

**COGNITIVE DOMAINS OF THE SENSE RELATION OF
SELECTED IGBO VERBS**

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SELECTED IGBO VERBS

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BY

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TITLE PAGE

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VERBS**

APPROVAL PAGE

This thesis has been read and approved for meeting the requirements for the award of the Degree of Doctor of Philosophy (Ph.D) in the Department of Linguistics, Igbo and Other Nigerian Languages, University of Nigeria, Nsukka

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DEDICATION

I dedicate this thesis to:

The family of Mr. and Mrs. Emmanuel Chukwuma Okeke, who laboured in different ways to lay my academic foundation and to my loving wife: Ork. Tochukwu G. Okeke, who provided the conducive atmosphere for the timely completion of this work. Ebekue will forever love you.

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ABSTRACT

The problem of the number of senses in an Igbo verb has remained topical in Igbo syntax and semantics. The structuralist and generative analysis of the Igbo verbs that dominated previous studies neglected the study of individual lexical meanings in favour of the compositional semantic structure of larger phrasal and sentential units. Furthermore, polysemy and sense of polysemous words were insufficiently treated in formal semantics. Therefore, it could be said that the sense relations and cognitive domains of the Igbo verbs in relation to the structures formed in context were outside the focus of previous works. The main aim of this research work, therefore, is to explore the cognitive domains of the sense relation of two Igbo perception verbs *hú* and *nú* in contexts using the polysemy analysis of lexical semantics. The study adopts the descriptive research method. The work used appraisal instrument to examine two Igbo literary works: *Ihe Aghasaa*, the Igbo translation of the novel *Things Fall Apart*, written by Chinua Achebe and *Juọ Obinna*, written by Tony Ubesie, by identifying the semantic vagaries of the verbs *hú* and *nú* in the Igbo literary works. The method of data collection is through concordance using the e-logon software. The result from the data analysis shows that the verbs are polysemous with six and four meanings respectively as single morphemes and seven and four senses as inherent complement verbs (ICV). Furthermore, translation has effect on the lexical uses of *hú* and *nú* in the novels. Finally, the result got in relation to image schemata of *hú* and *nú* shows that they do not only encode the acquisition of sense data through the eyes, ears, nose and tongue; rather, through radial categorization, they embody semantic extension from physical perception to mental cognition.

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ABBREVIATIONS USED IN THE WORK

Adverb	-	adv
Auxiliary	-	aux
Complement	-	comp
Conjugation	-	conj
Demonstrative	-	Dem
Diminutive	-	Dim
IHE	-	<i>Ihe aghasaa</i>
Imperative	-	imper
Impersonal /indefinite pronoun	-	imper.pro/indef. Pro
JUO	-	<i>Juọ Obinna</i>
Landmark	-	LM
Modern English	-	ME
Negation	-	neg
No contact	-	NC
Old English	-	OE
Participle	-	part
Past tense	-	rV ₁
Perfective	-	perf
Plural	-	pl
Preposition	-	prep
Pronoun	-	pro
Standard Igbo	-	SI

Stative verb	-	rV ₂ and present tense
Trajectory	-	TR

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CHAPTER ONE

INTRODUCTION

1.1 Background to the study

The question of how many senses an Igbo verb possesses has remained a nagging issue in Igbo syntax and semantics. It has remained a topical issue in the study of Igbo verbs. In pursuance of the answer to the above question, Emenanjo (1975a), (1975b), (1978) and (2005); Nwachukwu (1983), (1984); Uwalaka (1983); Ubahakwe (1976), have argued for or against the transitivity, complementation, ergativity or otherwise of the Igbo verbs. While Nwachukwu (1983; 1984) and Ubahakwe (1983) see Igbo verbs as inherently transitive, Emenanjo (2005:479) regards transitivity as a “surface structure feature which does not help to classify Igbo verbs according to the complement they select.” On his own part, Nwachukwu, sees “the Igbo verb root as empty,” following the syntactic approach, (Nwachukwu 1987:83). But Emenanjo says that “... rather than transitivity, ... complementation is itself the category that allows the correct generalisation to be framed,” (2005: 479). The assertion by Emenanjo (1975b; 1986; 2005) is that the Igbo verb is made up of two mutually obligatory and complementary elements; which are the verbs themselves and, the complement of the bound cognate noun (BCN).

Furthermore, in the twenty-first century, Uchechukwu (2011) adopts the cognitive approach using the image schema analysis of the Igbo verb. He argues that the Igbo verb root is not empty, neither does it become practically meaningless as a result of an increase in number of complexes formed with it, (contrary to Nwachukwu 1987); instead, through an image schema, one could establish a cognitive motivation of its semantics in

the form of its root schema. Furthermore, Okeke (2012) addresses the above issue using the theory of thematic role of the functional grammar, where transitivity and verb meaning are considered to be a continuum (because they take a more semantic approach) rather than a binary category according to traditional grammar, since it takes into account the degree to which an action affects its object and also the type of expression involved. Using the Igbo psychological verbs, Okeke (2012) shows that transitivity cannot wholly take care of the verbs and the number of arguments they can possess to make a grammatical sentence, hence, the introduction of the theta roles in showing Igbo verb meanings.

The above overview shows that at present, there are three major schools of thought in relation to Igbo verbs and their meaning properties. Ubahakwe (1983) and Nwachukwu (1983; 1984) are the major adherents of the argument that transitivity is an essential category in the verb phrase. Emenanjo (2005:495) is of the opinion that transitivity is a “relic of pre-formal linguistics which has resisted formalisation,” hence, his support for complementation. On his own part, Uchechukwu (2004, 2005 & 2011) supports the application of the cognitive linguistics approach which shows the Igbo verb root to have meanings that arise from specific image schemata and their metaphoric and metonymic extensions.

The above investigations by various scholars are all based in the area of studies in Igbo syntax. No wonder Emenanjo (1991:129) says, “...it is a fact of history of Igbo linguistics that more has been written on the area of syntax than on any other aspect of the language.” Thus, according to Uchechukwu (2005), some other aspects including both the lexical semantics and lexicon have hitherto received little attention. It is worthy

of note, to state that the first major treatment of the Igbo lexicon as a linguistic problem was Lord (1975). The author identifies the semantic composition of the (verb + verb) compound and (verb + suffix) verbs in forming what she identifies as ‘action - result’ meaning. The insight is that in any such component, the first verb codes the initial ‘action/event’ while the second component codes the ‘result’. This was a major breakthrough which Lord (1975) achieved. In doing that, Lord carried out her investigation from three perspectives. The first was in terms of a transformational derivation of the verb + verb and the verb + suffix compounds. Lord concluded that “derivation by transformation rule was not a viable option,” (Lord 1975:35). The second perspective was to generate the Igbo verb compounds by phrase structure rules. She also dumped this as well, for the simple reason that these compounds rather involve considerations of word formation rather than constituent structure. Finally, the third perspective was her solution to have all compounds as lists in the lexicon and to account for the speakers productivity capacity by means of a combinatory rule that would have to be stated in the grammar. But Lord still sees the ‘action result’ relationship as part of the meaning of the compound and not just an inference that is based on the speaker’s experience. In her conclusion, Lord says that the meaning component also has to form part of the combinatory rule. However, she did not explore this aspect further.

Later works on the Igbo verb within the framework of generative theory (see Uchechukwu 2005) did not go into lexical semantics as this was not the issue they set out to address. Instead, their focus was on the phrase structure as a projection of the lexical properties of the verb, and on the syntactic theory of argument (Emenanjo 1984; Nwachukwu 1987; Manfredi 1991; Hale, Ihionu & Manfredi 1995 and Mbah 1999).

Another major treatment of the Igbo verbs that investigates their lexical semantics to an extent is Uwalaka's (1997) use of Fillmore's case grammar model. Through this approach, the author was able to form semantic groups of Igbo verbs and to also highlight some of their syntactic characteristics, like the subject-object switching of some experiential verbs. But, as her work was focused on a "semantico-syntactic analysis" of the Igbo-verb, the establishment of the syntactic correlations of the verbs' semantics was of paramount importance; their lexical semantics as such was not fully explored.

Later in the 1970's and early part of 1990's, a different treatment of the Igbo verb root was seen in Igbo lexicography, where the Igbo verb roots were presented as lists of lexical items. This approach was spear-headed by Williamson (1972), and later Igwe (1999) in their various English-Igbo dictionaries. The Igbo dictionaries, especially Williamson (1972), have developed a system of writing Igbo verbs with many English equivalents which naturally will lead to the conclusion that all Igbo verbs are polysemous. However, polysemy always involves contextualization, which is, delimiting the various possible meanings of a lexical item by the mere fact of choosing a context. In other words, usage limits polysemy. Nevertheless, it has not been explored how such semantic issue of polysemy of the Igbo verbs is handled in Igbo literary works. This particular issue is one of the things that motivated the desire to go into the nature of the polysemy of the Igbo verb, especially in translated Igbo literary works.

Therefore, it can be stated that previous works of scholars like Emenanjo (1975a), (1975b), (1978) & (2005); Nwachukwu (1983), (1984); Uwalaka (1983); Ubahakwe (1976), Igwe (1999); Williamson (1972); Ogwueleka (1987); Echerue (1998); Oweleke (2007); Uchechukwu (2005); (2011), etc, which are domiciled in the study of Igbo verb

or those that have something to do with Igbo verbs are context-independent because these works did not pin down their investigations to any natural language situation; rather, they hinged on the analysis of isolated sentence structures. Even Williamson's (1972) study that gives the impression of the Igbo verbs being polysemous is context independent. Their studies and analyses (which are presented in chapter two of this work) are purely de-contextualised.

From all the available literature in relation to the topic of study, it seems that no cognitive analysis of Igbo verbs, using the tool of polysemy has been carried out (on Igbo verbs) in translated works or Igbo literary text, which is purely context-bound. Furthermore, cognitive semantic works on Igbo verbs, for instance Uchechukwu (2005), (2011); Mbah & Edeoga (2012), using the image schema analysis of some Igbo verbs, do not adopt the polysemous approach, neither are they contextualized. Based on the above state of the art, therefore, we can say that the nature of the Igbo verb root, as well as its sense relations and cognitive domains in relation to the structures formed in context, were outside the focus of previous works. Therefore, this present study investigates the cognitive domains of the Igbo verbs from the lexical semantic approach using polysemy in some literary works.

The tone-marking patterns are retained as in the sources cited, and the non-tone-marked ones left the way the sources presented them. In our own examples, all the syllables are tone-marked.

1.2 Statement of the problem

The study of verbs in the Igbo syntax and semantics has adopted a lot of approaches in its investigations. The structuralist and generative analysis of verbs that

dominated previous studies neglected the study of individual lexical meaning in favour of the compositional-semantic structure of larger phrasal and sentential units. Again, polysemy and sense of polysemous words were insufficiently treated in formal semantics. Other semantic theories like the referential and mentalistic theories were rejected by cognitive semantists because of their vagueness and lack of empiricism in accounting for word meaning. Later, componential analysis (CA) received prominent attention. The shortcomings of componential analysis in handling certain word classes (especially the verbs) according to Ndimele (1999:28) is that it “erroneously assumes that the semantic features of all lexical items can be elegantly expressed using the binary approach. Whereas the binary analysis can work for certain lexical items whose semantic features are neatly organised, it fails in other cases.” For instance, the binary analysis cannot handle the semantic features of verbs and other word classes like adverbs, prepositions, etc. Furthermore, “CA does not have a way of accounting for the fuzzy edges inherent in the meaning of lexical items”, (Ndimele 1999: 27).

Consequently, generative linguistic analysis that later dominated the study of verb meaning insulates itself from empirical findings. But meaning and communicative functions are primary in linguistic study according to Lakoff (1987), and grammars should attempt to explain as much as possible the parameters of form on the basis of parameters of meaning and communicative function. But generative grammar and other semantic approaches (as we pointed above) failed to do this. This is because generative grammar and these other semantic approaches are defined so as to be independent of general cognitive capabilities in cognitive semantics, and this is at odds with the assumption of formal linguistics; thereby causing a fracture within the generative

paradigm. But one can readily accept at a pre-theoretical level that words have meaning, and that these meanings are implicated, in some way or the other, in the meaning of the complex expressions in which the words occur. Matters even become more complex, however, when we inquire into the nature of verb meaning. The question here is, “Is it necessary to assume that each verb corresponds with a sense?” Can one verb correspond to a combination of two verbs which clearly do not constitute a compound notion; if so, should a polysemous explanation be postulated? Is it necessary to assume different polysemous senses if a verb functions in different contexts? To compound issues, linguistic theories even differ in their views on what exactly constitutes verb meaning, and also on what verbs contribute to the semantics of utterances. According Janssen (1995), several modern linguistic approaches to the semantics of lexical items distinguish three factors determining the meaning of verb.

- i. The innate cognitive or linguistic faculty
- ii. Conventionally established linguistic information, and
- iii. Knowledge of the world.

In cognitive semantics, however, the above three factors are seen as contributing to the understanding of verbs in an integrative way, so that this approach can be holistic. Not only are language and cognition seen as unitary, but meanings and concepts as well. The meaning of a verb is assumed to consist of a variety of interrelated senses. Both the meaning and senses of a verb are assumed to be conventionally established. The interrelated senses form a network which can be related to other networks by mental schemas (e.g Langacker 1988, 1991a). These schemata embody the generalisations

extracted from an array of specific senses. The network of senses and mental schemata are conceived as representing categorised knowledge of the world.

Based on the shortcomings of the generative approach to the meanings and senses of verbs, and limitations of previous semantic approaches in accounting for verb meaning, and the de-contextualised nature of Igbo verbs in lexicographic studies, the problem now lies on how to discover the senses of a verb, and also to establish that they are conventionally established. Again, the problem still remains how the hearer can know which of the verb's senses applies that allows the hearer to find or imagine the actual entity or state of affairs referred to. In other words, what is it that informs the selection of senses? Also, the question of whether the basis for the hearer's decision is found in the hearer's knowledge of the real-world relationship in context is still unanswered; that is, the assumption according to Allwood (1980) that "verb meanings are based on experiential practices (in which language users acquire unconscious knowledge of which word might fit best in a given situation and which words would not)." The above nagging issues (which are summed up in the number of senses in a word (in this context, an Igbo verb in context)), therefore, forms the problem of the this study.

1.3 Purpose of study

The main aim of this research work is to carry out a lexical semantic analysis of some Igbo perceptive verb roots and their cognitive domains. It is also concerned with the senses of the selected verbs from the lexical-semantic approach on the one hand and context based-linguistics on the other hand. This is because, while many recent cognitive-linguistic approaches to verb polysemy have concerned themselves with polysemous words as network-like categories with many interrelated senses (with varying degrees of

commitment to mental representations), the (content) corpus-linguistic approach has remained rather agnostic as to how different verb senses are related; and have rather focused on distributional characteristics of different verb senses in different contexts.

Furthermore, the goal of polysemy approach is to explain how a single word (or verb) can be used in a wide variety of situations while generally each particular usage of that word can be easily understood. The study wants to ascertain how and the extent to which the structuralist, generative, semantic and lexicographic analysis of Igbo verbs by previous scholars can be better addressed using a polysemy paradigm of cognitive semantics. The study seeks to find out whether a polysemy approach of cognitive semantics offers a type of explanation that is more insightful than the structuralist, generative, other semantic and lexicographic approaches. Specifically, the objectives of the study are to:

1. identify the number of senses the Igbo perception verb roots *-hú* (see) and *-nú* (hear) have in context using the polysemy approach of cognitive semantics
2. ascertain whether there are any effects of translation on the lexical semantics of *-hú* (see) and *-nú* (hear) in one of the novels used
3. show the image schemata motivations of the Igbo verbs *-hú* (see) and *-nú* (hear) and their sense relations in different cognitive domains.

Again *nú*, which is the perceptive verb of *hearing* in Igbo, cuts across other perceptions like smell, taste and sound. In as much as *sì*, *tó*, and *dà* are the perceptive verbs for smell, taste and sound respectively, they cannot be used without *nú*. This analysis is also interested in knowing why this is so.

1.4 Research questions

For the objectives of the study to be actualised, the following research questions are formulated to guide the study:

1. How many senses do the Igbo verb roots *-hú* (see) and *-nú* (hear) have in the context of *Ihe Aghasaa* and *Juọ Obinna*, using the polysemy approach of cognitive semantics?
2. To what extent does translation affect the lexical semantics of *-hú* (see) and *-nú* (hear) in one of the texts under investigation?
3. What are the image schemata of the senses of the Igbo verbs *-hú* and *-nú* and their sense relations in different cognitive domains?

1.5 Scope of study

A research work of this kind cannot exhaustively cover all aspects of sense relations. It cannot also exhaust all the verb roots in the language under study. Consequently, the researcher has restricted this research work to the polysemy analysis of the Igbo perception verb roots *-hú* (see) and *-nú* (hear) as they manifest in the Igbo novels *Ihe Aghasaa*, by Izuu Nwankwo, which is the Igbo translation of the English novel *Things Fall Apart*, written by Chinua Achebe and *Juọ Obinna*, written by Tony Ubesie. The choice of polysemy over other sense relations like homonymy, hyponymy, etc, is because of the diverging rather than the converging nature of polysemy. Also, ‘*hú*’ and ‘*nú*’ are chosen because they are perception verbs. This class of Igbo verbs is more common and they feature more in everyday usage as far as perception is concerned. For instance *nú*, which is the perception verb of *hearing* in Igbo, cuts across other perceptions like smell, taste and sound as shall be seen later in this study.

1.6 Limitations of study

The researcher was constrained by some factors in the course of the study. One of the constraints encountered in the course of this study had to do with the controversial nature of the topic under investigation. As we stated in the background to the study, many scholars have approached the study of Igbo verbs from various perspectives leading to some nagging issues which the researcher has to contend with in order to chart a proper course for the present study. The additional fact of lexical semantics being an almost non-existent area of research in Igbo linguistics did not help matters either. But with the help of various literature in relation to polysemy in other African and European languages, the researcher had a strong base and was able chart a course for the present study.

1.7 Significance of study

The analysis of the Igbo verbs has been given a lot of attention by various scholars using different approaches and theories. However, most works carried out on Igbo verbs by foreign linguists and Nigerians alike often adopted the traditional, lexicographic and generative approaches. None of them has approached the study of the Igbo verb from the perspective of cognitive lexical semantics, using polysemy in literary texts. Therefore, the study fills this yawning academic gap and also contributes in providing a clearer picture of the nature of some Igbo perceptive verbs. It also answers the question of how many senses the Igbo verb roots *-hú* (see) and *-nú* (hear) have, based on the polysemous senses of the verb roots in context. This is a nice contribution to the field of Igbo lexical semantics. In addition, the answers to the questions concerning the transitivity, complementation or otherwise of Igbo verb roots is provided, which helps in

the proper classification of the Igbo verb and answers the question of whether it is the verb that selects the complement or the other way round.

Furthermore, since Igbo is verb centred, the study also helps scholars in the Igbo language study in classifying the Igbo perception verbs better and in acknowledging the pedagogical needs of lexicographers and foreign needs of the learners of Igbo as a second-language (especially in Nigerian polytechnics and colleges of education). This is because they will see and understand the Igbo perception verbs better through their contextual cognitive manifestations; which according to functional grammar and communicative method of language teaching are the best approaches and methods of language teaching and learning.

The study also helps to rediscover the significance of meaning as the basis of structure, which according to Geeraets (1994) currently stands out as the most productive approach in lexical semantic research. Again, this research addresses the problem of objectivity in language study, aimed at integrating contextual, experimental and cross-disciplinary insights into the study of verb meaning. Also, it develops the overall history of Igbo lexical semantics which depicts a cyclic theoretical movement of decontextualisation and recontextualisation as well as a linear movement of descriptive expansion. The study also contributes to quantitative insight into semasiology because it focuses on prototype effects and on differences of salience and structural weight within an item or a meaning. In addition, the study, as shall be observed in the conclusion, ascertains that translation affects the senses of verbs, especially in the target language. This information will be a nice working tool for translators in Igbo studies. Finally, it

hopes to open the doors to a quantitative twist to onomasiological work in focusing on entrenchment and on the differences in cognitive salience between categories.

CHAPTER TWO

LITERATURE REVIEW

2.1 Semantics of Igbo verbs

The study of Igbo verbs is as old as the study of the language (Igbo) itself. Right from the time the Christian Missionary Society (CMS) developed interest in the study of the Igbo language till date, different approaches have been adopted in the study of the Igbo verb. In line with this view, Uchechukwu (2011) posits that the learners of the Igbo language are always faced with the peculiar characteristics of the Igbo verb which could be described as structural or semantic. Depending on the scholar's perspective in the study of Igbo verbs, different findings and conclusions have been arrived at regarding the syntax and semantics of Igbo verbs. From the literature of previous studies on Igbo verbs,

(as we shall later see in this section) some Igbo verbs are simple in form while others are complex. The structural composition of Igbo verbs, to a great extent, determines their meaning. This section of the research work, therefore, x-rays the different approaches by different scholars in the study of Igbo verbs, both in contextualized and de-contextualised situations.

2.1.1 Earlier approaches to the study of Igbo verb

The syntactic and semantic issues about the Igbo verb have attracted the interest of various scholars in earlier times, especially the non-native speakers, (Schon 1861; Ward 1936; Williamson 1972). Based on its complexity, Igbo verbs, according to various scholars like Ward (1936), Emenanjo(1975), Nwachukwu (1983), etc, are generally divided into simple and compound/complex verbs. The simple verb, according to Nwachukwu (1983), is a verb that has the consonant + vowel (CV) structure. The complex verb structure runs thus: verb + verb, verb + suffix; and verb + noun phrase or prepositional phrase. The verb + noun phrase or prepositional phrase has been called verbal complex (Emenanjo 1975) or inherent complement verb (ICV) (Nwachukwu 1985). Consequently, Mbah (2005) defines a compound verb as a type of verb which has a minimum of two verbs that may act as independent or is not subject to vowel harmony rule, and cannot alter its original form to obey the vowel harmony rule.

In his study of Igbo verbs, Schon (1861) sees the Igbo verb from the above two major classes (i.e, simple and compound/complex structures). But Schon quickly adds that the problem is that in compound verbs, the verb can have a somewhat different meaning from its application as a simple verb. Also, the relationship between the verb + verb compound and the verb + suffix structure (complex) is that the construction is

usually seen as one action, which according to Lord (1975), is an internal action – result or action – goal meaning. By this, Lord means that the first verb expresses the action while the second verb/suffix expresses the result or goal of the action.

However, when it comes to inherent complement constructions, the meaning difference between the simple verb and ICV is even wider. Based on this great divergence in the meaning of Inherent Complement Constructions (IC constructions), SchoŶn (1861) was the first to raise the issue of semantic problems of the Igbo verb. SchoŶn had serious problems getting at the compositional meaning of constructions with ICV and as a result came to the conclusion that it “must be attributed to the lively and descriptive manner in which the native mind views and narrates actions,” (SchoŶn 1861:51). This is because he believed that Igbo verbs derive their meanings from the nominal or prepositional complement within the structure. SchoŶn’s conclusion was influenced by the traditional approach in the study of language, which Ward (1936:129) illustrates with the *-gba* (run) root verb.

Table 1: Ward’s verbal structures (Ward 1936:129) as categorised by Uchechukwu (2011)

Verb Type	Example
Simple verb	<i>-gba</i>
Compound Verbs	verb + verb:
	<i>-gba</i> + <i>la</i> ‘go home’ → <i>gba</i> <i>la</i> ‘run home’
	<i>-gba</i> + <i>ga</i> ‘go’ → <i>gbaga</i> ‘run go’ (run to)
	<i>-gba</i> + <i>laga</i> ‘???’ → <i>gbalaga</i> ‘run away’

Verb + suffix:

-gba + kq 'together' → -gba kq 'come together'

gba + go 'up(wards)' → -gba go 'go/climb up(wards)'

-gba + sa 'on/upon' → -gba sa 'scatter/spread on/upon'

Verbal Complex

-gba + qsq 'race' → -gba qsq 'run'

-gba + egbe 'gun' → -gba egbe 'shoot' (p. 7)

On the footnote of the table, Ward (1936:129) summarises the *-gba* verb root thus:

It is difficult to give the meaning of *-gba'* in all these compounds; it is often made specific by the second element (e.g. gbalaga, run away, gbakoro, climb (of yam about a stick) gbakq join, gbasas scatter etc.). A noun following *-gba'* may also give its exact meaning, e.g. gba egbe (shoot with gun), gba qsq (run a race), etc.

According to Ward, the whole structures are known as compounds. But a look at Table 1 shows that Ward actually presented all the basic morphological types of the Igbo verb. But the fact remains that the *-gba'* root verb does not have a single meaning (see Table 1 above). Suffice it to say that the structure of the Igbo verb is not complex to explain; rather, the semantics usually involves some form of variation that is not readily apparent; hence, Ward's conclusion that it is difficult to decipher the meaning of *-gba'* in the structures she presented in Table 1 above. Furthermore, her conclusion as Uchechukwu (2011) observes marks the beginning of the view that the semantics of the Igbo verb, whether simple or complex verb, is difficult to understand. As we shall observe in the next section of this work, her conclusion is almost the same as the conclusions of other linguists after her.

2.1.2 More recent approaches to the study of Igbo verbs

As we discussed in the previous section, the earlier approaches to the study of Igbo verbs provided the basis for subsequent studies. Based on Ward's approach (see Uchechukwu 2011), the different approaches to the study of the Igbo verb fall under three phyla: the structuralist approach, the case grammar approach and the lexicographic approach. But the present study has four approaches to the study of Igbo verbs with the fourth approach as the cognitive linguistic approach. These recent approaches to the study of Igbo verbs are dominated by three major theories: structuralism, generative grammar and cognitive linguistic approach.

The structuralist approach is seen in the studies carried out by Emenanjo (1975a), (1975b), (1978) and (2005); Ubahakwe (1976), (1979); Nwachukwu (1983) and (1987); Uwalaka (1983); Manfredi (1991); and Hale, Ihionu & Manfredi (1995). Emenanjo's (1978) analysis is not on a specific approach but rather eclectic in nature. Both traditional (earlier approaches) and structural approaches are used in Emenanjo's investigations. Also, he accepts the tentative nature of his findings (see Emenanjo 1978: xxi) which are capable of being upset by new evidence or by a better interpretation of evidence available. Furthermore, Emenanjo (1975a), (1984); Nwachukwu (1983), (1987), etc, carry out their own studies within the framework of structuralism. In one way or the other, they re-emphasised Ida Ward's findings and conclusions. Emenanjo (1975:165), for example, identifies the Igbo verbal complex structure as "the essential feature of the Igbo verbal system." Furthermore, he presents the Igbo verb root component of the verbal complex as lexically empty, (see Emenanjo 1984:29 & 2005:484). According to him, Igbo verbs are better classified on the basis of complementation rather than transitivity as opposed to the views of Ubahakwe (1976), Nwachukwu (1983) and Uwalaka (1983).

This is because the transitivity classification of Igbo verbs according to Emenanjo (2005:479) is a “surface structure feature which does not help us to classify Igbo verbs according to the complements they select.” For example, the same verb may be transitive in one context and intransitive in another. As in Emenanjo (2005)

1a. Okeke jere ije (transitive)

Okeke went for a walk

b. Okeke jere Kano (intransitive)

Okeke went to Kano

Rather than classify the Igbo verbs on the basis of transitivity, Emenanjo thinks that complementation is itself the category that allows the correct generalisation to be framed. Emenanjo posits that the semantic content of every Igbo verb describes a certain action, or state, which by its very nature implies the co-existence of a certain nominal phrase. By way of illustration, he sub-classifies Igbo verbs into the following: (see Emenanjo 2005:479 - 485)

i. General complement verbs (GCV)

These are Igbo verbs which according to Emenanjo take general noun complements.

Example:

2a. Iri erimeri ‘to eat edibles’

b. { } x a] xma] x ‘to drink drinkables’

Emenanjo further says that the application of classificatory noun root principle of Chafe (1970) to the GCV shows that in the deep structure, each Igbo GCV is used with one and only one general noun as complement.

ii. Inherent complement verbs

The concept of inherent complement verb is credited to Nwachukwu (1976). They are verbs the citation form of which includes a nominal element which may or may not be cognate with the verb. These verbs are usually followed by a free morpheme and in a few cases by a prepositional phrase. Example:

3. -gbá cluster

- [gba** ɔsɔ - ‘to run’
- egbe - ‘to fire a gun’
- mgba - ‘to engage in wrestling’

Emenanjo claims that the Igbo ICVs are lexically empty, dummies, but the noun has an identifiable and independent meaning. Example according to Emenanjo (2005):

4. [gba mgba – ‘to **X** a wrestle’

The **X** according to him shows the empty lexical entity since there is nothing the **X** is referring to. Again, Emenanjo claims also that in a few of the verbs, neither the verb nor its nominal complement has an identifiable and independent meaning synchronically.

Example:

5. ihi☉ nne☉ – ‘to be many’

Based on his observation, Emenanjo then concludes that in all ICVs, we have instances of fixed pairing of verbs with their complements, or idioms which explains why in the deep and surface structures, the complement is obligatory.

iii. Bound complement verbs (BCVs)

They are the subset of Igbo verbs that are often used with bound verb complements without the nuances of emphasis which is inherent in BCVs; in other words, they do not admit any nominal modifier according to Emenanjo (2005). Example:

6a. iju ⑨ eju – ‘to be full’

b. ife efe – ‘to fly’

iv. Prepositional phrase complement verbs

They are usually followed by prepositional phrases with which they form one semantic entity. Example:

7a. [hɛ ⑨ n’anya – ‘to love/like’

b. ikwe ⑨ n’isi – ‘to nod the head in approval’

v. Ergative complement verbs (ECVs)

Emenanjo says that they are the class of Igbo verbs which can take both the subject and the object positions. In other words, Emenanjo is saying that they are verbs whose complements can either be used as surface subjects or as the only complement following their verbs. Uwalaka (1981) is the first to draw attention to this class of verbs.

Example:

8a. O mere ihe ukwu
He do past something big/great
He did a great thing.

b. Ihe ukwu mere.
Something big/great do past
‘Something great happened.’

9a. Ọ nà-ezò nnukwu mmiri ⑨ taa ⑨.

It Dur rain heavy water today
 ‘It is raining very heavily today.’

- b. Nnukwu mmi⁹ri nà-ezò taà.
 Heavy water Dur rain today
 ‘It is raining very heavily today.’

The conclusion drawn by Emenanjo (2005) in his five fold classification and analysis of Igbo verbs is that every Igbo verb co-exists in the deep structure with some nominal complement with which it forms one semantic unit. Emenanjo (1975a: 45-46) calls this, the verbal complex, which is an idiom. Emenanjo’s argument for complementation rather than transitivity of Igbo verbs lies in the fact that the Igbo verb, whether transitive or intransitive, is always followed by some nominal (phrase) element which is called its complement. Emenanjo further claims that because it is complementation rather than transitivity that governs idiomaticity in the language; complementation, therefore, can more easily handle the structure of Igbo verbs.

Nwachukwu (1976); (1983); (1984) & (1987) emphasises the inherent complement verbs and classifies these verbs in some details. In this explication of ICVs, Nwachukwu uses the expression ‘cluster’ to identify verb roots and their verbal complexes. The verbal complexes formed with a verb root, according to him, are the clusters or lexical subclasses of ICVs of that verb root. For example, all verbal complexes formed with the verb root ‘-gba’ (shoot) belong to the lexical subclass ‘-gba’; consequently, those formed with ‘-kpa’ (dribble) or ‘-tx’ (throw) belong to the ‘-kpa’ or ‘-tx’ subclasses respectively. That is why the CV-stem and its nominal complement form one unit of meaning and are glossed together in a dictionary to express their full meaning. Example:

10. *tɔ* lexical subclass (cluster)

- [tɔ as [(to lie)
- oyi (to be cold)
- ɔjɔ (to be afraid)
- anya (to expect)

Because it is possible to combine one verb root with many nouns and/or prepositional phrases, Nwachukwu (1987) avers that the Igbo verb roots in such circumstances are without meaning, while Emenanjo (2005) posits that such nominal complements or their verbs have identifiable or independent meaning.

Nwachukwu (1987) also disagrees with Emenanjo (1984 & 1986) on the complementation of Igbo verbs. According to him (Nwachukwu 1987:17), "...non of them is a diagnostic characterisation of any semantic class of Igbo verbs; rather, they lead to unnecessary cross classification." Specifically, Nwachukwu (1987) sees the ICVs which Emenanjo describes as verbs often used with BVC without the nuances of emphasis which is inherent in BVCs (Emenanjo 1975; 1978 & 1981), as bound verb forms that can be inflected, emphatic particle, which is usually optional in constructions. Therefore, since any and every verb in Igbo can be made emphatic with a BVC, Nwachukwu claims that it (the BVC verb) ceases to be a criterion for classifying verbs. For the ICVs, Nwachukwu believes that although the property of being obligatorily specified for an inherent complement sets them apart as a subclass of Igbo verbs, he is not of the view that this property translates to transitivity. Likewise, Nwachukwu believes that the prepositional phrase complement verbs are a class of locative verbs, but there are many other verbs according to him, though not locative verbs, which may also take a

prepositional phrase (PP) based on the intended meaning. However, PPs provide a prolific method of expressing adverbial meanings in the language. Nwachukwu consequently concludes that it is wrong to see PP as a potential peg on which to hang transitivity distinction.

For ergative complement verbs, Nwachukwu (1987) does not believe that such verbs exist in Igbo. He sees Emenanjo's ergative complement verbs as a misnomer for there is no such class of verbs in Igbo, nor is the language an ergative one in the sense of the Australian language, Dyirbal, a language in which grammatical relations between a verb and its argument is as follows: the subject receives the patient role, while the object assumes the agent role. This is the converse, according to Nwachukwu, of what obtains in an accusative language such as Igbo, in which a subject receives the agent role, and the object, the patient role. However, Nwachukwu (1987:25) believes certain verbs in Igbo do participate in a type of transitivity alternation. Finally, Nwachukwu sees Emenanjo's GCVs as transitive verbs because they involve two participants in their lexical conceptual structures (LCSs); an agent that receives the subject grammatical role, and a patient that is an entity that undergoes a change in state or location as a result of the action expressed by the verb, which receives the object grammatical role. Nwachukwu concludes that the essential problem with Emenanjo's analysis is that the term complement is not defined in any rigorous manner; and as such, Emenanjo's subset of verbs are far from being mutually exclusive.

Furthermore, Nwachukwu (1983) describes the verbal element of the complex predicate as semantically opaque in the absence of its nominal compound. This leads Ihionu (1992) to follow the tradition of calling the verbal components of such complex

predicates ‘light verbs’, with reasons that the verbal element is semantically empty. Some syntactic and semantic issues have been raised in the analysis of the Igbo verb in its inherent complement. Such issues concern the verb root complement on one hand and the nominal component on the other hand. But all seem to agree that the verb root and its nominal complement form a semantic unit, (Nwachukwu 1985, 1987; Manfredi 1991; Ihionu 1992; Anyanwu 2003) etc. But the point of disagreement is on the syntactic characteristics of the IC and the predicative power of the verb, (see Oha 2007). Manfredi (1991) has a divergent opinion of any devaluation of the argument status of the IC, arguing that it behaves the same way and in fact is syntactically licenced as an NP except that unlike other NPs, it supplies the thematic content to the verb as a lexical constant since the verb is thematically light. Anyanwu (2003), arguing from the minimalist approach, supports Nwachukwu (1985) & (1987). He insists that the relationship between IC and its verb root is a semantic one, while it is a separate syntactic constituent within the VP.

In the opinion of Uwajeh (2003), the verb (V) of the ICV has a causative implication, and in line with Manfredi (1991) and Ihionu (1992) argues that IC delimits the events of the ICV. For Uwajeh, all other Igbo verbs take complement of a sort to sufficiently convey definite meaning. However, Oha (2007) maintains that the problem with Ihionu (1992) and Manfredi (1991) is their references to the whole complex as ‘light verb’ and ‘light VP’ respectively. These terms, according to him, are descriptively inadequate in accounting for the phenomena. Oha goes further to argue that an adequate description would x-ray the internal structure of the complex to ascertain which component is impaired (or impaired more) in its function. And the ability of a lexical

category to function outside its category has been widely reported in Hopper and Thompson (1980) and such does not go without implication on the categorical status of such lexical item. Using the prototypicality principle of Rosch in Hopper and Thompson (1980), which states that central instances of a category are prototypical for that category, Mbah (2005) in his own investigation maintains that lexical function is structural in nature and not inherent.

Another aspect of studies in Igbo verb is the role of the verb in an Igbo verbal complex. Uchechukwu (2011:4) calls this the selectional relationship between the verb root and its complement. Uchechukwu says that selectional or collocational restriction is the co-occurrence constraints that exist between lexical items. Katz (1972) defines selectional restriction as the constraint on the combination of senses indicated by certain semantic markers. Palmer (1981), Lyons (1977) and Kempson (1977) all agree that selectional restriction exists between lexical items. Against the above backdrop, some Igbo scholars in various Igbo studies like Emenanjo (1975), Nwachukwu (1987), etc; have all identified the ability of the Igbo verb root to select specific lexical items. Also, the high selectivity hypothesis of Uwalaka (1988) between the verb root and its complement in a verbal complex construction is another effort in this direction. Umeasiegbu (1979) and Anoka (1983) also explore how the nature of complement plays a role in the choice of the verb with which it can form a verbal complex. Anoka describes how the dimension and weight of an item that is to be bought contributes to the choice of the verb with which it is combined. Anoka concludes that it is the sensitivity to these relationships between the verb and noun that sets apart the native speaker from others. In a recent study, Anyanwu & Iloene (2004) examine the verbs of planting and harvesting in

Ngwa and Obimo dialects of Igbo. The conclusion of the authors shows that the choice of the lexical item for planting and harvesting is pragmatically determined by the kind of process involved in planting or harvesting of a particular crop. But suffice it to say, according to Uchechukwu (2004), that since the process of planting or harvesting is coded by the verb, the source of the selection should also be the verb. But the authors did not throw any light on this latter point.

Onumajuru (2005:79) explores how the verb in the verb phrase selects its noun. He posits that “in isolation, the infinitive can be said to have a vague semantic idea apart from the under-determined denotative sense.” The author also goes further to acknowledge the fact that Igbo verbs do not combine with their complements anyhow. This assertion runs contrary to his former claim (i.e., that they combine with their complement). He finally concludes at the end of his paper that it is the nature of the commodity that determines the stem of the verb, thereby, positing that it is the noun that selects the verb and not the verb selecting the noun, (see Uchechukwu 2004 for details).

Oweleke (1995) reviews the verb-noun selectional restriction in Igbuzo-Igbo. She avers that the degree of selectivity is very high between verbs and their nominals. According to her, a lexical item in Igbo, which has the meaning ‘peel’ in English can be realised through many different verbs, each of which selects some varying number of ‘peelable’ items and rejects others. Using the Igbuzo dialect of Igbo, Oweleke posits that in example (11) below, all the items mean ‘peel’ or ‘remove an outer covering’ of some sort. Example:

11 a –bacha

b–kwacha

c-fxcha
 d-kpacha
 e-mecha

The degree of selectivity from her analysis varies tremendously; while some verbs select numerous items as object, others select very few. Example:

12. **-fxcha** [ɔka] peel {*fixed collocation with corn}

-mecha	{	akwa ɔpapa yabaas [ogede ntiti ɔkwa	}		-peel	{	egg groundnut banana breadfruit	}		onion
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Oweleke (1995) argues that the selectable nouns share certain semantic features which qualify them to be selected by the verb. Such features define the manner in which an action is performed, the time or duration of the action, or the physical nature of the noun (that is, weight, size, quality and quantity of the noun). The above features according to Oweleke's claim, have strong roles to play in determining the selection of nouns by verbs.

In another study, Oweleke (2007) investigates the verb-noun selectional restrictions in Igbo dictionaries; using the following dictionaries: Welmers and Welmers (1986), Williamson (1972), Igwe (1999) and Echeruo (1998). In his investigation, Oweleke analyses the 'peel' cluster of verbs in the dictionaries. In Echeruo's dictionary, according to Oweleke, the following fall under the 'peel' cluster:

- 13a. baa V [HH] peel var- bee
 b. bee V [HH] peel var- baa
 c. kpee V [HH] peel
 d. bacapuꝛ V [HLH] completely peel off skin or rind off tuber of fruit, (Oweleke 2007:123).

She observes that all the entries for ‘peel’ did not reflect the features of selectional constructs. Again, no effort is made at discriminating against the specific objects that are selected by each variant and as such fails to reflect the semantic nuances inherent in the language. She also presents the entries of ‘peel’ in the other three dictionaries applauding Igwe’s treatment of selectional restrictions where **-kpeꝛ** for instance, selects a good number of peelable objects which are entered separately. Example:

- 14a. **kpeꝛ** 1. v. t. tear off, remove outer covering, strip, peel (fruits and vegetables), skin, bark (tree), flay animals, (i.e. deal with husks, peel, rind, bark, skin, hide, scales, etc).
- b. ikpeꝛ aꝛb [ꝛr [ꝛkaꝛ – to strip; skin a plantain fruit
 c. ikpe ikpukpe – to remove scales of a fish
 d. ikpe jigbꝛ – to peel cassava
 e. ikpe osisi – to bark a tree
 f. ikpe ꝛj [– to break open kola nut or skin the seed
 g. ikpe ugiri – to peel orange with hand
- h. ikpe unere – to strip banana
 i. ikpe xgbꝛghꝛ – to bark a tree (for use as medicine)

The above inclusion helps to bring out the semantic realities of verbs. For Williamson's dictionary (see Oweleke 2007:124), Oweleke observes that Williamson shows a fair application of the selectional restriction in the Onicha dialect but leaves loopholes for wrong interpretations with the use of 'etc'. This approach when applied to the peel entries, leaves the 'peelable' objects unrestrained. For Welmers and Welmers dictionary, the treatment of selectional restriction from Oweleke's investigation is unsatisfactory. The selection of nouns is not made clear in the entries even though the compilers have to give some descriptions of the instruments used in peeling. But the accompanying nouns are not specified. Oweleke finally recommends that an Igbo dictionary must select appropriate nominals that should co-occur with certain verbs, which should be enclosed in parenthesis. But, like Onumajuru (2005), she contradicts herself by saying that it is the noun that selects the verb and not the other way round.

Especially as it relates to ICVs in Igbo dictionaries, Welmers (1970), Williamson (1972) and Igwe (1999) in their various Igbo-English dictionaries categorise the ICVs of the Igbo verb roots in groups. According to Williamson (1972: XIV), "It was decided that the dictionary would be much clarified if groups of related words were placed together under a single root." Nominal and prepositional complements in verbal complex constructions, according to Williamson are related words and not the individual verb roots themselves. These verb roots are not arranged semantically; rather, they are alphabetically arranged within the broad structural framework of the dictionary. In this type of arrangement, the nominal complements which have semantic resemblances are grouped under one of the many meaning groups of the verb root. For example, a verb root

like **-ma** in Williamson (1972) has 11 meaning groups, that is **-ma 1 - ma 11**, while in Igwe (1999), it has **-ma 1 -ma 16**.

Summarised below in Table 2 are some of the meaning groups in both dictionaries:

Table 2 – Groups of the ICVs formed with the verb root –ma as classified by Uchechukwu (2005: 70-71)

Williamson (1972)		Igwe (1999)	
- ma 1	know - -ma a _{ny} be familiar with; attract; -ma i _{fe} have sense; be wise -ma a _{kw} kw _q to be literate, brainy (Lit. know book)	-ma 1.	v.t/intr. know; understand; be or become familiar with. -ma a _h (Lit. to know body) to be/become used to, to suit body (of e.g drug) -ma a _{kw} kw _q to be literate; to be educated; to be learned.
- ma 2	(a) jump: -ma a _m hop; ma _{fe} leap over; (b) shake: -ma lilili shiver; ma _{ru} be _{be} shake; move. a _n [_{be} m _{ma} ru _{be} earthquake	-ma 2	v.t teach, influence to become accustomed to. -ma a _{kw} kw _q influence to become literate, studious, learned. -ma ohi influence to become a thief
- ma 3	Stab; throw, pierce; stick in -ma mma _{be} pierce, strike with sword, hatchet; -ma o _{si} si _{si} plant livestock, cutting, -ma x _{la} slap	-ma 3	v.t/intr. be or become good, nice, beautiful, pleasant -ma m _{ma} to be good, nice, pleasant, beautiful.
- ma	(a) mould: -ma o _{akpo} ko _{ko} mould large morsel of pounded	-ma	v.t (i) tie a knot; tie ends of a thread or rope; tie round (e.g the

<p>ma 7</p>	<p>a kwaa/qgqgdq wear, tie wrapper</p>	<p>7</p>	<p>new earthen floor), -ma a ja ram the soil (ii) lay on, lay over (of bunch of leaves, cover), -ma a h[h[a n'ede lay leaves on cocoyam</p>
<p>- ma 8</p>	<p>announce -ma a tx point at an example); compare, -ma i kpe condemn; be condemned.</p>	<p>-ma 8</p>	<p>v.t/int. Shake up/forcefully; agitate; sift by shaking -ma a ja ra ta sift pebbles in water to clean them</p>
<p>- ma 9</p>	<p>rub; press: -ma la rub; stroke; soothe; massage; -ma lx o bi sooth the heart</p>	<p>-ma 9</p>	<p>v.t make/produce noise with motion of air in the mouth or nose -ma o pi blow flute, trumpet, horn</p>
<p>- ma 10</p>	<p>-ma q sq suck the teeth in contempt</p>	<p>-ma 10</p>	<p>v.t develop, grow, produce (flower, fungus) -ma e vu vu get mouldy; -ma a bx ba become fat</p>
<p>- ma 11</p>	<p>(agwa) -ma miss (a gwa x nq) -ma be home sick</p>	<p>-ma 11</p>	<p>v.t paint or rub on, rub between the palms of the hand. -ma u nyi paint or rub on charcoal</p>
		<p>-ma 12</p>	<p>v.t cut off; sever -ma a nx cut off flesh from</p>

		-ma 13	v.t start/set off early -ma aṣṣwqṣ, -ma xṣzqṣ start/begin/set off early
		-ma 14	v.t bluff; scare, -ma nṣjaṣk[ṣr[ṣ intimidate/put off by pretending hostility
		-ma 15	v.t/intr be extra/in excess -ma iṣheṣ have extra/more than required
		-ma 16	Particle; functioning as specific reference and emphasis to a pronoun, having the sense of ‘the’ [...] mṣ ma oṣnye byaṣraṣ... I know the one who came...

As Uchechukwu observes, Williamson’s -ma 2 corresponds with Igwe’s -ma 8, while Igwe’s -ma 2 has no equivalent in Williamson’s entries. Another similar situation is Williamson’s -ma 4(a), which corresponds with Igwe’s -ma 10. In addition to this, there are also cases where a group in one author’s system corresponds to two different groups in the other author’s system. For example, Williamson has ‘stab, throw, pierce’ in -ma 3, while Igwe has ‘throw’ in his -ma 5(a), and ‘stab, and pierce’ in -ma 6. Some glosses and their examples also bring out both the author’s perspective on the

structure, as well as the dialectal differences between the two dictionaries. The best examples here are Williamson's -ma_ɔ 4(b) and Igwe's -ma_ɔ 10. While Williamson glosses this group as 'stick together', Igwe glosses his own as 'develop, grow or produce'. The major difference is that Williamson has the gradual but concentrated covering of a surface through mould growth as her perspective, while Igwe has the general sense of 'growth/put on flesh' within the biological domain as his focus. But one of the author's illustrative examples in this group is a dialectal variation.

But in the two dictionaries, it is mainly the nominal expressions that can be combined with the verb roots that are used to form the meaning groups. But as Uchechukwu (2011) points out, there is silence on the significance of the verb roots themselves. Therefore, it is not clear from the lexicographic assessment whether or not the different meaning groups of each verb root in the dictionaries are related in any way. Again, one cannot easily establish any form of semantic contribution of the verb root to an ICV construction.

Another inspiring work on the Igbo verb is Uwalaka (1988). It is an interesting aspect of Igbo syntax and semantics where a select or (set) group of verbs known as "Subject-Object" switching verbs are studied. It is an aspect of Igbo syntax where the grammatical subject and object of a verb can freely switch their positions with the sentences still retaining its meaning. This phenomenon, as we earlier pointed out, was first discussed extensively in Uwalaka (1988:43-52). Since then, many Igbo scholars have not been paying much, if any attention, to this aspect of Igbo syntax. According to Uwalaka (1988), using the case grammar approach, this phenomenon is not allowed by all Igbo verbs but by experiential and process verbs. But the above assertion by Uwalaka

has been disproved by Agbo (2009), who tested other verbs that are not experience or process verbs, and discovered their switching ability, (see Agbo 2009 for details). Uwalaka's (1988) case model is based on the fact that for each major semantic class of Igbo verbs, there is a corresponding semantic case role. It adopts the assumption that for each simple sentence, one case is ascribed to one NP. In Uwalaka (1988), the following semantic case roles are adopted: Agent; Instrument; Causative; Experiencer; Patient; Attribuant; Source and Goal. Furthermore, Uwalaka identifies six classes of Igbo verbs, which are action verbs, verbs of occurrence, experiential verbs, verbs of quality; others are: locative verbs and identificatory and equative verbs. Uwalaka later concludes that only the experiential and process (verbs of occurrence) verbs in Igbo allow 'subject-object' switching, (Uwalaka 1988). Example:

- 15a. Ada were iwe
 Ada be angry -rv anger
 Ada was angry.
- b. Iwe were Ada
 anger be angr -rv Ada
 Ada was angry.
- 16a. Obi ch [r [qch [
 Obi laugh -rv laugh
 Obi laughed laughter
- b. Qch [ch [r [Ike.
 Laugh laugh -rv Ike
 Ike laughed.
- 17a. Ude chere uche.
 Ude think -rv worry/thought
 Ude was worried.
- b. Uche chere Ude.
 Worry/thought think rv Ude
 Ude was worried, (p. 47).

The case role experiencer from examples 15- 17 is assigned to a grammatical subject with a +animate feature. Consequently, with regard to the transitivity or otherwise of Igbo verbs, Uwalaka (1983:7-15) posits the pronominalisation test for direct objects and transitive verbs. According to her, if an NP can be replaced by a pronoun, and be used, unlike the direct object, as the only complement in a sentence, then, that NP is the direct object and its verb is transitive. Also, Uwalaka describes the relationship between the verb and its PP/NP complement as a case of ‘high selectivity’, (see Uwalaka 1988:36). But she fails to explain very well whether it is the noun that selects the verb or the verb that selects the noun.

Based on the views of scholars on Igbo verb, it is possible to combine one verb root with many nouns and/or prepositional phrases; Nwachukwu (1987:83) avers that Igbo verb roots in such circumstances are without meaning, while Emenanjo (2005) posits that such nominal complements or their verbs have identifiable or independent meaning. In the same vein, Ubahakwe (1976), Manfredi (1991) and Hale, Ihionu and Manfredi (1995) take Igbo verb roots as vague in meaning. But they agree that Igbo verbs co-exist with some nominal complements in the deep structure to form a semantic unit according to Chafe (1970).

However, Uchechukwu (2011:10) rightly observes that some pertinent issues are either not pointed out at all or are pointed out but not addressed in the structural analysis of Igbo verbs; especially in Nwachukwu (1987) and Emenanjo (1984). The issues according to him are as follows:

- a. Are the meanings of verbal complexes compositional? That is, is it always the case that a combination of a verb root with a nominal or prepositional phrase always yields a sum total of the components?
- b. Emenanjo (1975a:165) notes that the ICV structure is the most remarkable feature of the Igbo language. Is the ICV structure productive in the language? If it is productive, does its meaning change with each new verbal complex?
- c. Both Emenanjo and Nwachukwu have described the ICV construction as an idiom (Emenanjo 1984:28 and Nwachukwu 1987:79;85). In what sense is the Igbo verbal complex an idiom?
- d. Nwachukwu concludes that the verb root is selective with regard to the noun it combines with (Nwachukwu 1987:48). In what way is the verb root selective?

Based on the above observation, Uchechukwu (2011) posits that question (a) and (b) are not raised in the previous works on the Igbo language, while issues raised in (c) and (d) are raised but not attended to.

In order to provide answers to the above nagging questions, Uchechukwu (2004); (2005); (2006) and (2011) adopts the cognitive semantics approach in his investigation of the Igbo verb. “Cognitive Linguistics is an approach to language analysis that originated in the 1970s and early 1980s” (Uchechukwu 2011:23) especially in the works of George Lakoff, Ronald Langacker and Leonard Talmy. It does not embody one theoretical approach, neither is it associated with one name alone. According to Gibbs (1996), cognitive linguistics cuts across a wide range of data from other disciplines, seeks for correspondences between conceptual thought, body experience and linguistic structure, and also seeks to discover the actual contents of human cognition. Arising from this assumption, according to Uchechukwu, is the view that the areas of grammar that have

been described for decades as distinct models are seen within this approach as sharing the same common organisational principles. Again, Gibbs (1996) says that language structure should reflect what is known about human cognition from other cognitive sciences like neuroscience, psychology, philosophy and so on. Here, language and linguistic organisation are seen as reflecting general cognitive ability or principle, and not just cognitive principles that are peculiar to language. Uchechukwu (2011) is of the view that the study of the Igbo verb using the cognitive semantic approach cannot merely be linguistic, but must involve the incorporation of definite patterns of human conceptualisation, and again examine how such patterns are realised in the ICV structures they are formed with.

In line with this conclusion, the application of the cognitive linguistic approach has shown Igbo verb roots to have meanings that arise from specific image schemata and their metaphoric and metonymic extensions (Uchechukwu 2004a). In addition to this, the identified semantic extensions are also connected with minute meaning differences. This raises the problem of how many meanings that can be differentiated for a single verb root. In answer to the above question, Uchechukwu (2005) investigates the homophony of the verb root **-ma** and its problems using the lexicographic presentations of Williamson (1992) and Igwe (1999). He points out that the lexicographic presentations of the verb-root **-ma** is typical of the treatment of all other verb roots of the language, but although the two dictionaries adopt a similar approach in handling the verb root, their points of difference are greater than their points of similarity. However, the conclusions arrived at with regard to this particular verb root also apply to the treatment of all the other verb roots of the language. In doing that, he identifies the semantic extensions

which are connected with minute meanings that can be differentiated for a single verb root. By adopting the image schemata of cognitive semantics, Uchechukwu asserts that the separation of the meaning of the verb root to the point of semantic un-relatedness has its origin in the lexicographer's decision-making process, and should not be seen as pure and unchangeable facts of the language. This conclusion, according to him, is further strengthened through the image schema approach and the view of the network model. Furthermore, Uchechukwu (2011:45), by using the image schema also analyses the Igbo verb root *-tu'*. The image schema as he explains is "condensed but abstract and dynamic redescription of perceptual interactions or experiences of human beings." They function as organising structures for partially ordering and forming human experiences, but are also modified by concrete human experiences. However, they are not specific to any sensory modality, (Johnson 1987, Lakoff 1987).

Using the image schema in the analysis of individual Igbo verbs, Uchechukwu (2011:47-48) identifies the emergence of two tendencies: "either the verb root's image schema turns out to be an instance of one of the image schemata in the cognitive linguistic literature (like the image schema of *-tɔ'* being an instance of the source-path-Goal schema), or the schema turns out to be a combination of different image schemas, thus forming a kind of schema matrix; like the schema of the verb root *-gba'*, (Uchechukwu 2004a). Example:

18a. U_{che} na_{aux}-a_{tx} e_{gwu}.

Uche Aux –throw fear.

Subj – Exper Obj – Stimulus

[literal: Uche is throwing fear]

'Uche is afraid.'

b. E_{gwu} na_{aux} – a_{tx} U_{che}.

Fear Aux – throw Uche.
 Subj – Stimulus – Obj – Exper
 [literal: Fear is landing on Uche]
 ‘Uche is scared.’

In his analysis of the above example, Uchechukwu posits that with the construal of experiencer constructions in the Igbo language, the literal translation of sentences (*18a) as *Uche is throwing fear* aligns with the agent-oriented construction, where an agent being in a state or carrying out an action that ends up only with the agent and does not reach out to affect another entity. The source of the fear emotion in the sentence is *Uche*, but the emotion is not directed at any entity. Instead, it remains with the source and affects only the source. The agency of the source, however, is in the fact that Uche is an entity that can act on his own. In (18b), ‘fear’ is landing on Uche; it does not have an agent - like subject and the event has no source.

In relation to the *-tu'* verbal complex, Uchechukwu avers that it has a starting and end points, with ascent and descent profiles. Example:

19. **-tʰ bɔqɔlɔ** ‘throw a ball’ has no less than two possible meanings each of which profiles the whole schema. The first is the situation of simply throwing a ball to someone, while the second could be a game of handball. In both instances, the ball must always be thrown from one person to another.

20. **-tʰ vootu** ‘cast a vote.’ One could ask here why at all this particular verb root was chosen immediately there was the need to express ‘cast vote’ in the language. The motivation could well be seen in the simple act of dropping one’s vote into a ballot box, which is a profile of descent and end point of the *-tu'* schema. In his summary, Uchechukwu (2011) raises three main issues in connection with previous approaches to

the Igbo verbal complex which are the semantics of the Igbo verb, the semantics of the verb's inherent complement and the selectional relationship between the verb and its complement in a verbal complex structure. The effort to examine the semantics of the verb root with the cognitive linguistics tool of image schema analysis is connected with the general conclusion within the syntactic approach of the verb root. However, on the basis of an image schema motivation of its semantics, it can be argued that the root is not empty; neither does it become practically meaningless as a result of an increase in the number of verbal complexes formed with it. Instead, through an image schema analysis, one could establish a cognitive motivation of its semantics in the form of its root schema. The root schema is configurational in the sense that it is a set of points that are handled together as part of a single gestalt (Langacker 1987), which gives it a constant conceptual identity in different domains. This configuration forms the base for conceptualising and profiling the different components or segments of the schema. The above overview clearly shows that works on Igbo verb roots by different scholars over the years are not context-based. The studies carried out are not situated in any Igbo cultural or social setting.

2.2 Theoretical studies and framework

Before delving into the study of verb semantics and their sense relations, let us first of all explore the theoretical framework on whose shoulders the analysis of this study hinges. This would be done by having an overview of the tenets and principles of cognitive linguistics.

2.2.1 Theory of cognitive linguistics

According to Croft and Cruse (2004:1), “cognitive linguistics is taken to refer to the approach to the study of language that began to emerge in the 1970s and has been increasingly active since the 1980s ... with three major tenets as guiding the cognitive linguistic approach to language:

1. language is not an autonomous cognitive faculty;
2. grammar is conceptualisation;
3. knowledge of language emerges from language use.”

These three hypotheses, according to Croft and Cruse (2004), represent a response by early scholars in cognitive linguistics to the dominant approaches to syntax and semantics at that time, namely: generative grammar, truth conditional (logical) semantics, and generative and truth conditional semantics. The first principle of cognitive linguistics runs contrary to the hypothesis of generative grammar that language is an autonomous (indeed innate) cognitive faculty separated from nonlinguistic cognitive abilities. The second principle is opposed to truth conditional semantics in which a semantic metalanguage is evaluated in terms of truth and falsity relative to the world. The third principle is also contrary to the reductionist tendencies in both generative grammar and truth-conditional semantics in which maximally abstract and general representations of grammatical form and meaning are sought and many grammatical and semantic phenomena are assigned to the periphery (Croft and Cruse 2004).

Croft and Cruse’s (2004) submission is also in consonance with Saeed’s (2007) assertion that cognitive linguistics points to the division between formal and functional approaches to language. The formal approach to generative grammar (Chomsky 1988) is usually associated with language and cognition, where the knowledge of linguistic

structures and rules form an autonomous faculty independent of other mental processes and reasoning. This view, according to Saeed, goes against the principle of cognitive semantics which identifies itself with functionalism; that is, that the principles of language use embody more general cognitive principles; and internally, that explanation must cross boundaries between levels of analysis.

The main ascription of Croft and Cruse (2004), based on the first hypothesis, is that language is not an autonomous cognitive faculty because the representation of linguistic knowledge is essentially the same as the representation of other cognitive structures, and that the processes in which the knowledge is used are not fundamentally different from cognitive abilities that human beings use outside the domain of language. They argue that linguistic knowledge – knowledge of meaning and form is fundamentally a conceptual structure. Furthermore, cognitive linguistics argues that syntactic, morphological and phonological representations are also basically conceptual because sounds are physical entities and ultimately so are utterances and their formal structure. But sounds and utterances must be comprehended and produced, and both of these processes involve the mind. Again, sounds and utterances are the input and output of cognitive process that govern speaking and understanding (Croft & Cruse 2004).

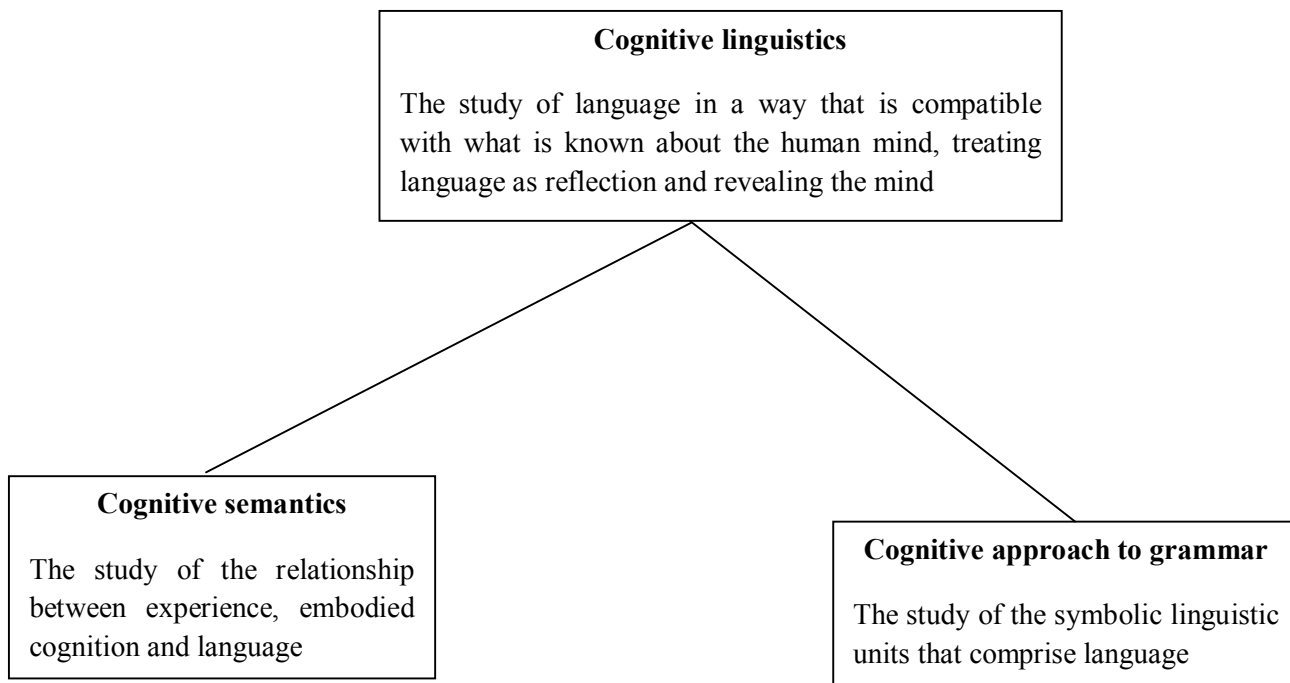
Consequently, the second hypothesis according to Croft & Cruse (2004) is that the cognitive process that governs language use, in particular, the construction and communication of meaning by language are, in principle, the same as other cognitive abilities. In other words, the organisation and retrieval of linguistic knowledge is not significantly different from the organisation and retrieval of other knowledge in the mind, and the cognitive abilities that are applied to speaking and understanding language are

not significantly different from those applied to other cognitive tasks, such as visual perception, reasoning or motor activity. This ascertainment does not deny the innate human capacity for language, but it is the denial of an autonomous special-purpose innate human capacity for language, because it can be reasonably assumed that there is a significant innate component to general human cognitive abilities, and that some of these properties give rise to human linguistic abilities that no other species apparently has, (Croft & Cruse 2004). Lastly, the third major hypothesis of cognitive linguistic approach is that the knowledge of language emerges from language use in context. In other words, categories and structures in semantics, syntax, morphology and phonology are built up from our cognition of specific utterances on specific occasions of use, (see Croft & Cruse (2004:1-3) for details)).

Based on the above three hypotheses of cognitive linguistics, it is clear that its main concern is that lexical items, as well as word classes and grammatical constructions, are conceptual categories that have to be studied and investigated with respect to their cognitive function (rather than reflecting formal linguistic principles), whereby “cognitive refers to the crucial role of intermediate informational structures in our encounter with the world” (Geeraerts 1995:112-113). Cognitive linguistics, therefore, holds that there is in fact no clear distinction between lexical and grammatical categories. As Langacker (1999:18) puts it, “Lexicon and grammar form a continuum, structures at any point along it being fully and properly described as symbolic in nature, and the difference between lexicon and grammar is clearly one of degree, and any particular line of demarcation would be arbitrary.”

Cognitive linguistics is made up of two fields: Cognitive semantics and cognitive approach to grammar. According to Evans & Green (2006:50) in Uchechukwu (2011:32), the two fields are diagramatised and summarised below:

Fig. 1



Since the focus of this research work is on cognitive semantics, the next section of the work provides an overview of cognitive semantics.

2.2.1.1 **Cognitive semantics: An overview**

Cognitive semantics is a branch of cognitive linguistics that deals with meaning and conceptualisation. It is a linguistic discipline which seeks to integrate various parts of linguistic structure and offers a new approach to the conceptual system of figurative language and sense relations in lexicons. It presumes that language is compositional and regards motivatedness as a key issue in language use (Langacker 1991:295). It does not

separate performance and competence and also, it applies prototype semantics in linguistic analyses. Langacker (1987) points out three central issues of cognitive semantics:

1. Semantic structure is not universal; it is language-specific to a considerable degree. Furthermore, semantic structure is based on conventional imagery and is characterised relative to knowledge structures.
2. Grammar (or syntax) does not constitute an autonomous formal level of representation. Instead, grammar is symbolic in nature, consisting in the conventional symbolisation of semantic structure.
3. There is no meaningful distinction between grammar and lexicon. Lexicon, morphology and syntax form a continuum of symbolic structure, which differs along various parameters but can be divided into separate components only arbitrarily (p. 2).

Based on the above three points, Langacker (1987:30) avers, “Cognitive semantics is at odds with the assumption of formal semantics.” Cognitive semantics, therefore, emphasises the importance and role of human cognition as a vital precondition of language use and communication. Langacker, one of those linguists who have elaborated mainly the theoretical background of the new discipline (1987), says when referring to cognition:

Language is an integral part of human cognition. An account of linguistic structure should, therefore, be articulated with what is known about cognitive processing in general, regardless of whether one posits a special language module (Fodor 1983), or innate faculty (p. 12).

Consequently, cognitive grammar is based on the use of imagery in describing meaning. Lakoff (1987) describes imagination:

As a synthesising capacity that is crucial for the structuring of our everyday experience. Our cognitive abilities allow us to process our everyday experience, and in doing so, we can either highlight various parts of a scenery (figure or ground) or schematise one, whereby the details are ignored, and only the basic traits are highlighted (p. 57).

Langacker (1999) defines cognitive abilities as the inborn capacity for certain basic kinds of experience. Imagery is important for us to view parts of a process or to see how various entities are related to each other. Imagery is defined by Langacker (1991:549) as, “The ability to construe a situation in alternate ways for purpose of thought or expression. Meaning then is a function of both conceptual content and the image imposed on it.”

Based on the above assertion according to Langacker (1991), imagery is vitally important for our cognitive abilities to expand currently available spatial relations into abstract ones based on the same foundations: a conceptual framework pervading figurative language. Lakoff and Johnson (1980) describe our conceptual system as a concomitant of human existence:

But our conceptual system is not something we are normally aware of. In most of the little things we do every day, we simply think and act more or less automatically along certain lines. Just what these lines are is by no means obvious. One way is to find out by looking at language. Since communication is

based on the same conceptual system that we use in thinking and acting, language is an important source of evidence for what that system is like (p. 3).

Furthermore, syntax, semantics, phonology and morphology are regarded by cognitive grammarians as inseparable and interrelated areas of linguistics. This is based on the assumption that an integrated description of language structure is necessary and that different fields of linguistics, such as the ones mentioned above, interact with one another. It is necessary to integrate not only them, however, but various disciplines as well, by reason of the fact that linguistic ability cannot be examined separately from other factors of cognitive processing as is pointed out by Langacker (1987), who emphasises the importance of integrating the findings of linguistics and cognitive psychology:

Instead of grasping at any apparent rationale for asserting the uniqueness and insularity of language, we should try more seriously to integrate the findings of linguistics and cognitive psychology (p. 13).

Cognitive semantics, therefore, explores meaning and conceptualisation with a view to unifying lexicon and grammar. Because of its interest in unifying lexicon and grammar, cognitive semantics has an aspect of its analysis known as cognitive lexical semantics.

2.2.2 Cognitive lexical semantics

Cognitive lexical semantics has remained a vibrant field of research in its own right. It became a full-fledged field of cognitive semantics research, according to Cruse

(1986), in the early eighties, when it was able to successfully transfer important results in cognitive psychology on the internal structure of categories onto the structure of lexical categories.

Lexical semantics, according to Pustejovsky (1995), is a sub-field of linguistic semantics. It is the study of how and what the words of a language denote or mean. According to Cruse (1986), the main reason why word-level semantics is especially interesting from a cognitive point of view is the study of these concepts that have names. The question ‘What can words mean?’ then amounts to the question, ‘What concepts can have names?’ Therefore, Geeraets, (1994) says that lexical semantics explores the study of what individual lexical items mean, why they mean what they are, how we can represent all of this, and where the combined interpretation for an utterance comes from.

Furthermore, Geeraets (1994) posits that the units of meaning in lexical semantics are lexical units, which a speaker can continually add to throughout their life, learning new words and their meanings. One question that lexical semantics asks is whether the meaning of a lexical unit is established by looking at its neighbourhood in the semantic net (i.e. by looking at the other words it occurs with in natural sentences), or if the meaning is already locally contained in the lexical unit. Another topic that is explored in lexical semantics is the mapping of words to concepts. As tools, lexical relations (defined as patterns of association that exist between lexical items in a language) like synonymy, antonymy (opposite), hyponymy and hypernymy, and to a certain degree, homonymy as well – are used in this field.

According to Sheel (2002), lexical semantics aims to decipher two things:

- a. How meaning can be extracted from new sentence constructions

b. What the nature of the meanings of the smallest meaning units is in language.

The view of the present research work is in line with Sheel's (2002) postulation on the objectives of lexical semantics, where the sense of linguistic expressions consists of expressing mentally instantiated items at the level of conceptual structure, then relating it to the context of use.

There are many approaches to lexical semantics according to Croft & Cruse (2004). They include:

- a. Polysemy: the construal of sense boundaries
- b. A dynamic construal approach to sense relations using hyponymy and meronymy
- c. A dynamic construal approach to sense relation using antonymy and complementarity
- d. Metaphor (pp. 109-220).

Since this thesis is interested in exploring cognitive lexical semantics using polysemy, the research work, therefore, adopts the first approach (i.e., polysemy: the construal of sense boundaries). Polysemy, according to Croft & Cruse (2004:109), "...is understood in a broad sense as variation in construal of a word on different occasions of use." Polysemy in this work is seen as a matter of isolating different parts of the wholistic meaning potential of a word in different situations or circumstances. According to Croft & Cruse (2004:109), the process of isolating a portion of meaning potential is usually viewed as the creation of sense boundary delimiting an autonomous unit of sense. Example: "The meaning 'river bank' is as it were fenced off from the rest of the word's potential, and presented as the only functionally relevant portion. The fact that *bank* can also refer to a financial institution is suppressed. As in

21. John moored the boat to the bank.

The bounded sense units according to them are not a property of lexical items as such; rather, they are construal at the moment of use. In other words, when a lexicon is retrieved from the mental space, it does not come with a full set of ready-made sense divisions. What we have is a purport, together with a set of conventional constraints.

It can then be portrayed, based on Croft & Cruse's (2004) postulation that the total meaning potential of a word is a region in conceptual space, and each individual interpretation as a point therein. Understood in this way, Croft & Cruse (2004:110) posit "the meaning potential of a word is typically not a uniform continuum; the interpretations tend to cluster in groups showing different degrees of salience and cohesiveness, and between the groups there are relatively sparsely inhabited regions,". They illustrate this using *bank*, where the different applications of the word are related to the idea of collection and custody of money and other items.

22. Down town *bank*

23. The Apex *Bank*

24. University blood *bank*

25. Sperm *bank* etc.

Bank in the above example forms a cluster because there is an intuitively clear discontinuity separating all of them from the following:

26. The boat is at the *bank*.

27. The river *banks* were littered with dead sea animals.

28. He moved slowly from the *bank* in the deep water, etc.

From examples (26-28) above, there are several aspects to the partitioning of word meaning or distinguishing polysemes in polysemy. These aspects of partitioning according to Croft & Cruse (2004) are:

- The nature of the distinct units that appear
- The nature of the differentiating factors separating adjacent units
- The nature of the meaning boundary (p. 110).

In other words, the polysemy of a word can be tested by a variety of means, including:

- Antagorism: can the word be used in a sentence with multiple competing interpretations? (as in *Kim can't bear children.*)
- Zeugma: can the word be used in a context where multiple competing interpretations are simultaneously evoked? (as in *Kim and her visa expired.*)
- Independent truth conditions: can the word be used in a given sentence with different truth conditions according to different interpretations? (as in *Kim is wearing a light jacket.*)

Furthermore, Croft and Cruse summarise the above aspects of partitioning meaning using different terms, viz. senses, facets or microsenses. This research work adopts the concept of senses in its investigation.

2.3 Cognitive domain: An overview

According to Charles' (1988) observation, words do not occur in isolation; they are triggered in utterances in particular linguistic (and extralinguistic) contexts. So, the meanings of words are determined by the interpretation of the whole construction in

which the words are found and the cultural contexts (domains) in which the words are to be interpreted. In support of the relevance of domains in the study of sense relations, Langacker (1990) says that concepts only make sense against the background of domains, and he goes further to define cognitive domain as a cluster of concepts of a more general nature required to understand the concept at hand in relation to the cultural background where the construction is produced. Domains, based on Leacock, Towel & Voorhes' (1993), play a central role in the definition of lexical categories as a mapping of conceptual structure from one domain to another especially in context. Leacock et al posit that cognitive domain can be viewed from two perspectives, viz. lexical semantic domains and contextual semantic domains.

2.3.1 Lexical semantic domains

A lexical semantic domain, according to Langacker (1990), corresponds to what cognitive linguistics describes as a cognitive category. Based on his explication, the minds of human beings tend to assign everything that is perceived in the world around us to categories. The categorisation process happens automatically and unconsciously without our knowledge. People only become aware of these processes in ambiguous cases when we are confused and try to pin down meaning.

Furthermore, Langacker avers that categories/domains are not universal but depend on the system of experiences, belief and practices of a particular social or ethnic group. He also says that different people may perceive the world around them in different ways, which will automatically reflect in different categories/domains. Langacker (1990) presents the following features of domains/categories:

- Each category/domain has a prototype, i.e a mental representation, a cognitive reference point for that category/domain. For instance, in the category *bird*, whenever one hears the word “bird”, one conjures up an image in one’s mind of a typical bird, such as a sparrow or a robin, depending on the area and culture where one comes from.
- Each category/domain has attributes, features that enable you to identify members of that category. Some attributes for *bird* that most languages and cultures will share are the following:
 - (i) It has two wings.
 - (ii) It has two legs.
 - (iii) It can fly.
 - (iv) It has a beak.
 - (v) It has feathers, and
 - (vi) It lays eggs.

There may be cultures, however, where other attributes play a role of significance.

- Every category/domain has “good” (i.e typical) and “bad” (i.e. a-typical) members, including marginal examples whose category membership is doubtful. For instance, a “robin” is a typical example of the category “bird” but an “ostrich”, “a penguin”, or a “bat” is an a-typical member. This, according to Langacker, is caused by the fact that the latter have less attributes in common with the more typical members of that category. The ostrich and the penguin, for

example, do not fly. Bats can fly, but they do not lay eggs, have beak, or features, etc.

- There are not always fixed boundaries between different categories/domains. Objects and events can be part of more than one category at the same time. It has already been seen that the bat is an a-typical member of the category “bird”. It also belongs to the category “animals”, and has a somewhat more prominent place there.
- Categories/domains may consist of more than one level of subcategories Lexical semantic domains, therefore, are used to describe the paradigmatic relationship between one lexical item and other items that belong to the same sub (category) (p. 34).

2.3.2 Contextual semantic domains

A contextual semantic domain according to Langacker (1990) corresponds to what cognitive linguistics describes as a cognitive frame or cognitive context. Whereas lexical semantic domains deal with the paradigmatic relations between a lexical item and other members of the same category, contextual semantic domains focus on the syntagmatic relationships between a lexical item and other lexical items that are used in the same context or cognitive frame. Usually, words are used in context, and a substantial part of the meaning of a particular word is derived from the context in which it is used. For instance, whenever the word *to hide* is mentioned to an English speaker s/he will be able to form a mental image of somebody hiding oneself or something else. That picture from Langacker’s postulation, however, is not complete. At this level, there is still a lack of information that prevents the hearer from being able to get the full scope on the

meaning of this word. As soon as the hearer hears this word used in context, however, the mental image is completed. The following instances illustrate this:

29. The refugees hid themselves when they heard the footsteps of marching soldiers.

30. The bandits were hiding behind the trees, ready to pounce upon the passing merchant.

These two examples are illustrations of the use of *to hide* in two different frames or contexts. There is no doubt that, without this contextual information, no user will be able to get full picture of the meaning of this verb (i.e. *hide*). Some contextual domains according to Langacker (1990) are as follows:

- (i) Access: All terms relating to the question whether certain locations or information are accessible or not.
- (ii) Age: Frame of old age and everything that is associated with it, such as wisdom, status, grey hair, weakness of body, etc.
- (iii) Burial: All terms relating to funerals and burial and all rituals surrounding these events.
- (iv) Clothing: The frame of dressing oneself, wearing ornaments and applying perfumes and other cosmetics.
- (v) Journey: All terms belonging to the frame of people traveling, either in group or alone, including the preparation they make, their means of going (vehicle, donkey, horse), etc.

Domains, whether lexical or contextual, must be investigated against a cultural background involving image schemas. No wonder Bower & Cirilo (1985) posit that an aspect of research that is always relevant to the study of cognitive domains must involve the concept of schema or schemata (a data structure for representing the generic concepts

of stored memory in the context of usage). This is discussed in detail in chapter four. For instance, *radius* can only make sense against the background of a *circle* (which is the image schema); *spoke* requires the background knowledge of a *wheel*, and *wheel* needs the image of a *bike*, *car*, *locomotive*, or other *vehicles* or piece of *machinary*. Langacker (1990) proposes the term *profile* for *spoke* and *base* for *wheel*, for these relations. In other words, domains that cannot be further analysed according to him are called base domains; example: space, time, matter, quantity, etc, while the ones that are dependent on the base are the profile. Furthermore, Langacker says that most concepts are profiled against a cluster of domains, which, in turn, can be analysed in clusters of simpler domains, etc. Such a network of domains is referred to as domains matrix. All this complexity (domain matrix) is basically a formalised way of saying that the meaning of all lexical items involves encyclopaedic, rather than fragmented knowledge. Cognitive domains, therefore, are complex, changing, context-sensitive bundles of background knowledge that get activated and de-activated continuously during thinking/talking in the human cognition.

2.4 Verb semantics and their sense relation

This section of the study explores the concept of sense and sense relations with regard to verb semantics

2.4.1 What is sense?

According to Murphy (2003), sense is the connection to the outside world around one. Therefore, through the use of analogical mapping, according to Cruse (2004), the biological or cognitive meaning of sense is mapped onto the word sense. So, when one says that a word has sense, it means that the word is meaningful.

If we now look at the concept of sense from the meaning perspective, we can say, according to Cruse (2004), that the common interpretation of the phrase ‘to make sense’ is this: if something, in and of itself, ‘makes sense’, it is logically congruent and can be comprehended by someone in terms of the causes and effects within its processes. So, when someone concludes an explanation with the question, ‘Does it make sense?’, or in exasperation, exclaims, “It just doesn’t make any sense.”, what is it that the person is saying? “Does it create meaning?” The question will be answered later in this section. For the purpose of this research work, sense will be seen from Murphy’s (2003) and Cruse’s (2004) definitions of sense, where the meaning of a word or expression is derived or interpreted from the situation, mapped onto the word by the cognitive faculty.

In trying to delve into the concept of sense from the meaning of a word, Crystal (2007) says that the driving force behind almost everything done in the world of language is sense. He says:

We try to make sense of everything, and refuse to say that something is ‘non-sense’, except as a last resort. We read a sentence in a newspaper article which doesn’t ‘make sense’, and exclude that there must be a misprint. We read a poem which does not make immediate sense, and conclude that we need to work at it: given enough effort, people can and do make sense of even the most impenetrable of utterances (p. 2).

Crystal believes that sense is at the centre of language learning and communication. He also avers that the problem with investigative sense is that it enters

into all areas of language. It is, to begin with, inherent in vocabulary since the sense of a sentence can be changed by changing a word within it. Example:

31. I see the starship Vs I see the alien.

Much is obvious from the above sentence, just as obviously the sense can change by changing its grammatical structure:

32. I see the alien Vs The alien sees me.

Less obviously, sense can also be changed by changing the sound of the sentence (intonation). Example:

33. The alien is friendly, isn't it! Vs The alien is friendly, isn't it?

But of all these, it is the vocabulary which most people immediately associate with the notion of sense, words and their meanings. It is the interaction between words and sentence structures which actually conveys our sense of sense. Most words by themselves do not actually *make sense*; only when they are used within a sentence do they make sense. That is what sentences are for. Sentences exist to enable us to 'make sense'. By implication, Crystal (2007) is saying that sense is a holistic idea embedded in words that make up a sentence. He argues that the sense in a sentence is not measured by the number of words in it, rather by the wholestic units of sense in that sentence. Example:

34. Many heard that a new type of washing machine had been invented in New Zealand.

According to Crystal's analysis, the above sentence has fifteen (15) orthographic words but there are really only five units of linguistic sense in it. Furthermore, he says that

increasing or decreasing the number of words in the sentence will not alter the sense in it.

Example:

35. It was Mary who heard that they had invented a new type of washing machine in New Zealand., or decrease them as in (36).

36. Mary heard they'd invented a new type of washing machine in New Zealand.

Crystal further buttresses his point by looking at the traditional definition of an idiom, which is a group of words whose meanings cannot be derived from the meaning of the constituent parts. Example:

37. Kick the bucket – meaning to die, cannot be arrived at by adding up the individual meanings of 'kick', 'the' and 'bucket'. 'Kick the bucket', according to him may have three words, but it is a single unit of sense. The kernel of Crystal's argument is that sense in a word is arranged in a semantic order. So there is a logical, progressive flow showing the development of the word and the relationship of its sense to other words in the sentence. From the above explication, meaning and sense are sometimes used simultaneously.

Consequently, meaning, according to Cruse (2004), is what the sender expresses, communicates, or conveys in his message to the observer or receiver and what the receiver infers from the context. Lyons (1968:427) says that the part of meaning that is not its referent is termed its sense. The sense of a word according to him means, "its place in a system of relationships which it contracts with other words in the vocabulary." From Lyons' (1968) claims, the meaning of a word can be fully ascertained in relation to other words it is in a construction with, hence sense or word relations. This fact

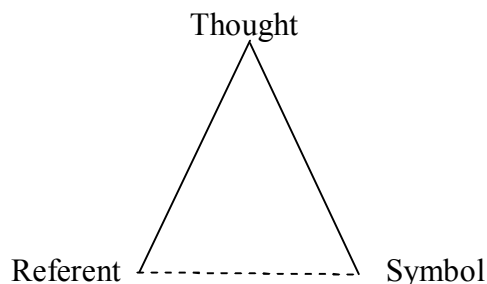
notwithstanding, “series of tests”, according to Ullmann (1981:49), are designed to study the influence of context in the sense of a word and they have shown that there is usually in each word a hard core of meaning which is relatively stable and can only be modified by the context within certain limits. Again, at the same time, “no one would deny the crucial importance of context in the determination of word meaning.”

Therefore, sense, according to Cruse (2004), is the physiological capabilities of organisms that provide the data for perception. The senses and their operation, classification and theory are overlapping topics studied by a variety of fields, most notably, neuroscience, cognitive psychology (or cognitive science), and philosophy of perception. The nervous system has a specific sensory system or organ, dedicated to each sense. From this perspective, therefore, we can see that the biological meaning of sense and its relationship with word meaning are not different. So, we can comfortably say that in linguistics, from Cruse’s (2004) investigation, the sense of an expression is its indispensable hard core of meaning, the sum of sense properties and sense relations with other expressions.

2.4.2 Sense Vs reference

At this point it is necessary to distinguish between sense and reference. The proponents of the referential theory are C.K Ogden and I.A. Richards in the book they published in 1923 entitled *The meaning of meaning*. According to them, the meaning of an expression is the actual entity or object in the real world to which the expression refers. This actual object is referred to as the referent. An interesting thing about this view, according to Ndimele (1999), is that it denies a direct link between expressions and their referents.

Fig. 2



(Adapted from Ndimele (1999:17))

Furthermore, Ogden and Richards say that the connection between a linguistic unit and its referent is only possible through thought. They illustrate this theory using the semiotic triangle (see Fig. 2 above). The above triangle distinguishes three different components of meaning and it emphasises that there is no direct link between a linguistic unit (symbol) and the entity (referent) to which the symbol refers.

The referential theory of meaning has attracted the interest and comments of various scholars over the years. According to Fromkin, Rodman & Hyams (2007), if meaning were reference alone, then the meaning of words and expressions would be the objects pointed out in the real world. For example: the meaning of *cat* would be the set of canine objects. But this is not always the case according to Fromkin et al. Furthermore, they say that this theory of meaning is attractive because it underscores the idea that meaning is a connection between language on the one hand and objects and events in the world on the other. But an obvious problem for such a theory, however, is that speakers know many words that have no real-world referents. Example:

38. Anger, hatred, die, etc.

Yet, speakers do know the meanings of these expressions. Similarly, what real-world entities would function words like ‘of’ and ‘by’ or modal verbs such as ‘will’ or ‘may’

refer to? A further problem is that two expressions may refer to the same individual but not have the same meaning. For example, ‘Goodluck Jonathan’ and ‘the President’ currently refer to the same individual, but the meaning of the NP *the President* is something like ‘the head of state’, that is, an element of meaning is separate from its reference and is more enduring. This element of meaning is often termed sense according to Fromkin et al (2007). *Love* has sense but no reference (in the real world). So, to some extent, it can be said that every word has a sense, that is, some conceptual content. But not every word has a referent.

Furthermore, Fromkin et al posit that proper names typically have only one reference. A name like John Obi may point out a certain person, its referent, but has little linguistic meaning beyond that. Sometimes, two different proper names may have the same referent, such as Chuma Okeke the linguist. It is a hotly debated question according to Fromkin et al (2007) in the philosophy of language as to whether two expressions (i.e. ‘Chuma Okeke’ and ‘the linguist’) have the same sense or different senses.

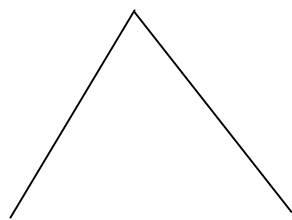
Sense in its general form, therefore, is the inherent meaning of the linguistic form independent of situational context. It is the aspect of meaning that dictionary compilers are interested in. It is concerned with the intralinguistic relations. It is abstract and de-contextualised. On the other hand, reference is what a linguistic form refers to in the real, physical world; it deals with the relationship between the linguistic elements and the non-linguistic world of experience, (Fromkin et al 2007). But in cognitive semantics as was pointed out earlier, based on Murphy (2003) and Cruse (2004), sense is contextualized, because without pinning sense down to a context, sense cannot be fully interpreted.

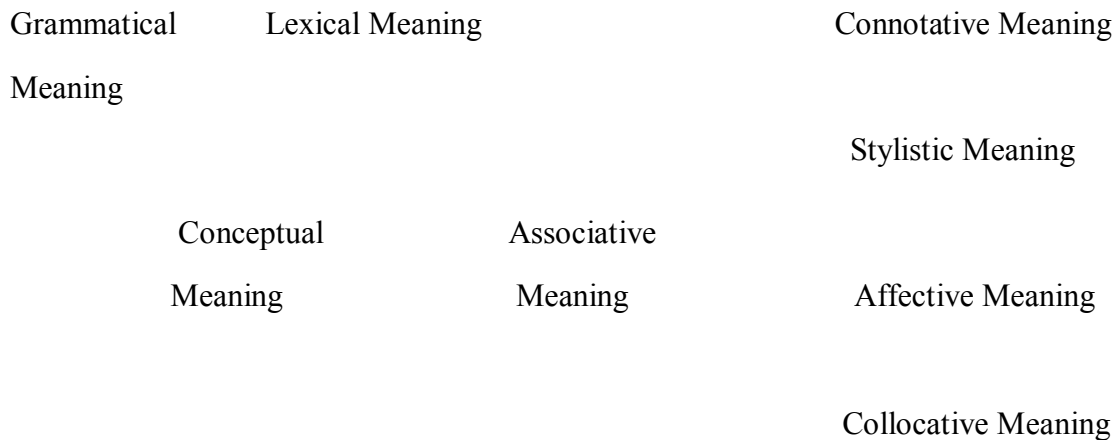
2.4.3 Sense relations: An overview

Semantic relations among words according to Keith (2001) have captured the interest of various brands of philosophers, cognitive psychologists, linguists, early childhood and second language educators, computer scientists, literary theorists, cognitive neuroscientists, psychoanalysts – investigators from just about any field where interest involves word, meaning, or the mind. All in all, the overarching goal here is to provide an account of how individuals know (or determine) whether words are semantically related or not and if they are related, what type of relation is involved. Therefore, the centre of investigation here is the word. Words are arbitrary symbols according to Plag (2003) and are independent in identities in so far as their outer facet-spelling and pronunciation is concerned. But semantically according to Zhuangln, Run-Qung & Yan-Fu (1988:143), “all words are related in one way or another.” Saeed (2007) says that sense relations are the complex system of relationship that holds between the linguistic elements themselves (mostly the words): it is concerned only with intra-linguistic relations, hence, word relations or lexical relations. 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 and sense relations belong to the branch of semantics known as lexical semantics. Lexical semantics according to Saeed (2007) is a branch of semantics that investigates word meaning. Using a diagrammatic chart, Zhuangln et al (1988:144) show the different types of word meaning thus:

Fig 3

WORD MEANING





In the light of sense relations, words may not only have meaning properties in isolation, they often bear some meaning relations with each other. Words may be semantically related either because they share certain properties or because they exhibit contrastive semantic features (Ndimele 1999). When words share certain semantic features, the tendency is that they belong to a particular semantic field, and they are seen to be grouped as such, either in the mental or man-made dictionary of language. It is said that words belong to the same semantic field when they refer to the same general area of meaning. Again, this explication is necessary to show the difference between polysemy (which is the focus of this thesis) and other sense relations. Based on the above background information, therefore, Zhuanglin, et al (1988), classify words semantically into:

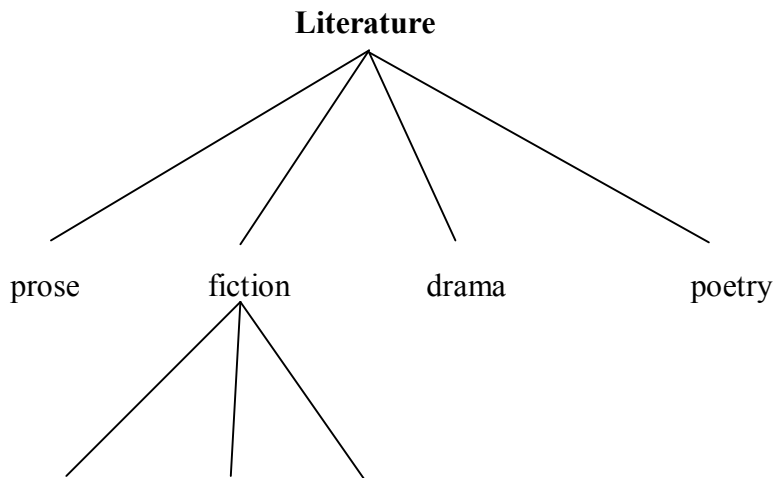
- a. Hyponymy – Semantic inclusion
- b. Synonymy – Semantic Similarity
- c. Antonymy – Semantic Opposition
- d. Homonymy

- e. Polysemy
- f. Meronymy
- g. Metonymy

a. Hyponymy

Hyponymy deals with the relationship of semantic inclusion. It refers to the relationship which obtains between the genus (general lexical item) and the species (specific lexical items), (see Lakoff 1987). Lakoff's general lexical item corresponds to Ndimele's (1999) superordinate term or hypernym (which is a more general sense of another, i.e, a superclass); and Lakoff's specific lexical items correspond to Ndimele's hyponyms. Ndimele defines *hyponym* as a hierarchical kind of meaning relationship between words such that all senses of one of the words are included within the meaning of the other. In other words, a hyponym is a more specific sense of another, i.e, a subclass. Hyponyms of the same super-ordinate term are co-hyponyms to each other, (Saeed 2007). Example:

Fig. 4



novel novelette shortstory

Fig. 5

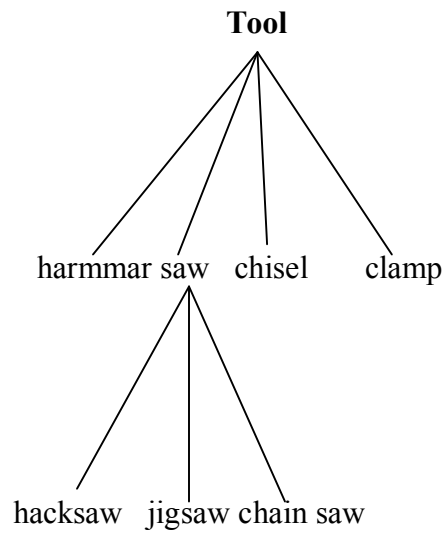
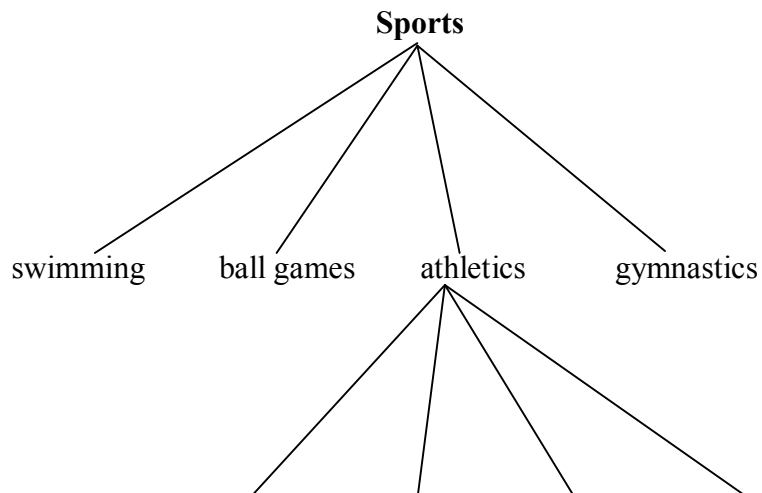


Fig. 6

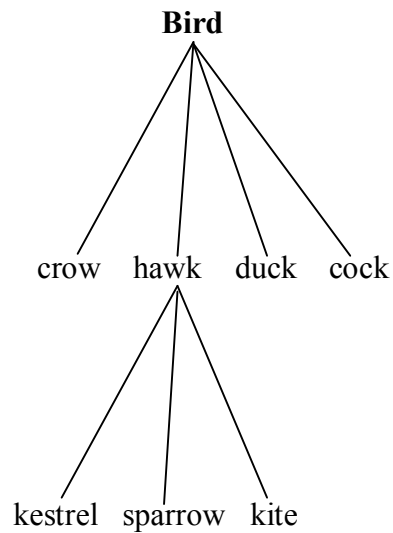


weight-lifting wrestling running race boxing

running hurdle race

long-distance sprinting relay

Fig. 7



(Adapted from Saeed 2007:69)

In hyponymy, therefore, the vocabulary of a language is not simply a listing of independent items, but is organised into areas or fields, the members of which are joined together by some common semantic components. The whole vocabulary can be divided

into fields. Words of each field are semantically related and define one another. The above notion where “all kinds of lexical relationship between words refer to the same general area of meaning”, is called field relations, (see Barnwell 1980:51).

b. Synonymy

This refers to the sense where two different words have (nearly) identical meanings. One can substitute for the other in a sentence without changing the propositional content of the sentence, (Zhuanglin et al 1988). Fromkin et al (2007) see synonyms as words or expressions that have almost the same meaning in some or all contexts. Example:

- 39a. buy – purchase
- b. chase – pursue
- c. church – synagogue

To be synonyms means to have the same communicative effects in all contexts. But facts about human language reveal that there are quite a number of words which are synonyms only in particular contexts, not in all. Hence, different types of synonyms exist. According to Lyons (1981), they include absolute/perfect synonymy and relative/partial synonymy, both of which are further explained below.

i. Absolute or perfect synonyms

They are words which are identical in meaning in all aspects, i.e., both in grammatical and lexical meaning, including conceptual and associative meaning. Such synonyms are rare in natural languages. Example:

- 40a. compounding – composition
- b. word building – word formation
- c. malnutrition – undernourishment

But scholars like Lyons (1977) have argued that if for instance *compounding* is used more frequently than *composition*, then, they are not absolute synonyms.

ii. Relative or partial synonyms

They are words which are similar or nearly the same in denotation but embrace different shades of meaning or different degrees of a given quality. Whereas absolute or perfect synonyms are rare, relative or partial synonyms are common; hence, more attention is paid to this group in semantic analysis. Example:

- 41a. room – chamber
- b. foe – enemy
- c. help – aid

There are different kinds of synonym according to Zhuanglin et al (1988):

i. Borrowing; as in the English language:

Native	Borrowed	
leave	depart	
bodily	corporal	
Native	French	Latin
time	age	epoch
belly	stomach	abdomen
ask	question	interrogate

ii. From Dialect and Regional English

lift	elevator
tube	subway
petrol	gasoline

iii. From Figurative and Euphemistic Words

occupation	walk of life
drunk	elevated
lie	distort the fact

iv. Coincidence with Idiomatic Expressions

pick up	choose
give up	abandon
put off	postpone

Based on the semantic similarity, Zhuanglin et al (1988) say that synonyms are usually arranged into synonymic groups or sets. Within this group, there is the most general term known as ‘synonymic dominant.’ The synonymic dominant is the common denotational component that brings two or more words together into a group, which can be called a semantically synonymous field. Example:

Synonymic dominant	Synonymic group
42a. leave	depart, quit, retire, withdraw, exit etc
b. look	stare, gaze, eye, peep, glance, etc
c. picture	painting, photo, drawing

Ndimele (1999) says that, semantically, synonymous fields cannot always be used in free variation in all contexts. Example:

- 43a. I will leave - I will retire
 b. Leave the house - *Retire the house

On this premiss, therefore, Fromkin et al (2007) aver that there are no perfect synonyms, that is, no two words ever have exactly the same meaning.

c. Antonymy

Generally, antonymy means oppositeness in meaning. Antonyms are of different types according to Saeed's (2007) findings.

i. Gradable antonymy (mainly adjectives)

They may be seen in terms of degrees of quality involved. They can be modified by 'very' and the denial of one does not necessarily mean the assertion of the other. Here, two words stand for two extremes between which there exist intermediate forms showing degree. They are best viewed in terms of a scale running between two poles. Example:

- 44a. good – better – worse – bad
- b. beautiful – pretty – good-looking – plain – ugly
- c. cold – cool – lukewarm – warm

ii. Complementary antonymy (Contradictory antonymy)

They are characterised by the feature that the denial of one member of the pair implies the assertion of the other and the assertion of one means the denial of the other. In other words, it is not a matter of degree between two extremes, but a matter of either one or the other. Put differently, they are mutually exclusive, (see Saeed 2007:6) Example:

- 45a. alive – dead
- b. male – female
- c. true – false

If Obi is alive, it means that he is not dead.

iii. Converse antonymy (Relational opposites)

The members of a pair do not constitute a positive-negative opposition. They show the reversal of a relationship between two entities. Example:

- 46a. buy – sell
- b. lend – borrow
- c. teacher – student

iv. Incompatible antonymy

The complementary antonymy is often used according to Anagbogu, Mbah and Eme (2010) in place of incompatibility. In incompatibility, when one of the statements is asserted, the other is not necessarily denied. If one says that there is no sheep in the house, it does not entail that a ewe is not there. Example:

- 47a. North, South, East, West
- b. Spring, Summer, Autumn, Winter
- c. Sunday, Monday, Tuesday ... Saturday

d. Reversives

The characteristic reversive relations is between terms describing movement, where one term describes movement in one direction, \longrightarrow , and the other the same movement in the opposite direction, \longleftarrow . Example:

- 48a. Push and pull on a swinging door, which tells you in which direction to apply force, (Saeed 2007:67). Other examples include:
- b. come – go
- c. go – return

d. in – out

e. Homonymy

Here, the senses of a predicate are remotely or unlikely related to each other. Homonyms, according to Saeed (2007:63), are “unrelated senses of the same phonological word.” Some authors like Ndimele (1999), Anagbogu, et al (2010), distinguish between homographs, senses of the same written word, that is, spelt in the same way but which differ both in pronunciation and in meaning, example:

49a. read (pres. tense) – read (past tense)

b. lead (noun) – lead (verb)

Homophones, senses of the same pronunciation but different meanings. Example:

50a. site – cite – sight

b. by – bye – buy

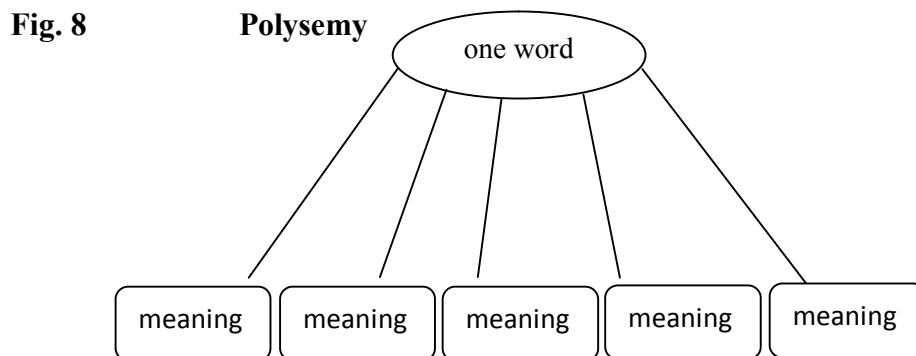
c. suite – sweet

d. flower – flour

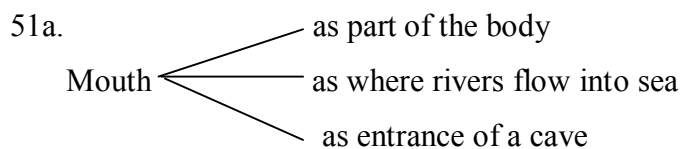
f. Polysemy

Saeed (2007:64) says that there is a “traditional distinction made in lexicology between homonymy and polysemy.” Both, according to him, deal with multiple senses of the same phonological word, but polysemy is involved if senses are judged to be related. This is an important distinction for lexicographers in the design of their dictionaries, because polysemous senses are listed under the same lexical entry, while homonymous

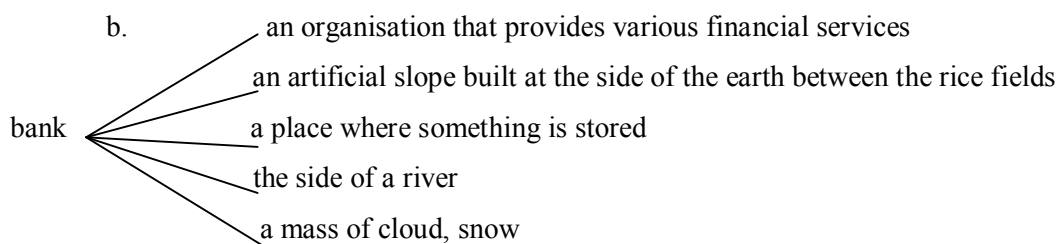
senses are given separate entries. Consequently, Palmer (1981) draws his own distinction between polysemy and homonymy by saying that the distinction is not always an easy one. The problem, according to Palmer (1981:101), lies in the fact that, “... if one form has several meanings, it is not always clear whether we shall say that this is an example of polysemy (that there is one word with several meanings) or homonymy (that there are several words with the same shape).” One way to settle the problem, according to Ndimele (1999), is to examine the several possible senses of a word. Whereas the several meanings of a polysemous word must be related (i.e, the several senses share a common core in their different meanings), the meanings of homonyms are never related in any way. Example:



As in



Note that example (51a) is figuratively derived.

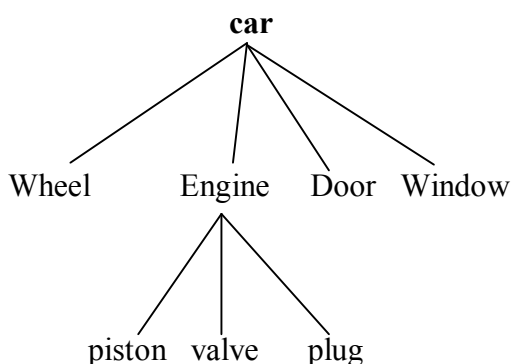


(Adapted from Ndimele 1999:57)

g. Meronymy

This is a term used to describe a part-whole relationship between lexical items. Thus, *cover* and *page* are meronyms of *book*. Saeed (2007:71) says that we can “identify this relationship by using sentence frames like X is part of Y, or Y has X, as in A page is part of a book or A book has pages.” Meronymy reflects hierarchical classifications in the lexicon somewhat like taxonomy. Example:

Fig. 9



h. Metonymy

Based on Goddard’s (1998) definition of *metonym*, many shifts of meaning are possible. Metonym, according to him, involves the use of an expression denoting one person or thing to refer to someone or something associated with it. For instance, the use of personal names to refer to events that the individual named is responsible for the meaning shift in the sentence below:

52. Obama invaded Iraq.

Obama here refers to the United States of America

Yule (1996) says that when our everyday experiences are considered, some meanings of words result from a similarity which makes them associate together. Yule further exemplifies the close connection as container – content relationship, (bottle – coke; can – juice); whole – part relationship (car – wheels; house – roof) or representative – symbol relationship (chief – red cap; the presidency – Aso Rock). Therefore, when one says, “The Aso Rock nullifies the election”, we understand it, even though ‘Aso Rock’ cannot literally perform those actions attributed to it. It is understood because such a meaning has been conventionalised.

Having presented an overview of different sense relations, the next section of the the thesis looks at the state of art in polysemy, which is the sense relations focused on in the study.

2.4.4 Theory of polysemy: General background information

Crystal (1991:267) traditionally defines *polysemy* as the situation where “a lexical item has a range of different meanings.” But there have been some discussions on the terminology used for the definition of what a word is in dictionaries. Leech (1981) proposes two definitions for lexical item:

- a. a bundle of lexical entries sharing the same morphological specification
- b. a bundle of lexical entries sharing the same morphological specification and the same syntactic specification (p. 229).

Leech’s argument is that it would be better to name each definition with a different term, namely ‘lexical item’ and ‘lexeme’ respectively. In this thesis, no distinctions are made

between these terms, because the words dealt with in the analysis fall within the scope of the two.

Crystal's definition seems very simple and straight forward at first look, but since Bréal (1900) addresses the problem that this term may involve, many linguists have tried to find a solution to it, without providing a convincing answer for it, (see Nerlich and Clarke (1997) for detail). Usually, polysemy is presented in opposition to homonymy. The basic criterion for differentiating between the two is to say that polysemy happens when one form has several meanings and homonymy, when two lexical items happens to have the same phonological form. In relation to homonymy, Taylor (1995), differentiates between homonymy and monosemy, where the former is only restricted to those cases when unrelated meanings are attached to the same phonological form and the latter when the lexical item has a single sense.

These definitions could make the problem look simple and place both cases at opposite ends; especially if we consider a typical example of polysemy, like the verb 'run', or at examples of homonymy such as 'bank' (blood bank, river bank). However, these definitions according to Lehrer (1974) do not work for most of the cases where there is an ambiguity in meaning, mainly because of the enormous number of borderline cases in which the differences between one term and another are not clear-cut. The next section reviews some main approaches to the study and distinction between polysemy and homonymy in an attempt to present a lucid view of polysemy.

2.4.4.1 Traditional approach to polysemy

From the traditional prescription, the distinction between polysemy and homonymy is based on whether there are one or two lexical items involved. Lyons

(1977:590) refers to them as two types of lexical ambiguity, (see Tuggy 1993 for discussion related to ambiguity in relation to homonymy and polysemy) and introduces some criteria for deciding when it is polysemy and when it is homonymy. Ibarretxe (1999) posits that one criterion is etymological information about the lexical item in question. Lexical items with the same origin are considered as polysemic, whereas if they have evolved from distinct lexemes in some earlier stage of the language, then they are regarded as homonymous. This condition is not reliable because the history of a language does not always reflect its present state. For example, in present day English (PDE) the lexemes *pupil*₁, ‘student’ and *pupil*₂ ‘iris’ (of the eyes) are not related according to English native speakers, but they are both derived from Latin ‘pupillus/papilla – ‘ward’, ‘orphan – boy’, which is itself a diminutive of pupus – ‘child’. The opposite case is also fairly common, namely, when native speakers consider two lexemes derived from different roots in an earlier stage of the language as related. For example, the lexemes *ear* – ‘organ of hearing’ and *ear* – ‘spike of corn’ come from two different origins: ‘ear₁’ evolves from OE *êare* from IE *aus* – (Latin *auris* – ear) and ‘ear₂’ from OE *êar* (Latin *acus*, *aceris* ‘husk’) and they merged into ‘er(e) in ME. However, most people presently treat these two lexemes as one polysemous word and explain their relation by means of metaphor. Therefore, the etymological criterion can be very misleading when deciding between homonymy and polysemy.

Another criterion in the traditional approach according to Lyons (1977) is the unrelatedness vs. relatedness of meaning, i.e. the native speaker’s feeling that certain meanings are connected and that others are not. Lyons says that one of the major setbacks for this criterion is that relatedness of meaning appears to be a matter of degree, together

with the fact that sometime native speaker's intuitions are far from being the true interpretation, as has been seen with the 'ear' example above. Attempts to formalize this relatedness of meaning have also been made. Katz and Fodor (1963), Katz (1972) 'Componential Analysis' proposes the decomposition and breakdown of the sense of a word into its minimal distinctive features, i.e. into semantic components which contrast with other components. These minimal distinctive features according to Leech (1981:96) produce formulae known as componential definition of the type $(\pm \text{ human}), [\pm \text{ adult}] [\pm \text{ male}]$ for the description of lexemes such as 'boy', 'girl', 'man', 'woman' in the semantic field of the 'human race'. But it is rather unfortunate that this type of approach is not sufficient for the polysemy-homonymy problem. To start with, the relatedness in the different sense of a word might not be expressible in terms of ' \pm ' features and also because in some cases, these features are present in different degrees, not in absolute terms. A good example of this problem is the word *bachelor* (Fillmore 1977, 1982). In the simplified world, where people are marriageable at a certain age, mostly married at that age and stay married to the same person, *bachelor* is just any unmarried male past marriageable age. But outside this simplified world, the word *bachelor* does not apply. This is why we find it so odd to call the Pope or a twice-married divorcé *bachelor*, even though they both meet the criteria of the definition given above. Again, as Lyons (1977) points out,

the possibility or impossibility of decomposing the senses of lexemes into a (structured or unstructured) set of semantic components is irrelevant, unless we can specify just how many components, or alternatively, what kind of

components, two senses must share in order for them to meet the criterion of relatedness of meaning (p. 553).

But Ibarretxe (1997) processes a solution using the Polysemy Selection Processes. Here, different properties present in the prototypical meaning of the lexeme, make it possible to describe such lexemes and then see how only some of these prototypical properties are present in the potential polysemous senses that may belong to such a lexeme. This, according to Ibarretxe, would be a possible formal explanation for such relatedness of meaning among possible polysemous words.

Another way of establishing polysemy is to search for a central or core meaning. Based on the classical definition of a category as a set of necessary and sufficient conditions of membership, Allerton (1979) proposes that when different senses of a lexeme share a core meaning, they are polysemous. Conversely, if the core meaning cannot be extracted, they are considered as homonymous. For instance, the word 'paper' can mean 'newspaper', 'document' or 'academic lecture'; all these senses share the core meaning of 'important written or printed material'. Palmer (1981:105) says that this is possible when we have cases of metaphors, and other senses have been transferred from that core meaning. The problem of this criterion is again, to decide what the core meaning is. As will be seen later in the review under cognitive linguistic approach, neither the core meaning approach nor Palmer's acceptance of it in metaphorical cases is accepted. This is because metaphor is understood as a motivated transfer between two different domains and this core meaning approach totally defeats any attempt to show a motivated account of semantic extension.

The syntactic behaviour of linguistic forms in question is another important distinction between polysemy and homonymy. Traditionally, homonymous words are thought to be represented by two different syntactic categories. As a solution to the above insufficient criteria, Lyons (1977) proposes the possibility of circumventing the problem: the maximisation of either homonymy or polysemy; that is to say, either to associate a separate lexeme with every distinct meaning, or group every distinct meaning under the same lexeme. The maximisation of homonymy is the alternative preferred by Kempson (1977), who proposes a 'constant semantic value' (1977:82) for each lexical item in a language. If a lexical item has more than one sense, it is characterised separately without taking into account the relation of this sense with the other meanings conveyed by that lexeme. The other possibility, the maximisation of polysemy, is taken by Cognitive Linguistics, although it is restricted as they only consider the senses associated with a polysemous word with the same syntactic category. Neither of these possibilities offers a complete solution, although for methodological reason, the latter is preferred to avoid an infinite number of dictionary entries. On the reasons put forward by Lyons for rejecting the maximised homonymy alternative is precisely the fact that distinctions of sense can be multiplied indefinitely as in examples such as 'mouth of the river', 'mouth of the tunnel', 'mouth of the cave', etc. Taylor (1995:105) also rejects this possibility on the basis of a prototype categorisation theory. But one should bear in mind what actually causes the multiplicity of meaning; is it the possible ambiguous lexemes (mouth) or the lexeme in conjunction with other modifiers or arguments (of the tunnel, of the cave, of the river, etc.).

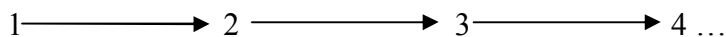
The above traditional approaches to polysemy provide a more or less successful descriptive analysis of what polysemy and homonymy are; what lexical items are homonymous or polysemous. Their major problem, however, is that they fail to address some fundamental problems: why these lexical items have several senses attached to them; how these meanings are structured; that is, are these senses grouped under the same lexical item by chance or is there any motivation for the lexical item to convey specific meanings? Is the semantic content of a single lexical item enough to create polysemy or, on the contrary, is the interaction with semantic content of the other lexical items that co-occur in the same necessary? These issues, neglected by traditional approaches, are at the core investigation of cognitive semantics approach.

2.4.4.2 Cognitive semantic approach to polysemy

The cognitive semantic model, according to Lakoff (1987:316; Johnson 1987:193), emphasizes the systematic relation of meanings that takes place in polysemy. What matters here is not the multiple meanings of words but the fact that these multiple meanings are related in a natural and systematic way.

Polysemy, according to Lakoff (1987), is seen as categorisation. Therefore, the related meanings of words form categories and these meanings bear family resemblance on one another. According to Taylor (1995:108), these family resemblances are explained in terms of ‘meaning chains’. A word can bear different meanings, 1, 2, 3, 4... Meaning 1 is related to 2 by virtue of some shared meaning attributes or other kind of similarity. Meaning 2, in turn, becomes the source of a further extension of meaning 3 and so on. This ‘meaning chain’ can be represented in Fig. (10), where any node in a meaning chain can be the source of any number of meaning expressions.

Fig. 10



Taylor compares this ‘meaning chain’ to Lakoff’s ‘radial categories’. According to Lakoff (1987), a category is structured radially with respect to a number of sub-categories: there is a central sub-category, defined by a cluster of covering cognitive models and, in addition, there are non-central extensions which are not special instances of the central sub-category, but variants of it. Furthermore, Lakoff says that the extensions of the central model are not random, but motivated by the central model plus certain general principles of extension.

Polysemy, therefore, is the result of the extension of Idealised Cognitive Model (ICM) to form radial categories. Sometimes, a single ICM can be the basis for a collection of senses that form a single natural category. For instance, the ICM of the lexeme ‘window’ can take three meanings: ‘an opening in the wall’, ‘a frame fitting into the wall’ and ‘the glass/wood filling the frame fitting into the wall’. The three senses are not unrelated; they form a natural category of senses, where correspondences remain physical. These correspondences have been explained in terms of ‘image schemata’; i.e., recurring structures of, or in, our perceptual interactions, bodily experiences and cognitive operations (Johnson 1987:79). Pustejovsky (1995) calls this type of polysemy ‘complementary polysemy’; i.e. where the alternative readings are manifestations of the same core sense in different contexts.

In some cases, these correspondences do not take place within the same ICM, but between the ICMs of two domains. Lakoff & Johnson (1980) propose ‘conceptual metaphor’ as one of the means for relating the different senses of a word. Metaphor is

understood as an experientially-based mapping from an ICM in one domain to an ICM in another domain. The main focus of this model of polysemy has been the prepositions, where Brugman (1981, 1988), Lindner (1982) and Vandeloise (1991) in their analyses show the regularities and motivation among the different senses which prepositions convey (see section 2.2). But as we shall observe in chapter four of this thesis, it has also been applied to the study of polysemy and semantic change in other fields such as perceptive verbs.

How and to what extent in which cognitive semantics tackles polysemy provides us with a framework that explains and shows that meanings are not grouped together under the same lexical item by chance. There is a bodily-based motivation that causes and organises radial categories of meaning. These radial categories are structured by means of metaphor and metonymy. This model will be used in this work to explain why perceptive verbs have the polysemous senses that they seem to convey. This is because the model offers a good explanation of why polysemous senses are grouped together under the same lexical item. Its main shortcoming, however, is that it fails to account for how these polysemous senses are created, that is, what it takes to create polysemy, the semantic content of one lexical item, or the semantic content of that lexical item in relation to the semantic content of other lexical items. Cognitive semantic approach fails to provide a sound solution, so, another model is needed to take care of these shortfalls, and this is the Generative Lexicon of Lexical Semantics.

2.4.4.3 Lexical semantic approach to polysemy

This model hinges on Pustejovsky's (1995) 'Generative Lexicon' approach to the problem of lexical ambiguity, to the multiplicity of word meaning and to the question of

how we are able to give an infinite number of senses to words using finite means. The main interest of this approach is that a core set of word senses is used to generate a larger set of word senses when individual lexical items are combined with others in phrases and clauses. This system, according to Pustejovsky, has four levels (argument structure, event structure, qualia structure and lexical inheritance structure), which are all connected by generative domains (type coercion selective binding and co-composition) that provide the compositional interpretation of words in context.

Pustejovsky argues that former approaches to natural language semantics have ignored either the problem of how words are used in novel contexts (which is a natural language situation) or the creation of such new senses on the basis of compositionality. In languages, words can have more than one meaning but the means in which this extension of meaning is carried out can vary. Pustejovsky, therefore, distinguishes two types of ambiguity viz. contrastive and complementary ambiguity.

Contrastive ambiguity, traditionally known as homonymy, takes place when a lexical item accidentally takes two distinct and unrelated meanings. Pustejovsky is not interested in the reason (orthographical, historical, etc.) for this ambiguity's association of senses to occur, as they are not relevant for the lexicon construction and the synchronic study of meaning, but in the various processes that can disambiguate lexical items with this type of ambiguity. He proposes three processes:

- a. Pragmatically constrained disambiguation: when the comprehension of the utterance is performed in a specific context
- b. Priming and context setting: disambiguation by virtue of the discourse within which the sentence appears

c. Sortally constrained disambiguation: the knowledge of the predication relation in the sentences.

Consequently, ‘complementary polysemy’, according to Pustejovsky, is when lexical senses are manifestations of the same basic meaning of the word as it occurs in different contexts. He shows the difference between the changes in categories of lexical item and those where it does not change; the latter he calls ‘logical polysemy’. These multiple senses of a word have overlapping, dependent or shared meanings which seem to be systematically related.

The major difference between these types of ambiguity lies in the manner in which the senses are related. While contrastive ambiguity shows contradiction in nature, i.e., one is available only if every other sense is not, complementary polysemy shows a weaker shadowing effect, but both senses are relevant for the interpretation of the lexical item in context in as much as one seems to be focused for purposes of a particular context.

Pustejovsky’s Generative Lexicon proposes a model that addresses the question neglected by cognitive semantics – of how senses are created. It states that a core set of word senses is used to generate a larger set of word senses when individual lexical items are combined with others in phrases and clauses. Polysemous senses are, therefore, understood as manifestations of the same basic meaning in different contexts. A strong compositionality model, consisting of four levels of representation for a lexical item, and generating connecting devices, explains these senses. This framework seems the most suitable for explaining how the semantic content of different lexical items interacts in

order to create polysemous senses. In this thesis, the strengths of the three (3) approaches are adopted in the data analysis of the polysemous senses in two Igbo perceptive verbs.

2.5 Perceptive verbs: Brief background information

According to Sekuler and Blake (1994), perception is a biological process wherein the brain derives descriptions of objects and events in the world, using information gathered by the senses. Thus, the traditional five senses – vision, hearing, touch, smell and taste – have been described as “channels for information about the world” (Sekuler & Blake 1994), and as “different modalities for conveying information about the physical world” (Classen 1993: 4). There are two key words in these definitions: ‘information’ and ‘different’. The five senses provide information about the world where people live in, but the way the information is perceived, processed, and understood by human beings is different. These differences are based on biological and cultural constraints. Biologically, each sense has its own receptors – eyes, ears, skin, nose, mouth – and its own pathways to the brain. Each sense receptor responds to different stimuli: light, sound waves, mechanical disturbances, volatile substances, and soluble substances. In addition, each sense has a particular range beyond which it cannot go. For instance, the eyes cannot see ultra violet rays, and the ears cannot hear ultra sounds. Culturally, human beings rely more on some senses than on others. The sense limitations are also reflected to an extent on the worldview and cultural background of the perceiver.

2.5.1 Classification of perceptive verbs: A semantic approach

The semantic field of perception according to Ibarretxe (1999) has five components: vision, hearing, touch, smell and taste. Usually, the concept of perception

refers to verbs as see (hú), look (lé), hear (nú), listen (gè), feel (métú), etc. According to Poutsma (1926:341), the first group of perceptive verbs is traditionally described as “the receiving of and expression by the senses independently of the will of the person concerned”. Observe example (53) from Viberg (1984):

- 53 a. Peter *saw* the birds
 b. Peter *heard* the birds.
 c. Peter *felt* a stone under his foot.
 d. Peter *smelt* cigars in the room (p. 123).

In (53), the subject of the sentence *Peter* does not consciously control the stimuli; it is just a state or an onset of action (inchoative). The process described in the verbs (53a-e) is that of the perception of various phenomena through the relevant sense organs: eye, ear, skin, nose and mouth respectively.

Palmer (1966:19) calls the above set of verbs “passive perceptive”; Leech (1971:23) calls them ‘inner perception’; Rogers (1971:206) refers to them as ‘cognition’, Viberg (1984:123) calls them ‘experience verbs’, while Lehrer (1990:223) says they are ‘stative with experience subject’.

The second group of perceptive verbs is those shown in (54), also from Viberg (1984)

- 54a. Peter *looked* at the birds.
 b. Peter *listened* to the birds.
 c. Peter *felt* the cloth (/to see how soft it was/), here, the two slanting lines refer to the test frame.
 d. Peter *smelled* the cigar (/to see if he could smoke it/)
 e. Peter *tasted* the food (/to see if he could eat it/) (p. 123).

Poutsma (1926:341); Leech (1971:23); and Rogers (1971:206; 1972:304) refer to verbs in (54a-e) as active perceptive verbs; Viberg (1984:123) says that they are ‘unbounded process that is consciously controlled by a human agent’ while Lehrer (1990:223) calls them ‘active experiencer subject’.

In order to show the difference between the first and the second groups, Gisborne (1996) introduces a test frame using ‘deliberately’. He assumes that those verbs can occur with adverbs to be classified as ‘agentive’ (active) verbs whereas those verbs that do not easily occur with adverbs are examples of involuntary perception. The examples Gisborne (1996) gives include:

- 55a. Jane was *deliberately* listening to the music.
 b. *Jane *deliberately* heard the music (p. 1).

The verb *listen* in 55a shows that if it accepts the adverb *deliberately*; it can be classified as an agentive verb while in (55b), the infelicity of this adverb with ‘hear’ indicates that it is an experience verb.

The third and the final groups according to Viberg (1984) involve those verbs whose subjects function as the stimuli of the perception as in (56) below:

- 56a. Peter *looked* happy.
 b. Peter *sounded* happy
 c. The cloth *felt* soft.
 d. Peter *smelled* good/of cigars (here also, the /...../ refers to the test frame)
 e. The food *tasted* good/of garlic (p. 124).

According to Rogers (1971:206; 1972:304), verbs in the third group are called flip verbs. Viberg (1984:123) refers to them as ‘copulative verbs’, Lehrer (1990:223) calls them

‘stimulus subject’, Gisborne (1996:1) says they are ‘percept verbs’, Uwalaka (1988) calls them experiential verbs while Uchechukwu (2007) sees them as agent-oriented and patient oriented verbs.

From the foregoing description of these groups of perceptive verbs, different terminologies and concepts are used by various authors in representing verbs of perception. In this data presentation and analysis based on the nature and manifestation of Igbo perceptive verbs, the concepts adopted are Leech’s concepts of inner perception-based verb (i.e. active and inner perception) and Gisborne’s source-based verbs (i.e. percept).

2.6 Empirical studies

The question of exactly how many senses should be associated with a word is still largely unresolved. Some contributors (e.g., Tuggy 1993) argue strongly for the polysemy approach, on the grounds that a single general meaning (such as ‘emerge’ in the case of the Orizaba Nawati verb *Kisa*) does not allow us to predict the range of specific, conventionalised uses of a word. Others, such as Allwood (1999), tend to favour more abstract meanings. Janssen(1995) argues that the general meaning approach (monosemy) is complementary to a polysemy approach. Zlatev (2009) on the other hand, pointedly notes that the question ‘Generality or Polysemy?’, does not permit a coherent answer.

Concerning word meanings themselves, the question arises whether we should pursue a componential approach, whereby the meaning of a word can be analysed into more primitive elements. If so, what is the nature of these more primitive elements? Are they universal? Are they abstract conceptual elements or are they grounded in

experience? These issues are addressed by Vandeloise (1990), who explores the relevance of the experientially grounded (but prelinguistic) notions of control, containment, and support in the semantics of English ‘in’, and of its (near and not so near) equivalents in other languages. Like Vandeloise, Soares da Silva (1999), in his study of the Portuguese verb ‘deixar’ – ‘to leave, to let’, also emphasises the role of experientially-grounded notions of force dynamics in his account of the many uses of the verb in modern languages, and also their role in the historical development of the word from its Latin progenitor, ‘laxare’.

Allwood (1980), in his study of intention and result of verb meaning, says that most action verbs can be associated with an intention and a result and, very often, only one of the two needs be present to justify the use of an action verb to describe a particular action. He supports his assertion using the following examples:

57a. I warned him but he did not hear me. (intentional warning; ‘to notify’)

b. I flattered him unintentionally. (resultative flattery; e.g., It flattered him that we still know him).

Based on the above explication, we may ask whether intentional warning and resultative warnings, or intentional flattery and resultative flattery, constitute two different meanings of the verbs ‘to warn’ and ‘to flatter’. Our answer will probably again depend on our view of meaning. If our criterion is necessary and sufficient conditions (our answer will probably be yes, since it seems difficult if not impossible to define *warning* without taking either intention or result into account; it is equally clear that the appropriate

intention and result are not always present. Again, having only one meaning for ‘warn’ or ‘flatter’ runs the risk of being too abstract, even vacuous).

Allwood (1980), by adopting the *Gesamtbedeutung* or ‘intersection approach’ (meaning potential) and the *Grundbedeutung* or ‘basic example’ approaches to lexical meaning, investigates the meaning of the verb ‘gå’ (to walk, to go) in Swedish. He presents some of the very many uses of the verb.

58a. Pelle går i skolan.

‘Pelle goes to (attends) school.’

b. Bilen går bra.

‘The car runs smoothly.’

c. Motorn går inte.

‘The motor does not function.’

d. Motorn går att laga.

‘The car can be mended.’

e. Det går inte att röka här.

‘It’s not possible to smoke here.’

f. Det går inte an att röka här.

‘It’s not socially acceptable to smoke here.’

g. Han går ofta på rutar.

‘He often runs into problems.’

h. Han går ofta på bluffar.

‘He is often fooled.’

i. Han går på alla så där.

‘He attacks everyone that way.’

Allwood asks the question of how many meanings of ‘gå’ should be assumed. He asked whether the word is homonymous or polysemous. Furthermore, he says that even if the problem can be somewhat reduced in complexity by regarding some phrases as separate verb-particle constructions, the question arises as to whether there are in fact a finite number of meanings for *gå* or whether, as it seems more likely, the number can be expected to vary with new meanings being continuously added, which would imply that any approach based on a fixed set of meanings, whether it be based on generalisations or basic examples, would be inadequate. In conclusion, Allwood (1980) posits that the best approach to the verb meaning of *gå* is the theory of meaning potentials using polysemy and homonymy. He suggests that the basic unit of word meaning is the meaning potential of the word. The meaning potential is all the information that the word has been used to convey either by a single individual or, on the social level, by the language community. The meaning potential, then, does not result from trying to find a generally valid meaning for a word (verb); rather, it is the union of individually or collectively remembered uses. This union of uses may serve as a basis for attempting to find a common meaning in terms of some criterion of typicality. Furthermore, he says that the meaning potential is a unit on a more basic level than *Gasamtbedeutung* and *Grundbedeutung* approaches to word meaning and is, therefore, potentially compatible with both. Also, Allwood says that this theory best accounts for the meaning of verbs because it makes no attempt to distinguish between lexical and encyclopedic information in terms of the kind of

information that is contained in the meaning potential. Rather, it contains both kinds of information – information deriving from use of language and information deriving from other experience with the world.

Following Fillmore and Atkins (2000), Allwood also characterises verb meaning. According to him, the characterisation of verb meaning raises a host of well-known problems. One concerns the level of generality at which verb meanings are to be identified. It is evident that verbs can be used to designate a range of different situations. According to Allwood, if we predicate ‘crawl’ of different kinds of entities, as in the following examples, it is evident that we are dealing with different manners of motion:

59a. A small baby *crawled* out on its hands and knees.

b. The two hedgehogs *crawled* from the nest.

c. A beetle began to *crawl* up his leg.

d. She felt his hand *crawling* up her thigh.

e. A cloud of steam *crawled* slowly upwards from the chimney.

f. I *crawled* into my sleeping bag. (The examples are taken from Allwood’s paper, who cites them from Fillmore and Atkins (2000))

Faced with examples such as (59) above, the question arises whether we should associate *crawl* with six distinct meanings, one for each of the six different processes exemplified in (59), or whether a single, general meaning should be postulated, which somehow gets elaborated in different ways in the different contexts.

The answer to this question impinges on the vexed topic of polysemy versus monosemy. Suppose a strict compositionality is insisted on, and it is required that the meaning of the parts fully determine the meaning of the whole, with no ‘surplus’ meaning accruing to the whole which is not derivable from its parts. On this approach,

six distinct senses of ‘crawl’ should be recognised. Only in this way can the computation of the specific readings of each of the sentences in (59) from the meaning of their parts be achieved. But since the number of entities of which ‘crawl’ can be predicated is indefinite, we should have to suppose that ‘crawl’ (and many other words in the lexicon) is indefinitely polysemous, and indefinite polysemy is something which Searle (1983:146), finds ‘absurd’. The alternative would be to recognise a single, rather vague and general meaning of ‘crawl’, which somehow gets elaborated in different ways in the context in which it occurs. This approach also has its problems. Rather, obviously, the approach means that strict compositionality must be given up. It also implies that the speaker cannot offer the hearer a container with a well-defined content (i.e., a fixed meaning) that would simply need to be unpacked, with little interpretation work needed on the part of the hearer. Second, it becomes needful to state, preferably by appeal to general principles of interpretation, how the single meaning gets elaborated in each particular case. Third, it may turn out to be tantalisingly difficult to characterise this single general meaning, abstracted away from its specific instances. Moreover, the general meaning will need to meet two additional requirements. It must be stated with a sufficient degree of detail so as to delimit the range of permissible elaborations. It is evident, according to Allwood, that ‘crawl’ cannot be predicated of any and every entity that moves; the meaning must also be differentiated from the meaning of semantically similar words such as ‘creep’.

Allwood (1980) further points out that lexical items can be used to designate different situations (e.g. crawl up one’s leg versus crawl from the nest); in other words, they are elaborated in different ways in different contexts. In this regard, Allwood

introduces the notion of a word's meaning potential; a word provides access to a conceptual complex, only some aspects of which may be highlighted in a certain context.

But evidence that words do not require meanings out of context also comes from acquisition research. Rice (1996) specifically addresses the acquisition of the English preposition. It is evident that speakers (mostly) do not learn words as such, they learn words in the context(s) of their use. The meanings of the composite expressions, as encountered, are, therefore, in a sense more basic than the meaning of the parts of which they are composed. Rice presents evidence that children do not acquire the English prepositions by starting out from what have often been presumed to be the prototypical, or central senses of the prepositions, gradually extending their uses according to the structure of a radial network. Rather, it seems that children might initially acquire uses which, in terms of the radial network model, are somewhat peripheral. These findings call into question, the psychological reality of radial network representations of polysemy.

In his investigation of polysemy in English, using the verb 'to run', Gries (2005) adopts the cognitive-linguistic approach positing that one of the central areas of research within cognitive linguistics has been the investigation of polysemy of lexemes and constructions. Furthermore, he avers that, traditionally, the idea that a word is polysemous entails that the particular lexeme under investigation (i) has more than one distinct sense (otherwise the lexeme would be considered vague) and (ii) that the senses are related (otherwise it would be considered homonymous). Although it is probably fair to say that cognitive linguists have focused on the analysis of how different senses of a word are related to each other, they have of course also been aware that the motivation of senses can only be discussed once the distinctness of senses has been established. Using

the cognitive oriented analysis, Gries provides token frequencies of the different senses of all 815 instances of ‘to run’ from the British component of the *International Corpus of English* and the *Brown Corpus of American English*. The senses were identified manually and mainly on the basis of match of citation to senses listed in dictionaries and in Wordnet following Fillmore and Atkins (2000) cognitive mechanism. Below are the examples of the intransitive uses of ‘to run’. According to Gries (2005:63), the central, or prototypical, sense of ‘to run’ appears to be that of ‘fast pedestrian motion’ as in (60).

60. Simons had run down to the villa to get help.

Other closely related senses are exemplified in (61) where motion is still fast but not necessarily pedestrian) and (62) where the motion even need not be fast anymore – in this example, however, the sentence also implies that the boat makes this journey regularly.

61. Yet they keep running from one physician to another.

62. There are three boats that run mainland to the Island, (see Gries (2005) for more details).

In the discussion of his findings, Gries maintains that ‘to run’ points at nearly uniformly into a different direction, namely that, as he claims above, ‘to run’s prototypical sense is instantiated by ‘fast pedestrian motion’ as in (60) because the sense ‘fast pedestrian motion’ is the most frequent sense used in early stages of acquisition. Again, Gries says that according to etymological dictionaries, which are based on the analysis of historical texts and thus, adopt a corpus-based approach, the exact (semantic) and [phon]ological originations and interactions are at once complicated and obscure (Partridge 1961: SV. Run), but the diachronically primary senses are ‘fast pedestrian

motion' and 'to flow'. Finally, Gries, posits that like so many other English verbs, 'to run' can be zero-derived to function as a noun.

Vyvyan (2004) writes on the polysemy of the lexeme *time* and argues that the lexeme *time* constitutes a lexical category of distinct senses instantiated in semantic memory. This array of distinct senses, according to him, constitutes a motivated semantic network organised with respect to a central sense termed the 'sanctioning sense'. Furthermore, he posits that the senses associated with *time* are derived by virtue of the interaction between the sanctioning sense, conceptual processing, structuring and context. Hence, semantic representations, cognitive mechanisms and situated language use are appealed to in accounting for the polysemy associated with *time*. The model which Vyvyan adduces from the sanctioning sense he termed Principled Polysemy, (See Tyler and Evans 2001b, 2003). In order to adduce what constitutes a distinct sense, Vyvyan (2004) introduces three criteria for analysing sanctioning sense: a meaning criterion, a concept elaboration criterion and a grammatical criterion.

By using the constructional approach of Fillmore, Kay & O'Connor (1988), Jackendoff (1997) and Hsiao (2003) posit that construction grammar is that phrasal constructions, like lexical items, which can be polysemous. To be precise, a construction is typically linked with a set of related senses and should be better characterised as polysemous (like morphemes) since a strict lexical-syntactic partition is rejected. An example of such constructional polysemy is found in Goldberg's (1995) caused-motion construction, where various senses are selectively reproduced in the example below:

- 63a. Sam shoved it into the carton.
b. Sam asked him into the room.

- c. Sam let Bill into the room.
- d. Harry locked Joe into the bathroom.
- e. Sam helped him into the car, (p. 199).

The central sense of the causes-motion, according to Hsioa (2003), specifies both causation and actual movement, as in (63a) above. The second sense is shown in (63b) where the motion is not rigorously entailed. (63c) and (63b) present a pair of antonymous senses: the former involves the removal of a barrier, whereas the latter presents one. The fifth sense, as in (63e) denotes a continuing status of assistance in motion. In those constructions, argument roles are associated with direct syntactic relations. Details omitted, the argument linking the central sense in (63a) is structurally represented in Fig. 10 argument profiling (simplified from Goldberg 1995)

Fig. 11

Semantics	CAUSE-MOTION	<	cause	path	theme	>
	1		1	1	1	
Syntax	V		SUBJ	OBL	OBJ	(p.163)

Also in Fig. 11, certain argument roles are profiled (indicated by boldface) as semantic or discourse preponderant elements. Significantly, not only semantic information but also topical and focal information in the discourse is represented in phrasal constructions. In this fashion, construction grammar somehow dissolves the boundary between semantics and pragmatics.

Brugman & Lakoff (1988:78) argue that “a polysemous lexical item is a radial category of sense,” and posit different schemas of the English preposition *over*, which often differ only with respect to properties of the landmark. For instance, in (64a) the

landmark (the hill) is vertical whereas in (64b), it (the yard) is not, (Brugman & Lakoff 1988:482-483 examples).

- 64a. The plane flew over the hill → Schema 1 (above and across): vertical extended landmark, no contact.
- b. The bird flew over the yard → Schema 1 (above and across): non-vertical extended landmark, no contact

The full-specification approach has been criticised for its methodological vagueness, (resulting in the high degree of granularity- i.e., minimally different senses), its vagueness of representational convention and its lack of clarity concerning the linguistic and cognitive status of its network architecture (see Sandra and Rice 1995 for full discussion and examples), and other approaches have been adopted to resolve this question on a principled, no-arbitrary basis. For example, Sandra & Rice (1995) as well as Rice (1996) argue in favour of (prepositional) polysemy on the basis of different experimental results. Alternatively, Tyler and Evans (2001) develop a principled-polysemy approach in which a distinct sense of ‘over’ is only posited (if and only if) the meaning of ‘over’ in one utterance involves a different spatial configuration from ‘over’ in another utterance and cannot be inferred from encyclopedic knowledge and contextual information.

To elaborate on the preposition *over* using the image schemata, the particle, ‘over’ has been analysed by several linguists like Brugman (1988), Lakoff (1987) and Radden (1991). The reason why it has attracted so much attention might be that it reveals a complexity of schematic meanings which are missing in the case of other particles.

Brugman (1988) analyses a large number of the senses of *over* and concludes that lexical items are natural categories of senses. Her analysis is based on two distant parts;

- a. The determination of relations between spatial senses and
- b. Focusing on the metaphorical extensions of the spatial senses

Apart from classifying the sense of *over*, she has to cope with the problem of how to explain the variety of senses chained up, which actually derive from various grammatical categories like preposition, adverbial particle, adverb, prefix and others. The significance of her work is that she managed to show the interrelatedness of sense even through the boundaries of grammatical categories.

Looking at the relationship between landmark and trajector, Brugman (1988) observes quite a variety of options. Compared to its occasional synonym, *above*, which is limited to expressing differences in level between the two constituents of spatial configuration, *over* has a lot more to offer.

Above Vs Over

- i. The lack of contact between trajector and landmark, which is typical with *above*, is not always true with *over*:
 65. She spread the tablecloth *over* the table.
 66. There was a big mess all *over* the place
- ii. *over* is usually limited to denoting static relations, and cannot be used to describe the trajector of a flying or moving entity, while *above* often does so:
 67. The hot air balloon flew *over* the desert (lack of contact)
 68. The cat climbed *over* the fence (contact)

iii. Being a more flexible alternative in denoting spatial relations, *over* has a wide range of combinations with verbs.

69. *Knock over, fall over, run over, be over, get over*, etc each reveals a schematic specificity of meaning.

iv. Short of the potential of variability, *above* cannot be preposed in a verbal, pronominal or adjectival compound, unless embedded in a hyphenated compound whereas *over* can.

70. *Override, overshoot, oversleep, overstrung, overweight, overlook, overjoyed*, etc.

v. Apart from being constrained in several different ways, *above* is less likely to produce idiomatic meanings, i.e. it is rarely subject to the metaphorical extension of spatial meanings. *Over* has a variety of metaphorical meanings, and has developed a large number of conceptual meanings from the analysis of phrasal verbs.

71. *over and over again, over my dead body, over somebody's head, over to you*.

Below is the schema denotation in different parts of speech containing over.

1. Preverbal Element

The preverbal element including over refers to many concepts, some of which can be divided into distinct semantic groups.

a. Authority and Control

Override suggests authority and control. Orientational metaphor implying higher position which suggests that those who are in lower or inferior position, are exposed to the decision-making of those higher, which is in accordance with human experiential basis. The physical basis of figurative notions can clearly be

observed in a variety of compounds including *over* or its antonymy *under*. Other examples of the same concept include *overrule*, *overload*, *oversee*, *overmaster*, *overpower*, etc.

b. Excess

Overburden, *overblown*, *overdress*, *overlap*, *overpay*, *overrate*, etc, suggest excessive level, on account of the spatial meaning of *over* denoting motion along a path.

c. Surpassing

Overstep, *overspill*, *oversexed*, *overkill*, etc, are quite closely related to the previous group in the sense that their meanings suggest a kind of excess, but they are not necessarily identified with negative meaning. At the same time, their spatial background can perhaps even more strongly be felt than in the other groups.

d. Past a boundary

Overboard can either be used to refer to a spatial configuration, or figuratively, and thus, it presents a kind of borderline case between domains: SPATIAL and ABSTRACT.

2. Preposition

Brugman (1988:10) describes the schematic behaviour of the preposition *over*, and compares it with *across* and *above*. Her analysis suggests that *over* incorporates the other two, which is corroborated by what Lakoff (1987) says as well:

72. The plane flew *over* the field.

In the above example, the trajector (“the plane”) is a single point relative to the landmark. The landmark itself can have any topological characteristics... Its shape is not important in this particular sense. The trajector is in a position vertical to, and not in contact with the landmark. So, one of the elements of *over* in this sense is that it expresses the same relation as *above*. Similarly, the trajectory traced by the trajector corresponds to one dimension of the landmark; that is, the line segment traced by the trajectory defines one dimension of the landmark and canonically crosses one or more boundaries of the landmark. The elements are exactly those which characterise the category *across*. Notice that either *above* or *across* can be substituted for *over* in (68), with grammatical results; but either *above* or *across* provides less information about the event than *over* does, since it incorporates both the other concepts (pp. 416-461).

The preposition *over* seems to incorporate the other two from another point of view as well. While *above* presupposes no contact between landmark and trajector, *across* usually does so, which are features combined by *over*. At the same time, neither of the other two prepositions can describe the trajector *over* in sentences like:

73. The cat climbed *over* the fence.

74. Jack walked *over* the mountain, and not even the sense demonstrated in

75. The church is *over* the hillock.

Driven (2002) draws a parallel between the use of *over* and *about* exhibited in their semantic extension of place, time, area and cause:

- a. Place: *over* the mountain
- b. Time: *over* the whole year
- c. Area: debate *over*
- d. Cause: argue/fight *over* (p. 83).

Both authors (i.e Driven and Lakoff), according to Brugman (1988), however, seem to ignore examples involving a combination of path and indefinite goal, like in the following examples:

76. Geoffrey lives *over* the mountain
77. The marksman shot *over* the target (p. 42).

Example (76) could be interpreted the following ways: lives at the end of the path leading to the other side of the mountain from the speaker. The second example cannot be paralleled with the meaning of *above* or *across*, but its meaning is close to that of *beyond*.

3. Adverbial Particle

In the schematic structure of adverbial particle, the trajector or landmark coincide while with preposition, the adverbial particles do not, as was pointed out by Brugman (1988). The two examples she illustrates with are:

78. The drunk teetered and *fellover*.
79. He fell *over himself* to be nice to her (p. 43).

The trajectory that is applicable with the particle *over* cannot be found with any other particle, which makes it a unique schematic tool. We can, therefore, say that based on the above explications that *over* offers a variety of schemata, which proves flexibility

and variability. Again, the source of metaphorical structuring demonstrates basic structural similarities between spatial and figurative. Furthermore, *over* can sometimes denote two different directions in the spatial and abstract domains even when they are conjoined with the same verb. Also, *over* can denote both vertical and horizontal motion, or conceptual structuring. And finally, *over* can combine the meaning of other particles as well (like ‘above’, ‘across’ and ‘beyond’) but it is more complex in terms of schematic potentials.

Well-known studies in cognitive linguistics (e.g Brugman 1988) have assumed that the polysemous senses are carried by single lexical items, (as we saw above), without taking into account the semantics of the other elements of the sentence where those lexical items occur. Brugman’s analysis of the preposition *over* is an example of such an assumption, i.e. the spatial relational meaning is contained only in the preposition (*over*) itself (Brugman 1981; Lakoff 1987).

In her study, Brugman describes all the senses of *over* and the relations among them. She finds that the central meaning of this preposition is one that combines elements of both above and across. Other senses such as the ‘above’ sense, the ‘covering’ sense, and so on, are also identified; but for this criticism, we concentrate on the ‘above-across’ sense and some of its variants. The prototypical ‘above-across’ meaning is exemplified in (80).

(80) The plane flew over

In (80) the plane is understood as a trajector (TR) that is oriented relative to an unspecified landmark (LM). Both TR and LM are generalisations of the concepts: ‘figure’ and ‘ground’ (Langacker 1987). This sentence is represented in Figure (12)

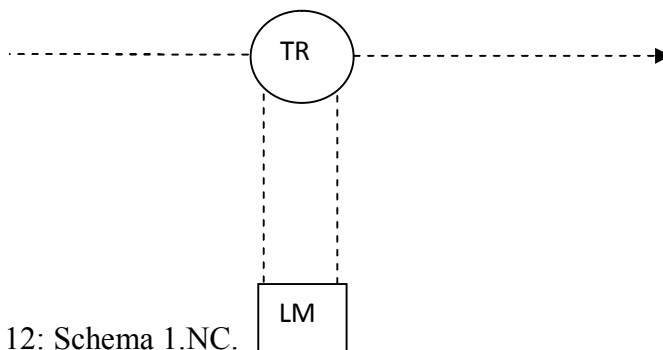


Figure 12: Schema 1.NC.

The path is above the LM and goes all the way across the LM from the boundary on one side to the boundary on the other. A dotted line represents the boundaries of the LM. There is no contact between the LM and the TR in this case. A special case of (80) is sentence (81).

(81) The bird flew over the yard

The same schema 1 in figure 12 applies to this sentence, but in this case more information specifying the nature of the LM is added. This is represented in Figure 13

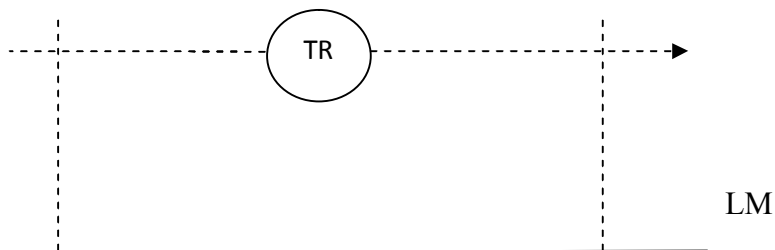


Figure 13: Schema 2.X.NC

In Fig. 13, the yard is the LM and the bird is the TR. This LM is ‘extended’, i.e. when “the landmark extends over a distance or area” (Lakoff 1987: 420). This information is abbreviated with an ‘X’ in the schema. As it was the case in (80), there is no contact

between the TR and the LM in this sentence. This is abbreviated with an ‘NC’ in the schema.

Sentence (82) is another variation of sentence (80), represented in Figure 14

(82) Sam climbed over the wall

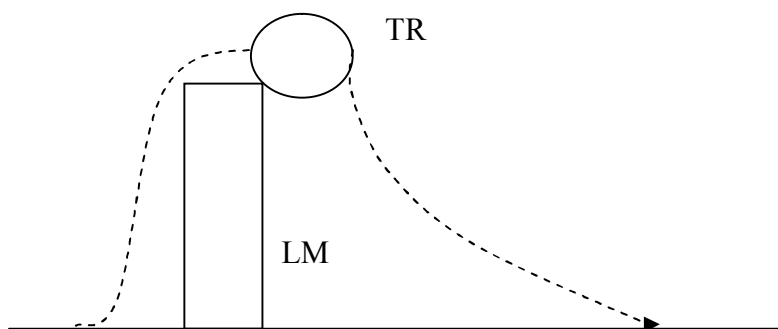


Figure 14: Schema 3.V.C

In this sentence, the LM is the wall and the TR is Sam. There are new pieces of information in (82) different from the prototypical senses exemplified in (80). The LM is ‘vertical’; that is to say, the wall is in an upward position. A ‘V’ represents this. Unlike in (80) and (81), where TR and LM did not have contact, in this case the TR Sam touches the LM the wall in the process of climbing. There is contact between the TR and the LM. A ‘C’ represents this. Finally another variation of sentence (80) is example (83) illustrated in Figure 15

(83) Sausalito is over the bridge

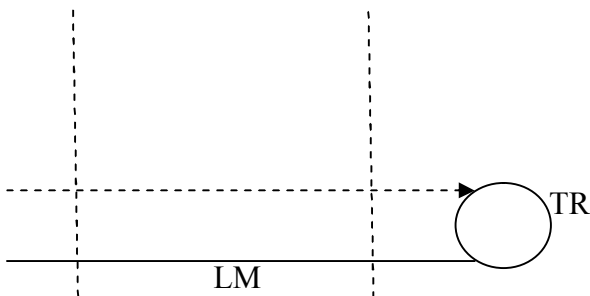


Figure 15: Schema 4.X.C.E

In (83), the LM is the bridge and the TR is Sausalito. The LM is extended, there is contact between the TR and the LM, and there is also a focus on the end point of the path, abbreviated by an ‘E’. *Over* has the sense of ‘on the other side of’.

These are just four different examples taken from Brugman’s analysis of the preposition *over*. According to this author, the central sense of the preposition *over*, ‘above-across’ has different variants depending on the contact or no contact between the LM and TR, on the position and extension of the LM and on the endpoint focus. However, not all these extra bits of information are contained in the preposition itself, but on the other elements of the sentence. For instance, the fact that in some cases *over* implies contact is not inferred from the preposition but from the verb used.

In (82), the information provided by the verb, *climbed*, automatically entails that there is a contact between the subject Sam – the TR –, and the wall – the LM –, because it is impossible to climb a wall without touching it. In a similar way, the no-contact characteristic of *over* in (80) and (81) is also implied in the verb *flew*. In most cases, when we say that something is flying, we visualise the flying object (bird, plane...) as not touching any surface (see Figure 13). In (82), the additional information that the LM is vertical, is not only provided by the LM – *the wall* – itself, but also implied by the verb *climbed*, which implies an upward movement by default. Even in the case of end-point focus, where it is claimed that this meaning is not added by anything in the sentence, but “the result of a general process that applies in many, but not all English prepositions” (Lakoff 1987: 424), the other members of the sentence contribute to this meaning.

Without the static verb *to be*, implying that there is no movement, and *the bridge* (a structure with a beginning and an end), the end-point focus could not be inferred.

All the meanings analysed in this section belong to the central meaning ‘above-across’; the same comments can be made about the other meanings assigned to *over*. For instance, *over* in a sentence like (84) belongs to the so-called ‘excess schema’. Although it is true that without the preposition *over*, it could not be understood that *the river* was carrying much more water than its banks could allow, it is equally true that without the verb *to flow* and the NP *the river*, this meaning cannot be inferred.

(84) The river overflowed

The same ‘excess’ meaning can be inferred from other sentences as well. For example, sentence

(85) *The table overflowed

In (85), the word *river* is substituted by the word *table*. At first sight, this sentence may sound a little bit odd. In the case of *river*, it is assumed that a river carries water, and metonymically understood that the excess of water in the river was what caused the flood. In (85), this process is not so obvious and that is why this sentence can be considered awkward as it stands. There are two ways in which this sentence can be turned into a felicitous sentence.

On the one hand, if we take into consideration the context in which this sentence has been uttered. Imagine, for example, that we are at a reception where there is plenty of food and drink. We did not expect so much because we were told that we were going to be given just a light snack. When we report to somebody else how the reception was, we say (85). In this case, the hearer would not have problems in understanding what we

mean by saying *the table overflowed*. On the other hand, we can add more information to the sentence itself, for example, a prepositional phrase like *with food* as in (86).

(86) The table overflowed with food

The first solution is of a pragmatic character. We rely on the external contextual information to solve the failure in the understanding process. The second solution is of a semantic character. We have solved the problem by adding a new overt element to the sentence. The semantic content of this new element has contributed to the understanding of the sentence itself.

However, according to Gries (2005) not all these approaches are equally useful. For example, it is unclear whether the results of the sorting tasks of Sandra and Rice (1995) or Rice (1996) can actually be attributed solely to semantic differences of the uses (which also undermine the results' utility in refuting monosemy approach): unlike recent experimental work by, say Klein & Murphy (2002), the experimental sentences were not balanced with respect to all lexical items contributing to subjects' decision. Moreover, different distance measures and clustering algorithms result in different amalgamation schedules and different degrees of granularity, but Sandra and Rice do not provide such details, and that makes the evaluation of their findings difficult.

According to Gries (2005), it is only very recently that cognitive semantics has turned corpus data as a source of evidence for sense distinctions. For example, Croft (1998:169) argues in favour of investigating the distinctness and conventionality of senses, corpus-linguistically. He points out how "semantically different direct objects of 'to eat' correlate with uses distinct in terms of the arguments they occur with. In addition,

Fillmore & Atkins's (2000) discussion of 'to crawl' is cognitive-linguistic in nature, in the sense that the relations between different senses of 'to crawl' are motivated both experientially and framed semantically, but also truly corpus-based as it relies on an exhaustive analysis of a complete concordance.

Furthermore, Uchechukwu (2005) investigates how many meanings the Igbo verb should have using the verb root *má* 'know'. He argues that Igbo verb roots have meanings that arise from specific image schemata and their metaphoric and metonymic extensions using the cognitive linguistic approach. His findings go against the traditional view that the Igbo verb derives its meaning from the nominal or prepositional complement within the structure.

So far, the above empirical reviews are works on cognitive semantics and polysemy which are context independent. In the following paragraph, we presented the empirical review of contextualized works involving the Igbo verb in literary genres.

Earlier studies (see sections 2.1.1, 2.1.2 and 2.4) of the Igbo verb roots show that previous studies did not investigate the Igbo verbs in context or in a natural language situation through any literary or translated work(s). Many works have been carried out in translation in the Igbo language. For instance, Ikekeonwu (1999) translates the Igbo novel *Omenuko* by Pita Nwana into Yoruba. Likewise, Nwankwo (2008) translates Chinua Achebe's *Things fall Apart* into Igbo. Also, Okeke and Kalu (2010) translate the Igbo novel *Ala Bingo* into the English language. Furthermore, Okeke (2012) translates *Animal Farm* into Igbo. Other ones are Ezika (2012) who renders the English novel *Oliver Twist* in Igbo and Chidi-Nwelo (2012), who translates Nwadike's *Okwe Agbaala* into

English, among others. Even though these works are on translation, none of them treated the Igbo verb.

Ikeokwu (2008), using the following Igbo literary works: *Udo ka mma*, *Ome ihe jide ofo*, *Nke m ji ka*, *Oku uzu daa ibube*, and *Nwata rie awo*, provides some morphological entries of these Igbo root verbs: *ke/ko*, *di* and *-nna(nominal)*. According to Ikeokwu, those verb roots are used to mark maleness or masculine form of gender. Consequently, he marks the feminine gender using *-nye/nyi*, and *-nne (nominal)*. From his analysis, Ikeokwu shows that the Igbo verb roots and stem *ke/ko*, *di* and *-nna* are extensively used in the above Igbo plays to show masculine gender as in examples (87), (88), (89), and (90) below:

-ke		-ko	
87a. <i>oke</i> ehi	‘bull’	88a. <i>okorobija</i>	‘young man’
b. ebubedi <i>ke</i>	‘the great’	b. <i>okokporo</i>	‘unmarried man’
c. <i>nwoke</i>	‘man’	c. <i>iko</i>	‘male friend’
-di		-nna	
89a. <i>dingba</i>	‘wrestler’	90a. <i>umunna</i>	‘kinsmen’
b. <i>dinta</i>	‘hunter’	b. <i>nnadi</i>	‘father-in-law’
c. <i>dimkpa</i>	‘huge man’	c. <i>nwana</i>	‘kinsman’

Consequently, Ikeokwu uses the verb roots *-nye/nyi* and *-nne* to show feminine gender as in:

-nne	-nye
-------------	-------------

91a. <i>nnekwu</i>	‘hen’	d. <i>nwunye</i>	‘wife’
b. <i>adanne</i>	‘mother’s daughter’	e. <i>nwaanyi</i>	‘woman’
c. <i>nnenna</i>	‘father’s mother’		

The above analysis by Ikeokwu (2008) is also in line with Chukwukere (2004). Both of them come to the same conclusion that the above Igbo verb roots are used to show gender in the Igbo culture. Another work involving Igbo literary genre, Akaeze (2010), is purely on language use in *Adaeze*, an Igbo novel by Nwadike, I.U. She did not handle the Igbo verbs.

2.7 Summary of the literature review

Based on the above review on the theory of cognitive linguistics, cognitive semantics, cognitive lexical semantics, polysemy and sense relation, it can be seen that cognitive linguistics offers a suitable tool for a comprehensive analysis of polysemy. Several books, articles and studies quoted in this thesis and others that are related to the topic of discussion focus on different components; Lakoff & Johnson (1980) write on metaphor and metonymy; Moon (1998) on idioms; Lindner (1983) on phrasal verbs; Brugman (1981) on the polysemy of the preposition *over*. But Brugman did not consider the context and the role of other words which *over* functions with in the sentence; Uchechukwu (2004), (2005), (2011) on image schema of Igbo verbs. Also, works done on translation, like Ikekeonwu (1999), Okeke & Kalu (2010), Nwankwo (2008), Okeke (2012) among others did not in any way discuss Igbo verbs. Furthermore, Chkwukere (2004) and Ikeokwu (2008) that used Igbo literary works in their study of Igbo verb roots explored the use of the verbs from the gender perspective. The review of literature, therefore, clearly shows that no one has attempted to analyse and classify the Igbo verbs

from the lexical semantic perspective, using polysemy in literary works, hence the relevance of this study.

One important conclusion that could be drawn from the above literature review is that there is empirical progress in the development of the discipline. The actual historical development from pre-structuralist semantics over structuralism and generativist semantics to cognitive semantics constitutes a gradual extension of the descriptive scope of lexical semantics. Cruse (2004: 328) puts it thus: "...the contemporary movement of cognitive linguistics began largely as an approach to the analysis of linguistic meaning and grammatical form in response to the loopholes of truth-conditional semantics and generative grammar." The review also shows that knowledge of language emerges from language use which provides an opportunity for cognitive linguistics to engage with the social-interactive nature of language. Speakers construe their experience for the purpose of communicating that experience to others, which in turn has a broader social-interactive purpose. Cognitive semantics also recognises that meaning is not fixed but a matter of construal and conventionalisation. The purposes of linguistic construal, it is argued, are the same psychological processes involved in the processing of encyclopaedic knowledge and in perception. Therefore, cognitive semantic theories are typically built on the argument that lexical meaning is conceptual. That is, meaning is not only reference to the entity or relation in some real or possible world but also corresponds with a concept held in the mind on personal understanding and on the context of usage according to the users of the language.

Furthermore, the literature review ascertains that the conceptual structuring of human thinking has obviously come to the foreground, and has been partly treated by

several cognitive grammarians. Various facts of the lexicon have been elaborated and they show signs of being systematic, as proposed by Lakoff & Johnson (1980); Brugman (1988) and Kövecses (1990). After all, conceptualisation is not based on randomly created images and thousands of inconsistent expressions. Rather than that, it is assumed that it may be considered a logically structured human creation. So, as lexical semantics had been ignored in Igbo linguistic analysis for a long time, the emergence of cognitive semantics means a new era for the analysis of lexicons that had been regarded as unanalysable (especially in componential analysis). Cognitive semantics seems to offer a new approach to processing words as it examines the role of human imagination in exploring meaning in human language, hence, the choice of cognitive semantic analysis of the polysemous senses of some Igbo perception verbs in context, using some Igbo literary texts.

CHAPTER THREE

RESEARCH METHODOLOGY

This chapter examines in detail the research methodology in relation to the topic of study. In doing this, attempts are made to define and discuss the research design, research instruments, and validation of the instruments, methods of data collection, and procedure for the analysis of data.

3.1 Research design

This research adopts the descriptive survey research method. A descriptive survey research design according to Nworgu (2006) is a scientific method which involves observing and describing data (especially secondary data) without influencing it in any way. It is a valid method for researching on specific subjects and as a precursor to more qualitative studies.

3.2 Research instrument

With the use of the appraisal instrument, two Igbo literary works *Ihe Aghasaa* and *Juọ Obinna* are examined by identifying the manifestations and use of the verbs *hụ́* and

nu' in the Igbo literary works. The occurrence of the above verb roots in different contexts in the novels were shown and precisely analysed as designated.

3.3 Validation of instrument

The appropriate Igbo literary texts to provide the required information for the study were presented to the researcher's supervisor. Also, two experts in education were approached to determine the appropriateness of the Igbo texts used in the course of this research.

3.4 Method of data collection

In the course of this research work, documented materials were critically studied in a lexicosyntactic context. This method of data collection is commonly used by corpus linguists to analyse lexical semantics (polysemy) according to Sheel, (2002) through a combination of:

- concordance
- analysis of common verb-argument collocation
- analysis of passives and other constructions
- analysis of co-occurrence with certain affixes, adverbs/auxiliaries;

by identifying the different contextual manifestations of the verb roots *hu'* and *nu'* in them. Some Igbo dictionaries are also consulted to see how the above verb roots were presented by the lexicographers. The data were outlined, acknowledging the lexicographers' technical strategies in the use of the above verbs in different Igbo structures. This helps to compare the above Igbo verbs in context and out of context. The Igbo literary texts used

are *Ihe Aghasaa*, which is the Igbo translation of the novel *Things Fall Apart*, written by Chinua Achebe and published in 1958 by Heimann Publishing Company, England, and *Juọ Obinna*, written by Tony Ubesie in 1977 and published by University Press Limited Ibadan.

3.5 Procedure for data analysis

The researcher arranged the data in groups along the lines of polysemy, indicating their cognitive domains using the e-logon software (whose work is to

identify and pull out the verbs in their various contexts in isolation and in construction as single morphemes, inflected morphemes, compounds and inherent complement verbs). Furthermore, all the manifestations of the above verb roots are qualitatively analysed (lexico-semantically and sense relationally) and their image schemata presented accordingly.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1 Introduction

This chapter presents and analyses the perceptive verbs *hù* and *nù* as they manifest in the two literary works, *Ihe Aghasaa* and *Jụọ Obinna*. It can be observed that Table 3 below provides an overview of the nature and types of perceptive verbs in the English language in general and Igbo in particular.

Table 3: The basic paradigm of verbs of perception in Igbo

Sense modality	Inner perception	Activity	Percept
Vision	<i>hù</i> (see)	<i>lé</i> (look)	<i>lé</i> (look)
Hearing	<i>nù</i> (hear)	<i>gè</i> (listen)	<i>nù</i> (<i>ùdà</i>) (sound)
Touch	<i>mètù</i> (feel/touch)	<i>mètù/nù</i> (touch/feel)	<i>mètù</i> (feel)

Smell	ísì (smell) (nú)	(nú) ísì (smell)	(nú) ísì (smell)
Taste	ụtọ (taste) (nú)	(nú) ụtọ (taste)	(nú) ụtọ (taste)

(Adapted from Gisborne 1996:1 but modified to suit Igbo perceptive verbs)

It is worthy of note that the verbs presented in Table 3 above are not exhaustive of all the Igbo verbs that can be included in the semantic field of perception. However, *hú* and *nú* have been chosen because they are the most common, neutral and prototypical perception verbs in Igbo, and they are free from any definite connotations about the way in which the perceptual act is carried out. Also, it is important to observe in Table 3 that in the case of hearing, there are different verbs belonging to this sense perception of each group. Based on the foregoing information, the concordance result is done by looking at the occurrences of the verbs *hú* and *nú* in the following contexts:

- a. as single morphemes
- b. as inflected verbs
- c. as compound verbs and
- d. as inherent complement verbs (ICV)

At the end of the presentation of each concordance result, the polysemy of each verb is presented. These verbs, (*hú* and *nú*) in the Igbo language do not only convey meanings related to the physical perception of vision and hearing respectively, but they are also used to express other nuances of meaning, such as shall be observed in the analysis. The aim, as has been pointed out in chapter one is, first of all, to find out the number of meanings in these verbs in the context of the above mentioned novels.

Furthermore, to find out which semantic extensions are present in this semantic field and present the image schemata of the verbs.

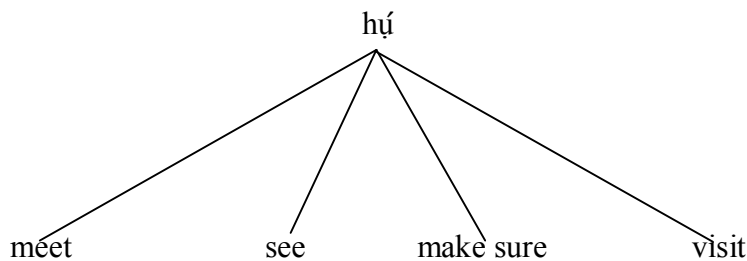
4.2 Concordance result of *hú* in *Ihe Aghasaa* and *Jụọ Obinna*

The eyes are central in the visual system. Eyes capture light – stimulus for vision – and generate messages about it. So, in the novel, *Ihe Aghasaa*, the concordance results of *hú* are examined based on the above listed yardsticks and presented as follows:

4.2.1 Concordance results of *hú* as a single morpheme in *Ihe Aghasaa*

Hú in Igbo has twenty three (23) occurrences in the text. Out of the 23 concordance results fished out with the antconc software, *hú* has the following senses.

Fig 16: Polysemy senses of *hú* as a single morpheme in *Ihe Aghasaa*



The above representations show that *hú* as a single morpheme in *Ihe Aghasaa* has four different meanings. Below are two extracts from the text for each nuance of meaning.

Other manifestations of *hú* are presented in appendices 1 and 2.

- i. Meaning one: see (it has 18 occurrences in the text) as in

92a. Chinelo tughariri n'ike hu ya.
 Chinelo turn-rv₁ prep-suddenly see him/her/it
 Chinelo turned suddenly and **saw** him/her/it, (see appendix 1, no. 11).

b. Okagbuo na Okonkwọ nọ na-egwu ala
 Okagbuo conj Okonkwọ sit aux-dig ground
 ka ha hu ebe Ezimma liri iyiüwa ya.
 Comp they see where Ezimma bury-rv₁ iyiüwa her
 Okagbu and Okonkwọ were digging the ground to **see** where Ezimma buried her iyiüwa, (see appendix 1, no. 9).

In examples (92a) and (b), *hu'* refers to physical perception of vision where Chinelo, Okagbuo and Okonkwọ physically saw objects or humans with their eyes.

ii. Meaning Two: meet it/had it (it has 2 occurrences in the text) as in

93a. O bu etu a ka ndi obodo siri hu ya na mbu.
 it be like this Comp those town take-rv₁ see it prep beginning
 It is like this that the town (saw) **met/had** it at the beginning, (see appendix 1, no. 18).

b. ... ndi ndu Umufia ka ha bia hu ya
 ... those leader Umufia Comp they come see him
 n'isi ulo oru ya
 prep-head house work his
 ... the leaders of Umufia to come and (see) **meet** him in his office, (see appendix 1, no. 23).

In as much as the English translations in (93a) and (b) have *hu'* as 'see', it only shows literal meaning. The metaphorical sense is 'meet/met it' or 'had it', hence, in polysemy metonymic and metaphoric senses are central, (See Croft & Cruse 2004 for details).

iii. Meaning Three: 'make sure/ensure' (it has only 1 occurrence in the text) as in

94. ... ma lelee mkpuru ji obula hu na
 ...and look piece yam every see conj
 o di mma iso eso.
 it be good to-plant plant.
 ... and examine each seed yam to (see) *make sure/ensure* that it is good for
 (planting) sowing, (see appendix 1, no. 4).

A look at (94) shows that literarily, *hu* stands for ‘see’ but it is conceived by a native speaker as ‘make sure/ensure’. To arrive at this meaning, the physical and metaphorical meanings work closely together because for the meaning ‘ensure’ to be realised, the agent will physically see and examine the the entity in question to ascertain his/her decision. In (95a) and (95b) below, *hu* means ‘visit’. Obierika went to Mbanta to visit his friend Okonkwo. Although they saw each other physically, they spent some time for a specific purpose, discussing, giving and receiving information. Likewise in (95b) Mr. Smith went to see (visit) his superior. Also the physical perception is there but they stayed and discussed for a long time for reasons of sociability, politeness, business, curiosity, etc

iv. Meaning Four: ‘visit’ (it has 2 occurrences in the text) as in

- 95a. Ya mere Obierika jiri gaa Mbanta ka
 him/her do-rv₁ Obierika hold go Mbanta Comp
 o ga hu enyi ya nwoke.
 he go see friend his man.
 That was why Obierika went to Mbanta to (see) *visit* his friend, (see appendix 1, no. 15).

- b. Maazi Smiti gara hu ya ozugbo, ha
 Mr. Smith go-rv₁ (see)visit him immediately they
 kparita ububo ogologo oge.
 talk-rv₁ talk long time.
 Mr. Smith went and (saw) *visited* him immediately, and they talked for a long time, (see appendix 1, no. 22)

It could be observed from the above presentation that *hú*, with the meaning ‘see’ has 18 concordance results to have the highest number of manifestations. This shows that the basic meaning of *hú* as a single morpheme in *The Aghasaa* is ‘see’. The presentation also shows that the perceptive verb does not only convey meaning related to the physical perception of the sense of vision, it is used to express other meanings as well (‘visit’, ‘make sure/ensure’, ‘meet’). Here, two different conceptual domains, such as physical visual perception and intellection are connected and placed together. This issue is fully explored later in section 4.4

Generally, in the texts under consideration, the antconc concordance tool picked the manifestations of the morpheme *hú* in some contexts where it does not function as a verb. The reason for providing explanation for its manifestations in such contexts (as shall be seen in the analysis) is to make the analysis lucid for the reader, especially a non-native speaker who might raise the question, why *hú* was seen in some contexts in the text but it was not accounted for in the analysis? In addition, it provides a lucid analytical consistency of the data.

In the contexts below in *The Aghasaa*, *hú* occurs in different words to function as:

i. Demonstratives (it has 1087 occurrences), as in:

96a. Ogbe nku ahu na-ere oku...
 lump firewood that aux-decay fire...
 That/the firewood is burning, (see appendix 2, no. 94).

b. O gwara ya na nke ahu agbasaghi ya
 s/he tell-rv₁ him/her conj that Dem concern-neg him/her
 He/she told him/her that it doesn't concern him/her, (see appendix 2, no. 1082).

ii. Body of a human/animal/wall (it has 110 occurrences) as in:

97a. Akwara na uru niile di ha n'ahu ...

veins conj flesh all be they prep-body ...
All the veins and flesh in their body ..., (see appendix 2, no. 2).

b. Nee anya n'ahụ aja afụ
look eye prep-body wall that
Look at the body of the wall/look at that wall, (see appendix 2, no. 31).

iii. Suffering (with 15 occurrences) as in:

98a. Mmadụ tasịa ahụhụ, o nweta naanị otu ụzọ
human suffer suffering he/she get only one road
After suffering one gets only one share, (see appendix 2, no. 128).

b. ... ma bụrụkwa onye tataworo ahụhụ ọnụ ya
... and be-rv₁-also who suffer-rv₁ suffering mouth him/her
... and was also one who had really suffered, (see appendix 2, no. 239).

Other manifestations include:

99a. áhùhù – insect, (see appendix 2, no. 365)

b. ñtàràáhùhù – punishment, (see appendix 2, no. 175)

c. ùnyàáhù – yesterday, (see appendix 2, no. 186)

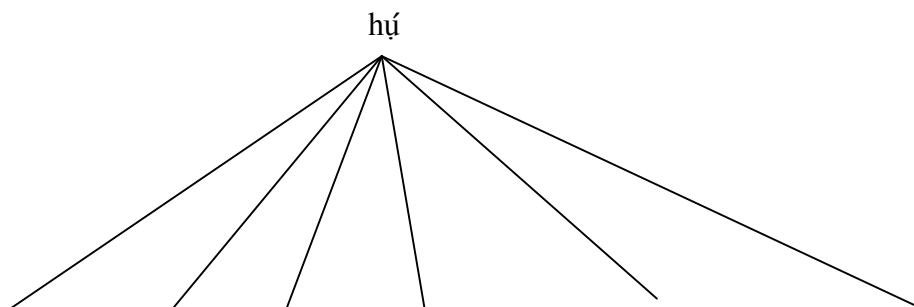
d. óhùrū - new, (see appendix 2, no. 915)

We want to state clearly that the occurrences of *hù'* in the above context are outside the scope of this thesis since they do not function as verbs in these contexts.

4.2.2 Concordance results of *hù'* as a single morpheme in *Juọ Obinna*

The root verb *hù'* in *Juọ Obinna* as a single morpheme has 136 occurrences with the following senses:

Fig. 17: Polysemy senses of *hù'* as a single morpheme in *Juọ Obinna*



visit get see meet make sure discover/find out
 (see appendix 4)

Fig 17 shows that in *Juọ Obinna*, *hú* as a single morpheme has six nuances of meaning.

Observe the following examples:

i. *hú* with the meaning ‘see’ (110 occurrences) as in:

100a. Obinna tugharị *hú* Ogbenyeañ.
 Obinna turn-round-rv₁ see Ogbenyeañ
 Obinna turned and *saw* Ogbenyeañ, (see appendix 4, no. 1).

b. Ma abụzụ *hú* nke anya ya ekwesighị ihụ...
 and cricket see that eye him suppose-neg to see...
 If the cricket *sees* that which it is not supposed to see..., (see appendix 4, no. 17).

ii. *hú* with the meaning ‘discover/find out/know’ (6 occurrences) as in:

101a. Ikechukwu ekweghị n’ihi na o riela
 Ikechukwu agree-neg because conj he eat-perf
 ero dī mma *hú* ka o si na-atọ.
 mushroom be good see Comp it how prep-taste
 Ikechukwu did not agree because he has eaten a good mushroom and
discovers/knows how it tastes, (see appendix 4, no. 20).

b. Obinna weliri isi ya elu, wee *hú* na ya ka dī ndụ.
 Obinna take-up head his high conj see that he Comp be life
 Obinna raised his head and *found out* that he was still alive, (see appendix 4, no. 21).

iii. *hú* with the meaning ‘visit’ (2 occurrences) as in:

102a. Lee Ụmụnze, lee Ụfuma, ma olee
 look-at Ụmụnze look-at Ụfuma but how

uzo o ga-esi jee hu ha anya?
road he prep-do go see they eye

See Umunze, see Ufuma but how would he *visit* them, (see appendix 4, no. 49).

b. O nwere ihe di m mkpa nke
it have-rv₁ thing be me important that
mere m ji si ka m bia hu gi.
do-rv₁ I hold how Comp I come see you

There is something important for which I came to *visit* you/I visited you because of something important, (see appendix 4, no. 14).

iv. *hu'* with the meaning 'get/gather' (2 occurrences) as in:

103a. Otu nwaanyi wunyere ya garị na mmiri,
one woman pour-give-rv₁ him garri prep water
o nuo, we hu ike o ji na-aga ije.
he drink take see energy he hold prep-go walk
A woman soaked garri in water for him, he drank and *gathered* energy (with which to walk), (see appendix 4, no. 58).

b. Ihe onye choro, ya hu.
thing who want-rv₁ him see
What one wants one *gets*, (see appendix 4, no. 61).

v. *hu'* with the meaning 'meet' (2 occurrences) as in:

104a. ... wee si Maazi Onyido jewe; mgbe e mechara
... and say Mr. Onyido go when imper pro do-finish-rv₁
ka ha hu, na o nweghi onye n'ime ...
Comp they see that pro have-neg pro pre-inside
... and said to Mr. Onyido to go; later they will *meet* because none of them ..., (see appendix 4, no. 52).

b. Onu mawa ya ririri, a si ya ka o
mouth shake him ideophone imper. pro say him Comp pro
je hu ndi Kaptin ibe ya no n'isi ulo oru ndi agha.
go see pl captain fellow him stay prep-head house work pl war
If he is not confident enough they will tell him to *meet* his fellow captains at the army headquarters, (see appendix 4, no. 99).

vi. *hú'* with the meaning 'make sure/ensure' (7 occurrences) as in:

105a. Q ḅuṛu na nḍi m̄maḍu ejela gwa Emeka ka
 it be-rv₁ that pl human go-perf tell Emeka Comp
 o b̄īa *hú* na Obinna banyere soja...
 he come see that Obinna enter-rv₁ soldier...
 That people have gone to tell Emeka to *make sure* that Obinna enrolls in the
 army..., (see appendix 4, no. 12).

b. Nwoke ah̄u tetara, leghar̄īa anya, *hú* na o
 man Dem wake-rv₁ look-rv₁ eye see that pro
 nwegh̄i onye n̄o nso na-abugh̄i nd̄i dina ala, ...
 have-neg pro stay near prep-be-neg pl lie down ...
 The man who woke up, looked around and *made sure* that nobody was around him
 apart from people lying down ..., (see appendix 4, no. 19).

(See appendix 4 for more examples).

Based on the presentation above, *hú'* with the meaning 'see' (110 manifestations) has the highest occurrences. This also shows that the basic meaning of *hú'* as a single morpheme in *J̄ūō Obinna* is 'see'. As observed in *Ihe Aghasaa*, that the perceptive verb *hú'* does not only convey meanings related to physical perception of seeing, it has other metaphoric meanings that are within the semantic field of 'see', such as 'visit, get, meet, make sure/ensure' and 'discover' in the cognitive domain. In 4.2.2 also, two conceptual domains such as physical visual perception and cognition are linked together, as presented in 101a-105b) above.

It is noteworthy to state that in 4.2.1, that *hú'* is designated a single morpheme based on surface structure analysis. In 100a and 101b – 105b, *hú'* in actual sense is a serial verb. But because the basic meaning still remains 'see' whether in surface or deep structure analysis, the thesis classifies it as a single morpheme since it is not a compound verb or an ICV.

As was also pointed out in the first text, the concordance tool isolated other occurrences of *hú* in *Juọ Obinna* where *hú* does not function as a verb. For clarification purpose also, these manifestations are presented and reasons provided for their exclusion in the analysis. In these contexts as presented below, it has the following functions:

i. Demonstrative (with 478 concordance results), example:

106a. Ọchị agha ahụ hụrụ ya, ...
 ruler war Dem see-rv₁ him...
 That army commander saw him..., (see appendix 5, no. 23).

b. Ọ nụla akụkọ ka nwoke ahụ
 s/he hear-perf story Comp man Dem
 si na-agba ndị na-agba ọsọ ...
 how aux-shoot people aux-shoot run...
 He has heard the story of how *the* man shoots people that run ..., (see appendix 5, no. 24)

(see more sentences in appendix 5)

ii. Human or animal body/wall (with 76 concordance results), example:

107a. ...maka na aguụ jide afọ,
 ...because that hunger hold stomach
 ụkwụ na ahụ niile agbawa egwu.
 leg that body all dancing dance
 Because when hunger catches the stomach, the legs and the whole *body* start dancing, (see appendix 5, no. 191)

b. ‘Obinna, ị merụrụ ahụ?’
 Obinna, you wound-rv₁ body
 Obinna, did you hurt your (self) *body*? (see appendix 5, no. 187)

(see appendix 5 for more sentences)

iii. Insect (with 4 concordance results), example:

108b. Ụmụ ahụhụ nọ n’ọhja anaghikwa ebe ụrja
 children ants stay prep-bush no-longer cry cry

Insects in the bush no longer cry/make noise, (see appendix 5, no. 702).

- b. ... ụmụ nnụnụ na ụmụ ahụhụ na-ebe n'ime abalị....
 ... children birds conj children insects aux-cry prep-inside night...
 Birds and *insects* that cry in the night, (see appendix 5, no. 152).

It is worthy of note that in examples (106a-b), *àhụ́*, one of the Igbo demonstratives translates to the definite article ‘the’ in English. In other words, Igbo does not have the definite and indefinite articles ‘the’, ‘a’ and ‘an’; rather, it uses the deictic demonstratives *á* and *áhụ̀*.

Apart from the above manifestations, others include:

109a. *áhụ́hụ́* – suffering, (see appendix 5, no. 255)

b. *áhụ́hụ́/ntàràmahụ́hụ́* – punishment, (see appendix 5, no. 257)

c. *ụnyàáhụ̀* – yesterday, (see appendix 5, no. 497)

d. *áhụ̀rụ̀* – fart, (see appendix 5, no. 804)

(see appendix 5 for more examples of 109a - b)

Our position here is that the manifestations of *hụ́* in (106a – 109d) are not within the scope of the thesis. *Hụ́* is simply a morphological component of a noun in the above contexts, but we are interested in *hụ́* as a (perceptive) verb.

4.2.3 Concordance results of *hú* as an inflected verb in *Ihe Aghasaa*

Based on the concordance result, *hú* can be inflected to have different forms such as:

i. Infinitive as in

ìhú̄ - to see

110. Agbala chọṛo ìhú ada ya nwaanyi.
 Agbala want-rv₁ to-see daughter her female
 Agbala wants to see her daughter, (see appendix 52, no. 648).

ii. Fossilised verb as in

ráhu' – sleep

111. ...nawa, jee rahú ụra
return go sleep sleep
 ...go back and sleep, (see appendix 2, no. 743).

Here, *rahú'* is a word that cannot be divided into two. The presence of *hú'* in the word is as a result of the natural spelling pattern of the word in the language. The components of the verb are so fused together that they can no longer be distinctively segmented without the verb losing its meaning.

na-ahú - is seeing/sees

112. Onye o wụla na-ahú ya n'ụlọ ya
 pron every aux-see him/her prep-house his/her
 Everybody sees him/her in his/her house, (see appendix 2, no. 1090).

This is a case of the auxiliary verb 'na' accompanying the participle *áhu'*

ahuriri - must see

113. Ọ ga-ahuriri agadi nwaanyi ahú
 he/she aux-see-most old woman the
 He/she must see the old woman, (see appendix 2, no. 63).

In (113), the verb is a simple one preceded by the participle 'a' and a modal suffix *-riri*

ahụtu - see (small) a little

114. ...bụ naanị ịjị na-ahụtu onyinyo ezenwaanyị
 ...be only to-hold aux-see-dim shadow princess
 ...is just to see a little/bit of the princess, (see appendix 2, no. 94)

ahụtu is also a simple verb with an extensional diminutive suffix, -tú

òhụhụ́ – roasting, derived from the verb root *hụ́* - roast

115. I che na ọ bụ jì ọhụhụ ka ị na-awa?
 you think that it be yam roasting that you aux-cut
 Do you think you are cutting yam for roasting?, (see appendix 2, no. 192)

Example (115) is a homonym of (116). It is pronounced and spelt the same way as *hụ́* – ‘see’ as in (116) below

116. *hụ́* – see, (see appendix 1, no. 1)

Other variants of (115a) as manifest in the text are:

nà-àhụ́ – is roasting/roasts

117. Ji ndị a na-ahụ n’ugbo
 yam those pro aux-roast prep-farm
 Those yams one roasts in the farm, (see appendix 2, no. 414)

The difference between examples (115) and (116) is that (115) is not polysemous. Context disambiguates it. Whenever we have *hụ́* as in (115), it is usually followed by the object (noun) to be roasted, maybe *jì* ‘yam’, and then the complement *ọkụ́* ‘fire’, that does the roasting. To a native Igbo speaker, *hụ́* as in (115) followed by only the object, without the complement still conveys the same meaning. But most of the time it goes with a complement that contextualises it, thereby disambiguating the meaning. Therefore, (115) is outside the scope of this work since it does not belong to the same semantic field with (116).

120a. ... gagharija na mbara ụlọ ya n'iwe nke
 ... walk-round prep open house his prep-anger Comp
 na-asụ ya n'obi hutara ebe ọ ga-eze iwe ya.
 aux-boil him prep-heart see-rv₁ place he aux-release anger his.
 ...walked round his compound in the anger that consumed him (in the heart) saw a
 way to unleash it, (see appendix 3, no. 18).

120b. Ndi afụ kpọrọ fa oku we hutawa mbe...
 those Dem call-rv₁ they call take see-prep-inchoative tortoise...
 The people that invited them started seeing the tortoise..., (see appendix 3, no. 42).

The *-tá* suffix in (120a) is a diminutive that means ‘a little’ followed by the *-rv₁* past tense marker. This gives the meaning ‘saw a way’. Also, the ‘-ta’ in (120b) functions as a preposition because of its directional function and ‘-wa’ is an inchoative that shows the inception/onset of the action. The combination of the two morphemes gives rise to ‘started seeing’.

121a. Mana naani mmadu ole na ole
 but only human few conj few
 hutuworo ụdi mgba ahụ mbụ.
 see-Dim-rv₁-part. kind wrestle Dem first
 But only few people have seen this type/kind of wrestling before, (see appendix 3,
 no. 21).

121b. O nwebeghi nwaanyi huturula ime ya mbụ.
 pro have-neg woman see-Dim-rv₁-perf inside it first
 There is no woman that (has already not seen) the inside before, (see appendix 3,
 no. 40).

‘tụ’ in (121a) is a diminutive (existential quantifier) that shows how little the action of the *seeing* was, including the past participle marker *-woro*, to give the meaning ‘have seen’.

In (121b), *-turula* is suffixed to ‘hụ’. ‘-Tụ’ is diminutive (existential quantifier); ‘-rụ’ is the *-rv₁* past tense marker while ‘-la’ is the perfective marker. The stem, ‘-

turula' does not show tense but completion aspect (see Emenanjo (1975) for argument on tense and aspect in Igbo)).

122a ... ha *hɔwazi*
 ... they see-inchoative/inceptive-aspectual morpheme
 oke osisi ndi gbara agba
 male tree comp grow-rv₁ big
 ... they started seeing big gigantic trees, (see appendix 3, no. 29).

122b. Lee ka i *huzi* nwoke chi ya
 look Comp you see-aspect man God him
 ekweghi n'agbanyeghi na o kwesiri ike.
 agree-neg prep-notwithstanding that he agree-strong power.
 Look and you would see a man whose god did not agree notwithstanding that he believed strongly, (see appendix 3, no. 60).

122c. Okonkwo *huziri*
 Okonkwo see-aspectual marker-rv₁
 nke oma n'ime onwe ya...
 very good prep-inside self him...
 Okonkwo saw very well in himself..., (see appendix 3, no. 79)

In (122a), the stem *-wazi* has two morphemes, 'wa' is an inchoative or inceptive morpheme that shows the onset of the action, and '-zi' which is an aspectual morpheme that is terminative in function, where '-zi' and '-a' equal serial marker. '-zi' in (122b) is an aspectual terminative marker. In (122c), 'zi' functions as an aspect while '-ri' is the past tense marker. So, the stem '-ziri' shows emphasis and completeness.

123a. O gwugidere ruo mgbe o
 s/he dig-continue-rv₁ until when s/he
hudebere aja elu na-eji oji.
 see-stop-rv₁ sand up aux-part. black
 He continued digging until he stopped seeing the outer layer of the soil that is black, (see appendix 3, no. 37).

123b. Mgbe ha *hụsiri* ya ma kelekwa a ya, ...
 when they see-terminative-rv₁ him conj greet-also him, ...
 When they finished seeing it and also greeted him..., (see appendix 3, no. 63)

In (123a), ‘hụ’ has two morphemes ‘-debe’, which is a terminative fossilised morpheme and the ‘-rv₁’ past tense suffix attached to it. The meaning in (123a), therefore, is ‘stopped seeing’. The suffix ‘si’ attached to *hụ* in (123b) is a terminative morpheme followed by the ‘-rv₁’ past tense marker. Therefore, the stem shows a finished action, i.e. ‘finished seeing’.

124a. I *hụla* na i ka wu nwata?
 you see-perf conj you Comp Be child
 Have you seen that you’re still a child?, (see appendix 3, no. 62)

124b. I *hụgo* ya?
 you see-perf. marker him
 Have you seen him?, (see appendix 3, no. 90)

‘Hụ’ in (124a) has only ‘-la’, (the perfective marker) attached to it. Furthermore, in Standard Igbo (SI), the perfective marker is ‘-la’, hence, in (124b), ‘-go’ is just the dialectal variant of ‘-la’ that shows perfective time.

124c. ... nke na o *hụghị*
 ... that Comp he see-neg
 ...that he did not see, (see appendix 3, no. 5)

Example (124c) shows that ‘hụ’ also goes with the Igbo negative marker ‘-ghị/ghị’ as in sentence (124c) above to show ‘did not see’.

4.2.4 Concordance results of *hụ* as an inflected verb in *Juọ Obinna*

Verb inflection involving *hụ* in the text assumes different forms such as:

i. Infinitive, as in

ìhú - to see

125. Ọ mụ́tala ìhụ ụzọ n'abalì.
 he/she know-en to-see way/road prep-night
 He/she has known how to see in the night, (see appendix 5, no. 17).

In the Igbo language, infinitives are formed by adding 'i/ì' to the verb root

ii. Participle

àhú – here, it is the main verb that is usually preceded by an auxiliary negation verb as in

126. N'ezìokwu, ọ *naghì* *ahụ* ebe ọ na-eje.
 prep-truth s/he does-neg see place him/her aux-go
 Honestly, s/he doesn't see where s/he is going, (see appendix 5, no. 131)

In (126), anytime the participle *ahụ* is negated, it must be preceded by the negative marker 'ghì/ghi', which is usually attached to the auxiliary verb 'na/ga'.

iii. Present/progressive aspect

na- *àhú* – sees/is seeing

127. Ọ na-ahụ ezigbo okpu dì mma
 he/she aux-see good cap be fine
 He/she sees nice good caps, (see appendix 5, no. 498).

(more sentences are presented in appendix 5)

Example (127) is a case of the auxiliary verb 'na' accompanying the participle *ahụ*, to code the present or present progressive tense. In the Igbo language also, present and progressive tenses are formed by adding 'na/ga' to the participle using a hyphen, which is formed by adding 'a/e' to the root verb.

iv. Fossilised verb form, as in

128. a. *arahụ* - sleeping

b. *irahụ* - to sleep, (see appendix 5, no. 77 & 392 respectively)

The root verb in (128) is *rahú*, which cannot be divided into two. As we observed in (111) in the first text, *rahú* is fossilised and cannot be broken up without loss of meaning. This means that the word is not inflected, neither is it transparently formed through the morphological process of compounding. So, (128a) is a participle while (128b) is an infinitive. Other instances of *hú* in fossilised contexts can be seen in (129a-f):

129. a. *gbannahụ*
run-comparative marker
run better/faster, (see appendix 5, no. 11)
- b. *zonahụ*
hide- comparative marker
hide better/hide from, (see appendix 5, no. 26)
- c. *agbanahụ*
participle marker-run- comparative marker
running faster/better than/escape from (by running), (see appendix 5, no. 68)
- d. *igbanahụ*
infinitive marker-run- comparative marker
to run faster/better, (see appendix 5, no. 80)
- e. *ezonahụ*
participle marker-hid- comparative marker
hiding better/well from somebody, (see appendix 5, no. 91)
- f. *gbalahụ*
run- comparative marker (dialectal variant of *nahụ*)
run better/faster, (see appendix 5, no. 461)

‘Hú’ is not a single morpheme in (129); rather, it is a fossilised verb with the morphological form *nahụ/lahụ* (they are dialectal variants of ‘karị’, as in ‘gbakarị’,

‘zokari’, etc). It cannot also be segmented and it performs a comparative function in contexts where it occurs.

v. Homonymic verb, as in

hú in *na-ahú* – roasting/roasts

130. Ewu	a	na-ahú	n’òkú
Goat	imper-pro	aux-roast	prep-fire
Goat that one roasts on the fire, (see appendix 5, no. 625).			

Example (130) is homonymic with (127). They are written alike and are also pronounced alike but their meanings are different. On the other hand, (130) as also observed in (117) is not in a polysemy relationship with (127) because they do not belong to the same semantic field, (for details, see the explanation on example 117 above). Therefore, (130) is not within the scope of this thesis.

In the text under investigation, there are many suffixes that go with *hú*. Each suffix indicates a particular tense form or grammatical or semantic function in relation to *hú* but does not change or extend the core meaning ‘see’. Observe the examples below:

131. Qchi	agha	ahú	huru	ya
commander	war	Dem	see-rv ₁	him
The army commander <i>saw</i> him, (see appendix 6, no. 7)				

In (131), ‘hú’ takes past tense –rv₁ marker to express ‘saw’

132a. ...Maazi	Qnyido	hukwa	ya
Mr.	Qnyido	see-also	him
...Mr. Qnyido <i>also saw</i> him, (see appendix 6, no. 8)			

b. ...a	hukwaghi	uzo	e	si	na-ebuputa	mmanu	ugbo	ala
...pron	see-also-neg	road	pron	how	aux-carry out	oil	ship	land
... there was <i>no way</i> to carry/bring out petrol, (see appendix 6, no. 40)								

c. Onye	hukwanu	ebe	akpa	okporoko	na-aga	ije...
---------	----------------	-----	------	----------	--------	--------

pro see-also-enclitic place bag stockfish aux-walk walk...
 If one (*also*) *sees* where stockfish bag is walking/walks..., (see appendix 6, no. 179)
 (see appendix 6 for the sentences in this category)

Example (132a) has the adverbial suffix *-kwa'* that provides information on the degree of the action performed. In (132b), an additional meaning of negation is indicated with *-ghí* which is attached to *-kwa'*. Finally, in (132c) there is the *-kwa'* suffix plus *nu'*, which is the existential morpheme, specifically, an enclitic that is conditional in function.

133a. Ihe ndi a niile ka
 thing all Dem everything Comp
 o *huchara* wee mara na onwu...
 s/he see-complete-rv₁ conj know-rv₁ that death...
 S/he *saw all* these things and knew that death..., (see appendix 6, no. 22)

b. ...ma o *huchaa* ihe ndi a
 ...conj pro see-complete-serial marker thing all Dem
 ...and after seeing all these things, (see appendix 6, no. 95)

c. Onye obula n'ime ha *huchatara* ibe ya
 pro any prep-inside they see-complete-Dim-rv₁ fellow him/her
 Each and every one of them *saw (a little of)* one another, (see appendix 6, no. 105)

d. ...ma o *huchataghí* onwe ya
 ... conj s/he see-complete- Dim-neg self him/her
 ... but s/he *did not see* him/her self, (see appendix 6, no. 106)

e. ...ebe enwe choro ka
 ...place monkey want-rv₁ Comp
 ya *huchasja* ihe na-eme ka mgbo...
 it see-complete-terminative thing aux-do Comp bullet...
 ...where the monkey was eager to *see everything* happening that a bullet..., (see appendix 6, no. 122)

The suffix *-cha* in (133a) is a completive morpheme followed by the '-rv₁' past tense marker. So, the stem *-chara* shows a completed action in the past time. Example (133b) is

the same with (133a). The only difference is the second ‘a’ in (133b) which is a serial verb marker. Furthermore, (133c) has the stem *-cha-ta-ra*, where ‘cha’ shows completive; *-ta* a diminutive morpheme and *-ra*, the past tense marker. (133d) has the same meaning as (133c) but the only difference is the addition of the *-ghị* negative marker. In (133e), *-cha* shows completive and *-sịa* is a terminative morpheme; in other words, the morphemes *-cha* and *-sịa* have the same function.

134. ...o	nweghị	ebe	o	dị	ya	
...pron	have-neg	place	pro	be	him/her	
ka	o	hụ nuola		nwoke	ahụ	mbụ
Comp	pron	see-ext. morph-perf		man	Dem	first
there was no place s/he could remember to have <i>seen</i> the man before, (see appendix 6, no. 33)						

The stem ‘nuola’ as it is in (134) is made up of ‘nu’, the existential morpheme, ‘o’ an open vowel and the perfective marker ‘la’. The meaning derived from (134) is ‘had seen’.

135. O	lee	anya	n’aka	nri,
pro	look	eye	prep-hand	right
o	hụ ghị	oke	ma o bụ	mmadu
pro	see-neg	rat	or	human
S/he looked right, s/he did not see anybody, (see appendix 6, no. 43)				

The perceptive verb *hụ* in (135) takes the negative marker ‘ghị’ to show past action, ‘...did not see’

136a. Akụkọ	ya	gosiri	na	o	hụ beghị	ihu	oḡu	anya
story	him	show-rv ₁	that	pro	see-ever-neg	face	fight	eye
The story shows that he has <i>never seen</i> war front before, (see appendix 6, no. 58)								

- b. ...ihu nwoke ahụ adighi ka nke ọ **hụ**bere
 ...face man Dem do-neg Comp that pro see-ever-rv₁
 n'ụlọ ọgwu ya
 prep-house medicine pro
 ...the man's face doesn't look like one he has seen in his hospital, (see appendix 6, no. 66)

Examples (136a-b) involve negative sentences. But the morpheme *-be* in the above sentences is adverbial in function (although most times it is used in negative constructions). It codes 'ever' and it doesn't usually stand as the only suffix to the verb root. Another suffix must follow it as in (136 a & b). Here, the negative marker *-ghị* and *-rv₁* suffixes are attached to it.

137. ...ọ **hụ**kata ụdi ọ na-eri
 ...pro see-comparative-Dim kind pro aux-eat
 ...if he *continues seeing* the kind he eats, (see appendix 6, no. 60)

The stem *-kata* in (137) is made up of two morphemes viz *-ka*, which is a comparative morpheme and *-ta*, which is a diminutive suffix that shows the littleness of how much he/she saw. Furthermore, '*-kata*' can be fossilised to show intermitent action.

138. O teela Obinna ji **hụ**wa
 it far-perf Obinna with see-inchoative
 ebe a na-enye ndi soja ọzuzu
 place pron aux-give pl soldier training
 It has been long Obinna *started seeing* where soldiers are trained, (see appendix 6, no. 73)

In (138), the suffix 'wa' is an inchoative morpheme that marks the inception of an action of 'seeing'.

139. ...maka na ọ **hụ**la ka
 ...prep conj pro see-perf Comp

mmadu	si	egbu	ibe	ya
people	how	kill	fellow	him

...because he *has seen* how humans kill fellow humans, (see appendix 6, no. 85)

140. ...i	kọọrọ	ha	ebe	i	h udewere	m
...pro	tell-rv ₁	them	where	pro	see-stop-rv ₁	pro

...you tell them where you saw me last, (see appendix 6, no. 116)

-la in (139) is a perfective marker while *-dewere* in (140) is the same as (123a)

4.2.5 Concordance results of *h*ú as a compound verb in *Ihe Aghasaa* and *Juọ Obinna*

In the data analysis in relation to the novel under consideration, ‘*h*ú’ as a compound verb was not found. There are two occurrences that look like compound situations but a critical investigation of the position and context of use shows otherwise. What is discovered are still suffixes attached to *h*ú and not free root morphemes that have independent existence. Observe examples (141) and (142) below:

141. Ọ	<i>h</i> uka	ada	Ekwefi	bụ	Ezemma	n’anya.
He	see-comparative suffix	daughter	Ekwefi	be	Ezemma	prep-eye.

He so much loves Ekwefi’s daughter Ezemma, (see appendix 3, no. 23).

142.	Okonkwọ	o	wee	<i>h</i> uta	ihe
	Okonkwọ	pro	also	see-diminutive	something
	ahụ	niile	nke	ọma.	
	Dem	all	very	good	

Okonkwọ, and he now saw everything very well, (see appendix 3, no. 72).

In (141), ‘-ka’ is a comparative suffix that is adverbial in function. It tells the degree of Okonkwọ’s love for Ezemma and in (142) ‘-ta’ is a diminutive suffix, showing how little Okonkwọ saw of the apparition revealed to him. Also, in the data analysis of *Juọ Obinna*, ‘*h*ú’ manifesting as a compound verb was not found. So far, the impact of the above affixes on the meaning of the verb ‘*h*ú’ is a grammatical/semantic one. No

matter the nature, form or number of these affixes attached to ‘hụ’, it does not change the core meaning ‘see’.

4.2.6 Concordance results of *hụ* as an inherent complement verb (ICV) in *Ihe Aghasaa*

Inherent complement verbs according to Nwachukwu (1987) are verbs that must take complements for them to be complete in meaning. In the data, the antconc tool fished out only one example.

143a. Okonkwọ *hụrụ* Ezimma n’anya.
 Okonkwọ see-rv₂ Ezimma prep-eye
 Okonkwọ loves Ezimma, (see appendix 3, no. 20)

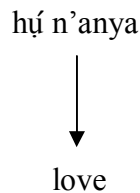
143b. Qbuna Okonkwọ n’onwe ya *hụkwara* nwata ahụ n’anya.
 even Okonkwọ prep-self him see-also-rv₂ child that prep-eye
 Even Okonkwọ himself also loves that child, (see appendix 3, no. 12).

In (143a & b), *hụ* is an inherent complement verb. It can only be realised conceptually when the preposition ‘na’ and the complement ‘anya’ - ‘eye’ are added. No matter the number of words that comes between ‘hụ’ and its complement, it must take ‘anya’ and the preposition ‘na’ for the meaning ‘love’ to be realised. The meaning is usually figurative. Again, the attachment of ‘-kwara’ to ‘hụ’ in (143b) does not change the basic conceptual meaning ‘love’ and it is stative in form. Therefore, in this study ‘-rv₁’ is used to show the past tense marker (as can be observed in previous examples) while ‘-rv₂’ stands for the present time and stativeness.

From the analysis of ‘hụ’ in *Ihe Aghasaa*, it could be observed that the perceptive verb ‘hụ’ as a single morpheme is polysemous in nature with four different senses that

belong to the same semantic field, (see figure 16 above), and one figurative meaning as in figure 18 below.

Fig. 18: Conceptual sense of *hú* as an ICV in *Ihe Aghasaa*



In Fig. 16, the meaning, 'see' is physical and also literal while the meanings 'make sure/ensure', 'meet', 'visit' are conceptual. But in Fig. 18, the ICV meaning of 'hú' is figurative. In other words, it is metaphoric in nature; It stands for 'love', (see the discussion in 4.5).

4.2.7 Concordance Results of *hú* as an Inherent Complement Verb (ICV) in *Jụọ Obinna*

As an ICV, 'hú' has the following meanings:

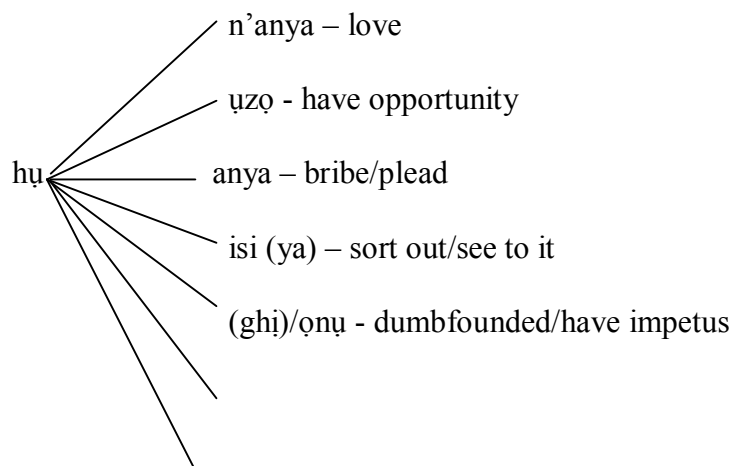
- 144a. hú n'ányá love
 see prep-eye, (see appendix 6, no. 272)
- b. hú úzò have opportunity
 see road, (see appendix 4, no. 5)
- c. hú ányā bribe/plead/settle
 see eye, (see appendix 4, no. 15)
- d. hú ísì yā sort it out/see to it/see the end
 see head him, (see appendix 4, no. 18 & 117)
- e. hú (ghĩ) ọ̀nū dumbfounded
 see (neg.) mouth, (see appendix 6, no. 258)
- f. hú ọ̀nū effrontery/audacity
 see mouth, (see appendix 5, no. 891)

- g. *hú* *íkē* get/gather energy
 see energy, (see appendix 4, no. 58)
- h. *hú* *pèrì pèrì* tremble
 (see) shaking (ideophone), (see appendix 5, no. 896)

In (144a), the meaning ‘love’ as in (143) is still realised. In (144b) the meaning ‘have opportunity’ is got. Literally, 144b means ‘see road or way’. But the conceptual meaning is as indicated in 144b. Also, in 144c the literal meaning is ‘see eyes’, but conceptually, ‘bribe/plead/settle’ is realised. Furthermore, 144d means ‘see head’ literally, but from the metonymic point of view, there is a part-whole relationship, which figuratively stands for ‘sort it out/see to it’. In (144f), without the negative marker, the interpretation of the structure is that the person in question has the audacity or impetus to talk. But when the negative suffix ‘*ghì*’ is added, there is a change in meaning. The sense becomes dumbfounded, (see 144e & f). In (144g) *hú* goes with the complement *ike* ‘energy’ for the meaning ‘get/gather energy’ to be realised. It is also metaphorical in nature. Lastly, (144h) is a case of ‘*hú*’ preceding an ideophone to mean ‘tremble/shake’.

The discussion on *hú* ICV in *Juɔ Obinna* is diagrammatized in Fig. 19 below:

Fig 19: Polysemy senses of *hú* as an ICV in *Juɔ Obinna*



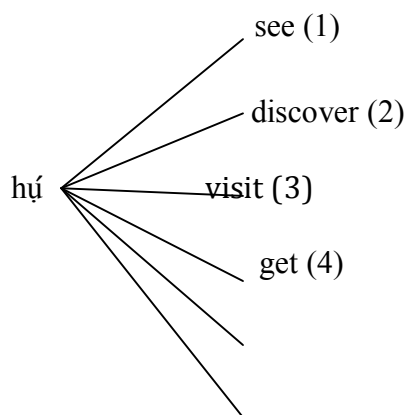
ike – get/gather energy

peri peri - tremble

An interesting observation from this data analysis is that in the English translated work into Igbo, *Ihe Aghasaa*, ‘hụ’ has only four meanings as a single morpheme (see Fig. 16 above) and just one meaning as an ICV, (see Fig. 18 above). However, in *Jụọ Obinna*, which is a text originally written in the Igbo language, where the writer wrote freely without being constrained, six meanings of ‘hụ’ as a single morpheme was found (see Fig. 17) and seven meanings of ‘hụ’ as an ICV was also found (see Fig. 19 above).

‘Hụ’ as a single morpheme in the two novels has the following senses in common viz: ‘see’, ‘visit’, ‘meet’, and ‘make sure/ensure’, while ‘discover/find out’ and ‘get’ are peculiar to *Jụọ Obinna*. Likewise, ‘hụ n’anya’ – ‘love’, is common to the two novels, while others like ‘have opportunity’, ‘bribe/plead/settle’, ‘sort out/see to/see the end’, ‘dumbfounded/impetus, get/gather energy and ‘tremble’ are peculiar to *Jụọ Obinna*. Therefore, it could be said that in the two texts, the perceptive verb ‘hụ’ has 6 polysemous senses as a single morpheme and 6 senses as an ICV, (see Figs. 20 and 21 below).

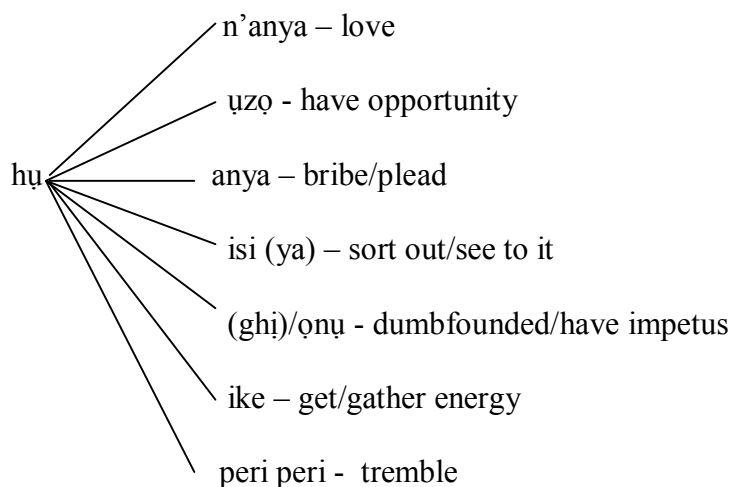
Fig. 20



meet/met (5)

make sure (6)

Fig. 21



The above explication shows that ‘hụ’ is a polysemous perceptive verb in Igbo. Conceptually, its different senses belong to the semantic field of vision while figuratively its ICVs are metaphoric and/or metonymic. For example, *hụ isi ya* (see Fig. 21), is metonymic because *isi* ‘head’ represents the entire body, which in this context refers to the ‘whole problem to sort out’, (this is discussed in detail in 5.4).

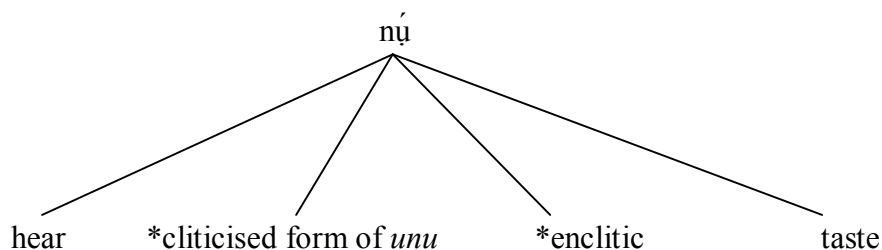
4.3 Concordance result of *nụ* in *Ihe Aghasaa* and *Jụọ Obinna*

The stimulus for hearing consists of sound waves, which are captured by the ears. Our perception of hearing corresponds to the physiological process of these sound waves hitting/penetrating our ears. This section of the thesis looks at the different occurrences of the perceptive verb ‘nụ’ as a single morpheme, as an inflected verb, as a compound verb and as an inherent complement verb.

4.3.1 Concordance result of *nụ́* as a single morpheme in *The Aghasaa*

Based on the results from the antconc software, ‘*nụ́*’ has 20 occurrences in the text, with the following meanings

Fig. 22: Forms and polysemy senses of ‘*nụ́*’ as a single morpheme



The deduction from Fig. 22 is that ‘*nụ́*’ as a single morpheme in *The Aghasaa* has two nuances of meaning and two morphological forms. Below are some extracts from the text for each meaning, (see appendix 7 for the full data).

i. Meaning one: hear (with 8 occurrences) as in

145a. Ndị ichie zukọtara ka ha were *nụ* etu
 pl. chief meet+rv₁ comp they take hear how
 Okonkwọ siri gaa njem ahụ.
 Okonkwọ take+rv₁ go journey Dem
 The chiefs assembled to hear how Okonkwọ made the journey, (see appendix 7, no. 1).

145b. O wee *nụ* ka mma ahụ gbutere ihe.
 s/he then hear Comp knife Dem hit+rv₁ thing
 He heard as the knife hit something, (see appendix 7, no. 3).

‘*Nụ́*’ in (145a) and (b) refers to the sense of perception, ‘hear’. The perception is physical. In (145a), the village chiefs sent Okonkwọ on an errand and they assembled to physically hear Okonkwọ’s narration (which is verbal) of how his journey went. But in

(145b), it is a precept (see Table 3) that involves sound. The hearer, ‘*O*’, which is a pronoun referring to ‘Ikemefuna’ in the text, heard the sound made by the knife that hit something. This is also physical because he perceived the sound.

ii. Form one: cliticised form of the pronoun *unu* – ‘you’ (in the plural form)

This form has three occurrences as in:

146a. *Ñazienu* m ntị ka o kwuru.
 Listen-you me ear Comp he say+rv₁
 He said, you people should listen to me, (see appendix 8, no. 260).

146b. *Bikonu,* naranu m oji a.
 please-you receive-you me kola-nut Dem
 Please, you should accept this kola-nut from me, (see appendix 8, no. 348)

As was earlier pointed out, (146a) and (146b) are cliticised forms of the pronoun *unu*.

This is different from *nu* as an enclitic, which is presented in (148a) and (148b). One way to differentiate (146a), (146b) and (148a) and (148b) is that the pronoun (*unu*) that is cliticised can still take its full form if fronted as in:

147a. *Unu* ñazie m ntị ka o kwuru.
 you listen me ear Comp s/he say+rv₁
 You people should listen to me, says s/he

147b. *Unu* biko, unu nara m oji a.
 you please, you take+rv₁ me kola-nut Dem
 You should please accept this kola nut from me.

iii. Form two: An enclitic suffix

It has six occurrences as in:

148a. *Ka* m gwani gi
 Comp me tell+enclitic you
 Let me tell you, (see appendix 8, no. 280)

148b. Ọọ *nụ* ya ka m na-ekwu
 it enclitic pro. Comp me aux-say
 It is (exactly) what I am saying, (see appendix 8, no. 393)

As an enclitic, ‘*nụ*’ functions as an adverb. It is usually used when one wants to drive home a point; it goes with a verb or a noun. The fronting test that applies to (147a) and (147b) cannot work in (147c) and (147d). Example:

147c *Unu ka m gwa ọọ
 you Comp me tell you
 *You tell me you

147d *Unu ọọ ya ka m na-ekwu
 you it pro Comp me aux-say
 *You what I am saying

It is obvious from (147c) and (147d) that they are semantically anomalous and unacceptable.

iv. Meaning two: Taste (with one occurrence) as in

149. Okonkwọ hụrụ ji ahụ nke ọma iji *nụ* ụtọ ya.
 Okonkwọ roast+rv₁ yam Dem that good to hear taste it
 Okonkwọ roasted the yam properly to get/perceive its tastiness, (see appendix 7, no. 4).

In (149), ‘*nụ*’ refers to another sense of perception – ‘taste’. The stimulus for taste consists of substances that penetrate into the taste buds in the tongue and mouth. As was earlier pointed out under Table 3, in as much as the main perceptive verb of taste is *tọ*, it is not always used. In most cases, *nụ* is used with *ụtọ* - ‘sweetness/taste’, serving as part of its complement. *Nụ ụtọ* (see Table 3) can be an inner perception, activity and percept. It is metaphorical in nature and gives the feeling of one ‘(hearing)/perceiving the taste’ of

something (may be food), which is an inner perceptive activity of the percept taste in the mental faculty of the individual involved. *Tó' ūtō* – ‘taste taste/sweetness’ is more physical than *nụ' ūtō* – ‘get the taste/sweetness’, based on an Igbo native speaker’s assessment of the two.

The inferences drawn from the above explication are that ‘nụ’, bearing the meaning ‘hear’, has the highest concordance result. From all indications, therefore, the basic meaning of ‘nụ’ as a single morpheme is ‘hear’. The above presentation lucidly shows that the perceptive verb *nụ* does not only convey meaning in relation to physical perception of hearing, but also expresses the perception of sense of taste. The sense of taste as observed in the text falls within two conceptual domains, physical and metaphorical perceptions.

Also, the antconc tool picked the manifestations of ‘nụ’ in various contexts where it does not function as a verb; rather, it functions as the pronoun ‘you’ (in plural form). In this form, it takes both the full and cliticised forms of *ụnụ*. Here, it takes the low tone. Another manifestation of ‘nụ’ is as an enclitic, where it is adverbial in function. So, ‘nụ’ as an enclitic, pronoun or cliticised pronoun is not within the scope of this work since they are not verbs.

4.3.2 Concordance results of *nụ* as a single morpheme in *Juọ Obinna*

The manifestation of the perceptive verb ‘nụ’ as a single morpheme has 26 occurrences with just one meaning viz: ‘hear’

Fig. 23

nụ
|

hear

Below are some of the sentences where they occur.

i. *nụ́* as in ‘hear’ (26 occurrences) as in

150a. Ha *nụ* mkpọtụ ọ bụla, ha edelaa n’akụkụ ọhịa.
 pro hear noise any pro be-quiete prep-side bush
 If they hear any noise, they will quietly hide at the side of the bush, (see appendix 10, no. 19)

150b. Mmadụ *nụ* na ọ bụ ndị nke anyị ...
 human hear that it Be pl. adv. we...
 When one hears that it is our own people..., (see appendix 10, no. 26)

(see appendix 10 for other sentences)

4.3.3 Concordance results of *nụ́* as an inflected verb in *Ihe Aghasaa*

As an inflected verb, *nụ́* takes different forms such as:

i. Infinitive as in

ịnụ - to hear

151. Ọ ka nwere ike ịnụ ya bụ ọlu
 he/she can have-rv₁ energy to-hear him be voice
 He/she can still hear the voice, (see appendix 8, no. 9)

ii. Present continuous and future tenses as in

na-anụ - is hearing/hears

ga-anụ - will hear

152a. N’uche ya, ọ na-anụ egwu...
 prep-mind pro he/she aux-hear music
 In his/her mind, he/she hears the music, (see appendix 8, no. 4).

152b. ...n'ihī na ọ ga-anụ ya
 ...because he/she aux-hear it
 ...because he/she will hear it, (see appendix 8, no. 11)

The above examples, (152a and b) are situations of the auxiliary verb markers 'na' and 'ga', accompanying the participle 'anụ' to form present continuous and future tenses respectively.

Other variants of *nụ'* as an inflected verb that manifested in the text are:

nụ' – marry

153a. Onye na-anụ nwaanyi
 pro aux-marry woman
 One who is marrying, (see appendix 8, no. 115)

Example (153a) above is a homonym. It has the same pronunciation and spelling with *nụ'* as in 'hear'. Other forms of (153a) found in the text include:

nụ'ọ - marry (imperative)

153b. Ọ ga-asọ m ụsọ ma
 it aux-please me please conj
 ị nụọ di n'Ụmụọfia
 you marry-imper husband prep- Ụmụọfia
 it will please me if you marry in Ụmụọfia, (see appendix 9, no. 55).

nụrụ - married (past tense form)

153c. Ọ nụrụ nwa Ọkagbue
 he marry-rv₁ child Ọkagbue
 He married Ọkagbue's child (daughter), (see appendix 9, no. 45)

nụ'óná – has married (perfective)

153d. Nweke, Ọ nụona nwaanyi?
 Nweke pro marry-be woman
 Nweke, has he married?/ Has Nweke married?, (see appendix 9, no. 44)

The difference between *nú* – ‘hear’ and *nú* – ‘marry’ is that they do not belong to the same semantic field. Contexts of usage disambiguate them. In (153a), it is often followed by the complement ‘nwaanyi’ – woman or its pronominal equivalent ‘ya’ to be married. So, the complement that contextualises each one usually follows it. Therefore, (153) falls outside the scope of the thesis

Likewise, the antconc results also picked another polysemy of *nú* - ‘hear’ viz *nú* *ĩsí* – ‘perceive smell’, which has a different meaning from ‘hear’ and ‘taste’ but they belong to the same semantic field. This issue is fully discussed in section 4.6

Also, in the text under investigation, *nú* takes different suffixes depending on the nature, type of suffix and how many of these suffixes attached to ‘*nú*’. Based on this, there are various nuances of meaning that still bear the basic meaning of the perceptive verb root, whether ‘hear’, ‘taste’ or ‘smell’. Examine the manifestation of ‘*nú*’ in the illustrations below.

154a. Oge Okonkwọ *nurụ* na o
 when Okonkwọ hear+rv₁ that he/she
 kweghị eri nri ọbụla ...
 accept+neg eat food any ...
 when Okonkwọ heard (was told) that he refused to eat anything ..., (see appendix 9, no. 4)

154b. Ekwefi tugharịrị isi ya ka anụ *nurụ* isi ọnwụ
 Ekwefi throw+rv₁ head her Comp animal hear+rv₁ smell death
 Ekwefi turned her head like an animal that smelt death (danger), (see appendix 9, no. 29).

154c. $\text{\textcircled{O}}$ *nuru* *uto* *ji* $\text{\textcircled{O}}$ *na-eri* ...
 s/he hear+rv₁ taste yam s/he aux-eat ...
 S/he enjoyed the yam s/he was eating..., (see appendix 9, no. 72)

In (154a-c), ‘*nú*’ (hear, smell and taste) goes with the -rv₁ past tense marker to show past time, ‘heard’, ‘smelt/perceived’ and ‘perceived/tasted/ respectively.

155. $\text{\textcircled{O}}$ *buzi* *mgbe* *ahu* *ka* *ha*
 it be+enclitic when Dem Comp they
bidoro *nüwa* *ka* *igba* *na-ada* ...
 start+rv₁ hear+inchoative Comp drum aux-sound
 It was then that they started to hear the sound of the drum, (see appendix 9, no. 6)

‘*Nü*’ in (155) has one suffix ‘*wa*’, which is an inchoative or inceptive morpheme that tells one when an action started. In other words, it tells when the people involved started to hear the sound.

156. $\text{\textcircled{O}}$ *ha* *mmadu* *tu* $\text{\textcircled{O}}$ *uzu* *nke* *mere* *na*
 public people throw noise that do+rv₁ conj
a nüghì *uda* *igba* *ruo* *nwa* *oge*.
 hear+neg sound drum reach child time
 The crowd shouted to the extent that the sound of the drum(s) was not heard for a while, (see appendix 9, no. 9).

Example (156) shows that ‘*nü*’ can also take the negative marker ‘-*ghì*’ to form a negative construction.

157. $\text{\textcircled{A}}$ *nükata* *uda* *ahu* *agaghì* *anüzi* *ya* ...
 indef. pro. hear+degree sound Dem go+neg hear+terminative it ...
 If one hears the sound, after a while, one wouldn’t hear it any more (again), (see appendix 9, no. 13)

158a. $\text{\textcircled{K}}$ *a* *anyì* *nükwa* *onu* $\text{\textcircled{O}}$ *dukwe*
 let we hear+also mouth $\text{\textcircled{O}}$ *dukwe*
 Let us also hear (from) $\text{\textcircled{O}}$ dukwe, (see appendix 9, no. 22)

158b. O *nụkwara* *ka* *Ikemefuna* *na-eti*
 s/he hear+also Comp *Ikemefuna* aux-shout
 S/he heard when *Ikemefuna* was shouting..., (see appendix 9, no. 16)

In (157), ‘*nụ*’ has two suffixes viz ‘*ka*’, which is comparative in function (repetitive nature of the sound) and ‘*ta*’, which shows the quantity (amount) of what is perceived. In (158a) and (158b), *nụ* has ‘*kwa*’ and ‘*kwa*’ and ‘*ra*’ respectively. ‘*kwa*’ is an adverbial suffix that stands for ‘also’ and ‘*ra*’ is the $-rv_1$ past tense marker.

159. ... *olu* *ndị* *dị* *ala,* *ndị* o *na-abụ* *a*
 ... voice those be low those pro aux-be imper pro
nụtu *a* *nụkwa* *egwu* *ndị* *ha* *na-agụ*
 hear+*kwa* imper. pro. hear+also music those they aux-read
 ... low tones, which when one hears a little, one will also hear the songs they sing,
 (see appendix 9, no. 26)

In (159), the suffix ‘*tụ*’, attached to ‘*nụ*’ is a diminutive. The effect is that it shows how much that was heard of the song.

160. *Nnụnụ* *ndị* *afụ* *enwero*
 bird pl. marker Dem has+ rv_1
nke *nụnụgoro* *ụdịrị* *omenaana* *afụ* ...
 that hear+ever+ rv_1 type tradition Dem ...
 There is none of the birds that has ever heard of such a tradition..., (see appendix 9, no. 28)

The suffixes in (160) are four in number viz *nụ+nụ+go+ro*. ‘*nụ*’ is an enclitic that can go with a verb or a noun. It stands for ‘ever’ and it is adverbial in function, ‘*go*’ is the dialectal variant of ‘*-la*’ that shows perfective aspect, while ‘*ro*’ is the past tense $-rv_1$ marker. Here, it is observed that the perfective and past time combine to show complete pastness, which in (160) stands for ‘has ever heard’.

161a. Ọ dīteghị aka, a nūdebe olu Ezimma.
 it be+neg hand imper. pro. hear+terminative voice Ezimma
 It wasn't long, Ezimma's voice was no longer heard, (see appendix 9, no. 32).

161b. Ị nūtūbeghị egwu ahụ a
 pro hear+Dim+neg music Dem imper pro
 na-agụ ma nwaanyị nwụọ?
 aux-sing when woman die?
 Have you not heard this song that is sung when a woman dies?, (see appendix 9, no. 39)

In (161a), *-debe* is a fossilised suffix that is terminative in function. It shows the point when Ezimma's voice was no longer heard. In (161b), *-tu* is a diminutive, '-be' is terminative in function and '-ghị' is the negative marker. The combination of the three morphemes means the end point of the little that was supposed to be heard of the song.

162a. Ị nūla na e nwerọzi Abame?
 you hear+perf that pro have+neg+stop Abame
 Have you heard that Abame no longer exists?, (see appendix 9, no. 41)

'La' in (162a) shows perfective time. It shows an incident that has already taken place.

162b. Atarọ m gị na ị nūrọ ka ọkụkọ kwara
 blame+rv₁ me you that you hear+rv₁ Comp fowl cry+rv₁
 I do not blame you that you did not know when the cock crew, (see appendix 9, no. 46).

A look at (162b) shows that 'rọ' is the dialectal variant of the Standard Igbo negative marker 'ghi/ghị'.

(163) Ọ nara ntị nke ọma nūperetụ olu ọkụ ogene.
 s/he listen-rv₁ ear very good hear+rv₁+a bit voice crier gong
 S/he listened carefully and heard a bit of the town crier's voice, (see appendix 9, no. 74).

There is a chain of suffixes in (163), viz *pe-re-tu*. ‘*pe*’ is adverbial in function. It tells us the amount/quantity of what was heard; *-re* is the past tense marker, while *-tu* is a diminutive.

The data sieved out by the antconc tool on ‘*nụ*’ as an inflected verb also shows the manifestation of ‘*nụ*’ perceptive verb in many contexts where it does not function as a verb. In such contexts, as observed in (164a-h), ‘*nụ*’ occurs in different words to mean:

- 164a. *onụ* - mouth
 b. *mmanụ* - oil
 c. *anụmanụ* - animal
 d. *afonụ* - beards
 e. *nnụ* (in old Igbo counting system) forty
 f. *anụ* - flesh/meat
 g. *unụ* (second person plural pronoun) you
 h. *braunụ* - brown (see appendix 8 nos. 3, 5, 10, 15, 32, 73/145, 155 & 335)

It is pertinent to clearly state here that the occurrences of *nụ* in the above contexts are not within the scope of the study because they are not verbs.

4.3.4 Concordance results of *nụ* as an inflected morpheme in *Juọ Obinna*

There are different forms which *nụ* assumes as an inflected morpheme in *Juọ Obinna*. These forms include:

i. Infinitive as in:

- 165a. ... ma ha anughị yom, ma ya fọdu inụ dim.
 ... conj pro hear+neg yom conj pro remain to-hear dim
 ...they did not hear *yom* talk less of to hear *dim*, (see appendix 11, no. 227)

- b. ... ị malite inụ ihe

...you begin to-hear thing
 ... you will start/begin to hear something, (see appendix 11, no. 359)

As was seen in the discussion of ‘hụ’, ‘nụ’ can also accept ‘i/ị’ following the Igbo vowel rule to form infinitive as in (165a & b) to mean ‘to hear’

ii. Fossilised verb as in

166. Ọ dighị anya, a nɔdewe ụda shel
 it be-neg eye indef. pro. hear+stop sound shell
 It wasn't long; the sound of shell was no longer heard, (see appendix 12, no. 43).

In (166), *nụ* cannot be analysed without considering it in relation with ‘-dewe’, which is fossilised in nature because *-de* cannot be separated from *-we* in the above context without meaning loss. So, ‘-dewe’ is terminative in function.

iii. Present continuous/progressive and future tenses as in

167a. Ihe a na-anụ bụ ebe ụkwụ ndị mmadụ na-ada...
 thing imper. pro. aux-hear be where leg pl people aux-sound...
 What is heard is the sound of people's feet..., (see appendix 11, no. 225)

b. Uda egbe a na-anụ ebe niile n'ala Igbo ...
 sound gun indef. pro. aux-hear where all prep-land Igbo...
 The gun shots we hear everywhere in Igbo land..., (see appendix 11, no. 241)

c. O nweghị onye ga-anụ na ụgbọ elu nọ n'ikuku...
 there have-neg pro aux-hear that vehicle up stay prep-air...
 There is nobody that will hear that an aircraft is in the air..., (see appendix 11, no. 112)

d. ... bu ụzọ sụchie Obinna ntị tupu
 ...first road deafen Obinna ear before
 ọ ga-anụ ụda ya.
 he aux-hear sound it.
 ... first of all deafen Obinna's ear before he could hear the sound, (see appendix 11, no. 137).

In (167a-d) the auxiliary morphemes ‘na’ and ‘ga’ accompany the participle ‘anu’. While (167a-b) is progressive, (167c-d) is in future time. Also, in a progressive tense form, ‘nu’ depicting the sense of perception, ‘smell’ could be confirmed in the data. Observe (168a)

168a. ... ka anyi nudewe isi dum anyi na-anu ebe a
 ... Comp we hear+stop smell all we aux-hear place Dem
 ... so that we can stop perceiving all the odour we are perceiving here, (see appendix 11, no. 334).

b. O nwekwaghi nke anyi ga na-anu isi ya
 it have-also-neg that we modal aux- hear smell it
 There is none we will perceive its smell, (see appendix 11, no. 335)

Examples (167a-d) are the same with (168a-b) but the only difference is that in (167a-d), ‘nu’ stands for ‘hear’ while in (168a-b), it means ‘smell’.

4. Participle as in

169a. ...arusi be ha anu ofo o na-ago
 ...deity home they hear staff of office s/he aux-pray
 ... the deity in his/her town will hear his/her prayer, (see appendix 11, no. 240)

b. ...ma a gbakata izu, onye nti chiri anu
 ...but imper. pro. continue-running wisper pro ear deaf+rv₁ hear
 ...but if one continues whispering the deaf person will hear, (see appendix 11, no. 143)

In the Igbo language, participles are formed when ‘a/e’ are attached to verb roots to mean ‘will’, which is an auxiliary verb. The main verb that follows the ‘will’ depends on the meaning of the root verb. So, in (169), the meaning ‘will hear’ is inferred. Other contexts where *nu* was found in the data include:

170a. hapunu` 171a. kwadonu`
 b. na-aganu` b. niganu`

- | | |
|--|---------------|
| c. búríkwánú' | c. dībénú` |
| d. kwánú' - also | d. jèénú` |
| e. húkwanú' | e. gbábàtánú` |
| f. jékwúwénú' | f. bùrúnú` |
| g. síwékwánú' | g. síwénú` |
| h. lálwálánú' (see appendix 11, nos. 6, 17, 59, 224, 264, 275, 328, 336, 302, 306, 345, 346, 115, 114 & 329) | |

In (170) *nú'* as manifested in the listed words function as an enclitic and it is adverbial in function. On the other hand, *nú'* in (171) is the cliticised form of the second plural pronoun, *únú`*. A close look at the data shows that *nú'* as an enclitic bears high tone while *nú`* as the cliticised form of *únú`* bears low tone.

Furthermore, the data analysis fished out many words with the verb root *nú'*, where it does not function as a verb. Observe the examples below:

- 172a. Ogbènyèánú̄ - Somebody's name (a poor person will not marry)
- b. ónú̄ - mouth/hole
- c. ánúmànú` - animal/stupid person
- d. ánú' - meat/animal
- e. nímánú̄ - oil
- f. e`è`shíònú' - at attention, (see appendix 11, nos. 1, 2/3, 7, 8, 45 & 165)

Examples (170-172f) are not covered by this thesis because 'nú' in the above contexts does not function as a verb.

The data analysis also reveals that *nú'* (whether as hear, taste or smell) combines with various suffixes; but regardless of the types and nature of the suffixes and how many of them that are attached to *nú'*, the result of the combination does not go beyond the basic meaning of the verb root. Examples:

173a. $\text{\textcircled{O}}$ *nuru* aka mmadu kuru n'uzo
 s/he hear+rv₁ hand human knock+rv₁ prep-door
 s/he heard someone knock at the door, (see appendix 12, no. 9).

173b. $\text{\textcircled{O}}$ *nuru* uda egbe
 s/he hear-rv₁ sound gun
 s/he heard the sound of gun shot, (see appendix 12, no. 13)

Examples (173a-b) are instances of 'nu' taking the past tense marker to show 'heard'.

Other occurrences include:

174a. $\text{\textcircled{O}}$ *nula* akuko ka nwoke ahụ
 s/he hear+perf story comp man Dem
 si na-agba ndi na-agba oso egbe
 how aux-run pl. marker aux-run run gun
 s/he has heard the story of how the man shoots run-away soldiers, (see appendix 12, no. 5).

b. Ha *nukwa* uda nke abuo wee gbapu n'ezi
 they hear+also sound Det two conj run+out prep-compound
 They also heard the second sound and ran out, (see appendix 12, no. 15).

c. ...ka o *nudewere* uda ugbo elu ahụ
 ...comp s/he hear+stop+rv₁ sound vehicle up Dem
 ... when he no longer heard the sound of the aircraft, (see appendix 12, no. 17)

d. $\text{\textcircled{O}}$ *nughi* mkpu mmadu ma o bu uria nnunu
 s/he hear+neg shout human or cry bird
 s/he did not hear the sound of a human or the cry of a bird, (see appendix 12, no. 18)

e. Ma o *nukwaghi* uda ugbo elu o bu
 but s/he hear+also+neg sound vehicle up none
 But s/he did not hear the sound of any aircraft, (see appendix 12, no. 23)

f. O teela o ji *nwa*
 it long-time s/he hold hear+inchoactive
 akuko maka ndi komando,

story because pl. marker Commando

It has been sometime he started to hear about the Commandos, (see appendix 12, no. 26)

g. Ma	o	nɪbɛghɪ	na	udele	na-esi	n'ulo
but	s/he	hear+neg	that	vulture	aux-cook	prep-house
soro		mmadu	na-aga	n'ihu		ogu
follow+rv ₁		human	aux-go	prep-front		war

But s/he had not heard that the vulture follows one from home to the warfront, (see appendix 12, no. 37)

h. O	dighɪ	anya,	a	nɪdewe	uda	shel
it	do+neg	eye	imper.pro.	hear-stop	sound	shell

It was not long before he stopped to hear the sound of shells, (see appendix 12, no. 43).

i. ... ha	nɪchaa	akuko,	ha	nwere	ike
... they	hear+finish	story	they	have+rv ₁	power
inara	mmadu	igwe	chɔwa	ya	
to-take+rv ₁	somebody	iron	pursue	him/her	

...after hearing the story, they might take a bicycle from people and pursue him, (see appendix 12, no. 57).

j. Obinna	nɪtu	uda	ugbo	elu,
Obinna	hear+Dim	sound	vehicle	up
o	nɪtu	uda	egbe	bufa
s/he	hear+Dim	sound	gun	buffer

If Obinna hears the sound of aircraft a bit, he hears the sound of buffer a bit, (see appendix 12, no. 73)

k. Ikekwe,	ndi	na-ebutere	anyi	nri	nɪkata
Maybe/perhaps,	people	aux-carry+rv ₁	we	food	hear+continue
udi	isi	ha	ga	na-anu	ebe
type	smell	they	modal	aux-hear	place
					a Dem

Maybe/perhaps, if the people that bring food for us continue perceiving this type of smell here, (see appendix 12, no. 77)

Sentence (174a) is a case of 'nɪ' taking the perfective marker '-la', which shows a completed action of hearing. Below are the explanations for the suffixes in (174b - k) above. In (174b), 'kwa' is adverbial in function. It translates to 'also' in English. Here, the people in question '*also heard the sound a second time and ran away*'. In (174c),

there are *-dewe* and *-re*. *-dewe* is a fossilised verb that means ‘the starting point’ when they stopped *to hear* the sound of the aircraft. The notion of inchoation is also embedded in it. The *-re* suffix is the past tense morpheme which negates the action coded by the verb *nú*. For (174d), *-ghi* is a negative marker pointing to the fact that he/she did not hear the sound of any human or the cry of any bird. Example (174e) is a case of not hearing the sound of any vehicle by repeating the action of wanting to hear (but he did not eventually hear). Example (174f) encodes inchoative to indicate the onset of the hearing process the person in question passed through in getting the information. ‘-Be’ in (174g) also indicates the beginning of an action with the addition of the negative marker *ghi*. Example (174h) is the same with (174c). The only difference is that (174c) contains the past tense marker while (174h) does not. In (174i), ‘nú’ takes the *-chaa* suffix, which codes completive. It shows a full completion of the action and process involved in hearing the story expressed by the modified perceptive verb ‘nú’. For sentence (174j), the morpheme *tu* is a diminutive suffix that indicates the fulfilment of a bit or little of the action coded in *nú*. According to Uchechukwu (2013:8), *cha’* contrasts with *chari/chara/chalu* in that the latter shows that the event/action “coded in the verb occurs in a ‘tiny surface area’ of the entity in question, but still a wider area than is the case with the suffix *tu*.” In the last sentence (174k), *nú* goes with the suffix *-kata*. This suffix encodes the intensity and persistence of an action or process already in place. The intensity of such an action continues before or until another event follows.

4.3.5 Concordance results of *nú* as a compound verb *Ihe Aghasaa* and *Juọ Obinna*

In *Ihe Aghasaa*, the manifestation of ‘nụ’ as a compound verb was not discovered. In cases where *nụ* was fished out as occurring with another suffix, as in *nụwa*, *nụghi*, *nụru*, *nụla*, *nụro* (see the discussion in 4.3.2), they are not compound verbs; rather, these are suffixes added to ‘nụ’ that perform some grammatical functions in relation to the basic meanings ‘hear’, ‘taste’ or ‘smell’ as discussed in 4.3.3 and 4.3.4. Furthermore, it is interesting also to note that no manifestation of ‘nụ’ as a compound verb was found in *Juọ Obinna*. In all the cases identified in the novel, none was a case of compounding. The suffixes were enclitics that still bear the basic meaning of the perceptive verb root, whether it is ‘hear’, ‘taste’ or ‘smell’.

4.3.6 Concordance result of *nụ* as an inherent complement verb in *Ihe Aghasaa*

It is interesting to note that from our observation, ‘nụ’ as an ICV featured greatly in the data. Apart from ‘nụ’ meaning ‘hear’, which may or may not take a complement, ‘nụ’ as in perceptive verb ‘smell’ and ‘taste’ must take a complement. Observe example (175a) below:

175a. Mmọnwụ ahụ *nụru* isi mmadu...
 masquerade Dem hear+rv₁ smell people...
 The masquerade perceived the smell of humans..., (see appendix 9, no. 64)

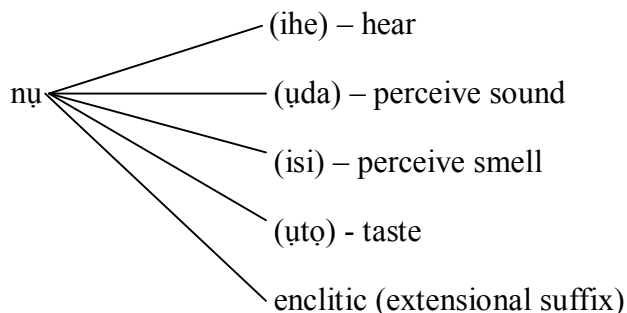
b. Ekwefi tugharịrị isi ya ka anụ *nụru* isi ọnwụ.
 Ekwefi turn+rv₁ head pro. Comp. animal hear+rv₁ smell death
 Ekwefi turned her head like an animal that perceived death, (see appendix 9, no. 29).

In (175a) and (b), ‘nụ’ is an ICV. Conceptually, it can only be realised when the complement *isi* – ‘smell’ is attached to it and when that happens, the perception of smell is realised. In Table 3, it was observed that *sì* is the perceptive root verb for smell; hence, there is ‘*sì* *isi*’ – ‘smell smell’ (is smelling/smells). But whenever the idea of perceiving

smell, odour, aroma, fragrance, etc, is intended, then ‘nụ’ usually selects *ísi* to show it. Biologically, according to Viberg (1984), the stimulus for smell consists of volatile molecules or vapours, which reach the olfactory cavity either through the nostrils or through the mouth.

In summary, it is observed from the analysis so far that *nụ* as a single morpheme, inflected verb, and an ICV is a polysemous verb of perception with three different senses, each reflecting a sense perception in Igbo. Also, ‘nụ’ manifests as an enclitic in the data. See Fig. 24 below:

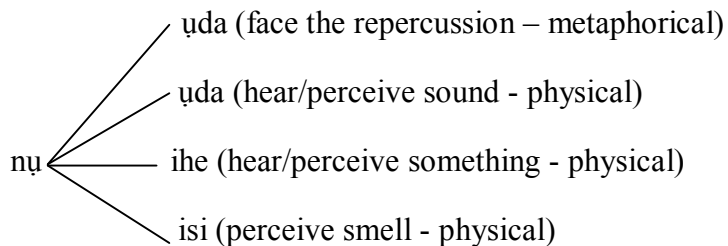
Fig. 24



4.3.7 Concordance results of *nụ* as an inherent complement verb in *Jụọ Obinna*

As an inherent complement verb, three manifestations of *nụ* in the above category were isolated in the text. See Fig. 25 below:

Fig. 25



Observe examples (176a-d)

176a. Obinna, sekpuru ala ma o bu i nu u da ya!
 Obinna kneel+rv₁ ground or you hear sound him/her/it
 Obinna, kneel down or you will face the consequences, (see appendix 12, no. 91)

b. O nuru u da ukwu mmadu.
 s/he hear+rv₁ sound leg human
 s/he heard somebody's footsteps, (see appendix 12, no. 72).

c. O di Obinna ka o nuru aha ya.
 it be Obinna Comp. he hear+rv₁ name his
 Obinna felt he heard his name, (see appendix 12, no. 79).

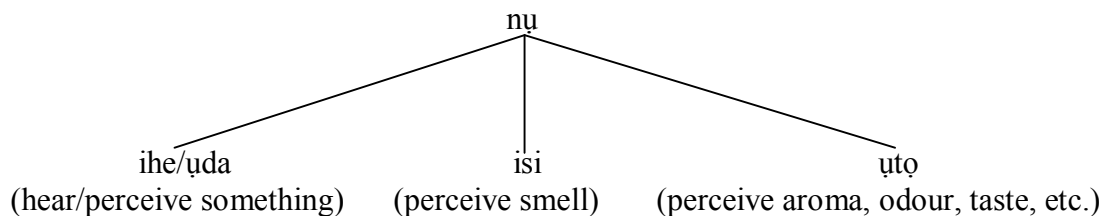
d. ...ime ka anyi nudewe isi dum anyi na-anu
 ... to-do Comp we hear+stop smell all we aux-hear
 ... to make us stop perceiving all the odour we are perceiving, (see appendix 12, no. 78).

In example (176a), *nu' u da'* is physical but conceptually in the mental faculty the plight of the person involved can be perceived. It is a common saying in the Igbo culture, usually used by the younger generation to inform or threaten one about the grave consequences, repercussion or punishment which one will face when one is involved in or refuses to obey or do things accordingly. The punishment, which is usually heavy, may be in the form of flogging, imprisonment, manual labour, hardship, ostracism, death. The second (176b) and the third (176c) constructions are purely physical and concrete, where the person involved, with the aid of the hearing apparatus (ear), hears or perceives the sound, noise or any other form of sound, then interprets and acts accordingly. In (176d), *nu'* codes the perception of smell. It is also physical as in (176b-c) but the difference lies in

the fact that *nụ́* in the two contexts (176b, 176c) and (176d) encode different senses of perception, viz: hearing and smell respectively.

Based on the analysis so far, it could be stated that the perceptive verb ‘*nụ́*’ codes three sense perceptions, which are in the form of ICV- hearing, taste and smell, (see Fig. 26)

Fig. 26: Three senses of the perceptive verb ‘*nụ́*’



A look at (4.3.6) and (4.3.7) reveals some interesting findings. Ordinarily, according to the Igboman’s perception of the Igbo language, when the idea of an entity emitting aroma, odour, perfume, fragrance, etc. is involved, *sí ísí* is used to code that but whenever a living entity is involved in perceiving the aroma, odour, perfume, etc. emitted by an entity, *nụ́ ísí* - perceive smell is coded. Likewise, anytime an entity tastes good/sweet, fine etc. the expression is *tó ụtō* according to Igbo native speaker’s perception but the moment any living human, animal and even spirits perceive taste using the sensory organ of the mouth, (especially the tongue), then *nụ́ ụtō* - perceive the taste (usually positive) is used. In other words, the root verb ‘*nụ́*’ totally encodes the meaning “perception”, either with the ear, nose or taste buds.

Furthermore, ‘*nụ́*’ as the perceptive sense of hear is mainly physical or concrete in meaning but the analysis reveals one metaphorical meaning where *nụ́ ụda* stands for

facing the repercussion’, (see 176a above). Therefore, conceptually, the different senses of *nu*’ belong to the semantic field ‘perceive’ and metaphorically in radial categorization, its ICV is figurative in function even though the conceptual field is the same.

4.4 Extended meanings of the perceptive verbs *hú* and *nú*

In the previous section, data on the concordance results of ‘*hú*’ and ‘*nú*’ as they manifested in the texts under consideration were presented. This section looks at the metaphorical and metonymic meanings of the perceptive verbs under investigation. According to Ibarretxe (1999), non-prototypical meanings are all those extended meanings, which can be metaphorical, which perceptive verbs under consideration can convey apart from the basic prototypical meaning of physical perception. It is important to point out that in this section, some complex uses of the perceptive verbs with different types of complementation are considered. This implies that the functional dependency between different syntactic types of complements and the entities they encode in each case are explored. It is discovered that there is a relationship between the meaning extensions of perceptive verbs in the cognitive domain with the type of complement they take. Observe (177a & b) below:

177a. Obinna tughariṛi *hu* Ogbenyeaṅu
 Obinna turn+rv₁ see Ogbenyeaṅu
 Obinna turned and *saw* Ogbenyeaṅu, (see appendix 4, no. 1)

b. Ndi mmadu ejeela gwa Emeka ka
 pl people go+perf tell Emeka Comp
 o bia *hu* na Obinna banyere soja.
 pro come see conj Obinna enter+rv₁ soldier

People have told Emeka to make sure that Obinna is enrolled in the army, (see appendix 4, no. 12)

In (177a), the complement is a noun *Ogbenyeanu*, a human being, a physical object. From (177a), it could be understood that *Obinna* physically saw a human being named *Ogbenyeanu* with his eyes. However, the complement in (177b) is a noun clause, *na Obinna banyere soja* – ‘that Obinna enrolled into the army’. In this case, the meaning of the sentence is not perceptual; *Emeka* did not see any human/object with his eyes. What people wanted *Emeka* to see (ensure it happens) is *Obinna enrolled in army* since he is a run-away soldier. In other words, the verb *hu* does not encode the acquisition of sense data through the eyes, but the mental manifestation of information gathered by the eyes and carried out by conviction or physical force. In other words, there is a semantic extension from physical perception (in 177a) to mental cognition (in 177b), conditioned by the complement taken by the perceptive verb. In the following section, therefore, the non-prototypical and metaphorical extensions of the two perceptive verbs under discussion are explored.

4.4.1. Vision - hù

Among the five verbs of perception in the Igbo language, vision is the most common and the most studied. The semantic field of sight has been analysed not only from the point of view of polysemy (Bauer 1949; Prévot 1935; Garcia Hernández 1976; Alm-Arvius (1993) but also from the language acquisition angle (Laudau and Gleitman (1985); Johnson (1999)). In this section, the extended meanings of ‘hù’ in relation to the texts under investigation are presented. In the texts under consideration, metaphorical/metonymical meanings of *hù* are discovered in relation to its ICV and five

extended/non-prototypical meanings in relation to *hú* as a single morpheme were also observed. These relate purely metaphorical meaning and physical vision with the intellect or mental activity. They are divided into groups below for easy discussion but generally, they include the meanings: love, have opportunity, bribe/plead/settle, sort it out/see to it/see the end, be dumbfounded, have effrontery/audacity, tremble, visit, get, meet, make sure/ensure, discover, perceive, and observe.

The first group relates to the meaning of *love/to love*, which is purely metaphorical as illustrated in (178a) and (b) below. Here, the issue of physical vision is not involved.

178a. Okonkwọ *huru* Ezimma n'anya.
 Okonkwọ see+rv₂ Ezimma prep-eye
 Okonkwọ loves Ezimma, (see appendix 3, no. 20)

b. ...ma o *huru* nwata nwoke ahụ n'anya
 ...conj. pro. see+rv₂ child man Dem prep-eye
 ...but he loves the boy, (see appendix 3, no. 13)

In (178a) and (b), *hú* must go with the complement *anya*, which must be preceded by the preposition *na* (n'anya) – ‘in the eye’, in order to infer the meaning of ‘love’. Otherwise, the verb can have any of the other meanings, (see 179 below). Therefore, apart from (178a & b), *hú* with the complement, ‘n'anya’ can also have another meaning. But context disambiguates and differentiates it from (178a and b) because most times they have benefactive complements.

179. Okonkwọ chọọ ka ya *hugodu* n'anya wee kwere
 Okonkwọ want+rv₁ Comp pro see prep-eye before accept+rv₁
 Okonkwọ wants to (physically) see with his eyes before he would believe, (see appendix 3, no. 66)

In (179), there is also *hü n'anya* but the meaning is quite different from (178a & b). Here, it is literal: 'see in the eye' that is, 'see with one's eyes'. As we earlier stated, the context of usage shows the difference between the two.

The second group relates to social relationships. This group includes meanings such as *meet, visit, get, bribe/plead/settle, and perceive a situation*. The first meaning is 'meet'. In (180a) and (b), what is implied is that the people involved are not only going to see one another, but they have made or will have an appointment, where they will meet and interact.

180a. ...ndi ndu Үмұқфия ka ha
 ...pl marker lead Үмұқфия Comp pro
 bja *hü* ya n'isi ұлқ оқу ya.
 come see pro prep-head house work pro
 ...the leaders of Үмұқфия to come and see (meet) him in his main office, (see appendix 1, no. 23)

b. ... a şı ya ka o je *hü* ndi
 imper.pro tell pro Comp pro go see Det.
 Kaptın ibe ya nо n'isi ұлқ оқу ndi agha.
 Captain fellow pro stay prep-head house work Det. war
 (if) one tells him to go and see (meet) his fellow Captains at the army headquarters, (see appendix 4, no. 99)

Another meaning that can be added to this group is 'to pay a visit to someone'.

181a. Lee Үмұнзе, lee Ufuma, ma olee
 Look Үмұнзе look Ufuma but how
 ұзқ о ga-esi je *hü* ha anya.
 road pro aux-do go see pro eye
 See Үмұнзе, see at Ufuma, but how will he go and see (visit) them, (see appendix 4, no. 49).

- b. Ya mere Obierika jiri gaa Mbanta bu
 that do+rv₁ Obierika why go Mbanta Be
 ka ọ ga *hu* enyi ya nwoke.
 Comp pro go see friend pro man
 That was why Obierika went to Mbanta was to go and see (visit) his friend, (see appendix 1, no. 15).

In the two case, (181a and b), the idea of ‘visit’ is implied.

In the illustrations below, *hú* means ‘get’. This meaning is inferred from the data available in two ways:

- (i) What you look for you find – that is, what one wants, one gets, In other words, if one put oneself in a tight condition, be ready for the consequences one will get. This can be seen in (182a).

- (ii) Acquiring physical energy

Example (182b) shows physical acquisition of energy because Obinna (drank) ate garri and got energy to continue his journey.

- 182a. ...ihe onye *chọọ*, ya *hu*.
 ...thing pro find+rv₁ pro see
 ...what one wants one sees (gets), (see appendix 4, no. 61)

- b. Otu nwaanyi wunyere ya garị na mmiri,
 One woman pour+rv₁ pro garri prep water
 ọ *nụọ*, wee *hu* ike o ji na-aga ije.
 pro drink and see power pro hold aux-go walk
 A woman soaked garri in water for him, he drank and gathered energy with which to walk, (see appendix 4, no. 58).

Furthermore, ‘bribe/plead/settle’ as in (183a), (b) and (c), are meanings in this group. To arrive at this meaning, a pronoun or noun usually comes between *hú* and *ányá* – ‘eye’, telling us the person(s) one wants to bribe, plead with or settle, as the case may be.

183a. O je *hú* Obinna anya, tɔgbɔrɔ ya naira anɔ.
 pro go see Obinna eye drop+rv₁ pro naira four
 S/he will see (bribe) Obinna, and give him four naira, (see appendix 4, no. 33).

b. ...ì chɔrɔ ha bɪa ebe a na-enwe
 ...pro find+rv₁ pro come where indef.pro aux-have
 ɔzuzú je *hú* ndì isi anya, ewepu ha.
 training go see Comp head eye remove pro
 ...you find them where they are undergoing training, see(bribe/plead/settle) the officers, and they’re removed, (see appendix 4, no. 15).

c. ...maka na o jiri ihere ghara
 ...prep conj. pro hold+rv₁ shame refuse+rv₁
 ije *hú* Emeka anya ugbu a....
 to-go see Emeka eye now Dem...
 ...because if he refuses not to go and see (bribe/plead/settle) Emeka now out of shame..., (see appendix 4, no. 16)

Also, in this group, we have the notion of perceive, i.e. how a situation or condition is viewed, realised, conceived or perceived as in (184a-d) below. The conception takes place in the mental domain and interpreted accordingly. The people involved, visualise the situation with their mental eyes.

184a. Ọ bụ etu a ka ndì obodo si *hú* ya.
 pro Be like this Comp Det town take see pro
 That is how the villagers saw (perceived) it, (see appendix 1, no. 18).

b. Ugbu a, ɔ *hú*la na ihe gbasara
 now pro see+perf that thing concern+rv₁
 ìbanye soja bú mmiri dɔrɔrɔ ya
 to-enter soldier Be water stagnant+rv₁ pro

Now he has seen (realised/perceived/known) that the issue of enrolling in the army is a must for him, (see appendix 6, no. 23)

- c. Nwunyedi ya hū́tara nke a dī ka ntaji anya,
 co-wife pro see-a little-rv₁ this Dem Be as envy eye
 Her co-wife *saw (perceived)* it as envy/jealousy, (see appendix 3, no. 35)

- d. Ọ hū́rụ ụjọ n'ime ụzụ ahụ ha tūrụ
 pro see+rv₁ fear prep-inside sound Dem. pro shout+rv₁
 S/he *saw (perceived)* fear in their shout, (see appendix 3, no. 93).

Another possible meaning is ‘dumbfounded’, ‘have effrontery/audacity’, and ‘tremble’. Observe examples (185a), (b) and (c) below:

- 185a. ...ọ hūghị ọ́nụ mgbe obi ya gwara ya ihe na-eme.
 ...pro see+neg mouth when heart pro tell+rv₁ pro thing aux-do
 ...s/he did not *see the mouth (dumbfounded)* when his/her heart told him/her what is happening, (see appendix 6, no. 258).

- b. Ọ rara ahụ mmadụ ihụ ọ́nụ ịsa
 pro difficult+rv₁ body human to-see mouth respond
 ndị isi okwu
 pl head talk
 It was difficult for one to have the *effrontery* to talk back to officers, (see appendix 5, no. 891).

- c. Ahụ na-ahụ ya peri peri
 body aux-tremble/shake pro peri peri
 His/her body was *trembling/shaking*, (see appendix 5, no. 896).

Sentence (185a) literally means that the person in question “did not see mouth with which to cry’. But it is conceived as dumbfounded. Furthermore, in (185b), the absence of the negative marker changes the meaning. Literally, it means that ‘he/she has mouth with which to talk’ which metaphorically stands for ‘effrontry’. Sentence (185c) is an instance

of ‘hú’ taking an ideophone ‘peri peri’ which stands for ‘feeble’, ‘trembling’ item. ‘Hú’ in (185c) stands for vibrate, while ‘peri peri’ is the feeble and trembling nature of the object concerned.

In the vision verb of *hú* in relation to this group, another meaning ‘to experience’ is also possible. In this meaning, the emphasis is on the person that is experiencing certain things, referring to his experience or has an experience of what others before him/her have passed through. Observe (186a, b, c & d) below:

186a. N’ime ihe niile Obinna *huru*
 prep-inside thing all Obinna see+rv₁
 site mgbe agha malitere...
 from when war start+rv₁...
 Based on everything Obinna *saw* (*his experiences*) since the war started..., (see appendix 6, no. 175).

b. Onye choro ibanye soja ga-abanye
 pro find+rv₁ to-enter soldier aux-enter
 soja, *hukwa* ihe soja na-ahú.
 soldier see+also thing soldier aux-see
 Anybody who wants to get enrolled in the army will be enrolled and *see* (*experience*) what soldiers experience, (see appendix 6, no. 134).

c. Obinna tuturu ihe niile *huru* ya na
 Obinna pick+rv₁ thing all see+rv₁ pro conj
 ndi o *huru*, koro nwa okorobia a.
 Comp pro see+rv₁ tell+rv₁ child male Dem
 Obinna told the young man all his *experiences*, (see appendix 6, no. 137).

d. O teela Obinna ji *hwa* ihe.
 pro long-period Obinna hold see+inchoative thing
 It’s been long Obinna *started passing through various* experiences, (see appendix 6, no. 217).

The things Obinna saw in (186a) refer to his experiences during the war; the good and bad times. In (186b) *hukwa* – ‘also see’ stands for people’s experiences which the person in question will pass through if he/she eventually joins the army. Also, in (186c), Obinna told the young man everything about his life during the war. The expression *ndi huru ya na ndi o huru*, which literally means ‘the ones that saw him and the ones he saw’, metaphorically means that Obinna narrated ALL his experiences without leaving out anything.

Another possible meaning is ‘intelligent/exposed/smart/well placed/educated/prominent.

Observe (187)

187. Ma	nwoke	ahụ	egbukatala	je	gbuo
Conj.	man	Dem	kill+continue+perf	go	kill
onye	nwanne	ya	<i>huru</i>	<i>uzo</i>	
pro	relation	pro	see+rv ₁	road	

And the man continued killing and killed somebody whose relation is *prominent*, (see appendix 6, no. 245)

In (187), *hu uzo* is an ICV that can have the physical meaning ‘see/see the way (road)’.

The context and the complement it takes show the connotative meanings it portrays, which in this context stands for ‘prominent’. Likewise in (188), *hu uzo*, means ‘smart/strong’ or ‘heroic’. So, while (187) refers to a prominent person, (188) refers to somebody who is smart or a hero. Therefore, usage and the complement specifies the domain of each ICV.

188. Ma	naani	ndi	<i>huru</i>	<i>uzo</i> ,	katakwa	ahụ	na-eru...
but	only	Comp	see+rv ₁	road	strong	body	aux-reach

But only those that are *smart/strong* reach their destination, (see appendix 6, no. 184)

The third and fourth groups of meaning are those that connect vision to reliability or assurance, solution to a problem and have a chance to engage in something. Meanings such as *make sure (ensure)*, and *sort it out/see to it/see the end*, are classified under this groups as in: (189a, b, c) and (d).

189a. ...iji *hu* na e kpotere ndi soja
 ...to see that indef. pro. bring+rv₁ Comp soldier
 ga-abia iledere ya ugbo ala
 aux-come look-after+rv₁ pro vehicle ground
 ... to *see (ensure)* that soldiers are deployed look after his car, (see appendix 4, no. 65)

b. ... ndi soja nwere ike ihapu ndi ha ji
 ...comp soldier have+rv₁ power to-leave Comp pro hold
 eji, *hu* na e bu uzọ gbuo ya egbuo
 hold see that indef.pro. Be first kill pro kill
 ...the soldiers may leave the people they captured and *see (make sure)* that he is killed first, (see appendix 4, no. 75)

c. Chi jie, ha ejee *hu* isi ya.
 day blacken pro go see head pro
 When night comes, they will sort it out/see to it/see to the end of it, (see appendix 4, no. 18)

d. O ruo nwanne echi, ha ejee *hu* isi ya.
 pro reach the-next tomorrow pro go see head pro
 By the day after tomorrow they will *see to the end of* it, (see appendix 4, no. 117)

In (189a-d), whenever an Igbo person wants to express ‘ensure’, ‘sort it out’ or ‘get a solution’, ‘*hu*’ goes with the appropriate complement to portray that. Here, there is a close link between physical and cognitive domains. Physically, one will observe the situation by being involved in it before one ensures or makes sure a solution is got.

Another meaning included in this group is *discover/find out/observe*. See (190a-b). In (190a-b) there are no complements but from the context of usage, the extended meanings of ‘hụ’ are inferred viz ‘observe’, ‘discover’ and ‘find out’.

190a. Nwoke ahụ hụrụ ka Obinna si kwee asaa...
 man Dem see+rv₁ Comp Obinna how affirm seven...
 The man *saw (observed/discovered)* how Obinna said amen..., (see appendix 6, no. 135)

b. ... na ọ kọrọ ndị mmadu maka ihe
 ...that pro tell+rv₁ comp people prep thing
 ya hụrụ n’ogwu Maazi Ọnyido gwọrọ ya
 pro see+rv₁ prep-talisman Mr. Ọnyido prepare+rv₁ pro
 ... that he told people about what he *saw (observed/discovered)* in the talisman Mr. Ọnyido prepared for him, (see appendix 6, no. 183)

c. Mgbe ndị osu a hụrụ na okpukpe
 when Comp outcast Dem see+rv₁ that worship
 ọhụrụ a na-anabata umụ ejima
 new Dem aux-accept children twins
 When the outcastes *saw (discovered/found out)* that the new religion accepted twins, (see appendix 3, no. 74)

d. Obinna weliri isi ya elu, wee hụ na
 Obinna lift+rv₁ head pro up conj see that
 ya ka di ndụ
 pro Comp Be life
 Obinna lifted his head and *saw (discovered)* that he was still alive, (see appendix 4, no. 21).

e. Ọ tughariri hụ na ọ bụ otu onye
 pro turn+rv₁ see that pro Be one pro
 n’ime ndị buputara ya n’okporo ụzọ.
 prep-inside Comp carry-out+rv₁ pro prep-main road
 S/he turned and *saw (discovered)* that it was one of the people that brought him to the main road, (see appendix 4, no. 59)

Examples (190a-e) also involve physical observation with the eyes, which is later transferred to the cognitive domain for the above meanings to be realised. Also, the meaning ‘have opportunity’ is included in this group.

191. Ndi	nkiti	na-achoghi	ibanye	soja	hu
Comp	ordinary	aux-want-neg	to-enter	soldier	see
uzo	ha	bja	o	gwogoro	ha ...
road	pro	come	pro	prepare+rv ₁	pro...

If the ordinary people that do not want to enroll in the army *see a way have opportunity* they come and he prepares charm for them, (see appendix 4, no. 5)

Likewise, in (191), there is a close interplay between the physical and mental realms for this metaphorical meaning to be achieved.

From the above examples a big correlation exists between the type of syntactic complement the perceptive verbs take and the entity encoded in each case, (see Caplan (1973), Bolinger (1974), Cooper (1974), Dik & Hengeveld (1991). In other words, there is a domain with the type of complement each verb selects. Examine the following examples:

192a. Obinna	tughariri	hu	Ogbenyeanu
Obinna	turn+rv ₁	see	Ogbenyeanu

Obinna turned and *saw* Ogbenyeanu, (see appendix 4, no. 1)

b. Ma	abuzu	hu	nke	anya	ya	ekwesighi	ihu...
but	cricket	see	Comp	eye	pro	suppose-neg	to-see...

But when the cricket *sees* what it is not supposed to see..., (see appendix 4, no. 17)

c. Okonkwọ	huru	Ezimma	n'anya.
Okonkwọ	see+rv ₂	Ezimma	prep-eye

Okonkwọ *loves* Ezimma, (see appendix 3, no. 20)

In (192a), the object *Ogbenyeanu* corresponds to what Dik & Hengeveld (1991) call ‘immediate perception of an individual ‘a physical object’. In (192a), we understand that

Obinna physically perceived *Ogbenyeanu* with his eyes. In (192b), the complement is a clause. The meaning is still perceptual: *Abuzu* - ‘cricket’ physically perceived with its eyes a situation/event. This corresponds to the ‘immediate perception of a state of affairs’ also according to Dik & Hengeveld (1991). The complement in (192c) is an inherent complement verb. In this case, the meaning of the sentence is not perceptual; *Okonkwọ* did not see *Ezimme* with his eyes. What *Okonkwọ* saw is the affection he has for *Ezimme*. In other words, the infinitive verb *ihụ n’anya* – ‘to love’, does not encode only the acquisition of sense data through the eyes, but extends to a mental state of the perceiver. Therefore, there is a semantic extension from perception to cognition.

4.4.2 *Nụ* - Hearing

The sense of hearing is usually regarded as the sense of linguistic communication and in fact in all the meanings, both concrete and abstract, it seems to be so. Sight seems to be etymologically limited with words related to light, eye and knowledge. Two entities are always involved in this sense: the speaker and the hearer. This form could be a person or an object, known or unknown, but the fact is that it is always present. One of the extended meanings found in the Igbo language texts is ‘heed’ as in (193a and b)

193a. *Obinna, i kwesiri ihu ndumodu m na-enye gi*
Obinna, pro suppose to-hear advice me aux-give you
Obinna, you are supposed to heed to my advice, (see appendix 11, no. 396).

b. A gwara Inok ka o gbalia ihu
 indef. pro tell+rv₁ Enoch Comp pro try to-hear
 okwu Chukwu niile e kwuru
 talk God all imper-pro say+rv₁
 Enoch was told to hear (heed to/obey) the entire sermon, (see appendix 8, no. 482).

In these (193a-b), the person that utters the sentence is demanding the attention of the hearer. Furthermore, in this meaning in some contexts, the speaker does not only demand attention, but also, he wants the hearer to do what he is telling him/her. In such a situation, the verb ‘hear’ means ‘obey’. The condition of hearing as an interpersonal relation, according to Rylina (2013), is said to have caused the semantic shifts that the sense has undergone. In a way, it makes sense and in the case of the shift, (hear→heed→obey), it is true. The verb of hearing in itself does not mean ‘obey’ or ‘pay attention or heed’. It is in the context of a conversation; hence, it is in the interpersonal relation that they acquire that meaning.

Another extended meaning of the verb is ‘be told’ or ‘be informed’ as in (194a), (194b) and (194c)

194a. Oge Okonkwọ *nuru* na o kweghi eri nri o buła ...
 time Okonkwọ hear+rv₁ that s/he accept+neg eat food any...
 When Okonkwọ heard that s/he did not want to eat..., (see appendix 9, no. 4)

b. Anyi *nuru* ya jizie mee ife ndi afu
 we hear+rv₁ it go do thing Comp Dem
 o gwara unu na anyi melu
 s/he tell+rv₁ you-pl that we do+rv₁
 We heard it and we now did those things he told you that we did, (see appendix 9, no. 23).

c. Ezimma siri nna ya nri ozigbo o *nuru*
 Ezimma cook+rv₁ father pro food immediately pro hear+rv₁
 na a ga-atohapu ndi okenye isii ahụ.
 that indef.pro. aux-release those elder six dem
 Ezimma prepared a nice dish immediately she heard that the six elders would be released, (see appendix 9, no. 71).

The type of meaning in (194a-c) has interesting implications for the study of ‘evidential’, according to Chafe & Nichols (1986). They posit that evidentials are generally said to participate in the expression of the speaker’s attitude towards the situation his/her utterance describes. Willett (1988) says that the verb provides two types of evidence: (1) attached, when the source of the speaker’s information is of a primary source; and (2) indirectly reported, when the source is of secondary origin, i.e., hearsay. The extended meaning as discovered in the text fits into the latter type of evidential. In (194a-c) the agents ‘Okonkwọ’, ‘Anyị’ and ‘Ezimma’ acted based on the information (evidentials) got indirectly, i.e, ‘they were informed’ of the various situations; they were participants.

Finally, another extended meaning is ‘understand’ as in (195):

195. Nwoke m, ị na-anụ ihe m na-agwa gi?
 man me you aux-hear thing me aux-tell you
 My friend, do you understand what I am telling you?, (see appendix 11, no. 65)

In (195), ‘nụ’ encodes ‘understand’. In the Igbo language, whenever someone is speaking and the hearer is not behaving or responding as if s/he is getting the message, either by the way s/he stares at the speaker, or his/her continued silence or behaving contrary to the conversation/discussion, then ‘hear’, in an interrogative form as in (195) is used to find out whether the hearer understands the speaker. Therefore, another metaphorical meaning of ‘nụ’ from (195) is ‘understand’.

4.4.2.1. Smell

Various scholars (Caplan (1973; Viberg 1984; Sweetser (1990) are of the opinion that the sense of smell is generally considered a weaker source domain for metaphorical meanings when compared with other senses. In the text, only one metaphorical sense of ‘nụ’ in the semantic field of smell was discovered. For instance, *nụ* extensionally can mean ‘suspect’ as in (196)

196. O nweghi ụgbọ elu ndi iro a
 pro there-is-neg vehicle up Comp enemy indef.pro.
 huru mana Obinna anuwala isi ya.
 see+rv₁ conj. Obinna has smell+perf smell pro
 There is no enemy aircraft in site but Obinna has smelt (started suspecting) the presence of one, (see appendix 11, no. 354)

In (196), ‘nụ’ – ‘smell’ stands for ‘suspect’. It is important to take into account that the information perceived when the sense of smell is involved is not as reliable as the one realised when another sense is involved, such as vision. In (196), *Obinna* did not know for sure that there was an enemy aircraft coming but in case there was one coming, he could sense it; he would have a guess beforehand. It should be noted that sometimes ‘guess’ and ‘suspect’ can be taken as synonyms, and in other cases they are not. *Suspect* always carries a negative connotation, which is implied. This is not the case with *guess*. What is guessed might be a negative or a positive thing. Its quality is not implied by the verb itself but the fact that is foreseen.

4.4.2.2. Taste

Physically, according to Ibarretxe-Antuñano (1999), the sense of taste is linked to personal likes and dislikes in the mental world. Perhaps the reason why this is so, lies in the fact that the sense of taste is mostly closely associated with fine discrimination. Buck

(1949:1031) says that among the Hindus, there are four fundamental varieties of taste: ‘sweet’, ‘bitter’, ‘acid’ and ‘salt’. This makes the sense of taste very accurate from a descriptive point of view as it allows us to express ourselves very precisely when taste is described. Although this relation between taste and likes/dislikes is very common cross-linguistically, this meaning seems to be encoded mostly by taste nouns (complements) in Igbo. One of these extended meanings that the verbs have as found out in one of the texts is *have experience of something/experience something* as in (197):

197. Ekwefi so na ndị *nụrụla* ụtọ ahụhụ ...
 Ekwefi follow conj. pl hear+perf taste suffering ...
 Ekwefi is among those that have tasted suffering/Ekwefi is among those that have really suffered, (see appendix 9, no. 30)

The meaning of taste in (197) is Ekwefi’s sad experiences in life. Although the literal meaning of *nụ* in (197) in English is ‘hear’, here the combination with the object *ahụhụ* – ‘suffering’ can never be positive. It is a clear case of an experience that is totally negative.

The other extended metaphorical meaning in *nụ* in relation to ụtọ – ‘sweet’ is ‘enjoy’ in a positive sense contrary to (197) as illustrated in (198) below:

198a. Ọ *nụla* ụtọ ego site
 pro hear+perf taste money from
 n’inye ndị soja akwụkwọ ezumike ...
 prep-give Comp soldier book rest ...
 S/he has enjoyed (money) from giving soldiers permission letters of leave to rest,
 (see appendix 12, no. 58).

b. O	<i>nɪwala</i>		ɪtɔ	mmeri
pro	hear-continue-perf		taste	victory
n'ogu	a	a		na-alɪ....
prep-fight	Dem	indef.pro.		aux-fighting

S/he has started taking pleasure in victory in the war going on...., (see appendix 12, no. 71)

Although in the (198a-b), *nɪ* stands for 'enjoy', they are all not the same. In (198a) the connection with the actual physical sense of taste is more dominant. The meaning of 'enjoy' is made implicit by the word *ego* – 'money' but without it, (198a) might have meant any other thing (which could be negative). Consequently, (198b) is not so close to the physical meaning. It is true that 'mmeri' – 'victory' is positive, especially if one is winning; however, if the sentence is changed to something similar like (198c), the meaning changes from 'taking pleasure in winning' to 'taking pleasure in the defeat of the opposition'.

198c. Obinna	<i>nɪwala</i>		ɪtɔ	mmeri	n'ogu
Obinna	hear-continue-perf		taste	victory	prep-fight
a	a	na-alɪso	ndɪ	Naijirɪa.	
Dem	indef.pro	aux-fight	Comp	Nigeria	

Obinna has started taking pleasure in the victory against Nigeria in the on-going war, (see appendix 12, no. 71).

Losing a war is not something positive and, therefore, the theme *Naijirɪa* does not imply this positiveness as in (198c), but it does imply enjoyment in the part of the subject (Obinna).

So far, we have analysed the perceptive verbs *hɪ* and *nɪ* in the Igbo language using two literary texts. The high number of extended meanings in the sense perception verbs indicates that radially, this semantic field is highly polysemous.

CHAPTER FIVE

IMAGE SCHEMA (COGNITIVE DOMAINS) OF THE IGBO PERCEPTIVE

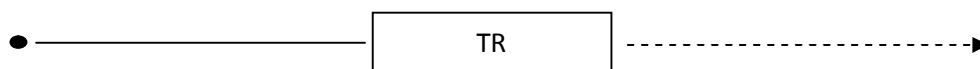
VERBS *HỤ* AND *NỤ*

5.1 Introduction

This section of the study reviews the concept of image schema, image schema topology, image schema transformation, then relates them to the Igbo verbs ‘hù’ and ‘nú’ in the texts under investigation. According to Uchechukwu (2011), image schema has been explained as condensed but abstract and dynamic re-description of perceptual interactions or experiences of humans. They help in forming human experiences and organising structures which can be modified by concrete human experiences. The above definition is in line with Hampe’s (2005:3) assertion, “there is no mutually compatible definition of image schema in cognitive linguistics; rather, human experience modifies it.” According to Johnson (2003), divergences in the definition of the concept could be as a result of interactional experiences, the broadness of the content of image schemata and degree of specificity (Grady 2005), the connection of image schemas with the neural circuits of the brain (Rohrer, 2005; Dodgy & Lakoff (2005), their importance in learning (Mandler 2005) or the value of cultural settings as part of their embedded concrete usage (Kimmel 2005). All these differences in the definition of image schema notwithstanding, the fact still remain that image schema involves definite recurrent patterns.

Image schemata also have structures known as image schema topology. Johnson (1987:28) posits that image schemata are made up of “a small number of parts standing in simple relations”. Observe Figure 27 below.

Figure 27: Source – Part – Goal Schema (Lakoff and Johnson (1999:33))



In Fig. 27, the source, path and goal make up the contiguous locations that stand in simple relationships among the path or trajectory.

Image schema transformation involves shifts in profile. According to Johnson (1987:25), they are “mental operations on image schemata that are analogue of spatial operations.” For instance, Lakoff (1987:442) explains the path – focus \leftarrow end – point – focus transformation as when we follow the path of a moving object until it comes to rest and then focus on where it is”. Therefore, image schemata are an important form of conceptual structure.

In the cognitive semantic literature, the basic idea of image schema according to Saeed (2007:355) “...is that because of our physical experience of being and acting in the world of perceiving the environment, moving our bodies, exerting and experiencing force, etc, we form basic conceptual structures which we then use to organise thought across a range of more abstract domains.” An image schema, therefore, is considered an embedded pre-linguistic structure of experiences that motivate conceptual metaphorical mappings. In this work, the image schema of the Igbo verbs ‘hú’ and ‘nú’ are discussed under two major schemas known as Spatial Motion Group, which includes containment, path, source - path - goal, blockage, center - periphery, cycle and cyclic climax, and secondly, the force group. Based on the nature of the verbs under investigation, our interest is on path, source - path - goal, and removal restraint schemas. However, the aspect of PATH to be adopted is SOURCE-PATH-GOAL Schema while the aspects of FORCE to be applied are BLOCKAGE, and REMOVAL OF CONSTRAINT Schemas. The PATH-GOAL Schema will be analysed first, followed by the force schema.

a. Path schema

Johnson (1987) and Lakoff & Johnson (1999) posit that the path schema reflects our everyday experience of moving around the world and experiencing the movements of other entities. Our journeys typically have a beginning and an end, a sequence of places on the way and direction. In other words, the PATH Schema is an “imaginative trajectory that is conceptualized as a line-like ‘trail’ left by an object as it moves and projects forward in the direction of the motion”, (Uchechukwu 2011:46). The contexts of the PATH Schema varies, ranging from moving vehicle, the speed of motion, obstacles of motion (blockage/restraints) as well as forces that move along a trajectory, like the trail or actual movement of any ‘thrown’ or ‘pushed’ object, which can be physical or conceptual. Based on various experiences, the path schema contains a starting point (source) marked by A, and an end point (Goal) marked by B, and a sequence of contiguous locations connecting them (marked by the arrow). See Fig. 28:

Fig. 28



Adapted from Saeed (2007:356)

The implications of the PATH schema according to Saeed (2007:356) are as follows:

- a. Since A and B are connected by a series of contiguous locations, getting from A to B implies passing through the intermediate points.
- b. Paths tend to be associated with directional movement along them, say from A to B.
- c. There is an association with time since a person traversing a path takes time to do so; points on the path are readily associated with temporal sequence. Thus, the implication is that the further along the path an entity is the more time has elapsed.

The above implications, as we shall see later, are manifest in the metaphorical extension of the path schema into abstract domains.

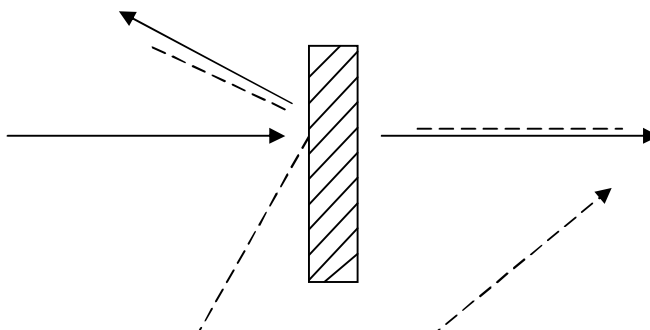
b. Force schema

The force schema like other image schemata, according to Saeed (2007:357), are held to arise from our everyday experiences as we grow, of moving around our environment and interacting with animate and inanimate entities. As it is with other image schemata, they are held to be pre-linguistic and to shape the form of our linguistic categories. The force schema includes the basic force schema of compulsion, blockage, counterforce and removal of restraints. It includes the following elements:

- i. A source and target of the force
- ii. A direction and intensity of the force
- iii. A path of motion of the source and/or target
- iv. A sequence of causation

However, as previously stated in the beginning of this section, only blockage and removal restraint types of the force schema are adopted for analysis in this study. See Figs. 29 and 30 below from Johnson (1987:47).

Figure 29 Blockage



F

Figure 30 Removal of restraints

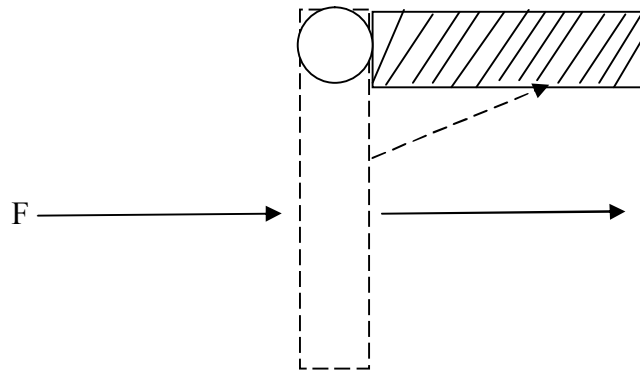


Fig. (29) is an example of blockage, where a force meets an obstruction and acts in various ways. Either it is diverted, or it continues by moving the obstacle or penetrating it. Furthermore, Fig. (30) is an instance of removal of restraints, where the cause of the blockage is removed and the movement continues along a trajectory. Presented below are the image schemata of ‘hú’ and ‘nú’ based on the source - path - goal, and force schemata.

5.2 Image schema of the verb root *hú* in *Ihe Aghasaa* and *Juọ Obinna*

In ‘hú’ schema, first, the schema’s logic is identified as agent and patient-oriented construal of the sentence, with correspondences to the SOURCE-PATH-GOAL schema. In the agent-oriented construal, according to Uchechukwu (2007: 6), the motivation for this construal is the prominence to the agent aspect of a canonical event model. “The orientation is towards the agent that initiates/reacts to an action/stimulus that could either

reach out in a ‘force dynamic.’ Also, for the patient-oriented construal, “The action/stimulus/sensation is construed as landing on, happening to, or affecting the patient, but without the patient being able to make any contribution to the effect on him/her”. According to Langacker (1991:292), the patient forms the energy tail of an action chain. Examples:

199a. Chinelo tughariri n’ike hu ya.
 Chinelo throw-rv₁ prep-suddenly see him/her/it
 Chinelo turned suddenly and *saw* him/her/it, (see appendix 1, no. 11).

b. Obinna tughariri hu Ogbenyeanu.
 Obinna turn-round-rv₁ see Ogbenyeanu
 Obinna turned and *saw* Ogbenyeanu, (see appendix 4, no. 1).

c. O bu etu a ka ndi obodo siri hu ya na mbu.
 it Be like this Comp those town take-rv₁ see it prep beginning
 It is like this that the town (saw) *met* it in the beginning, (see appendix 1, no. 18)

d. ... ndi ndu Umuofia ka ha bia hu ya
 ... those leader Umuofia Comp they come see him
 n’isi ulo oru ya
 prep-head house work his
 ... the leaders of Umuofia to come and (see) *meet* him in his office, (see appendix 1, no. 23).

e. O gwugidere ruo mgbe o
 s/he dig-continue-rv₁ until when s/he
 hudebere aja elu na-eji oji.
 see-stop-rv₁ sand up aux-part. black
 He continued digging until he stopped seeing the outer layer of the soil that is black, (see appendix 3, no. 37)

f. Ọchịchị gbara ekweghị ọchị
 darkness spread+rv₁ allow-neg commander
 agha ahụ *hụ* ihu Obinna
 war Dem see face Obinna
 The army commander did not see Obinna's face because of darkness, (see appendix 4, no. 6).

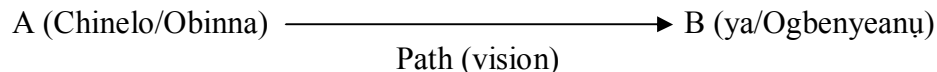
g. Ekwefi lere anya n'ime ọchịchị ahụ, *hụ*chata Chinelo
 Ekwefi look-rv₁ eye prep-inside darkness Dem see-a-bit Chinelo
 Ekwefi looked into the darkness and saw a little bit of Chinelo, (see appendix 3, no. 46)

h. O nwebeghị nwaanyi *hụ*turula ime ya mbụ.
 pro have-neg woman see-Dim-rv₁-perf inside it first
 There is no woman that (has already not seen) the inside before, (see appendix 3, no. 40).

i. ...a *hụ*kwaghị ụzọ e si
 ...pron see-also-neg road indef. pro how
 na-ebuputa mmanụ ụgbọ ala
 aux-carry out oil ship land
 ... there was *no way* to carry/bring out petrol, (see appendix 6, no. 40)

In (199a) and (b), the application of path schema reveals that Chinelo and Obinna are the sources (which represents the point A), the distance between them and the objects (humans they saw) is the path while the object (humans - ya (a pronoun) and Ogbenyeañụ (a person) represent the end point/goal (point B). See Fig. (31)

Fig. 31



Therefore, in (199a-b), the movement is physical without any blockage or restraint. Again, Chinelo and Obinna are the agents that instigated the action of seeing while 'ya'

and ‘Ogbenyeañu’ are the patients. Their vision moved along the trajectory (path), rested on their goal with the aid of their eyes. The same thing is applicable to example (199c), where the villagers (point A – source) perceived a situation (point B – goal). The directional movement in their memories (which is conceptual) represents the association with time along the path when they started perceiving the situation, which maybe, occurred in the village. In the above illustrations, there is a free psychological conceptual movement of the sense of vision from the source to the goal. Likewise, in (199d), the leaders of Ụmụọfịa saw somebody (which metaphorically stands for visit). They left their homes (point A) and travelled along a path and eventually met their host (point B). Moving from A (their homes) B (domain of the host) involves sense of contiguous locations, such as greeting passers-by, urinating by the bush paths, etc until they meet their goal. In (199d), therefore, the movement is construed as arising from the leaders. But consider (199e-f). In (199e), the digger’s vision was obstructed/blocked because the path became too deep. Because of the depth of the hole, the digger stopped seeing the surface earth. As Johnson (1987) notes that the further along the path an entity is, the more the time that is taken. We want to add at this point that the further along the path an entity is, the less likely it is for the vision to capture the target (goal) clearly. In other words, a long distance from the source along the trajectory to the goal can cause blockage or restraint. It can also be observed that the addition of suffixes like ‘hụ-tụ’, ‘hụ-débé’, ‘hụ-wá’, do not effect the sources from getting to their goals. In other words, the movement from source A to B is still achieved. But the addition of the negative suffix ‘ghị/ghi’ makes it impossible for the source to get to its goal (destination).

Furthermore, the blockage or restraint can be physical or conceptual. Consider (199f-g). In (199f), darkness physically caused the blockage and prevented Obinna's vision from hitting the goal (somebody's face). This is a total obstruction. But with day break/light, the restraint (darkness) is removed and his vision hits the goal. Also, in (199g), the movement of Ekwefi's vision along the path was obstructed by darkness but she penetrated it, (see figure 29). This corresponds to Lakoff's schema transformation of Path - Focus - End-Point - Focus transformation. That is, when one follows the path reaches the target and comes to rest by focusing on it. But (199h) and (199i) are conceptual because the tradition of the land forbids women from seeing the inside of masquerade shrine. No woman dares look into such shrines. In this illustration, there is restraint of physical vision along the path, caused by the traditional norms, which are planted in the psyche of every woman in that culture. Unless the culture is reversed, the restraint cannot be removed. The above explication is likened to what Uchechukwu (2007) calls perspectiveness of verbs, which can be agent or patient-oriented, that is, which entity instigates the action and which one receives or is affected by the action. In (199h), for instance, the culture restrains women from viewing masquerade shrines. So, women are the patient. They are affected by the culture.

On the other hand, (199h) differs from (199i) because the war situation prevented people from smuggling out petrol. In other words, the opportunity for people to move from their homes/hideouts (source) to where petrol is stored (goal) was blocked by the soldiers and other security personnel. But their absence (removal of restraint) usually gives the smugglers the opportunity to smuggle petrol. Consider another metaphorical extension of 'hụ' in (200a-b) below:

200a. Okonkwọ *huru* n'anya kwere
 Okonkwọ see-rv₂ prep-eye believe-rv₁
 Okonkwọ saw and believed, (see appendix 4, no. 73)

b. Okonkwọ *huru* Ezimma n'anya.
 Okonkwọ see-rv₂ Ezimma prep-eye
 Okonkwọ loves Ezimma, (see appendix 3, no. 20)

Example (200a) is the same with (200b), where Okonkwọ (source), with his eyes looked at the situation/circumstance/thing in question and believed. His belief is the end-point (goal). But in (200b), the sentence literally means ‘Okonkwọ sees Ezimma in the eye’ but metaphorically Okonkwọ and Ezimma are vectors (F1 and F2), where F1 is psychologically attached to F2 (F1 loves F2) with or without the knowledge/awareness of F2. There is no blockage or restraint unless F2 becomes aware of the emotional state of F1 and rejects it. But the movement or flow of passion is psychological from F1 to F2 through the mental eyes of F1 (the choice of *anya* – ‘eye’ maybe because love matters manifest in the eyes when compared to other organs like ear, nose, etc. No wonder the expression “look me in the eyes and say that again.” in matters of the heart). This is another example of source – path – goal at the psychological level, which usually profiles the end point (that is, the effect) of what the experiencer feels from within.

5.3 Image schema of the root verb *nụ* in *Ihe Aghasaa* and *Juọ Obinna*

The perceptive verb ‘*nụ*’ could be agent - patient oriented corresponding to Sources - Path - Goal transformation. Consider the examples below:

201a. O wee *ny* ka mma ahụ gbutere ihe.
 s/he then hear comp knife Dem hit-rv₁ thing
 S/he heard when the knife hit something, (see appendix 7, no. 3)

b. Maazi Smiti *nuru* nzọ ukwu mmadu n'azu ya
 Mr. Smith hear-rv₁ sound leg human prep-back pro
 Mr. Smith heard somebody's footsteps behind him, (see appendix 9, no. 65).

c. O *nuru* ụda egbe
 s/he hear-rv₁ sound gun
 S/he heard the sound of gun shot, (see appendix 12, no. 13)

d. Mkpọtụ ikuku ekweghi Ekwefi *nutachaa*
 noise wind allow-neg Ekwefi hear-all
 egwu Chinelo na-agu nke oma
 song Chinelo aux-sing very well
 The noise from the wind did not allow Ekwefi to hear Chinelo's song very well, (see appendix 9, no. 33)

e. Obinna, sekpuru ala ma o buru na
 Obinna kneel-rv₂ ground if conj
 i choghi inu ụda ya
 you hear sound sound pro
 Obinna, kneel down if you do not want to face the consequences, (see appendix 11, no. 361)

f. Obinna achoghi inu ihe a na-agwa ya
 Obinna want-neg to-hear thing imper-pron aux-tell him
 Obinna doesn't want to hear what he is being told, (see appendix 11, no. 357).

g. O *nuru* uto ji o na-eri ...
 s/he hear+rv₁ taste yam s/he aux-eat ...
 S/he enjoyed the yam s/he was eating..., (see appendix 9, no. 72)

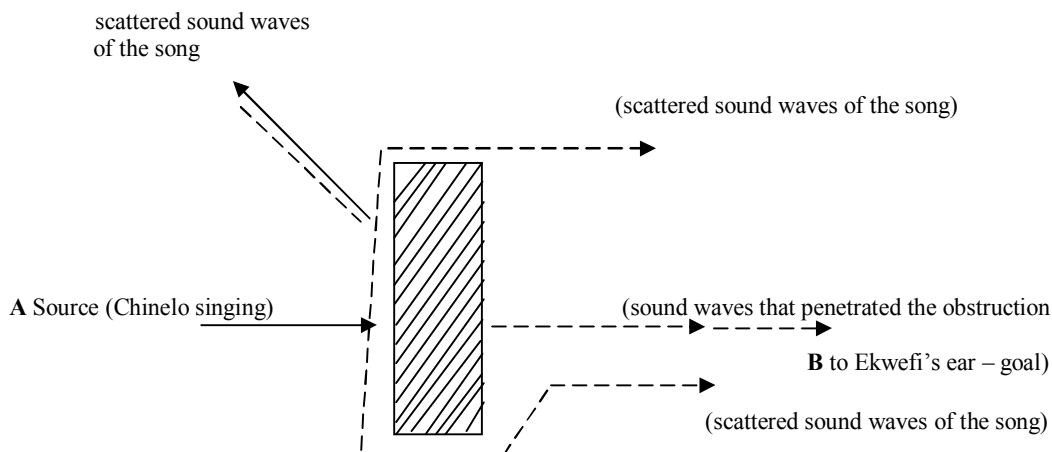
In (201a-b), the pronouns 'o' and 'o' (which are the subjects of the sentences) refer to the end points (goal/target) that is, points B along the trajectory)) while *mma-* 'knife', *ukwu* – 'foot/leg' and *egbe* – 'gun', (which are the objects of the sentences and the agents/sources) are the starting points, referred to as point A. A close look at the image

schema of the perceptive verb ‘nú’ reveals that the animate beings represent goal or the end-point B because they perceive the sound using their ear while the animate or inanimate entity that produces the sound represents the starting point (source) A.

This is the reverse of what happens in the ‘hú’ image schema, where the subjects are usually the sources and the objects, the end-point. In (201a), the knife produced sound by hitting something, which travels along a path until the pinna of the perceiver’s ears trapped the sound waves and decoded them as sound. There is no obstruction of movement of the sound from the producer (A) to the hearer/perceiver (B). The same thing is applicable to (201b) and (200c). However, in (201c) *egbe* – ‘gun’ (source) is construed as producing the sound which moves along the path and lands on the perceiver’s ear (goal), without the perceiver’s volition. The same thing is applicable to all the meaning nuances that relate to ‘nú’ ‘hear’ because the goal is involuntarily affected. This is different from the perception of vision where the perceiver can close his/her eyes (in other words, it is voluntary). This is not so in hearing.

In (201d), there is restraint. The noise of the wind restrains Ekwefi from hearing Chinelo’s song very well.

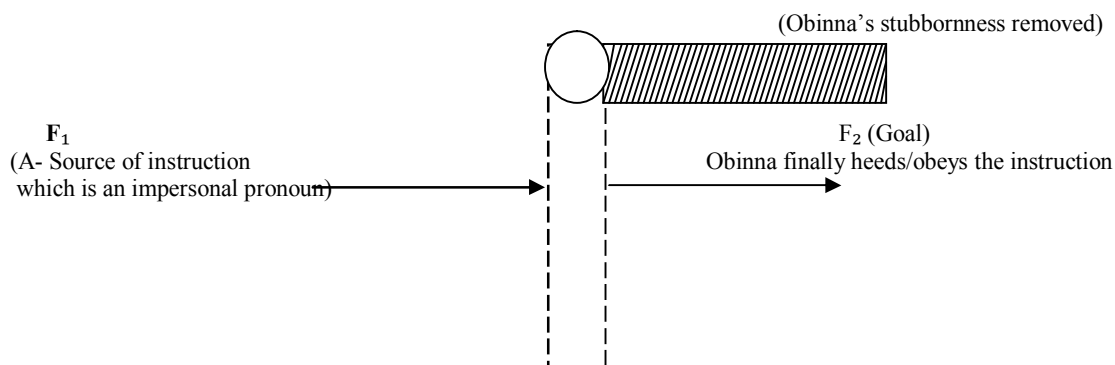
Fig. 32



noise from the wind

In Fig. (32), the sound waves from Chinelo's song meet an obstruction (wind waves) and act in various ways. Some waves are diverted while some continued by penetrating the restraint. The use of *nyta* presupposes that she (Ekwefi) heard some but did not hear all. The implication is that some of the sound waves from the song penetrated the obstacle (wind waves). In (201e), there is an instance of restraint caused by Obinna's refusal to heed to instructions. Example (201d) is more physical than (201e). In the actual sense of it, Obinna physically heard what was said but refused to act accordingly (obey or heed to the instruction/warning), because of his stubbornness. But as was pointed out in 4.5.2, the perceptive verb hear 'nú' can mean obey or heed. Therefore, in (201e), there is an obstruction (caused by Obinna's stubbornness) from obeying (moving along the path to hit the goal) instructions. This is total blockage. However, if eventually Obinna decides to obey the instructions and act accordingly, then the blockage is removed. Observe Fig. (33) below.

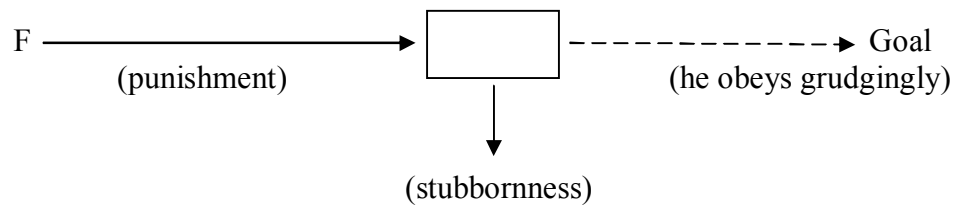
Fig. 33



In (201e) there is also a case of compulsion. Obinna is compelled to kneel down or face the consequences. As was explained in 4.5.2, this is a common expression among the

younger generation in the Igbo culture to force one to comply or face the repercussion. Here, Obinna has been given an instruction whose goal is obedience (kneeling down). But punishment (which is force vector F) acts on the entity (which is his stubbornness). It is either he obeys or he is forced to obey. See Fig. 34

Fig. 34: Force vector on an entity



From Fig. (34) above, it is either the instruction takes the upper hand (removes his stubbornness) and Obinna grudgingly gives in or it continues and he gets punished (*nu' ùdà yá*), that is, the repercussion for disobedience which may be flogging, imprisonment, etc, or thirdly, the punishment that may befall him compels him to obey.

Example (201g) is also an instance of source – path – end point schema without a blockage or removal of restraint. The *ji* – ‘yam’ is the source from where the taste emanates, which the pronoun ‘*o*’ (subject) enjoys, while the pronoun ‘*o*’ is the goal. The path refers to savouring process the eater physically passed through (in the course of eating the yam in order to enjoy it). It involves contact. Literally, it means that ‘*o*’ ‘hears’ the taste of yam. Again, yam is not aware that the subject enjoyed it. But metaphorical processes are applied in order to convert the physical meaning to an abstract one in the cognitive domain. This now brings us to the conceptualization of ICV constructions, which is one of the basic tools of polysemy.

5.4 Conceptualisation of ICV constructions

Usually, image schema in the polysemy framework according to Croft & Cruse (2004) cannot be discussed without referring to metonymy and metaphor. This is so because the discussion of image schema hangs on nuances of meaning outside the literal meaning. As pointed out in previous sections, mainly with examples (see 4.2 and 4.3), the verbs in focus – ‘hú’ and ‘nú’ can be conceived metaphorically in various ways. In relation to the texts in focus, our major aim in this section of the work is to provide a brief overview of the concepts: metonymy and metaphor, and then provide conceptualisation of ICV constructions of the verbs’ image schemas. By way of definition, metonymy according to Goossen (2002) is a figure of speech used in rhetoric in which a thing or concept is not called by its own name but by the name of something intimately associated with that thing. Goossen further says that metonymy refers to something by the name of something else that is closely connected with it. In cognitive semantics, metonymy shows many features as metaphor since both are conceptual processes.

Metaphor on the other hand is a figure of speech, according to Croft (1993), that describes a subject by asserting that it is, on some point of comparison, the same as another otherwise unrelated object. In cognitive semantics, therefore, metaphor means understanding one idea or conceptual domain in terms of another. For details on the distinction between metonymy and metaphor see Lakoff & Johnson (1987), and Lakoff & Turner (1989). So, metaphor and metonymy are used to express ideas which are greatly different from the original meaning in the psychic realm.

Many taxonomies of metonymic relations have been proposed by Lakoff and Johnson (1980), Fass (1997), Nunberg (1995) and Kevecses & Radder (1998). Below are the relations.

- i. Part for whole (synecdoche)
- ii. Whole for part (synecdoche)
- iii. Container for content
- iv. Producer for product
- v. Place for institution

Consequently, conceptual structure operates at the level of mind, and linguistic representation is the physical manifestation of that conceived and arranged in the psyche. No wonder Langacker (1987) explains that grammatical structure is based on conventional imagery which arises from the mental processes connected with the given object of interaction and the communicative intention. It is these mental processes that are termed conceptualisation or construal. Based on this background information, this section of the study explores the conceptualization of the image schema of the two perceptive verbs under investigation.

In the conceptualisation of the above verb roots' schema lies in what Langacker (1987:183) calls profile/base relationship. "The base is that aspect of knowledge which is necessarily presupposed in conceptualising the profile", (see Croft 1993:338; 2002:165-166). So, in any given culture/society, how a lexical item is conceived depends on the linguistic symbolization they already have of the concept. As Uchechukwu (2011:54) rightly points out, "in the conceptualisation of a lexical item, the domain that is presupposed by the given concept forms its base or primary domain." With regard to the

verb roots ‘hụ’ and ‘nụ’, an average Igbo native speaker sees their base domain as physical ‘see’, ‘hear’, ‘taste’ and ‘smell’ respectively, which involves various domains of perception through physical space. Hence, some of the examples have to do with concrete cases of physical perception through the eyes, ears, nose and tongue, while others involve the conceptualisation of the same movement within the psychological domain, (see section 4.6 for a detailed discussion on metaphorical meanings of the verbs under investigation).

In *Ihe Aghasaa* and *Jụọ Obinna*, some metonymic meanings of ‘hụ’ and ‘nụ’ were fished out. See Table 4

Table 4: Metonymic meanings of *hụ* and *nụ*

Prepositional phrase	+ -hụ/nụ verbal complex	Meaning types
n'anya ‘on/in the eye’	(i) -hụ n'ányá (a) see (with the eye), seeing is believing (b) love	(a) concrete (b) metonymic
	(ii) - hụ ányā (a) see the eyes (b) bribe/visit/meet	(a) concrete (b) metonymic
n'isi ‘on/in the head’	-hụ ísī (ya) (a) (e.g see somebody’s head) (b) see the end/sort it out/find a solution	(a) concrete (b) metonymic
n'ọnụ ‘on/in the mouth’	-hụ ọnụ (a) (e.g see one’s mouth using a mirror) (b) have impetus	(a) concrete (b) metonymic
na ntị ‘on/in the ear’	-nụ ná ntị (a) (hear with one’s ear) -ánụ ntị (b) (stubborn person who does not heed to instructions)	(a) concrete (b) metonymic

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Adapted from Uchechukwu (2011:62) but modified to suit the present discussion

The first verbal complex, ‘hụ n’ányá’ is illustrated thus:

202. Okonkwọ hụrụ n’anya kwere
 Okonkwọ see-rv₁ prep-eye accept-rv₁
 Okonkwọ saw and believed, (see appendix 3, no. 73)

Sentence (202) applies in a situation where Okonkwọ is in doubt of what happened and he wants to see with his eyes (what actually happened) before he believes. Sentence (202) is agent-oriented in perspective because Okonkwọ initiated the action which was voluntary. The movement of his eyes from what he saw to his eventual belief profiles the WHOLE schema in (202). Therefore, the body part used is metonymically associated with his belief it mediates. That is the reason why the citation form can be given the conceptual metonymy of the organ of experience for the precept. But the fact still remains that the actual usage of the verbal complexes (see Table 4) always profiles the WHOLE schema as in (202), with the named body parts still providing the metonymic access to the nature of the precept. Furthermore, metonymically, the perceptive verb ‘hụ’ can also be illustrated with example (203):

203. Ndubuisi na Obinna kpebiri
 Ndubuisi and Obinna decide-rv₁
 na ha ga-ahụ isi ya.
 that they aux-see head him
 Ndubuisi and Obinna decided that they must get to the root of the matter, (see appendix 5, no. 869)

Here, *isi* – ‘head’ is ‘part for whole’ relationship which refers to the whole/entire thing/situation/problem, which Obinna and Ndubuisi are determined to get resolved or to get to its root and ‘isi’ (head) is the metonymy. Another instance is (204) below:

204. Obinwanne anaghị anụ ntị
 Obinwanne does-neg hear ear
 Obinwanne doesn’t hear ear [literal] Obinna is stubborn [metaphoric], (see appendix 11, no. 402)

Literally, the sentence reads “Obinna does not hear ear”. The object of ‘doesn't hear’ in (204) is the ‘ear’ with which he hears. Hence, ‘anụ ntị’ can be given the metaphorical meaning of ‘stubbornness’ but the WHOLE schema still plays a role. So, the particular sub-domain within ‘heedfulness domain’ is metonymically highlighted through the NP *ntị* ‘ear’. *Ntị* ‘ear’ plays the metonymic role of the vehicle that provides mental access to the target ‘heedfulness domain’. Furthermore, a look at (205) gives the same result.

205. Okonkwọ jiri ntị ya nụ na
 Okonkwọ hold-rv₁ ear him hear that
 a hụrụ ya n’ụlọ ụka ...
 imper-pron see-rv₁ him prep-house church
 If Okonkwọ hears (with his ear) that he was seen in the church..., (see appendix 7, no. 14)

Literally, (205) means that if Okonkwọ should hear with his ears that (his son, Nwoye) was seen in the church (then, heaven will fall). It shows a situation of grave consequences. Therefore, the movement is from the identified cause (*n’ụlọ ụka* - i.e.,

Nwoye's presence in the *church*), to the goal (Okonkwo), which profiles the WHOLE schema. So, conceptualisation of structures can be metaphorical or metonymic. Metaphorically also, it can be concrete or abstract.

It could be said, therefore, that the perceptive verb roots 'hú' and 'nú' have concrete and conceptual, metaphoric and metonymic meanings. In the two perceptive verbs for instance, in actual usage, their ICVs require a definite subject as a source and a definite goal as the end point. Again, the suffixes that go with 'hú' and 'nú' do not have any effect on the basic meanings they possess. Rather, they perform some semantic (shades of the basic meaning) or grammatical functions. In other words, 'hú' and 'nú' express the initial actions; while the suffixes attached to them express the result or effects of the action. For instance, in *huchatu*, 'hú' expresses the initial action of seeing but 'tu' expresses the semantic effect of the initial action which is 'seeing a bit/little of something'. Its presence (that is, 'tu') gives a wholistic profile of the schema which stands for 'see a bit' of something/situation or action. The actual usage of the ICV usually profiles their image schemata with the mentioned body parts still providing the metonymic access to the nature of the physically and psychologically perceived items. Therefore, in any cognitive domain, the complement that goes with 'hú' or 'nú' plays the metaphoric and/or metonymic role of the vehicle that provides the mental access to the target domain, be it 'visit, bribe, see, meet, have opportunity, discover' etc (for 'hú' – see), or 'hear, taste, smell, repercussion, etc (for 'nú').

CHAPTER SIX

SUMMARY AND CONCLUSION

6.1 Summary of the findings

Semantics is an important area of inquiry in human cognition. Its various branches are concerned with various aspects of cognitive experiences. Cognitive semantics as a branch of semantic investigation explores the representation of conceptual structure in language. Based on this background information, the central concern of this study has been with the cognitive domains of the sense relations in two Igbo perceptive verbs ‘hụ’ and ‘nụ’ based on polysemy. It was found out from the study that a word is understood as polysemous if all its multiple meanings (literal and metaphorical) are systematically related to a semantic field. The relation between the different polysemous senses of a word is not whimsical or random, but motivated. This motivation finds its grounds in the understanding and bodily experience of the world in which man lives. So, from the polysemy approach, the main physical meanings of the verbs under study in the semantic field of polysemy have been established in the Igbo language using two literary texts following Leech’s (1971) and Gisborne’s (1996) classification of perceptive verbs.

On the basis of their semantic roles, Igbo perceptive verbs are classified into three groups: inner perception, activity and percept. With the use of concordance antconc tool of the e-logon software, various occurrences of ‘hụ’ and ‘nụ’ in two Igbo texts: *Ihe Aghasaa* (the Igbo translation of *Things Fall Apart*) and *Jụọ Obinna* were determined. Their occurrences were determined in the context of the literary texts as single morphemes, inflected verbs, compounds and inherent complement verbs (ICV).

In the English translated work into Igbo, which is *Ihe Aghasaa*, ‘hụ’ has only four meanings as a single morpheme and just one meaning as an inherent complement verb (ICV). The meanings as presented in Figures 16 and 18 include ‘see’, ‘meet’, ‘make

sure’, ‘visit’, and ‘love’ (as an ICV). However, in *Juọ Obinna*, which is a text written in the Igbo language, six meanings of ‘hú’ as a single morpheme and six meanings of ‘hú’ as an ICV were isolated. The meanings as can be seen in Figs. 18 & 19 include ‘visit’, ‘get’, ‘see’, ‘meet’, ‘make sure/ensure’ and ‘discover/find out’ (as a single morpheme) and ‘love’, ‘have opportunity’, ‘bribe/plead/settle’, ‘sort out/see to it’, ‘be dumbfounded’, ‘have impetus’, ‘tremble’ (as an ICV). The perceptive verb ‘hú’ as a single morpheme in the two novels have the following senses in common: ‘see’, ‘visit’, ‘meet’ and ‘ensure’ while ‘discover/find out’ and ‘get’ are peculiar to *Juọ Obinna*. Likewise, ‘hú’ as an ICV has *hú n’anya* – ‘love’, in the two novels, while, ‘have opportunity’, ‘bribe/plead/settle’, ‘sort it out/see the end of a problem’, ‘be dumbfounded’, ‘have impetus’ and ‘tremble’ are peculiar to *Juọ Obinna*. The perceptive verb ‘hú’, therefore, has six polysemous senses as a single morpheme and five senses as an ICV.

On the other hand, in *Ihe Aghasaa*, the perception verb ‘nú’ as a single morpheme has two meanings: *nú ihe* and *nú uto* - ‘hear/perceive something’ and ‘perceive aroma/odour/taste,’ respectively, and four meanings as an ICV viz *nú ihe*, *nú uto*, *nú isi*, and *nú uda*. That is, ‘hear/perceive something’, ‘perceive aroma/odour/taste,’ ‘perceive smell’ and ‘hear/perceive sound’ respectively, (see Figs. 22 and 24). But in *Juọ Obinna*, ‘nú’ as a single morpheme has only one meaning: *nú ihe* - ‘hear/perceive something’. But ‘nú’ as an ICV has four meanings: *nú ihe*, *nú uto*, *nú isi*, and *nú uda*. Furthermore, *nú uda* has two meanings viz: ‘face the repercussion (metaphorical) and hear/perceive sound’, (physical), (see Figs. 23 and 25).

It is obvious from the results of the analysis that translation constrained the lexical uses of ‘hú’ and ‘nú’ in the novels used, because fewer meanings of the verbs were fished

out in the translated text, *Ihe Aghasaa*, while more meanings were found in *Juọ Obinna* (see Figs. 20 & 21 above).

In relation to the extended and metaphorical meanings of the verbs under investigation, the sense of vision ‘hú’ fell into four groups namely: affection, with only one meaning which is ‘to love’ or ‘love’; social group including meanings like ‘meet/meet, visit, get, bribe/plead/settle, and perceive a situation’. Thirdly, there is the reliability/assurance group with meaning nuances like ‘ascertain’ and ‘make sure/ensure’. Finally, there are other meanings such as ‘experience’, ‘solve a problem and have chance/opportunity’.

In the perceptive verb of hearing, ‘heed’, ‘pay attention’, ‘obey’, ‘be informed’ and ‘understand’ are the extended meanings discovered and discussed. For the sense of smell, ‘guess’ and ‘suspect’ are the extended meanings established. Finally, in the sense of taste, there are meanings such as ‘experience something’ and ‘enjoy’. Although it is not within the scope of this study, yet it is note worthy to state that many of the meanings seen in the Igbo language are also in English (based on the glosses). This points to the fact that these meaning extensions are not language-specific, but a cross-linguistic phenomenon, even though not all languages share the same meaning transfers.

For the image schema of the verbs using the inherent complement verb structures, the conceptualisation of the verbs was analysed. The meanings fell into two broad image schemas: PATH and FORCE. The image schema of SOURCE-PATH-GOAL shows that our journeys typically have beginnings (Point A) and ends (Point B), and sequences of places on the way. The study also ascertains that ‘hú’ and ‘nú’ fit into three types of FORCE image-schema: BLOCKAGE, COMPULSION, where there is a force vector F,

which acts on an entity U as seen in Fig (34). The force may be blocked or may continue, and finally, REMOVAL OF RESTRAINT. The analysis further reveals that these image schemata of ‘hú’ and ‘nú’ are experientially based. There are also instances of conceptual constructs which can be metaphorically extended across a range of domains, typically shifting from external and concrete to the internal and abstract domains. Such schemata are seen as the building blocks of metaphor and metonymy.

Furthermore, the study also points out that the role of metaphor and metonymy in polysemy analysis cannot be over-emphasised. Metaphor is motivated by correspondences between our external experience and our internal emotional and cognitive states. These correspondences are not isolated; they are parts of a larger system. Furthermore, metonymy uses a part to describe a whole. So, metaphor and metonymy involve our conceptualising one whole area of experience (that is, mind) in terms of another (that is, body). Hence, Sweetser (1990) puts forward the MIND-AS-BODY theory which Lakoff and Johnson (1980) regard as ‘conceptual metaphor’. Correspondences between these two domains (mind and body) of experience are unidirectional; from the vocabulary of bodily experience to the vocabulary of psychological states. In the case of the Igbo perceptive verbs, ‘hú’ and ‘nú’, the metaphorical mappings take place between two domains of experience: the vocabulary of physical perception as the source domain and the vocabulary of the internal self and sensation as the target domain. In line with Sweetser (1990) description of routes, ‘hú’ and ‘nú’ also follow some perceptive routes in Igbo as presented in Table 5 below.

Table 5 – Perception routes of Igbo perceptive verbs

Sense	Semantic source	Target domain
Vision	<ul style="list-style-type: none"> -Physical nature of sight: light, the eyes, facial movement -Metaphors of vision: love, behold, visit, meet, make sure, discover, etc -Basic 	<ul style="list-style-type: none"> -Physical sight → knowledge, intellection -Physical vision → meant vision -Cases with only mental meaning
Hearing	<ul style="list-style-type: none"> -Physical domain (ear) -Onomatopoeic origin -Verb of hearing ‘nụ’ 	<ul style="list-style-type: none"> -Not sound but content of heard speech -Physical sound -Heed, obey
Smell	<ul style="list-style-type: none"> -Physical domain (nose) -It frequently comes under general sense of perception 	<ul style="list-style-type: none"> -Few abstract or mental connotations
Taste	<ul style="list-style-type: none"> -perception of physical domain (with the taste buds) in the tongue 	<ul style="list-style-type: none"> -Linked with personal likes and dislikes in the mental world

Adapted from Sweetser (1990:45) but modified to suit Igbo perceptive routes

In the perception of vision, from Table 5, a basic metaphorical understanding of this sense that leads to the connection of vision to intellectual activity is identified. Some vision terms involve physical perceptions or manifestations and have correlates in domains of intellectual operations. Also important in the routes are the patterns that unify these semantic changes such as (1) the focusing ability of vision that enables us to pick up one stimulus at will from many, to differentiate fine features (ii) vision is identical for different people who can take the same view-point. Therefore, it provides a basis for shared public knowledge, (Sweetser 1990:41).

For hearing, the emphasis is not on the sound (the physical thing heard), but the content of the heard speech. The function of hearing is regarded as linguistic communication, as a means of intellectual and emotional influence on each other; that is carried out in an effective manner via the vocal organs and the auditory sense channel. The sense of hearing, therefore, is connected to (i) heedfulness and internal receptivity (ii) internal reception of ideas in understanding what is heard. The readiness to internally receive and understand implies a readiness to subject oneself to the influence of the speaker's content, and perhaps, this readiness to further respond in the way desired is what has caused the verb to also mean 'obey'. In support of this Sweetser (1990:42) says, "It is the internal receptiveness to the speaker's intentions, which might subsequently lead to compliance with the speaker's request".

The sense of vision and hearing according to Sekuler & Blake (1994) are called distant senses because contact is not needed in order to perceive them. According to Sweetser, it is this distant requirement that links these two senses to objectivity and intellect, whereas, in the case of taste - contact sense - necessity for closeness with the thing perceived makes it to be connected with subjectivity and intimacy. As pointed out in Table 5, the sense of taste seems to be linked to personal likes and dislikes in the natural world. The reason for this is because the sense of taste is most closely associated with fine discrimination. According to Buck (1948:1031), in Hindu, there are six principal varieties of taste with sixty-three possible mixtures and in Greek, six, including the four fundamental ones: 'sweet', 'bitter', 'acid' and 'salt'. This makes the sense of taste very accurate from a descriptive point of view as stated earlier, as it allows one to express oneself very precisely when one wants to describe a taste. For the sense of smell,

Sweetser does not consider it as salient as the other ones in terms of abstract or mental connotations. She establishes only two: bad smell to indicate bad character or dislikeable mental characteristics (example, stink) and the detection of such characteristics (example, the active verb ‘smell’).

Based on the cognitive semantic principle that language is based on human understanding and experience of the world, Sweester claims that the paths of semantic change are one-way and lead from the external (Socio-physical) domain to our internal (emotional, psychological) domain. In the case of Igbo perception verbs considered, the source domain is the physical perception, whereas the target domain is the internal self and sensations. These domains are structured by means of metaphor and metonymy. But this study revealed, contrary to Sweester’s claim, that Igbo has more extended meanings of the perception verbs. In other words, the metaphorical sense is larger. For instance, Sweetser claims that the sense of smell ‘has fewer and less deep metaphorical connection with the mental domain than the other sense’, (1990:43). Smell, for instance in Igbo, is not only mapped into dislikeable feelings, but also meanings such as ‘suspect’ and ‘guess’, (see example 196), repeated below:

206.O	nweghi	ugbo	elu	ndi	iro	a	
	pro	there-is-neg	vehicle	up	Comp	enemy	indef.pro
	huru	mana	Obinna	anuwala		isi	ya.
	see+rv ₁	conj.	Obinna	has smell+perf		smell	pro

There is no enemy aircraft in site but Obinna has smelt (started suspecting) the presence of one, (see appendix 11, no. 354)

Furthermore, the analysis showed that in the semantic field of sense perception, some of the extended meanings are not just the result of a verb being polysemous, but the

result of the semantics of the verb and that of its arguments plus the linguistic environment where the sentence is used. For example, in a sentence like (207) below

207. Nwoye, i kwesiri *ĩnù'* ihe nna
 Nwoye you suppose+ rv₁ to-hear thing father
 gì na-agwa gị...
 you aux-tell you
 Nwoye, hear/listen to what your father is saying/telling you, (see appendix 8, no. 364)

One of the mappings that take place in the source domain of hearing verbs is between physical hearing and the meaning ‘heed’, ‘pay attention’. In (207), the speaker is not only asking the hearer to pay attention to what his father is saying, he/she is asked to follow and obey his requests. In (207), the adjunct ‘ihe nna gị na-agwa gị’ and the Igbo conversational context all help to create the shift from the meaning ‘heed’ to ‘obey’. As discussed in section 2.4.4.3, Pustejovsky’s (1995) generative lexicon is the model that explains this compositional meaning. It is an approach to the study of polysemy that proposes a strong compositionality framework, where the number of lexical senses remains roughly constant relative to the space of possible interpretations in the language. The compositional nature of sense perception as this thesis ascertains, helps to make the verbs polysemous. Before now, well known studies in cognitive linguistics (Brugman 1987; Lakoff 1987) have assumed that the polysemous senses are carried by single lexical items, without taking into account the semantics of other elements of the sentences where the lexical items occur and the contexts of occurrence. Brugman’s analysis of the preposition ‘over’ as discussed in chapter two is an example of such assumption, that is, the spatial relational meaning is contained only in the preposition

‘over’. But it is established in this work that the different extended meanings are considered as having polysemous senses of these perception verbs, but many of these meanings are only possible if the perception verb is used in conjunction with a specific subject, complement, adjunct and/or context. For instance, in (178a) and (179), it is possible to infer the meaning ‘love’ and ‘seeing is believing’, not only because of the verb ‘hụ’, but also because the direct prepositional complement ‘n’anya’ - ‘in the eye’ and the context of usage. (178a) differs from (179) because of the role of the following verb ‘kwere’ – ‘believed’ plays in the sentence. Likewise in (178a), before the prepositional phrase ‘n’anya’, immediately after the perception verb ‘hụ’, a noun or pronoun must be present to show the person being loved (benefactive). Furthermore, in (199e), what profiles the WHOLE schema that the digger stopped seeing the surface earth is the terminative morpheme ‘-debe’ attached to ‘hụ’ and secondly, the ‘surface earth’ which the eyes initially saw but later did not see again because the depth of the hole increased. If ‘-debe’ is substituted with ‘-rụ’ as in (208) below, the meaning of that sentence (199e) would change completely.

208. O	gwugidere	ruo	mgbe
s/he	dig-continue-rv ₁	until	when
ọ	hụrụ	aja	ọcha
s/he	see-stop-rv ₁	sand	white
He continued digging until he saw the inner layer of the soil.			

Example (208) shows change in profile. Although it is still agent-oriented in perspective it now means that the digger saw the end point, which is deep down the hole. Here, the movement along the path was reached unlike in (199e), where the long depth made it difficult for the eye to meet the end point. So, these nuances of meaning are not only

provided by the verb ‘hú’, but are inferred from other constituents in the sentence. Therefore, the semantic content of the different elements that co-occur in a syntagm in the context of usage, play a vital role in the overall meaning of the sentence.

In (208), for instance, the ‘-rv₁’ past tense marker and ‘white earth’ highlight the properties that are selected in the extended meaning for the agent (the eye) to reach the end-point. So, we have meaning extensions caused by the complements and various nuances of the basic meaning profiled by the enclitics suffixed to the perceptive verbs. In some cases, the verb is more important and, in some other cases, the complements take an upper hand. But it should be noted that meaning extension is only possible with metaphor and metonymy. Also, an example with *nú* yields the same result. Observe example (209)

209. Ekwefi tughariri isi ya ka anu nuru isi onwu
 Ekwefi throw+rv₁ head her Comp. animal hear+rv₁ smell death
 Ekwefi turned back like an animal that smelt death (danger), (see appendix 9, no. 29).

In (209), it is observed that what gives the sentence the meaning ‘danger’ or ‘distress’ and the negative content is the (adjunct) *onwu* - ‘death’, not the verb itself. If we replace *onwu* with *nri* – ‘food’, as in (210), a totally different positive meaning is realised.

210. Ekwefi tughariri isi ya ka anu nuru isi nri
 Ekwefi throw+rv₁ head her Comp. animal hear+rv₁ smell food
 Ekwefi turned her head like an animal that smelt food (excitement).

So, in Igbo, the negative or positive quality of smell is not usually encoded in the verb itself, but in the complement or adjunct expression that comes after the verb, which can be physical or metaphorical. Again, the weight of the semantic content of the different

elements in the overall meaning of a sentence is not the same in all extended meanings. In some cases as pointed out earlier, the verb contributes more than the complement and in some the complement contributes more than the verb. Usually, if the meaning is metaphoric or metonymic, then it involves meaning extension that involves the contribution of all the elements that make up the sentence irrespective of their degree of semantic contribution.

Based on the compositional meaning of words, the question of whether it is the verb that selects the complement or the other way round (that has been a topical issue in Igbo syntax and semantics) is solved. The answer in general is that neither the verb nor the complement selects each other; rather, native speakers of the language do the selection based on mutual complementation of the verb's image schema that agrees with the noun's nature. So, it is a case of variations of the complements that suit the activities and properties of the verb, whether physically or mentally, plus the context of use; and metaphor and metonymy are cognitive tools in polysemy which - in conjunction with property selection processes - structure the mappings between the physical and the abstract domains. Therefore, selecting the properties and activities of the verb, together with the metaphorical and metonymic processes involved are the cognitive tools that are mapped and structured in the conceptual systems experientially as Igbo native speakers, to arrive at the different polysemous senses of these perception verbs.

6.2 Conclusion

The focus of this study has been the cognitive domains of the sense relations of two Igbo perceptive verbs 'hú' and 'nú' using the polysemy framework. The study sets out to find out the number of meanings in these verbs in context using two literary works

– *The Aghasaa* (the Igbo translation of *Things Fall Apart*) by Izuu Nwankwo and *Juọ Obinna* by Tony Ubesie. It also ascertained whether translation affects the meanings of the verbs and the various image schemata (cognitive domains) of the verbs in the polysemy framework. In chapter one, a general overview of the state of art in Igbo syntax and semantics was presented by looking at the various approaches to the study of Igbo verbs viz traditional, lexical, lexicographic, transformational generative and cognitive approaches.

In chapter two, various syntactic and semantic theories adopted by previous scholars in the study of Igbo verbs were reviewed and none of them to the best our knowledge has handled the Igbo verbs using polysemy in literal contexts, hence, the relevance of this work. The methodology adopted for the research was explained in chapter three. The data analysis presented in chapter four and the analysis of their ICVs shown in chapter five show that these verbs convey a wide range of physical, metaphorical and metonymic meanings apart from the physical sense perception.

The conclusion drawn from the analysis in chapter six is that Igbo perceptive verbs are divided into three types: inner perception, activity and percept and the physical meanings of the verbs, ‘see’, ‘hear’, ‘smell’, ‘taste’ are regarded as prototypical because they are the central meanings that these perceptive verbs convey. But an interesting finding is that the perceptive verb of hearing, ‘nụ’, also encodes two other perceptive meanings, ‘smell’ and ‘taste’. Physical manifestation of smell and taste are with the verb *sì* - ‘smell’ plus the complement *ĩsì* - ‘smell’ as in ‘sì isì’ – ‘smell smell’ and *tọ* - ‘taste’ and *ụ̀tọ* ‘taste’ respectively. But the perceptual connotation must go with ‘nụ’ as in ‘nụ

(isi)' and 'nū (ūtō)' respectively. While vision and hearing are classified as distant senses because the eyes can pick up information coming from remote sources, smell and taste have been considered 'near senses' because their stimuli must be in the vicinity of the percept. Furthermore, under the non-prototypical or extended meanings of the sense perception verbs, it could be concluded that the meanings are only those resulting from activity and percept verbs alone. The large number of meanings discussed in this analysis shows that this semantic field is highly polysemous.

Furthermore, the main tenets of cognitive linguistics is the idea of embodiment, that is, how meaning is grounded in the nature of our bodies and perceptions, in our interaction with the physical, social and cultural factors that surround the environment. Concepts are grounded in bodily experiences and then elaborated by structures of imagination, that is, metaphor and metonymy. This implies that if it is possible to characterise the experience that constitutes the source domain, it will be possible to explain the semantic extension that occurs in the corresponding target domain. In other words, the reason it is possible to use these verbs of perception to express other meanings - apart from the physical - lies in the way we perceive and experience the senses and it explains why certain mappings between different domains of experience occur. On the other hand, as Pustejovsky (1995) proposed in his *Generative Lexicon*, meanings are not obtained by means of only one lexical item but by the interaction of the semantics of the different elements that occur in the sentence. Therefore, the study has proved that it is pertinent to analyse and state what elements, and to what extent these elements (arguments, complements, adjuncts, enclitics, etc) contribute to the overall meaning of the sentence in arriving at the meaning of the verb. Also very important are the various

cognitive domains of these verbs and their cultural components in various contexts of usage in natural language.

Finally, based on the research questions, it can be stated that the perceptive verbs ‘hụ’ and ‘nụ’ are polysemous. Again, that translation has a great impact on their polysemy senses; and finally, their image schemata based on their cognitive domains show that they can bear abstract, concrete (physical) and figurative meanings. In addition, all the physical and extended meanings are established in Igbo by examining language in context. Therefore, it can be stated that language is considered to be inseparable from all the factors that have contributed to its emergence, such as psychological, cultural, social, and biological. The polysemy framework of cognitive semantics in relation to verb meaning is more promising than other attempts because it analyses language while accounting for changes in language development such as the metaphorical extension of lexicon, and explains what trends in language development have led to the current stage. In other words, it regards language as a concomitant of society and culture and, therefore, one to be examined in terms of whatever conditions have contributed to its formation. The autonomous image of language so long the pillar-stone of linguistic investigation is discarded for the simple reason that the basis of language functioning was ignored by main-stream linguists in processing language data. Also, ignoring the senses in words means separating language from the facts that are vitally important in its development, and only the use of a mathematically based set of rules in the analysis have failed to produce good results.

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