The morpho-syntactic coding of motion events in Igbò

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Abstract

The phenomenon of motion events is universal in human cognition and language. These events are coded in the verbal structure of human language. This work builds on the past study of Igbo motion verbs and seeks to investigate the interaction between morphology, syntax and semantics in the description of Igbo motion events. Igbo verbal morphosyntax codes four categories of motion events. The first category, which includes verbs like báá 'enter' and láá 'go home/go to destination', code the FIGURE, PATH and GROUND in the motion event. The second category includes verbs like zọ̀ 'transplant' and kwá 'push' which code FIGURE and GROUND in the motion event. The third classification contains verbs like fé éfé 'flying' and gbé ígbé 'crawling' which code FIGURE and MANNER in the event. The last category consists of verbs like ñá àñà 'wobble' and sọ́ gọ̀nọ̀ gọ̀nọ̀ 'stagger' which code FIGURE, MANNER AND CAUSE. The study concludes that motion events in Igbo are coded morphologically. This conclusion is foundational to the further investigation of the core components of motion events in Igbo that is, PATH and MANNER. In other words, it is the groundwork of the contribution of Igbo to the study of the cross-linguistic phenomenon of motion events.

1.0 Introduction

Motion is one of the central domains of human experience because its conceptualisation involves the interaction with the environment. The linguistic study of motion events is an interesting area for typological investigations in linguistics. The works of Talmy (1985, 1991, 2000b), Aske (1989), Ibarrexte-Antuñano (2001) Filipovic (2002) Slobin (1996, 2004), Uwalaka (1988), among others give credence to the great deal of interesting research on motion events. Talmy (1985, 2000b) embodies the influential work that has motivated these cross-linguistic investigations.

A motion event refers to 'a situation containing motion and the continuation of stationary location alike' (Talmy 2000b:25). In other words, a motion event comprises the change of the location of an object from one point to another. Talmy (1985, 1991, and 2000) refers to this kind of motion as translational motion. He differentiates it from self-contained motion like rotation and oscillation, which does not involve the physical displacement of an object.

1.1 **Objectives of the study**

Uwalaka (1988) is the pioneering and seminal work on motion events in Igbo. This work seemingly, is the only published material on Igbo verbs of motion. It adopts Case Grammar analysis and establishes two broad classes of motion verbs viz. concrete and abstract, and gives a semantic analysis of these and their sub-classes. The adoption of Case Grammar results in an unending list of motion verb classes, if followed to a logical conclusion. This is because for each syntactic construction there is a specific Case role

assigned to specific nouns and in specific contexts, and, without regard to the native speaker's knowledge about the use of the verb.

This paper builds on the analyses of Uwalaka (1988) by focusing on the morphosyntax of motion events with the ultimate aim of decoding the interaction of morphology, syntax and semantics in the lexicalisation of motion events. The theoretical framework of Role and Reference Grammar adopted here, has the advantage of limiting the verb classes and rendering what the native speaker knows about the use of the verb in context.

This work is also motivated by Talmy (1985, 1991 and 2000) and Slobin (1996, 2004) who contend that the components of a motion event are universal and requires cross-linguistic investigations. According to Talmy (2000: 25) the components of a motion event are six fold. First is the presence or absence of the translational motion. Second is the moving object which is termed the FIGURE. The third component is the entity with respect to which the Figure moves. This entity is known as the GROUND. The fourth component is the progression of the Figure with respect to the Ground. This is termed PATH in Talmy (1985, 1991 and 2000) terminology. The fifth element is the MANNER, which articulates the conception of the motion and the sixth and final part of motion is the cause of the motion which is termed CAUSE.

Talmy (1985, 1991 and 2000) introduces the term lexicalisation. Lexicalisation means the way that language extracts the experiential categories of motion from the cognitive faculties of the human mind. That is, how lexical items in the language present the notion of motion. It is the concept of lexicalisation that is the central thrust of this paper. The aim of the paper is to establish how the different levels of the Igbo[1] clause (morphology, syntax and lexical semantics) structure interact in rendering motion events in Igbo linguistic expressions. Talmy (1985, 1991 and 2000) has established

[1]

that the analysis of verb structure is essential in the explanation of the lexicalisation of motion events. However, other elements like cognition and culture are also central to the lexicalisation of motion.

This paper concentrates on the analysis of the verbs of motion in Igbo, which refer to verbs that encode 'changes in locus' (Ikegami (1970: 87). Igbo has a rich corpus of verbs that encode the 'series of consecutive changes in the relationship of location holding between a given object and its domain' (Rudza-Ostyn, 1988:517). In effect, the verbs of motion in Igbo express the spatial displacement of an object from a place A, at a particular time T^1, to another place B at some later time T^2.

This analysis of verb structure has given rise to a typology of translational motion events in languages. Talmy (1985, 2000 and 2007) identifies the core component of a translational motion event as PATH. Languages fall into two typological groups based on their encoding of PATH in a motion event. These typological dichotomies are Verb-framed and Satellite-framed languages or V and S languages respectively. In Verb-framed languages, Path is encoded in the main verb while Manner is encoded in a subordinate verb or construction. In Satellite-framed languages, Path is obligatorily encoded in a nonverbal element associated with the verb, while Manner is encoded in the main verb. However, Slobin (2004 and 2006) revises Talmy's classification and proposes a third typology he terms Equipollently-framed languages. Here the Path and Manner of motion is expressed by equivalent grammatical forms.

Talmy (2009) contests the claims of Slobin (2004 and 2006) and holds that the Equipollently-framed typology are indeed Satellite-framing languages. Talmy and Slobin's proposals have influenced a great deal of research on translational motion in

various languages. The aim of this paper is not to test their proposals with Igbo data but to investigate the interaction of Igbo morphology, syntax and semantics in the expression of motion events. The analysis here could further serve as the foundation or basis for testing Talmy and Slobin's proposals.

1.2 **Theoretical background**

This study adopts the theoretical framework of Role and Reference Grammar (Van Valin 2005; Van Valin and La Polla, 1997). Role and Reference Grammar (RRG) employs a method of lexical decomposition based on Vendler's (1967) theory of *Aktionsart*. This term means 'inherent temporal properties of verbs'. For the Igbo language, this translates to 'the most natural or obvious fact about a particular verb used' and this includes the participants and conceptual boundaries of the events denoted by the verb. Agbo (2010) following Van Valin (2005) provides a number of syntactic tests to distinguish *aktionsart* classes in the Igbo verb.

These tests show that the Igbo verb falls into two broad classes of static and non-static verbs. The class of static verbs have two sub classes of *state* and *attributive state* verbs, while the non-static verbs are further divided into four sub-classes of *activity*, *achievement*, *accomplishment*, *active accomplishment* and *semelfactives*.

Igbo is an indigenous language of Nigeria and it is spoken by over twenty million people. It is the fifth most widely spoken language in Africa (Childs 2003:24) and one of the three major languages in Nigeria. It is a tone language with two distinct tones High and Low and the phenomenon of downstep. Williamson & Blench (2000) classify Igbo as West Benue-Congo under the Niger-Congo language family.

The static verbs have the syntactic features of atelicity while the non-static verbs are telic verbs. The verb structures revealed in Agbo (2010) are essential in describing Igbo motion verbs. These structures show that the Igbo verb in any communicative context intrinsically encodes in various degrees, the six elements of the motion event as espoused in Talmy (1985, 1991 and 2000b).

This is remarkably different from Spanish and English, the two prominent languages used as illustrations by Talmy to validate his proposals. For example, in English and Spanish, the Path and Manner components are variously encoded in the verbs with Figure and Ground extraneous to the verb. However, Igbo data shows instances where Path, Manner and Ground (and various other patterns) are encoded in the verb with only Figure being peripheral to the verb. It is instances like these that have motivated this study and the theoretical framework adopted for it.

1.3 **Data sources and methodology**

Using a descriptive research design, a total of sixty-seven motion morphemes and verb roots were compiled with the help of available Igbo literature, music and daily recorded utterances by native speakers. The list was presented to native speakers of Abiriba, Nnewi, Nsukka, Owerri and Umuahia dialects for dialectal interpretations. The aim is to present the data as a fair representation of the dialects of the five Igbo speaking States. The motion verb roots of these dialects have largely the same meaning. It is the accompanying affixes that give rise to negligible dialectal differences.

The data was analysed using the method of lexical decomposition and native speaker introspection. This method, which is RRG's approach to lexical analysis, has the advantage of taking into account the inherent meaning of the morpheme, lexeme or word and the context of use, which must include the native speaker's knowledge about the word and its properties. Lexical decomposition has the advantage of economy in the sense that it constrains the categorisation of the semantic classes of motion verbs.

1.4 **Igbo verb structure**

The affirmation by Emenanjo (1978; 1975b and 2005) is that the morphosyntactic structure of the Igbo verb 'is made up of three mutually obligatory and complementary elements.' These obligatory elements comprise the verb itself, the complement and the bound cognate noun (BCN). The construction in (1) below, with the motion verb *jée*[2] 'go' illustrates the morphosytactic structure of the Igbo verb structure.

1. Òbí jè-rè ákwụ́kwọ́[3]
   Obi go-IND school
   'Obi went to school'

In (1) above, the verb *jé* 'go' obligatorily co-occurs with the nominal element *ákwụ́kwọ́* 'school'. The claim here is that every Igbo verb must co-occur with a nominal element which serves as its complement. The idea of the bound cognate noun is illustrated in (2) below.

2. Òbí jè-rè ákwụ́kwọ́ éjé
   Obi go-IND school EMPH

[2]

'Obi indeed went to school'

Éjé is a morphological derivation of the verb *jé* 'go' and it serves as an emphasiser morpheme. In the literature this is known as the Bound Cognate Noun[3] or BCN. All Igbo verbs have the BCN, which always occur bound to the verb and follows it in the construction as shown in (2) above and illustrated again in (3).

3. Òbí jè-rè éjé
   Obi go-IND BCN
   'Obi went indeed'

[2]The transcription follows standard Igbo orthography: à (low tone); á (high tone); and ā downstep. All tones are marked to avoid ambiguity due to lexical variance among the dialects. Igbo has phonological features of vowel harmony where the eight vowels in the language are neatly divided into two sets. One set comprises vowels produced with the Advanced Tongue Root (+ATR) while the other set comprises vowels with –ATR. In standard Igbo, -ATR vowels are represented with the sub-dot, e.g, [ọ] while the +ATR vowels do not have the sub-dot. The abbreviations used here are: IND-indicative, DET-determiner, PRON-pronoun, EMPH-emphasiser, PL-plural, S-singular, 3s (subj)-third person singular for subjects, 3s (obj)-third person singular for objects, 3pl-third person plural, PROG-progressive, AGR-agreement marker,

[3]Ákwụ́kwọ́ indeed means 'leaf' in Igbo but in the present day usage of the language it translates to 'school'. This translation may have risen out of the fact the Igbo people translated the word book as 'leaf' probably because the pages of the book looked like the leaves in their environment.

[4]The Bound Cognate Noun is indeed the result of the full reduplication of the verb root. The function is to emphasise the predication activity of the verb. However, the illustration in example (3) is to show that, unlike in the literature where this reduplicant is regarded as an argument of the verb, this study adopts the view that it is not the case following the theoretical orientation.

In examples (2) and (3) above the nominal element *ákwụ́kwọ́* and the BCN *éjé* are viewed as arguments and/or direct objects of the

3

verb, respectively (Emenanjo 1978:129). However, in the RRG framework that this study adopts, the argument of the verb is the participant in the clause that completely carries out or is completely affected by the action represented 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.

Therefore, while the nominal element *ákwụ́kwọ́* is an argument because it is completely affected by the action of the verb, the BCN *éjé* is simply the morphological extension of the verb *jé* and not its argument or direct object. Although we adopt the term 'complement' to label the nominal element, the sense we use it differs from Emenanjo's perspective. We use it as a modifying element of the verb. Our perspective will become clearer as we subsequently discuss Igbo verbs in motion events.

2.0 Motion verbs and motion events

The verbs in our data represent the experiential coding of motion events in Igbo in line with the postulation in the literature (Talmy 1985, 1991, 2000b; Aske 1989, Ameka and Essegbey 2006; 2013, Ibarrexte-Antuñano 2001, Filipovic 2002, Slobin, 1996, 2004, and Uwalaka 1988), where a motion event involves the physical dislocation of an object.

The rest of this paper is thus organised to systematically discuss the morphosyntactic coding of motion events. Sections 2.1 to 2.4 discusses the various classes of motion verbs and their morphosyntactic constructions. Section 2.5 gives a lexical representation of the motion event classes in Igbo while Section 3 is the conclusion and discussion of areas of further research.

2.1 **The verbs coding figure, path and ground**

The verb roots belonging to this class include the following:

4.

a. báá ‘enter’
b. láá ‘go home/go to destination’
c. pío ‘pass through a narrow path’

d. pụ̀ ‘go out’
e. rògò ‘ascend’
f. ródà ‘descend’

These verbs in syntactic constructions essentially code the Figure and the Ground in the motion event. The Figure is usually the argument coding the agent of the clause and the Ground is usually the argument coding the patient. The verbs themselves inherently encode Path. The manner of movement is not encoded in these events. The following clause constructions make evident these features.

5.

a. Ọ́ bà-rà n’ụ́lọ̀ yá
3s (subj) enter-IND in house 3s (obj)
‘S/he entered her/his house’

b. Àdá là-rà Àbá
Ada go home-IND Aba
‘Ada went to Aba (which is presumably her home)’
c. Há pìò-rà̀[4] n’ímé ọ́shwá
3pl pass through-IND inside bush
‘They passed through a narrow path into the bush’

[4]The /ə/ vowel in example (5c) exists in the Nsukka dialect. This has been recognised by Ikekeonwu et al (2011:5).

d. Ọ́ pụ̀-rụ̀ n'ụ́lọ̀ yá
3s go out-IND in house
'S/he went out of her/his house'

e. Jí̩zọ̀s rògò-rò n'élúígwé
Jesus ascend-IND in heaven
'Jesus ascended into heaven'

f. Jí̩zọ̀s ròdà-rà n'àlà mmúó
Jesus descend-IND into hell
'Jesus descended into hell'

The verbs (5a-e) are active achievement verbs following the classification of Agbo (2010; 2013). Active achievement verbs encode atelic events with conceptual boundaries. For example, the verbs *báá* 'enter' and *láá* 'go home' in (5a and b) respectively, lexically represent the fact that the motion event has an end point. For the Igbo speaker, the conceptual integrity of the construction is depicted by the morphosyntax.

Here, the verbs 'obligatorily co-occur' with nominal elements. For (5a) and (5b) these nominal elements cum complements are *n'ụ́lọ̀ yá* and *Àbá* respectively. In this case the nominal elements are participants in the motion events because they are affected by the objects (FIGURE) that move. *Ọ́* in (5a) and *Àdá* in (5b), the FIGURES, in this case move into the GROUNDS *n'ụ́lọ̀ yá* and *Àbá* respectively. The same analysis is applicable to examples (5c-f).

Without this surface syntactic structure, the construction will not encrypt what the native speaker knows about the verbs' usage in context. For example, the verbs (6a and b) do not have

conceptual integrity because of the absence of the 'obligatorily co-occurring nominal elements' that represent the GROUND.

6.
a. Ọ́ bà-rà
3s (subj) enter-IND
'S/he entered'

b. Àdá là-rà
Ada go home-IND
'Ada has gone home (and she did this through the peculiar path to her home)'

The verbs in (6a and b) must have complements for the speaker to have a full understanding of the utterance. The illustration in (6b) may look controversial but note that the verb *láá* intrinsically encodes the 'path to the home or destination'. So for the speaker the morphological coding of the GROUND is necessary for full lexical knowledge. Agbo and Yuka (2011), in discussing the transitivity continuum of Igbo verbs, ascribes high transitivity features to such verbs as in (5a-f). This is because they take complements that are concrete and are completely affected by the action of the agent in the clause. This is different from some other classes of Igbo verbs with low transitivity features, where the complements are not tangible elements.

2.2 **Verbs coding figure and ground**

The verb roots in this group are represented in (7) below.

7.
a. zọ̀ 'transplant'
b. sè aka 'pull with the hand'
c. kpụ́ **'**pull with a rope'

d. kwá ‘push, carry’
e. dọ ‘drag’

The sentences in (8a-f) show these verb roots in clause constructions, where they code the FIGURE and GROUND in the motion event but do not lexically represent the PATH of the event. They are achievement verbs because they characterise motion events that are instantaneous. They are telic verbs with conceptual boundaries to the event they depict.

8a. Òbí zọ̀-rọ̀ òsé n’álà yá
Obi transplant-IND pepper on land 3s (obj)
‘Obi transplanted some pepper seeds in his land’

b. Ó sè-rè nwá yá áká
3s (subj) pull-IND child 3s hand
‘S/he pulled at his/her child’

c. Ọ́ kwà-rà íbù yá
3s (subj) carry-IND load 3s (obj)
‘S/he carried away her belongings’

d. Ọ́ kwà-rà nwá yá áká
3s (subj) push-IND child 3s (obj) hand
‘S/he pushed his/her child’

e. Ọ́ kpụ̀-rụ̀ éwú
3s pull-IND goat
‘S/he presented a goat’ (by pulling it in tethers to the recipient).’

f. Há dọ̀-rọ̀ yá aka

3s (subj) drag-IND 3s (obj) hand
'They dragged it'

The construction in (8a and b) would suffice to illustrate the morphosyntactic features of this class of verbs. The verb root, *zọ́* 'transplant' in (8a) obligatorily takes the complement *ósè* 'pepper seedlings'. In doing this the verb codes a FIGURE *Óbì* who transfers the pepper seedlings to the GROUND *n'álàyá*. The motion event here involves the relocation of the seedlings from their nursery to the garden or farmland. This event is instant because the activity of transplanting seeds from the nursery to the farmland is usually done at once. In sentence (8b) the verb root *sè* occurs with its complement *áká* to code the motion involved in the FIGURE *Ọ́* forcing the GROUND *yá* to move. The verbs in (8a-f) also have high transitivity features (Agbo and Yuka, 2011) but are lower in ranking than the verbs in (5a-f) in the transitivity continuum.

2.3 **The verbs coding figure and manner**

The verb roots here are represented by the data in (9)

9.

a.	fé éfé	'fly'
b.	gbé ígbé	'crawl'
c.	gbó égbó	'walk languidly'
d.	hɛ́ ɛ́hɛ́[5]	'walk stealthily'
e.	kékpù ékékpù	'manner of walking of midgets'
f.	kpọ́lé ákpọ́lè	'rolling gait'
g.	má ámá	'leap'

[5] The vowel in this example is taken from the Nsụka dialect data. Ikekeonwu et al (2011 :9) recognise this vowel as also existing in the Ìzìì dialect.

h. rí árị́ ‘creep’
i. wú áwú ‘jump’

These verbs in sentential constructions code the FIGURE which is the agent in the clause. There are no GROUNDs encoded in these verbs. The verbs in clause constructions can occur with path encoding verbs in a serial verb construction, shown in parenthesis in (10a-f). However, this occurrence of PATH verbs is done in the context where the speaker deliberately wants to indicate the PATH. The manner of motion is inherently encoded in the verb.

10.
a. Ó fè-rè èfé (láá)
3s fly-IND flying (go home)
‘S/he flew (and went home)’

b. Nwátá gbè-rè ígbé (pụ̀ọ́)
Child crawl-IND crawling (go out)
‘S/he crawled (and went out)’

c. Òbí gbò-rò ègbò (bìá)
Obi move languid-IND come
‘Obi walked languidly and (came).

d. Àkàkpǫ́ kèkpụ̀-rụ̀ ékékpụ̀ (bìá)
Midget walk-IND midget like (come)
'The midget walking (in character) came.'

e. Ó hɛ̀-rɛ̀ ɛ̀hɛ́ (pụ̀ǫ́)
3s walk-IND stealth (go out)
'S/he walking stealthily went out'

f. Ó kpólè-rè àkpólè (láá)
3s walk-IND rolling go home
'S/he in a rolling gait went home'

g. Ńkítá mà-rà àmá (pụ̀ǫ́)
Dog leap-IND leaping (go out)
'The dog leaped and went out'

h. Ǫ́ wụ̀-rụ̀ àwụ̀ (bìá)
3s hop-IND hopping (come)
'S/he hopped and came.'

i. Ákpḭ́sị̀ rị̀-rị̀ àrḭ́ (pụ̀ǫ́)
Ant creep-IND creeping (go out)
'The ant crept and went out.'

These are accomplishment verbs with the features of telicity. The actions they depict are not instantaneous but stretch over a longer period of time than achievement verbs. They belong to the class of verbs traditionally classified as Bound Complement Verbs and their complements are known as Bound Cognate Nouns (Emenanjo 2005). For example, in (10a) the verb root *fè* takes as its complement the Bound Cognate Noun *èfé* which is a

morphological derivative of the verb root. However, this complement is not affected in a tangible way by the FIGURE *Ó* as the complements of the verbs in (5a-f) and (8a-e). This leads Agbo and Yuka (2011) to come to the conclusion that the transitivity features of these verbs is the lowest in the transitivity continuum of Igbo verbs.

2.4 **Verbs coding figure, manner and cause**

The verbs roots for this class appear in the data (11) below.

11.

a.	rú	'flowing river currents'
b.	sọ́ gọ̀nọ̀ gọ̀nọ̀	'staggering'
c.	ña aña	'wobbling movement'
d.	zé	'sink'
e.	zé	'avoid, dodge'

Following Agbo (2010) these verbs fall into the class of activity verbs with the features of atelicity. In sentential constructions, they necessarily occur with the progressive marker *nà* which precedes the verb root in the construction. However, they are also followed by Bound Cognate Nouns, which serve the same grammatical function as explained for examples (10a-f) above. The verbs code the MANNER and CAUSE of motion in addition to the FIGURE. The sentences in (12a-e) illustrate this fact.

12.

a. Òsìmìrì nà-é-rú èrù
River PROG-AGR-flow flowing
'The river is flowing'

b. Obi nà-a-sò gònò gònò
Obi PROG-AGR-move shaky shaky
'Obi walked in a staggering manner'

c. Ụ́gbọ́àlà à nà-à-ñà a-ña
Vehicle DET PROG-AGR-wobble wobbling
'This car is moving in a wobbling manner'

d. À mà ndị́ á nà-é-zè
PRON know people PRON PROG-dodging
'We don't know who to avoid harming us'

e. Ụ́rọ́ nà-è-zé ézé
Mud PROG-AGR-slide slides
'Mud do slide'

The analysis of (12a, b and c) exposes the semantic representation of the verbs in the constructions (12a-e). For example, in (12a) the verb *rú èrù* specifically encodes the various shades of the motion event. It encodes the manner which is the archetypical way rivers flow, and, the cause of motion which is obviously the under currents of the river. For the verb *sò gònò gònò* in (12b), it specifically encodes the manner of walking which is staggering.

For the FIGURE *òbí* to move in a staggering fashion means that something is causing it. This could be illness, drunkenness, or anything at all. And for the verb *ña aña* in (12c) it encodes the wobbling manner of motion of the FIGURE, *Ụ́gbọ́àlà* and this could be caused by factors such as irregular wheel balancing and alignment or some other mechanical faults.

2.5 **The lexical representation of motion verb roots in Igbo**

The semantic decomposition of verbs in Role and Reference Grammar is 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.

In the same vein, the motion verbs in Sections above will be analysed in terms of lexical decomposition to account for the idiosyncratic meaning of the verb. The lexical representation of the decomposition of verbs is known as its Logical Structure. This Logical Structure contains the argument structure of the verb. Following Agbo (2010; 2011) and insights from Van Valin (2005:45) the motion verbs in Section above fall into the *Aktionsart* classes of *Activity, Active Accomplishment, Accomplishment* and *Achievement Verbs.*

The Logical Structure for the motion verbs in Sections 2.1 to 2.4 is given in Table 1 below.

MOTION VERB TYPE	***AKTIONSART* CLASS**	**LOGICAL STRUCTURE**
Coding Figure, Path and Ground	Active Achievement	do′ (x, [**predicate**$_{1}$′ (x, (y))]) & BECOME **predicate**$_{2}$′ (z, x) or (y)
Coding Figure and Ground	Achievement	INGR **predicate′** (x) or (x, y)
Coding Figure and Manner	Accomplishment	BECOME **predicate′** (x) or (x, y) or BECOME **do′** (x, (x, [**predicate′** (x) or (x, y)

Coding Manner Cause	Figure, and	Activity **do′** (x, [**predicate′** (x) or (x, y)])

Table 1: The Lexical representation for *Aktionsart* classes of Igbo motion verb types.

The lexical representation of these four classes in Table 1 above brings out clearly the features of each class. It is important to point out the differences between the Igbo data in this work and other well studied languages like English and Spanish. The examples in (13) represent the difference between Igbo and English.

13.
a. Ọ́ bà-rà n'ụ́lọ̀ yá
3s (subj) enter-IND in house 3s (obj)
'S/he entered her/his house'

b. Òbí zọ̀-rọ̀ òsé n'álà yá
Obi transplant-IND pepper on land 3s (obj)
'Obi transplanted some pepper seeds in his land'

c. Ó fè-rè èfé (láá)
3s fly-IND flying (go home)
'S/he flew away (and went home)'

d. Òsìmìrì nà-é-rú èrù
River PROG-AGR-flow flowing
'The river flows'

Example (13a) includes the verb *bàà* 'enter' belonging to the class of verbs that code FIGURE, PATH and GROUND. As already explained the verb inherently codes PATH but must morphologically bind to itself a complement, which functions as the GROUND. The element GROUND in this case is not interpreted as the component of a transitive verb as in the case of the English translation in (13a). Instead, it is the morphological device the Igbo language employs to code the element in question.

In this wise, sentences without the verbal complement will not be acceptable to the Igbo speaker. For example the clause structure *Ọ́ bà-rà* without the verbal complement *n'ụ́lọ̀ yá* is unacceptable to the Igbo native speaker in any context. However, contrasting it with the English translation of (13a) the PATH verb *enter* takes *his/her house* as its object (or internal argument) and not its complement as in the case of Igbo. In other words, while the coding of PATH and GROUND in Igbo is a morphological phenomenon, its counterpart in English is syntactic.

This same analysis can be applied to (13b) with the verb *zọ̀* which codes FIGURE and GROUND only. In (13c) this typological difference is further delineated. Here the verb *fé éfé* does not take a verbal complement with a perceptible meaning. Instead *éfé* which functions as its complement is a morphological derivative of the verb root *fé*. However, contrasting it with the English verb *fly* shows that the verb can take an object in the sentence. For example, the sentence *she flew home* shows that the verb takes the object *home*, supporting the claim that the coding of GROUND in English is syntactic. Note that in (13c) Igbo codes the GROUND morphologically as explained in Section. The example (13d) can have the same analysis as (13c) for both the Igbo and English equivalents.

3.0 Conclusion

The analysis of the data collected has shown that the morphosyntactic coding of motion events in Igbo fall into four classes. These categories are determined by the morphological features of the Igbo verb as explained in Section above. The first class comprise the motion verbs coding FIGURE, PATH and GROUND. In this class, the verbs inherently code the element PATH but the morphological representation of the verb in clause structure codes the FIGURE and PATH. These verbs are active achievement verbs based on their 'inherent temporal properties'. In the second class are verb roots that code FIGURE and GROUND in their morphological formation at clause level. The verbs in this class are achievement verbs because of their inherent temporal properties.

The third class contains verbs that code FIGURE and MANNER, where MANNER is inherently coded in the verb and there is no morphological representation of the GROUND or PATH. These elements are understood in context. These are achievement verbs in keeping with their inherent temporal properties. The fourth class comprise verbs that code FIGURE, MANNER and CAUSE, where MANNER and CAUSE are inherently coded in the verb and understood in context.

In line with their inherent temporal properties, they are activity verbs. The lexical representation of these class of motion verbs are shown in Table 1. The analysis in this work is the foundation to the study of the core components of a motion events which Talmy (2000) and Slobin (1996) have stated as PATH and MANNER. As earlier stated, the linguistic analysis of motion events is a neglected area of Igbo study. Therefore, this work serves as the foundation for the contribution of Igbo to the study of this universal linguistic phenomenon.

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