CHAPTER ONE

OPEN QUESTIONS IN IGBO VERB STUDIES

1.0. Introduction

Igbo verb studies have been motivated solely by the structure of the verb. Leading Igbo scholars have focused on the autonomous rules and principles governing the relationship between the verb, its affixes and arguments; with little or no reference to the native speaker's inherent lexical knowledge of the use of the verb in communication. The structuralist approach in the literature professes that form gives rise to meaning. In other words, the syntax of the verb encompasses all other aspects of it. This approach has led to a number of open questions in the literature. These include:

i. Igbo verb classification
ii. Transitivity
iii. Tense and aspect
iv. Adverbs.
v. Focus constructions

This thesis sets out to address these issues by attempting to motivate an independent, but pragmatically influenced semantic and syntactic decomposition of the Igbo verb. In the first instance, the study establishes Igbo verb classes based on their lexical decomposition. Thereafter, the lexical decomposition is employed in answering the open questions enumerated in (i-v) above.

1.1. Aims and Objectives of the Thesis

Within the information available in the significant literature on Igbo verbs, the aims of this thesis are as follows:

a. The classification of Igbo verbs on the basis of the events denoted by the action of the verb and not exclusively on the structure (verb, affixes and type of argument). This classification involves the knowledge the native speaker demonstrates with respect to the properties of the verb and its context of use.

b. To provide evidence for a novel analysis of transitivity in Igbo verbs.

c. To explain in a more straightforward analysis the hitherto known phenomenon of 'subject-object switching' in Igbo verbs.

d. To show that aspect in Igbo is better understood within the inherent temporal properties of the verb and not the 'prefixes, suffixes and auxiliary verbs' or an acceptable combination of auxiliaries, affixes and tone patterns.

e. To suggest that adverbial concepts in Igbo do not modify the verb. They are core components of the verb.

f. To supply supporting data and analysis demonstrating that the verbal complement is the 'focus' or new information of the Igbo clause, while the rest of the clause is the 'topic' or given information.

In pursuing the objectives in (a-f) above, we present data clearly revealing that the lexical decomposition of the verb is the fundamental basis of all our arguments. It is through lexical decomposition that the events indicated by the action of the verb can be established, hence, the various verb classes. Lexical decomposition also distinguishes between arguments and other properties of the verb. This is important in discussing transitivity in Igbo. The distinction between arguments and other features of the verb gives a well-motivated account of the occurrence of 'subject-object switching.' This again is important in explaining the concept of adverbs, which are indeed inherent to the verb and not adjunct structures.

1.2. Assumptions and Framework

The model of grammar we adopt for this work is Role and Reference Grammar (RRG) as presented in Van Valin (2005) and Van Valin and La Polla (1997). The goal of RRG is to provide a linguistic basis for the description and explanation of cognitive mechanisms in language. RRG assumes that human communication and cognition are the central issues in the understanding of language. The framework goes against the dominant and influential Chomskyan linguistic theories (Chomsky, 1965; 1986a; 1995), where language is a set of abstract systems that has no relation to culture, communication and cognition. Chomsky views syntax as the highest, if not,

the only goal of linguistics. However, Chomsky (1995 suggestst the end of Syntax and the predominant role of meaning in context. Neverthelessr, this suggestion is not analogous to the theoretical framework we adopt in this study (Van Valin, 2005).

RRG differs from the Chomskyan approach in the sense that its goal is to see the interaction between syntax, semantics and pragmatics. In other words, RRG seeks to explain the structure of languages and the nature of the native speaker's knowledge of their language. The goals of RRG are in consonance with the overall goal of this thesis which is to describe Igbo verbal syntax in a way that is faithful to the native speaker's knowledge of the language.

1.3. Lexical Decomposition in Linguistic Theory

Lexical decomposition is the splitting of words into atomic units of linguistic representation. For any meaningful decomposition of a word, the knowledge of the basic building blocks of the word is essential. The motivation for lexical decomposition may be phonological, syntactic or semantic. In this thesis the motivation is both semantic and syntactic.

In semantic decomposition the important aspect is the separation of the conceptual properties associated with the lexical item from the more formal properties of the word. The semantic decomposition of verbs is known as 'predicate decomposition' (Dowty, 1979). Predicate decomposition involves the breaking of verbs into smaller predicates to reveal what it entails especially with regards to the relation between clauses containing semantically related verbs.

In Role and Reference Grammar, predicate decomposition also exposes the functional elements of the verb which includes the affixes and argument structure (for Igbo). The decomposition of predicates reveals both the event depicted by the verb and the argument structure of the verb. It also captures the relationship between this structure and the syntax of the language. In Chapter two we discuss in detail lexical decomposition within RRG.

1.4. The Organisation of the Thesis

In the rest of this chapter we discuss the methodology for the study and also present insights from the past studies of the Igbo verb. In Chapter two we present the contributions from Igbo to the RRG framework and propose some modifications to the theory. This chapter also demonstrates that adverbs in Igbo are indeed inherent parts of the verb. Based on the contributions from Igbo we also present a fresh perspective on transitivity. In Chapter three, following the classification of Igbo verbs based on their inherent temporal properties, we argue that aspect is more straightforwardly accounted for within the inherent temporal properties of the verb. We also claim that the phenomenon of 'subject-object switching' is better explained from these properties. In Chapters four and five we present various semantic classes of the Igbo verb and argue that these classifications include the interaction between syntax, semantics and pragmatics. In other words, the classification represents the intuitive use of the verb by the Igbo native speaker. In Chapter six we discuss focus constructions and our perspective from the RRG framework. We also discuss the findings and conclusions of the study in this chapter.

1.5. Sources and Presentation of Data

Our verb forms in this work were supplied mainly from library-based sources, viz. two books of Igbo prose fiction: *Omalinze* a book of Igbo folktales published in 1977 and *Nza na Obu* whose revised edition was published in 1997. The other source of data was from *Aka Weta*, a book of poems published in 1982 and *Ukàbùilo ndi Ìgbò* a book of Igbo anecdotes first published in 1998. According to Ememanjo (1977) the stories in the book of folktales were transcribed in naturalistic settings. Ogbalu, (1997) on the one hand and Achebe and Udechukwu (1982) on the other also lay the same claim for their collections of folktales and poems respectively. One other important source of library-based data is the Igbo-English dictionary (based on the Onitsha dialect) published in 1972 by Kay Williamson. This classical work on Igbo provided most of the members of the verbs of communication studied in this work.

We purposively translated the texts in the folktales, poems and anecdotes into English and derived the verb forms essential to this study. With regards to the objectives of this study, we intentionally selected twenty-five native speakers; five each from Abia, Anambra, Ebonyi, Enugu and Imo States, to validate our translations. The researcher is a native speaker of the Nsukka variety of Enugu State. Our informants speak the varieties of Igbo that are dominant in their States of origin. Again, they represent a fair distribution of the Igbo geographical area and contribute greatly to the emerging standard Igbo. It is noteworthy that Standard Igbo has adopted the phonology of the dialects of Anambra and Imo States but its lexicon is drawn from all dialects (Emenanjo, 1995).

The verb forms and their translations were presented to our informants for cross-checking and confirmation. There followed an analysis of the exemplary verbal forms in the language. Our ability as native speaker also contributed to the data collection and analysis.

The data are grouped systematically into various Igbo verbs classes. Their occurrences in sentences are explored and exposed in order to provide the evidences for their cohesion as verb classes and also subsequent classification.

1.6. Orthography

The transcriptions in this work are based on the Onwu Orthography of 1961, which is made up of thirty-six letters of the Igbo alphabet. These include twenty-eight consonants and eight vowels. They are represented below:

a	b	ch	d	e	
f	g	gb	gh	gw	
h	i	Ị	j	k	kp
kw	l	m	n	ñ	
nw	ny	O	ọ	p	
r	s	Sh	t	u	
ụ	v	W	y	z	

In this work, the words are spelt as they are pronounced. This is in consonance with the claims of Emenanjo (1995) about Igbo Orthography.

1.6.1. Tone-Marking Conventions

Igbo is a terraced-level tone language with high and low tones and the downsteped high. In this work, we follow Green and Igwe (1963) tone marking convention which leaves unmarked high tones but marks the low tone and downstepped high. However, because of lexical variance between Igbo dialects, we shall fully tone-mark words that appear ambiguous with the three tones as the case may be. This is to take care of the mis-pronunciation or even the misunderstanding of words.

1.7. Introduction to the Igbo Verb

There is a consensus in the significant literature that the study of the Igbo verb is the study of the structure of the language (Nwachukwu, 1976: 1984; 1987b; Uwalaka, 1988; Emenanjo, 1985; 2005). This is in tune with the observation by Palmer (1965:1) that 'learning a language is to very large extent learning how to operate the verbal forms of the language'.

The structure of Igbo is centred on the verb because the verb is the only part of speech which essentially occurs with its complements and also takes inflectional and derivational affixes. These affixes contribute to the dynamic nature of the Igbo verb. For example, the verbal prefixes express participles (Emenanjo, 1978; 1985) and infinitives. Suffixes function to indicate the arguments of the verb in the clause and in some cases prepositions. The next section explores the properties of the Igbo verb in the light of available literature and our own insights.

We begin with examining the morphological properties of the verb since the ordering of morphemes reflects the basic conceptual units of the verb and morphology is at the interface between syntax, semantics and pragmatics.

1.7.1. The Mmorphological Properties of the Verb

Igbo verbs have been classified into simple, complex and compound verbs. Simple verbs are verbs without affixes. The examples in (1a-c) below are

simple verbs. Complex verbs comprise a simple verb with at least one affix. The examples in (2a-e) are complex verbs.

1.a.	tá	‘chew’
b.	bá	‘enter’
c.	dá	‘fall’
d.	lé	‘look’
e.	kpó	‘call’

2.a.	tà-bá	‘begin to chew’
b.	bà-tá	‘enter inside’
c.	dá-bà	‘fall inside’
d.	le-tá	‘look after’
e.	kpọ̀-té	‘waken up (someone)’

The simple verbs in (2a-e) have their meanings extended by the suffixes attached to them. The verb root in (2a) is *ta* ‘chew’ but with the attachment of the suffix *ba* the meaning of the verb extends to ‘begin to chew’. In (2b) the verb root *ba* ‘enter’ is extended in meaning when the suffix *ta* is attached to it. The new meaning of the suffixed verb is ‘enter inside’. The root verbs *dá, lé and kpó*, which respectively mean ‘fall’, ‘look’ and ‘call’ have their meanings extended by suffixation as observed in (2c-e).

Compound verbs in Igbo have been described as comprising of two simple verbs which are independent. We are going to illustrate this point by combining some simple verbs to derive compound verbs in (3) below.

3.			
a.	dù-nyé	lead-give	‘present with’
b.	wé-dà	bring-fall	‘bring down’
c.	dè-jé	write-go	‘write to’
d.	tì-wá	beat-break	‘shatter’
e.	bú-fè	carry-fly	‘carry-over’

All the verbs in (3a-e) are compound verbs because they are independent simple verbs that are combined to derive new meanings. In (3a) the compound verb *dunye* is made up of two simple verbs with independent meanings. *dù*means ‘lead’ while *nyé*means ‘give’ but a combination of both of them results in the meaning of the verb in (3a) which is ‘present with’. The compound verb in (3b) is made up of the simple verbs *wé*‘bring’ and *dà*‘fall down’. A combination of both of them gives the meaning ‘bring down’ as illustrated in (3b). *dè*‘write’ and *jé*‘go’ when combined give a new verb

dèjé‘write to’ in (3c). And *ti* ‘beat’ and *wa*‘break’ when combined gives a new verb *tìwá* ‘shatter’. The compound verb *búfè*combines two simple verbs *bu* ‘carry’ and *fè*‘fly’ to give ‘carry over’ as in (3e).

The expositions in examples (1) to (3) above are morphological features of the Igbo verb. The phonological property of the verb is also relevant for distinguishing between a verb stem and root in Igbo, and also in differentiating meaning components of the verb. This will be evident in Chapter four where we discuss the semantic subclasses of Igbo verbs of cooking. We discover that two verbs *su* ‘pound’ and *sụ* ‘pound’ have different nominal complements because of the differences in their +ATR and –ATR features respectively.
In the next section we present the phonological properties of the Igbo verb and in Section 1.3.3 we show how they play out in distinguishing between a verb root and stem in Igbo.

1.7.2. The Phonological Properties of the Igbo Verb

Ogwueleka (1987 cited from Mbah 1999) claims that the Igbo verb has a CV or CIV structure (where, C indicates consonant, I indicates palatalisation and V indicates vowel). Emenanjo (1978) also identifies the structure of the simple verb as either CV or CIV, where ‘I is always either i/ị while V is always e/a. The examples in (4a) and (4b) graphically illustrate the position of Emenanjo (1978).

4a. i. -CV tá ‘bite’
ii. –CV lé ‘look’

(4b) i. –CIV tìé ‘beat’
ii. –CIV mị̀á ‘suck’

The verbs in (4a-b) are simple verbs as identified in Emenanjo (1978) and in our examples in (2) above. The CV structure in (4a) simply means that the verb consist ofa consonant and a vowel. Emenanjo (1978: 135) asserts that in the Igbo verb, the vowel is always either an open front unrounded vowel as in (4a (i)) or a half close front unrounded vowel as in (4b (ii)). In addition, in the imperative form of the verb the vowel is palatalized. This palatalisation is represented with i/ị as in (4b (i)) and (4b (ii) respectively. In (4b (i) *tie*

pronounced as [tjɛ] consists of a voiced palatalized alveolar plosive while (4b (ii) *mia* pronounced [mja] consists of a voiced palatalized bilabial nasal. The simple verb may have a high tone or a low tone.

Our data have examples of verbs in which the vowels following the consonants are half-open and half-close back rounded vowels. This contradicts the assertion in Emenanjo (1978: 135) that the vowels following the consonants are either half-close front unrounded vowels or open front unrounded vowels. The following verbs support our claim here, which was validated by our informants.

5 a. só 'follow'
b. ró 'ruminate (think over something)'
c. bọ́ 'carve the carcass of a dead animal'
d. dọ́ 'draw'
e. sụ̀ọ́ 'speak'

The examples in (5a) and (5b) have the half-close back rounded vowel following the consonants while the consonants in (5c) to (5e) have the half-open back rounded vowel following the consonants.

1.7.3. Issues in the Morphological Classification of the Igbo Verb

Mbah (1999) observes that the categorization of a structure as simple, complex or compound verb is still an unresolved issue in Igbo Linguistics. Ogueleka (1987 cited from Mbah 1999) considers a compound verb form as that with at least two free forms and a complex verb form as one whose constituents are at least a verb root and bound affix. Ogueleka's analysis of the complex verb form has echoes of Lord (1975), assertion that the compound verb is made up of a monosyllabic CV stem and a second component which could be 'a stative or an action verb or a suffix' (Lord, 1975:23).

For Uwalaka (1997a) there are three types of complex verb forms viz; complex verbs 'consisting of more than one root', complex verbs consisting of 'root + extensional suffixes' and complex verbs consisting of bound morphemes. There is no class known as compound verbs in Uwalaka's classification. Indeed her idea of 'complex verbs consisting of bound

morphemes' is akin to Lord's (1975) compound verbs. While her idea of 'complex verb consisting of more than one root' is equivalent to Ogueleka's (1997) classification of compound verbs.

There is no clear distinction between the Igbo verb root and verb stem in the literature (Uwalaka, 1997a; Emenanjo, 1978; Green and Igwe, 1963 and Igwe and Green, 1964). However, for Emenanjo (1978: 136), there is a distinction between free and bound roots in the morphemic constituents of the verb. 'A free root is any element which has an independent existence and meaning, while a bound root has no independent existence or meaning'. Again, Emenanjo, (1985:64) defines the verb stem as the 'central part of the verb to which all inflectional affixes are attached,' while the verb root is the 'part of the verb to which all affixes are attached.' This definition presents a nebulous distinction between a verb root and a stem. If 'all' affixes are attached to the verb root, as contained in the definition, it means there is no difference between it and the verb stem.

Following the traditional definition of a stem as 'the part of a complete word form that remains when an affix is removed' (Aranoff 1994:31) and the root on the other hand as comprised of elements which 'make up the open-class vocabulary… which are sequences of complexes of phonetic features along with abstract indices and other diacritics' (cf Embick and Halle, 2003:2), we distinguish between a verb root and a verb stem in Igbo. With this definition, the Igbo verb roots fall into the traditional structure ascribed to it, which is either a CV or a CIV structure. The CV or CIV of the Igbo verb is made up of a bundle of phonetic features which surface as the word class, verb, in the language. The root has no affix attached to it. This distinguishes it from the stem which has an affix attached to it. In other words, the stem stands for the various realizations of the root. This distinction between a stem and a root will facilitate our classification of the Igbo verb and contribute to the resolution of the issue of the categorization of a verb as, simple, complex or compound. The claim here is that the hitherto known simple verbs are simply verb roots while the hitherto known complex and compound verbs are verb stems. Our examples in (6) below show that verb stems are derivatives of the roots and a

careful look at the data we have been discussing so far shows that complex and compound verbs are different realizations of verb roots.

6.

	Verb root	**Verb stem**		**Gloss**
a.	ché ‘think’	chè-tá	‘think-toward’	Remember
		ché-fù	‘think-loss’	Forget
		chè-bá	‘think-enter’	Begin to think
b.	lé ‘look’	lé-bá	‘look-enter’	Look into
		lé-lì	‘look-forfeit’	Look down
		lé-fù	‘look-loss’	Over-look’
c.	rí ‘eat’	rì-wá	‘eat-begin’	Start-eating
		rì-chá	‘eat-finish’	Finish eating
		rì-júó	‘eat-full’	Eat to satisfaction
d.	bé ‘cut’	bé-pù	‘cut-out’	Cut off
		bè-nyé	‘cut-give’	Cut and give
		bè-ré	‘cut-IND’	Cut out
e.	ké ‘tie’	kè-dó	‘tie-settle’	Tie together
		kè-bé	‘tie-do’	Be tying it
		ke-chie	‘tie-close’	Tie it closely

As (6a) shows, the verb root *che* ‘think’has three realizations *che-ta* ‘remember’, *che-fu* ‘forget’, and *cheba*, ‘begin to think’. These are stems of the verb. Note that there are more realizations of this verb as stems. Other verbs in (6b) to (6e) have different realizations as stems ranging between two and three but which could be more. For example, the verb in (6b) has three realizations. The verb root is *le* ‘look’ but the verb can be realized as *le-ba* ‘look into’, *le-li* ‘look down on’ and *le-fu* ‘over-look’

Following the classification of Igbo verbs in the literature (Uwalaka, 1997a; Emenanjo, 1978; Mbah, 1999), the examples in (6a (i)) and (6a (iii)) will be categorized as complex verbs while (6a (ii) will be categorized as a compound verb. But here we simply classify them as verb stems. Other examples that will be classified as compound verbs in our data are (6b (iii)), (6c (iii), and (6(d (i)). All the other examples will be classified as complex verbs.

Following our classification of the verb forms into verb roots and verb stems, it seems that complex and compound verbs are the various morphological alternations of the verb roots.

When a reduplicated verb (-rV) suffix attaches to a verb, the vowel of the –rV suffix assimilates to the vowel of the verb root (see examples 7a-c). However, a suffix that attaches to a verb root without vowel assimilation indicates that the resulting structure is a verb stem. In other words, verb stems do not exhibit vowel assimilation of the –rV suffix. This is one of the distinguishing features between a verb root and a verb stem. Again, vowel harmony is not obligatory in the realization of a verb stem as our classification shows in (6a (iii)) and (6b (iii)). Green and Igwe (1963) comment that one of the characteristics of compound verbs is the absence of vowel harmony. Recall that our classification includes compound verbs as simply verb stems. The example in (7a-c) illustrate suffixes that attache to verb roots without vowel assimilation. This indicates that the resulting structure is a verb stem

Our classification helps to resolve the issue and make clearer the distinction between a verb root and verb stem in Igbo.

7.

a. Ùgóchí bè-rè ánú
Ugochi cut-TNS meat
Ugochi cut the meat

b. Ùgóchí bù-rù óché
Ugochi carry-TNS chair
Ugochi carried the chair

c. Ùgóchi bì-rì égó
Ugochi borrow-TNS money
Ugochi borrowed some money

1.8. The Concept of the Verb in Igbo

The assertion by Emenanjo (2005; 1978; 1975b) is that the "Igbo verb is made up of three mutually obligatory and complementary elements". These obligatory elements are the verb itself, the complement and the bound cognate noun (BCN). He again stresses that in the surface structure the verb co-occurs

with both the complement and the BCN or either of them. The claim here is that every Igbo verb must exist with a "nominal element which always complements it". The nominal element is called the Complement (CP) in (Emenanjo, 1978:129). All Igbo verbs have the BCN, which always occur bound to the verb and occurs after it in the construction.

In Emenanjo's approach, the nominal complement and the BCN are viewed as arguments and/or direct objects of the verb. However, in the RRG framework we are following, the argument of the verb is the participant in the clause that completely carries out or is affected by the action depicted by the verb. For RRG the nominal element of the Igbo verb is not an argument but a part of the verb that extends the meaning of the verb. Although we adopt the term 'complement' to label these nominal elements, the sense we use it differs from Emenanjo's perspective. We use it as a modifying element of the verb and not an argument or direct object of the verb. We shall elaborate further on this in Section 2.2 when we discuss the contributions of Igbo to the Layered Structure of the Clause in Role and Reference.

1.8.1. Uwalaka (1988) Approach to the Concept of the Verb and its Cassification

Uwalaka (1988; 1984) views Emenanjo (1978; 1975b) assertion as untenable. For Uwalaka (1984; 1988) the co-occurrence of verbs and their bound cognate nouns are "V (erb) +N (oun) complexes" which should be treated as semantic units in the lexicon. Uwalaka defines the cognate noun or object as that which has a high selectivity between it and the verb and not just those which are morphologically related to the verbal element.

The similarity in approach to Emenanjo is displayed by the fact that the structure of the verb determines the concept of the verb in Igbo while the difference in analyses by these two scholars bears out in the lexical entries in dictionaries (Uwalaka, 1988). For Uwalaka (1984; 1988) only V (erb) +N (oun) complexes should be entered in the dictionary because it solves the problem of homophonous verbs that abound in the language. While for Emenanjo (1978; 1975b) every verb should be entered with its complements

or bound cognate noun to distinguish them even more. The tenable assertion from both scholars is that Igbo verbs co-occur with nominal elements which extend the meaning of the verbs. However, we posit that the problem of homophonous verbs can be solved when the context of usage of these verbs is brought into account in their analysis as we shall show in chapter four when we present the analysis of verbs taking body part complements. Moreover, our argument in this thesis is that meaning determines structure.

Uwalaka (1988) adopts Case grammar analysis to classify Igbo verbs because it 'defines the deep semantic and syntactic relationships between arguments and predicates' (Uwalaka, 1988:4). The Case grammar position is that a sentence is built around the predicative element, usually the verb. The nature of the verb determines what nouns will accompany it, what the relation of these nouns to it will be and how these nouns will be semantically specified. Hence, for each semantic class of verbs there is a corresponding semantic function or case role of the noun phrases.
Note that Case grammar ultimately assumes that meaning is dependent on structure and devoid of the context of use.

1.8.1.1. Remarks on Uwalaka (1988) Analysis and Classification

Uwalaka (1988; 1984) Case grammar analysis concentrates on the semantic features of the noun phrases that co-occur with the verb to assign case roles and also to classify the verb. This means that verb classification is dependent on the meaning of the nominal elements and not on the meaning of the verb. This results in specific case roles for specific nouns in specific constructions leading to an unending list of verb classes in Igbo if followed to its logical conclusion.

This approach does not take into account the inherent meaning of the verb and the context of use which must include the native speaker's knowledge about the verb and its properties. The RRG approach has the advantage of limiting the classes of verbs [to six] based on lexical decomposition and on the native speaker's knowledge about the verb its properties. We discuss more on this in Chapter 3 of this work.

1.8.2. An Appraisal of Emenanjo (2005) Classification of the Igbo Verb

In this section we shall extensively discuss Emenanjo (2005) classification of the Igbo verb. Our discussion is extensive because Emenanjo (2005) apart from being the most recent classification in the significant literature is pivotal to our subsequent discussions on transitivity.

In Emenanjo (2005) the Igbo verb is sub-divided into five major structural classes with regard to the co-occurring nominal element. These are;

i) General Complement Verbs (GCV)
ii) Inherent Complement Verbs (ICV)
iii) Bound Complement Verbs (BCV)
iv) Prepositional Phrase Complement Verbs (PPCV)
v) Ergative Complement Verbs (ECV)

1.8.2.1. General Complement Verbs

General Complement Verbs (GCVs) take a general noun complement, that is, nouns which may go on to be more narrowly specified. The general noun complement is the cover term for the specific nouns that subcategorise for the GCV. The examples from our data that illustrate the GCVs of Emenanjo (2005).

(8)

i.	árumaru	'workable'
ii.	éremere	'sellable'
iii.	éyimeyi	'wearable'

These nouns can be more narrowly specified as follows.

General Noun Complement	**Specific nouns derived from the general noun complement**				
árumaru	órú	úzọ́	úlọ̀	óché	tébúlú
'workables'	'work'	'road'	'house'	'chair'	'table'
éremere	ánú	àgwà	ósè	éwú	ázù
'sellables'	'meat'	'beans'	'pepper'	'goat'	'fish'
éyimeyi	ákwá	ákpukpukwu	ólántì	mgbánáká	òkpú
'wearables'	'cloth'	'shoe'	ear ring	'bangle'	'cap'

The contention in Emenanjo (2005) is that the deep structure of each Igbo GCV is used with one and only one general noun as complement. Therefore, the verbs *iru* 'to work', *ire* 'to sell' and *iyi* 'to wear', from which the nouns in 8 (i-iii) are derived have one general noun viz:

9.

a. írú árumaru
to work workables

b. íré éremere
to sell sellables

c. íyí éyimeyi
to wear wearables

The noun 'arumaru' in (9a) is the cover term (general noun complement) for all nouns that can subcategorise for the verb *iru.* The noun 'eremere' in (9b) is the general noun complement for nouns signifying anything that can be sold, therefore, subcategorise for the verb *ire*, while the noun 'eyimeyi' in (9c) is the general term for all nouns that denote things that can be worn and that can subcategorise for the verb *iyi*.

The specific nouns which these verbs subcategorise for is demonstrated in sentences (10a-c) below.

10. a. ọ́ rụ̀-rù ụ́zọ̀/ụ́lọ̀/óchè
3s build-TNS road/house/chair
'He built a road/house/chair'

b. Ńgọzi rè-rè ákwà/ánú/ósè
Ngozi sell-TNS cloth/meat/pepper
'Ngozi sold some cloth/meat/pepper'

c. (i) Ífeoma yí ákwà
Ifeoma wear cloth
'Ifeoma hass dressed'

(ii) Ífoma yí ákpụ́kpụ́kwú
Ifeoma wear shoe
'Ifeoma is putting on some shoes'

(iii) Ífóma yí ólanti
Ifeoma wear earrings
'Ifeoma has worn earrings'

In (10a) the verb *re* can take as object any of the nouns *akwa*, *anu* or *ose*. At the same time the verb can take as object, the general complement of the nouns, which is *eremere*. The same analysis is applicable to (10b) and (10c), where the verbs take as objects, nouns that have general complements.

The general noun complements are words derived by the morphological process of interfixation (See Emenanjo, 1982). Therefore, the analysis is based on the structural derivation of a nominal complement and not the pragmatic usage of it. Our informants agreed to the meaning of the complements in examples (8i-iii) but maintained that the common practise is for the verb to co-occur with a specific noun. Verbal suffixes and the noun *ihe* 'thing' can stand in for the functions of the General Complement Verbs.

1.8.2.2. Inherent Complement Verbs

The second class of verbs in Emenanjo (2005) is the Inherent Complement Verb (ICV). Nwachukwu (1984; 1976) pioneered the study of this class of verbs (cf Emenanjo, 2005). Inherent Complements verbs are 'verbs the citation form of which includes a nominal element which may or may not be cognate with the verb.' Nwachukwu (1983: 109-113) explains further this class of verbs.

> 'these verbs (which are "dual unit morphemes") are each characterized by being immediately followed by a free morpheme, always a noun (and in very few cases by a prepositional phrase), which must be included in their citation forms. Thus the CV-stem and its nominal complement form one semantic unit and, in any dictionary entry they must be cited together to fully specify their meaning'

This definition has structural motivations. Note that it is the CV-stem and the nominal element that derive the meaning of the verb. This is why this class is further sub-classified into clusters that are dependent on the structural relationship between the verbal piece and the noun.

We have examples of Inherent Complement Verbs in our data.The constructions are dual unit morphemes in which the first unit is the verb and the second unit is the nominal element. In (11) X symbolises the semantic voidness of the morpheme which only acquires meaning when it co-occors with the morpheme of the nominal element. They include:

11.

a. **kwe cluster**

íkwé ónú	'to negotiate price'
to X mouth	
íkwé áká	'to shake hands'
to X hand	
íkwé ńkwá	'to promise'
to X promise	
íkwé úkwé	'to sing'
to X song	

b. **kpe cluster**

íkpé ékpéré	'to pray'
to X prayer	
íkpé íkpe	'to adjudicate'
to X adjudication	
íkpé íkpé	'to make snide remarks'
to X X	
íkpé ázú	'to take the rear'
to X back	

The morpheme *ima* in (c) below is semantically void but the co-occurring nominal elements are *atu* 'example', *akwa* 'cloth', *okwa* 'announce', and *ukwa* 'breadfruit'

c. **ma cluster**

ímá àtù	'to give example'
ímá ákwà	'to tie a piece of cloth round the waist'
ímá ó̩kwà	'to announce'
ímá úkwà	'to peel bread fruits'

The morpheme *ichu* in (d) is also semantically void but becomes meaningful in co-occurring with the nominal elements *nta* 'hunt', *aja* 'sacrifice', *oso* 'run' and *nwanyi* 'woman'

d. **chụ cluster**

íchụ́ nta	'to hunt'
íchụ àjà	'to make sacrifices to gods'
íchụ́ ósó	'to chase'
íchụ nwànyí	'to womanise'

The morpheme *ikwu* in (d) is semantically void but becomes meaningful in co-occurring with the morphemes *oto, udo,* which are also semantically void and also with the nominal elements *ugwo* 'debt' and *aja* 'fence'.

f. **kwụ cluster**

íkwụ́ ọ́tọ́	'to stand'
íkwụ́ ụ̀dọ̀	'to commit suicide'
íkwụ́ ụ́gwọ̀	'to honour a debt'
íkwụ́ ájá	'to scale a fence'

The morpheme *ikpo* in (g) is semantically void but becomes meaningful in co-occurrence with the semantically void *asi*, and alson the nominals *utaba* 'tobacco', *ukwu* 'leg' and *oku* 'fire'

g. **kpọ cluster**

íkpọ́ ásì	'to hate'
íkpọ́ ụ̀tábá	'to snuff'
íkpọ́ ụ́kwụ́	'to stumble'
íkpọ́ ọ́kù	'to call by name'

The constructions in (12a-d) below are 'dual unit morphemes' in which the first unit, the verb, is semantically void (hence the X in their translation) but the second unit, the noun, has an 'identifiable and independent existence'

12.

a.	íkwé	ọ́nụ́
	'to X	mouth'
b.	íkpé	ékpéré
	'to X	prayer'

c. ímá àtụ̀
to X example

d. ḭ́kwụ́ ụ́gwọ̀
'to X debt'

We observe that the meaning of the verbs in examples (11a, b, c, e) and (12) are determined by the meaning of the noun. The verbal elements are meaningless morphological structures. Therefore, the arguments of the verbs in (11) and (12) cannot be simply accounted for in Inherent Complement Verbs, if the verbal element is semantically void. This is contrary to Nwachukwu's claim that the direct object of the verb is the nominal element following it. An object of the verb is the participant in the clause that is affected by the action of the verb. A semantically void morphological structure cannot serve as the predicate of an argument. Our position is further strengthened by the observation in Emenanjo (2005) that there are instances of ICVs where 'neither the verb nor its nominal element has an identifiable and independent meaning.' These are shown in example (13) below.

13a. íkwụ́ ọ́tọ́
'to X X'
'to stand erect'

b. ímá àmà
'to X X'
'To measure out in bowls

c. ítè áká
to X X
'to be distant'

Lexical decomposition of the verbs forms in (11-13) is necessary to determine the real arguments of the verb.

1.8.2.3 Bound Complement Verbs

Bound Complement Verbs (BCVs) are 'verbs which are often used with Bound Verb Complements without the nuances of emphasis which is inherent in Bound Verb Complements' (cf Emenanjo, 2005: 482). Following this

definition, we identify the BCVs in our data in (14). The verbal elements consist of the first unit while the nominal element consist of the second units.

14.

a. ígwó ǹgwòngwò ‘to mix condiments’
to X condiments

b. ígwọ́rọ́ àgwọ̀rọ̀ ‘to squat’
to squat squatting

c. ígọ́ ágọ́ ‘to deny’
to deny denial

d. ílé ùlé ‘to write an exam’
to look exam

e. íwó àwòrò ‘to shed skin’
to slough skin

The examples in (14) suggest that the nominal elements are morphological derivations of the verbal piece. If so, these nominal elements may not be necessarily the arguments of the verb as asserted in the literature. Following Emenanjo’s definition, they function as affixes to the verb. Moreover, his definition stipulates that the ‘nuances of emphasis’ are derived from the structure of the verb.

These BCVs have two morpheme constituents that have similar syntactic cum semantic relationship (cf Emenanjo, 2005). These verbs do not have the ‘nuances of emphasis which is inherent in the BVCs’. We exemplify this point with the constructions in (15a-d). These constructions are ungrammatical because the Bound Verb Complements cannot co-occur with the nominal modifier *ajo* ‘badness’ (cited from Emenanjo 2005).

15.

a. *nrí fò-rò ájó á-fò
food remain-IND MOD AGR-remain
‘The food badly remained’

b. *ụ́mụ̀ákwúkwó lè-rè ájó ùlé
students look-TNS MOD exam
‘The students badly wrote an exam’

c. *ó gọ̀-rọ̀ ájó à-gó
3s deny-IND MOD AGR-deny
'He denied badly'

d. *ọ́ gwọ̀-rò ájó à-gwòrò
3s squat-IND MOD AGR-squat
'He badly squatted'

Based on Emenanjo's perspective, the ungrammaticality of (15a-d) is because of the nominal modifier *ajo*. This is an isolated case because other nominal modifiers like nnukwu 'big', ezigbo 'good' can occur with BCVs and the sentences were validated by our informants. We illustrate with (15e-g) below.

e. nri fọ̀-rọ̀ nnukwu à-fọ́
food remain-IND big AGR-remain
'There was indeed a lot of leftover food'

f. Ha lè-rè nnúkwu ùlé bú Post-UME
3pl look-IND big exam COP Post-UME
'They took a major exam that is Post-UME'

g. Ọ gwọ̀-rọ̀ ezigbo a-gwọrọ
3sg squat-IND good AGR-squat
'He indeed squatted'

Examples (15e-h) shows that the ungrammaticality of 15a-d derives from the fact of trying to impute meaning from structure and not from the native speaker's perspective.

1.8.2.4. Prepositional Phrase Complement Verbs

This verb class according to Emenanjo (2005) are verbs 'that are often followed by prepositional phrases'. The Prepositional Phrase Complement Verbs (PPCVs) in our data include the following.

16.
a. íkwú n'éfù 'to speak empty words'
b. ímé nà ǹkítí 'to do in vain'
c. ídú n'ùbú 'to shrug'
d. ísá n'ọ́nú 'to confess'
e. íbú n'ísí 'to memorise'

In (16a-e) the verbs *ikwu, ime, idu, isa* and *ibu* are followed by prepositional phrases beginning with the preposition *na/n'*. The verbs in (16b and 16e) have independent meanings but the others are lexically empty when isolated from the prepositional phrases. The prepositional phrases have nominal complements. Hence, *efu* 'emptiness', *nkiti* 'idleness', *ubu* 'shoulders', *onu* 'mouth' and *isi* 'head' are the nominal complements of the prepositional phrases in (16a-e) respectively.

The verbs in (16a-e) fall under the same analysis we have been adducing to Emenanjo's classification. The prepositional elements are affixes since (16a, c and d) are lexically empty.

1.8.2.5. Ergative Complement Verbs

Ergativity has traditionally referred to languages in which intransitive subjects and direct objects are marked by the same morphological form and transitive subjects are marked by another morphological form. In some languages morphological ergativity is indicated by case marking. Radford (2004) reports that:

> "the term ergative has been extended to languages like English to describe verbs like *break* which occur in both transitive structures like 'Someone broke the window' and in intransitive structures like 'The window broke', where the window seems to play the same semantic role in both types of sentences inspite of being the complement of *broke* in one sentence and the subject of *broke* in another".
>
> (Radford, 2004:450)

This is the sense in which the term ergativity is used in describing Igbo verbs. Uwalaka (1988) pioneered the serious study of Ergative Complement Verbs (cf Uwalaka 1988:43). This class of verbs involves the alternation of the syntactic position of the subject and object of the verbs in question. This exchange of positions does not change the meaning of the construction. The verbs in our data that fall under this classification include:

17.

ípú ára	‘to run mad’
íkụ̀ ǹgwóró	‘to be lame’
ídá ibèrìbè	‘to be daft’
ídà ógbí	‘to be dumb’
ír̀ìá áhú	‘to be sick’

Note how the subject and object of these verbs alternate without a change in meaning in (18) below.

18.

a (i). Òkóró pù-rù árá
Okoro go out-IND mad
‘Okoro ran mad’

(ii) Árá pụ̀rụ̀ òkóró
Okoro ran mad

b. (i) Nwágbọ́ghọ́ áhù kụ̀-rụ̀ ǹgwóró
Young lady that hit-IND lameness
‘That young lady is lame’

(ii) Ńgwóró kụ̀rù nwágbọghọ áhù
‘That young lady is lame’

c. (i) Nwóké á dà-rà ìbèrìbè
Man this fall-IND daft
‘This man is daft’

(ii) Ìbèrìbè dàrà ńwóké á
‘This man is daft’

d. (i) Ụ́lọ́mmá dàrà ógbí
Ulomma fall-IND deaf
‘Ulomma is deaf’

(ii) Ógbí dàrà ụ́lọ́mmá
‘Ulomma is deaf’

e. (i) Há ríá-rù àhú
3PL sick-TNS body
‘They were sick’

(ii) Àhú ríárù há
‘They were sick’

A close observation of (18a) shows that there is alternation between the subject and object of the sentence without a change in meaning. Uwalaka

(1988) calls this 'subject-object' switching. In (18a (i)) the sentence takes the canonical SVO structure of Igbo but in (18a (ii)) there is alternation in position between the subject and object, without change in meaning of the subject. The same analysis can be extended to the sentences in (18b) to (18e).

This means that Emenanjo (2005) crucially presents the various grammatical forms of the Igbo verb. These verb classes or forms may lend credence to grammaticalisation in the language.

1.8.2.6 Emenanjo's Classification as Evidence of Grammaticalisation in Igbo

In grammaticalisation theory the concept of language change as a gradual, instead of an abrupt process, is upheld. In this perspective, a lexical item gradually changes the content of its meaning and may finally become an affix. The term for this process in the literature is 'cline' and it has both historical and synchronic implications (Hopper and Traugott, 1993). In the historical view, the cline is a 'natural pathway along which forms evolve' while synchronically, a cline is viewed as a continuum, where the end consists of a fuller form of the lexical item while the other end consists of the reduced form that has lost its semantic content. This continuum can be applied to Emenanjo's classification.

Apart from the class of GCVs, each class of verbs in Emenanjo (2005) has its meaning determined by the nominal element. This is because the verbal forms in some cases are lexically empty while in others they serve to express the event which the nominal element is involved in.

The verb classes have two ends. The first end comprises the GCVs which have full forms of the verb with their independently motivated nominal complements; while at the other end are the BCVs with forms, where the verbs and nominal elements themselves, have lost some lexical content. The ICVs and PPCVs are midway in the continuum. A full discussion of grammaticalisation of the Igbo verb is beyond the scope of this work. However, our argument still remains that Emenanjo's classification is based on structure and form and not the inherent meanings of these verbs.

1.9. Transitivity in Igbò Verbs

As mentioned in Section 1.0 above, transitivity in Igbo verb studies is still an open question. Influential studies on the issue (Emenanjo, 2005; 1978; 1975: Nwachukwu, 1984: Uwalaka, 1988; 1984 and Ubahakwe, 1976) have focused on how the structure of the verb can be analysed into transitive and intransitive. This has resulted in the controversy of whether Igbo verbs take complements or objects. And according to Emenanjo (2005) the nominal element co-occurring with the verb is its complement and this makes Igbo to not have the features of transitivity. The other scholars argue that the nominal element is an object of the verb and depending on the type of object, Igbo verbs could be classified into transitive or intransitive. Indeed, the idea of transitivity goes beyond the verb and its complements. 'Transitivity is traditionally understood as a global property of an entire clause' Hopper and Thompson, (1980). This claim is in tandem with Halliday (1969:179), where transitivity is defined as relating to the 'experiential component of meaning' and this includes the verbs, subject, predicate and other features and conditions of the clause. According to Halliday (1967: 52) the classification of verbs as 'transitive' and 'intransitive' is meant for the verb classes to represent the potentiality on the part of the verb to be part of a transitive or intransitive clause as the case may be. Givon (1995:76) cited from Arrese (1997) identifies three core features of a typical transitive clause. They are the agent, patient and the verbal modality. The agent is the causer and controller of the transitive event while the patient registers the effect of the action of the agent. The verb of the typical transitive clause codes an event that is 'completed, real and perceptually-cognitively salient'. Ross (2002) distinguishes between semantic and morphosyntactic transitivity. Semantic transitivity involves clauses denoting two participants in an event, while morphosyntactic transitivity is based on the idea that there are two core arguments in a clause. For an argument to be core, it must have a morphosyntactic relationship to the verb. This is marked by coding on the verb in the case of agreement affixes or by coding on the argument in case-marking.

Our foregoing discussion brings to fore the consensus in the literature that transitivity involves two participants (viz. an agent and a patient) in the clause and the transfer of an effective action from the agent to the patient.

Nwachukwu, (1984:105) remarks that for Igbo, 'the direction of the action or situation is immaterial' for the participants in the clause. Nwachukwu's position is contrary to the traditional view that transitivity involves an effective transfer of action from the agent to the patient.

1.9.1. Transitivity in Igbo as Transfer of Action from Agent to Patient

Agbo and Yuka (2011) pursue the line of investigation where transitivity involves two participants in a clause and the transfer of an effective action from the agent to the patient. Following the Transitivity Hypothesis of Hopper and Thompson (1980), Agbo and Yuka (2011) survey transitivity. They adopt the transitivity parameters from Hopper and Thompson (1980) to discuss the transitivity features of the Igbo verb. This discussion centres on the transitivity attributes of each verb class of Emenanjo (2005).

Their investigation reveals that clauses containing General Complement Verbs have participants, where the agent and patient are highly individuated and the patient is completely affected by the action of the agent. The action of the agent in these clauses is done on purpose. For Inherent Complement Verbs, the study reveals that the action of the agent is volitional but the transfer of action from the agent to the patient is not as intense as the clauses containing GCVs. Prepositional Complement Verbs on the other hand have agents that lack the features of volitionality and there is no effective action transferred from the agent to the patient. The agent and patient are distinct in these clauses. Bound Complement Verbs have patients that are not individuated. In other words, they are morphological derivatives of the verbs. They occur in single participant clauses with only the patient receiving the action denoted by the verb. This means that that there is no transfer of action whatsoever, from the agent to the patient. The Ergative Complement Verbs also occur in single-participant clauses of patients only. The difference between BCVs and ECVs is in the telicity/atelicity parameter.While BCV clauses have the features of telicity, ECV clauses do not. Therefore, this makes BCVs more transitive that ECV.

The conclusion from Agbo and Yuka (2011) investigation is that the component features of the transitivity parameters are relevant for transitivity in Igbo. Following the traditional notion of transitivity, Agbo and Yuka (2011) conclude that high transitivity co-vary exclusively with General Complement Verbs (GCV), while the features of low transitivity co-varies explicitly with Ergative Complement Verbs (ECV). The transitivity features of other verb classes fall in between the GCV and ECV on a scale of 1-5. The Inherent Complement Verbs (ICV) has the ranking of 2; Prepositional Complement Verbs, 3 and Bound Complement Verbs, 4. In other words, transitivity exists in a continuum in Igbo with the GCVs having the highest features of transitivity while the ECVs have the lowest features. There is no rigid split between transitive and intransitive verbs in Igbo.

1.9.2. Observations on Agbo and Yuka (2011)

The analysis in Agbo and Yuka (2011) has the advantage of applying the native speaker's intuitive knowledge about the verb. Again, the analysis extends the understanding of transitivity in Igbo as involving the whole clause. The conclusion of the study that transitivity is a continuum derives from the facts of grammaticalisation in the language. The clauses depicting the transitivity continuum in Agbo and Yuka (2011) are typical examples of fluid patterns of language use. In other words, the nouns that co-occur with the verbs in Emenanjo (2005) classification can be described as various derivational forms of the verb. This is more pronounced in the BCVs, PPCVs and the ECVs. Following the facts of grammaticality (Hopper & Traugott, 1993: 6) the nominal elements in the BCVs, PPCVs and ECVs are undergoing various stages of the cline of grammaticalisation. Grammaticalisation is about the change of a lexical item to a grammatical item. This involves the study of the structure of the language to derive the meaning of the grammatical form. Therefore, Agbo and Yuka (2011) concept of transitivity inadvertently derives from the structure of the language.

In this thesis we follow a framework that assumes that structure should be derived from meaning. Through lexical decomposition of the verb RRG assumes two types of semantic roles in the clause: actor and undergoer. Based

on this a transitive clause in Igbo is one that holds two arguments, derived from lexical decomposition, where one of the arguments is the actor and the other is the undergoer. An intransitive verb is one that contains only one argument, an actor or an undergoer. In Section 2.8.1 we shall demonstrate that this analysis is more perceptive than the previous analysis because it is derived solely from the meaning of the verb and not the structure of the clause.

1.10. Tense and Aspect in Igbo

Emenanjo, (1978; 1985), Nwachukwu, (1984) and Uwalaka, (1997) argue that aspect is the predominant verbal category in Igbo. According to these scholars, verbal prefixes and tone patterns mark mood, while inflexional suffixes and auxiliaries mark aspect. Tense is not considered a separate category from aspect. This is made manifest in their treatment of the category *FUTURE* as aspect. Emenanjo, (1985) states that the morpheme *gá* expresses probability or expectation rather than *FUTURE*. However, Uwalaka, (1996; 1997) considers the morpheme *gá* as an auxiliary verb as well as a tense category, where it syntactically collocates with a verb to indicate *FUTURE*. Nwachukwu, (1984) recognises only one form of tense in Igbo; the simple past, which is always marked by the reduplicated vowel (-rV) suffix.

Again, Emenanjo, (1985) recognises the category *perfect* as belonging to tense, while *perfective* belongs to aspect. He concludes that perfect and future belong to tense in some languages and aspect in others and yet mood in others too (Emenanjo, 1985: 25). The problem here is that in one breath Emenanjo, (1985) subsumes tense under aspect and in another considers it as a separate category. This is even more so in the classification of aspects in Igbo, where there is uncertainty in the use of the terms ‘perfect’ and ‘perfective’. See Emenanjo, (1985) for details of the classification of aspect in Igbo.

The challenge in Igbo studies is to find an acceptable methodology that accounts for the various forms of the Igbo verb in its relation to time. This methodology should be able to explain the use of expressions to convey information about situations and events in time. This is the focus of this investigation.

1.10.1. Tense and the Igbo Verb

Uwalaka, (1997) distinguishes four tenses in Igbo viz present, future, past and the pluperfect. The recognition of these tenses includes the identification of the structure of the verb that encodes these tenses. For example, Uwalaka, (1996; 1997) asserts that only the class of simple verbs occur in the present tense form and there is just a small subset of verbs that exist in this category. For future tenses, Uwalaka, (1997: 80) states that 'the auxiliary verb *gá* occurs syntactically with the main verb to construct a future tense clause.' The past tense form can be constructed by the affixation of the –rV suffix to the verb. Every verb in the language can take an –rV past suffix (Uwalaka, 1997:82). The pluperfect tense is marked by 'doubling' the –rV suffix. In other words, the pluperfect form of Igbo parallels that of the simple past.

Uwalaka, (1997) as far as we know is the only work that attempts to give a definite categorisation of tense in Igbo. However, this work dwells more on identifying the structure of the verbs in these tenses than giving a principled account in terms of the relationship between the verbs and independently defined points in time. There is no precise grammatical definition of these tenses. Besides, there is no semantic point of departure where there is a relationship between the time that is 'talked of' and the time of the speech act. The structure of the verbs does not express in any explicit manner the tense of the clause.

Reichenbach, (1947) cited in Binnick, (1991), in defining tense recognises a line of time. Reichenbach, (1947) defines tense as relations holding between the time of speech act, the time of the event or state of affairs and the temporal point of view. The reflections of Reichenbach's work is seen in Comrie (1976) and Dahl (1985) definition of tense as a deictic grammatical category that temporarily locates a situation with regard to the coding time.

Following Reichenbach, (1947), Comrie, (1976) and Dahl (1985), we examine tense in Igbo anchored in the formation of grammatical forms and constructions. Our analysis will refer to the basic clause structure of the

language in determining tense. It will be observed that the grammatical meaning of a clause is sometimes used to indicate the tense of the clause.

1.10.2. The Morpheme *gá* as a Tense Marker

gá is a motion verb meaning 'go' in Igbo. It functions as a verb when used in isolation or when it co-occurs with a nominal element in a clause. In example, (19a) below, *gá* occurs in the imperative form while in (19b) *gá* occurs with a characteristic nominal element.

19.
a. gá- á
go-IMP
'go!'

b. Òbí gà- rà àhía
Obi go-IND market
'Obi has gone to the market'

Examples (19a and b) encode the inherent meaning of the verb.
Future time reference is one of the semantic features of the morpheme *gá*. This marker encodes future time reference when it precedes activity verbs as shown in examples (20a-e).

20.
a. Òbí gà à-bía
Obi FUT AGR-come
'Obi will come'

b. Òbí gà à-lá
Obi FUT AGR-return
'Obi will return'

c. Òbí gà è-rú ụ́lò
Obi FUT AGR-reach house
'Obi will reach home'

d. Òbí gà è-jé ákwụkwọ
Obi FUT AGR-go school
'Obi will go to school'

e. Òbí gà á-pụ̀
Obi FUT AGR-go out
'Obi will go out'

The examples in (20a-e) include clauses where the future marker *gá* collocates with an activity verb. The semantic implication of this collocation is that *gá* encodes the fact that the time of the speech act is a time earlier than the reference time when the event portrayed by the verb will take place. This same *gá* tense marker has been grammaticalised to indicate present time reference in the dialects of Igbo spoken in parts of Imo and Abia States. This is illustrated in the examples (21a-e) below.

21.

a. Òbí bìa - gà
Obi come-PRES
'Obi is coming'

b. Òbí là -gà
Obi return-PRES
'Obi is returning'

c. Òbí rù - gà ụ́lò
Obi reach-PRES house
'Obi is reaching home'

d. Òbí jè -gà ákwụkwọ
Obi go-PRES school
'Obi is going to school'

e. Obi pù-gà
Obi exit-PRES
'Obi is exiting'

In these dialects the tense marker *gà* undergoes grammaticalisation by suffixing to the verb and becoming a grammatical form for the semantic feature of present time reference. Jacobson and Halle (1956) cited in Hopper and Traugott (1993) refers to this form of grammaticalisation as *analogy*. This is because the structure takes after extant forms in the grammar of the language. Suffixation is a very productive morphological process in the grammar of Igbo (Emenanjo, 1978; Uwalaka, 1996; 1997). In the sentences in (21a-e) the time of the speech act, the time of reference and the time the event takes place overlap. This is why the sentences have a present tense reading. In examples, (20) and (21) above the agents in the clauses have the intention of carrying out the event depicted by the verb. The *gá* marker can also occur in

clauses where the intention of the subject/agent of the clause is lacking. We illustrate this with the stative verbs in example 22 below.

22.

a. Òbí gà à-dá íbì
Obi FUT AGR-fall elephantiasis
'Obi will be infected with elephantiasis'

b. Òbí gà à-nú̱
Obi FUT AGR-die
'Obi will die'

c. Òbí gà é-kpù ìsì
Obi FUT AGR-cover blindness
'Obi will be blind'

d. Òbí gà à-kwá ùkwára
Obi FUT AGR-cough cough
'Obi will cough'

e. Òbí gà á-yà óyà
Obi FUT AGR-sick sickness
'Obi will fall sick'

In sentences (22a-e) the future marker *gá* still encodes the future time reference but the agent(s) lacks the intention to participate in the future event determined by the verb. Dahl, (1985: 110) identifies this category of future tense marker as the predictive category, PRED. It is possible for the sentences to point to future time reference because the speaker is certain about what will happen to the agent. This is confirmed in (23a-e) below where the present tense form of the verbs also indicate that the speaker is certain about the event.

23.

a. Òbí dà-gà ìbì
Obi fall-PRES elephantiasis
'Obi is being infected with elephantiasis'

b. Òbí nwù-gà
Obi die-PRES
'Obi is dying'

c. Òbí kpù-gà ìsì
Obi cover-PRES blindness
'Obi is going blind'

d. Òbí kwà-gà ụ́kwara
Obi cough-PRES cough
'Obi is coughing'

e. Òbí yà-gà óyà
Obi sick-PRES sickness
'Obi is falling sick'

We have observed in examples (20 and 21) above that the occurrence of the *gà* tense marker with activity verbs consist of both the time reference and the element of the calculation of what would take place or what is taking place. This aspect of the tense marker is what has been identified as the auxiliary verb in the literature. Our argument is that *gà* may have been an auxiliary verb at one time in the language but has been grammaticalised, with the resultant weakening of the semantic content to a tense marker.

Emenanjo, (1985:202) describes this process in diachronic terms where he attempts to show that the auxiliaries in the clauses may have been derived from lexical verbs. Citing Emenanjo, (1979c) Emenanjo, (1985) concludes that suffixes have originated from verbs as well as nouns and are older than auxiliaries. In the discussion of grammaticalisation processes, Hopper and Traugott (1993:108-111) propose the hypothesis of unidirectionality. Here the development of the verb or noun into an affix is inclined to follow a path that includes the development from a full lexical verb through an auxiliary verb to an affix. They buttress their hypothesis by stating that many linguists agree with this hypothesis. Indeed, the term 'cline of grammaticality' describes the path:

'content item> grammatical word> clitic> inflectional affix.'

Following this account, suffixes should be younger than auxiliary verbs in the process of grammaticalisation. We believe that the suffixation of *gá* in Igbo is a recent grammatical process. Our position is borne out of the semantics of *gá* as displayed in examples (19-23). In (19) *gá* is a full lexical verb and co-occurs with a nominal complement like all Igbo verbs. In (20 and 21) it loses some of its semantic content, when it functions as a tense marker but still retains the features of intentionality of the agent. In examples (22 and 23) it

indicates that the intention of the agent is lacking even though the tense of the clause remains the same as that of examples (20 and 21) respectively. Our claim is that *gá* has undergone decategorialisation from a full lexical verb to a tense marker as borne out by examples (21) and (23) above. Moreover these examples, as we have mentioned, fall in line with the present day process of suffixation in the language. The discussion in Emenanjo, (1985:202-204) is akin to the process of grammaticalisation we have adopted to explain the constructions in (19-23) above. However, while our examples in (20-23) above affirm that grammaticalisation has led to some form of loss in the information content of *gá*, from a verb to a tense marker, Emenanjo, (1985) holds that the verb only changes to an auxiliary verb.

1.10.3. The –rV Tense Marker

Uwalaka, (1988; 1997), makes the significant assertion that every Igbo verb can take the –rV suffix as a past tense marker. Ọnụkawa, (1994) counters this claim by putting forward the position that –rV suffixes do not mark tense or even aspect in Igbo. Ọnụkawa, (1994) classifies the Igbo –rV suffixes based on their syntactic and semantic functions. This classification 'affirms the action, state, etc., specified by the verb' (Ọnụkawa, 1994:22). In other words, the inherent temporal properties of the verb is indicated and established by the –rV suffixes. Moreso, the syntactic and semantic features of the verb in the clause is expressed by the –rV suffix.

We suppose that the issue of the past tense in Igbo can only be satisfactorily explained in the study of narratives. Dahl, (1985) classifies narratives into the study of *narrative discourse* and *narrative context*. In a narrative discourse the speaker tells the event in the exact order of its sequence.While in the narrative context, the clause is constructed centred on the anchoring of a time line or temporal form of reference. This time line determines the point in time at which specific events in the narration takes place.

In other words, the determination of the past tense marker in Igbo should involve the study of Igbo verbs in their narrative forms. There has been a cross-linguistic study of verb forms in the narrative context (Dahl, 1985). As

far as we know, this kind of study has not been conducted for Igbo. The findings of this cross-linguistic study of narrative contexts reveal different grammatical categories of PASTs based on a purely semantic characterisation. The category PAST is indicated in several ways, and in a narrative context it is identified by checking whether it occurs in those contexts where it is expected to occur. In most cases studied, the PAST category combines with other grammatical categories to form such categories as pluperfect and conditionals (Dahl, 1985).

A study of Igbo narrative discourses and narrative contexts following the approach of Dahl, (1985) would no doubt reveal more about the syntax and semantics of the –rV tense marker that has generated controversy in Igbo syntax. . However, it is beyond the scope of this work.

1.10.4. Perfectivity and Imperfectivity

As mentioned in Section 1.0, scholars are united in their position that aspect is the predominant grammatical category in Igbo. The study of aspect in the language has dwelt largely on the perfective: imperfective opposition. Following the definitions of aspect in Comrie, (1976:5), Emenanjo, (1985), Uwalaka, (1997) identify various aspectual categories. These aspectual classes fall broadly into two classes of perfective and imperfective. Emenanjo's, (1985) classification is the most detailed account of aspect in the language but the distinction between the perfective: imperfective opposition is vague. The work discusses various aspectual categories solely on the duration of events. The difference in categories 'is marked by auxiliaries, affixes, and tone patterns or by any acceptable combination of these.'

From the classification of aspect in Emenanjo, (1985) we cannot conclude which class from the perfective: imperfective opposition is marked or unmarked for the language. This is because of the vagueness in relying only on the acceptable combination of auxiliaries, affixes and tone patterns to decide perfectivity or imperfectivity. The classification results in eight major groups of aspects that comprise an odd mixture of perfectivity and imperfectivity, going by the definitions in the literature available to us.

Uwalaka (1997) categorises aspects into four classes based on 'prefixes, suffixes and auxiliary verbs.' This classification, in our view appears subjective because there are no systematic or principled criteria for it. See Emenanjo, (1985) and Uwalaka, (1997) for details.

In Section 2.5 of this thesis we discuss further the phenomenon of aspect, where we provide evidence to show that the inherent temporal properties of the verb root gives a straightforward and simple account of aspect in the language.

1.11. Summary

In this chapter, it has been established that Igbo verb roots fall into the traditional structure ascribed to it, which is either a CV or a CIV structure, while the verb stem stands for the various realizations of the root. The review of Emenanjo, (2005) and Uwalaka, (1988) classification of the Igbo verb suggests that the features of grammaticalisation motivate their structural approach to their analysis. In the analysis of tense and aspect, the chapter challenges the notion of using the structure of the verb to determine its tense or aspect. Instead the approach here is to explain the use of expressions to convey information about situations and events in time. The abiding argument in this chapter is that structure should not determine the meaning of the expression the verb encodes.

CHAPTER TWO

THE CONTRIBUTIONS OF IGBO TO ROLE AND REFERENCE GRAMMAR

2.0. Introduction

This chapter explores the contributions of Igbo to Role and Reference Grammar's concept of clause structure. It seeks to establish the concept of the nucleus of the Igbo verb. The chapter will also discuss the occurrence of the Igbo wh-phrase and how the structure represents the concept of a left-detached position (LDP) and the nominal element of the nucleus of the clause. It will also establish whether Igbo is a head-marking or dependent marking language based on the relationship between the verb and its arguments. The chapter also investigates the concept of operators in Igbo and it will conclude by also exploring the Default Macrorole Assignment Principles to give an account of transitivity in Igbo.

2.1. The Goals of Role and Reference Grammar

The goal of the theoretical framework of Role and Reference Grammar (RRG) is to provide a linguistic basis for the description and explanation of languages. This goal coincides with the primary objectives of this thesis. The description and explanation of the various aspects of a language leads to the understanding of the cognitive mechanisms of the language.

The linguistic theory of RRG seeks, among other things, to explain the structure of language and the nature of the native speaker's knowledge of their language. The conception of language in RRG is not only as an abstract system but one that is strongly related to human communication and cognition. This goes against the dominant Chomskyan linguistic theories (Chomsky, 1965, 1986a, 1995).

In Chomsky's theories, the study of syntax is the pivot to the understanding of language. Phonology and semantics are secondary to the study of syntactic structure. In other words, language is a set of abstract systems that has no relation to culture, communication and cognition. From the Chomskyan

perspective, the explanation of syntactic phenomena is the highest, if not, the only goal of linguistics. This is where RRG differs in approach.

RRG assumes that the syntactic structure is important in understanding communication and cognition. In this regard, syntax is not the highest goal of linguistic explanation. Instead, the goal of linguistic study is to see the interaction between syntax, semantics and pragmatics. The RRG theory rejects the 'syntactocentric view' of Chomsky (1965, 1986a) and acknowledges the fact of the usefulness of communication and cognition in syntactic theories and analysis (Van Valin 2005:3). According to Van Valin (2005), the RRG concept of communication and cognition differs from the concept in Chomsky, (1995).

2.2. The Concept of Pragamatics in this Study

Crane (2010: 17) defines pragmatics as 'the relationship between signs and their 'users and interpreters.' Peccei (1995) cited in Crane (2010) states that the focus of pragmatics is on the relationship between the utterance and its interpretation. What is communicated beyond the meaning of an utterance; without being explicitly said, is the domain of pragmatics. This includes the assortment of meanings, aspirations, behaviour, values and appeals that accompany every speech act.

The interpretation of an utterance pragmatically, requires an understanding of the context of the speech act. For Igbo, this understanding includes such elements as the specific nominal element co-occurring with a verb and even the specific affixes the verb can take. This will be demonstrated in Chapter four and five when we discuss Igbo semantic verb classes and Focus constructions respectively.

Vershueren (1978) observes that pragmatics goes beyond the word and sentence structure to the individual morphemes. Merlini (2006) developed the field of morphopragmatics that evaluates the effects of morphemes in utterances. In other words, how morphemes contribute to the meaning in context. Atlas (2004); Horn (2004) and Levinson (1983) discuss extensively the pragmatic vs. semantic dichotomy. Van Valin (2005) and Van Valin and

La Polla (1997) have not comprehensively discussed pragmatics but incorporates the general idea of pragmatics in their discussion of syntactic structure and meaning. An indepth study of pragmatics is beyond the scope of this work but we adopt the basic definition of Crane (2010) that pragmatics is the investigation of what is communicated beyond what is said.

2.3. The Structure of the Clause in Role and Reference Grammar

The structure of the clause in RRG has two levels of representation. They are the syntactic and semantic representations. The syntactic representation is mapped into the semantic representation in a clause. The semantic representation is not equivalent to the 'deep structure' of Transformational Generative Grammar (TGG) rather this representation captures the relationship between form and meaning in the structure of the language. Unlike in TGG, there is no derivational or move α between overt and covert structures. The concept of clause structure in RRG is to represent the actual form of the clause in its linear sequence with all the morphological features intact.

The RRG concept of clause structure is based on universal grammatical categories. This means that the categories of the clause in RRG can be found in all languages. For example, the Igbo clause in (1a) below has the same structural representation with its English and Dyirbal equivalents in (1b) and (1c) respectively.

1.

Igbo

a. Nwoké ahù hụ̀-rụ̀ nwanyị̀
Man DET see-IND woman
'The man saw the woman'

English

b. The man saw the woman

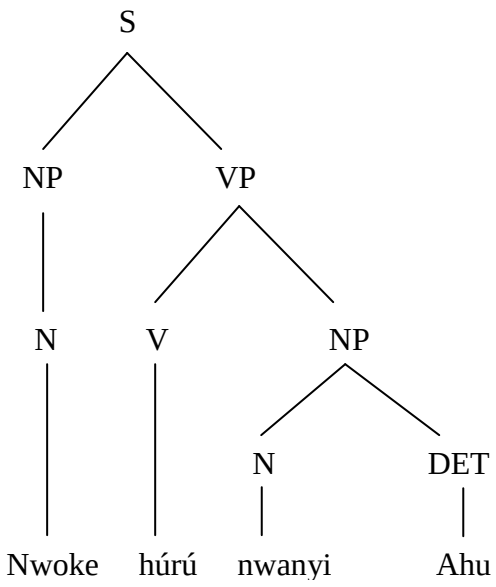
Dyirbal

c. Ba- ŋgu-l balan yara-ŋgu buran dugumbil. Φ
DEIC- ERG DEIC-ABS man-ERG saw woman-ABS
'The man saw the woman'

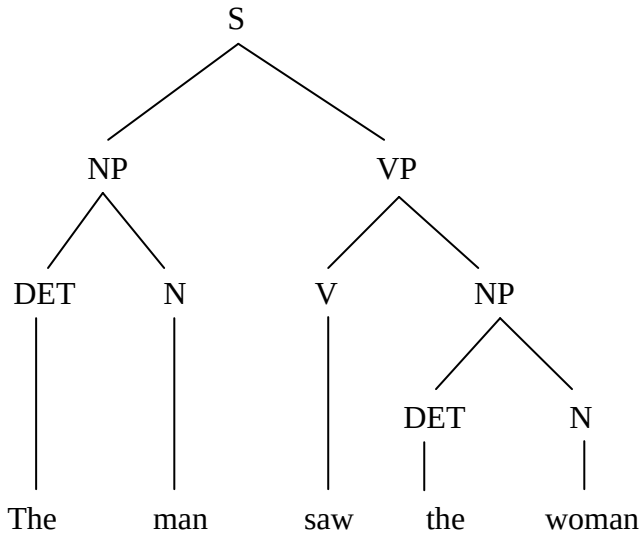
The relationship between ‘the man’ and ‘saw’ should be represented in the same way in the three languages. A close look at 1(a-c) shows that similar forms in the three languages can have quite different constructs. The argument in RRG is that most syntactic theories assume that the categories of NP and VP are universal and assume Immediate Constituent analysis as a universal means of representing clause structure. However, the universality of VP is debatable (Van Valin and La Polla, 1997:23) and they claim that it is not a necessary component of Immediate Constituent analysis. This means that the structure assigned to the Dyirbal clause in (1c) would be quite different from the English and Igbo as shown in 2 (a, b and c) and on the next page.

2.

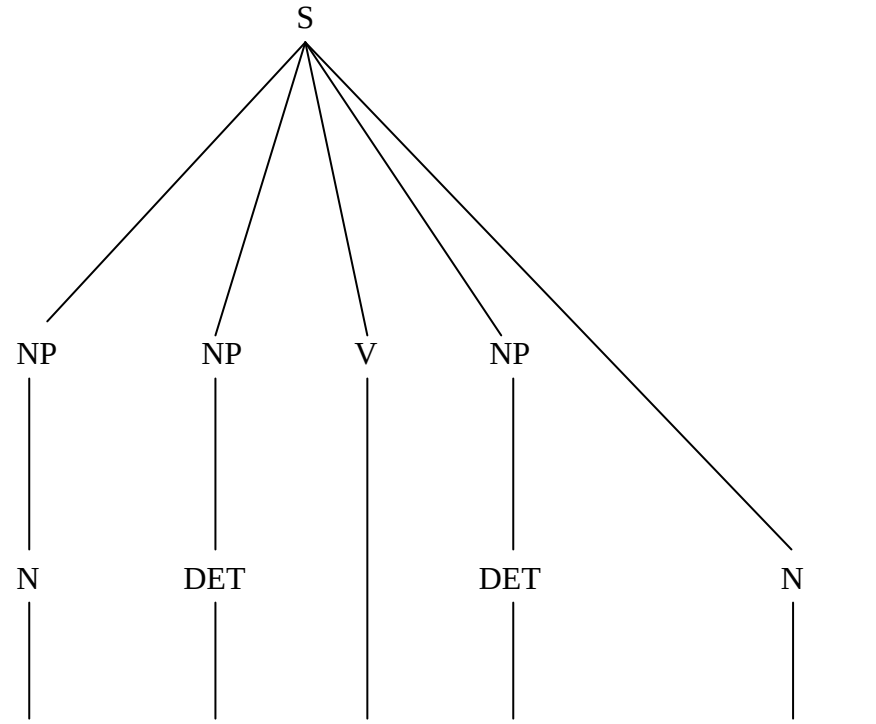
a. Igbo



b. **English**



c. **Dyirbal**



(Van Valin and La Polla 1997:23

In (2a) we see that there is no modifier for the Igbo noun in the tree diagram while the VP is actually a frozen semantic unit in Igbo and it is not equivalent to the idea of the VP in English. For the clause in (2b), the Immediate Constituent (IC) analysis accounts well for it because the theories that beget the IC structure were based on it. In (2c) is found the Immediate Constituent structure for both the NP and VP in the Dyirbal clause.

The structures in (2a-c) are based on the TGG. The dissimilarity in the structures of similar sentences from different languages led to the redefinition of universal categories by Van Valin and La Polla (1997) and Van Valin (2005). In RRG terminology it is called the Layered Structure of the Clause.

2.4 Modification of the Layered Structure of the Clause

Clause structure in RRG involves two basic concepts. They are the relational and non-relational aspects of the clause. The relational aspect is concerned with the relations between a predicate and its arguments, while the non-relational aspect is concerned with the organization of phrases, clauses and sentences in a hierarchical order.

According to Van Valin and La Polla (1997) and Van Valin (2005), the primary constituents of the clause are the *nucleus*, which contains the predicate (usually a verb), the *core*, which contains the nucleus and the arguments of the predicate and the *periphery* which include the non-arguments of the predicate.

The predicate, its argument and those elements which are not arguments of the predicate constitute the Layered Structure of the Clause (LSC). In other words, the predicate and its arguments form one layer of the clause while the non-arguments of the predicate form another layer. The difference between the two layers does not depend on linear order or precedence of the elements in the clause. This feature enables the LSC to accommodate the clause structure of those languages that have free-word order. The LSC is presented graphically in Figure 1 on the next page.

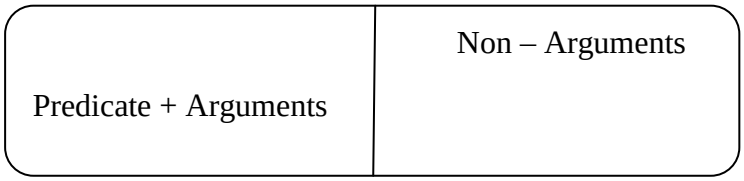


Figure 1: The motivation for clause structure in RRG

The division of the box in Figure 1 into two shows the two main layers of the clause viz the layer containing the predicate and its argument(s) and the second layer containing the non-arguments. Van Valin (2005) stresses that these two layers are the basic underlying elements of clause structure in all human languages. The predicate and its arguments are known as the nucleus of the clause while the non-arguments are termed the periphery.

There is a distinction between semantic and syntactic units in the LSC. The semantic units represent the predicate and its semantic arguments while the syntactic units represent the predicate and its syntactic arguments. In other words, the semantic units are the motivation for the syntactic units. This means that the nucleus, arguments and non-arguments are semantic units while the core and periphery are syntactic units. This distinction is shown with the diagram in Figure 1.2 for English and 1.3 for Igbo below. The Igbo sentence is the translation of the English but with the replacement of John for Obi and Jane for A.

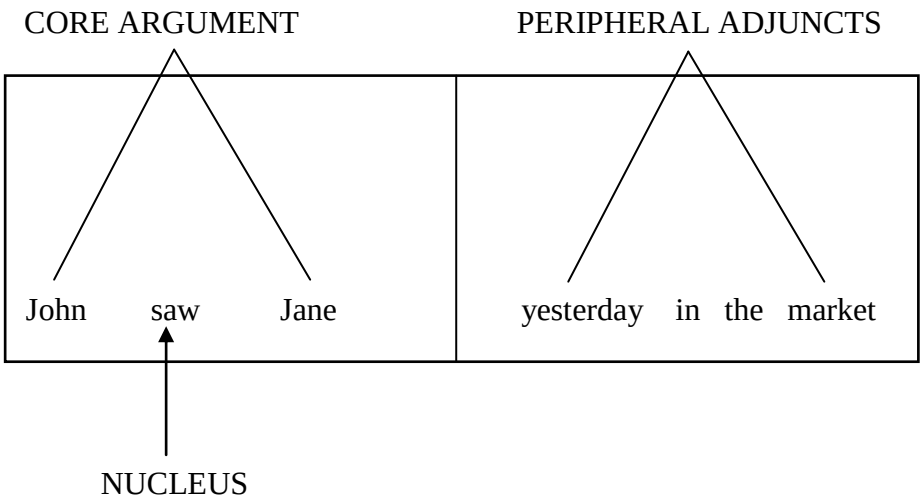


Figure 1. 2: The parts of the LSC in English

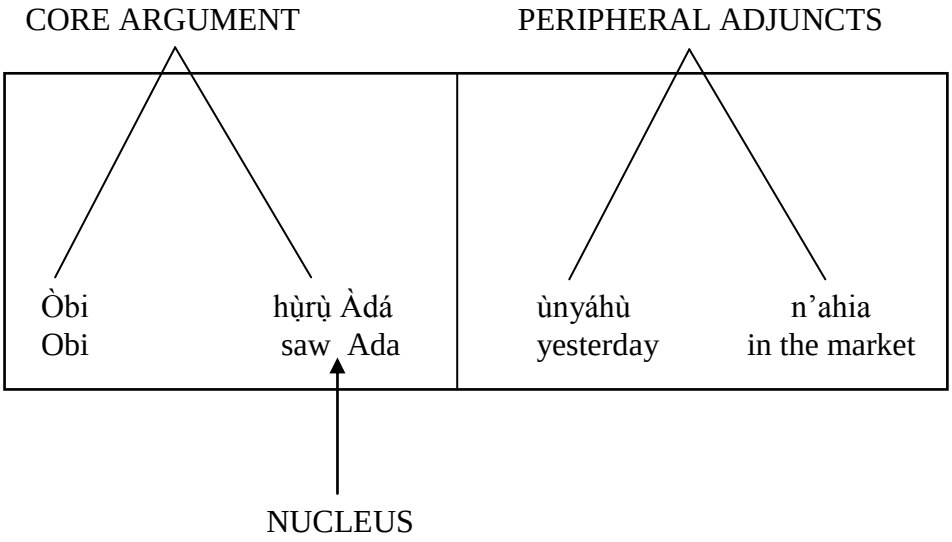


Figure 1. 2: The parts of the LSC in English

In the English sentence in Figure 1.2, the nucleus of the clause contains the verb *saw* while its arguments are *John* and *Jane*. The nucleus *saw* and its arguments *John* and *Jane* make up the core of the clause. The non-arguments of the nucleus *saw* that is, *yesterday in the market*is in the periphery.

For the Igbo sentence in Figure 1.3, the nucleus contains the verb *hú* 'see' and its 'obligatorily co-occurring nominal element' *Àdá*. The nature of the Igbo verbs motivates our amendment of the nucleus for Igbo in RRG. In other words, in Igbo, the nucleus contains the verb and its mandatory nominal element. This is part of the semantic representation of the verb as we shall demonstrate in Section 2.7. Therefore, the core of the clause comprises the verb and its nominal element, ie, *hu-ru Àdá* 'see Ada' and the argument *Òbí*. This is different from the core in the English clause in Figure 1.2. The peripheral adjuncts *únyahù* 'yesterday' and *n'ahia* 'in the market' have the same structure as the English clause in Figure 1.2. Table 1 below is an adaptation for Igbo of the RRG semantic and syntactic units of the clause.

SEMANTIC ELEMENT(S)	SYNTACTIC UNIT
Predicate + Nonimal Element	Nucleus
Argument in semantic representation of predicate	Core Argument
Non – Arguments	Periphery
Predicate + Arguments	Core
Predicate + Argument + Non-Argument	Clause (= Core + Periphery)

Table 1: A modification of the semantic and syntactic units of the RRG Theory

Table 1: a modification of the semantic and syntactic units of the RRG theory
In Van Valin (2005: 5) the nucleus consist of only the predicate but for Igbo as shown in Table 1 above, the nucleus comprises the predicate and the nominal element that occurs together with the predicate.

2.5 Non Universal Aspects of the Layered Structure of the Clause

Some components of the LSC are not found in all languages. This means that they are non-universal. Unlike their universal counterparts, these non-universal components require linear order to determine the positions of the elements in the clause. These non-universal components of the clause include the 'pre-core' slot, the detached position and the 'post-core slot'. The pre-core slot is the position where wh-words appear in Igbo. In addition, a simple clause may also include a phrase in a detached position, most commonly in the 'left detached position' [LDP]. This is the location of sentence-initial elements, which are set off from the clause by a pause. There is also a 'right-detached position' which is also set off by a pause. We shall illustrate these positions with examples (2) and (3) below.

In Igbo, question words appear in clause initial positions and, also in situ (Uwalaka, (1990; 1997b: Ndimele, 2003). When question phrases appear in clause initial positions (2a, b and c) they serve a pragmatic function of emphasis (Uwalaka, 1990; 1997b). In clauses where the Igbo wh-phrase occur clause initially, we claim that the structure contains a left-detached position because the wh-word can be meaningfully isolated in an utterance. While in structures where the wh-phrase occurs in situ, (2d, e and f) the wh-word belongs to the nominal element of the nucleus of the clause.

3.

a. Gíní ká í rì-rì
What that you eat-TNS
'What did you eat?'

b. Ònyé kà í bù
Who that 1sg be
'Who are you?

c. Èbéé kà ó sí
Where that 3sg follow
'Where is s/he from?'

d. Í rì-rì gíní
1sg eat-TNS what
'What did you eat?'

e. Í bù ònyé
1sg be who
'Who are you?'

f. Ó si èbéé
3sg follow where
'Where is s/he from?'

Note that the wh-words in (2a, b and c) can be uttered alone in context and still carry the same meaning as the whole sentence but this is not possible for (6d-f). An Igbo sentence containing the LDP of the clause is shown in (3a) represented structurally as Figure 1.4 below.

4a. Ònyé ká í bù nà ụ́lọ̀àkụ́ áhù
Who COMP 2sg COP PREP bank that
'What is your status in that bank?'

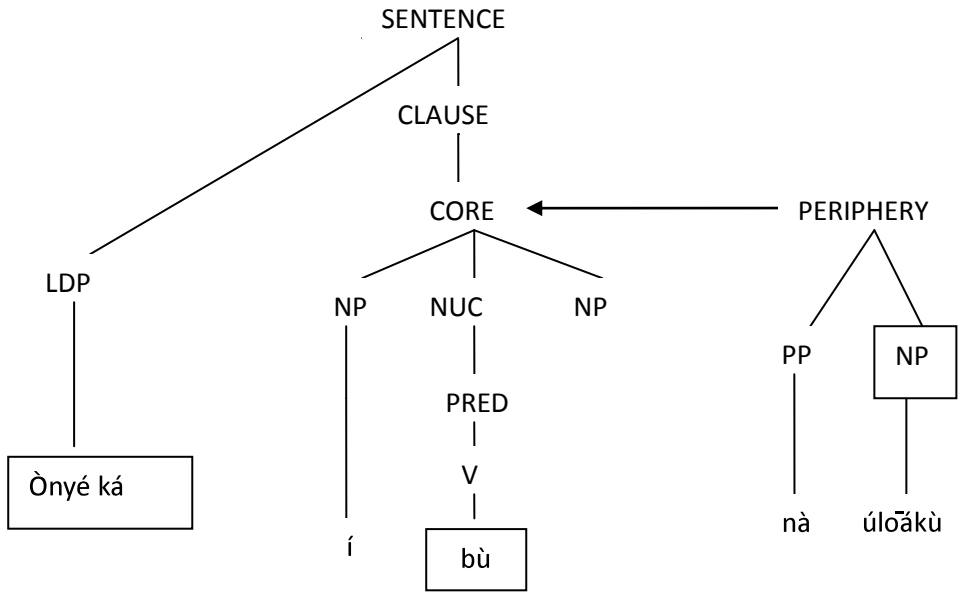


Figure 1.4: The Left Detached Position in the Layered Structure of the Igbo clause

In the LSC in Figure 1.3 above, the wh-phrase *ònyé ká* is outside the clause but within the sentence. It occupies the left detached position, while the nucleus of the clause, the copula *bù* , has one only core argument, the second person singular pronoun *í*. The phrase *nà ụ́lọ̀àku* is in the 'periphery' of the clause because it is a 'non-argument' of the core arguments of the clause. The periphery modifies the clause. The LSC structure of the clause in Igbo also contains a pre-core slot and this can be demonstrated with subjunctive clauses in (4) below.

5.

a. Ká m guó ákwụkwọ
Let 1sg read book
'That I may study'

b. Ká í sò-rò m
Let 2sg follow-IND 1sg
'That you may follow me'

c. Ká únù bía
Let 2pl come
'That you may come'

The LSC structure representing the pre-core slot is represented in Figure 1.4 below
with the example in (4a).

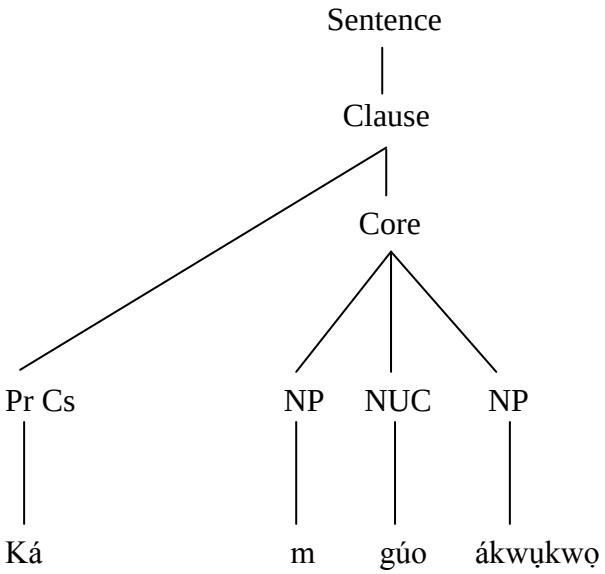


Figure 1.4: Pre-core slot construction in Igbo

In the utterance of the clauses in 4a-c there is no pause between the pronunciation of the subjunctive marker, *ká*, in the pre-core slot and the rest of the clause. Again, the subjunctive marker cannot be uttered in isolation of the rest of the clause. This is because the pre-core slot is outside the core but it is still within the clause. It does not act as modifier but an inherent part of the clause. This is a marked difference between the pre-core slot and the LDP discussed above.

We now see that the RRG notion of the layered structure of the clause is a semantically based theory of non-relational syntactic structure; that is, the fundamental units in the hierarchical organization of sentences and clauses are semantically motivated by the contrast between predicate and argument, on the one hand, and that between XPs, that is NP and PPs, which are related to the predicate and those which are not, on the other as shown in Table 1.1 above. These units are syntactic units.

2.6 Operators in Role and Reference Grammar: Contributions from Igbo

There are grammatical categories that function to modify the clause. These categories are known as operators. They include well known categories like tense, aspect and negation. In Igbo these operators are coded as affixes on the verb. Tense can alsooccur as independent verbs as shown in Section 1.7.2. In addition to these three categories, RRG identifies five other operators.

They are, **status**, which include the categories that distinguish between events that are necessary and those that are possible. Igbo does not have the categories that can exhibit this grammatical behaviour. **Ilocutionary force** is another operator. It is a universal operator that points to the type of social interaction between addresser and addressee. The three types of illocutionary force in Igbo include interrogative, imperative and declarative illocutionary force. Igbo employs tone to distinguish between interrogative and declarative statements. A low tone on the initial syllable of the initial word signals an interrogative statement. The imperative statement is signalled by a lack of subject in the sentence.

The other operators include **modality**, **directionals** and **evidentials.** Directionals indicate the direction of the motion of one of the core arguments or the direction of the action in the sentence. The feature of directionals can be illustrated with the Tibeto-Burman language; Qiang in example 5 below.The morphology of Igbo is not as developed as Tibeto-Burman.

6.

Qiang Directional Operators (Бue‘throw’)

təБu	‘throw straight up’
haБu	‘throw straight down’
səБu	‘throw down river’
nəБu	‘throw up river’
zəБu	‘throw toward the speaker’
daБu	‘throw away from the speaker’
əБu	‘throw inside’
haБu	‘throw outside’

(Van Valin and La Polla, 1997: 42)

For Igbo, direction is expressed by the use of distinct lexical items like *élu* 'up', *àlà* 'down', *íme* 'inside', *ìró* 'outside'.

Modality is considered under the term 'mood'. In Igbo two types of mood can be distinguished viz the indicative mood and the subjunctive mood. Emenanjo (1978: 168-172) discusses extensively the indicative mood in Igbo. The subjunctive mood is usually introduced by the morpheme *ká* and it indicates activities that are possible but not yet real.

Evidentials categorise the sources of information of what the speaker is saying. Evidential indicate whether the speaker has witnessed what he is saying, or had heard it from someone. In languages that exhibit this category, evidential markers are suffixed to the verb. Igbo does not have this grammatical category.

Operators modify different layers of the clause and this is very important in the LSC. Some operators only modify the nucleus, while others modify the core. Again, some operators modify the whole clause. For Igbo, operators function to emphasize the inherent meaning of the verb and not to modify it in the sense of RRG.

We shall give examples of these with sentences 6 and 7 under operators in Igbo.

2.6.1 Operators in Igbo

We have already cited in Section 1.7 that Igbo scholars have the consensus that aspect is the predominant verbal category in the language. The works of these scholars (Emenanjo, 1975; 1978; 1985: Welmers and Welmers, 1973 and Igwe. 1973 cited in Emenanjo, 1985, Uwalaka, 1997) argue for this grammatical fact in Igbo. Aspect in Igbo has been denoted by both inflectional and derivational affixes.

Our argument in this thesis is that aspect is revealed in the inherent temporal properties of the verb root and not through the combination of auxiliaries and derivational suffixes.

In the examples in (6a-h) we illustrate each of the classes of aspect in Igbo as presented in Emenanjo (1985: Uwalaka, 1997) although the examples are from

our data. In the literature, examples (6a-e) are classified as simple aspects while (6f-h) are examples of past aspects.

7.

a. Òbí nọ̀ n'ézi
Obi stay in outdoors
'Obi is outside

b. Òbí nò-lù n'ezi
Obi stay-IND in outdoors
'Obi stayed outdoors'

c. Òbí á-nọ̀-ána n'ézi
Obi AGR-stay-PERF in outdoors
'Obi has stayed outside'

d. Òbí nà-á-nọ̀ n'ezi
Obi AUX-AGR-stay in outdoors
'Obi stays outdoors'

e. Òbí nà-á-nọ̀-ana n' ezi
Obi DUR-stay-PERF in outdoors
'Obi has been staying outside'

f. Òbí nọ̀-bụ̀ n'ezi
Obi stay-PAST in outdoors
'Obi stayed outdoors'

g. Òbí nọ̀-bụ̀-lù n'ezi
Obi stay-PAST-IND in outdoors
'Obi had stayed outside'

h. Òbí nà-a-nọ̀-bù n'ezi
Obi AUX-AGR-stay-PAST in outdoors
'Obi used to stay outside'

A careful look at examples (6a-h) shows that the affixes function to simply 'state the natural facts about the verb' and not to indicate the time of the event. Recall that in Section 1.7.3 we stated that the past tense in Igbo can be clearly understood only within a narrative context. The determination of aspect for the examples in (6a-h) is based purely on the structure of the affixes and auxiliary verb. This has nothing to do with the context of usage or the natural understanding of the native speaker. In Chapter Three we shall elaborate more on our argument when we introduce the lexical decomposition of Igbo verbs to

determine these natural facts about them. Suffice it to say that Igbo has no aspect or tense operators as propounded in the RRG framework.

2.6.2 Negation as Operator

Negation is also a nuclear operator as the negative affixes attaches only to the predicate in the clause. Igbo dialects have different suffixes that indicate negation. In our example in (7) below we present data from Nnewi where the morphemes *ho* and *ghu* are negators. There is a general high-tone prefix e/a. This prefix is realized either on the verb or on the auxiliary verb when the subject NP is an independent item. It is deleted when the subject NP is a pronominal prefix. 7a-c below exemplifies this. The structure of the clause in (7) is representative of all the dialects in our study.

8.

a. Òbí á-nọ̀-hò n'ézi
Obi AGR-stay-NEG in outside
'Obi is not staying outside'

b. Òbí a-nọ̀-ghù n'ezi
Obi AGR-stay-NEG in outside
'Obi is not staying outside'

c. Òbí e-je-hó úlò
Obi AGR-go-NEG house
'Obi hasn't gone home'

We observe that in examples (7a-c) the negative markers only state the fact that the inherent meaning of the verb is non-existent.

The function of negative markers is similar to the affixes discussed in example (6) above. In Figure 1.5 below we present the LSC of the Igbo clause with its constituent and operator projections. We compare it to the English clause structure in Figure 1.6.

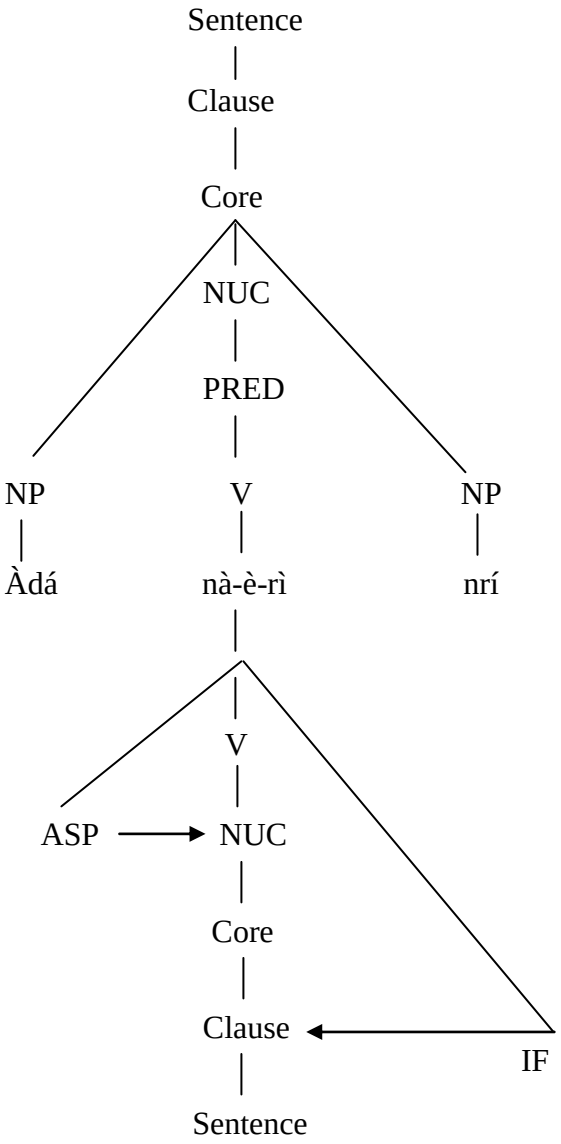


Figure 1.6: Igbo Clause Structure

Figure 1.5: Igbo Layered Structure of the clause with constituent and operator projections

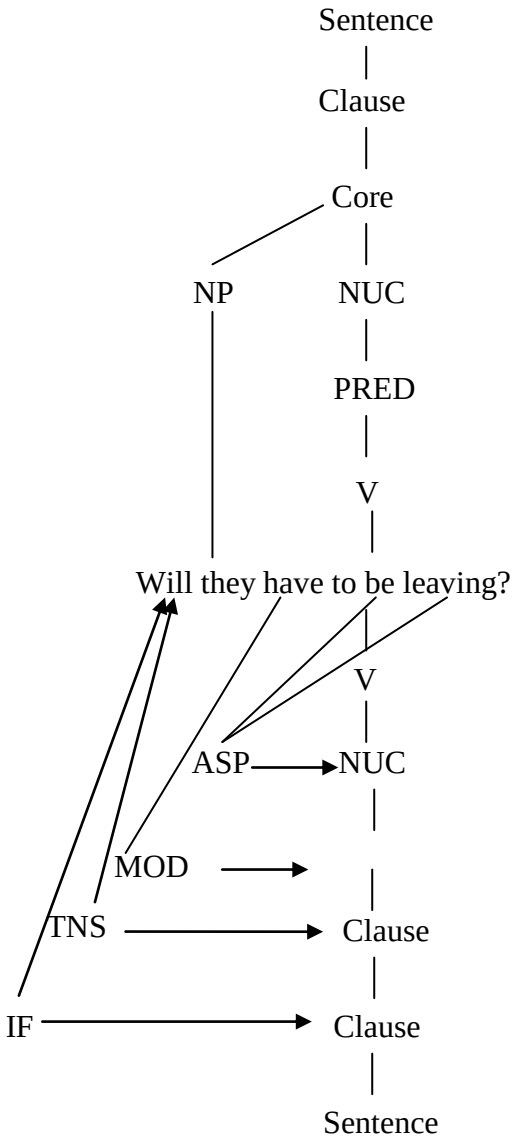


Figure 1.6 English Clause Structure (cf Van Valin 2005:14)

The top part of the diagram in Figure 1.5 and 1.6 is called the 'constituent projection'; the bottom part is called the 'operator projection'. The two projections are joined through the nucleus, which is the central element in the clause both in terms of defining the range of possible arguments, on the one hand, and being the primary entity to which the operator grammatical categories are oriented. In the operator projection, the scope of the operator is indicated by the unit which is the target of the arrow.

The difference between the Igbo and English clauses in Figures 1.5 and 1.6 respectively is that the nucleus of the English clause contains the mode and aspect operators while the illocutionary force operator is contained within the clause; whereas for Igbo, the aspect and illocutionary force are contained within the nucleus while there is no mode operator for Igbo.

2.6.3 Adpositions and Adverbs

Adpositions include the words that are positioned before their complements in the clause. In this section we look at the semantic representation of the layered structure of the clause containing adpositions and adverbs in Igbo.

2.6.4 Prepositions

The claim in Green and Igwe (1963), Emenanjo (1978) and Ikekeo□nwu□ et al (1999) is that Igbo has only one preposition *nà.* However, Uwalaka, (1997: 16) introduces three other lexical items as prepositions. They are *màkà,* 'because' *n'ihi* 'on account of' and *màkà ihi* 'because of'. The representation of prepositions in Igbo clauses are shown in the following examples in (8) below.

9.

a. Òbí bì na Nsụka
Obi live in Nsuka
'Obi lives in Nsuka'

b. Òbí kwù-rù màkà gí
Obi talk-IND about you
'Obi talked about you'

c. Òbí là-rà n'ihi nná yá
Obi go-IND on account father 3sg
'Obi went home on account of his father'

d. Há gà-rà màkà ihi gí
3pl go-IND because of you
'They went because of you'

Examples (8a-d) above shows that prepositions in Igbo are predicative in the sense that they introduce the essential nominal that occurs together with the

verb. In other words, the arguments of the prepositional phrases in (8a-d) are the mandatory nominal elements of the verb.

For Igbo, the preposition is a part of the nucleus of the clause and its representation
is shown in Figure 1.7 with the example in (8a).

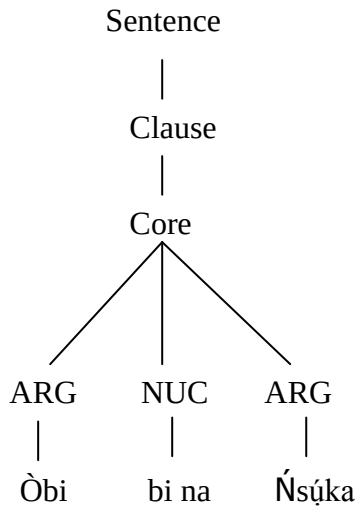


Figure 1.7a: Semantic representation of preposition in Igbo

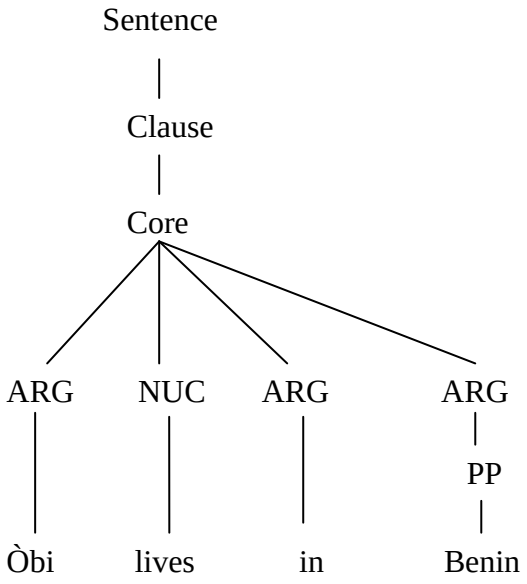


Figure 1.7b: Semantic representation of preposition in English

The Igbo structure in Figure 1.7a shows that the prepositional phrase in Igbo does not occur in the core of the clause but in the nucleus. A comparison of Figure 1.7a to 1.7b shows that the English clause structure has the prepositional phrase in the adjunct position. Only the verb stays in the nucleus.

2.6.5 Adverbs

Emenanjo (1978) makes the influential claim that there is no syntactic class of adverbs in Igbo. However, there exist adverbial concepts in the language. These adverbial concepts usually follow the verb in the basic Igbo clause. They are usually nominal items and based on this Ikekeonwú et al (1999) identify four classes of adverbs. They include the adverbs of time, manner, ideophone and affixial adverbs. The examples from each class are illustrated in (9a-d). The adverbial concepts are in bold print.

10.

a. Òbí bià-rà **taa**
Obi come-IND today
'Obi came today'

b. Òbí mè-rè **ofuma**
Obi do-IND well
'Obi did well'

c. Òbí bià-rà **ozigbo**
Obi come-IND immediately
'Obi came immediately'

d. Òbí kwù-rù **hoohaa**
Obi speak-IND explicitly
'Obi spoke clearly'

e. Údarà dà-rà **gbim**
Udara fall-IND gbim
'The udara fruit fell with a thud'

f. Àdá bià-**kwàrà**
Ada come-adv. Suffix
'Ada also came'

g. Òbí jè-kéne
Obi go-suffix
'Obi just go' (in a pleading tone)

h. Àdá nò **nnoó**
Ada stay adv. Suffix
'Ada is just around'

Example (8a) indicates the adverb of time while (8b and c) show the adverbs of manner. Ideophonic adverbs are exemplified by (8d and e). The examples in (8f-h) show affixial adverbs. In all the examples we see that the adverbial concepts follow the verbs. In other words, they are also predicative because they comprise the nominal element of the verb in the nucleus of the clause. Unlike in English, the adverbial concepts do not modify the clause; instead they form part of the nucleus. We represent this structure in Figure 1.8 below. The structure is derived from example (9a).

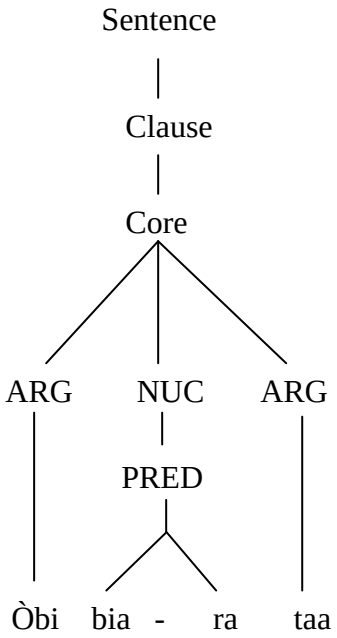


Figure 1.8: Igbo clause structure showing the adverbial position

The structure in Figure 1.8 above re-emphasizes the claims of the Layered Structure of the Clause in Section 2 where the nucleus comprises the verb and the nominal element. In Igbo the adverbial concept does not modify the verb. It is part of it.

Note that the adverbial concepts are independent words in some instances (8a-d) and suffixes in others (8e-f). This provides further evidence that the concept of adverbs in Ikekeonwu et al (1999) is motivated by the structure of the verb and not the intrinsic meaning of the verb. The examples in (8a-f) also provide evidence for the facts of grammaticalisation in the language as aforementioned in Section 1.5.6. However, this is beyond the scope of this work.

2.7 Igbo as a Head-Marking Language

For Nichols (1986 cf Van Valin 2005) there are two parameters that correlate the notion dependent marking and head-marking languages. These notions are summarized as endocentric/exocentric in RRG typology. Exocentric typifies head-marking languages while endocentric refer to dependent marking languages.

Dependent marking languages have the verb-argument relationship indicated on the arguments in the form of case or adpositional marking, while in head-marking languages, the relationship is indicated on the verb, which is the head of the phrase. Igbo is a head-marking language.

According to Van Valin (2005; 2008) the difference between dependent and head-marking languages is important because in the head-marking pattern the head bears morphemes which indicate its governed dependents. He further states that the dependents can be omitted without affecting the grammaticality of the phrasal unit; the head alone can count as the whole unit. This assertion is not tenable for Igbo because the omission of the governed dependents leads to ungrammaticality. We shall illustrate this with the double object constructions in example 9 below.

9.

a. Òbí gò-ò-rò ńna yá éwu
Obi buy-BEN-TNS father 3sg (obj) goat
'Obi bought a goat for his father'

b. *Òbí gò-ò-rò éwú
Obi buy-BEN-TNS goat
'Obi bought a goat for someone'

c. Àdá mụ̀-ụ̀-rụ Òbí nwá
Ada born-BEN-IND Obi child
'Ada had a child for Obi'

d. *Àdá mụ̀-ù-rụ̀ nwá
Ada born-BEN-IND child
'Ada delivered of a baby for somebody'

e. Ezè wà-a-rà nné yá nkú
Eze break-BEN-IND mother 3sg firewood
'Eze split firewood for his mother'

f. *Ezè wà-à-rà nkú
Eze break-BEN-IND firewood
'Eze split firewood for somebody'

In example (9a) the relationship between the direct and indirect object is marked on the verb. The benefactive morpheme *ó* indicates the fact that the indirect object *nná yá* is governed by the verb. Note that there is no marking on the indirect object to show the relationship between it and the verb. In example (9b) the indirect object is omitted and this leads to the ungrammaticality of the clause. This is because the benefactive morpheme marking the indirect object is indicated the verb is not adequate for a full understanding of the clause. The explanations for the sentences in examples (9c and e) follow that of (9a) above while the explanation for examples (9d and f) follow that of (9b). The fact that (9b, d and f) are ugrammatical following the omission of the indirect object categorizes Igbo as a head-marking language with dependent marking properties following Nichols (1986 cited from Van Valin, 2005) typology. Further evidence for this claim is provided in example 10.

In simple Igbo clauses, the relationship between the subject and object of the clause to the verb is not marked on the verb. The subject argument in Igbo

clauses always appear as independent morphemes if they are lexical items. However, there are some bound morphemes that are subjects in Igbo clauses. All the same, these bound morphemes are not governed by the verb as illustrated in (10a and b) below.

11

a. É-gbù-rù éwú
PRO-kill-IND goat
'A goat was killed'

b. É-sì-rì nrí
PRO-cook-IND food
'Food was cooked'

In (10a and b) the bound pronominal prefix is not governed by the verb but serves as a morphological marker of the subject. In other words, they have a morphological function of indicating the non-specificity of the subject of the argument. Note that the objects in the sentences are not marked on the verb but appear as independent morphemes too. Moreover, neither the subject nor the object can be omitted in the simple clauses we are analyzing.

2.8 The Layered Structure of the Noun Phrase

In Role and Reference Grammar the idea of the layered structure of the clause is applied to other categories. These categories include the Noun Phrase and the Prepositional Phrase. Noun Phrases have both constituent and operator projections, with the operator projection containing categories such as definiteness, deixis, quantification and number. The examples of the layered structure of the English and Igbo NPs are shown below in Figure 1.7a and b respectively. The English sentence of Figure 1.7a is translated in Figure 1.7b.

The quantity operators modify the core of the NP and these are concerned with quantification and negation. Quantification is expressed through the grammatical category of number and lexical expressions like numerals and quantifiers, for example, *three bridges, some yams, every woman*. The locality operators modify the whole NP and they are primarily concerned with expressing the location of the referent with respect to a reference point, usually the interlocutors (deictics) and with indicating the speaker's

assumption about identifiability of the referent by the hearer (definiteness). The usual formal expressions of these operators are determiners for Igbo and for English it is articles and demonstratives. The are the NP analogs of the illocutionary force indicators in clauses. They both have to do with discourse-pragmatics and they are both the outermost operators. The English and Igbo examples in Figures 1.7a and b with the three types of operators are shown below.

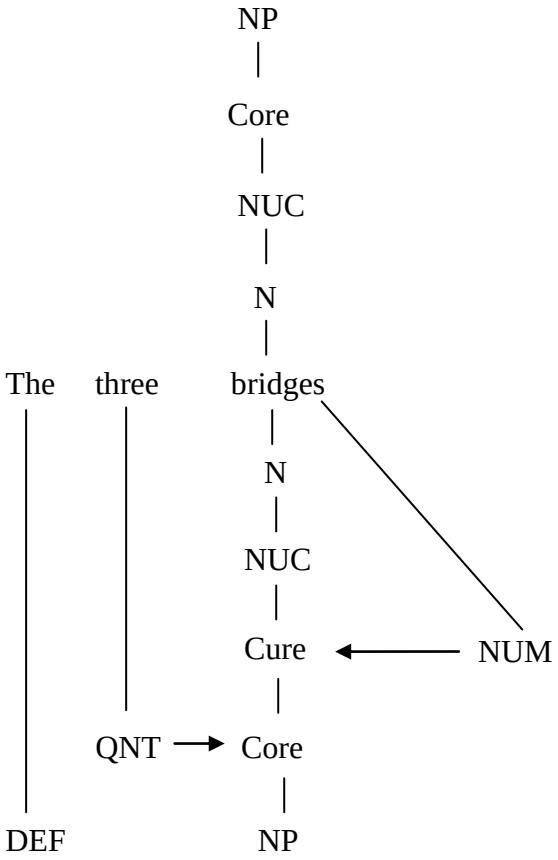


Figure 1.7a: The layered structure of the NP with operator projections in English (cf VanValin 2008:8)

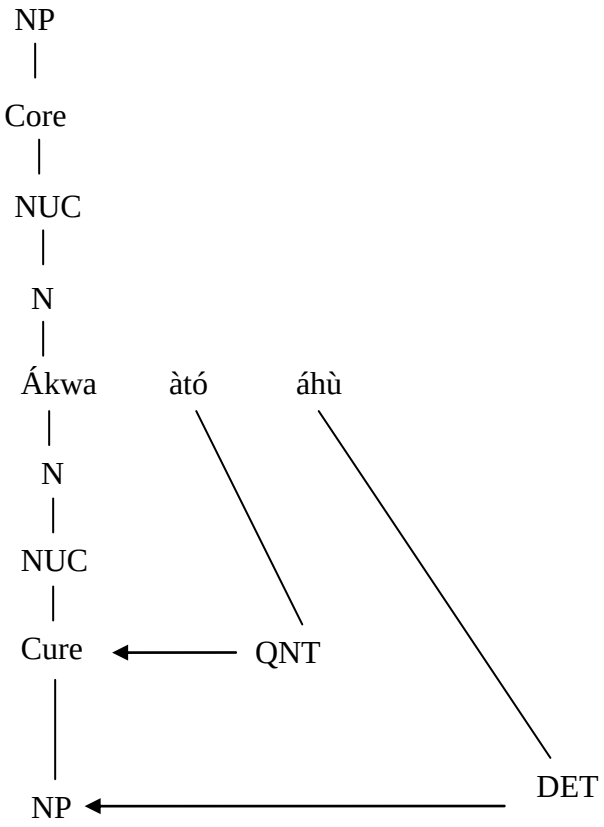


Figure 1.7b: The layered structure of the NP with operator projections in Igbo

In Figure 1.7a the English NP has two core operators; number and quantity while it has one locality operator the determiner. While the Igbo NP (Figure 1.7b) has one core operator of quantity with one locality operator, the demonstrative. This is because Igbo has no plural nouns and expresses plurality by stating the quantity of the noun.

Note the difference in the structure of the two languages. While English is a modifier-first language (Van Valin, 2005), Igbo is a modifier-last language and this is represented in the structures in Figures 1.7a and b. The structure of the two languages is represented in their constituent projections. Note that the English operators are located on the left of the core of the NP while the Igbo operators are located on the right. However, the two structures are comparable

and this substantiates one of the conditions of RRG that a 'theory should represent comparable structures in different languages in different ways' (Van Valin 2005: 2008). These constituent projections are termed 'syntactic templates' (Van Valin 2008:9) and according to Van Valin (2008) the inventory of the syntactic templates of a language constitutes an important part of its lexicon.

2.9 The Semantic Representation of a Sentence

Role and Reference grammar depends on the lexical decomposition of verbs or other predicating elements in the semantic representation of a sentence. RRG has its origins in Vendler (1967) *Aktionsart*-based classification of verbs into states, achievements, accomplishments and activities RRG also employs a modified representational scheme proposed in Dowty (1979) to capture these distinctions. RRG enlarges the four classes by adding two more classes viz: semelfactives, which are punctual events with no result state and active accomplishment which is the telic use of activity verbs. Examples of the six classes are given in (11) below.

12.

a. States

ịto ógọlogo 'to be tall'
ínwu ọ́nwụ 'to be dead'
ífunanya 'to love'
íma 'to know'
íkwe òkwùkwé 'to believe'

b. Activities

Ije ijè 'to walk'
ígwù míri 'to swim'
íchè úchè 'to think'
igba oso 'to run

c. Accomplishments

ígbazè 'to melt'
íkpọ nku ' 'to dry'
ímụ̀ íhe 'to learn something'

d. Active accomplishments

íri nri ‘to eat’
ísa àhú ‘to bathe oneself’
íkò ọ́ru ‘to farm a piece of land’

e. Achievements

ígba kpoo ‘to explode’
ímụ nwá ‘to deliver of a baby’
íza ụ́lọ̀ ‘to sweep the house’

f. Semelfactives

ítabi ánya ‘to blink’
ísa n’ónụ̄ ‘to confess’
íkpa áka ‘to tap’

The examples in (12) are illustrations of the verbs in (11) above in sentences.

13.

a. State
Ńdi nkuzi mà-rà ákwukwo
Pl teachers know-IND book
‘Teachers are brilliant’

b. Achievement
Ádà mụ̀-rù nwa
Ada born-IND child
‘Ada has delivered a baby’

c. Semelfactive
Òbí tàbì-rì ànyá
Obi blink eye
‘Obi blinked’

d. Accomplishment
Mmánu ahu gbaze-re
Oil DET melt-IND
‘That oil melted’

e. Activity
Àdá gwù-rù mmíri
‘Ada swimmed’

f. Active accomplishment:
Òbí rì-rì nri
‘Obi ate some food’

Van Valin and La Polla (1997), Van Valin (2005; 2008) device a number of syntactic and semantic tests for determining the class of a verb. In Chapter three of this work we device a number of syntactic and semantic tests to determine Igbo verb classes.

2.10 Verb Classes and Logical Structure

The extent to which words decompose in Role and Reference Grammar is motivated by the semantic building blocks of the word. The semantic building blocks of a word depend on particular conceptual properties associated with the lexical item. The semantic decomposition of verbs is often termed 'predicate decomposition', where words are broken into smaller predicates in order to mark out the required relationship between clauses containing semantically-related words. Van Valin (2005) and Van Valin and La Polla (1997) use predicate decomposition to account for the argument structure of verbs, hence verb classification.

The theory is based on the assumption that all verbs are built from states such that each class of verb is derived from the combination of states and other abstract elements such as DO, BECOME AND CAUSE. In other words, states are the primitive building blocks of verbs. For Vendler (1967) states are the inherent properties of individual verbs. The abstract elements which combine with these states are derived from the idiosyncratic meaning of the verb.

Following Vendler (1967) verbs in RRG are analysed in terms of a lexical decomposition in which state and activity are taken as basic and the other classes are derived from them. States are represented with the abstract operator **predicate′** while all activity predicates contain abstract operator **do′**. The lexical represention of the decomposition of the verb is known as its Logical Structure. The Logical Structure contains the argument structure of the verb. Accomplishments, which are durative, are distinguished from achievements, which are punctual. Accomplishments Logical Structures (LS) contain BECOME, while achievement LS contains INGR, which is short for 'ingressive'. Semelfactives contain SEML. In addition, causation is treated as an independent parameter which crosscuts the six *Aktionsart* classes, hence the

ten classes in (12) above. It is represented by CAUSE in LSs. The lexical representation for each type of verb in (12) is given in Table 2 below.

Verb Class	Logical Structure
STATE	**predicate′** (x) or (x,y)
ACTIVITY	**do′** (x, [**predicate′** (x) or (x,y)])
ACHIEVEMENT	INGR **predicate′** (x) or (x, y)
SEMELFACTIVE	SEML **predicate′** (x) or (x, y) or SEML **do′** (x, [**predicate′** (x) or (x, y)
ACCOMPLISHMENT	BECOME **predicate′** (x) or (x, y) or BECOME **do′** (x, [**predicate′** (x) or (x,y)
ACTIVE ACCOMPLISHMENT	**do′** (x, [**predicate$_1$′** (x, (y))]) & BECOME **predicate$_2$′(**z,x) or (y)
CAUSATIVE	α CAUSE β, where α, β are LSs of any type

Table 2: Lexical representations for *Aktionsart* classes (cf Van Valin 2005:45; 2008:11).

2.11 A Role and Reference Grammar Analysis of Transitivity in Igbo

Role and Reference Grammar assumes two types of semantic roles. They are thematic relations and semantic macroroles. Thematic relations include positions taken by arguments in the logical structure of the verb. The semantic macrorole on the other hand are defined in terms of the number of participants in a clause. The two basic participants are the **actor** and the **undergoer.** The actor is the doer or instigator of the action which, in a concrete and intense way, affects the undergoer. Single-participant clauses could either be actor or undergoer and this depends on the lexical decomposition of the verb. The lexical decomposition of the verb is related to the semantic macroroles of the verb. This relationship is demonstrated in RRG through what is expressed as the Actor-Undergoer hierarchy. This relationship states that in a given logical structure of a verb, the leftmost argument is the actor while the rightmost argument is the undergoer. This is represented in Figure 2.1 below.

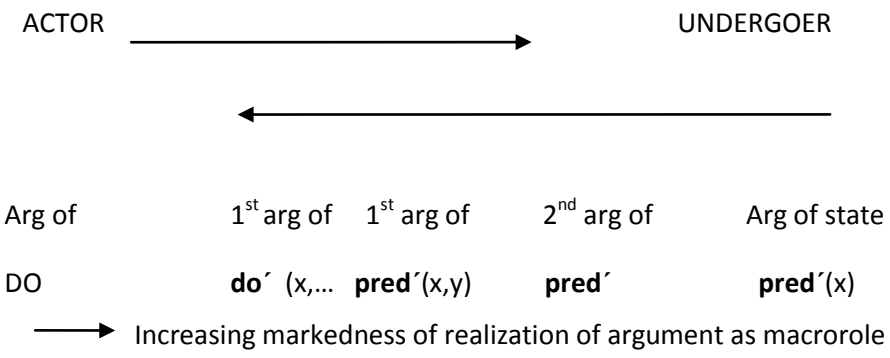


Figure 2.1: The Actor-Undergoer Hierarchy (cf Van Valin 2008:13)

The arrows pointing in different directions (one to the actor and the other to the undergoer) indicate the increasing possibility of a participant in a clause to be either actor or undergoer. This as earlier mentioned is derived from the logical structure of the verb.

For Igbo, the actor-undergoer hierarchy is relevant in discussing transitivity. As stated earlier in Section 1.6.1 transitivity involves the effective transfer of an action from the agent (actor) to the patient (undergoer). Therefore, a transitive clause in Igbo is one that holds two arguments in its logical structure; where one of the arguments is the actor and the other is the undergoer.

In RRG terminology this is termed Macrorole Transitivity or M-transitivity. This refers to the number of semantic macroroles a clause contains viz actor and undergoer. M-transitivity differs from Syntactic transitivity in the sense that it contains arguments outside the nucleus but within the core of the clause, while syntactic transitivity includes arguments within the core and periphery of the clause. As stated in Section 2.2 the nucleus of the Igbo clause embraces both the verb and the essential nominal element of the verb. This is why M-transitivity accounts for the transitivity features of Igbo. Note that in RRG there are never more than two macroroles. Therefore, an intransitive verb in Igbo is one that contains only one macrorole number. In this case, either an actor with no effective action on the undergoer or an undergoer with no actor

acting upon it. The principles determining the M-transitivity of verbs are given in (13) below.

14.
Default Macrorole Assignment Principles

a. Number: the number of macroroles a verb takes is less than or equal to the number of arguments in its LS
1. If a verb has two or more arguments in its LS, it will take two macroroles.
2. If a verb has one argument in its LS, it will take one macrorole.
3. Nature: for predicates which have one macrorole
4. If the verb LS contains an activity predicate, the macrorole is actor.
5. If the predicate has no activity predicate in its LS, it is undergoer.

(Van Valin 2005:61; Van Valin: 14)

We illustrate in example (14) below cited from example (9) transitive and intransitive clauses. (14a-c) are transitive clauses while (14c-e) are intransitive clauses. The logical structure of the clauses showing their arguments (14a′-f′) determine their transitivity features.

15.

a. Òbí gò-ò-rò ńna yá éwu
Obi buy-BEN-TNS father 3sg (obj) goat
'Obi bought a goat for his father'

a′. INGR **buy-goat-for′** (òbí, nna yá)

b. Àdá mụ̀-ụ̀-rụ Òbí nwá
Ada born-BEN-IND Obi child
'Ada had a child for Obi'

b′. INGR **give-birth-for′** (àdá, òbí)

c. Ezè wà-a-rà nné yá nkú
Eze break-BEN-IND mother 3sg firewood
'Eze split firewood'

c′. INGR **split-firewood-for′** (ézè, nne yá)

d. Òbí gò-rò éwu
Obi buy-TNS goat
'Obi bought a goat'

d′.**do′** (**buy′** (ewù)

e. Àdá mụ̀-rụ̀ nwá
Ada born-IND child
'Ada had a child'

e′.**do′** (**give-birth′** (Àdá)

f. Ezè wà-a-rà nkú
Eze break-IND firewood
'Eze split firewood'

f′.**do′** (**split-firewood′** (ézè)

The examples in (14a′-c′) have achievement verbs in their logical structure. Let us illustrate clearly with (14a′).The predicates are in bold print while their arguments (àdá and nnà yá) are in the brackets. The two arguments from the logical structure point to the fact that they have an M-transitivity of 2 therefore they are transitive clauses. The examples in (14d-f) contain activity verbs in their logical structures. These activity verbs have one argument each in their logical structures. The word **do′** indicates that the verb is an activity verb while the lone argument of the verb is contained in the brackets. This lone argument qualifies (14d-e) as intransitive verbs based on the notion of M-transitivity spelt out above.

In this section we have applied the principles of semantic roles in RRG to explain the features of transitivity in Igbo. This seems to us a more perceptive approach to the issue of transitivity in Igbo.

2.12 Summary

In discussing the contributions of Igbo to Role and Reference Grammar concept of clause structure, it is established that in Igbo, the nucleus contains the verb and its mandatory nominal element. This is part of the semantic representation of the verb. In clauses where the Igbo wh-phrase occur clause initially, the claim is that the structure contains a left-detached position because the wh-word can be meaningfully isolated in an utterance. While in structures where the wh-phrase occurs in situ, the wh-word belongs to the nominal element of the nucleus of the clause. It is established that Igbo is a head-marking language, because the relationship between the verb and its arguments is indicated on the verb and not on the arguments. In terms of

operators, Igbo has one core operator of quantity with one locality operator, the demonstrative. We conclude the chapter by positing that the Default Macrorole Assignment Principles gives a straight forward account of transitivity in Igbo.

CHAPTER THREE

AKTIONSART CLASSES OF IGBO VERBS

3.0 Introduction

Aktionsart is an expression that originated from Vendler (1967). The term *aktionsart* means the 'form of action' of a verb. Vendler (1967) used this term in the classification of English verbs. His argument was that verb classification can be done on the basis of the events denoted by the action of the verb. These events are known as states of affairs or situations. These states of affairs are derived from the Logical Structure of the verbs as explained in Section 2.8. Vendler (1967) proposes four verb classes viz states, achievements, accomplishments and activities. States are events or situations that have no conceptual boundaries and non-dynamic. Activities also have no conceptual boundaries but they are not static but code events that are ongoing. Achievements denote immediate changes. These changes could be from a state toa an activity or from one activity to another. However, achievement verbs have terminal points in their conception. Accomplishment verbs like achievement verbs have terminal points but the events they code are not instant. They stretch over a longer period of time than achievement verbs.

Smith (1997) introduces another class of verbs based on Vendler, (1967) classification. It is semelfactive. Semelfactive verbs code one-off events, which do not result in states of affairs. Van Valin (2005) introduces a new class called Active Achievement verbs. This new class is derived from activity verbs. Active accomplishment verbs are activity verbs with a terminal point. The six classes of verbs were proposed exclusively on the analysis of English verbs. However, a number of cross-linguistic studies (Van Valin, 2005) have shown that this classification can be applied to other languages. According to Van Valin (2005) these distinctions are relevant to relevant language acquisition.

The six classes of verbs have their causative counterparts. A number of syntactic and semantic tests have been developed to determine these classes of

verbs for English and some other languages. We have also developed some tests to distinguish these verb classes for Igbo. The results of these tests are tabulated in Table 1 below.

3.1 TheTests for Determining *Aktionsart* Class of Igbo Verbs

The tests to determine activity verbs include the necessary co-occurrence of these verbs with the progressive marker *nà*. Other classes of verbs are determined by their ability to co-occur with adverbial concepts in the language. The Table 1 below at a glance demonstrates how these tests can be applied to Igbo. We should note that these tests are not absolute but just guides to classifying these verbs.

Test	Criterion	State	Attributive state	Activity	Achievement	Accomplishment	Active Accomplishmen	Semelfactive
1.	Occurs with *nà* prog marker	No	No	Yes (obligatorily)	Yes	Yes	Yes	No
2.	Occurs with the adverbial noun *nwayo* 'slowly'	No	No	Irrelevant	No	No	Yes	No
3.	Occurs with the adverbial noun *ofuma* 'well'	No	Yes	Irrelevant	Yes	Irrelevant	Yes	No
4.	Occurs with the adverbial noun *ozigbo* 'immediately'	No	No	No	Irrelevant	irrelevant	No	Yes
5.	Occurs with the causative marker *me* 'do', paraphrase 'cause'	No	No	No	No	No	No	No
6.	Fails all the criteria	Yes	No	No	No	No	No	No

Table 1: verb class tests for Igbo

The first test is the only relevant test for activity verbs. This test involves the progressive marker *nà*. This progressive marker occurs obligatorily with activity verbs. This first test also serves to distinguish static verbs from non-static verbs.

The second test involves the occurrence of the adverbial noun *nwayo* 'slowly' and serves to distinguish active accomplishment verbs from the rest of the verb classes. The occurrence of the adverbial noun *nwáyọ*with activity verbs is an irrelevant test because it does not establish whether a verb is an activity verb or not. The adverbial noun *nwáyọ̀*'slowly' cannot occur with the rest of the verb classes.

In the third test, the adverbial noun *ọfúmá* 'well' serves a number of purposes. First, the occurrence of the adverbial noun *ọfúma* with State verbs is only marginally acceptable but it occurs grammatically with Attributive state verbs. This is a clear test to distinguish State verbs from attributive state verbs. The occurrence of the adverbial noun *ọfúma*with Activity and Accomplishment verbs is an irrelevant test; however, it can occur with Achievement verbs and this test serves to distinguish achievement verbs from the rest of the verb classes.

The Semelfactive class of verbs passes only one criterion out of the six. This is the fourth test and it is this test that distinguishes semelfactives from the rest of the verb classes. In this test, the adverbial noun *ozigbo* 'immediately' occurs with semelfactives. Accomplishment verbs can be distinguished by the fact that the only test they pass is the first test. However, the difference between Activity and Accomplishment verbs is that the *ná*progressive marker obligatorily occurs with Activity verbs while its occurrence with Accomplishment verbs is not obligatory, albeit, acceptable.

There is a fifth test which is used to determine causative verbs. To pass the causative test, the verb should have a combination of verb + stem, it should also be paraphrased with the causative marker, *mé*, 'do' and should have at

least two arguments. All the verbs in our data fail this test because none of them is a causative verb.

The sixth test is used to establish that a verb is a State verb. State verbs fail all the tests for determining the class of verbs.

In the next section we shall illustrate the application of these tests to basic Igbo sentences.

3.2 State Verbs

State verbs from our data include the following in (1):

1.

a. ípù árá 'to run mad'
b. íkú ǹgwóró 'to get lame'
c. ídá ìbèrìbè 'to get daft'

3.2.1 Aktionsart Tests for State Verbs

The basic sentences in (2) below are grammatical because none of the tests in Table 1 above have been applied to them. However, the sentences in (3a, b, c, d and e) are ungrammatical because five of the six tests have been applied to them, while (3f) is grammatical because Test 6, which is specific to State verbs, is applied. Note that sentence (2a) is used as a representative for the tests in (3). This is because the verbs in (2a-e) all pass and fail the same tests. The semantic representations of the sentences are shown in (2a′-c′).

2.

a. Òkónkwó pù-rù árá
Okonkwo go out-IND madness
'Okonkwo is mad'

a′.**go out′** (Okonkwo, árá)

b. Nwágbọ́ghọ́ áhù kù-rù ǹgwóró
Young lady DEM hit-IND lameness
'That young lady is lame'

b′.**hit′** (Nwágbọ́ghọ́, ǹgwóró)

c. Nwóké á dà-rà ìbèrìbè
Man DEM fall-IND daft
'This man is daft'

c′. **fall-into′** (Nwóke, ìbèrìbè)

The logical structure (LS) of the verb is the semantic interpretation of the verb in the sentence which can differ from its meaning in other sentences. In (2a′), the LS indicate that madness is not an attribute of Okonkwo but a result state which Okonkwo ran into. This action by Okonkwo is temporally unbounded. In other words, it is atelic. In (2b′) the state of lameness of the young lady is interpreted as a condition that hit upon the young lady. It is also atelic. The interpretation of (2c′) is that the man has fallen into a state of daftness, which is temporally unbounded or atelic.

3.2.2 Constructions Failing the Tests for State Verbs

3.

a. * Òkónkwó nà à-pú árá
Okonkwo PROG AGR-go out madness

b. * Òkónkwó pù-rù árá *nwayò*
Okonkwo go-out madness slowly

c. * Òkónkwó pù-rù árá *ofuma*
Okonkwo go-out madness well

d. *Òkónkwó pù-rù árá *ozigbo*
Okonkwo go-out madness
'

e. * Òkónkwó *mè-rè* pù-rù árá
Okonkwo cause-IND go-out madness

f. Òkónkwó pù-rù árá
Okonkwo go out-IND madness

As sentence (3a) shows, the state verbs cannot occur with the progressive marker *nà*. The second test in Table 1, when applied to basic sentences with

state verbs, results in ungrammatical sentences. This is illustrated with (3b) above, where the adverbial noun *nwayo* 'slowly' occurs in the sentence. The third test in Table 1 is applied to sentence (3c), which is ungrammatical. Here, the adverbial noun *ofuma* 'well' occurs in the sentence. In sentence (3d) the adverbial noun *ozigbo* 'immediately' cannot occur in the sentence. This is test 4, which state verbs fail. State verbs are not lexically causative verbs and that is why they fail test 5, depicted by (3e). The causative paraphrase marker cannot co-occur with state verbs. The only test that state verbs pass in our criteria is test 6, which is used to determine the verb class that fails all the tests. This test is specific for determining state verbs.

The test results for state verbs are illustrated in Table 2 below.

State verbs	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6
	No	No	No	No	No	Yes

Table 2: test results for State verbs

3.3 Attributive State Verbs

The following are Attributive State verbs from our data in.

4.

a. ípé ḿpe 'to be small'
b. íká óbì 'to be courageous'
c. íté áka 'to be distant'

3.3.1 Aktionsart Tests for Attributive State Verbs

The basic sentences in (5) include Attributive State verbs without the tests in Table 1 applied to them. However, the sentences in (6) are derived from (5a) which serves as a representative of all the sentences in (5) because all the verbs in (5a-c) can pass and fail the same tests. Note that (6c) is grammatical because it passes test 3, which is the distinguishing test between State and Attributive State verbs. The semantic representations of the verbs are illustrated in their logical structures in (5a′-c′).

5.

a. Ńtí òké pè-rè m̀pé
Ear rat V-IND smallness
'A rat's ear is small'

a′.**be′** (nti oke, [**m̀pé]**)

b. Tágbó kà-rà òbí
Tagbo V-IND heart
'Tagbo is courageous'

b′.**be′** (Tágbó, [**ká óbí]**)

c. Ụ́lọ̀ yá tè-rè áká
House 3s (obj) V-IND V
'His/her house is far'

c.′ **be′** (úlọ̀ yá, [**tè áká]**)

The LS represented in (5a′-c′) indicates that the verbs are attributive predicates which encode the inherent qualities of the subjects of the sentence. The second argument positions of **be′** in (5a′-c′) are filled by adjectival predicates (in bold face). They are not result state predicates. However, they are inherently unbounded in their action, hence atelic.

Therefore, the adjectival predicate *m̀pé* 'smallness' is an attribute of the rat's ear in (5a′) while the predicate *ká o͗bí* 'courageous' is an attribute of Tágbó in (5b′). In (5c′), the predicate *té áká* **'**be far'serves to encode the property of remoteness of the house.

3.3.2. Constructions Failing the Tests for Attributive State Verbs

6.

a. * ńti òké *nà* è-pé m̀pé
ear rat PROG AGR-V smallness

b. * ńti òké pè-rè m̀pé *nwáyò*
ear rat V-IND smallness slowly

c. ńti òké pè-rè m̀pé *ofuma*
ear rat V-IND smallness well

d. * ńti òké pè-rè m̀pé *ozigbo*
ear rat V-IND smallness immediately

e. *ńti òké *mè-rè* pè-rè m̀pé
ear rat cause-IND V-IND smallness

In (6a) the sentence is ungrammatical because Attributive State verbs cannot occur with the *ná*progressive marker. Attributive state verbs cannot occur with the adverbial nouns *nwayo* 'slowly' and *ozigbo* 'immediately' and this is why sentences (6b) and (6d) are ungrammatical. Attributive State verbs in this data are not causatives. This is why (6e) is ungrammatical. The verb cannot undergo the causative paraphrase test, which is test 6. Note that (6c) is grammatical because Attributive State verbs pass test 3, which is its occurrence with the adverbial noun *ofuma*. We have not applied test 6 because it is irrelevant for determining attributive state verbs. The test results for attributive state verbs are illustrated in Table 3 below.

Attributive	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6
state verbs	No	No	Yes	No	No	No

Table 3: test results for attributive state verbs

In this section we examine the application of the tests in Table 1 to achievement verbs. Achievement verbs are illustrated in (7) below.
7.

3.4 Achievement Verbs

a. ígwọ́ ǹgwòngwó 'to mix condiments'
b. ígwòró àgwòró 'to squat'
c. íwó àwòrò 'to shed skin'

3.4.1 Aktionsart Test for Achievement Verbs

The sentences in (8a-c) which include Achievement verbs are all grammatical. None of the tests in Table 1 have been applied to them. Following the pattern in this analysis, the sentences in (9) are derived from (8a) which serves as a representative of the Achievement verbs in our data. The example in (9a) is grammatical. The progressive marker *nà* can occur with Achievement verbs even though this is not obligatory. Again, the sentence in (9c) is grammatical

because the verb can occur with the adverbial noun *ofuma* ‘well’. This is the distinguishing test for achievement verbs. The semantic representations of the verbs are illustrated in (8á-ć).

8.

a. Ngọ́zi gwọ̀-rò ǹgwọ̀ngwọ̀
Ngozi mix-TNS condiments
‘Ngozi prepared ‘ngwongwo’

a′. INGR **mixed′** (Ngozi, Ngwongwo)

b. Nwọ́ke áhù gwọ̀-rọ̀ àgwọ̀rọ́
Man DEM V-TNS squating
‘That man squatted’

b′. INGR **squatted′** (Man)

c. Ágwó àhú wọ̀-rọ̀ àwọ̀rọ̀
Snake DEM change-TNS shed dead skin (of reptiles)
‘That snake sloughed its skin’

c.′ INGR **sloughed′** (snake)

The semantic representation of the verbs in (8a′-c′) indicates that there is an instantaneous transition from one state to another. The transition in (8a′) involves the state in which the condiments are yet unmixed to the state in which the condiments turn into a meal. The beginning of the action is the onset of the mixing of the condiments while the terminal point is when it evolves into a meal, *ǹgwọ̀ngwò*. Therefore, the verb in (8a′) is telic or bounded. In (8b′), the transition involves the moment when the man is standing to the state when he crouches. This is an instantaneous action with a terminal point and that is why the verb in (8b′) is telic. Similarly, the transition in (8c′) begins when the snake starts the process of sloughing its dead skin to the state when it emerges with a new shining skin. This transition is instantaneous but inherently terminal or telic.

3.4.2 Constructions Failing the Test for Achievement Verbs

9.

a. Ngọ́zi nà à-gwọ́ ǹgwọ̀ngwọ̀
Ngozi PROG AGR-mix condiments
'Ngozi is mixing condiments'

b. *Ngọ́zi gwọ̀-rò ǹgwọ̀ngwọ̀ *nwayo*
Ngozi mix-IND condiments slowly

c. Ngọ́zi gwọ̀-rò ǹgwọ̀ngwọ̀ *ofuma*
Ngozi mix-IND condiments well
'Ngozi prepared well the ngwongwo meal'

d. *Ngọ́zi gwọ̀-rọ̀ ǹgwọ̀ngwọ̀ *ozigbo*
Ngozi mix-IND condiments immediately

e. *Ngọ́zi *mè-rè* gwọ́ ǹgwọ̀ngwọ̀
Ngozi cause mix condiments

The sentences in (9b, d and e) are ungrammatical because Achievement verbs fail Tests 2, 4 and 5 in Table 1. As seen in (9b), the verb cannot occur with the adverbial nouns *nwayo* 'slowly', while in (9d) its occurrence with the adverbial noun *ozigbo* is irrelevant for this test because the verb itself inherently encodes an immediate action. The achievement verb in example (9) derived from (8a) is not a causative verb and that is why it fails the causative paraphrase test in (9e).

The test results for Achievement verbs are shown in Table 4 below

Achievement verbs	Test1	Test2	Test3	Test4	Test5	Test6
	Yes	No	Yes	irrelevant	No	No

Table 4: test results for Achievement verbs

In the next section, we apply the tests in Table 1 to the accomplishment verbs in our data.

3.5 Accomplishment Verbs

Accomplishment verbs include the following in (10) below.

10

(a) ígbọ́ ụ̀fúfù ‘to froth’
(b) ídà mbá ‘to backslide’
(c) ígbázè ‘to melt’

3.5.1 Aktionsart Test for Accomplishment Verbs

The sentences in (11) below illustrate how Accomplishment verbs behave in basic sentences. They are all grammatical. None of the tests in Table 1 has been applied to them. We shall take example (11a) as the representative of Accomplishment verbs in the data and apply the syntactic tests to the sentence. The examples in (12a-e) illustrate how Accomplishment verbs behave when our syntactic tests are applied.

11.

a. mmányá áhù gbọ̀-rọ̀ ụ̀fúfù
wine DEM vomit-TNS froth
‘that wine frothed’

a′. BECOME **froth′** (wine)

b. Òbí dà-rà mbá
Obi fall-TNS supine
‘ Obi backslided’

b′. BECOME **backslidden′** (òbí)

c. Mmánú áhù gbázè-rè
Oil DEM melt-IND
‘That oil melted’

c′. BECOME **melted′** (oil)

The lexical representation of the verbs in (11a′-c′) above shows that the change of state brought about by the Accomplishment verbs is not instantaneous but a gradual process. Hence, in (11a′), the process of frothing is not instantaneous but it takes place over a period of time which has a terminal point. This makes the Accomplishment verbs inherently bounded or telic. In (11b′), the period of when Obi lapses into a lower moral or religious status is not immediate, even though it has a terminal point. The verb encodes an

inherently bounded action. This telicity is also exhibited in (11c′) where the process of melting of the oil is gradual as indicated by the logical structure of the verb.

In the examples in (12) only (12b and e) are ungrammatical. The adverbial noun *nwayo* cannot occur with an Accomplishment verb (12b), and for (12e) the Accomplishment verb fails the causative paraphrase test. In (12c and d) the occurrence of the adverbial nouns *ofuma* and *ozigbo* respectively is not relevant for determining the class of verbs because the modification they bring to the verbs can be dispensed with. We illustrate the test results for accomplishment verbs with Table 5 below.

3.5.2 Constructions Failing the Test for Accomplishment Verbs

12

a. Mmányá áhù*nà* à-gbọ́ ụ̀fụ́fụ̀
Wine DEM PROG AGR-vomit froth
'The wine is frothing'

b. *Mmányá áhù gbọ̀-rọ̀ ụ̀fụ́fụ̀ *nwayo*
Wine DEM vomit-TNS froth

c. Mmányá áhù gbọ̀-rọ̀ ụ̀fụ́fụ̀ *ofuma*
Wine DEM vomit-TNS froth well
'That wine frothed well'

d. Mmányá áhù gbọ̀-rọ̀ ụ̀fụ́fụ̀ *ozigbo*
Wine DEM vomit-TNS froth immediately
'That wine frothed immediately'

e. *Mmányá áhù *mè-rè* gbọ́ ụ̀fụ́fụ̀

Accomplishment verbs	Test1	Test2	Test3	Test4	Test5	Test6
	Yes	No	Irrelevant	irrelevant	No	No

Table5: test results for accomplishment verbs

3.6 Activity Verbs

The application of the syntactic tests to Activity verbs is the focus of this section. Activity verbs are presented in example (13) below.

13

a.	íghú ányáókụ	'to act jealous'
b.	ímí ámì	'to be slippery to the touch'
c.	ísí àgụ̀gọ̀	'to doubt'

3.6.1. Aktionsart Test for Activity Verbs

The examples in (14a-c) are sentences showing how Activity verbs behave. Our syntactic tests in Table 1 have not been applied to the examples in (14a-c). The lexical representation of these sentences is shown in (14a′-c′). Example (14a) is taken as the representative of Activity verbs and our syntactic tests are applied to it as depicted in examples (14).

14

a. Ó nà- è-ghú ányáọ́kụ̀
3s PROG- AGR-burn hot eye
'S/he is jealous'

a′. **do′** (3s, [**ányáọ́kụ̀′** (3s)])

b. Àlá à nà- à-mḿ á-mị
Floor DEM PROG- AGR-slip AGRslip
'The floor is slippery'

b′. **do′** (àlà [**mí′** (θ)])

c. Ó nà- è-sí àgụ̌gọ̀
3s PROG AGR-cook doubt
'S/he doubts'

c′. **do′** (3s, [**sí′**, (3s, doubt)])

Activity verbs in Igbo obligatorily co-occur with the *nà* progressive marker. It is this progressive marker that gives the sentences in (14a-c) their inherent activity reading. Note that achievement, accomplishment and active accomplishment verbs can also occur with the *nà* progressive marker but this occurrence is not obligatory.

The lexical representations of Activity verbs in (14a′-c′) encode the temporally unbounded actions of the verbs. They show the demonstrable actions of the subjects of the sentences. These actions are atelic.

The representation in (14a′) specifies that the action of the subject is predicated on the 'burning in the eye'. Jealousy in Igbo is conceived as a burning feeling in the eye. Neither the starting nor the terminal point of this burning feeling in the eye is encoded in the verb. It is an ongoing activity. In (14b′) the dynamic action of the verb is represented in the structure. The demonstrable slippery action of the ground is encoded in the verb. This action is atelic. The action of doubting in Igbo as conceived in (14c′) is an activity where the doubter repeatedly cooks up the reasons for his doubts. In other words, doubting is not an occurrence but iterative. This makes the verb in (14′) atelic.

The sentences in (15) are the results of our syntactic tests on activity verbs. (15a) is grammatical because the *nà* progressive marker obligatorily occurs with the verb. However, (15b-e) are ungrammatical. These sentences fail in various ways fail the syntactic tests in Table 1. The tests in (15b and c) are irrelevant because the adverbial nouns (in italics) are vacuous in the sentence. Examples (15d and e) fail tests 4 and 5 respectively. Test 6 is not relevant for activity verbs. The syntactic test results for activity verbs are shown in Table 6 below.

3.6.2 Constructions Failing the Tests for Activity Verbs

15.

a. Ó nà- è-ghú ányáọ́kụ̀
3s PROG- AGR-burn hot eye
'S/he is jealous'

b. * Ó nà- è-ghú ányáọ́kụ̀*nwayo*
3s PROG- AGR-burn hot eye

c. * Ó nà è-ghú ányáọ́kụ̀*ofuma*
3s PROG- AGR-burn hot eye

d. * Ó na è-ghú ányáọ́kụ̀*ozigbo*
3s PROG- AGR-burn hot eye

e. * ó nàè-*mé* è-ghú ányáọ́kụ̀
3s PROG AGR-do AGR-burn hot eye

Activity verbs	Test1	Test2	Test3	Test4	Test5	Test6
	Yes	Irrelevant	irrelevant	No	No	No

Table 6: test results for activity verbs

3.7 Active Accomplishment Verbs

16
a. ígugu 'to console'
b. íse sìgá 'to smoke cigarrettes'
c. ínwụ íyi 'to swear to an oath'

3.7.1. Aktionsart Test for Active Accomplishment Verbs

We follow the same pattern of analysis for example (17) below, where (17a-c) include examples of active achievement verbs without the syntactic tests while (17a′-c′) are the semantic representation of these verbs. Active accomplishment verbs like activity verbs involve dynamic actions but while activity verbs are atelic, active accomplishment verbs in Igbo are telic as the semantic representation in (17a′-c′) indicates.

17.
a. Ózíóma gúgù-rù nwá yá
Ozioma console-TNS child 3s (obj)
'Ozioma consoled her crying child'

a.′ **do′** (ozioma, [**carry′** (ozioma, nwá)]) & INGR **consoled′** (nwá)

b. Èméká sè-rè sìgá
Emeka draw-TNS cigarette
'Emeka smoked a cigarrette'

b.′ **do′** (Emeka, [**pick′** (Emeka, sìgá)]) & INGR **smoked′** (sìgá)

c. Ọ́ nwụ̀-rụ̀ íyí
3s drink-TNS oath
'S/he swore to an oath'

c.′ **do′** (3s, [**go′** (3s, íyí)]) & INGR **drink′** (íyí)

The structure (17a′) depicts the activity of ozioma carrying her crying child but this activity terminates with the child being consoled. In other words, the verb is a result state verb. The carrying and consoling of the child results in the state where the child stops crying. This indicates that the verb is inherently telic. The structure in (17b′) represents the activity of Emeka picking up a cigarette with this activity resulting in the state where the cigarette is smoked. The verb in (17b′) is also a telic verb. (17c′) can also be analysed along the lines of (17a′ and b′). The structure in (17c′) involves the activity of the subject going to the shrine with this activity terminating in the taking of an oath of truthfulness at the shrine. The verb is inherently telic.

Let us now look at the syntactic tests in example (18).

3.7.2 Constructions Failing the Test for Active Accomplishment Verbs

18.

a. Ózíóma *nà* gúgù nwá yá
Ozioma PROG console child 3s (obj)
'Ozioma consoled her child'

b. Ózíóma gúgù-rù nwá yá *nwayo*
Ozioma console-TNS child 3s (obj) slowly

c. Ózíóma gúgù-rù nwá yá *ofuma*
Ozioma console-TNS child 3s (obj) well

d. *Ózíóma gúgù-rù nwá yá *ozigbo*
Ozioma console-TNS child 3s (obj) immediately
'Ozioma consoled her child'

e. *Ózíóma *mè-rè* gúgù-rù nwá yá
Ozioma do-IND console-TNS child 3s (obj)

The *nà* progressive marker (of test 1) occurs in (18a) but this is not an obligatory occurrence. So it is not a distinguishing test for active accomplishment verbs. The adverbial noun *nwayo* 'slowly' (of test2) can occur with active accomplishment verbs as shown in (18b). This test is the distinguishing test for active accomplishment verbs. Nevertheless, it is important to note that in practical speech the adverbial noun is repeated at least twice, for effect. The adverbial noun *ofuma* 'well' occurring in (18c),

even though grammatical, is not a distinguishing test for active accomplishment verbs. Active accomplishment verbs fail tests 4 and 5 which are represented in (18d and e). Test 6 is not relevant for this class of verbs. The table below shows the results for active accomplishment verbs.

Active accomplishment verbs	Test1	Test2	Test3	Test4	Test5	Test6
	Yes	Yes	Yes	No	No	No

Table 7: Test results for active accomplishment verbs

3.8 Semelfactive Verbs

The semelfactive verbs in our data include the following in (19) below.

19.

(a) Ísá n'ọ́nụ 'to confess'
to X mouth

(b) Ídụ́ n'ùbú 'to shrug'
to X shoulder

(c) Íme nà ǹkítí 'to do in vain'
to do nothing

3.8.1. Aktionsart Test for Semelfactive Verbs

The behaviour of semelfactive verbs in sentences is illustrated with example (20a-c) below. The semantic representation of these verbs is shown in (20a′-c′). Example (20a) is used as a test case for semelfactives and the sentences in (21a-e) represent the results of these tests.

20.

a. Ńdi óhí ahu sà-rà n'ọ́nụ̄
3pl thieves DEM V-IND in mouth
'The thieves confessed'

a.′ SEML **do′** (ohi, [**confess′** (ohi)

b. Ngọ́zí dụ̀-rụ̀ n'ùbú
Ngozi poke-IND in shoulder
'Ngozi shrugged'

b′. SEML **do′** (Ngozi, [**raise′** (ùbú)

c. Ékwéńsú mè-rè nà ǹkítí
Devil do-IND in idleness
'The devil acted in vain'

c′. SEML **do′** (ekwensu,[**nkiti′** (ekwensu)

Semelfactive verbs encode one-off events. The semelfactive verbs in our data are based on one-off activities. The structure in (20a′) encodes the fact that the action of using the mouth to confess done by the thieves happened once and was not repeated. A similar explanation can be given for the representation in (20b′) where the action of raising the shoulders in a shrug was done only once and not repeated. In (20c′) the structure represents the fact that the subject acted in vain only once.

From the examples in (21) it shows that semelfactives pass only test 4, that is, the co-occurrence with the adverbial noun *ozigbo*. This is illustrated with sentence (21d). It fails all other tests. The test for causatives is not relevant for this test. We show the test result for semelfactives in Table 8.

3.8.2. Constructions Failing the Test for Semelfactive Verbs

21.
a. *Ńdi óhí áhù*nà* sá- n'ọ́nụ̄
3pl thieves DEM PROG V in mouth

b. *Ńdi óhí áhù sà-rà n'ọ́nụ̄*nwayo*
3pl thieves DEM V-IND in mouth slowly

c. *Ńdi óhí áhù sà-rà n'ọ́nụ*ofuma*
3pl thieves DEM V-IND in mouth well

d. *Ńdi óhí áhù sà-rà n'ọ́nụ*ozigbo*
3pl thieves DEM V-IND in mouth immediately

e. * Ńdi óhí áhù*mè-rè* sá n'ọ́nụ
3pl thieves DEM do-TNS V in mouth

Semelfactive verbs	Test 1	Test2	Test3	Test4	Test5	Test5
	No	No	No	Yes	No	No

Table 8: Test results for semelfactive verbs

3.9 Summary of *Aktionsart* Tests for Igbo Verbs

The focus of Sections 3.0 to 3.7.2 has been to provide a series of tests to distinguish verb classes in Igbo, following the presentation made in Van Valin (2005) and Van Valin and La Polla (1997). The first test distinguishes static verbs from non-static verbs and it has to do with the ability of a verb to co-occur with the progressive marker *nà*. This test corresponds with Van Valin (2005) and Van Valin and La Polla (1997), where it is said that such tests are useful only for languages with a progressive aspect. The *nà* progressive marker is particularly useful for distinguishing Activity verbs in Igbo because it obligatorily occurs with such verbs.

Based on these tests we have been able to establish that *nà* functions as a durative marker instead of a progressive marker as indicated in the prevailing literature.

Tests 2-5 involve the co-occurrence with words that have adverbial notions in Igbo. Test 2 is the distinguishing test for active accomplishment verbs, where the verbs can occur with the adverbial noun *nwayo* 'slowly'. Active accomplishment verbs inherently encode the concept of a terminal point in the action. The adverbial noun *nwayo* functions to interpret the manner in which the terminal point is achieved.

In Test 3, which distinguishes Achievement verbs from the rest of the verb classes involves the occurrence of the adverbial noun *ofuma* 'well' with achievement verbs. In Test 4, is the distinguishing test for semelfactives and this has to do with the occurrence of the adverbial noun *ozigbo* 'immediately' with semelfactives. And Test 5 is the test for causatives which all the verbs in our data fail because none of them is a causative verb. Test 6 is specific for determining State verbs. All members of the verb classes can occur with at least one of the adverbial nouns we have provided for the tests. However,

State verbs cannot occur with any of these adverbial nouns or with the *ná* progressive marker. This test distinguishes State verbs from other classes of verbs.

In Sections 3.9 to 3.9.5 we provide tests to for the causative counterparts of the verbs investigated in Sections 3.0 to 3.8.4 above. However, in the meantime, in Section 3.8 below we follow the aktionsart tests in Sections 3.0-3.7 to discuss the syntax and semantics of the progressive *ná* and its relationship to time and the verb in Igbo.

3.10 Aktionsart and Aspect in Igbo

In the treatment of aspect in Emenanjo (1978; 1985) one crucial observation is that suffixes naturally indicate 'the salient facts about the verb without regard to time.' This observation can be extended to all Igbo verbs. Following this and the cross-linguistic studies in Dahl, (1985), we claim that the criterion used to distinguish perfectivity from imperfectivity in Igbo is part of the intrinsic features of the verb.

The aktionsart tests in Sections 3.1-3.7 above follows an analysis that pays attention to the internal situation of the event expressed by the verb. For Igbo this includes 'the most natural or obvious fact about the particular verb used' as confirmed in the syntactic tests shown in Sections 3.1-3.7 above.

Our investigation reveals that the verbs falling under the sub-class of activity verbs have the features of atelicity while the verbs which are classified as state, attributive state, achievement, accomplishment and active achievement are telic verbs. The telicity or otherwise of a verb is revealed by the primitive constituent of the verb, in other words, its inherent meaning as known by the native speaker of the language.

As we have observed in Section 1.7.4 in Chapter one, the opposition between perfectivity and imperfectivity is based on 'the acceptable combination of auxiliaries, affixes and tone patterns' and on 'prefixes, suffixes and auxiliary verbs'. This method of classification is subjective and inelegant. Our position

is that perfectivity and imperfectivity can be determined from the intrinsic meaning of the Igbo verb. The Igbo verb in all dialects has an underlying common core which is the verb root. This verb root has a common meaning; the meanings of these verbs can be extended in relation to the number of prefixes and suffixes it takes. These affixes are what Igbo scholars have used to indicate aspect and to speculate on their meanings in the clause.

Therefore, an RRG approach that distinguishes verbs based on the conceptual boundaries of the events that they denote is more elegant and systematic. Following the result of the analysis in 3.1-3.7 above, where five out of the six aktionsart verb classes are telic verbs, we conclude that perfectivity is the unmarked member of the opposition. Our claim is based on the fact that perfectivity implies boundedness while imperfectivity implies unboundedness.

3.11 The Syntax and Semantics of Progressives

The grammatical category, progressive, has been discussed in Emenanjo, (1978; 1985) and Uwalaka, (1996; 1997). While Emenanjo, (1985) recognises the progressives as a sub-division of what he calls the 'durative', Uwalaka, (1978: 1997) differentiates between the progressive and durative. She identifies them as different classes of aspectual categories. The abiding point in the work of the two scholars is that the progressive marker occurs as an auxiliary verb or a suffix. Again, the description of the progressive in the two works is based on the structure of the Igbo clause rather than the inherent meaning of the verb and the function of the verb in the sentence.

In the literature on aspects, the progressive, PROG, has been recognised as denoting an ongoing activity. In other words, where the PROG appears, the event is said to be a dynamic one. Dahl, (1985: 91) observes that 'the label durative for PROG in the literature is misleading'. This is because it emphasises the duration of an event rather than the dynamicity of it. In this study, we demonstrate that the recognised use of the progressive in the literature is based on the context and meaning of the clause as opposed to the structure.

3.11.1 The Progressive - Generic

In example (22) below the progressive marker *nà* indicates its canonical occurrence in the clause. It occurs with a low tone and precedes the verb and its complement. Emenanjo, (1978:194) calls this the Progressive-Normal. In clauses where it occurs, the reading is that the agent is at the time of the speech act carrying out or undergoing the event expressed by the verb. This event is dynamic with no conceptual margin.

22.

a. Ó nà-á-yà óyà
3s PROG-AGR-sick sickness
'He/she is sick'

b. Ó nà- à-jó ńjo
3s PROG-AGR-V badness
'He/she is stingy'

c. Ó nà- è-ghú ányạ̊oḳū
3s PROG-AGR-V jealous
'He/she is jealous'

d. Ó nà-á-sà ụ̀sà
3s PROG-AGR-V greed
'He/she is greedy'

e. Ó nà-á-gḥò ágḥùgḥò
3s PROG-AGR-fall deceit
'He/she is being deceitful'.

In (22a) the verb *yà* has its complement as the *óyà*. This co-occurrence of the verb and its complement can be observed in examples (22b-e). In this work, we classify the examples in (22) above as the Progressive-Generic because the progressive marker encodes its common meaning in the language and in the literature.

3.11.2 The Progressive - Habitual

In example (23) below, the complement of the verb does not reflect in the clause and this affects the meaning of the clause. The change in meaning is derived from the context of usage. The examples in (23) below are used in contexts where the speaker is reporting about a particular habit or characteristic feature of the agent. Therefore, the absence of the nominal complement of the verb indicates that the event expressed by the verb is peculiar to the agent of the clause. Example (23) can be observed in contradistinction to (22) above.

23.

a. Ó nà-á-yà
   3s PROG-AGR-sick
   'He/she is always sick'

b. Ó nà-à-jó
   3s PROG-AGR-V
   'He/she is a bad person'

c. Ó nà-è-ghú
   3s PROG-AGR-V
   'He/she is jealous as a habit'

d. Ó nà-á-sà
   3s PROG-AGR-greed
   'He/she exhibits greed as a habit'

e. Ó nà-á-gḥò
   3s PROG-AGR-deceive
   'He/she is a deceitful person'

In this work, we classify the examples in (23) above as the Progressive-Habitual because the progressive marker specifically determines a particular attribute of the agent. Note that the low tone on the nà marker is consistent in (22) and (23) above.

3.11.3 Progressive - Emphatic

However, when the tonal pattern of the progressive-habitual changes to a high tone, *ná,* it also brings a change based on the context of usage. This high tone on the progressive marker signifies that at the time of the speech act the

speaker is laying emphasis on this particular habit of the agent. This is illustrated in example, (24) below.

24.

a. Ò ná-á-yà
3s PROG-AGR-sick
'He/she is really sick'

b. Ò ná-á-jò
3s PROG-AGR-V
'He/she keeps being bad'

c. Ò ná-è-ghú
3s PROG-AGR-V
'He/she keeps being jealous'

d. Ò ná-á-sà
3s PROG-AGR-V
'He/she keeps being greedy'

e. Ò ná-á-gẹ̀hò
3s PROG-AGR-V
'He/she keeps being deceitful'

The progressive-emphatic marker can co-occur with the *ká* morpheme that functions as an emphatic marker in the language. This co-occurrence is a distinguishing feature of the progressive-emphatic because the *ká* morpheme cannot co-occur with the progressive-general or the progressive-habitual forms *nà*. This is illustrated in examples (25) and (26) below.

25.

a. *Ó nà-á-yà ká
3s PROG-AGR-sick
'He/she is always sick'

b. * Ó nà-à-jó ká
3s PROG-AGR-V
'He/she is a bad person

c. * Ó nà-è-ghú ká
3s PROG-AGR-V
'He/she is jealous as a habit'

d. *Ó nà-á-sà ká
3s PROG-AGR-greed
'He/she exhibits greed as a habit'

e. *Ó nà-á-gḥò ká
3s PROG-AGR-deceive
'He/she is a deceitful person'

The clauses in (25a-e) are ungrammatical because of the co-occurrence of *nà* the progressive- habitual marker with the ká emphatic marker. This ungrammaticality is because of the low tone on the progressive-marker. The examples in (26) below serve as counter-examples because they are grammatical. Their grammaticality is based on the high tone on the progressive marker *ná.*

26.
a. Ò ná-á-yà ká
3s PROG-AGR-sick
'He/she keeps falling sick'

b. Ò ná-à-jó ká
3s PROG-AGR-V
'He/she keeps being bad'

c. Ò ná-è-ghú ká
3s PROG-AGR-V
'He/she keeps being jealous'

d. Ò ná-á-sà ká
3s PROG-AGR-V
'He/she keeps being greedy'

e. Ò ná-á-gḥò ká
3s PROG-AGR-V
'He/she keeps being deceitful'

Our analysis thus, will classify Emenanjo, (1978:1985) and Uwalaka, (1996:1997) examples as falling under the progressive-generic. Since the three sub-classes of the progressive encode dynamic events, we conclude that the progressive marker in Igbo is only relevant for dynamicity and not durativity. Durativity is included in the *aktionsart* of the verb.

3.12 Causative Verbs in Igbo

Following our claim in Section 1.3.3 that Igbo verbs can be classified into verb roots and verb stems instead of simple, compound and complex verbs, we investigate a number of verb stems with causative readings. These verbs

include the verb roots with an attached suffix. The suffix is also another verb root but its attachment makes the semantics of the derived verb to have the meaning 'make do' which can be paraphrased by the verb *mé* 'do'. These verbs stems have been identified as causative verbs in our data. All the causative verbs in our data obligatorily take two arguments. This distinguishes them from the verbs in Section 3.0 which do not take two arguments as an obligation. In the following sub-sections we discuss the syntactic and semantic tests to determine the causative counterparts of the verbs discussed in Sections 3.0-3.8 above.

3.12.1 Causative State Verbs

The causative state verbs in our data are not different from the state verbs in Section 3.1. The causative reading of the state verbs is observed in the constructions that Uwalaka, (1988:43) calls 'subject-object switching' and Emenanjo, (2005) calls Ergative Complement verbs. Here when the complement of the verb is in the subject position of the clause, the verb takes a causative reading. This is observed in the examples in (27) below. Note that the sentences in (23) differ from those in (2) by structure. While the examples in (2) have the nominal element as the subject of the clause, the sentences in (23) have the complements of the verb as the subject of the sentence. The examples in (1) are repeated in (27) below.

27.
a. Ípú ára 'to run mad'
b. Íku ǹgwóró 'to get lame'
c. Ídà ìbèrìbè 'to get daft'

3.12.2 Constructions with Causative State Verbs

28.
a. Árá pụ̀-rụ̀ ókónkwó
Madness go out-IND Okonkwo
'Okonkwo has been made mad by madness'

b. Árá mè-rè ókónkwo
Madness do-IND Okonkwo
'Okonkwo has been made mad by madness'

c. [**do′** (árá, θ)] CAUSE **mad′** (Okonkwo)]

d. Ǹgwǫ́rǫ́ kụ̀-rụ̀ nwágbǫ́ghǫ́ áhù
Lameness hit-IND young lady DEM
'That young lady has been made to be lame by lameness'

e. Ǹgwǫ́rǫ́ mè-rè nwa□gbǫ́ghǫ́ áhù
Lameness do-IND young lady DEM
'That young lady has been made to be lame by lameness'

g. [**do′** (ǹgwǫ́rǫ́, θ)] CAUSE **lame′** (nwágbǫ́ghǫ́)

h. Ìbèrìbè dà-rà nwóke, áhu
Daftness fall-IND man DEM
'That man has been made daft by daftness'

i. Ìbèrìbè mè-rè nwóke áhù
Daftness do-IND man DEM
'That man has been made daft by daftness

i. [**do′** (ìbèrìbè, θ)] CAUSE **daft′** (nwóke áhù)

The lexical decomposition of (28a) is shown in (28c). The reading of the construction when translated, roughly, means that madness has caused Okonkwo to be mad. A look at the lexical decomposition of the sentences in (28d and g) as shown in (28f and i) respectively, will have similar readings to (28a). The sentences in (28b, e and h) are paraphrases of (28a, d and g) respectively. Our claim in this section is that the class of verbs identified as 'subject-object switching' verbs by Uwalaka, (1988) undergoes state-causative alternation with no morphological change to the verbs. We are able to come to this conclusion because of the framework we are using for this analysis. The lexical decomposition of the verbs illustrated in (28c, f and i) shows that the first argument of the verb has agent-like properties while the second argument has patient-like features. In other words, the first argument of the verb instigates the action depicted by the verb. This is a more straightforward account of this phenomenon because it detracts from making the nominal element the sole determiner of the subject position. The fact that the nominal element is the determiner of the subject position within Case Grammar theory motivates Uwalaka (1988:52) to conclude that there is 'no preferred subject choice' for this class of verbs. Our opinion is that Uwalaka's assertion is a

violation of the Case Grammar theory, which states that '…whenever there is an Agent in a sentence, that Agent must appear in the subject position…' Nilsen, (1973:132 cited from Uwalaka, 1988:51). In the constructions shown in (28a, d and g) the agent appears in the subject position and this is supported by the lexical decomposition of the verb shown in (28c, f and i). The straightforward account of the phenomenon of subject-object switching as a case of state-causative alternation within the RRG theory is more elegant and provides more evidence to show that the RRG theory makes the structure of Igbo to be understood in relation to its semantic and communicative functions.

Moreover, RRG argues that grammatical relations like subject and direct object are not universal and fundamentally adequate for all grammatical theories. Van Valin (2005, Chapter 4) introduces the notion of 'privileged syntactic argument' [PSA]. This notion addresses the fact that each syntactic construction has a specific subject which is determined by a selection hierarchy derived from the actor-undergoer hierarcy in Section 2.8.1 and illustrated in Figure 2.1. We briefly discuss the concept of the Privileged Syntactic Argument and how it is adequate for explaining the phenomenon of 'subject-object switching' in Igbo verbs.

3.13 The Privileged Syntactic Argument and Grammatical Relations in Igbo

Van Valin (2005) asserts that there is nothing in RRG corresponding to direct or oblique core arguments. Languages have selection hierarchies for determining the preferred arguments of a verb. The term for this hierarchy is the Privileged syntactic argument hierarchy and it is illustrated in Figure 3.1 below.

29. Privileged syntactic argument hierarchy:

Arg of DO>1st arg of **do´**>1st arg of pred´ (x, y) 2nd arg of **pred´** (x,y) >**pred´** (x)

30. Privileged Syntactic Argument Selection Principles

a. Accusative construction: Highest ranking direct core argument in terms of (29)-default

b. Ergative constructions: Lowest ranking direct core argument in terms of (29)-default

c. Restrictions on PSA in terms of macrorole status:

i. Languages in which only macrorole arguements can be PSA: German, Italian, Dyirbal, Japanese, Jakaltek, Sama,...

ii. Languages in which non-macrorole direct core arguments can be PSA: Icelandic, Georgian, Japanese, Korean, Kinyarwanda

(Van Valin, 2005: 100)

The PSA selection hierarchy in (29) above is the actor part of the actor-undergoer hierarchy. For Igbo, as explained in Section, 2.8.1, example, (29) captures the fact that for the verb the PSA selects the actor. This is because the highest ranking argument in an Igbo Logical Structure is the leftmost argument. This is the default choice for Igbo as explained in Section, 2.8.1.

Following the PSA hierarchy in (29) we can account for the Logical Structure of the clauses in (28a-i). The first argument of **do´** in each of the clauses indicates the privileged syntactic arguments. So for (28a) it is *árá*, for (28d) it *is ǹgwọ́rọ́* and for (28h) it is *ìbèrìbè*.

PSA explains this fact by positing the context of usage. The difference between sentences (1) and (28) is in pragmatic usage. While the sentences in (1) follow the invariable constructions of Igbo clauses, the sentences in (28) exist to emphasise the topical argument in the context of use. This is termed the 'pragmatically-influenced PSAs'. This means that in the context where clauses such as (28) occur, the speakers want to emphasise the PSAs in (28) as the primary focus of the discussion.

The PSA analysis as we have just shown has improved the understanding of the phenomenon of 'subject-object switching' from a purely syntactic analysis to one that is pragmatically based.

3.14 Causative Attributive State Verbs

Causative attributive state verbs consists of verbs stems. Recall that in our classification a verb stem is made up of two verb roots. For causative

attributive state there is suffixation to the verb root by another verb root to derive a new verb altogether. These verbs attribute a quality to their complements. The examples in (30) below are causative attributive state verbs.

30.

a.	imikpọ	'to dry up'
b.	imapu	'to break open'
c.	ibufe	'to carry to'

The verbs in (30a-c) are in the infinitive form. The infinitive morpheme is *i* . The root of the verb in (24a) is *mí* 'suck' while the suffix is another root *kpọ* 'dry'. A new verb *mikpọ* 'to dry up' is derived from the suffixation. This verb has a causative reading, which means 'to make to dry'. The verb in (30b) is derived from the two roots *má* 'throw' and *pụ́* 'open' with the second root as the suffix. The verb *imapu* with the causative reading 'to make open' is derived from this suffixation. The verb in (30c) is derived from the suffixation of *fe* 'fly' to *bú* 'carry' to derive *búfe* with the causative reading 'to make to be infected'. The constructions in which these verbs occur are illustrated in (31) below.

31.

a. Ọ̀ mì̩-kpọ̀-rọ̀ ázù à
3s suck-dry-IND fish DEM
'S/he made the fish dry'

b. Ọ̀ mè-rè ázù à kpọ-ọ
S/he do-IND fish DEM dry-IMP
'S/he made the fish dry'

b. [**do′** (3s), θ) CAUSE **dry′** (ázù)

d. Òkúté mà-pụ̀-rụ̀ yá ísí
Stone throw-open-IND 3s (obj) head
'A thrown stone caused his head to break open'

e. Òkúté mè-rè ísí yá pú-ó
Stone do-IND head 3s open-IMP
'A thrown stone caused his head to break open'

f. [**do′** (òkúté, θ) CAUSE **broken′** (ísí)

g. Ngọ́zi bú-fè-rè dí yá óyá
Ngozi carry-fly-IND husband 3s (obj) sickness
'Ngozi infected her husband with a disease'

h. Ngọ́zi mè-rè dí yá bú-ó óyà
Ngozi do-IND husband 3s carry-IMP disease
'Ngozi infected her husband with a disease'

j. [**do′** (Ngozi, θ) CAUSE **infected′** (óyà, dí)]

The sentences in (31a, d and g) have their paraphrases in (31b, e and h) respectively. The lexical decomposition of (31a, d and g) is illustrated with examples (31c, f and i) respectively. We observe argument alternation between the sentences in (31a, d and g) and their paraphrases. In (31a, d and g) the second argument of the clause follows the verb but in the paraphrases (31b, e and h) the second argument follows the verb *me* 'do' and the suffix of the verb stem in (31a, d and g) alternates and follows the second argument of the clause appearing in the imperative form. We call this the *me/verb-suffix* alternation. This alternation is specific feature of causative attributive state verbs. In Section 3.9.4 below we discuss the causative activity verbs which are the causative counterparts of activity verbs.

3.14.1 Causative Activity Verbs

The causative activity verbs in our data fall into the class of verbs classified as Bound Complement Verbs (cf Section 1.3.3). They include the verbs in (32) below.

32.

a. íghú ányáọ́kụ́ 'to be jealous'
b. ísí àgụ̀gọ̀ 'to doubt'
c. íg̣bá ányáózí 'to avoid doing domestic duties'

In the sentences where these verbs occur the progressive marker *nà* obligatorily precedes the verb (cf Section 3.5.1). However, the causative counterparts to the constructions in (examples 33 below) have two arguments intead of one as in the examples for activity verbs in Section 3.5.1. The action of the first argument affects the second argument in the sense of causing a change in the perception of the second argument. The examples in (33a, d and

g) are constructions depicting causative activity verbs while their paraphrases with the verb *mè* are shown in (33b, e and h), respectively. The lexical decompositions of the verbs are shown in (33c, f and i).

33.

a. Ó nà- è-ghú yá ányáọ́kụ
3s (subj) PROG AGR-burn 3s (obj) hot eye
'S/he is jealous of him'

b. Ó mè-rè ó nà- e-ghú yá ányaọkụ
S/he do-IND 3s PROG burn 3s hot eye
'S/he is making him jealous'

c. [**do′** (3s (subj), θ) CAUSE [**feel′** (3s (obj)[**ányáọ́kụ′**])]

d. Ọ nà- è-sí ókwúchúkwu àgụ̀gọ̀
3s AUX- AGR-cook-APPL word God doubt
'S/he is making doubtful the word of God'

e. Ọ mè-rè ó nà- è-sí ókwúchukwú àgụ̀gọ̀
S/he do-IND 3s AUX AGR-cook word God doubt
'S/he is making him/her doubt the word of God'

f. [**do′** (3s, θ)] CAUSE [**cook′** (ókwúchúkwú) [**doubt′**])]

g. Ngọ́zí nà- á-gbà-rá nné yá ányáózi
Ngozi PROG- AGR-swell-APPL mother 3s (obj) eye work
'Ngozi is avoiding doing domestic duties for her mother'

h. Nné yá mè-rè Ngọ́zi nà- á-gbà-rà yá ányáózí
Mother 3s do-IND Ngozi PROG-AGR-swell-APPL 3s eye work
'Ngozi's mum made her to avoid doing domestic duties for her'

i. **[do′** (Ngozi, θ)] CAUSE [**avoid′** (domestic duties, [**mother′**])]

In example (33a) the subject *ó* instigates the action of jealousy. Recall that in Section 3.5.1 we observed that in Igbo, jealousy is conceived as a burning feeling in the eye of he who is jealous. This burning gaze is directed at the second argument of the clause, *yá* (3s (obj)) and to the Igbo, the second argument is expected to feel bad about the fire of jealousy emanating from the eyes of the first argument. This is why the verb is a causative verb and a look at the paraphrase in (33b) shows only an alternation in which the clause with the causative verb is a complement of another clause with the verb *mé*. The

possibilitiy of the causative activity verbs construction to be a complement of a clause with the *mé* verb supports the claim that it is a causative verb. In (33d) the first argument instigates the causative action of doubting, which affects the second argument *ókwúchúkwú* 'word of God' in the sense of being doubted. In (33e) the causative activity construction is a complement of a clause with the *mé* verb and just like the sentence in (33b) it is a supporting claim of the causative feature of the verb. For (33g) the action of the first argument *Ngozi* causes the second argument *nne ya* to lose the right of being assisted in domestic duties. The sentence in (33h) illustrates the alternation where the clause in (33g) is a complement of the *mé* clause in (33h). This supports the claim that it is a causative activity verb. In other words, the sentences in example (33) undergo the mè/complement alternation.

3.14.2 Causative Achievement Verbs

The causative verbs in our data include the verbs in (28) below.

34.

a. ígwọ́jú 'to make condiment in abundance'
b. íwọ́pụ́ 'to slough off'
c. ikpádó 'to have an agreeable discussion'

The derived verb in (34a) consists of the verb root *gwó* 'mix' and the stem *jú* 'fill'. The derived verb in (34b) is made up of the root *wọ* 'change' and the stem *pụ* 'exit' while the derived verb in (34c) consists of the root *kpá* 'discuss' and the stem *do* 'stick'. All the derived verbs have causative reading and in the sentences in example (35) below we illustrate their occurrence.

35.

a. Ngọ́zi gwọ̀-jù-rù ǹgwọ̀ngwọ̀
Ngozi mix-full-IND condiments
'Ngozi made ngwongwo to be in abundance'

b. Ngozi mè-jù-rù ǹgwọ̀ngwọ̀
Ngozi do-fill-IND condiments
'Ngozi made ngwongwo to be in abundance'

c. [**do′** (Ngozi, θ)] CAUSE [INGR **mixed′** (ngwongwo)]

d. Àgwó áhù wọ́-pụ̀-rụ̀ àwọ̀rọ̀
Snake DEM change-exit-IND sloughed skin (of snake)
'That snake sloughed off its skin'

e. Àgwó áhù mè-pụ̀-rụ̀ àwọ̀rọ̀
Snake DEM do-exit-IND sloughed skin (of snake)
'That snake sloughed off its skin'

f. [**do′** (snake, θ)] CAUSE [INGR **sloughed′** (skin)]

g. Há kpà-dò-rò ihe áhù
3PL discuss-stick-IND thing DEM
'They had an agreeable discussion on it'

h. Há mè-rè mkpádó
3pl do-IND discussion
'They had an agreeable discussion'

h. [**do′** (3pl, θ)] CAUSE [INGR **agreed′** (discussion)]

The examples in (35a, d and g) include the causative verbs in (34a, b and c). Their paraphrases with the verb *mè* are found in (35b, e and h). In (35a) the sentence translates to mean that Ngọzi prepared the local delicacy ngwongwo and caused it to be in abundance. This is what the lexical decomposition of the verb in (35c) encodes. Note that there is no argument alternation in the paraphrase in (35b) instead the verb *mè* replaces the verb *gwó* as the root verb. This seems to be possible because the derived verb *gwoju* is a causative one, albeit, an achievement. This same morphological operation is observed between the sentence in (35d and e). The sentence in (35d) translates to mean that the snake caused its skin to slough off. In (35e) the verb *mè* replaces the verb *wọ́* as the root verb with no argument alternation. For examples (35g) the verb stem *kpàdó* is replaced completely by the verb *mè* in (35h). This is unlike the morphological operations in (35d and e) where *mè* only replaces the verb root. This seems to take place because of the second argument of (35e) which is a gerund is derived from the verb *kpá*. This pattern is observed in the next sub-section and we shall comment more on this kind of morphological operation. Suffice it to say that the causative constructions in 3.9.5 pass the *mè* co-occurrence test.

3.14.3 Causative Accomplishment

The causative accomplishment verbs in (36) below have the same features as the ones earlier described. In other words, they are verb stems. They are in the infinitive forms.

36.

a. ígbọ́fụ̀ ‘to wastefully ooze froth’
b. ídàchà ‘to fall completely’
c. ígbázèchá ‘to melt completely’

The verb *gbọ́fụ́* (36a) is derived from the root *gbọ* ‘vomit’ and *fụ* ‘lose’ and the verb *dàchá* is derived from *dà* ‘fall’ and *chá* an enclitic with the meaning ‘finish’ while the verb *gbázèchá* is derived from the root *gbázè* and the enclitic *chá* ‘finish’. The sentence in (36) below follow the same pattern as the of analysis in this work. Examples (36a, d and g) include sentences with causative accomplishment verbs while examples (36b, e and h) are the respective paraphrases. The lexical decomposition of the verbs in the constructions is shown in examples (37c, and f and i).

37.

a. Mmányá áhù gbọ́-fụ̀-rụ̀ ụ̀fụ́fụ́
Wine DEM V-lose-IND froth
‘That wine frothed wastefully’

b. Mmánya áhù mè-rè mgbọ́fụ́ ụfụ́fụ́
Wine DEM do-IND oozing froth
‘That wine frothed wastefully’

c. [**do′** (wine, θ)] CAUSE [BECOME **frothed′** (wine)

d. Òbí dà-chà-rà m̀bá
Obi fall-finish-IND supine
‘Obi made a complete backslide’

e. Òbí mè-rè odida m̀bá
Obi do-IND falling supine
‘Obi made a complete backslide’

f. [**do′** (obi, θ)] CAUSE [BECOME **backslidded′** (obi)

g. Ọ́kụ́ áhù gbázè-chà-rà mmánú áhù
Fire DEM melt-finish-IND oil DEM
'That fire made that oil to melt down completely'

h. Ókụ́ áhù mè-rè mgbázè mmánú áhù
Fire DEM do-IND melting oil that
'That fire made that oil to melt down completely'

i. [**do′** (fire, θ)] CAUSE [BECOME **melted′** (oil)

The morphological operations taking place in the sentences in (37) will be described with (37a and b). The example (37b) is a paraphrase of the sentence in (37a). In (31b) the verb *mé takes* on a new argument *ḿgbọ́fụ̀* in the object position. This argument is a gerund that is derived from the verb *gbọ́fụ̀*. In other words, there is an argument alternation in which the gerund precedes the complement of the verb in the construction of the paraphrase in (31b). The pattern of alternation between (31a and b) can similarly be observed between (31d and e) and (31g and h). This pattern is also observed for causative semelfactive verbs in Section 3.9.8

3.14.4 Causative Active Accomplishment

Causative active accomplishment verbs are illustrated with example (38) below. These verbs are verb stems.

38.
a. ígụ́gụ́chá 'to console completely'
b. íséjù 'to smoke and fill'
c. íyisa 'to lay and spread'

The verb root of (38a) is *gụ́gụ́* while the stem is the clitic *chá* which gives the derived verb a causative reading. In (38b) the verb root is *sé* 'draw' and the stem is *jú* 'fill' and in (38c) the root is *yí* 'lay' while the stem is *sá* 'spread'. The verbs occur in the constructions in (38) below.

38.
a. Ózíómá gụ̀gụ̀-chà-rà nwá yá
Ozioma cuddle-finish-IND child 3s (obj)
'Ozioma made her child to be well consoled'

b. Ózíómá mè-rè ọgụ́gụ́ nwá yá
Ozioma do-IND cuddling chid 3s (obj)
'Ozioma made her child to be well consoled'

c. [**do′** (ozioma, θ)] CAUSE [**do′** (nwá, **cuddled′** (ozioma, nwá)])
& INGR **consoled′** (nwá)

e. Ézè nwú-jù-rù mmányá
Ézè drink-full-IND wine
'Eze caused wine to fill him up'

e. Ézè mè-rè nnwújú mmányá
Eze do-IND drinking to fill wine
'Eze caused wine to fill him up'

f. [**do′** (ézè, θ)] CAUSE [**do′** (mmányá, **smoked′** (ézè, mmányá)
& INGR **littered′** (mmányá)

g. Ọ́kụ́kọ̀ yí-sà-rà àkwá
Chicken lay-spread-IND egg
'The chicken caused eggs to be laid'

h. Ọ́kụ́kò mè-rè óyíyí àkwá
Chicken do-IND laying egg
'The chicken caused eggs to be laid'

i. [**do′** (chicken, θ)] CAUSE [do′ (eggs, **laid′** (chicken, eggs) &
INGR **scattered′** (eggs)

The morphological operation and argument alternation in (38) follows the pattern described for (36a and b) above. Note that the second argument in (38b) is a gerund that is derived from the root of the verb in (38a) and this gerund precedes the complement of the verb. In the other examples in (38d and e) and (38g and h) we also notice that the gerunds are derived from the causative accomplishment verbs in the constructions and their argument alternation is similar to the example in (38).

3.14.5 Causative Semelfactive

The causative semelfactive verbs in (34) below are derived verbs just like the examples we have been discussing in the other sections.

39.

a.	ísáchá n'ǫ́nṵ́	'to make a complete confession'
b.	ídṵ́mì n'ùbú	'to make a complete shrug'
c.	inǫ́chá nà ńsó	'to be made to stay in isolation (due to menstruation)

The verb in (39a) *sáchá* comprises of the root *sá* 'spread' and the clitic *chá*. Again, the verb in (3b) consists of the root *dṵ́* 'poke' and the stem *mì* 'sink' and the verb in (39c) has the root as *nọ* 'stay' and the stem as the clitic *chá* which gives it a causative reading. These verbs all take a prepositional complement which serves as the argument of the verbs. Our pattern of analysis remains the same and we can see from the examples in (40) that the causative constructions have their paraphrases with the *mè* verb. The morphological operations and argument alternations are not different from the ones observed for causative accomplishment verbs in Section 3.9.6 and causative active accomplishment in Section 3.9.7.

40.

a. Ndí óhí áhù sà-chà-rà n'ónu
DEM thieves DEM V-finish-IND
'Those thieves made confession to the theft'

b. Ndí óhí áhù mè-rè nsáǹǫ́nṵ́
DEM thieves DEM do-IND confessing
'Those thieves made a confession to the theft'

c. [**do′** (thieves, θ)] CAUSE [SEML **do′** (mouth, [**confess′** (mouth)])]

d. Ngǫ́zí dṵ̀-mì-rì n'ùbú
Ngozi poke-sink-IND in the shoulder
'Ngozi made a complete shrug'

e. Ngǫ́zi mè-rè ndúmí n'ùbú
Ngozi do-IND poking in shoulder
'Ngozi made a complete shrug'

f. [**do′** (Ngozi, θ)] CAUSE [SEML **do′** (shoulder [**raise-sink′** (shoulder)])]

g. Nwányì áhù nǫ̀-chà-rà nà ńsó
Woman DEM stay-finish-IND in repulsion
'That woman was made to complete her menstruation'

h. Nwányì áhù mè-rè ọ́nọ̀dù nà ńsó
Woman DEM do-IND staying in repulsion
'That woman was made to complete her menstruation'

[**do′** (woman, θ) CAUSE [SEML **do′** (isolation, [**stay′** (woman, isolation)])]

In this section we have observed that all the causative verbs retain the *aktionsart* properties of the root verbs but additionally encode the causative reading. Again, all the causative verbs pass the causative test with some modification. The argument alternations observed while carrying out the causative tests are quite interesting. The identification of this alternation is a contribution to the study of Igbo syntax because the study of argument alternation in Igbo syntax is rare. In fact, we suspect that Uwalaka, (1988) study of 'subject-object switching' is the only study of argument alternation in the language.

3.15 Summary

In this chapter, six *aktionsart* classes for Igbo verbs are established. Following the classification, where five out of the six aktionsart verb classes are telic verbs, it is concluded that perfectivity is the unmarked member sin the perfectivity-imperfectivity opposition. The straightforward account of the phenomenon of subject-object switching as a case of state-causative alternation within the RRG theory is more elegant and provides more evidence to show that the RRG theory makes the structure of Igbo to be understood in relation to its semantic and communicative functions. Causative verbs retain the *aktionsart* properties of the root verbs but additionally encode the causative reading.

CHAPTER FOUR

SEMANTIC CLASSES OF IGBO VERBS

4.0 Introduction

The syntactic tests developed in Sections 3.1-3.7 underlie the assumption that the syntactic structure of a verb is semantically determined. These tests are useful techniques for determining verb meaning in Igbo. The unique characteristic of verb classes in relation to lexical decomposition is derived from meaning. In other words, the members of each class of verbs share the same Logical Structure, which is a result of their decomposition. Therefore, the members of each class are semantically coherent. Each member of a verb class can be examined in isolation to determine its constituent meaning. These meaning constituents can be related to other members of the same class to see what they share in common in terms of meaning.

This methodology for determining verb meaning is crucial because native speaker intuition alone is not sufficient for delineating the meaning of verbs. The delineation introduced by lexical decomposition cum logical structure is more intuitively satisfying for organizing Igbo verbs into classes. This is so because this method introduces unexpected similarities and differences between verbs. This will be illustrated with verb classes studied in this chapter. These verb classes are: the **verbs of cooking**, **verbs of communication**, **verbs with body part complements**and **verbs of emotion**. The criterion for choosing these verb classes is that they are what are obtainable in our library-based data. In other words, it is not an exhaustive list but a pilot study of verb classes employing the framework and methodology of our thesis. Here we illustrate that verb classes that are cited as large and important classes within the Igbo verb inventory are not as homogenous as they seem. A study of these classes shows that they have various subclasses determined by their syntactic characteristics. This methodology examines the subcategorisation frame of a verb and the individual properties that code the extended meaning of the verb. This extended meaning when related to other

verbs in the same class will reflect the entire set of meaning components shared by the class members. This is the underlying research methodology in this chapter.

4.1 Igbo Verbs of Cooking

In this study, verbs of cooking have been identified as the semantic class of verbs which inherently encode the activities of meal preparation. Our data identifies three semantic sub-groups of these verbs. They are: ***verbs of heating***, ***verbs of mixing*** and ***verbs of parboiling***.

The **verbs of heating** essentially encode the direct application of heat. The heat from the fireplace is directed on to the food item. Sometimes this involves dipping the item into the fire and other times it involves keeping it a few centimeters away from the fire but with the heat rays directly piercing the food item.

The **verbs of mixing** are those verbs which encode the information that the meal being prepared involves a variety of ingredients.

Verbs of parboiling encode the meaning that the heat applied to the food item is controlled. This means that when the preparation of the meal is going on, there is utmost care to see to it that the heat applied is kept within a certain range of temperature in order to get the desired effect on the food item.

The co-occurrence restriction of verbs of cooking makes the example in (1) below ungrammatical. In the example below, the verb *dà* 'heat' subcategorises for *ázù* 'fish'. This construction is bad based on the author's competence in the language. Subsequently we shall see that the verb *dà* subcategorises for all food items of plant origin and also for *miri* 'water'. This is why it cannot collocate with the object NPs, *ázù* 'fish'. It is a construction like (1) that has motivated the investigation of the verbs in this section.

(1) * Ngọ́zí dà-rà ázù
Ngozi heat-IND fish

‘Ngozi cooked the fish’

4.1.1 The Verb of Cooking ‘ísí’

The verb *ísí* ‘to cook’ is a generic verb that can collocate with all food items in the language. In other words, the verb *ísí* can take as arguments any nominal that, in an integral manner, implies a food item. Let us demonstrate with the examples in (1) how this verb operates in Igbo sentences.

2

a. Adá sì-ri jí
Ada cook-TNS yam
‘Ada cooked some yam’

b. Ezè si-rì ánú
Eze cook-TNS meat
‘Eze cooked some meat’

c. Ngọzi sì-rì ókà
Ngozi cook-TNS maize
‘Ngozi cooked some maize’

In examples (2a-c) the verb *ísí* ‘to cook’ co-occurs with three different arguments. In (1.1a) the verb co-occurs with the NP *jí* ‘yam’. In (2b) it occurs with *ánú́* ‘meat’ and in (2c) it occurs with *ókà* ‘maize’. The sentences all have the same semantic interpretation of the cooking of a food item but the verb does not distinguish the method with which these food items become meals. The native Igbo speaker will only have an indistinct idea of what kind of meal is being prepared when s/he hears the sentences in (2a-c). For example, in example (2a) the speaker will have the idea that the yam is being prepared for a meal but there are different ways of preparing yam meals in Igbo culture which the verb *ísí* does not encode. The same analysis can be applied to (2b and 2c) because there are different ways of preparing meat and maize meals in Igbo culture.

However, in Igbo there are verbs that inherently encode the primitive concepts of the method of preparation of these meals. This is the focus of this paper.

In the subsequent sections we shall show examples of these verbs and how they occur in Igbo sentences.

4.1.2 Verbs of Heating

The Igbo verbs which function syntactically and semantically as verbs of heating include the verbs in (3) below.

3.

a. ídá ‘to heat’

b. ị́mị́ ‘to roast (meat or fish)’

c. íhú ‘to roast (crops)’

d. íñá ‘to grill’

e. íghé ‘to fry’

These verbs have different shades of meaning when used in sentences. The sentences in examples (4a, c, e, g, i, and k) demonstrate how these verbs operate in Igbo sentences, while (4b, d, f, h, j, and l) represent the lexical representation of these verbs.

4.

a. Ngọ́zí dà-rà ófé/*ázù
Ngozi heat-IND soup
‘Ngozi brought the soup to a boil’

b. BECOME **heated′** (ófé)

c. Òkonkwo mị̀-rị̀ ázù/* ófé/
Okonkwo dry-TNS fish
Okonkwo smoked the fish

d. BECOME **dry′** (ázù)

e. Íféómá hù-rù édè/jí/*ánú/*ázù
Ifeoma roast-TNS cocoyam
‘Ifeoma roasted the cocoyam’

e′. BECOME **roasted′** (édè)

g. Ókóró ñà-rà ọ́kụ́
Okoro heat-TNS fire
Okoro warmed himself

h. BECOME **warm′** (Ókóró)

i. Ókóró ñà-rà ọ́kà
Okoro heat-TNS maize
Okoro grilled the maize

j. BECOME **grilled′** (ókà)

k. Chinyéré ghè-rè azù
Chinyere fry-TNS fish
'Chinyere fried the fish'

l. BECOME **fried′** (azu)

Our data indicates that verbs of heating subcategorize for countable nominal complements. In (4a) *ófé* 'soup' is interpreted to mean a pot of soup. For the sentence (4i), *ókà* 'maize' is interpreted to mean one cob of maize. The other NPs that are objects in (4c, e and k) have countable readings.

The verb *dá* 'heat' in (4a) sub-categorizes for all food items of plant origin and also for *miri* 'water'. This is why it cannot collocate with the nominal complement, *ázù* 'fish' or *ánu* 'meat' which are of animal origin. The direct object NP *ófé* 'soup' consists of liquid that include vegetables, meat and/or fish. The method of heating depicted by the verb *dá* is represented in (4b). This representation indicates that the NP changes from a state of coldness to boiling point. The boiled soup is edible. The change of state is not instantaneous. In this section, we categorize this verb as an accomplishment verb.

The verb *mị́* 'dry' in (4c) sub-categorizes for only the NPs *ánú* 'meat' and *ázù* 'fish'. This is why its co-occurrence with *ófé* is ungrammatical. The method of drying involves hanging the fish over a fireplace and allowing the heat waves and smoke to dehydrate it over a number of days. The verb is a result state verb bearing in mind that the nominal complement*ázù*changes from its raw form to a dehydrated form which is edible. This state is usually for its preservation. The lexical representation of the verb in (4d) shows that the verb

is an accomplishment verb. In this instance, it means that the change of state of the nominal complement is not immediate but gradual.

The verb in (4e) *hú* 'roast' can only collocate with nomnal complement of plant origin. Hence it co-occurs with *ókà* 'maize' and *jí* 'yam' but it cannot co-occur with nominal complements of animal origin, like *ánú* and *ázù* as shown in (4e). The method of heating involves placing the crops directly on top of the fire and allowing them to roast. The action of roasting takes some time to achieve. We classify the verb as an accomplishment verb since its action is not instantaneous. This is represented in the logical structure in (4f).

The verb *ñà* 'grill' in (4g) encodes a different meaning from the verb *ñà* 'grill' in (4i). In (4g) it is the subject of the verb that undergoes a change of state from coldness to warmth. In other words, the verb here falls into the class of inherent complement verbs (cf Section 1.3.2). While in (4i) it is the nominal complement that undergoes a change of state, from a raw food item to a cooked one and this classifies this verb as a Bound Complement Verb (cf Section 1.3.3). The verb *ñà ókù*'warm oneself' in (4g) can only co-occur with While the verb *ñá*in (4i) can only co-occur with object NPs of plant origin, for example it can co-occur with *ji* 'yam' and *édè* 'cocoyam' but not with *ázù*.For the verb in (4g) the subject NP is beside the fireplace until it experiences a change of state from coldness to warmth. This takes some time. In other words, the verb is an accomplishment verb as illustrated with the lexical representation in (4h). And for the verb in (4i) the heating of the nominal complement takes place over a grill and over a period of time. This verb is also classified as an accomplishment verb. The lexical representation is illustrated in (j). The verb *ghé* 'fry' in (4k) subcategorises for all food items of plant and animal origin. However, it does not subcategorise for *ófé* and *mírí* which are liquid items. The verb is an accomplishment verb as illustrated in (4l).

Our analyses show that verbs of heating fall into the class of accomplishment verbs following the work of Van Valin (2005) and Van Valin and La Polla (1997). This simply follows from the fact that Igbo meals are not fast foods.

4.1.3 Verbs of Mixing

The following verbs function as verbs of mixing in Igbo:

5.

a. ígwọ ‘to mix’
b. íse ‘to stir into a thick paste’
c. ìsú ‘to pound’
d. ísú ‘to pound’
e. ígbó ‘to make’

The examples in (5a, c, e, g, i and k) below illustrate the syntactic structure of these verbs while their lexical representation is given in examples (5b, d, f, h, j and l). The verbs in sentences (5a, c, e and g) are inherently active accomplishment verbs. There is a separate activity of heating which takes place before the mixing activity takes place. The verbs *ígwọ́*, *ise*, *ísụ́* and *ígbó* (5a, c, e and k, respectively) co-occur with nominal complements that hitherto undergo a heating process. On the other hand the verb *ísú* (5g) co-occur with object NPs that do not undergo a heating process before being mixed with other food items. The constructions in (5 a, c, e, g, i and k) illustrate the different activities involved when each of these verbs is used.

5.

a. Chínwé gwò-rò ísí éwú/àbàchà/*akpu/*édè
Chinwe mix-TNS head goat/abacha/cassava root/cocoyam
‘Chinwe prepared ísíéwú[3’]

b. **do′** (Chinwé, [**steam′** (Chinwe, isi ewu)]) & INGR **mixed′** (isi ewu)

c. Ónyínyé sè-rè nrí ọ́kà/*àkàmù/*ákpụ́/*jí
Onyinye draw-TNS food maize/pap/yam
‘Onyinye prepared maize flour meal’

d. do′ (Onyinye, [**steam′** (onyinye, ókà)]) & INGR **knead′** (ókà)

f. Òbi sụ̀-rụ̀ jí/édè/ákwụ́/ákpú/*ose/*egusi
Obi pound-TNS yam/cocoyam/oil palm/cassava
Obi prepared pounded yam meal

do′ (òbí, [**steam′** (òbí, jí)]) & INGR **pounded′** (jí)

g. Nneka sù-rù ọ́sè/ọ̀gbọ̀nọ̀/égúsí/*jí/*édè/*ákpụ́
Nneka pound-TNS pepper/ọgbọnọ (local condiment)
Nneka pounded some pepper

h. BECOME **pounded′** (ósè)

i. Ifeoma kpù-rù ègúsí/òkpéyé
Ifeoma mould-TNS melon seed/oil bean seed
Ifeoma prepared melon seed/oil bean

j. do′ (ifeoma, [**pound′** (ifeoma, ègúsí) & INGR **moulded′** (ègúsí)

k. Ezè gbò-rò àkàmù/garri/tea/*òkpéyé/* ákpṵ́/* nrí okà
Eze make-TNS akamu/garri/tea
Eze prepared pap/grated, cassava meal/tea

l. [**do′** (Ezè,θ)] CAUSE [INGR **cooked′** (gàrí)]

The verb *gwọ́* 'mix', in the context it is used in (5a) means that the raw meat, comprising the parts of a goat's head is steamed before being mixed with other condiments to produce the delicacy known as *ísíéwú.* This process is represented in (5b). The verb seems to invariably co-occur with nominal complements that appear as seeds or bits and pieces. It can co-occur with the object NPs *àbàchà,* (produced from cassava shavings), *jí* 'yam', *ụ́kpákà* 'oil bean seed', and *ụ́kwà* 'breadfruit.' When it co-occurs with the NP *ji*, the inherent meaning is that the boiled yam has been cut into several small pieces before being mixed with other condiments. But it cannot co-occur with *ákpṵ́* 'cassava root' and *édè* 'cocoyam', as shown with the asterisk in (5a).

In the same vein, the verb *sé* 'draw' in its context in (5c) means that some water is heated and, then, the maize flour is poured into it to form a hot paste. This paste is stirred to produce the maize meal. The lexical representation of this activity is illustrated in (5d). It seems the verb *sé* only co-occurs with the object NP *nrí ọ́kà* 'maize'. For example, it cannot co-occur with *àkàmù* 'pap', *ákpṵ́* 'cassava root' or *jí* 'yam' as shown with the asterisk in (5c).

The verb of mixing *sṵ́* 'pound' in the context of (5e) means that the object NP had been previously steamed before being pounded with a pestle in a mortar. This is the lexical representation of the verb illustrated in (5f). The verb encodes the idea that the object NP, when pounded and mixed with water, results in a substance with a smooth texture. In other words, pounded yam,

cocoyam and cassava are consistent and smooth to the touch, while pounded oil palm fruits results in a liquid with delicate texture.

The vowel of the verb *sụ* 'pound' in (5e), is produced with a 'expanded pharynx' while the vowel of the verb *su* 'pound' in (5g) is produced with an 'retracted pharynx'. This phonological difference has semantic implications. The verb in (5g) inherently means that the object NP is not mixed with water before pounding. Instead, the food items are put in a mortar and pounded until they turn into powdery substances, which are subsequently mixed with other food items. We classify the verb *su* as an accomplishment verb because the activity of pounding has a terminal point but it is not instantaneous. This verb cannot co-occur with the object NPs that are steamed before pounding. They only occur with object NPs that are in the raw state. For this reason, they cannot occur with the NPs *jí* 'yam', *ákpú* 'cassava' and *édè* 'cocoyam'. When pounded in the raw state, the NPs *jí, ákpú* and *édè*, will not result in the meal with the smooth and delicate texture. Note also that the verb *sụ́* in (5e) cannot subcategorize for *ósè* 'pepper' and *ọ̀gbọ̀nọ̀* 'a local condiment'. The lexical representation of the verb is shown in (5f).

In (5i) the verb *kpú* 'mould' subcategorizes for the nominal complement*ègúsí* 'melon seed' and *òkpéyè* 'oil bean seed'. The verb inherently means that the nominal complement have been heated and pounded before being moulded with the hands. In other words, the Igbo speaker will know that the object NP must be steamed before pounding, and, subsequently moulded with the hands. This is what the lexical representation in (5j) encodes. While moulding the object NP, it is mixed with cold water to get the desired texture. The verb subcategorizes for only object NPs which have been steamed and pounded before the activity of moulding begins. This is why it cannot co-occur with the nominal complement in (5a-d). These NPs have only been heated but yet to be pounded.

The verb *gbó* 'make' in (5k) has an activity reading with a termination point. It seems that this verb sub-categorises only for non-native food. For example, the nominal complement*àkàmù* 'pap', *gàrí* 'grated, dried and roasted cassava'

and *tea* in (5k) is of foreign origin. This makes their co-occurrence with *gbó*, grammatical. The process of cooking encoded in the verb *gbó* 'make' include mixing the food items with boiling water. For *àkàmù* 'pap', it involves mixing the raw pap paste (made from maize flour) with boiling water, while for *gàrí* , it involves mixing the grated, dried and roasted cassava with boiling water. The nominal complement *òkpéyé, ákpú* and *nrí ọ́kà*, which are native Igbo food items cannot co-occur with the verb. The lexical representation in (5l) shows that it is an active accomplishment verb.

Notice that the nominal complements of these verbs has uncountable reading. *Isiewu* in (5a) is interpreted to mean a goat's head that has been cut into several uncountable pieces while *àbàchà*, appears as several bits of shavings from cassava roots. *nrí ókà* in (5c) is maize flour which is obviously uncountable. *Jí, édè, ákwụ́* and *ákpụ́* in (5e) when co-occurring with the verb have the interpretation of being uncountable. They appear as several pieces instead of say, a single piece of yam or cocoyam. The objects NPs in (5g and i) have similar interpretations.

Four out of the five verbs of mixing in our data fall under the class of active accomplishment verbs. This is because they include the activity of steaming which brings about a change of state for the steamed food item. The verb *su* is an accomplishment verb because it does not include the steaming activity in its action. It only includes a change of state notion.

4.1.4 Verbs of Parboiling

The examples in (6) below from our data are verbs of parboiling.

6.

a.	ímáchú	'to parboil'
b.	íghú,	'to heat or boil'
c.	ímá mírí ọ́kụ́	'to throw hot water'
d.	ídá míri ọ́kú	'to burn with hot water'

These verbs have different syntactic and semantic representation. The examples in (7a, c,e and g) are syntactic representations of these verbs while their lexical representation is shown in (7b, d, f and h).

7.

a. Nnenna màchù-rù òsìkápá/*ákwụ́/*ákpú
Nnenna parboil-TNS rice/ oil palm seeds/cassava
'Nnenna parboiled the rice'

b. INGR **parboiled′** (òsìkápá)

c. Nneka ghù-rù ákwụ́/ákpụ́
Nneka steam-TNS oil palm seeds/cassava
Nneka parboiled the oil palm seeds

e. INGR **do′** (Nneka), [**steam′** (Nneka, ákwu)

e. Ngọzi mà-rà ụ́kwa míri ókù
Ngozi throw-IND breadfruit water hot
'Ngozi parboiled the breadfruit'

f. **do′** (Ngozi, [**throw**′ (Ngozi, hot water)]) & INGR **parboiled′** (úkwa)

g. Ada dà-rà ókà mírī ókù
Ada burn-IND corn water hot
'Ada parboiled the maize'

f. do′ (Ada, [**steam′** (Ada, corn)]) & INGR **parboiled′** (corn)

The verb *máchù* 'parboil' encodes the idea of steaming. It is the only verb in our data with a direct translation meaning 'to parboil'. It appears that this verb can only co-occur with the object NP, *òsìkápá* 'rice'. In the context of the sentence in (7a) it implies that the object NP, *òsìkápá* 'rice' is put in cold water and the water brought to a boil. This is the method of parboiling indicated by the verb. It is an achievement verb because the duration of the activity is very limited. This is what the lexical representation in (7b) illustrates.

The verb *ghú* in (7c) encodes the idea of steaming whenever it appears in any sentence. The interpretation of (7c) is that the object NP *ákwú* 'oil palm' and *ákpụ́* 'cassava' are placed in cold water and the water is heated until boiling point. This is how parboiling is achieved. The verb is an achievement verb as the action depicted by the verb takes a short time to get to completion. The lexical representation is shown in (7d). The verb *ghú* co-occurs with other NPs like *jí*, 'yam' and *édè*, 'cocoyam'. However, when this happens the

interpretation of the verb changes. When it collocates with *jí* and *éde*□, the sentence means that the object NP is boiled until the food item is done, and, therefore edible.

The verb *ímá mírí ókú* 'to throw hot water' in (7e) also encodes the idea of steaming. This verb only co-occurs with the object NP *úkwà* 'breadfruit'. The verb is an activity verb with an inherently terminal point. Here, the object NP *úkwà* is placed in hitherto boiling water and allowed to simmer for a few minutes. In this way parboiling takes place. We classify it as an active accomplishment verb. The lexical representation of the verb is shown in (7f). The verb *ídá mírī ọ́kụ́* in example (7g) literally means to 'burn with hot water'. The NP *ókà* 'maize' is understood to be burned in hot water. In other words, the NP *ókà* is steamed. This activity has a terminal point. The verb is an active accomplishment verb. It collocates only with the object NP *ókạ̀*. The lexical representation is shown in (7h).

The verbs of parboiling and verbs of heating all involve the direct application of heat but they have different classes assigned to them. The verbs of heating all fall under the class of accomplishment verbs while the verbs of parboiling fall into two classes viz: achievement and active accomplishment verbs. This classification is based on their primitive concepts. Verbs of parboiling co-occur with object NPs that are uncountable.

4.2 Verbs of Communication in Igbo

This section aims to investigate the aspects of the semantics of Igbo verbs of communication in terms of their position within the structure of Igbo vocabulary. Our hope is that this study may draw attention to the semantic interest of this area of the vocabulary in different languages.

The verbs of communication in Igbo identified for this study is a semantically coherent class with all the members sharing the meaning of the transferring ideas from an addresser to an addressee. The choice of this class of verbs for study is because of the role human language plays in communication and conceptualization and, also, its role in relation to the acquisition of knowledge and culture.

4.2.1 Verbs of Communication in Igbo

In the data available to us, the Igbo verbs of communication have eight sub-classes. These include: *the verbs of the transfer of a message; verbs of speaking*; *chatter verbs*; *complain verbs*; *advise verbs*; *verbs of manner of speaking; oath-taking verbs*; and *consulting verbs*. Section 2 below illustrates the examples of these verbs and their alternations.

4.2.2 Verbs of the Transfer of a Message

These verbs show the relay of information or messages from the addresser to a known addressee or to an addressee that is absent at the time of the utterance. The verbs also show the relay of a message from one individual to the general public. The examples of these verbs include:

8.

a.	ibú ámuma	'to prophesy'
b.	íjú èsè	'to inquire after someone's health'
c.	íjú ọ̀hà	'to inquire after someone's family welfare'

The transfer of the message usually involves a declarative statement by the addresser to the addressee. It could be done by the use of voice (cf 9 a, c, e and g) below or non-voice (cf 9k) below. The lexical representations of the sentences are shown in (9b, d, f, h and l). There is no specific manner depicted by the addresser in the transfer of the message but the type of communicated information is usually a message from the addresser to the addressee. The number of participants in the event may be two or more. All the verbs in this subclass are used only in the context of communication. Since communication involves the acquisition of information, these verbs denote the change of possession of information from the addresser to the addressee. The examples in (2) below show the use of these verbs in sentence constructions.

4.2.3 Sentence Constructions Involving Verbs of the Transfer of a Message

9.

a. Àdá bù-rù ámúma
Ada carry-IND prophecy
'Ada prophesied'

b. [**do′** (Àdá [**speak′** (Àdá)]) & INGR **prophesy′** (Àdá)

c. Àdá bù-u-ru Òbí ámúma
Ada carry-BEN-IND Obi prophesy
'Ada prophesied for Obi'

d. [**do′** (Àdá [**speak′** (Àdá, Obí)]) & INGR **prophesy′** (Àdá,Òbí)

e. Àdá jù-rù èsè Òbí
Ada ask-TNS wellbeing Obi
'Ada asked after Obi'

f. **[do′** (Àdá [**talk′** (Àdá, Òbí)]) & INGR **ask after′** (Àdá, Òbí)

g. Àdá jù-rù Òbí òhà
Ada ask-TNS Obi household
'Ada asked after Obi's family'

h. [**do′** (Ada, [**talk′** (Ada, Òbí)]) & INGR **ask after′** (Àdá, Obi's family)

i. Ńdí íchíé kù-rù mmúó
DEM (pl) elders' call-IND spirit
'The elders invited the ancestors'

j. [**do′** (ndi ichie, [**speak′** (ndi ichie, mmuó)]) & INGR **invoke′** (mmuó)

k. Òbí mà-rà ọ́kwà
Obi throw-IND announce
'Obi has given a public notice'

l. [**do′** (Obi, [**speak′** (Obi,)]) & INGR **announcé** (Òbí, àgbàmákwụ́kwọ́ ya)

4.2.4 Verbs of Communication of Propositional Attitudes

Verbs of communication of propositional attitudes in Igbo occur in utterances where one makes a claim, in speech, that may be true or false or even a guess. The following are verbs of communication of propositional attitudes.

10.

a. ígbá áka ébé ‘to give evidence’
b. íkà àkà ‘to guess
c. ígọ́ ágọ́ ‘to deny’
d. ísà n’ọ́nụ́ ‘to confess’
e. íṣíàṣí ‘to lie’

The mode of communication depicted by these verbs is done by the use of voice only. The utterances with these verbs usually carry an imperative force. The verbs can be used non-communicatively as shown in sentence (11a) and communicatively (cf. 4b-f). There is no specific manner in which these verbs are used in communication but the type of communicated information includes statement of reality from the perspective of the addresser. There is a change of possession of information in (11a, b and d) but none in sentences (11c and e). There seems to be only one participant (the addresser) in the events denoted by the verbs. The specific manner of communication is emphatic.

4.2.5 Sentence Constructions Involving the Verbs of the Communication of Propositional Attitudes

11.

a. Áyògù gbà-a-rà Ézè áká ébe
Ayogu V-BEN-IND Eze hand evidence
‘Ayogu has given evidence in support of Eze’

b. [**do′** (Ayogu, [**speak′** (Ayogu)]) & INGR **give-evidence′** (Ayogu, Ezè)

c. Ézè kà-rà à-ká íhé Áyọ̀gụ̀ gà-è-mé
Eze say-IND AGR-say thing Ayogu FUT-AGR-do
‘Eze guessed what Ayogu will do’

d. [**do′** (Eze, [**talk′** (Eze)]) & INGR **guess′** (Eze, íhé Áyògụ̀ gà-è-mé)

e. Ó gọ̀-rọ̀ ya
3SG deny-IND 3SG (obj)
‘S/he has denied it’

f. [**do′** (3SG, [**speak′** (3SG)]) & INGR **deny′** ($3SG_{sub}$, 3SGobj)

g. Há sà-rà n’ọ́nụ́
3PL spread-IND in mouth
‘They have confessed’

g. **[do′** (3PL, [**talk′** (3PL)]) & INGR **confess′** (3PL)

i. Ó si-rị àṣí́
3SG say-IND lie
'S/he lied'

j. [**do′** (3SG, [**speak′** (3SG)]) & INGR **lie′** (3SG)

4.2.6 Verbs of Social Interaction

The verbs of social interaction encode activities where there is a steady flow of informal conversation between two or more interlocutors. The conversation usually takes place in an informal setting. The examples in our data include:

12.

a. íkpá n̈kàtà 'to chitchat'
b. íkọ̀ akụ́kọ́ 'to tell story'
c. íma njàkìrì 'to throw banters'
d. ígbághá 'to argue'
e. íhò íhò 'to tell fables; folktales'

These verbs fall under the class of Inherent Complement Verbs. The mode of communication is by the use of voice only and there is no specific manner of communication since the atmosphere is informal. However, the verbs are always used communicatively. It seems the verbs can take one participant (addresser) as shown in examples (13c, e, i, and m) or two participants (addresser and addressee) as shown in (13g, k and o). Where the verb takes only the addresser, the addressee is understood by whoever hears the utterance. There is usually a change of possession of information between addresser and addressee, where these occur, and, the type of communicated information includes informal banters.

4.2.7 Sentence Constructions Involving the Verbs of Social Interaction

13.

a. Àdá nà Òbí nà à-kpá nkátá
Ada and obi PROG AGR-stir conversation
'Ada and Obi are having a conversation'

b. [**do′** (Ada nà Obi, [**converse′** (Ada nà Obi)])

c. Há kpà-rà nkátá
3PL stir-IND conversation
‘They had a discussion’

d. [**do′** (3PL, [**talk′** (3PL) & INGR **converse′** (3PL)])

e. Ọ́ kọ̀-rọ̀ ákụ́kọ́
3SG tell-TNS story
‘S/he told a story’

f. [**do′** (3SG, [**talk′** (3SG)]) & INGR **tell-tale′** (3SG)

g. Ọ́ kọ̀-ọ̀-rọ̀ há ákụ́kọ́
3SG tell-BEN-IND 3PL story
‘S/he told them a story’

h. [**do′** (3SG, [**talk′** (3SG)]) & INGR **narrate-story′** (3SG, 3PL)

i. Àdá nà Òbí nà a-má njákírí
Ada and Obi PROG AGR-throw banter
‘Ada and Obi are exchanging banter’

k. [**do′** (Àdá nà Òbí, [**talk′** (Àdá nà Obi)]) & INGR **banter′** (Àdá nà Òbí)

l. Àdá gbághá-rá ókwú Òbí
Ada argue-TNS word Obi
‘Ada argued against what Obi said’

l. [**do′** (Ada, [**talk′** (Ada, Obi)]) & INGR **argue-with′** (Ada, Obi)

m. Ézè hò-rò íhò
Eze tell-IND fable
‘Eze told a fable’

n. [**do′** (Ezè, (**talk′** (Ezè)]) & INGR **tell-folktale′** (Ezè)

o. Ezè hò-ò-rò úmù yá íhò
Eze tell-BEN-IND children 3PL (object) folktale
‘Eze told his children a folktale’

p. [**do′** (Ezè, [**talk′** (Ezè)]) & INGR **tell-folktale′** (Ezè, úmù yá)

4.2.8 Complain Verbs

The complain verbs denote situations where the addresser feels bad about an occurrence and whines about it to the addressee.

14.

a. íkpésá mkpésa ‘to complain openly’
b. íchí íchí ‘to warn’
c. ínyọ́ ọ̀ǹyìǹyọ̀ ‘to complain loudly’

The defining feature of these verbs is the specific manner of anger that comes with their usage in utterances. They belong to the class of Bound Cognate Verbs. Their mode of communication is through the use of voice only and the type of communicated information is the lodging of a complaint. When they take only one participant in the clause, it is usually the addresser (15a and e) but they can also take two participants (15c and g). The verbs are always used communicatively in speech.

4.2.9 Sentence Constructions Involving Complain Verbs

15.

a. Àdá kpèsà-rà mkpésá
Ada complain-IND complaint
‘Ada complained’

b. [**do′** (Adá [**talk′** (Adà)]) & INGR **complain′** (Àdá)

c. Òbí chì-rì Ézè íchí
Obi warn-IND Eze warning
‘Obi warned Eze’

d. [**do′** (Òbí [**talk′** (Obi, Ezè)]) & INGR **warned′** (Ezè)

e. Àdá nyọ̀-rọ̀ ọ̀nyi̱nyọ̀
Ada grumble-IND a grumble
‘Ada grumbled’

f. [**do′** (Ada, [**talk′** (Ada, òbí)]) & INGR **grumble′** (Adá)

g. Àdá nyọ̀-ọ̀-rọ Òbí ọ̀nyi̱nyọ̀
Ada grumble-BEN-IND Obi a grumble
‘Ada grumbled to Obi’

h. [**do′** (Àdá, [**talk′** (Àdá)]) & INGR **grumble-about′** (Òbí, Àdá)

4.3 Advise Verbs

Advice verbs denote the giving of advice by the addresser to the addressee. There are only two examples of these kinds of verbs in our data as shown in (16) below.

16.

a. ídụ́ ọ́dụ́ 'to advise'
b. ítú álọ́ 'to confer'

They belong to the class of Bound Cognate Verbs and their mode of communication is only by the use of the voice. These verbs carry declarative force in the utterances they occur. They always take two participants (addresser and addressee) and are always used communicatively. The type of communicated information is usually a piece of advice from the addresser to the addressee. There is no specific manner in which this communication is transmitted. The sentences in (17) below indicate the use of these verbs in the language.

4.3.1 Sentence Constructions Involving Advice Verbs

17.

a. Áyọ̀gụ́ dụ́-rụ́ Òbí ọ́dụ́
Ayogu poke-IND Obi advice
'Ayogu advised Obi'

b. [**do′** (Ayogu, [**talk′** (Ayogu, Òbí)]) & INGR **advised′** (òbí)

c. Áyọ̀gụ́ tụ́-rụ́ Òbí álọ̀
Ayogu contribute-IND Obi confer
'Ayogu conferred with Obi'

d. [**do′** (Ayọ̀gu, [**talk′** (Ayogu, Obi)]) & INGR **conferred-with′** (òbí)

4.3.2 Verbs of the Manner of Speaking

The verbs of the manner of speaking encode in them specific manners of transferring of ideas or messages from the addresser to the addressee.

18.

a. ítámu ńtámú 'to mutter'
b. íbá mbá 'to scold'
c. ísú nsú 'to stammer'

d. ítú ílú ‘to speak in proverbs’
e. ikụ́ àkụ̀kụ̀ ‘to make snide remarks’

These verbs belong to the class of inherent complement verbs and the mode of communication is by voice only. Each of the verbs in (18) above encodes a specific manner of the communication of information. In (19a) below, the information is whispered but it is used non-communicatively. In (19c) there is an exchange of information between the addresser and addressee hence the verb is used communicatively. The verb in (19e) depicts a manner of shouting in anger. The verb is always used communicatively because the shouting and anger are directed to the addressee. For (19g and i) the specific manner of speaking is a stuttering of speech. The verb can be used communicatively (19g) and non-communicatively (19i). The verb in example (19k) is used in a manner depicting performance in the language. The Igbo people speak a lot in proverbs and those who can are adept in the use of proverbs are highly respected. The verb in (19f) is always used communicatively.

The verb *íkụ́ ákụkụ* ‘to make snide remarks’ in (19m) is always used in a mocking manner to the addressee. This addressee is usually understood by the hearer of the utterance.

4.3.3 Sentence Constructions Involving the Verbs of the Manner of Speaking

19.

a. Òbí tàmù-rù ntámù
Obi mutter-IND muttering
‘Obi muttered (emphatic)’

b. [**do′** (Òbí, [**talk′** (Òbí)]) & INGR **whisper′** (Òbí)

c. Òbí tàmù-ù-rù Ézè ntàmù
Obi mutter-BEN-IND Eze muttering
‘Obi muttered to Eze’

d. [**do′** (Òbí, [**talk′** (Òbí, Ézè)]) & INGR **whispered′** (Òbí)

e. Òbí bà-rà Ézè mḿbá
Obi scold-IND Eze scolding
‘Obi scolded Eze’

f. [**do′** (Obi, [**talk′** (Obi)]) & INGR **shout′** (Òbí)

g. Òbí sụ̀-rụ̀ m̀ nsụ́
Obi speak-IND 1SG stammering
'Obi stammered to me'

h. [**do′** (Obi, [**talk′** (Òbí, m)]) & INGR **stammered′** (Òbí)

i. Òbí sụ̀-rụ̀ nsụ́
Obi speak-IND stammering
'Obi stammered'

j. [**do′** (Obi, [**talk′** (Òbí)]) & INGR **stammered′** (Òbí)

k. Òbí tụ̀-rù ílú
Obi throw-IND proverb
'Obi said a proverb'

l. [**do′** (Obí, [**talk′** (òbí)]) & INGR **say-proverb′** (Òbí)

m. Àdá nà-à-kụ́ àkụ̀kụ̀
Ada PROG-AGR-hit snide remarks
'Ada is making snide remarks'

m. [**do′** (Àdá, [**talk′** (Àdá)]) & INGR **make-snide-remarks′** (Àdá)

4.4 Swear Verbs

Swear verbs encode situations where the participants in an event swear to an oath that is binding on them or meant to harm the addressee. There are few swear verbs in the language and we have identified three of them in example (20) below.

20.

a. Íñú íyí 'to take an oath'
b. Íkpọ́ íyí 'to curse someone'
c. Ígbá ndù 'to bind with an oath'

Swear verbs are inherent complement verbs and their mode of communication is by the use of voice and non-voice. The voice is used to make the pronouncement of an oath, and, the non-voice mode occurs when the addresser drinks a magical concoction to bind him to the pronouncement. The illocutionary force is usually imperative. The verb is always used communicatively as there is an exchange of information in the usage of the verb. The specific manner of transmission of this information is grave and the

type of communicated information is a solemn pronouncement by the addresser. The number of participants the verb takes varies. In (21a and e) the verbs take only one participant in the clause while in (21c) there are two participants.

4.4.1 Sentence Constructions of Swear Verbs

21.

a. Òbí ñù-rù íyí
Obi drink-IND oath
'Obi swore to an oath'

b. [**do′** (Òbí, [**speak′** (Obi)]) & INGR **swear-to-an-oath′** (òbí)

c. Ọ́ kpọ̀-rọ̀ m íyí
3SG call-IND 1SG oath
'S/he cursed me'

d. [**do′** (3SG, [**speak′** (3SG, 1SG)]) & INGR **cursed′** (1SG)

e. Há gbà-rà ńdù
3PL V-IND life
'They bound their lives with an oath'

f. [**do′** (3PL, [**talk′** (3PL, 3PL)]) & INGR **bind-with-an-oath′** (3PL)

4.5 Igbo Verbs with Body-part Complements

We identify Igbo verbs with body-part complements as those verbs which take as their co-occurring nominal elements the NPs that denote body-parts in the language. This sub-class of verbs fall under the Inherent Complement Verb of Emenanjo (2005) and Nwachukwu (1984; 1983). We have identified the following as verbs with body-part complements.

4.5.1 Verbs Taking the Body-part Complement ọ́nụ́ 'mouth'

This sub-class of verbs presented in (22) below are High-Low tone verbs. They all have as their inherent complements the noun *ọ́nụ́* 'mouth'.

22.

a. íbú ọ́uú 'to fast'
b. ítú ọ́uú 'to boast'
c. íkpọ́ ọ́uú 'to have bad will'
d. íkó ọ́uú 'to verbally abuse'

e. ígbá égbe ọụ̀ụ́ ‘to exaggerate’

4.5.2 Verbs Taking the Body-part Complement óbì ‘heart’

This class of verbs belongs to the group of high tone verbs. The examples in (23a-d) have as their inherent complement the noun óbì ‘heart’ while the example in (23e) has a prepositional phrase *n’óbì* ‘in the heart’ as its complement.

23.

a.	ínwé óbì	‘to be persevering’
b.	íká óbì	‘to be daring’
c.	íkpóchí óbì	‘to be heartless’
d.	íbú n’óbì	‘to intend’
e.	ígbáwá óbì	‘to break someone’s heart’

4.5.3 Verbs Taking the Body-part Complement ísí ‘head’

These verbs which are high tone verbs have the noun *ísí* ‘head’ as their inherent complement.

(24)

a.	ínwé ísí	‘to be purposeful’
b.	íbú n’ísí	‘to have in mind’
c.	ímá ísí	‘to find the root cause’
d.	ínyá ísí	‘to be arrogant’
e.	íkpá ísí ihe	‘to forage’

4.5.4 Verbs Taking the Body-part Complement àhú ‘body’

The examples in (25b and c) are Low-Tone verbs while the examples in (25a, d and e) are High-Tone verbs. The verbs in this sub-class all have the noun *àhú* ‘body’ as their inherent complement.

25.

a.	ífíá àhú to X body	‘to be difficult’
b.	ídò àhú to X body	‘to be refreshed’
c.	ígbà àhú to X body	‘to be quick witted’

d. ínwé àhú ‘to be plump’
to X body

e. ítá àhú ‘to be thin’
to bite body

4.5.5 Verbs Taking the Body-part Complement ányá ‘eye’

The example in (26b) below is a Low-Tone verb, however, the other examples, (26a, c, d, e) are High-Tone verbs. The verbs in (26) all have the noun *ányá* ‘eye’ as their inherent complements. In the example the first of the two morphemes are semantically null while the co-occurring nominal *anya* ‘eye’ combines to give the meaning of the verb.

26.

a. íwó ányá ‘to understand’
b. ídò ányá ‘to be skillful’
c. íwá ányá ‘to be street-wise’
d. ísọ́ ányá ‘to defer to’
e. ínyụ́ ányá ‘to make discomfited’

The verbs in examples (22) to (26) are used in sentences (27) to (31) below. We analyze these sentences within the framework of Role and Reference Grammar as developed in Van Valin (2005) and Van Valin and La Polla (1997).

4.5.6 Sentence Constructions Illustrating Verbs with the Body-part Complement *ọ́nụ́* ‘mouth’

The constructions in example (27) below include the verbs in example (22) above. They are verbs with the body-part complement *ọ́nụ́* ‘mouth’. The examples in (27a, c, e, g and i) express the occurrence of the verbs in basic Igbo sentences.The verbs in (27a, c and g) belong to the class of Accomplishment verbs while (27e) is of the class of State verbs. Example (27i) is a Semelfactive verb (cf Section 3.5.1 above). Note that the tonal features of the verbs change in the simple sentences in (27a, c, e, g, and i). Although, they have high tones in the infinitive form in (22), they take low tones in the simple sentences in (27a,c,e, g, and i). This is why they are classified as High-Low tone verbs in the literature. Their inherent complement

ónú ‘mouth’ retains the basic tones. The examples in (27b, d, f, h and j) are the lexical representation of the verbs in the sentences. The lexical representation expresses the logical structure of the verb, which is intended to give the particular meaning of the verb in the sentence (Van Valin, 2005:47).

27.

a. Ó bù-rù ọ́nú
3sg carry-TNS mouth
‘S/he fasted’

b. BECOME **carried′** (3sg, ọ́nú)

c. Ézè tù-rù ọ́nụ́
Eze sprout-TNS mouth
‘Eze boasted’

d. BECOME **sprouted′** (Eze, ọ́nụ́)

e. Ńnéka kpọ̀-rọ̀ Àdá ọ́nụ́
Nneka hit-IND Ada mouth
‘Nneka has bad will for Ada’

f. **hit-with-the mouth′** (Nneka, Ada)

g. Úchè kọ̀-rọ̀ Ézè ọ́nụ́
Uche cut-TNS Eze mouth
‘Uche made offensive remarks to Eze’

h. BECOME **cut-with-the mouth′** (Uche, Eze)

i. Ha sà-rà n’ ọ́nú
3PL spread-IND in mouth
‘They confessed’

k. SEML **dó** (3PL, [**confess′** (3PL)])

In (27a) the verb phrase *bú ọ́nụ́* carry mouth’ has negative a connotation in Igbo traditional life and culture. Fasting is not an admired activity in Igbo culture and tradition. To the Igbo mind, fasting is done only when there is famine. Otherwise, the Igbos cherishes their food and drinks. Fasting was introduced to the culture with Christianity. So anyone fasting would be seen as snubbing the food offered to him/her. This act of snubbing is carried out with the mouth tightly closed and directed away from the food.

Following Van Valin (2005) and Van Valin and La Polla (1997) analysis of the semantic macro-roles of a verb, the actor in (27a) is the individual indicated by the third-person singular morpheme, *ó,*'s/he'. It is referential in nature because it is an entity that can instigate or be affected by the action denoted by the verb. In this case, it is an actor. The complement of the verb *ọ́nụ́* 'mouth' is not an undergoer because it is not referential in nature. Recall that an activity predicate takes an actor. The sentence in (27a) has an activity predicate as illustrated with the logical structure of the verb in (27b). It is an accomplishment verb. The lexical representation in (27b) translates to the fact that the actor carries his/her mouth away from the direction of the food presented to him. This action of fasting goes on for some time but terminates at a certain point. Hence, this verb is telic.

The examples in (27c and g) have similar analyses to the example in (27a). For (27c), the verb *tú ọ́nụ́* 'to boast' is an activity predicate and has a negative connotation in the Igbo mind. Boasting about one's accomplishments is not encouraged in the culture. The actor is the entity *ézè*, who instigates the action of boasting. The lexical representation of the verb in (27d) indicates that the mouth of the actor sprouts like a boil when he boasts about his achievements. The verb is an accomplishment verb and it is telic in nature.

Similarly, for (27g), the verb, *kọ́ ọ́nụ́* 'to verbally abuse' has a negative connotation. Like in most cultures, the Igbo people discourage the verbal abuse of persons. The sentence in (27g) has an actor and undergoer. The actor here is *úchè*, the entity that instigates the action of the verbal abuse, while the undergoer is *ézè*, the entity that is actively affected by the action of the actor.The lexical representation in (27h) shows that the verb is an accomplishment verb. It also depicts the fact that the actor, *úchè* uses his mouth as an instrument to cut *ézè*, the undergoer.

The verb *kpọ́* ọ́nú 'have bad will' has the entity *ńnéka* as the actor while the entity *àdá* is the undergoer. It is also a verb with a negative connotation because it is not acceptable in the culture for anyone to have bad will for his neighbour. The lexical representation in (27f) illustrates the idea that Nneka,

the actor, instigates bad will for Ada, the undergoer, by using the mouth as an instrument to hit Nneka.

The verb *sa n'ọnụ* 'confess' is an activity predicate that denotes a one-off event. It is used usually in the language to express the action in which someone confesses to wrong doing. The actor in the sentence in (27i) is *há*, the third person plural free morpheme in the language. The lexical representation of the verb in (27j) expresses the action of spreading wide the mouth in confessing the wrong doing.

In the next section we discuss the verbs with the body-part complement *óbì* 'heart'.

4.5.7 Sentence Constructions Involving Verbs with the Body-part Complement óbi 'heart'

The sentences in example (28) below have included verbs in example (23) above. These are simple Igbo sentences. The verbs (28a, c, e, and g) fall into the class of state verbs. State verbs fail all the syntactic tests for verbs in Section 3.5.1 above. The verb in (28i) has a causative reading. The verbs belong to the class of High-Low Tone verbs. They have high tones in the infinitive form (cf example (23) above) but take low tones in the simple sentences (28 a, c, e, and g). The verb complement *óbi* 'heart' retains the inherent tone. The examples in (28b, d, f, h and j) represent the logical structure of the verbs.

28.

a. Úchè nwè-rè óbì
Uche have-IND heart
'Uche is courageous'

b. **have′** (uche, óbì)

c. Ùgò kà-rà óbì
Ugo strong-IND heart
'Ugo is daring'

d. **be′** (Ugo [**daring′**]

e. Chike kpọ̀chì-rì óbì
Chike lock-IND heart
'Chike is heartless'

f. **be′** (Chike [**heartless′**]

g. Chika bù n'óbì ílú Íféóma
Chika carry in heart to marry Ifeoma
'Chika has the intention of marrying Ifeoma'

h. **carry-in-heart′** (Chika, ílú íféóma)])

i. Ékè gbàwá-rà m óbì
Eke break-IND 1s heart
'Eke broke my heart'

j. [**do′** Eke, θ)] CAUSE [BECOME **broken′** [1sg, óbì)]

The sentence in (28a) is a state predicate. The undergoer *Uche* possesses the attribute of courage. This is depicted in the logical structure of the verb in in (28b). The interpretation of this logical structure means that Uche has the virtue of courage as part of his make-up. For the example in (28c), the verb *ká óbì* which translates into 'daring' in English serves as an attributive predicate. The logical structure of example (28d) indicates that to be daring is an attribute of *Ugo*, who has the macro-role function of undergoer in the sentence. The same analysis can be extended to examples (28e and g). In (28e) whose logical structure is represented as (28f), Chike, the undergoer has the inalienable attribute of heartlessness. The example in (28g) has two arguments as shown in the logical structure in (28h). The verbs *íbú n'óbì* 'to carry in the heart' when translated to English means 'to desire'. The first argument of the sentence, Chika, has the active desire to marry the second argument, Ifeoma. The first argument has the semantic macro-role of actor, while the second argument has the semantic macro-role of undergoer. The sentence with a causative reading in (28i) has a complex logical structure in (28j), which consists of a predicate (do′) indicating the causing action linked to a predicate (broken′) indicating the result of the action. The first predicate shows that an activity takes place. Hence, the argument, Eke, which effects this, is an actor while the undergoer is the argument, *m*, the first-person singular free

morpheme in the language. Note that the action of actor results in the state where the undergoer becomes broken hearted.

4.5.8 Sentence Constructions with Verbs Taking the Body-part Complement ísí 'head'

The verbs in example (29a, c, e, g, and i) are sentences containing verbs in (24) above; with *ísí* 'head' as the inherent complement of the verb. Their logical structures are shown in (29b, d, f, h, and j). The verbs in (29a, c and e) are state verbs while the verbs in (29g and i) are activity verbs. The tonal features of the verbs in the sentences classify them as High-Low Tone verbs.

29.

a. Ó nwè-rè ísí
3sg have-IND head
'It is significant'

b. **have′** (3sg [**significance′**]

c. Ùgò bù yá n'ísí
Ugo carry PRN in head
'Ugo has it in mind'

d. **carry-in-head′** (Ùgò, yá]

e. Ó mà-rà ísí yá
3sg know-IND head PRN
'S/he knows the root cause of the matter'

f. **know-the-root cause′** (ó, yá)

g. Òbí nà- á- nyà ísí
Obi PROG- AGR- sway head
'Obi is arrogant'

h. **do′** (obi, [**sway′** (òbí, ísí)])

i. Ó nà- à- kpá ísí yá
3sg PROG-AGR- forage head PRN
'S/he is looking for the root cause of the matter'

j. **do′** (3sg, [**forage′** (ó, yá)

The logical structure in (29b) shows that the verb in (29a) is an identification predicate. It serves to identify the undergoer (the third-person-singular

morpheme, *Ó*) as being of importance among other things. For the examples in (29c and 29d) there are two arguments, an actor, *Ugo* and an undergoer, *yá*, (the third person singular object pronoun). The representation in (29c) denotes that the verb is a result state predicate. In (29f), which is the logical structure of (8e) the lexical representation indicates that the verb takes two arguments. The first argument *ó* (third-person-singular-subject, free morpheme) is the actor, while the second argument, which is the undergoer, is *yá* (third-person-singular-object-pronoun). The lexical representation in (29f) is also a result state predicate.

The activity verbs in (28g) and (28i) have their lexical representation in (28h) and (28j) respectively. In (28h) the verb takes two arguments, the first argument, óbì, has the semantic macro-role of actor, while the second argument, *ísí,* 'head' has the semantic macro-role of undergoer. The act of arrogance as depicted by the logical structure of the verb is demonstrated by the swaying of the head. In the Igbo mind, this swaying of the head also represents defiance and contempt for authority. The two arguments in (28j) are *ó* (third-person-singular-subject, free morpheme), which is the actor and *yá*, (third-person-singular-object-pronoun), which is the undergoer. The logical structure depicts an action of the actor (ó) foraging for something and in this case it is the root cause (*yá*).

In the next section we discuss the constructions taking the body-part complement *ahú* 'body'

4.5.9 Sentence Constructions with Verbs Taking the Body-part Complement àhú 'body'

The constructions in (30a, c, e, g and i) all are attributive state verbs (cf Section 3.5.1 above). All the verbs, which are cited from the examples in (25) above, have the inherent complement *àhú* 'body'. The verbs in (30a, g and i) are High Tone verbs while that in (30c and e) are Low Tone verbs. The complement *àhú* retains its inherent tone in all the constructions. The logical structures of (30a, c, e, and i) are the examples in (30b, d, g, h and j).

30.

a. Lingwistiks fíá-rù àhú
Linguistics rub-IND body
'Linguistics is difficult'

b. **be′** (Linguistics [**difficult′**])

c. Òbí dò-rò àhú
Obi settle-IND body
'Obi has gained weight'

d. **be′** (Obi [**refreshed′**])

e. Òbí gbà-ra àhú
Obi V-IND body
'Obi is quick-witted'

f. **be′** (Obi [**quick-witted′**])

g. Òbí nwè-rè àhú
Obi have-IND body
'Obi is plump'

h. **be′** (Obi [**plump′**])

i. Òbí tà-rà àhú
Obi dry-IND body
'Obi is thin'

j. **be′** (òbí [**thin′**])

In (30b) the verb *ífíá àhú* 'to be difficult' takes only one argument 'Lingwistiks'. Since the verb is a state predicate, this argument must be an undergoer. It is the entity undergoing the action of difficulty denoted by the verb in the sentence in (30a). This same analysis can be extended to the logical structure of the verbs in (30 d, g, h and j), which as well take only one argument each with the semantic macro-role of undergoer. The verb *ídò àhú* 'to be refreshed' in (30d) has *òbí* as its only argument. This argument has the semantic macro-role of undergoer. Likewise, the verb *ígbà àhú* 'to be quick-witted' in (30f) takes the undergoer *òbí* as its only argument. The verb in (30g) *ínwé àhú* 'to be plump' also has *òbí* as its only argument. It has the semantic macro-role of undergoer. The verb *ítá àhú* 'to be thin' in (30j) with the only argument *òbí* as undergoer has the same analysis.

4..4.10 Sentence Constructions with Verbs Taking the Body-part Complement ányá 'eye'

The verbs in the constructions in (31) have the inherent complement *ányá* 'eye'. Examples (31a, c, e and g) are result state verbs, with the examples in (31a, c and e) having attributive predicates while (31g) is a result state verb. The construction in (31i) has a semelfactive verb, which has an activity predicate. The example in (31c) contains a Low Tone verb while (31a, e, g and i) have High Tone verbs. The logical structures of the verbs are represented in (31b, d, f, h and j).

31.

a. Ó wò-rò m ányá nà Àdá gà- à- bíá
3sg understand-IND 1sg eye that Ada AUX-AGR- come
'I understand that Ada will come'

b. **be′** (ó, [**informed′**]

c. Òny̰ìnyá mótò dò-rò Òbí ányá
Act of driving a car clear-IND Obi eye
'Obi is skillful in driving'

d. **be-skillful-in′** (Obi, ò̰nyìnyá mótò)

e. Òbí wà-rà ányá
Obi break-IND eye
'Obi is street-wise'

f. **be′** (Òbí [**street-wise′**]

g. Ó sò-rò Òbí ányá
3sg avoid-IND Obi eye
'S/he deferred to Obi'

h. **show-deference′** (ó, Òbí)

i. Ó dù-rù Òbí ányá
3sg cast-IND Obi eye
'He cast a furtive glance at Obi'

j. SEML **cast′** (ó, Obi)

The verb *íwó ányá* 'to be informed' in (31a), (with logical structure in 31b) takes only one argument, *ó* (third-person-singular-subject pronoun). This argument has the macro-role function of undergoer. For (31c) the verb *ídò*

ányá ‘to be skillful’ takes two arguments. The first argument with the semantic macro-role of actor is *òbí* while the second argument with the semantic macro-role of undergoer is *ọ̀nyı̀nyá mótò* ‘the act of driving a car’. The logical representation of the verb is shown in (31d). The verb *ítwá ányá* ‘to be street wise’ takes only one argument, *òbí* in (31e). This argument has the semantic macro-role of undergoer. The logical structure of the construction is illustrated in example (31f). A look at the construction in (31g) reveals that the verb *ísó ányá* ‘to defer to’ takes two arguments. The first argument is *ó* (third-person-singular-subject pronoun), with the semantic macro-role of actor and the second argument is *òbí* with the semantic macro-role of undergoer. The logical structure is represented in (31h). The activity predicate *ídú ányá*, ‘to cast a furtive glance’ in (31i) takes arguments. The first is *ó* (third-person-singular-subject pronoun). This argument has the semantic macro-role of actor while the second argument *òbí* has the semantic macro-role of undergoer. The verb is a semelfactive verb (cf Section 3.5.1).

4.6 Igbo Verbs of Emotion

Verbs of emotion encode the feelings usually expressed when these verbs are used in sentential constructions. Igbo verbs of emotion fall into five sub-classes. They are the *verbs of sorrow*, *verbs of joy*, *verbs of anger*, *verbs of love* and *verbs of hatred.* In subsequent sections we examine the syntactic and semantic features of these verbs.

4.6.1 Verbs of Sorrow

Verbs of sorrow include those verbs that express the misery of the subject NPs of the sentences they occur. Their subjects, not surprisingly, are human agents. These verbs belong to the class of Inherent Complement Verbs (Emenanjo 2005; Nwachukwu 1984). They always appear with definite nominals, especially when used in speech or written documents. They include the verbs in (32) below.

32.

a.	írú újụ	‘to mourn’
b.	írí àrìrì	‘to be in grief (lit. to eat grief)’

c. íkwá ákwá ‘to cry’
d. íṣù úde ‘to groan with misery (lit. to squeeze a groan)’
e. ítá íkìkírí éze ‘to gnash teeth (lit. to chew part of the molar teeth)’

In (33a-e) below we demonstrate the occurrence of these verbs in sentences and their lexical representation. The constructions in (33a-e) show the occurrence of these verbs in basic sentences. Their lexical representation is shown in (33a′-e′). In sentences (33a-e) all the verbs essentially co-occur with the *nà* progressive marker. The claim is that the obligatory co-occurrence of *nà* with the verb establishes it as an activity verb. In other words, all the verbs in examples (33a-e) belong to the class of activity verbs. The subject NPs of the sentences are all human. This is because only humans can feel sorrow. The logical structures of the verbs all have an activity predicate. In other words, they have the semantic macro-roles of actor.

33.

a. *Òbí nà-è-ru úju ónṿú nné yá*
Obi PROG-AGR-V mourning death mother 3s(obj)

a′. **do′** (òbí, [**mourn′** (òbí, ónṿú nné yá)])

b. *Àdá nà-è-rí àrìri nà dí ya chù-ru yá*
Ada PROG-AGR-eat that husband chase-IND rs(obj)
‘Ada is grieving the separation from her husband’

b′. **do′** (Àdá, [**grieve′** (Àdá, nà dí yá chùrù yá)])

c. *Ngozi nà-à-kwa ákwá*
Ngozi PROG-AGR-V cry
‘Ngozi is crying’

c′. **do′** (Ngozi, [**cry′** (Ngozi)])

d. *Òbí nà-à-ṣu údé*
Obi PROG-AGR-squeeze groan
‘Obi is groaning’

d′. **do′** (Òbí, [**groan′** (Òbí)])

e. *Ézè nà-à-tá íkìkírí ézé*
Eze PROG-AGR-chew molar teeth
‘Eze is gnshing his teeth’

e′. **do′**(Ézè [**gnash′**(Ézè, ézé)])

In example (33a) the verb contains two lexical items, *rú újú.* The item *rú* is semantically empty but its nominal complement *újú* 'mourn' encode the meaning of the verb. This verb of sorrow is used only in the context of mourning the dead. In other words, it can have no other meaning except that the subject of the sentence is mourning a dead relative or friend. The lexical representation of the sentence in (33a′) depicts the event as atelic. This is because the inherent temporal properties of the verb show it to be dynamic. The conception of the event is that òbí, the subject NP, is in a mourning period which has no immediate end in sight. This is true of Igbo culture where the ceremony of the mourning of dead relatives takes several days before it comes to an end.

The verb *rì àrìrì* 'eat grief' in example (33b) can be used in a variety of contexts to show that the subject NP is troubled. For example, it could be used to encode the mourning of the dead and also it could be used to encode the unhappiness one feels over an incident. In the lexical representation in (33b′), the event is atelic since intrinsically the verb denotes the temporal property of dynamism. The subject NP, *Àdá* is distressed because she has been sent out of her husband's home. The sad experience will linger for awhile in her heart and this is encoded in the inherent temporal property of the verb, which is atelicity.

The verb *kwá ákwá* in (33c) generally means 'to cry' and whenever it is used in a construction it denotes the fact that the subject NP is upset about something. The lexical representation of the verb in (33c′) shows that the event is atelic. The crying done by Ngozi is an ongoing event with no determinable end.

For example (33d), the verb *ṣù údé* 'squeeze a groan' literally means that the subject NP makes a long and whining sound to show emotional upset. The verb is always used in the context where the subject NP has pent up frustrations. The lexical representation in (33d′) indicates that the action of the verb has no time boundary.

In example (33e) the verb *tá íkìkírí ézé* 'gnash teeth' occurs in contexts where the subject NP is deploring an incident. Literally it means the subject NP is gnashing his teeth to show strong disapproval of an incident. The lexical decomposition of the verb in (33e′) encodes the inherent temporal property of the verb which is atelic.

4.6.2 Verbs of Joy

The verbs of joy encode the feelings of pleasure that are expressed by the subject NPs in the constructions they occur. Following Emenanjo, (2005), these verbs fall into the class of Bound Complement Verbs. The nominals co-occurring with these verbs are usually morphologically derived from and dependent on the verb. In (34a-d) the nominals *óṇ̃ù*, *ámu*, *ùyọ̀* and *ụ́tó* are derived from their preceding verbs while the nominal *áṇ̃úrí in* (3e) is morphologically dependent on the verb.

34

a.	íñù ọ́ñu	'to rejoice' (lit. rejoice in joyfulness)
b.	ímú ámú/íchị́ óchí	'to laugh'
c.	íyọ̀ ùyo	'to be thankful'
d.	ịtọ́ ụ́tó óbi	'to be sweet in the heart' (lit. to have a heart filled with joy)
e.	ínwé áñúrì	'to be happy' (lit. to have happiness)

In examples (34a-e) below the verbs are activity verbs as depicted by their lexical representations in (344a′-e′) and just like the constructions in (33a-e) the subject NPs all have the macro-role function of actor and they are all human as expected.

35.

a. Ó nà-à-ṇ̃ú óṇ̃ù
3s AUX-AGR- rejoice joyful
'S/he is rejoicing'

a′. **do′** (3s, [**rejoice′** (3s)])

b. Chike nà-à-ṃú áṃú
Chike AUX-AGR-laugh laughter
'Chike is laughing'

b′. **do′** (Chike, [**laugh′** (Chike)])

c. Há nà-à-ɣ́ó ụ̀ɣo
3pl AUX-AGR-thanking thankfulness
'They are grateful'

c′. **do′** (3pl, [**thank′** (3pl)]

d. Óbì nà-à-ṭó Àdá ụ̀to
Heart AUX-AGR- sweet Ada sweetness
'Ada's heart is filled with joy'

d′. **do′** (Àdá, [**joy filled′** (Ada)]

e. Ó nà-è-nwé áñúrí
3s AUX-AGR-have happiness
'S/he is happy'

e′. **do′** (3s, [**have′** (3s, áñúrí)]

In example (35a) the verb *ṇ̃ú óṇ̃ù* is used in contexts where the subject NP expresses joy over an event. While the verb *ṃú áṃú* in (35b) is used in contexts where the subject NP is amused by a delightful experience. The verb *ɣ́ọ́ ùɣò* in (35c) is used in the context where the subject NP expresses gratitude for a favour from someone. For the verb *ṭọ́ úṭó óbì* in (35d), it encodes the ineffable joy that the subject NP feels. The verb *nwé áṇ̃úrí* in (35e) also encodes an internal feeling of joy but in this case it is expressible.

4.6.3 Verbs of Anger

The verbs of anger encode the feelings of displeasure with someone or a situation. They also belong to the class of Bound Complement Verbs as the verbs of joy. In other words, their co-occurring nominals are derived from the preceding verb. In examples (36a-e) the nominals *íwé*, *òɲɣ̀ìnɣ́ó*, *m̀bá* are derived from their preceding verbs while the nominals *àḅùgḥù* and *íhú* are morphological dependants of the co-occurring verb.

36.
a. íwé íwé 'to be angry'
b. ínyọ̀ ọ̀nyìnyọ́ 'to harangue'
c. íbá m̀bá 'to scold'
d. ígbá àbụ̀ghụ̀ 'to refuse a gift in order to show anger'
e. ígbárù íhú 'to frown in anger'

The constructions in (37a-e) have activity readings as denoted in their logical representation in (37a′-e′). As all other verbs we have been treating in this work they have the macro-role function of actor and these actors are human beings.

(37)

a. Àdá nà-è-wé íwé
Ada AUX-AGR-anger anger
'Ada is angry'

a′. **do′** (Àdá, [**anger′** (Àdá)])

b. Ngozi nà-à-nɣ́ó ọ̀nyìnyọ́
Ngozi AUX-AGR-ranting rant

b′. **do′** (Ngozi [**rant′** (Ngozi)])

c. Òbí nà-à-bà mḿbá
Obi AUX-AGR-scold scolding
'Obi is speaking angrily'

c′. **do′** (òbí [**scold′** (òbí)])

d. Ngozi nà-à-gbá àḅùgḥù
Ngozi AUX-AGR-V refusal of gift
'Ngozi is refusing the gift'

d′. **do′** (Ngozi, [**refuse gift′** (Ngozi)])

e. Òbí nà-à-gbárù íhú
Obi AUX-AGR-spoil face
'Obi is frowning'

e′. **do′** (Obi, [**frown′** (òbí)])

The verb *wé íwé* in (37a) encodes the context in which the subject NP expresses resentment about someone or an issue. In the language, the verb is generally used in context to show discontentment. In (37b), the verb *nɣ́ọ́ ònyìnyò* occurs in contexts where the subject NP is expressing his anger by angrily criticizing the one responsible for the anger. While in (37c) the pragmatic usage of the verb *bà mḿbá* takes place when the subject NP angrily scolds whoever is the cause of his anger. In (37d) the typical situation of usage of the verb *gbá àḅùgḥù* is when someone is offered a gift and for personal

reasons refuses to accept the gift in a show of displeasure either with the gift or the donor. While in (37e) the verb *gbárù íhú* encodes that the subject NP is brooding over something or someone that has upset him.

4.6.4 Verbs of Love

The verbs of love encode the feeling of affection for someone or something. The most commonly used verb of love in Igbo is the verb *ịfú n'ányá* 'to see in the eye' (38a). It encodes romance and is used to express romantic feelings. This verb belongs to the class of Prepositional Complement Verbs (Emenanjo, 2005). The complement of the verb *ịfú* 'see' in (38a) is a prepositional phrase *n'ányá* 'in the eye'. This is why the verb is called a Prepositional Complement Verb. Among the verbs in our data in (38b, c and d) below, the verbs *ímásí,ímákú* and *imetu àhú* fall into the class of General Complement Verbs while the verbs in (38e and f) are inherent complement verbs.

38

a.	ịfú n'ányá	'to love someone (lit. to see in the eye)'
b.	ímásí	'to find someone/something pleasing
c.	ímáḳú	'to hold on tightly to someone'
d.	ímétú àhú	'to stroke lovingly'
e.	íbị́ ómà	'to give a bear hug'
f.	ísúsụ̀ óṇú	'to kiss'

The example in (39a) is a stative verb as shown by its logical representation in (39a′). The macrorole function is undergoer. The example in (39b) has an activity reading as depicted by its lexical representation in (39b′). The rest of the examples (8c-f) are sentences with verbs that fall into the class of achievement verbs. This is represented in their logical structure in (39c′-f′) and they have the macrorole functions of actor and undergoer.

39.

a. Òbí ịfù-ṛù Àdá n'ányá
Obi see-IND Ada in eye
'Obi loves Ada'

a′. **love′** (òbí, Àdá)

b. Íhé Àdá màsì-rì m
Thing Ada please-IND me
'Ada pleases me'

b′. **do′** (Àdá [**please′** (Àdá, m)])

c. Àdá màḳù-ṛù òbí
Ada clasp-IND Obi
'Ada clasped Obi'

c′. INGR **clasp′** (Àdá, Òbí)

d. Òbí mẹ̀tú-ṛù Àdá àhú
Obi stroke-IND Ada body
'Obi stroked Ada lovingly'

d′. INGR **stroke′** (òbí, Àdá)

e. Àdá nà Òbí bì-rì ̣ òma
Ada and Obi touch-IND embrace
'Ada and obi gave each other a bear hug'

e′. INGR **embrace′** (Àdá, Òbí)

f. Àdá súsù-rù nwá yá ̣ óṇú
Ada kiss-IND child 3s (obj) mouth
'Ada kissed her child'

f′. INGR **kiss′** (Àdá, nwá yá)

In example (39a), the subject NP, *òbí* has the macro-role function of undergoer. Note that there is no activity predicate in the logical representation in (39a′). The verb *màsì* in (39b) has and activity reading in its lexical representation (39b′). Therefore, the subject NP is an actor. This verb is used in the context where the behavior or mannerism of someone is pleasing to another person. The verb in (39c) denotes situations where the subject NP holds on to someone s/he likes. The logical structure of the verb as depicted in (39c′) shows that the subject NP is the actor while the object NP is the undergoer in the event. The verb is an achievement verb with a telic reading. In example (39d), the verb is used in the context where the subject NP caresses the object NP. It is also an achievement verb as indicated by the logical structure in (39d′). The subject NP has the macrorole function of actor while the object NP is the undergoer. For example, (39e) the context of usage is when the subject NP gives the object NP a bear hug as a sign of affection.

The verb is an achievement verb as shown in (39e′) where the subject NP has the macrorole function of actor and the object NP the macrorole function of undergoer. The verb *súsụ́ ọ́nù* in (39f) is also an achievement verb and it encodes affection like the other verbs of love. However, this verb is used only in the context of kissing a child. The Igbos see kissing (especially in public) as taboo.

4.6.5 Verbs of Hatred

The verbs of hatred encode the feeling of repugnance for someone or something. The verbs in (40a-f) belong to the class of Inherent Complement Verbs while (9d) belongs to the class of Bound Complement Verbs. The other verbs in examples (9e and f) belong to General Complement Verbs. The individual meaning of each morpheme is shown in the sentence constructions in (41) below.

40.

a.	íkpó ásì to X	'to hate (lit. to strike with hatred)'
b.	íkp̣ọ́ ọ́nú to X mouth	'to abhor (lit. to strike with abhorrence)'
c.	íghú ányạ́ọ̣ku to X hot eye	'to be covetous of someone'
d.	íkwò ékwòrò̀ to X bickering	'to bicker'
e.	íkúchá to slander	'to slander (lit. to slander someone but privately)
f.	íḳóchá mmadù to slander person	'to slander someone (lit. to slander someone but publicly)'

The construction in sentence (40a) is a state verb as shown in its lexical representation in (40a′) and has the macr-orole function of undergoer. The other verbs in examples (40b-f) are activity verbs with the macrorole function of actor. This is represented in their logical structure in (40b′-f′).

41.

a. Àdá kp̣ò-r̩ò Òbí ásì
Ada hit-IND Obi hatred
'Ada hates Obi'

a′. **hate′** (Àdá, Òbí)

b. Ndí mmáḍù nà-à-kp̣ó ndí óhí̩ óṇú
People AUX-AGR-hit thieves mouth
'People have a feeling of abhorrence for thieves'

b′. **do′**(ndí mmáḍù [**abhor′** (ndí mmáḍù, ndí óhí)])

c. Àdá nà-è-ghú òbí ányạ́óḳú
Ada AUX-AGR-boil Obi hot eye
'Ada is covetous of Obi'

c′. **do′**(Àdá, [**covet′** (Àdá, òbí)

d. Ndí nwúnyé dí nà-è-kwó ékwòrò
Co-wives AUX-AGR-V bicker
'The co-wives are bickering among themselves'

d′. **do′**(ndí nwúnyé dí [**bicker′** (ndí nwunyé dí)])

e. Àdá nà-è-kúchá Òbí
Ada AUX-AGR-slander Obi
'Ada is slandering Obi'

e′. **do′**(Àdá, [**slander′** (Àdá, Òbí)])

f. Àdá nà-à-ḳócha ndí mmádù
Ada AUX-AGR-slander people
'Ada slanders people (ie, Ada as a matter of habit, slanders people)

f′. **do′** (Àdá [**slander′**(Àdá, ndí mmáḍù)])

The verb *kpó ásì* in (41a) is used only in the context of showing one's hatred for another person. In other words, it cannot be used to express hatred for a non-human object. It encodes a permanent state of feeling and that is why the logical structure is that of a state verb. The verb *kp̣ó óṇú* in (41b) is used only in the context of demonstrating abhorrence for a particular person or a select group of people. This feeling is perpetual and that is why the verb has an activity reading as depicted in its logical structure in (41b′). The verb cannot be used to express revulsion for a non-human object. The verb *ghú ányạ́ọ̣ḳu* in (41c) occurs in the context where the actor is coveting the possessions of the

undergoer. In Igbo covetousness is conceptualized as a continuous burning feeling in the eyes of the actor. This is why the lexical representation of the verb in (41c′) has an activity reading. The verb *kwó ékwòrò* in (41d) is also used in the context where a number of people are continuously bickering among themselves. The logical representation in (41d′) illustrates the activity reading of this verb. The verbs *kùchá* and *ọ̀chá* in (41e and f) respectively have the common meaning of 'slander' but there are shades of meaning when these verbs are used in context. For the verb *kùchá* in (41e) it encodes the continuous slandering of a particular person but this may not be in the character of the actor to be a slanderer. But in example (41f) the verb encodes the slandering of many people by the actor and it also encodes the fact that the actor has the tendency to slander people. The logical representation of the verbs in (41e′ and f′) denotes the activity reading of the verb.

Verbs of emotion characterize the fact that knowing the meaning of a verb leads to knowing the syntactic behavior of the verb. For example, the entire subject NPs of the verbs are human beings and this is because only humans have feelings. Besides, verbs that belong to the same semantic class always show some common patterns of behavior that confirm their membership of a semantic class. The verbs of emotion in Igbo fall into the syntactic class of state, activity and achievement verbs. A great majority of this semantic class of Igbo verbs fall into the class of activity verbs. This may be because the feeling of any emotion is not an event but a state of affairs that is ongoing. The achievement verbs are found in the sub-class of the verbs of love and they include those verbs which denote actions that occur within a brief period of time (see Section 4.8.4).

4.6.6 Igbo Semantic Verb Classes and the Nature of Lexical Knowledge

Van Valin and La Polla (1997) make the important assertion that research on language acquisition from the communication-and-cognitive perspective should depend on empirical evidence for making their claims and not on 'theoretical fiat'. According to Van Valin and La Polla (1997:641), the primary issues to be tackled in language acquisition include:

1. The distinctions that must be learned in order to acquire the category or concept,
2. The kind of evidence available to the child in the input from caregivers and from the situation in which utterances are used,
3. To what extent is the concept or category related either to the child's innate non-linguistic cognitive capacities or to other non-linguistic capacities or knowledge.

The child learning Igbo must know that a raw food item is placed in a cooking pot or directly inside fire for it to be turned into a meal. S/he also has to learn the utterances made in the specific situations when such actions are taken. These utterances are the verbal cues for the child to learn the verbs of cooking. The physical act of cooking provides the evidence for learning the verb classes. The verbs of cooking in Igbo fall into the class of accomplishment, achievement and active achievement verbs. The evidence for the duration of cooking is observable when the child's caregivers carry out the act. This is how the child readily learns the class of the verbs uttered when cooking is going on.

The nominal complements collocating with the verbs of cooking can be learned from listening to caregivers associating these nominal complements with particular verbs while cooking. The child learns that these NPs follow the verb in the syntax, while the subjects of the sentences precede these verbs.

The verbs of cooking are related to the child's other cognitive capacities in the sense that s/he will come to know that raw food items are not eaten. They undergo the process of cooking. Again, the child also knows that every domain of Igbo life has its own register of terms and cooking is not an exception. The verbs of cooking in our data can only be learned by an Igbo child who grows up in an environment where the language is used for all domains of life.

The verbs of communication in our data can be classified into two classes of verbs: the verbs that are used only communicatively and the ones that can be

used both communicatively and non-communicatively. Therefore, the verbs that are used only communicatively are Igbo verbs of communication par excellence. These include the *verbs of communication of propositional attitudes, social interaction, complain verbs, and advise verbs*. (cf Fig.1). The verbs of the transfer of a message and manner of speaking can be said to include other forms of applicability in the vocabulary of Igbo. In terms of the mode of transmission of information the verbs fall into the class of the use of voice only and the use of both voice and non-voice.

A further classification of these verbs in relation to Igbo vocabulary is based on the illocutionary force. In this regard, they fall into two major classes; *imperative* and *declarative*. Igbo interrogative clauses require movement rules that are beyond the scope of this work.

In conclusion, the semantic characteristics of the verbs of communication in Igbo illustrate their applicability as operational verbs and their relationship to the vocabulary of Igbo as a whole.

Igbo verbs taking body-part complements all have extended meanings beyond the basic expressions in the sentences. For example, it seems that whenever the noun *ónú* 'mouth' is the complement of a verb (cf 27), the expression carries an added sense of negativity to the experience of the speaker. It seems also that whenever the noun *óbì* 'heart' is the complement of a verb (cf 28) the expression refers to the experiences of the soul, while the expressions in (29) with the noun *ísí* 'head' as complements of the verb, have the added meaning of referring to the state of the mind. The verbs in (30) with the noun *àhú* 'body' as complement, render the added meaning of "the state of well-being" and 'general awareness'. In the sentences in (31) the verbs with the complement *ányá* 'eye' gives the expressions the added meaning of 'the knowledge of the worth of something'.

The Igbo speaker has the ability to make subtle inferences about what constitutes the arguments of a verb. For the examples in (27-31) above, the Igbo speaker knows that the complements of the verbs are not their arguments

because they are not entities that actively participate in the activities denoted by the verbs. Again, Igbo speakers know that the meaning of a verb determines its syntactic behaviour. This is why the verbs in examples (27a, c and i) have only one argument with the macro-role function of actor, while examples (27e and g) have two arguments with the macro-role functions of actor and undergoer. Similarly, the meaning of the verbs in examples (28a, c and f) determines the fact that they take only one argument, with the macro-role function of the undergoer, while the examples in (28g and 28i) take two arguments with actor and undergoer functions. The meanings of the verbs in examples (29) to (31s) take similar analysis.

This work shows that the arguments of a verb are derived from the interaction between its meaning and the general principles of Role and Reference Grammar which takes language to be a system of communicative social action, and accordingly, analyzes the communicative functions grammatical structures plays in grammatical description.In other words, the lexical knowledge of the Igbo speaker includes the particular meaning of the individual verb, and its complements and the general principles of Role and Reference Grammar.

The analysis of the verbs of verbs of emotion further confirms our claims in this section

4.8 Motion Verb Classes

There is a large body of literature on motion verbs in many languages. This is obviously because the concept of motion is fundamental to human communicative needs. In spite of this vast array of motion verbs literature, Igbo language scholars have in the main, neglected this area of study. Uwalaka, (1984; 1988) is the only available and significant work on motion verbs in Igbo.

Uwalaka's effort classifies Igbo motion verbs into two categories. These are *direction-of-motion verbs* and *manner-of-motion verbs*. The direction-of-motion verbs represent movement, whereby a participant (the subject) in the clause changes location. Manner-of-motion verbs on the other hand indicate

the ‘manner, means or medium’ of this change of location. Uwalaka, (1984; 1988) adopts Case Grammar analysis to discuss Source and Goal case assignment in Igbo verbs of motion. In exploring the syntax and semantics of *direction-of-motion verbs*, Uwalaka, (1984; 1988) concentrates on the description of motion ‘towards’ and ‘away from’ the addresser and addressee. She describes it as deictic motion. It is in describing the deixis of the verbs that the source and goal Noun Phrases (NPs) are identified. The Source and Goal NPs for the *manner-of-motion* verbs can only surface when they ‘combine with direction-of-motion verbs in a consecutive verb construction,’ (Uwalaka, 1988:117).

It is evident that the *source* and *goal* NPs form the basis of the description of Igbo motion verbs in Uwalaka, (1984; 1988). However, in the cross-linguistic literature on motion verbs, the concept of motion is beyond a description of the movement ‘towards’ and/or ‘away’ from the speaker(s). Ferez, (2009); Talmy, (2000); Slobin, (2004); Levin, (1993), among others have abundantly shown that the concept of motion has several manifestations in human cognition. This chapter addresses the fact that the notion of motion in Igbo verbs goes beyond the two-way classification of Uwalaka, (1984; 1988). The study identifies more classes of Igbo motion verbs and also recognizes the motion events associated with these verb classes.

4.8.1. Motion Event

Talmy, (2000: 25) defines a motion event as involving ‘a situation containing motion and the continuation of a stationary location alike.’ Accordingly, a motion event includes the displacement in space of an object. Talmy, (2000) identifies four components of a motion event. They are *Figure*, *Ground*, *Path* and *Motion*. The **Figure** is the ‘object moving or located with respect to another object (the **Ground**). The **Path** is the direction followed by or the physical area occupied by the Figure. The physical displacement that results in the translocation of the Figure to the Ground is referred to as motion. The four components of a motion event are represented by the capital letters F, G, P and M.

Motion events co-occur with some other external events termed co-events. These co-events include the *manner* and the *cause* of the motion. The manner specifies the means with which the motion event occurs, while the cause indicates the rationale for the motion event. The interaction of the four components of a motion event and the co-events will be explored in the classification of Igbo verbs of motion.

4.8.2 Verb Roots of Motion

. They include the motion verb examples in (1a-e) below.

1.

a. sé	'draw'
b. gú	'drop slowly'
c. wé	'take'
d. kwọ́	'scoop'
e. báa	'enter'

4.8.3 Verb Stems of Motion

These consist of a verb root with at least one affix. The motion verbs in examples (2a-e) are complex verbs.

2.

a. sé-chì	'draw back'
b. gụ́-sì	'(of liquid) drop slowly to the ground'
c. wè-tá	'bring towards the speaker'
d. kwọ́-sà	'(of liquid) scoop-spatter' scoop and spatter
e. bà-tá	'enter-inside'

We observe that the suffixes in (2a-e) modify the meaning of the verb by contributing to showing the direction of motion. For example, the suffix *chì* in (2a) adds to the fact that the direction of motion is backwards. The suffixal morpheme *sì* in (2b) signify that the direction of motion is downwards while *tá* in (2c) shows that the direction is towards the addresser in the clause. In (2d) the suffix *sá* extends the meaning of the verb to show that while the water is being scooped it is simultaneously being spattered. The morpheme *tá* in (2e) functions like that of example (2c). Note that complex verbs could take more

than one affix. We shall illustrate these with subsequent examples in this study.

The motion verbs in (3a-e) show examples of two verb roots with independent meanings.

3.

a. kwó-pù 'shift-out'	'loosen'
b. dù-náa 'lead-go home	'lead home'
c. kwá-dáa 'push-down'	'push down'
d. nyá-fè 'drive-past'	'drive past'
e. ḍò-kpú 'pull-pull with a rope'	'pull an animal along with its tethers'

A careful observation of (3a-e) exposes the fact that each of the combining two verb roots contribute to the new meaning of the derived verb. In (3a) for example, the verb roots*kwó* 'shift' and *pú* 'go out' come together to form the new verb *kwópù* 'loosen'. Examples, (3b-c) come under the same analysis as (3a).

4.8.4 Motion Verb Classes in Igbo

In this section we shall discuss the various semantic subclasses of motion verbs identifiable from our data. The discussion is guided by the definition of motion in Section 5.1

4.8.5 Normative Motion Verbs

Normative motion verbs include verbs representing motion that has no co-event. This means that the intrinsic properties of these verbs give a representation of typical motion in Igbo.These verbs include the following in example (4) below.

4.

a.gáa	'go'
b. bìà	'come'
c. bùníe íjè	'begin a journey'

The verbs in (4a-c) occur in the following sentences in examples (5a-c).

5.

a. Ọ́ gà-rà ọ̀rụ́
3sg go-IND work
'S/he has gone to work'

a′. **do′** (3sg, [**move′** (work-place)])

b. Ọ́ bìà-rà ọ̀rụ́
3sg come-IND work
'S/he has come to work'

b′ **do′**(3sg, [**come′** (work-place)])

c. Ó bùnì-rì íjè n'útútú
3sg begin journey in the morning
'S/he started the journey in the morning'

c′. **do′** (3sg, [**start-journey′** (3sg)])

In (5a) the verb *gá* 'go' simply indicates that the subject changed his/her location to his/her place of work. There is no indication of the means of this change or the physical area taken in the movement to the work place. The same analysis applies to the verb *bìà* 'come' in (5b). For (5c) the verb *bùnìíjè* 'start a journey' simple specify that the movement of the subject of the clause is incipient.

4.8.6 Motion *with* Manner Verbs

This class includes verbs that encode the technique of movement of the agent or patient in the clause. There are three subclasses of these verbs in our data. They include *agentive*, *self agentive*, and *non-agentive*. We shall discuss each of these three classes subsequently.

4.8.7 Agentive Motion *with* Manner Verbs

This sub-class consist of verbs whose agents initiate and sustain the manner of motion of the patient represented by the verb. The agents also provide the

means of motion of the patient. The agentive motion with manner verbs identified in our data includes the following in example (7) below.

7.
a. yọ́ọ́ ‘sift’
b. họ́ọ́ ‘select’
c. kwọ́ mìrì ‘scoop water’

The examples in (8) exemplify the occurrence of these verbs in simple clauses. These clauses each have an agent and a patient participant. The agents are ordinarily animate entities.

8.

a. Àdá yọ̀-rọ̀ ákpú
Ada sift-IND cassava
‘Ada sifted cassava flour’

a′. **do′ (**Àdá, [**sift′**(ákpú)])

b. Àdá họ̀-rọ̀ ákwà àhú
Ada select-IND cloth DET
‘Ada selected that cloth’

b′. **do′** (Àdá, [**select′** (akwa)])

c. Há nà à -kwọ́ mírí
3pl PROG AGR-scoop-IND water
‘They are scooping water’

c′. **do′** (3pl, [**scoop′** (mírí)])

Our analysis starts with (8a) where the agent *Àdá* instigates and maintains the procedure of sifting the patient, a*́kpú*, ‘cassava flour’. The action of sifting is a motion event in the cultural milieu where it takes place. It involves running cassava flour through a sieve ‘*mỳọ̀* to obtain finer cassava flour. This running of the flour through the sieve is the specific manner of motion of the cassava flour that is engaged in producing finer cassava flour. The motion event in (8b) entails the agent *Àdá* also instigating and maintaining the action of selecting a piece of cloth. The motion event here is the picking of the patient, *ákwà* ‘cloth’ from its location to another location belonging to *Àdá*. The manner of the movement of the cloth depends on the method used by *Àdá* in

picking it up. It could be by hand or by a stick or any means at all. In example, (8c) the agent *há* just like the agents in (8a and b) instigate and sustain the motion of the patient *mírí* 'water'. This motion requires that the agent dips an instrument into some container of water and transfer the water by the means of the dipped instrument. This instrument could be the hands of the agent in (8c).

4.8.7.1 Self-agentive Motion *with* Manner Verbs

This subclass has agents who have the capacity to initiate and sustain the motion and also inherently have the means of motion. There is no patient-participant in the clauses with this subclass of verbs. This exclusive property differentiates it from the agentive motion with manner verbs in (8a-c). We exemplify these verbs with (9) below.

9.

a. gbé ígbé	'crawl (of children)'
b. rí árí	'creep (of insects)'
e. rànyé íjè	'toddle'

The sentences in (10a-e) contain verbs in examples (9a-e). The agents in these clauses are all animate elements.

10.

a. Nwá m nà-è-gbé ígbé
Child 1sg PROG-AGR-crawl crawling
'My child is crawling'

a´. **do´** (nwá m, [**crawl´** (nwá m)])

b. Ákpísì nà-à-rí árí
Ant PROG-AGR-creep creeping
'The ant creeps'

b´. **do´** (akpisi, [**creep´** (akpisi)])

c.. Àdá nà-á-rànyé íjè
Ada PROG-AGR-toddle walking
'Ada is toddling'

c´. **do´** (Àdá, [**toddle´**(Àdá)])

The agent in example (10a) is *nwá m* 'my child'. The act of crawling, *gbé ígbé* is a natural ability developed in the child. Again, the manner of crawling is an innate quality of the child. Note that the morpheme *ígbé* 'crawling' is not an argument of the verb *gbé*. As mentioned in Section 2.1, the theory we are following claims that morphemes like *ígbé* give semantic unity to the verb. They are not arguments because they do not play a part in the action depicted by the verb. In example, (10b) the agent *ákpísì* 'ant' self-propels itself in the act of creeping. This self-propulsion is an innate ability of the ant. The manner of propelling itself forward is also inbuilt in the ant. The morpheme *árí* 'creeping' functions to give the verb *rí* 'creep' conceptual wholeness. *Árí* is not an argument of the verb *rí* for reasons already discussed. The third example in (10c) has the same structure like (10a and b). The agent develops the ability and manner of toddling. This ability may not be in built in the case of the agent in (10c) since it is assumed that she is an adult. However, the motion event of toddling by the agent is self-motivated. This is why it comes under this sub-class. Following our view of argument in this work, *íjè* 'walking' in (10c) is not an argument of *rànyé* 'toddle'.

4.8.7.2. Non-agentive Motion *with* Manner Verbs

Non-agentive motion with manner verbs implies that the force causing the motion is extraneous to the agent of the verb. In other words, the motion demonstrated by the agent of the clause has an external influence. This external force determines the manner of the motion of the agent. Examples (11a-c) are non-agentive motion with manner verbs.

11.

a. sé n'énú	'float'
b. chí òmù	'flow of strong current (of river)'
c. kò èkò	'creeping *cum* climbing of plant'

Non-agentive manner with motion verbs are represented in the following sentences in examples (12a-c). The agents of the clauses could be animate or inanimate elements as the sentences in (12) show. Again, the verbs do not have arguments in the sense explained in Section 3.4 above.

12.

a. Ìtè áhù sè-rè n'énú mìrì rúté ébée á
Pot DET draw-IND on top water reach here
'The pot floated on water to reach here'

a′. **do′** (ìtè ahu, [**float′** (ìtè áhù)])

b. Òsìmìrì áhù chì-rì òmù dí égwù
River DET make-IND current COP fearful
'The river flowed with a strong current'

b′. **do′** (òsìmìrì áhù, [**flow′** (òsìmìrì)])

c.. Àkídì nà-é-kó èkò
Akidi PROG-AGR-hang hanging
'*Akidi* (a species of beans) is a creeping *cum* climbing plant'

c′. **do′**(àkídì [**creep-climb′** (àkídì)])

The agent *ítè* 'pot' in (12a) demonstrates a motion that is determined by the verb. The semantics of the verb *sè n'énú* 'float' includes the fact that the motion of the agent is not directed by the agent. Hence, the manner of motion will also not be directed by it. The agent simply moves in a manner managed by the external force in the water on which it lies. The agent o*̀shìmirì* 'river' in example (12b) is also involved in a motion that is influenced by an external force. The motion of the river chi*́ òmù* 'make current' is not set off by the river but by the wind. This wind also determines the manner of movement of the current. *Akidi*, the agent in (12c) is a species of climbing plant. The verb *kó ékó* 'creeping *cum* climbing' lexically represents the fact that the agent is involved in the motion with the manner of climbing and hanging its leaves on tree branches. This motion is caused by an external force, which in this case should be the sunlight.

4.8.7.3 Motion *with* Cause

This class of verbs encode within them the basis for the motion event. This means that the verbs express the essence of the translocation of the subject or object of the verb. There are three subclasses of *motion with cause* verbs. And just like the examples with motion with manner verbs, they are *agentive*, *self-agentive* and *non-agentive*.

4.8.7.4 Agentive Motion *with* Cause Verbs

Our use of the term *agentive* has been made clear in Section 3.2. There are four members of agentive motion with cause verbs. They include the examples in (13a-e) on the next page.

13.

a. ṭú jí	'stack up yam tubers in the barn'
b. bó íbú	'load up on the head'
c. zí íbú	'put down load from the head'

The occurrence of these verbs is expressed in the clauses in (14a-c). These verbs have the property of alternating the clausal positions of the verbal complement and the argument of the verb as seen in examples (14a-c). This is a characteristic feature of causative verbs in Igbo.

14.

a. Òbí ṭù-ṛù jí yá
Obi throw-IND yam 3sg (obj)
'Obi stacked up his yam tubers in his barn'

a´. **do´** (Òbí, [**stackp** (yam)])

b. Òbí bò-rò Àdá íbú
Obi put up-IND Ada load
'Obi helped Ada to put up a load on her head'

b´. **do´** (Òbí, [**put-up-load-on-the-head´** (Àdá)])

c. Òbí zì-rì Àdá íbú
Obi put down-IND Ada load
'Obi helped Ada to put down a load from her head'

c´.**do´** (Òbí, (**put-down-load-from-head´** (Àdá)])

The verb in (14a) *tú jí* 'stack up yam tubers in the barn' encodes the cause of the action of the agent. The agent *Òbí* stacks up his tubers of yams in order to store and preserve it. This motion fact is represented in the lexical meaning of the verb *tú jí*. In example (14b), the verb *bó íbú* 'load up on the head' embodies the meaning of assisting someone who is unable to put a load onto his/her head. In other words, the cause of the assistance is the inability of the object to do the loading up herself. So in example (14b), the agent *Òbí*

supports the patient *Àdá* in putting up her load on her head. Note that the verb also indicates that the load must be on the head. There is an alternation between the clausal positions of the verbal complement and the object of the clause. Canonically, the clause should be represented thus: *Òbí bòrò íbú Àdá* but this would be meaningless in the language. As aforementioned, the alternation observed in (14b) is a characteristic feature of causative verbs in Igbo. The same analysis can go for (14c), where the agent *Òbí* helps the patient to put down a load from her head. The verb *zí íbú* 'put down load from the head' inculcates in its meaning the information that the agent is giving support to the patient who is unable to move her load from her head to the ground. The cause of the action is embedded in the meaning of the verb.

4.8.7.5 Self-agentive Motion *with* Cause Verbs

Self-agentive motion verbs have been explained in Section 3.4. In addition to initiating and sustaining the motion event, the verbs in this class also contain the reason for the motion event. The verbs include the examples in (15) below.

15.

a. gbá ùzó	'go out at the break of dawn'
b. gbá àfíá	'make trading trips'
c. jéé ózí	'do domestic work'

Self-agentive motion with cause verbs are used in the sentences in examples (16a-d) below.

16.

a. Ànyí gbà-rà ụ̀zó
2ndpl move-IND early morning
'We moved out early in the morning'

a´. **do´** (2pl, [**move-out-at-dawn´** (2pl)])

b. Ó nà-à-gbá áfía jí
3sg (subj) PROG-AGR-move market yam
'S/he trades in yams'

b´. **do** (3sg, **move-about-trading´** (jí)])

c.. Àdá nà-è-jé ózí
Ada PROG-AGR-go message
'Ada does domestic duties (without compulsion)

c´. **do´(Àdá**, (**move-about-doing´** (ózí)])

The verb *gbá ùẹ́zó* 'go out at the break of dawn' in example (16a) represents the reason for the agent *ànyí* '2nd pl' to rise up early and leave their abode for a journey. The motion is self-driven. The same self-driven motion is expressed in (16b) where the verb *gbá àfíá* 'make trading trips' includes the notion and motion of moving to the market for trading activities. The agenṭ *ó* '3sg' on its own volition engages in the activity of going to the market for a reason, in this case, trading in yams. The verb *jéé ózí* 'do domestic work' again includes the notion and motion of moving around for the sole purpose of doing domestic work. This motion event is compelled by the agent *Àdá* in the clause. In other words, it is self-agentive.

4.8.7.6 Non-agentive Motion with Cause Verbs

The idea of non-agentive motion is described in Section 3.5. The verbs we are describing g in this section comprise those in which the motion although motivated extraneously, also has a reason for the motion event. These verbs include the following in (17) below.

17.
a. má ṇ'ónyá 'be entrapped'
b. tẹ́ úkẉú 'flex leg'
c. gbá gḥòlògọ̀lò 'be runny'

The sentences in (18) illustrate how these verbs operate.

18.
a. Òké mà-rà ṇ'ónyá
Rat jump on trap
'The rat has been entrapped'

a´. **do´** (òké, [**entrapped-by´** (ọ́nyá)])

b. Ọ́ nà-è-té ṵ́kẉú
3sg PROG-AGR-flex leg
S/he walks with a limp'

b′. **do′** (3sg, [**limp′** (3sg)])

c. Òfé à nà-à-gbá gẹ̀ọ̀lògọ̀lò
Soup DET PROG-AGR-move watery
'This soup is watery'

c′. **do′** (òfé à, [**run-watery′** (òfé à)])

In (18a) the verb *má ṇ'ónyá* 'be entrapped' lexically represents the fact that the agent *òké* 'rat' moves involuntarily to an object that entraps it. It is the external force of the trap that is the reason for the movement of this agent. In (18b) the external force is also represented in the verb *tẹ́ úkẉú* 'flex leg'. The agenṭ *ó* '3sg' walks lamely because of some malfunction of the nerves or some broken bones. It is this condition that forces the agent to limp. The verb in its lexical representation gives this information. The verb *gbá gẹ̀ọ̀lògọ̀lò* 'move watery' in (18c) also shows that the cause of movement of the agent *òfé* 'soup' is not of the making of the agent. The cause is external to the agent. So the verb represents the point that the soup which is supposed to be thick and stable is now gooey. The reason for this gooeyness is not in the nature of the soup. It is external to it.

4.8.7.7 Motion with Ground

These are verbs that encode in their lexical representation the Ground element in the motion event. The Ground in this case is embodied in the nominal complement of the verb. The verbs take agents but no patients. They include the following in example (19) below.

19.
a. chìghá ázú 'shift back'
b. fé ógwè 'cross bridge'
c. gbá mmée 'bleed'

The sentences in (20) below contain the verbs in (19).

20.
a. Há chìghà-rà ázú
3PL shift-IND back
'They have moved back'

a′. **do′** (3pl, [**move-back′**(3pl)])

b. Ànyí fè-rè ógwè áhù
2PL cross-IND bridge DET
'We have crossed that bridge'

b´. **do´** (2pl, [**cross´**(ógwè áhù)])

c. Úkụ́ yá gbà-rà mméé
Leg 3sg (obj) move-IND blood
'His leg has bled'

c´. **do´** (úkụ́ yá [**bleed´**(úkụ́ yá)])

The nominal complement *ázú* 'back' in the verb *chìghá ázú* 'shift back' represents the ground element. *Ázú* is not a patient in the clause. As stated in Section 1.2, the movement of the figure is in relation to the physical position of the ground. In (20a), the agent *há* '3pl' moves to the ground in relation to its former position. The same analysis is valid for the verb *fé ógwè* 'cross bridge' in (20b), where the nominal complement *ógwè* 'bridge' is not a patient but represents the ground element. The movement of the agent *ànyí* '2PL' is in relation to this ground. And in (20c), the verb *gbá mméé* 'bleed' has *mméé* 'blood' as its nominal complement which represents the ground but is not a patient. In this case the agent *úkụ́u yá* 'his leg' is understood to perform the action of the movement of the blood out of the leg. In other words, the blood represents both ground and motion.

4.8.7.8 Motion with Ground and Path Verbs

This class of verbs encode both the ground and the direction taken by the figure in its movement to the ground. The examples in (21) illustrate this class.

21.
a. gbànàtà 'ran home'
b.gbá m̀gbú 'shed leaves'
c. ḍú àzú 'move a step backwards'

The sentences in example (22) below contain motion with ground and path verbs. They are all agentive with no patients in the clause.

22.

a. Há gbànàtà-rà
3PL ran home-IND
'They ran home'

a′. **do′** (3pl [**run-home′** (3pl)])

b. Ósísí ọ́jíí nà-gbá m̀gbú
Tree oji PROG-move shedding
'The kolanut tree sheds its leaves'

b′. **do′** (Ósísí ọ́jíí, [**shed-leaves′** (Ósísí ọ́jíí)])

c. Òbí ḍù-ṛù àzú
Obi thrust-IND back
'Obi moved a step backwards'

c′.**do′** (Òbí [**thrust-one-step-backwards′** (Òbí)])

Note that in (22a) the verb *gbànàtà* 'run home' represents the ground which is the home and also the path which is the route to the home. Again, in (22b) the verb *gbá m̀gbú* 'shed leaves' also represents the ground which is the leaves in this case, and also the downward movement of the leaves while being shed. This downward movement is the path taken by the leaves. In (22c) the verb *ḍú àzú* 'move a step backwards' encodes the ground element *àzú* 'back' and the path taken by the agent *Òbí* during the movement. This path is a step taken in the backward direction.

4.8.7.9 Motion with Path and Cause Verbs

The verbs in (23) below in addition to encoding motion also encode the path and the cause of motion.

23.

a. ṣú jí 'pound yam'
b. kpù èkpù 'capsize'
c. chí éfí 'guide cattle'

The sentences in (24) demonstrate how these verbs operate in clauses. They are all agentive clauses.

24.

a. Ézè nà-à-ṣú jí
Eze PROG-AGR-pound yam
'Eze is pounding yam to a paste'

a′. **do′** (Eze, [**pound′**(jí)])

b. Úgḅó mìrì áhù kpù-rù èkpù
Vehicle water DET hide-IND hiding
'The boat has capsized'

b′. **do′** (Úgḅó mìrì, [**capsize′** (Úgḅó mìrì)])

c. Àdàmù nà-à-chí éfí
Adamu PROG-AGR-guide cattle
'Adamu is a herdsman'

c′. **do′** (Adamu, [**guide′** (éfí)])

In (24a) the verb *ṣú jí* 'pound yam' represents the act of repeatedly thumping boiled yam in a wooden mortar with a pestle. The cause of this movement of the pestle is to produce yam paste known as *pounded yam* in Nigeria. So the verb encodes the path and the cause of the motion. The verb in (24b) also has this property. The verb *kpù èkpù* 'capsize' encodes within it the path taken by the agent which is the path of overturning itself and the cause of this movement is external to the agent. In (24c) the verb *chí éfí* 'herd cattle' includes the fact that the cause of guiding the cattle is for economic purposes and the path of motion for the cattle is always towards green pastures.

4.9 Summary

This chapter has revealed that motion verb types in Igbo are clear of the two-type classification of Uwalaka, (1984; 1988). Again, the notion of motion includes other co-events, which contribute to this classification. Based on these co-events we have identified ten new classes of motion verbs. This is an improvement on the previously known classification in the literature. Our classification also has the advantage of considering the cognitive processes and the related interaction between syntax and semantics. This makes our effort to be an outline for the further exploration of motion verbs in the

language. In particular, this work serves as a reference point in comparing motion verbs in Igbo with other languages.

CHAPTER FIVE

FOCUS CONSTRUCTIONS IN THE LAYERED STRUCTURE OF THE IGBO CLAUSE

5.0 Information Structure

The interaction of syntax, semantics and pragmatics in clause structure is better understood in the light of the distribution of information within the clause. Any spoken or written text in Igbo is organized into what Halliday (1967b) calls 'information units'. For Halliday (1967) the unmarked structure for the information unit is the clause. This, according to him, is because the division of information in a language is best considered with the clause as the point of origin.

The separation of a spoken or written text into quanta of information units is mandatory because the speech or text must contain a succession of these units. However, the internal organization of these units is at the behest of the speaker or writer. The speaker or writer determines the beginning or the end of each information uni. The organization into information units is not determined by the syntactic structure of the language. Rather, the organization of the information unit is determined on a different level from the syntax and then mapped onto the syntactic structure of the language. In other words, neither the syntactic structure nor the information structure determines each other.

According to Halliday (1967b) information structure is determined phonologically in English. Information units are realized as 'single tone groups' in the sense that the information structure specifies the boundaries of the tone group to within certain limits, its exact location being determined by considerations of phonological structure. In other words, the tone group is a phonological unit that functions as the realization of information structures. From Halliday (1967b) analysis, we understand that the intonation and stress patterns of English determine the information structure for the language.
Igbo as a tone language may not use the same criteria as English to determine the information structure.

We adopt Halliday's (1967b) concept of the clause as the basic information unit. The reason for this will be made clear in Section 5.3. This idea differs from the analysis of Igbo focus constructions in Nwachukwu (1995). Nwachukwu (1995) is a structural analysis of focus constructions where the syntax of the language determines the meaning, therefore, the information focus in the clause. He applies movement rules in the analysis of focus constructions. This approach is different from our focus of attention in this thesis where meaning determines the syntax. Our adoption of Halliday (1967b) approach is in tandem with the theoretical perspective of Role and Reference Grammar where the layered structure of the clause includes the derivation of syntactic structure from the semantics of the language.

5.1 Information Focus

Within the information unit (the clause) are components which are more prominent than the others. They are more prominent in the sense that they contain new information being contributed to the discourse. This new information within the clause is termed the information focus. The assignment of information focus within the information unit is a special one that, for English, it is realized by intonation and stress. Let us consider the examples in (1) below, where different stress possibilities indicate the information focus. The stressed units are in capital letters.

1.
a. John bought the shirt for JAMES today
b. John bought the shirt for James TODAY
c. John bought the SHIRT for James today
d. John BOUGHT the shirt for James today
e. John bought the shirt for James today

In sentences (1a-e) the words in capital letters indicate the speaker's decision as to where the main burden of the message lies. The stress on the words in capital marks them out as message blocks which are to be interpreted as informative.

> What is focal is new information; not in the sense that it cannot have been previously mentioned, although it is often the case that it has not been but in the sense that the speaker presents it as not being recoverable from the preceding discourse.
> (Halliday, 1967b: 204)

5.2 Focus in Igbo

The information unit in Igbo as earlier mentioned includes the whole clause. We follow the approach of Halliday (1967b) to claim that what is the focus in the Igbo clause is the complement of the verb because it is the constituent of the clause that introduces the new information. In Nwachukwu (1995) analysis of focus constructions, the term *topic* is for 'given' information in the clause while the term *focus* belongs to the 'new' information in the clause. Hence, there is the topic-comment dichotomy in the analysis of focus constructions where the topic is the subject or an object moved to the subject position and the focus is the comment on that subject given by the predicate. In our analysis, we adopt the idea that in the clause, the verbal complement is the 'new' information while the rest of the clause is the given information. This is in line with our syntax-semantics-pragmatics interface analysis in this thesis.

Unlike English, Igbo has a relatively rigid fixed word order. It has neither definite nor indefinite articles. It does not have passive construction. Syntactic stress does not occur in the language. Phonologically there is no word stress. Lexical tone serves to distinguish lexical items and also has a grammatical function. In other words, tone may not serve as focus marker as it already has other uses. Based on these reasonable assumptions we assert that the verbal complement is the only part of the clause that serves to introduce new information in the clause. Let us illustrate with example (2) below. The clauses in (2a, c, e, g, i) are interrogative and the clauses in (2b,d, f, h, and j) are anwers to previously asked questions.

2.

a. Òbí lụ̀-rụ̀ ònyé
Obi marry-IND Wh-item
‘Obi married who?’

b. Ọ́ lụ̀-rụ̀ Àdá
3sg marry-IND Ada
‘He married Ada’

c. Òbí rù-rù gini?
Obi build-IND Wh-word
‘What did obi build?’

d. Ọ̀ rụ̀-rụ̀ ụ́lọ̀
3sg build-IND house
‘He built a house’

e. Ì jè-rè ébe
2sg go-IND Wh-word
‘Where did you go to?’

f. É-jè-rè m áhià
Pro-go-IND 1sg market
‘I went to the market’

g. Ùnù bìa-ra ógè ólè?
2pl come-IND time wh-word
‘When did you come?’

h. Ànyí bìa-rà táa
2pl(obj) come-IND today
‘We came today’

i. Kèdú ihe há zụ̀-rụ̀
What thing 3pl buy
‘What have they bought?’

j. Há zụ̀-rụ̀ ákwà
3pl buy-IND cloth
‘They bought some clothes’

In example (2a) the wh-word o*̀nyé* is the complement of the verb *lụ́* ‘marry’. Note that in the answer to the question in shown in (2b) a new complement is introduced. This new complement is *Àdá*. All other parts of the clause remain the same. The new complement is the information focus while what lies outside the clause is the old or ‘given’ information. This same analysis for (2a

and b) extends to the other clauses as can be observed. The tense marker gá serves to introduce new information to the clause. Let us examine examples (3a-c) below.

3.

a. Òbí gà-à-bìa
Obi FUT-AGR-come
‘ Obi will come’

b. Òbí nà-à-bìa
Obi PROG-AGR-come
‘Obi is coming’

c. Òbí kà íbìa
‘Obi should have come’

The tense marker *gá* in (3a) is the future marker and the clause in (3a) has a future reading. The tense marker *gá* introduces the new information, obi, in (3a). This is because it tells us the intention of Obi and in (3b) it also tells us the same thing.The progressives *nà* and *ká* assign the function ‘new’ to information within the clause for the same reason as the tense marker *gá*. We shall fully discuss the terms ‘given’ and ‘new’ information in Section 5.3.1 below.

5.2.1 Given and New Information

The information unit contains both given and new information. The difference lies in the fact that given information is recoverable from the discourse. The term recoverable means that the information is characteristically represented anaphorically, by reference, substitution or ellipsis. We illustrate with (2a) above re-presented here as (4).

4.

a. Òbí lụ̀-rụ̀ ònyé?’
Obi marry-IND who
‘Who did Obi marry?

b. Ọ́ lụ-rụ Àdá
3sg marry-IND Ada
‘He married Ada’

Example (4a) is the antecedent discourse to (4b). Here the noun *òbí* is recoverable in (4b) by the third person pronominal *ọ́*. In otherwords, *òbí* and *ó* are termed given information. The wh-item *ònyé* which is interrogative in the context it is used in (4a) is referential. Reference here refers to a situation or truth-value. Reference items in the clause can be structurally new in the sense that they can be contrastive. In example (6b) the verbal complement *Àdá* a referential item presents a contrastive situation to the wh-item in (4a). In effect, 'new' is always interpreted as contrastive. Contrastive here is used in the sense that what is stated is different from a hitherto stated alternative. Therefore, in the answers stated in (2b,d, f, h, and j) above, the verbal complement are different in situation from that of (2a, c, e, g, i). Information focus assigns the function 'new' to what is within its domain (in this case the clause). What lies outside the clause is said to be 'given'

The speaker marks out the verbal complement in Igbo as a non-derivable information that is in contrast to any preceding information unit. This non-derivable information is interpreted as new to the hearer, hence the information focus. The 'given' is recoverable information which can be identified anaphorically or contextually.

The binary structure of given and new is not mandatory as the element 'given' is optional. This is demonstrated with imperatives in (5a-c).

5.

a. Tóo chúkwu
'Praise God'

b. Ggbáa ḿbò
'Be deligent'

c. Kpácha ánya
'Be careful'

In examples (5a-c) there is no 'given' information in the sense of a recoverable element from the preceding discourse. This confirms that information structure need not have a 'given' structure as a mandatory part of it. In this thesis the information structure of the clause provides the basis for

the analysis of focus construction within the layered structure of the clause. We present the formal representation of the Igbo focus structure in the LSC in the next section.

Based on our claim in Section 5.3.1 that the new information in the clause is the complement of the verb, we further suggest that the basic information unit of Igbo is found in the clause. This is contrary to English where the basic information unit is expressed through predicates, arguments, peripheral prepositional phrases and the constituent structure (Van Valin, 2005; Van Valin and La Polla, 1997). In the next section we shall attempt to integrate the basic information unit of Igbo into the Layered Structure of the Clause. However, prior to that we shall explain some terms in RRG that identifies the various parts of the formal structure of focus construction.

5.3 Formal Representation of Focus Structure in the Layered Structure of the Clause

.The constituent projection in which focus occurs is known as the **focus domain**. In Igbo the focus domain is the clause because the clause identifies state of affairs given in discourse. There are two different focus types identified. They are **narrow** and **broad focus.** Narrow focus is when a single constituent such as an NP is focused. Broad focus is when the focus includes more thatn one constituent. Broad focus is further separated into **predicate** and sentence **focus.** Predicate focus includes the clause that has a topic-comment structure. In this clause, there is a topic while the predicate phrase expresses a comment about the topic. This type of focus relies on intonation and stress to be realized. As earlier mentioned it cannot be applied to Igbo. Sentence focus construction includes the whole clause and there is no topic. Sentence focus is the unmarked type for Igbo for reasons we have already mentioned. Van Valin (2005) calls the syntactic domain of the focus, the **potential focus domain** while the actual part of the sentence in focus is the **actual focus domain.** The **speech act** represents the scope of focus which for Igbo is the entire clause. We present the formal structure for Igbo focus constructions in Figure 6.1 on the next page.

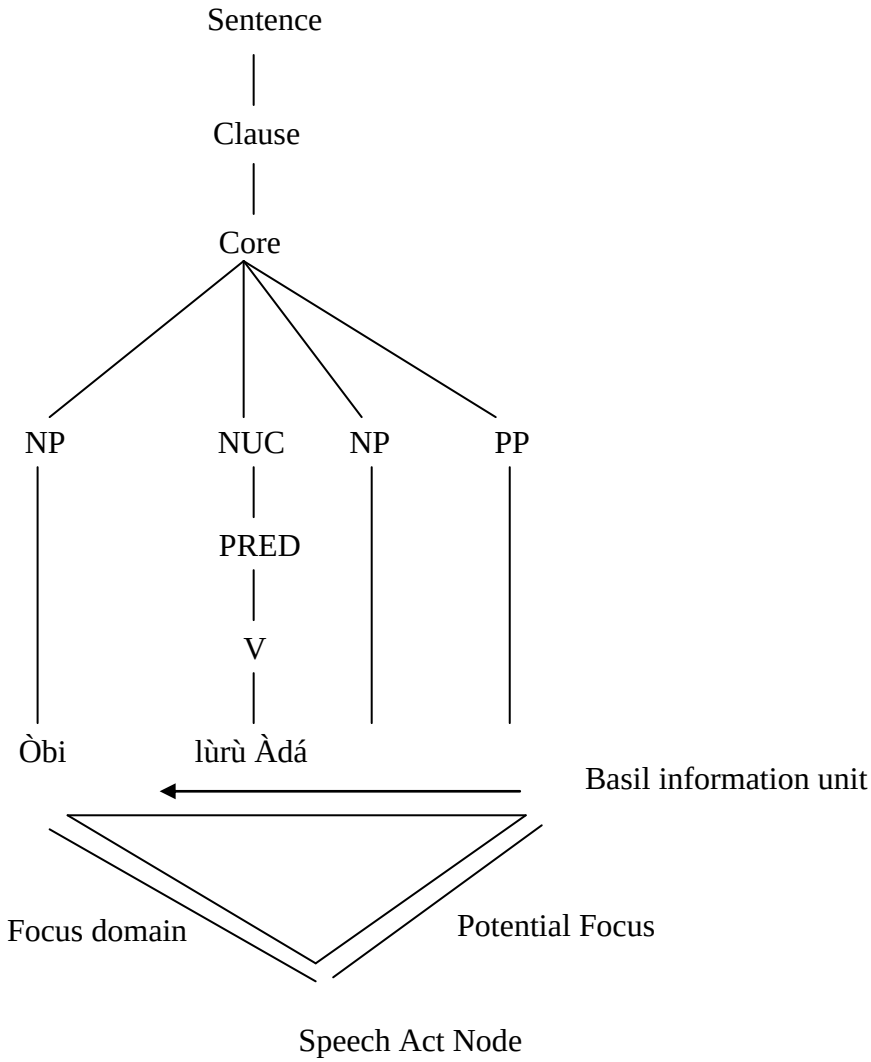


Figure 5.1: Focus projection in Igbo

The clause in Figure 5.1 is derived from example (2b) above. The potential focus domain, the actual focus domain and the speech act node are collapsed into one level. This is because as explained above, the Igbo clause is the basic unit of information. When the Igbo structure is compared to its English counter part in Figure 5.2 we see the difference of the focus projection.

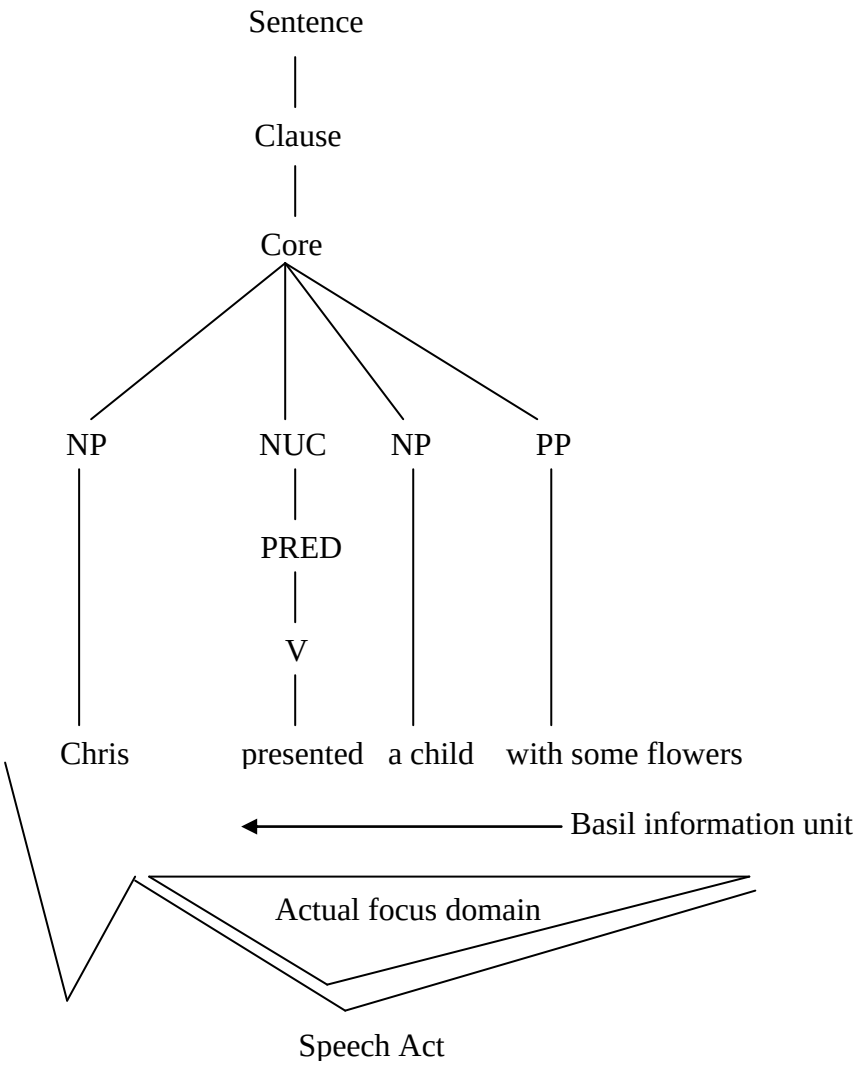


Figure 5.2: Predicate focus in English

For the sentence in Figure 5.2 the actual focus domain includes the verb and its arguments. In other words, the verbs presented and its NP arguments. Each lexical item in the sentence is a potential item for focus but in this sentence it is the verb and its argument that are the focus. Potential focus includes the

ability for each lexical item to be the area of focus. The speech act includes the potential focus and the actual focus. The difference between the Igbo and English structures in 5.2 and 5.3 respectively is that in Igbo the actual, potential and speech act node layers in the LSC are collapsed into one level because of the fact that the clause is the basic information units.Meanwhile, the English structure has three layers where the potential focus domain includes the whole sentence but the actual focus domain includes any of the lexical items in the clause. However, both structures satisfy the interaction of syntax, semantics and pragmatics as expounded in RRG.

CHAPTER SIX

CONCLUDING REMARKS

6.1 Summary of the Study

The study investigated how the function and meaning properties of Role and Reference Grammar (RRG) can be applied the analysis of Igbo clause structure. This challenges many existing studies on Igbo verb structure that have adopted a structural approach to their analysis. The functionalist-cognitive approach we have adopted in this study has enabled us to examine the problems of classification, transitivity, number of aspects and focus constructions as they are discussed and analysed in existing literature.

The claim in this study is that, the features of Role and Reference Grammar adequately accounts for the Igbo clause structure because of its consistency with it.

6.2 The Findings of this Study

In terms of the formal features of the Igbo verb, this work claims that the hitherto known simple verbs are simply verb roots while the hitherto known complex and compound verbs are verb stems. Our claim is buttressed by the the traditional definition of a stem as 'the part of a complete word form that remains when an affix is removed and the root on the other hand as comprised of elements which 'make up the open-class vocabulary… which are sequences of complexes of phonetic features along with abstract indices and other diacritics' (Aranoff, 1994: 31). With this definition, the Igbo verb roots fall into the traditional structure ascribed to it, which is either a CV or a CIV.

On the issue of transitivity in Igbo, the work claims that the classification of Igbo verbs into transitive and intransitive is simply accounted for from its lexical decomposition and the number of macroroles the verb takes. Lexical decomposition of the verb determines the default macrorole arguments of the verb as postulated in the RRG framework we have assumed for this thesis. In this wise, an intransitive verb in Igbo is one that contains only one macrorole

number, (or one argument) while a transitive verb is one that holds two arguments in its logical structure; where one of the arguments is the actor and the other is the undergoer.

Furthermore, we claim that aspect is straightforwardly accounted for through the inherent temporal properties the verb derived from its lexical decomposition.

Again, the work claims that the class of verbs identified as 'subject-object switching' verbs by Uwalaka, (1988) are causative verbs that undergo state-causative alternation with no morphological change to the verbs. Besides, the Privileged Syntactic Argument hierarchy of the RRG framework is adequate for giving a context-based analysis of the phenomenon. In other words, this work claims that the alternation in a 'subject-object switching' clause serves to focus the subject matter of the discussion. This suggestion is aligned to the native speaker's knowledge of this phenomenon.

The study also identifies five classes of Igbo verbs derived from the interaction of syntax, semantics and pragmatics. In addition, the focus constructions are presented as clauses where the verbal complement consists of the 'new' information or focus while the rest of the clause, including the arguments of the verb comprises the 'old' information or topic.

Native speaker innate knowledge of the use and meaning of the Igbo verb is the basis of all syntactic and semantic analysis. This research has established the ground for this approach to Igbo verb studies in particular and Igbo syntax in general.

6.3 Contribution of the Study to General Linguistic Theory

The assumptions and framework of this study has cross-linguistic applicability (Van Valin and La Polla 1997; Van Valin, 2005). Therefore, this work is situated within the framework of universal grammar.

Secondly, the work claims that RRG is best suited for the study of Igbo verbs because the level of lexical decomposition implemented by the RRG

approach, with reference to Igbo, makes the structure of the language to be understood in relation to its semantic and communicative functions.Since Igbo is a verb language, the language is best understood within a framework that follows these assumptions.

This work is a contribution to an on going programme of research on the Igbo verb. It does not claim to have studied exhaustively all classes of Igbo verbs. The analysis of transitivity in this work, we hope, has introduced a fresh view of this contemporary issue in Igbo verb studies. Again, the verb classes studied in this work will contribute to the ever expanding Igbo lexicon project.

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