

Journal of Universal Language 24-1. March 2023, 57-76  
DOI 10.22425/jul.2023.24.1.57  
eISSN 2508-5344

# Argument Alternation in Etulo

**Adaobi Ngozi Okoye**

*Nnamdi Azikiwe University, Nigeria*

## Abstract

Experiential verbs provide information on the type of stimulus experienced by an entity. The experiential verb class provides certain features across languages. One of the features concerns their ability to allow arguments to change positions in their occurrences as subjects and objects in sentential constructs without a resultant meaning change. The present study explores this verb class in Etulo, a Benue Congo language of the Niger-Congo language family. Specifically, this study attempts a description of the Etulo verbs that convey information about an entity's experience. The features provided by the Etulo verbs are examined in line with cross linguistics features ascribed to experiential verbs. Data for the study were elicited from competent native Etulo speakers residing

---

Adaobi Ngozi Okoye

Senior Lecturer, Department of Linguistics, Faculty of Arts, Nnamdi Azikiwe University, Nigeria  
Email: an.okoye@unizik.edu.ng

Received 31 August, 2022; Revised 7 December, 2022; Accepted 26 January, 2023

Copyright © 2023 Language Research Institute, Sejong University  
Journal of Universal Language is an Open Access Journal. All articles are distributed online under the terms of the Creative Commons Attribution Non-Commercial License (<http://creativecommons.org/licenses/by-nc/3.0>) which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

in Adi, Buruku local government area of Benue state, Nigeria. From the verbs examined, this study discovers that most Etulo experiential verbs allow their arguments to switch positions without any resultant change in meaning. The experiential verbs appear as predicates of involuntary activities, and additional arguments are obligatory for an animate experiencer. The study substantiates cross-linguistic findings on experiential verbs.

Keywords: experiential verb, psyche verb, Etulo language, argument switch

## 1. Introduction

The special status of the arguments of experiential verbs, also referred to as psychological or psyche verbs, have been documented across languages. From a cross-linguistic perspective, certain peculiar features have been attributed to this verb class. For instance, the verb class involves two participants, and both participants can be realized as either the subject or the object of the verb.

Experiential situations have often been seen to mainly comprise states. However, predicates imply a change of state yet indicate states also belong to this class. Such predicates as ‘feel cold’, ‘be afraid’, ‘love’, ‘know’ are atelic and indicate states, and hence, they can be construed as telic events, as in ‘get cold’, ‘get scared’, ‘fall in love’, ‘learn,’ etc.

Verhoeven (2007) observes the fact that states lack a temporal dimension, resulting in them often being encoded as nouns or adjectives, rather than verbs, as is also partly the case in English.

Generally, experiential verbs have attracted scholarly interest basically due to the nature of their arguments. According to Landau (2010), a psyche verb is any verb that carries psychological

entailments with regard to one of its arguments, usually the EXP.<sup>1</sup> The recognition of this class of verbs as a special semantic class dates back to Postal (1971) who provided a syntactic account of this verb class. Semantically-oriented theories which have their emphasis on thematic relations have also been applied to the verb class due to the syntactic violations observed in the delineation of arguments based on the application of syntactic theories. Part of the issues posed by the psyche verb class concern the realization of subject and object EXP roles in sentential construct. For instance, following thematically based theories of grammar, a one-to-one correspondence exists between thematic roles and syntactic positions. However, the case with psyche verbs differs as the psyche verbs seem to realize the same roles in different syntactic positions.

In the study of the Etulo verb, it is observed that certain verbs allow alteration of arguments (subject and object) in a sentential construct. The observed alteration, however, does not bring about a change in the meaning of the expression. These verbs are examined in the present study in order to ascertain their distribution as well as to account for their possible features. The paper is organized as follows: Section 2 reviews literature related to the present study, while Section 3 discusses the methodology. In Section 4, argument realization in Etulo in addition to Etulo experiential verbs is explored. Section 5 forms the conclusion of the study. The next section goes into existing works in the direction of the present research.

---

<sup>1</sup> The following abbreviations are used in this paper: ACC (accusative), EXP (experiencer), MA (Moroccan Arabic), NOM (nominative), PROG (progressive), SG (singular), SM (subject marker), STIM (stimulus), SVO (subject verb object).

## 2. Studies on Experiential Verbs

Languages are assumed to have varied classes of EXP verbs. The major distinction ascribed to this assumption is between EXP subject and EXP-object verbs (Belletti & Rizzi 1988, Landau 2010). In addition, particular linking behavior which deviates from that of prototypical transitive verbs has been ascribed to these subclasses. These peculiarities have been captured in terms of the difference in constituent structure (Postal 1971, Belletti & Rizzi 1988) and the difference in semantics.

Given these suppositions, studies have either to substantiate or refute the claim. For instance, Verhoeven (2010) examines whether the assumption about different semantics of verb classes may be empirically attested in the speaker's intuitions about the felicity of verbs in particular contexts. Focusing on the non-agentivity and stativity of EXP Object verbs based on empirical study in German, Modern Greek, Chinese, Turkish, and Yucatec Maya languages, the study offers evidence that languages differ with regard to the lexical specification of EXP Object verbs for agentivity and stativity. Verhoeven's (2010) study, which has implications for the typology of EXP Object verb classes, submits that speakers' intuitions show that the heterogeneity of transitive EXP Object verbs apply to languages like German and Modern Greek but is not confirmed for Yucatec Maya, Turkish and Chinese. Based on the languages investigated, Verhoeven's (2010) study submits that transitive EXP Object verbs split into two types, namely Type 1 represented by German and Modern Greek and Type 2 comprising Turkish, Yucatec Maya, and Chinese. Furthermore, the author avers that Type 1 (German & Modern Greek) distinguishes between a class of labile transitive EXP Object verbs compatible with agentive dynamic

reading in addition to another class of transitive non-agentive EXP Object verbs that are stative. The Type 2 languages (Turkish, Yucatec Maya & Chinese) possess an analogous class of transitive EXP Object verbs similar to canonical transitive verbs, which can accommodate an agentive reading.

Temme (2018) observes that the most significant identification feature for psyche predicates is that one of their arguments termed EXP is in a mental or emotional state. The EXP argument in a two place argument structure usually has a corresponding counterpart referred to as the STIM.

Another property ascribed to psyche predicate is the ability to exhibit morpho-syntactic variability as shown in the instances below.

- (1) a. Laura           liebt   das            lied  
       Laura.NOM   love   the.ACC   song.ACC  
       ‘Laura loves the song.’
- b. Das            Lied            begeistert   Laura  
       the.NOM   song.NOM   delight    Laura.ACC  
       ‘The song delights Laura.’

(Culled from Temme 2018: 22)

The examples show the existence of different case patterns for the stimuli and EXPs. Temme (2018) posits that psyche verbs denote emotional or mental states, while one of the arguments always represents the individual that carries the relevant feeling. A feature associated with the arguments of the verb is that the EXP and STIM can be encoded differently.

Laraghi (2020) introduces the term *expertum*, which refers to the content that is being experienced by the EXP. Thus, Laraghi suggests

that the EXP is the main argument given a typical two-place argument of an experiential verb construct.

In the English language, the examples from Landau (2010: 3) shown below illustrate the case with psyche verbs.

- (2) a. John (EXP) fears ghosts (theme).  
b. Ghosts (theme) frighten John (EXP).
- (3) a. Mary (EXP) worries about the ozone layer (theme).  
b. The ozone layer (theme) worries Mary (EXP).
- (4) a. John (EXP) likes long novels (theme).  
b. Long novels (theme) please John (EXP).

From the examples above, one observes that the arguments of the verb *fear* in (2a) switch positions in (2b). This obvious switch does not however bring about a change in meaning. This is also the case in examples (3) and (4). One may, however, argue that the verbs are not exactly the same but the interest of this study, and the fact remains that the subject EXP changes from being at the sentence-initial position to the object position, which is illustrated by the examples in (2)–(4) being in sentence-final positions. This obvious change, however, fails to bring about a change in meaning.

This class of verb has also been recorded in Italian as illustrated in example (5).

The Italian data below further confirms argument switch as an attribute of the experiential verb class.

- (5) a. Gianni teme questo.  
‘Gianni fears this.’

- b. Questo preoccupa Gianni.  
 ‘This worries Gianni.’

(Culled from Belletti & Rizzi 1988)

The Italian examples, just like their English counterpart, demonstrate a swap in argument positions with a slightly modified meaning resulting from the verbs *teme* ‘fears’ in (5a) and *preoccupato* ‘worries’ in (5b).

Engelberg (2014) in discussing the psyche verb class in German, notes that many psyche verbs allow alternation between stimuli and EXPs in the subject position. The author explores the quantitative distribution of psyche verbs with regard to their argument structure patterns, and more specifically the linguistic and nonlinguistic factors that determine the argument distribution of psyche verbs. Based on data from studies on German verbs in newspaper texts, German verbs in Corpora representing different text genres, and contrasting German and Romanian verbs in newspaper text, Engelberg (2014) asserts that different genres show particular preferences for specific kinds of argument structure patterns. On the basis of verb profile analysis, Engelberg posits that the cognitive entrenchment of each argument structure pattern seems to be facilitated by its strong association with very few verbs. Hence the authors assert that the general principle of the memory system influences the distribution of arguments.

The psyche verb class has also been observed in African languages (Igbo, Lamnso), and in tandem with already ascribed properties, the verbs have been noted to allow switch between arguments. The term subject-object switching is ascribed to Uwalaka (1988), who was the first to observe such verbs in Igbo, a Kwa language of the Niger-Congo language family. The subsequent

investigation carried out by other scholars substantiates Uwalaka's claim on the existence of this verb class as well as the peculiarity they demonstrate especially with regard to the alternation of arguments (Uchechukwu 2007, Agbo 2009, Iloene & Iloene 2013, Uchechukwu & Egenti 2015).

According to Uwalaka, only Igbo experiential and process verbs allow subject-object switching in a sentential construction. Furthermore, Uwalaka submits that verbs allowing subject-object switching have animate grammatical subjects. Experiential verbs according to Uwalaka are verbs that refer to the perception, cognition, sensation, and reaction of an entity. In addition, Uwalaka posits that experiential verbs centre on an entity's inner experience. Agbo (2009), however, includes action verbs among the class of verbs that allow subject-object switching. In addition, Agbo refutes the earlier claim by Uwalaka on the animacy status of the grammatical subjects in subject-object switching and claims that verbs involved in this type of phenomenon also take inanimate grammatical subjects.

Uchechukwu (2007) views the phenomenon from the cognitive grammar perspective and suggests that the alternation involves two orientations, which are agent-orientation and patient-orientation. Uchechukwu & Egenti (2015) describes experiential verbs as those verbs used to code or give expression to one's inner psychic processes or emotions. The authors advocate the cognitive grammar concept of construal as a tool for identifying and exploring the Igbo experiential verbs. Construal according to Uchechukwu & Egenti (2015) refers to the different ways of picturing or imagining a conceived situation. They devote attention to the patient-oriented construal of different categories of Igbo experiential verbs with the aim of using the cognitive approach to reveal the construal central to the Igbo language. Based on their findings, the authors emphasize



the patient-oriented angle as a valid perspective for Igbo experiential verbs and further suggest that the patient-oriented viewpoint is central to the Igbo language.

Iloene & Iloene (2013) approach the issue of symmetrical predicates from a semantic perspective. From the point of view of the semantic roles, the authors argue that although the swapping of grammatical functions produces two grammatically well-formed sentences, the semantic roles in the two sentences remain the same. This suggests that whereas grammatical roles change at the syntactic level, semantic roles remain invariable.

Yuka & Agbo (2016) also observe this same phenomenon in Lamnso! Experiential verbs according to them, involves the swapping of syntactic positions between the subject and the object of a clause. They note that such verbs as *kiísi* ‘to cough’, *yar jíŋ* ‘to be affected by hunger’ and *shwiy kilon* ‘to be angry’ permit the swapping of arguments. Their examples are shown in (6).

- (6) a. Kila Ø kiísi kighíisi.  
 Kila pres pro-cough cough  
 ‘Kila is coughing.’
- b. Kighíisi ki Ø kiísi kila.  
 cough SM<sup>7</sup> pres cough kila  
 ‘Kila is coughing.’ (Yuka & Agbo 2016: 78)

The Lamnso! examples from Yuka & Agbo (2016) affirm the submission by Iloene & Iloene (2013) on Igbo symmetrical predicates.

Elasri & Boubekri (2020) explores the universality and cultural specificity of emotions through a comparative analysis of emotion terms in English and MA. Based on semantic analysis, they discover

that the organization of emotion terms in MA share similarity with English, a finding which is consistent with Johnson-Laird & Oatley (1989)'s theory of emotions. The authors, however, note that causative emotions comprise the highest category in MA hence suggesting that emotions in the language are socially constructed.

Stonham (2019) discusses incorporation in Southern Wakashan languages, a family of languages spoken in the Pacific, northwestern North America. Based on findings from textual materials and available recordings in the language, the author submits that what occurs in Southern Wakashan languages is not noun incorporation but a process of theme-attraction triggered by a feature of bound verbs.

From a morphosyntactic point of view, Caesar (2019) investigates allusive names in Dangme using both primary and secondary data. Following a categorization and coding analysis, Caesar claims that morphologically, Dangme allusive names are derived from morphemes and combine roots with other roots. With regard to syntax, the author submits that allusive names in dangme can take lexical, phrasal, and sentential forms and function as declarative, imperative, and interrogative clauses reduced to personal names.

In a study of negative markers in Idoma and Tiv languages, Sanusi & Oyewale (2019) attempt to discover the extent to which the strategies for marking negation in the two languages conform to the language universal assumption on negation. They adopt the principle and parameters approach in the analysis of the data and claim that negation in Tiv and Idoma contradicts the assumption under language universals because the negative markers occur at the sentence-final position rather than precede the main verb. The occurrence of a negative marker at the sentence-final position also occurs in the Etulo language.

Having reviewed studies on experiential verbs and other related studies across languages, one discovers that one major feature ascribed to psyche verbs pertains to the ability of their arguments to switch positions.

### 3. Methodology

Data for the study is based on elicitations from competent adult native speakers of the Etulo language. Based on the elicitations, a total of nine (9) verbs which demonstrate argument switch in Etulo are examined and analyzed descriptively. The language under investigation is a tone language having high, low, downstep, and gliding tones. In this study, we would follow Green & Igwe's (1963) tone marking convention. Following this convention, the low tone is indicated with a grave accent [ˋ], the step tone is marked with a macron [ˉ], the gliding tone is marked with a modifier letter up arrowhead [ˆ], while the high tone is left unmarked. All tones except the high tones are marked in the Etulo data presented in Section 4 and Subsection 4.1. The present study adopts the Leipzig glossing rule in the gloss of the Etulo data.

The argument realization in Etulo is discussed in Section 4, while Subsection 4.1. explores the Etulo verbs that permit switches in subject and object arguments.

### 4. Argument Realization in Etulo Verbs

The basic structure of the Etulo clause is SVO. The Etulo verb consists of a verb stem in combination with other optional

constituents. The verb in Etulo can be used alone. In addition, the verb can occur alongside its arguments. Consider the following examples in (7) & (8).

- (7) a. Kwa/bâ.  
‘Come.’
- b. Luū!  
‘Go!’
- c. Èfu bā.  
Efu come  
‘Efu came.’
- (8) a. Èfu gyā āngwō.  
Efu buy yam  
‘Efu bought yam.’
- b. \* āngwō gyā Èfu.  
yam buy Efu  
‘Yam bought Efu.’

The Etulo example in (7a) instantiates the use of the Etulo verb in isolation. The use of the verb this way can be extended to the imperative (notice the exclamation mark) in (7b). In (7c), the verb is used alongside a subject noun phrase and thus (7c) exemplifies an Etulo intransitive construction having only one argument. Example (8a) shows the verb *gyā* ‘buy’ with two arguments *Èfu* ‘personal name’ as a subject and *āngwō* ‘yam’ as an object. (8b) instantiates a switch in the position of subject and object argument. This, however,

yields an ungrammatical structure not necessarily due to a violation of the Etulo word order, but rather based on a lack of meaning and subsequent non-demonstration of native-like competence in the language. Consider example (9) below.

- (9) Èfu kpà aní.  
 Efu like 1SG  
 ‘I like Efu.’

As pointed out earlier, Etulo has SVO word order. However, the expression *Èfu kpà aní* which translates to *I like Efu* in (9) demonstrates a hierarchy of argument in which the subject position is occupied by the theme, while the EXP occupies the object position. The same hierarchy of argument seems to apply to the Igbo expression in (10).

- (10) Agwa na a-masi m.  
 Beans PROG pre-like 1SG  
 ‘I like beans.’

However, this is different from what obtains in the English language, where the subject is the EXP, while the object corresponds to the theme. It should be noted that the Etulo verb *kpa* ‘like’ in example (9), despite being an experiential verb, does not demonstrate an argument switch in a way that other experiential verbs do (Section 4). We shall, however, not venture into this exception in the present study.

The next section of this paper shall go into the discussion of the verbs that allow argument alternation in Etulo, an Idomoid language of the Benue Congo language.

#### 4.1. Argument Switch in Etulo Verbs

Despite the unacceptability of the structure in (8b) as a variant of (8a), there are some Etulo verbs that allow their arguments to modify positions in their occurrences as subjects and objects in sentential constructs. The alteration in argument positions, apart from being syntactically and grammatically acceptable, still yields the same meaning to the Etulo native speaker. The verbs found to exhibit this pattern are shown in example (11).

- (11) a. Èfu lè kyō itingā.  
 Efu PROG do anger  
 ‘Efu is angry.’
- a'. itinga lè kyō Èfu.  
 anger PROG do Efu  
 ‘Efu is angry.’
- b. Anî lè mwa mna.  
 1SG PROG catch sleep  
 ‘I am feeling sleepy.’
- b'. Mnâ lè mwā anî.  
 sleep PROG catch 1SG  
 ‘I am feeling sleepy.’
- c. Anî lè wò imiyō.  
 1SG PROG catch fear  
 ‘I am afraid.’

- c'. Ìmiyṑ lè wò aní.  
fear PROG catch 1SG  
'I am afraid.'
- d. Anî lè yà àyibū.  
1SG PROG feel dizzy  
'I am feeling dizzy.'
- d'. Àyibū̀ lè yà aní.  
dizzy PROG feel 1SG  
'I am feeling dizzy.'
- e. Anî lè kwu àyiwù.  
1SG PROG catch shame  
'I am ashamed.'
- e'. Àyiwù̀ lè kwu aní.  
shame PROG catch 1SG  
'I am ashamed.'
- f. Anî lè dọ̀ otsē.  
1SG PROG catch sickness  
'I am feeling sick.'
- f'. otse lè dọ̀ aní.  
sickness PROG catch 1SG  
'I am feeling sick.'
- g. Anî lè kwɔ̀ òkwò.  
1SG PROG cough cough  
'I am coughing.'

- g'. ðkwò lè kwo anî.  
cough PROG cough 1SG  
'I am coughing.'
- h. Anî lè dò èmbwà.  
1SG PROG catch hunger  
'I am hungry.'
- h'. Èmbwà lè do anî.  
hunger PROG catch 1SG  
'I am hungry.'
- i. Anî lè wulu ifu.  
1SG PROG pain stomach  
'I am having a stomach ache.'
- i'. Ìfu lè wulu anî.  
stomach PROG pain 1SG  
'I am having a stomach ache.'

The examples in (11a) through (11i) are representative of the Etulo verbs that allow alternation of arguments without any corresponding change in meaning. The verbs that manifest argument alternation appears as predicates of involuntary activities. The subject argument of the verb *kyɔ*, *Efu*, which is the EXP in (11a), changes to the object argument position in (11a'). Though the change does not affect the meaning, there is an observed change in the tone of the verb *kyɔ*. Notice that the verbs in examples (11a) through (11i) are all verbs of bodily reaction, which are usually beyond the control of the EXP. For instance, the verb in (11a) &



(11c) refers to the inner feeling of the EXP *Efu* ‘personal name,’ where the STIM *ìtingā* ‘anger’ and *imiyo* ‘fear’ appear abstract yet with the ability to trigger what is being experienced. As previously pointed out, verbs that exhibit this shared pattern also exist in other African languages. In Igbo for instance, Uwalaka (1988) posits the existence of this phenomenon and describes it as subject-object switching. However, Uchechukwu (2007) views the phenomenon from the cognitive grammar perspective and suggests that the alternation involves two orientations, which are agent-oriented and patient-oriented construals.

Within the role and reference grammar framework, this phenomenon is seen as an instance of a privileged syntactic argument. According to Van Valin (2005), a privileged syntactic argument is a conception of grammatical relation, which is construction-specific. That is, a privileged argument is identified for each construction such that if a single expression contains two different constructions with a distinct privileged syntactic argument, conflict need not arise. In examples (11a)–(11i), the privileged argument is *anī* ‘1SG’ while (11a’)–(11i’) have *ìtingā* ‘anger’, *mnā* ‘sleep’, *ìmiyō* ‘fear’, *àyibū* ‘dizzy’, *àyiwù* ‘shame’, *otse* ‘sickness’, *ḍkwḍ* ‘cough’, *èmbwà* ‘hunger’ and *ìfu* ‘stomach’.

As evident from the Etulo language examples, the two arguments of the verbs are retained in sentential construct, and the construct is adjudged grammatical in Etulo.

## 5. Conclusion

In this study, we have examined the class of verbs relating to bodily and internal experiences in Etulo. These verbs are also

referred to as psyche verbs. We have examined in a more general way the peculiar features ascribed to this verb class, especially with respect to their ability to switch arguments in sentential constructs. This particular feature, which has been confirmed for languages such as English, German, Igbo, and Lanmso! to mention but a few, has also been observed specifically for Etulo verbs relating to physiological and psychological experiences. Some of the Etulo verbs examined denote bodily experiences as in example (11i) in which the EXP is subjected to while some others have to do with psychological experiences as in examples (11a) and (11c). Verbs belonging to this subclass invoke certain feelings about someone or something. A feature of these verbs is that they have a SOURCE or STIM in addition to an EXPERIENCER. The SOURCE as seen in the examples appears abstract, while the EXPERIENCER is typically a being. With regard to the status of the EXP, the study observes that an obligatory animate EXP is required for meaningful construction. The meanings of the expressions whose arguments have been switched are still preserved and adjudged grammatical and as such reveal a demonstration of native-like competence in Etulo language. The findings of the study with regard to Etulo psyche verbs when compared to their Lanmso! Igbo, German, and English counterparts reveal similitude in both syntax and semantics. The present study, therefore, concludes, that Etulo verbs relating to physiological and psychological experiences validate the cross-linguistic assumption on the features of experiential verbs. We call for further investigation into other features of experiential verbs and other verb classes in Etulo.

## References

- Agbo, M. 2009. Subject-Object Switching in Igbo: A revisit. *Iranian Journal of Language Studies* 3.2, 209–224.
- Belletti, A. & L. Rizzi. 1988. Psych-Verbs and  $\theta$ -Theory. *Natural Language and Linguistic Theory* 6.3, 291–352.
- Caesar, R. 2019. A Morphosyntactic Analysis of Dangme Allusive Names. *Journal of Universal Language* 20.2, 53–93.
- Elasri, K. & A. Boubekri. 2020. The Universality and Cultural Specificity of Emotions through a Comparative Semantic Analysis of Emotion Terms in English and MA. *Journal of Universal Language* 21.2, 85–109.
- Engelberg, S. 2014. The Argument Structure of Psych-Verbs: A Quantitative Corpus Study on Cognitive Entrenchment. In H. Boas & A. Ziem (eds.), *Constructional Approaches to Syntactic Structures in German*. Boston, MA: De Gruyter Mouton.
- Green, M. & G. Igwe. 1963. *A Descriptive Grammar of Igbo*. London: OUP.
- Iloene, M. & G. Iloene. 2013. Symmetrical Predicates in Igbo: A Semantic Analysis. *Journal of West African Languages* 40.2, 3–12.
- Johnson-Laird, P. & K. Oatlay. 1989. The Language of Emotion: An Analysis of a Semantic Field. *Cognition and Emotion* 3.2, 81–123.
- Landau, I. 2010. *The Locative Syntax of Experiencers*. Cambridge, MA: MIT Press.
- Laraghi, S. 2020. *Experiential Situations in Homeric Greek: A Constructional Approach*. Boston, MA: Brill.
- Postal, P. 1971. *Crossover Phenomena*. New York: Holt Rinehart & Winston.

- Sanusi, I. & L. Oyewale. 2019. The Syntactic Position of Negative Markers in Idoma and Tiv: A Deviation from Language Universal Validity. *Journal of Universal Language* 20.1, 77–98.
- Stonham, J. 2019. Theme-Attraction and Bound Verbs in Southern Wakashan. *Journal of Universal Language* 20.1, 127–157.
- Temme, A. 2018. The Peculiar Nature of Psych Verbs and Experiencer Object Structures. Ph.D. Dissertation, Humboldt University of Berlin.
- Uchekukwu, C. 2007. Subject-Object Switching and the Igbo Lexicon. *Annual Review of Cognitive Linguistics* 5, 55–76.
- Uchekukwu, C. & M. Egenti. 2015. Construal-Based Classification of Igbo Verbs. *Igbo Language Studies* 1, 105–118.
- Uwalaka, M. 1988. *The Igbo Verb: A Semantic-Syntactic Analysis*. Bulawayo: Afro Publishers.
- Van Valin, R. 2005. *Exploring the Syntax-Semantic Interface*. Cambridge: CUP.
- Verhoeven, E. 2007. Experiential Constructions in Yucatec Maya: A Typologically Based Analysis of a Functional Domain in a Mayan Language. Amsterdam: John Benjamins.
- Verhoeven, E. 2010. Agentivity and Stativity in Experiencer Verbs: Implications for a Typology of Verb Classes. *Linguistic Typology* 14, 213–251.
- Yuka, L. & S. Agbo. 2016. The Logical Structure of Lamnso. In O. Ndimele et al. (eds.), *Issues in Contemporary Linguistics: A Festschrift for Oladele Awobuluyi* 71–82. Port Harcourt: M & J Grand Orbit.