THETA ROLE ASSIGNMENT IN TIV

Jude Terkaa TYOH
Department of Linguistics and Nigerian Languages,
University of Calabar,Calabar-Nigeria.
Judetertyoh@unical.edu.ng
ORCID: 0000-0002-0278-5636

&

Mishina Lucy USHUPULE
Department of Languages and Linguistics,
Benue State University, Calabar-Nigeria.
Mishinalucy@unical.edu.ng
ORCID:0000-0001-8763-840

Abstract
The interaction between noun phrases or prepositional phrases and the predicate in a sentence is one of the features of language which shows the connection between syntax and semantics. Theta theory accounts for the various ways in which the predicate assigns thematic roles to noun phrases and prepositional phrases in sentences, and this is a universal feature among languages. Since Tiv language has sentential structures, this study is designed to discover the thematic rolesassigned to noun phrases and prepositional phrases in Tiv sentences. The most related work to this present study is a study of thematic roles in Tiv which is treated in a book chapter considering maleficiary and objects as distinct thematic roles. This study differs from the previous work because it has harmonised the claimed maleficiary and object thematic roles into the patient thematic role since the target argument in such a context is affected by the action of the subject. The study also demonstrates that two or more thematic roles can be assigned to different arguments in a Tiv sentence whereas the most related work findings portray one thematic role in each of the sentences. The researcher used their intuitive knowledge of Tiv to analyse the theta role assignment in Tiv based on the ThetaTheory, which is a sub-theory under Chomsky's Government/Binding. Sentences were used as the instruments through which thematic roles in Tiv were discovered. The study discovers that Tiv just like any other language has a structure whereby verbs assign thematic roles such as agent, theme, patient, source, path, goal, locative and experiencier to noun phrases and prepositional phrases**.** The researchers recommend that more studies should be carried out on theta role assignment in Tiv because more can be discovered about the subject matter.

Keywords: Argument Structure, Language, Noun Phrase, Predicate, Semantics, and Syntax.

Résumé
L'interaction entre les groupes nominaux ou prépositionnels et le prédicat dans une phrase est l'une des caractéristiques du langage qui montre le lien entre la syntaxe et la sémantique. La théorie thêta explique les différentes manières dont le prédicat attribue des rôles thématiques aux expressions nominales et prépositionnelles dans les phrases. C'est une caractéristique universelle parmi les langues. Parce que la langue Tiv a des structures phrastiques, cette étude est conçue pour découvrir les rôles thématiques attribués aux syntagmes nominaux et aux syntagmes prépositionnels dans les phrases Tiv. L'étude qui a trait à cette thématique se trouve dans un chapitre d'un livre qui traite les rôles thématiques dans la langue considérant le maléfique et les objets comme des rôles thématiques distincts. Cette étude diffère des travaux précédents car elle harmonise les rôles thématiques revendiqués du maléfique et d'objet dans le rôle thématique du patient puisque l'argument cible dans un tel contexte est affecté par l'action du sujet. L'étude démontre également que deux ou plusieurs rôles thématiques peuvent être attribués aux différents arguments dans une phrase Tiv alors que les résultats du travail qui les plus connecte, décrit un rôle thématique dans chacune des phrases. Le chercheur a utilisé sa connaissance intuitive pour analyser l'attribution du rôle dans la langue Tiv sur la base de la théorie thêta, ce qui est une sous-théorie du gouvernement/liaison de Chomsky. Les phrases ont été utilisées comme instruments à travers lesquels les rôles thématiques en Tiv ont été découverts. L'étude découvre que Tiv, comme toute autre langue, a une structure de laquelle les verbes attribuent des rôles thématiques tels que l'agent, le thème, le patient, la source, le chemin, le but, le locatif et l'expérience aux phrases nominales et prépositionnelles. Les chercheurs recommandent que des études soient menées sur l'attribution des rôles thêta dans la langue Tiv, car on peut en découvrir davantage sur le sujet.

Mots clés: Argument structure, langue, nom, phrase, prédicat, sémantique et syntaxe.

Introduction
There are certain features that are common among languages of the world as claimed by Universal Grammar, however no two languages share exactly the same features. Government and Binding Theory describe knowledge of language as an interlocking set of sub-theories such as Theta Theory, Case Theory, Government Theory, Binding Theory, Bounding Theory among others. Theta Theory is concerned with the functional relationships between a predicate and its

arguments. This relationship involves the predicate assigning a theta role to its arguments. A predicate in this context, refers to the verbal element while an argument refers to the noun phrase or prepositional phrase in a sentence. Ogwueleke (1987) says that the systemic relationship between the verb and its arguments in a sentence that we call today Theta Theory is a product of the thematic relation developed by Gruber (1965/1975).

Agbedo (2000) says the system of relationship between verb and its arguments is given different names such as 'thematic hierarchy' by Jackendoff (1972), 'semantic relations' by Katy (1972) and 'theta role' by Chomsky (1981) respectively. All the aforementioned varying nomenclatures, describe the relations at the semantic representation between a verb and its implied arguments. The primary concern of Theta Theory is that grammar should not just contain information regarding the categories and semantic properties of lexical items, but also provide thematic information about lexical entries. Agbedo (2000/2018) claims that theta criterion is a feature of Theta Theory which requires that each argument bears only one theta role, and only one theta role is assigned to each argument.

The arrangement of words into sentences is greatly determined by the semantic properties of lexical items. Hence, any arrangement that does not take semantic properties into consideration may end up producing a syntactically correct but semantically incorrect sentence. Lexical items such as nouns, adjectives, verbs and adverbs contain some semantic properties, and the arrangement of such words to form sentences is determined by their semantic properties and the message the speaker or writer intends to communicate.

A sentence is made up of two major parts: subject and predicate. The subject is usually a noun or pronoun while the predicate contains a verb as the obligatory element, complements and adverbials may not be found in some sentences, yet the sentences may be acceptable. Thematic roles are assigned to arguments which are nouns and prepositional phrases by the predicate in sentences. It is important to note that a particular argument can perform different thematic roles as assigned by the predicate in different sentences, that is to say, a noun such as 'John' can perform an action and can also receive an action as assigned by the predicate.
Syntax and semantics are related because the selection of words is guided by their semantic properties and when words are finally selected, they are arranged into sentences in order to communicate with one another. Hence, it is not an overemphasis to say that syntax and semantics are interwoven in the process of generating correct sentences in any language. Theta role is a set of thematic relations concerning arguments as assigned by the predicate and thematic role

assignment is hinged on the number of arguments in a given grammatical construction (Haegeman,1994).

The most related previous work to the present study is the study of thematic roles in Tiv by Tiav (2011). The examples given in Tiav's study show that each sentence has only one thematic role. It also discovers that agent, patient, experiencier, instrument, benefactive, location, source, goal, object and maleficiary are the theta roles in Tiv. However, the present study differs from the previous study because it harmonises *object* and *maleficiary* into the *patient* thematic role since the aforementioned concepts refer to the noun phrase which suffers the action of the performer. It also portrays that two or more thematic roles can be found in a Tiv sentence depending on the number of arguments. The researchers used their intuitive knowledge of Tiv language to generate data for the study. The selected sentences in Tiv were analysed based on the objectives of the study which were to discover the thematic roles in Tiv sentences using the Theta Theory.

Conceptual Review
Agbedo (2000/ 2018) says that syntax is the study of the rules guiding the formation of sentences in a language. This implies that sentences are not haphazardly formed but rather, words are systematically arranged to produce sentences in a language. According to Omachonu (2011), syntax is the study of the meaningful organisation of words into phrases, clauses and sentences. The above definitions imply that syntax is the systematic arrangement of words into larger linguistic units.

Palmer (1976/1996) states that semantics is the study of meaning through the individual languages while to Denham and Lobeck(2010/2013), semantics studies a set of rules that account for the meaning of sounds and signs in a particular language. Going by these definitions, we would define semantics as the study of meaning in words, phrases, clauses, sentences and even signs. Argument refers to a noun phrase or prepositional phrase found in a syntactic construction which is assigned a thematic role by the predicate and the predicate is the verbal element in a sentence (Denham & Lobeck, 2010/2013). Trask (1993) says that argument is the nucleus of an argument structure and an argument is a noun phrase or prepositional phrase bearing a specific grammatical or semantic relation to a verb and whose immediate presence is required for well-formedness in structures containing that verb.

Theoretical Review

Government/Binding Theory (GB) holds that a sentence is assigned a description simultaneously at various levels of description and according to a set of principles that regulate the different levels and the relationship between them (Brown, 1991). Agbedo (2000/2018) states that, GB Theory exhibits a modular feature because it is a continuous interaction between components and sub-theories embodying varying principles and parameters.

GB comprises Theta theory, Case theory, X-bar theory, Government Theory, Binding theory, Bounding theory, and Control theory as sub-theories which are reviewed here in order to single out the suitable theory for the present study. Agbedo (2000/2018) submits that Theta theory propounded by Chomsky in 1980s explains how syntactic structure determines the assignment of theta roles to nominal and prepositional elements in a sentence. He further states that scholars such as Gruber (1965) and Fillmore (1968) were ahead of Chomsky in the study of theta theory in an attempt to analyse the thematic roles assigned to sentences. Yusuf (1992) submits that theta theory is a model which account for the theta attributes of noun phrases and prepositional phrases in sentences. This implies that every noun or prepositional phrase, in a sentence, is assigned a thematic role.

Case Theory is concerned with the assignment of case to nominal elements in sentences, (Agbedo, 2000/2018). He further states that case theory regulates the distribution of noun phrases in a sentence, and every noun phrase is assigned a case, hence a sentence is considered to be wrongly formed if the noun phrase therein is not assigned any case. Fillmore (1968, as cited in Palmer,1981) states that, case grammar analyses predicates and arguments with special attention on the function of the arguments. Noun phrases are assigned nominative, accusative, dative and possessive cases respectively by the predicate of a sentence in which they are found.

Government Theory is concerned with the relationship between a head and its complements. This relationship is defined in terms of C-command (constituent command). According to Sells (1985), Government is a localised version of c-command. Binding Theory is concerned with connections among noun phrases that have to do with such semantic properties as dependence of reference, including the connection between a pronoun and its antecedents (Agbedo, 2000/2018). This implies that Binding Theory accounts for situations in which noun phrases are co-referential or not co-referential in syntax. Bounding Theory treats movement of elements in sentences by providing restrictions on what may be moved and where it may be moved from and to. This theory accounts for NP-movement, V-movement and Wh-movement. Control Theory determines the

potential for reference of the abstract pronoun. The empty subject in a sentence is taken to be a pronoun.

Agbedo (2000/2018) states that Control Theory is concerned with the relationship of referential dependence between an understood subject of an infinitival clause and another constituent, whereby the features of the constituent determine those of the understood subject. Having examined Government and Binding Theory, Theta Theory which is one of its sub-theories is most suitable for this study since it accounts for the roles assigned to noun phrases and prepositional phrases in sentences by verbs.

Cross Linguistic Review
Denham and Lobeck (2010/2013) studies theta role assignment in English. They assert that there are eight thematic roles in English such as agent, patient, theme, experiencer, beneficiary, instrument, location, goal and source. They back up their claim with the following examples. *The puppy* chewed up the shoes; *the ice* melted; Juanita passed *the ball* to Jane et cetera. Through the given examples, Denham and Lobeck show that there is an interaction between noun phrases or prepositional phrases and verbs in English sentences in order to convey meaning. The situation is similar in Tiv because noun phrases and prepositional phrases interact with verbs in Tiv sentences in order to convey meaning, therefore, justifying that there is a relationship between syntax and semantics.

Okeke (2012) studies meaning and thematic roles in Igbo language. The findings of the study show that thematic roles such as agent, patient, experiencer, beneficiary, locative, goal, maleficiary, locative and force are inherent in the language, citing examples such as Obimara Ada ura 'Obi slapped Ada';*Emeka* jere*ahja* 'Emeka went to the market' *Amaka* kuru di *yaihe* 'Amaka hit her husband' among other examples. Having reviewed theta role assignment in Igbo, we would say that the situation is similar to that of Tiv language**.**

Review of Theta Role Assignment in Tiv
Tiav (2011) studies thematic roles in Tiv. He submits that thematic roles in Tiv features agent, patient, experiencier, instrument, benefactive, location,source, goal, object and maleficiary. He backs up his claim with the following examples such as *Shima* nyén yàm *ikyònùgh*' Shima bought a chair yesterday'; *Ortáto* wúa *ambé*' The hunter killed a crocodile' et cetera. The view of Tiav about thematic roles in Tiv is similar to what this study aims to discover. However, the point of departure from the previous work on thematic roles in Tiv by the present study is that the former considers *object* and *maleficiary* as separate theta roles in Tiv while the latter harmonises the two theta roles into the thematic role of *patient*

and also portrays that two or more thematic roles can be found in a single sentence in Tiv.

Data Presentation and Analysis
(i) *Terna* ná *mimi álum.*
    N   V.pst. give N

Terna gave Mimi orange. In sentence (i), the verb 'ná' assigns the role of agent to 'Terna', 'theme' to álum and beneficiary to 'Mimi' respectively.
(ii) *Ngodoo* dué   kén *yoúgh itsáán* nyòr sha   *paseg*i yem shin *kichin.*
     N   V.pst   prep. N   adj   V.pst prep passage V   adj N
     Ngodoo went away from the bedroom through the passage to the kitchen.

In sentence (ii), the verb 'dué' assigns the role of agent to 'Ngodoo', source to'yoúgh itsáán' path to'pasegi' and goal to 'kichin' respectively.

(iii) *Doo* tèè *ikyondo* lá.
N V .pst N Det.
Doo sold the dress to Ngodoo.
(iv) I   tèè *ikyondo* lá.
Pron. V.pst N   Det.
The dress was sold.

(v) Ka*Doo* a tèè*ikyondo* la ie.
Pron. N V.present N Det
It is Doo that sold the dress.

From sentence (iii) to (v), 'ikyondo' plays the role of agent as assigned by the verb 'tèè 'ir respective of its varying positions in the sentences, and 'Doo' plays the role of agent constantly in all the sentences irrespective of the syntactic position it occupies. The analysis shows that theta roles are assigned at the deep structure and that is why example (iv) and (v) which are passive constructions cannot change the role of theme assigned to the underlying argument 'ikyondo'

(vi) Doom wúá iyô lá.
    N   V pst N Det
Doom killed the snake.

(vii) Tersoo gésà húnda lá.
      N   V pst N Det.
  Tersoo shut the door.

In sentence (VI), 'Doom' is performing the role of agent and in sentence (vii), 'Tersoo' is performing the same role. In sentence (vi), 'iyô la' is performing the role of patient and 'húndà lá' is performing the same role in sentence (vii).

(viii) Or la ta kwase na sàmbé.
     N Det   N   N
   The man slapped his wife.

(ix) *Doose* ta *nomikyer la iwén.*
     N   V pst N   Det N
Doose shot the cock with a stone.

In sentence (viii) above, 'or la 'is performing the role of agent, 'kwase na' is performing the thematic role of patient. In sentence (ix),'Doose' is assigned the role of agent while 'nomikyer la' is performing the thematic role of patient and 'iwen' is assigned the thematic role of instrument.

(x) *A* zuá *inyárégh kilá hén bám*
   Pron. Vpst   N   Det Prep. N
   She got the money from a bank.

(xi) *Sé* yám *takedá lá hén bukushopu.*
    Pron. Vpst N   Det Prep. N
We bought the book from a bookshop.

In sentence (x) and (xi), 'A' and 'Se' are playing the role of agent respectively, 'inyareghki la ' and 'takeda la' are assigned the role of patient in sentence (x) and (xi) respectively; 'hen bam' and 'hen bukushopu' are playing the role of source in sentence (x) and (xi) respectively.

(xii) *A* wúà *ivo la sha ihôna.*
    Pron.Vpst N Det prep. N Det
He killed the goat with his knife.

In sentence (xii), 'A' is assigned the role of agent; 'ivo la' is assigned the role of patient and 'ihôna 'is playing the role of instrument.

(xiii) *Sewuese* zà shin *Lagos.*
      N   VPst prep N
Sewuese went to Lagos.
In sentence (xiii) above, 'Sewuese' is assigned the role of agent while 'Lagos' is assigned the role of goal by the predicate.

223

(xiv) M   ngu   shin Makurdi.
    Pro. Vpresent prep N
I am in Makurdi.

In sentence (xiv) 'M' is the agent, 'shin Makurdi' is the location in terms of thematic roles respectively.

(xv) Or lá   nyin   kpé túgh.
    N Det   Adv   V.pst N
The man died last night.

In sentence (xvi), 'or la' is assigned the role of the experiencer.
(xvi) Gomna   yàngé   lu   hèn iniongó   lá.
        N   Adv V.pst prep.   N   Det
The governor was at the ceremony.

(xvii) Baba yàngé   lú hen ivyesé   lá.
      N   Adv. V.pst   N   Det
      Baba was at the wedding.

In sentence (xvi), and (xvii), 'Gonma' and 'Baba' are playing the role of experiencier respectively while 'hen iniongó lá' and 'hen ivyésè lá' are assigned the thematic role of location.

Conclusion
The study discovers that syntax and semantics have a link in Tiv language as demonstrated through the thematic roles. It also discovers that thematic roles are assigned at the deep structure, hence, a noun phrase playing the role of patient in the active sentence, plays the same role if the sentence is changed into a passive one. The thematic roles found in Tiv sentences include; agent, patient, theme, location, expriencier, source, goal and instrument and these are also found in other languages.

Recommendations
(i)   The study suggests that words should be carefully selected and arranged into sentences in order to generate grammatical structures in Tiv since there is a link between syntax and semantics through the thematic roles and other aspects of the language.
(ii)   The study suggests that future studies should be carried out on theta role assignment in Tiv using the findings in this study as an eye-opener in order to further unveil the concept of theta theory.

Contribution to Knowledge

The study demonstrates that one, two or even more thematic roles can be found in a single sentence in Tiv which is a departure from the examples given in the most related previous works featuring only one thematic role in each sentence. The study also harmonises *maleficiary* and *object* considered as separate thematic roles in the previous study of theta role assignment in Tiv into the theta role of *patient.*

References

Omachonu, G. S. (2011). Developments in syntax and syntactic analysis. In Omachonu, G.S. (Ed.).*NSUK texts in general Linguistics.*(Eds.)*NSUK texts in general Linguistics(171-195).*Rossen.

Agbedo, C. U. (2000). *General linguistics: An introductory reader.* ACE Resources Konsult.

Agbedo, C. U. (2000/2018). *General linguistics: An introductory reader.* KUMCEE-Ntaeshe ACE Resources Books.

Denham, K. & Lobeck, A. (2013).*Linguistics for everyone: An introduction.* (2nd ed.). Cengage Learning.

Haegemna, L.(1994). *Introduction to government and binding theory* (2nd ed.). Oxford University Press.

Odero, E.O. & Sande, W.O. (2017). A minimalist approach to argument structure of Dholu concatenated verbal extensions. *International Journal of Academic Research in Business and Social Sciences*, 7(6),107-129.

Ogwueleke, O.S. (1987).Thematic roles and syntactic processes in Igbo. PhD Thesis Submitted to Postgraduate School, University of Nigeria ,Nsukka.

Okeke, C.O. (2012). Meaning and thematic roles in Igbo language. *UJAH: Unizik Journal of Arts and Humanities,1*(2), 164-183.

Palmer, F.R. (1976/1981). *Semantics* (2nd ed.).Cambridge University Press.

Sells, P. (1985). *Lectures on contemporary syntactic theories*. CSLI Publishers.

Trask, R.L. (1993). *A dictionary of grammatical terms in linguistics.* Routledge.

Yusuf, O (1992). *Syntactic analysis: A studentguide.* Illorin University Press.