgment :** The authors extend their appreciation to the Deanship of Scientific Research at King Faisal University for funding this research work through the project number KFU251118

### References

- Abimbola, W. (2016). *Yoruba Religion and Culture: An Overview*. Africa World Press.
- Adetugbo, A. (1990). *The Yoruba Language: Syntax and Semantics*. University of Ibadan Press.
- Akinyemi, A. (2019). *Yoruba Demography and Cultural Identity: A Study of the Yoruba Diaspora*. Lagos University Press.
- Bloomfield Leonard (1984): *Language*: Chicago, University of Chicago Press.
- Cruse, D. A. (2000). *Meaning in Language: An Introduction to Semantics and Pragmatics*. Oxford University Press.
- Cruse, D. A. (2011). *Meaning in Language: An Introduction to Semantics and Pragmatics*. Oxford University Press.
- Crystal D. (1987). *The Cambridge Encyclopedia of Language*. London: CUP.
- Culler, J. (2001). *Literary Theory: A Very Short Introduction*. Oxford University Press.
- Ferguson, M. (2007). *Language and Communication in the Globalization of the Film Industry*. Routledge.
- Johnson-Laird, P. N. (1983). *Mental Models*. Harvard University Press, Cambridge, MA.
- Kola A. (2005), *Yoruba Culture: A Philosophical Account*. Iroko Academic Publisher.
- Lakoff, G., & Johnson, M. (1980). *Metaphors We Live By*. University of Chicago Press.
- Lyons, J. (1977). *Semantics*. Cambridge University Press.
- Lyons, J. (1995). *Linguistic Semantics: An Introduction*. Cambridge University Press.
- Lyons, J. (1995). *Linguistic Semantics: An Introduction*. Cambridge University Press.
- Murphy, M. L. (2003). *Semantic Relations and the Lexicon: Antonymy, Synonymy, and Hyponymy*. Cambridge University Press.
- Pustejovsky, J. (1995). *The Generative Lexicon*. MIT Press.
- Saeed J.I. (2003) *Semantics*. Second Edition. Oxford: Blackwell Publishing Ltd, UK.
- Saeed J.I. (2009). *Semantics*. Third Edition. Malden MA: Wiley-Blackwell Publishing Ltd.
- Saeed, A. (2016). *Semantics*. Wiley.
- Taiwo O., Gift C. and Nkechi N. (2022). *Introductory Semantics and Pragmatics for Nigerian Students*. TETFund Supported Publication.