ARGUMENT REALIZATION IN IGBO: THE CASE OF 'GIVE' AND 'THROW'-TYPE VERBS

Mbanefo Chukwuogor

Department of Linguistics Nnamdi Azikiwe University, Awka Email: mc.chukwuogor@unizik.edu.ng

Abstract

This paper adopts the basic tenets of Goldberg's (1995) construction grammar and draws major reference from Levin's (2008) paper on verbs of transfer and the cross linguistic realization of their arguments. Based on this, we set out to find the syntactic devices used in representing the two event schemas associated with the argument realization of these verbs in Igbo (the caused possession and caused motion events types). Consequently, it is discovered that the verbs 'give' and 'throw' and their equivalents in Igbo make use of the double object construction in realizing their arguments in the language. Finally, it is confirmed that this phenomenon is possible in Igbo due to the lack of overt dative case marking which leaves only one option available- the double object construction.

Keywords: Igbo, constructions, argument, event schema, transfer, possession

1.0 Introduction

Levin and Rappaport Hovav (2005:1) asserts that in the area of linguistics called argument realization is concerned with the study of the possible syntactic expressions of the arguments of a verb. An argument is any expression or syntactic element in a sentence that serves to complete the meaning of the verb. In English, a verb typically requires from one to three arguments. The number of arguments required by a verb is the valency of that verb. In a situation where a boy throws a ball, which hits a window and breaks it, this scene can be described using either sentence in (1), the first with *break* and the second with *hit*.

- 1. a. The boy broke the window with a ball.
 - b. The boy hit the window with a ball.

The participants in this scene – the boy, the window, and the ball – are expressed in a parallel fashion in both sentences: *the boy* is the subject, *the window* is the object, and *the ball* is the object of the preposition *with*. However, *break* can be used to describe a part of the same scene in another way, an option not available to *hit* as seen in (2)

- 2. a. The window broke.
 - b. *The window hit.

Furthermore, Levin and Rappaport Hovav (2005: 2) confirm that verbs fall into semantically identifiable classes, which are the basis for generalizations concerning argument realization. Break verbs such as *bend*, *fold*, *shatter*, *crack*, show the two argument realization options in (1) and (2), which together constitute the causative alternation (also known as the "anticausative" or "causative/inchoative" alternation). This alternation is characterized by verbs with transitive and intransitive uses, such that Chukwuogor

the transitive use of a verb V means roughly 'cause to V-intransitive'. In the discussion of the argument structure of Igbo verbs in the literature, there exists a dichotomy of approaches.

Emenanjo (1978, 2015) argues for a classification of the verbs based on the feature of complementation, while Nwachukwu (1987) maintains that 'transitivity' exists in Igbo and should be used in the description of Igbo verbs. This paper does not intend to continue this debate but observes that notionally, transitive (and ditransitive) verbs indeed exist in Igbo (see Chukwuogor, 2015). Nwachukwu (1987) discusses the argument structure of Igbo verbs with a focus on a special class of verbs called 'inherent complement verbs (ICVs)'. However, his work utilises the Government and Binding Theory of the Generative Framework. Furthermore, his work does not pay much attention to ditransitive verbs like *give*, *throw*, and *send*.

This paper utilizes some principles of the cognitive approach in addressing the issue of the argument realization problem of verbs of transfer such as 'give' and 'throw' while comparing the difference in the syntactic realizations available to the event schemas associated with the verbs in English and Igbo. This is done under the basic assumption that the verbs should retain their core meaning in translated equivalents across languages. However, since languages differ in the morpho-syntactic devices that they have available for expressing arguments, cross-linguistic differences might be expected in the syntactic realization of the event schemas (Levin and Rappaport Hovay, 2008).

The paper develops as follows: section 2.0 highlights the theoretical approach used in the study while explaining basic concepts that are relevant to the study. The concept of argument realization, verbs of transfer and their argument realizations in a few languages are also treated here. Section 3.0 of the work focuses on the argument realization in English with emphasis on the 'give' and 'throw'-type verbs before looking at the Igbo equivalents with the intention of finding out the argument realizations of the verbs of transfer in Igbo in section 4.0. Section 5.0 summarizes and concludes the work.

2.0 Literature Review

The approach used for this study is constructional in nature, specifically Construction Grammar (Goldberg 1995). This theory is one of the constructional approaches to the study of grammar which is still one of the cognitive approaches to the study of grammar. The concept of 'construction' is a term commonly found in 'construction grammar'. In construction grammar, a construction is a pairing of form and meaning (content). The formal aspect of a construction is typically described as a syntactic template; however, the form covers more than just syntax, as it also involves phonological aspects, such as prosody and intonation. The content covers semantic as well as pragmatic meaning. Goldberg (1995:4) observes that "constructions are taken to be the basic units of language and phrasal patterns are considered constructions if something about their form or meaning is not strictly predictable from the properties of their component parts or from other constructions". Hence, a construction is posited Chukwuogor

in the grammar if it can be shown that its meaning and/or its form is not compositionally derived from other constructions existing in the language. Goldberg expands the notion of constructions somewhat in adding that 'morphemes' are clear instances of constructions in that they are pairings of meaning and form that are not predictable from anything else (Saussure 1916 cited in Goldberg 1995: 4). In construction grammar, a grammatical construction, regardless of its formal or semantic complexity and make up, is a pairing of form and meaning. Thus, words are instances of constructions. Indeed, construction grammarians argue that all pairings of form and meaning are constructions, including phrase structures, idioms, words and even morphemes. For instance, the ditransitive construction whose form is the (S V IO DO) schema (where S is the subject, V is the verb, IO is the indirect object and DO is the direct object') is said to express the meaning 'X CAUSES Y TO RECEIVE Z'. In her monograph, Goldberg explores the idea that argument structure constructions are a special subclass of constructions that provides the basic means of clausal expression in a language. Examples of English argument structure constructions include the following:

3. Ditransitive: X causes Y to receive Z

Sub V Obj1 Obj2

Pat faxed Bill the letters.

4. Caused motion: X causes Y to move Z

Sub V Obj Obl

Pat sneezed the napkin off the table.

5. Resultative: X causes Y to become Z

Subj V Obj Xcomp She kissed him unconscious.

6. Intransitive motion: X moves Y

Subj V Obl The fly buzzed into the room.

(c.f. Goldberg 1995:3&4)

From the foregoing, these different constructions are held to be meaningful in their own right. These constructions, also specify ways in which verbs will combine with them by constraining the class of verbs that can be integrated into them, also restricting the meaning designated by the verb to match and represent the event types represented by the construction. Goldberg (1995) claims this process is based on compatibility. From the above example, two of the construction types: the ditransitive or caused possession construction (3), and the caused motion construction (4) shall be the basis of this work since they are both associated with verbs of transfer like *give* and *throw*.

2.1. Argument Realization

As stated earlier, argument realization involves the study of the possible syntactic expressions of the arguments of a verb. One of the major assumptions of most theories of argument realization is the fact that verb meanings represent construals of events rather than the events themselves. Levin and Rappaport Hovav (2005: 19) maintain that verbs lexicalize properties of happenings in the world where they use the term Chukwuogor

99

event for happenings whose properties are lexicalized by verbs. Verbs, then, are predicates of events and phrases containing verbs can be considered "event descriptions."

Since a particular happening in the world has many properties associated with it, different verbs, which lexicalize different subsets of these properties, may be applicable to the very same happening. The result is that certain happenings can be construed as events by languages in more than one way. Verbs used to describe such a happening will not have precisely the same meaning if they lexicalize distinct, though largely overlapping, sets of properties. Additionally, this points to the existence of semantically coherent classes of verbs. Similarly, verbs in some semantic classes show uniformity in argument realization within a given language, and these tend to be the same verbs whose options for argument realization come close to being uniform across languages.

Verbs in other classes tend to show variation in argument realization both within and across languages. Levin and Rappaport Hovav (2005) exemplify this phenomenon with psych-verbs, which display striking crosslinguistic variability in argument realization options. Overall, verbs like *frighten* do not show much crosslinguistic variation: they are consistently experiencer—object verbs (Croft 1993). This consistency is perhaps not surprising since these verbs describe the causation of a psychological state in the experiencer, and they often even take animate, agentive subjects, making them close to prototypical transitive verbs. The major departure from the agent—patient mold, then, is that their object is animate rather than inanimate. Italian *frighten* verbs, for example, are transitive verbs just like their English counterparts.

7. Questo preoccupa Gianni.

this worries Gianni

'This worries Gianni.' (Belletti and Rizzi 1988 cited in Levin and Rappaport Hovav 2005: 23)

However, there is a fair amount of crosslinguistic variation in the counterparts of the *fear* verbs, that is, the psych-verbs that are inherently noncausative. Italian, for instance, has verbs which are semantically *fear* verbs and which express their arguments precisely as the English *fear* verbs do.

8. Gianni teme questo.

Gianni fears this

'Gianni fears this.' (Belletti and Rizzi 1988 cited in Levin and Rappaport Hoyay 2005: 23)

In many languages, however, these verbs show a pattern of argument realization that is rarely available in English: the experiencer is in the dative case and the stimulus in the nominative case. In this paper, the group of verbs we are concerned with are verbs of transfer also known as dative verbs in some literature. We shall briefly dwell on the *dative* and *dative alternation* in the next section.

2.2 The Dative

To discuss the dative alternation, we need to understand the meaning of the term *dative*. According to Crystal (1980), "the dative case is a case that marks any of the following: indirect objects (for languages in which they are held to exist), nouns having the role of recipients (as of things given), beneficiary of an action, or possessor of an item." The dative case is a grammatical case generally used to indicate the noun to which something is given, as in *'George gave Jamie a drink'*, where *Jamie* is in the dative case. In modern English, an indirect object is usually expressed with a prepositional phrase of "to" or "for". If there is a direct object, the indirect object can be expressed by an object pronoun placed between the verb and the direct objects. For example, "he gave that to me" and "he built a snowman for me" are the same as "he gave me that" and "he built me a snowman". Here, the object pronoun "me' has the same function as a dative pronoun in a language that distinguishes the accusative and dative case. This distinction is very clear in German where the dative is used to mark the indirect object of a sentence. This is shown below:

- 9. Ich schickte dem Mann das Buch. (I sent the book to the man). 'dem Mann' is in the dative.
- 10. Das Buch auf dem Tisch. (The book is lying on the table).
- 11. Ich sandte das Buch zum Verleger. (I sent the book to the editor)
- 12. Ich gebe der Frau ein Buch. (I'm giving her a book)
- 13. Er schenkt mir ein Buch. (He's giving me a Book)
- 14. Ich habe das dem Mann schon gesagt. (I already told the man that).

From the examples above, the indirect object is the beneficiary of whatever happens in the sentence in German. It is usually a person, although it does not have to be. It is important to note that not every German sentence will have an indirect object and not all verbs allow an indirect object- only some allow indirect objects: to give (to), to bring (to), to send (to), to throw (to) etc are some examples of verbs that will almost always have an indirect object. The change in case from accusative to dative or vice versa in German is usually morphologically marked in the articles. This is shown in the table below:

Gender/Number	Masc.	Fem.	Nuet.	Plural
Definite Article	dem	der	dem	dem
Indef. Article	einer	einer	einem	keinem

Table 1: Dative case markers in German

Ironically, English does not morphologically distinguish between the direct and indirect object in sentences; rather, prepositions like "to" or "for" are used to mark the dative case.

Having looked at the notion of constructions and subsequently shed some light on the dative case, we proceed to discuss the dative alternation in the next section.1

2.3. The dative alternation

In the previous sub-section, constructions and examples of some constructions were highlighted. Two of these constructions were the ditransitive construction and the caused motion construction, which of course are meaningful in their own rights. These two constructions collectively make up the dative alternation. The alternation between both constructions is termed "the dative alteration".

Levin (2008) asserts that in some languages including English, verbs such as give, send, and throw, which can be used to describe events of transfer, show two options for expressing their arguments, jointly referred to as the dative alternation. This, she illustrated with the following English data:

- 15. a. Terry gave Sam an apple
 - b. Terry gave an apple to Sam.
- 16. a. Martha sent Myrna a package.
 - b. Martha sent a package to Myrna.
- 17. a. Leigh threw Lane the ball.
 - b. Leigh the ball to Lane.

Levin (2008) while citing Rappaport Hovav and Levin (2008), challenges the predominant view of the dative alternation in English which agrees that these alternating verbs have two meanings and accordingly assigns each meaning with a particular syntactic realization (e.g Green 1974, Krifka 1999, 2001, Oerhrle 1976, Pinker 1989, Harley 2003, Beck and Johnson 2004, Harley and Keyser 2002 as cited in Levin 2008). This predominant approach which Levin (2008: 285) terms the 'uniform multiple meaning approach is summarized below:

	" to " - variant	double object variant
all dative verbs:	caused motion	caused possession

Table 2: The Uniform multiple meaning approach (cf. Levin 2008: 285)

On the contrary, Rappaport and Levin (2008) following Jackendoff (1990), suggest that verbs differ in their association with the two meanings or events types. They argue that "give" and verbs like it only have a caused possession meaning whereby 'X causes Y to have Z', while 'throw' and 'send' and verbs like them both possess caused motion meaning and caused possession meaning. Furthermore, they show that in English the relationship between both event types and their arguments or (morpho)syntactic expression is not as straightforward as the uniform multiple meaning approach suggests. The assumptions of this approach are summarized below:

	" to " variant	double object variant
'give'-types verbs	caused possession	caused possession
'throw'- type verbs	caused motion or caused possession	caused possession
'send'-type verbs	caused motion or caused possession	caused possession

Table 3: The verb sensitive approach (cf. Levin 2008: 286)

Levin (2008) looks at the implications of the verb sensitive approach for understanding the argument realization options of the three verbs and the counterparts they represent in other languages and factors the argument realization problem with dative verbs into two parts: i) the possible association of these verbs with certain event schemas - a term she uses to refer to meaning that corresponds to a possible event type and ii) the possible syntactic realizations available to these event schemas. While the first part is mostly concerned with the nature of verb meaning, the second part is typological in nature. As stated in the early part of this paper, the meaning of the verbs in English and their association with possible event types should be equivalent in other languages since a verb's core meaning is assumed to be constant across languages in the verb sensitive approach. However, languages have different ways or morphosyntactic devices for expressing arguments, which brings up a possibility that the actual manifestation of the two event schemes – and indirectly, the verbs associated with them, may not be the same in English and Igbo.

This paper focuses on the manifestation of the event schema-argument realization associations with dative verbs (verbs of transfer like 'give' and 'throw') in English and Igbo, using data from both languages while trying to check for any similarities or differences in the arguments in both languages. The work shall not concern itself with the first part of Levin's argument realization problem, nor does it begin a discussion on whether the uniform multiple meaning approach is more adequate than the verb sensitive approach or vice versa. However, it emphasizes the view that both approaches have one thing in common-constructions. The next section attempts a description of the syntactic realization of the event schema in English.

3.0. The Argument Realization of English Verbs of Transfer

<u>In</u> the dative alternation, two event schemas are involved with two possible realizations. The caused possession schema is associated with the double object construction, whereas the caused motion schema is involved with the prepositional indirect object construction ('to' variant) as shown below:

Event schemas	Possible syntactic realizations
caused possession schema	double object construction
'X causes Y to have Z'	
caused motion schema	prepositional indirect-object construction ('to' variant)
'X causes Z to be at Y'	

Table 4: Event schemas and their possible syntactic realizations

Event schemas represent basic event types, and the caused motion and caused possession schemas embody two different causative events. One involves possession and the other involves a motion to a goal, perhaps in an abstract domain along the lines embodied in the Localist Hypothesis (Truber 1965, Jackendoff 1972, 1983, cited in Levin 2008). Both event schemas involve agent and theme arguments, the x and z arguments. The distinction between the two schemas is embodied in the 'semantic' role of the y arguments: in the caused possession schema, this argument is a recipient while in the caused motion schema this argument is a spatial goal (Levin 2008: 287). Goldberg (1995) recognizes that differences in complement configuration are associated with differences in meanings while stating an example in the ditransitive construction which requires that its goal argument be animate, while the same in not true of paraphrases with 'to'. She goes ahead to give the following examples below:

- 18. a. I brought Pat a glass of water (ditransitive).
 - b. I brought a glass of water to Pat.
- 19. a. *I brought the table a glass of water (ditransitive)
 - b. I brought a glass of water to the table. (Partee 1965 cited in Goldberg 1995: 2)

One way in which analyses of the dative alternation diverge is in the way which both event schemas are taken to be associated with verb roots. Goldberg (1995) asserts that constructions must be able to constrain the class of verbs that can be integrated to them in various ways and they must also specify the way in which the event type designated by the verb is integrated into the event type designated by the construction. From this, one can agree that verbs have frame semantic meanings which draw reference to a background frame rich with world and cultural knowledge (Fillmore 1975, 1977b cited in Goldberg 1995). These verbs also have central or core meanings while metaphorical extensions are derived from them. This also applies to constructions. The merging of the meaning instantiated by the verb and the event type instantiated by the construction is based on compatibility.

The English verb 'give' is the most prototypical ditransitive verb whose core meaning which involves transfers of possession is the same as the ditransitive construction. This makes it the best candidate to appear in the ditransitive construction. For example: 20. Obi gave Ada the book

In (19), Obi possesses an object (the book) which is transferred to a recipient (Ada). The recipient (Ada) receives the book. This transfer is successful and physical, and these are inherently lexicalized by the verb 'give'. Other 'give'-type verbs such as 'grant' and 'lend', still lexicalize the concept of possession but not as concretely as 'give' as shown below.

- 21. He granted me freedom
- 22. He lent me some money

In (21) there is metaphorical transfer of possession whereas in (22) there is a transfer of possession which has a limited duration.

The 'throw' verb in English and its counterparts have another event schema – an activity event schema (Levin 1999, Rappaport Hovav and Levin 1998 cited in Levin 2008: 289). These verbs denote events where an entity instantaneously imparts force on another- the force recipient and vary in the manner and instruments used in imparting the force (Jackendoff 1990, Pinker 1989 cited in Levin 2008: 289). These verbs lexicalize a movement of the force recipient but do not lexicalize the path to a goal. Hence, they are naturally associated with the caused motion schema because events of imparting force may cause the force recipient to move to a goal. The 'throw' type verbs in English can also be associated with the caused possession schema along side the caused motion schema. This does not change the fact that the association with the caused motion schema is more basic.

- 23. a. Obj threw me the ball.
 - b. Obi threw the ball to me.

In the above dative alternation, the verb "throw" appeared in the double object variant (a) and the *to* – variant (b). While the (a) variant indicates a transfer of possession from 'Obi' to 'me' as its basic sense, the (b) variant indicates a motion of an item (the ball), caused by the agent (Obi) towards a goal (me). The (b) variant through metaphorical extension can also be associated with the caused possession schema. To do so, we must agree that the ball reaches its goal which eventually makes it a possessor. Here, a movement of an item effects a change in possession of the said item. These verbs (throw-type), as stated before, lexicalize the manner of the activity. Hence, throw-type verbs such as 'fling, flip, kick, lob, slap, shoot, throw etc' (c.f Levin 2008) lexicalize different manners of the activity involved with the central member of the class represented by 'throw'.

It has been observed that the English dative verbs 'give' and 'throw' differ in the argument realization of their associated event schemas due to their basic meanings. The next section shall look at the translation equivalents of both verbs in Igbo and see if both argument realizations are possible in the language.

4.0. Giving and Throwing in Igbo

According to Levin (2008), typological studies of the argument realization of English dative verbs especially give-type verbs point to two options that languages provide for expressing a recipient: as the first object in a double object construction and as a dative-marked NP. Sierwierska (1998 cited in Levin 2004) suggests that cross-linguistically dative NPs and first objects are in complementary distribution. Igbo happens to be a language without overt case marking, and as such, without a dative marker (Nwachukwu 1987: 6). This leaves just one option available- the first object. This section tries to show how the arguments of 'give' and 'throw' ('nye and 'tu' respectively) in Igbo are realized.

Uchechukwu (2008: 393) citing Newman (1996) asserts that the Igbo verb 'nye' is like the 'give' verb in any other language which typically involves an act "whereby a person (the giver) passes with the hands control over an object (things) to another person (the recipient)". He goes ahead to present the 'give' configuration into two Chukwuogor

parts- the literal meaning and its figurative extensions. While discussing the literal aspect of '-nye', Uchechukwu (2008) observes that this aspect of '-nye' involves the three components of a typical give scenario: 'a giver', 'a thing', a recipient as shown below:

24. Àda nyèrè Uchè àkpà m Ada give- rV (PAST) Uche bag I

'Ada gave Uche my bag'. (c.f Uchechukwu 2008: 393)

25. Òbi nyèrè Àda egō
Obi give- rV (PAST) Ada money
'Obi gave Ada money'

Note: Following Green and Igwe (1963) high tones are left unmarked

In (24) and (25), both sentences involve the basic sense of '-nye' (give) which is identical to the caused possession schema. This event schema is realized using the double object argument whereby the recipient is the first object. This leaves us with the question- how do we realize the 'to-variant' in Igbo? The answer to this question lies in the concept of dative case. Igbo lacks a means to morphologically mark this case (see Chukwuogor, 2020: 43ff) and, as such, cannot overtly mark them (Nwachukwu, 1987: 10). Obviously, the dative construction expresses a meaning of caused motion. This caused motion meaning can be associated with the double object construction.

26. Òbi nyèrè Àda egō Obi. Nom give-rV (PAST) Ada money.Acc 'Obi gave Ada money.'

Here, the verb 'nye' still denotes an act of transfer of money (ego) from Obi to Ada. The throw verb in Igbo (tuo) involves an activity of caused motion of an item towards a goal. In English, this event schema is basically represented with the prepositional 'to' phrase. An Igbo equivalent would look like:

27. Òbi tùrù m mkpumè.
Obi throw-rv (PAST) I stone
'Obi threw a stone at me.'

Another throw-type verb – 'send' ('-zi') also associated with the caused motion schema is realized with the double object construction as shown in (28) below:

28. Òbi zìrì mè ozi.
Obi send-rV (PAST) I message
'Obi sent me a message.'

'-ma', another throw-type verb in Igbo still realizes its argument with the double object variant as in (29) below:

29. Àda màrà Obi ọra
Ada throw-rV (PAST) Obi slap
'Ada slapped Obi.'

In (27-29), the double object construction is used to represent the caused motion schema. Based on the data available, the 'give' and 'throw'-type verbs in Igbo all make Chukwuogor 106

use of the double object construction to represent both the caused possession and the caused motion schema. The 'to variant' in Igbo does not exist in Igbo primarily due to a lack of the dative case and an overt morphological marker in the language. However, this case is implied in the meaning of the verb which helps bring out the caused motion schema. Furthermore, the dative alternation as observed in English does not hold in Igbo due to the lack of dative construction (and by this, I mean constructions with dative marked NPs).

Finally, Igbo makes use of the double object construction to express the caused possession and caused motion event schemas which differ from the case in English (using either the verb sensitive approach or the uniform multiple meaning approach. As Haspelmath (2005) puts it, "ditransitive constructions are not independent of other typological parameters: dependent marking languages with case-marking tend to show the indirect object pattern,..., and the double object pattern is most common in languages with no case marking", we tend to agree with him that this phenomenon holds in Igbo as it is an example of a language without case marking.

5.0. Summary and Conclusion

This paper provides an insight into the manifestation of the argument realization options available to dative verbs in Igbo while taking the basic notion of dative case and its examples in languages like English and German as my starting point. I went further to talk of the concept of the dative alternation while drawing reference from Levin (2008), which states two problems with the argument realization of dative verbs. While laying emphasis on the second part of the problem which is typological in nature, we show the way 'give' and 'throw'-type verbs in Igbo realize their arguments. Consequently, it is discovered that no preposition is needed to express the goal or recipient of the object or theme in Igbo, therefore theta role assignment must be positionally determined and deep structure and surface structure positions are invariant. The logical consequence to this fact is that there is no such rule as dative shift or alternation in Igbo syntax, and therefore there is no double object alternation in the language. For this reason, the language makes use of the double object construction to represent the verbs' association with the caused motion and caused possession schema.

References

Amaechi, M. (2013). Case Checking in Igbo Serial Verb Constructions. In *Research on Humanities and Social Sciences*. Vol.3, No. 9 (http://www.iiste.org)

Chukwuogor, M. (2020). *Ditransitive Contructions in Igbo*. Mauritius: LAMBERT Academc Publishing

Croft, W. & Cruse, D. A. (2004). *Cognitive Linguistics*. Cambridge: Cambridge University Press.

Crystal, D (1980). A First Dictionary of Linguistics and Phonetics. Boulder, CO: Westwiew. Retrieved from Lingualinks Library database.

Echeruo, M.J.C (1998). Igbo-English Dictionary. London: Yale University Press.

- Emenanjo, E. N. (2005). Igbo verbs. transitivity or complementation. In Ozo-mekuri Ndimele, (ed.) *Trends in the Study of Languages and Linguistics in Nigeria (A festschrift for P.A. Nwachukwu)*. Port Harcourt. Grand Orbit Communication and Emhai Press, 479-497.
- Emenanjo, E.N. (1984). *Igbo Verbs. Transitivity or Complementation?* A paper presented at the 5th Annual Conference of the Linguistics Association of Nigeria, Nsukka.
- Evans, V. & Green, M. (2006). *Cognitive Linguistics: An introduction*. Edinburgh, UK: Edinburgh University Press.
- Geerarts, D. & Cuyckens, H. (2007). Introducing cognitive linguistics. In Geerarts, D. & Cuyckens, H. (Eds.), *Oxford Handbook of Cognitive Linguistics*. Oxford: Oxford University Press. (pp. 3-21).
- Goldberg, A.E. (1995). Constructions: A Construction Grammar Approach to Argument Structure. Chicago, IL: University of Chicago Press.
- Green, M.M. & Igwe, G.E. (1963). *A Descriptive Grammar of Igbo*. Berlin: Akademie-Verlag.
- Haspelmath, M. (2005). Ditransitive constructions: the verb "Give". In Haspelmath, M., Dryer, M.S., Gil, D. and Comrie, B. (Eds.), *The World Atlas of Language Structures (pp. 466-469)*. Oxford: Oxford University Press.
- Levin, B. (2008). Dative verbs: A crosslinguistic perspective. *Lingvisticæ Investigationes*, 31, 285-312.
- Levin, B., & Rappaport Hovav, M. (2005). Argument Realization (Research Surveys in Linguistics). Cambridge: Cambridge University Press. doi:10.1017/CBO9780511610479
- Newman, J. (1996). Give: A cognitive linguistic study. Berlin: Mouton de Gruyter.
- Nwachukwu, A.P. (1987). *The Argument Structure of Igbo verbs* [Lexicon Project Working Papers 18]. Cambridge MA: The Center for Cognitive Science, MIT.
- Nwachukwu, P. (1984a). Transitivity. In Nwachukwu, Philip (ed.). *Readings on the Igbo verb (Studies in Igbo Linguistics vol. 1)*. Nsukka: Igbo Language Association, 102-121.
- Saah, K.K. and Eze, E. (1997). Double objects in Akan and Igbo. *Object Position in Benue-Kwa*. Workshop at University of Leiden: Neitherlands.
- Uchechukwu, C. (2008): The grammmaticalisation of prepositional markers in Igbo: The example of the verb root –nye 'give'. In Asbury, A. Dotlacil, J., Genrke, B. and Nouwne, R. (Eds). *Syntax and Semantics of Spatial P (pp. 388-407)*. Amsterdam: John Benjamins Publishing Company.