

TRANSFORMATIONAL APPROACHES TO WH-QUESTIONS FORMATION IN TYÁP (NIGER-CONGO, NIGERIA)

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Abstract

This paper analyses wh-question formation in Tyap. Using data from native speakers and adopting the Minimalist Program, it argues that Tyáp derives wh-questions through overt movement to Spec-CP. Evidence comes from island effects, head movements and the distribution of question particles. Tyáp has eight words that function as operators co-occurring with clause-final particles differentiating interrogatives from declaratives. These words include Yihwá 'what?', Yihwa mbyiá 'Why (what reason)?', Niniwá 'How (with what)?', Ányànwá 'Who, whose?', Ajiwá 'Where?', Amàñ 'How many?', Zàñ 'Which?' and Zànjèn 'When (which time)?'. These can be grouped into three categories which include those derived through fusion, compounding and single morphemes. Tyáp also utilizes the focus operator wa. This is an obligatory focus operator that co-occurs with certain wh-operators such as niniwá 'how', amàñ 'how many', and aji 'where', when they function as interrogative wh-operators. When this happens, the focus operator wa is suffixed to the wh-expression in spec-CP position within CP to function as the interrogative operator. The analysis shows that Internal Merge applies cyclically at the vP and CP phases, with wh-phrase leaving a trace co-indexed to its base position. This challenges account of Niger-Congo wh-in-situ and supports feature-driven movement analyses. Data is presented using Leipzig Glossing Rules. The findings contribute to the typology of wh-movement and the syntax of Plateau languages.

Key words: Interrogative, operator, transformation, Tyap, wh-movement

Introduction

Clauses that function to elicit a response are termed interrogative constructions. These are typically divided into polar interrogatives, which elicit a yes/no answer and Wh-interrogatives which require more substantive information. Payne (1997:300) posits that all languages have a set of special words that occur as question-words and that these words are often identical or similar to a set of pronouns used elsewhere in the

language. Question words accomplish two tasks; they mark the clause as a question and they indicate what information is being requested. In English, these question words are wh-words with corresponding operators in *Tyáp* which function in the same way. This study investigates how movement operations are carried out in wh-questions in *Tyáp* that brings about the displacement of such expressions from their in-situ position to clause initial position. In this

work, attention is given to movement transformations approaches to generate wh-questions in *Tyáp*. The syntactic analysis of this aspect of *Tyáp* grammar is an essential aspect of research since like every other language in the Niger-Congo phylum, *Tyáp* is rich in syntactic operations worthy of attention.

Although there has been series of linguistic studies on aspects of *Tyáp* grammar, none of these investigations thus far, has investigated the transformational approaches responsible for the generation of wh-questions in *Tyáp*. The current work therefore fills a gap in the linguistic study of *Tyápas* it attempts to investigate movement transformations in wh-questions and operations responsible for such transformations as they exist in the language through the application of syntactic universal rules and principles. This research therefore, is geared towards progressing beyond the analysis of the lower-level aspects of *Tyáp* grammar to a syntactic examination of the language through the application of theoretical concepts to analyze movement operations which had hitherto not been given attention in previous works.

The aim of this study therefore, is to provide an adequate description of wh-movement operations triggered by the application of syntactic rules in *Tyáp* wh-questions. Since such movement operations generate transformations, this research intends to achieve the following objectives:

- i. To determine existing wh-operators in wh-questions in *Tyáp*.
- ii. To identify syntactic operations that drive movement transformations in wh-questions in *Tyáp*.

Literature Review

The review of related literature provides information on the *Atyáp* people; this serves as a backdrop to the study of *Tyáp* language. The review also provides a conceptual analysis of empirical works, as well as the theoretical framework which functions as the basis for the analysis of syntactic operations governing movement transformations in the derivation of

wh-questions in *Tyáp*.

Tyáp Language and its Speakers

Tyáp belongs to the Tyapic cluster of the Plateau group of languages under the East Benue-Congo sub-group of Niger-Congo family of languages (Blench, 2020:137). The language is spoken by the people known as *Atyáp* who are sometimes referred to as Katab (Katab) found in Zango Katab Local Government Area of Kaduna State. Dauke (2004:1) in providing an insight on the people affirms that they derive their name from their language. *Atyáp* is a descriptive name which is said to mean 'the people who speak *Tyáp*'. In terms of intelligibility, Dauke (2004) identifies varieties which appear to be dialects of *Tyáp*; these include *Gwórók*, *Sholiò* and *Takàd*. *Tyáp* language is spoken predominantly by approximately 100,000 found in Zango Katab Local Government Area located in the southern part of Kaduna State in North-Central Nigeria. The native speakers of *Tyáp* live in an area called *Abin-Atyáp* which means 'land of *Atyáp*'. This area comprises towns and villages such as *Gora*, *Jankassa*, *Kibori*, *Kurmin Masara*, *Sako*, *Samaru*, *Mabushi*, *Magamiya*, *Zaman Dabo*, *Zonzon* and their predominant area of origin Zangon Katab, all found in Zangon Katab Local Government Area of Kaduna State (Dauke, 2004:17).

Conceptual/Empirical Review

Wh-questions are interrogative clauses which query specific information. Since the information that can be queried are varied, the structural formation of such wh-questions is not universal because "some wh-questions require subject-verb inversion when the needed information is in the predicate, while others do not since the information gap is in the subject position" (Lamidi and Akinmurele, 2015:498). In discussing English wh-questions, Radford (1997:18) refers to them as questions which contain a wh-word such as *what/where/when/why*, including *how* as an interrogative operator. These expressions are referred to as interrogative wh-operators as can be observed in the following examples in English (Radford, 1997: 267-268):

1. a. *What languages* can you speak?

instances of such wh-movement operation in Edo language (spoken in south-south region, Nigeria), where the wh-phrase is moved to sentence initial position in spec-CP as illustrated thus:

5. a. *Ò mùfùávè?* 3SG.MASC lost.
PERF INTERR.OP
'He lost what?'

b. *Vbè ò mùfùà?* INTERR.OP
3SG.MASC lost.PERF
'What did he lose?'

c. [_{CP} *Vbè* [_{IP} *ò mùfùà*]]
↑
(Lamidi and Akinmurele, 2015, p. 493)

Example (5a) is an echo of the wh-question in (5b) to show that the wh-expression originates as complement of the verb in its in-situ position before its movement to sentence initial position. Example (5b) shows that the speaker seeks information about an NP which occupies the object position in the sentence. The wh-expression is then moved as demonstrated in (5c) to spec-CP. In all the examples thus far, the affected wh-items move to the initial positions of the clauses. In each instance, it is assumed that the moved elements left a silent copy of themselves at the extraction sites.

In many languages, focus strategy is an integral part of movement transformations. Focus constructions frequently move a focused constituent to a special position. Jones (2006:143) reports that in Mandeng, focus is marked morphologically whereas in English it is structurally marked. In Yórùbá (spoken in western Nigeria), the focused constituent occupies the left position in the sentence and is followed by the focus operator *ní*. Focus in Yoruba is demonstrated using the rule:

[X]F ní [...]

This can be exemplified as follows:

6. *Adéni ó raìwé*
Ade FOC 3SG buy book
'[Ade]F bought a/the book.'
(Jones, 2006, p.143)

This is a transitive clause where the focused constituent is the subject-NP *Ade* which is a personal name. It occupies clausal periphery to the left and is brought into focus by the focus operator *ní* which comes immediately after the focused constituent. The constituent has moved into a focused position.

7. a. *ìwéni Adérà*
book FOC Ade buy.PERF
'[A/the book] F was what Ade bought.'

b. *ìwéni Adérà* []
↑
(Jones, 2006, p.143)

In example (7) above, the transitive verb *rà* 'bought' requires an object-NP *ìwé* 'book'. As the focused constituent, the object-NP has to move from its in-situ position after the verb at clause final position to the left at clause initial to occupy the focus position.

Imoh (2014:90) provides similar examples in Basà (spoken in central Nigeria) to demonstrate how the rule of focalization moves an argument from its base position to the landing site within spec-CP. Examples:

8. a. *Gà-Jasa so uhandò*
NOM.Jasabuy.PERF boat
'Jasa bought a boat.'

b. *Ga-Jasa ubwa só uhandò*
NOM-Jasa FOC buy.PERF boat
'Jasa was the one that bought a boat.'

c. [*Ga-Jasa*] *ùbwa* [] *só uhandò*
↑

9. a. *Ùhantù ibẹ gà-Jasa so*
boat FOC NOM.Jasabuy.PERF
'Boat is what Jasa bought,'

b. [*Ùhantù*] *ibẹ gà-Jasa so* []
↑
(Imoh, 2014, p. 90)

Examples (8 and 9) provide instances of how focus operation moves arguments from their in-

situ position to the landing site within spec-CP. The focus operators **ùbwa** and **ìbe** are realized overtly and sited next to the fronted constituents in the focus position.

In the case of Tiv (spoken in central Nigeria), movement of wh-phrases can be found in the rule of subject wh-questions (Ikima 2016:111). Subjects in Tiv are not questioned in their logical subject position, except in a derived left-detached position which appears to be in the Spec of the CP as illustrated in the following examples:

10. a. LorvendagbongórityoughDeclarative

OM.Lorvendashave.PERF head
'Lorvenda shaved his hair.'

b. Ká án nángbongór we ityoughInterrogative

FOC who shave 2SG head
'Who shaved your hair?'

c. [_{CP} Káán [_{IP} nángbongór we ityough]]

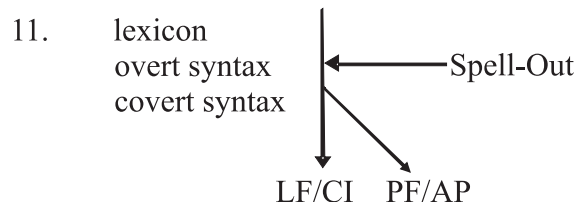
In the example above, the subject has moved from the logical subject position within IP into the CP functional domain making it necessary to insert the resumptive pronoun **nán** in the extraction site. This fact suggests that the landing site for wh-phrases in Tiv is the CP-domain.

Theoretical Framework

The current research adopts the Minimalist approach as the theoretical framework. Chomsky (1995:226) in the *Minimalist Program* suggests a major rethink of the basic theoretical assumptions of GB. The central motivation for the revision was to reduce the amount of innate language-specific knowledge postulated and to incorporate principles of economy into the theory. In view of these revisions, Chomsky proposed reducing the number of basic, structure building operations to two: Move and Merge. *Move* still exists as an operation, but can be used "directly to build sub-structures rather than after a complete D-Structure has been created" and corresponds to the operation *Move-α*. MP assumes that a simple sentence is often decomposed into two phases, CP and VP. Movement of a constituent out of a phase is only

permitted if the constituent has first moved to the left edge of the phase based on Phase Impenetrability Condition (PIC) (Chomsky, 2000:89). For the purpose of this study, the basic architecture for Minimalist Program will be utilized which are just two operation rules for combining linguistic objects and these are External and Internal Merge whose application can apply in any order (Müller, 2016:124).

Minimalist theories differ from GB in not assuming a Deep Structure that is generated by some X-bar grammar and a Surface Structure that is derived from the Deep Structure by *Move-α*. Instead, there is a phase in which External and Internal Merge (combination and movement) apply in order to derive a certain structure that is then said to be spelled out. The spelled-out structure is sent to the interfaces articulatory-perceptual system (AP) on the one hand and the conceptual-intentional system (CI) on the other. AP corresponds to the level of Phonological Form (PF) and CI corresponds to the level of Logical Form (LF) in GB. This architecture is presented in a configuration thus:



(meaning) (sound) (Müller, 2016, p. 25)

The diagram provides a visual representation of the constituent structure of a sentence. Overt syntax stands for syntactic operations that usually have a visible effect. After overt syntax, the syntactic object is sent to the interfaces and some transformations may take place after this spell-out point. Since such transformations do not affect pronunciation, this part of syntax is called covert syntax.

Methodology

This research adopts the descriptive design method to analyze and describe expressions generated from native speakers of *Tyáp* which constitutes the data for this research. The data is gathered through interviews, observations and focused group discussions of native speakers of

Tyáp. which constitute the data for this work. The research population for the study comprises both male and female native speakers of *Tyáp* language of *Agbaád, Jei* and *Akpaisa* descent who speak *Gworók*, of *Ashokwà* descent who speak *Sholiò* and *Minyàm*, *Ashón* and *Afakàn* descent who speak Takàd which constitute the three dialects found in the areas that make up the *Abin-Atyáp* 'land of *Atyáp*' including Zango town. Five native speakers who spoke these different dialects were engaged for the translation of expressions using Blench's (2012) 1017 word list and Thomas's (1992) compilation of 100 sentences based on Greenberg's List of African words and Meussen's Bantu Supplement as well as a compilation of an additional 50 sentences customized to suit the communicative tasks obtainable in *Tyáp*. The age range of the language helpers fell within the age bracket of 30 to 70 years to provide data that cuts across different age groups. All language helpers for this research are multilingual as they all speak, read and write English, Hausa, and *Tyáp* fluently. The selection of such multilingual language-helpers predicates on their ability to understand terms and expressions in English and to adequately and accurately translate these into their *Tyáp* equivalents. Three of the five language helpers are members of the *Tyáp* Literacy Committee who worked closely with the researchers to ensure effective transcription of the data and enhance the accurate analysis and interpretation of the data.

Other forms of data comprise textual data from published and unpublished sources such as thesis, dissertations, projects, journal articles, books as well as internet sources and other textual materials which provide needed background for theoretical concepts and empirical works. The analysis and presentation of the data is in line with the Leipzig glossing principles. The current work therefore provides an insight into *Tyáp* language as a basis for linguists interested in further research on the language using the Minimalist approach.

Minimalist Analysis of *Tyáp* Clause Structure

An understanding of *Tyáp* declaratives under the Minimalist Program provides an insight on how

wh-questions are derived by the same T-to-C and movement operations active in declaratives, plus A¹-movement of wh-operator to Spec-CP. O'Grady, Archibald and Katamba (2011:163) depict the sentence as the largest unit of syntactic analysis" which typically consists of a subject (typically an NP) and a VP which are linked together by an abstract category referred to as I or INFL (for inflection) that indicates the sentence's tense (or aspect). Therefore, this accounts not only for the occurrence of modals between the subject (specifier) and the VP (the complement), but also for the fact that these function as an inherent tense, aspect and mood markers in a sentence. A brief review of these modal auxiliaries in *Tyáp* provides an insight into their functions as an aspect of the structure of these sentences.

In an earlier work, Sanni, Imoh & Umaru (2022:7) identified modal auxiliaries and their inflectional properties in *Tyáp*. Auxiliary verbs which have the semantic function of marking grammatical properties associated with the verb in *Tyáp* can be grouped into three categories namely:

- I. Aspectual verbal particles which function as verbal auxiliaries to inflect verbs for aspect include:
 - 12.a. **k** - continuative imperfective aspect marker
 - b. **di** - progressive aspect marker
 - c. **ku** - perfective aspect marker
 - d. **ni** - habitual aspect marker
 - e. **a/e** - extensions of **ka** continuative imperfective aspect marker infixed into the verb stem; option of either morpheme depends on the nature of the verb to be infixed.
 - ii. Verbal auxiliaries that function as copula to link the complement predicate to the subject-NP in a clause. These are:
 - a. **Shyṭà** - originates with the lexical verb

ànṣà 'to be' and functions as an adverb to indicate the present imperfective aspect of any verb it precedes.

- b. *Yèt* - originates with and is the present simple tense form of the verb *byià* 'to have'.
- iii. Verbal auxiliaries that describe the mood of the verb and determine the mood of the entire clause include:
 - a. *Si* - this is a verbal particle which describes consecutive actions that had taken place in the past and extends to the present/ adverb that describes the temporal location of an action or state of the verb.
 - b. *Na* - this is a modal auxiliary for expressing the certainty of an action in the future and a grammaticalized form of the verb *nát* 'to go' meaning 'will'.
 - c. *Byēi* - this is a modal auxiliary which expresses the uncertainty of a future action.

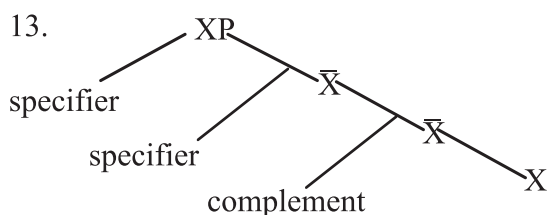
Structural Pattern of Tyáp Sentences

Tyáp sentences can be grouped into three categories based on their structural pattern and these include simple sentences, compound sentences and complex sentences. The structure of these sentences will be described using the Minimalist approach.

1. Simple Sentences

Ogungbe and Bossan (2013:57) describe a simple sentence as “a unit of language that expresses a subject and a predicate which is made up of words with a subject and predicate.” A simple sentence expresses a single thought and has only one verb or verb phrase; it can equally be called a basic sentence. As the basic sentence, the description of the structure of the *Tyáp* simple sentence will serve as a basis for the description of all other types of sentences. Minimalist approach distinguishes between first-merged (complements) and later-merged (specifiers). Müller (2016:127) affirms that “it is possible to have just a complement and no specifier or to have one or three specifiers” in a structure. The

Tyáp simple sentence structure can be described using the Minimalist theories complements and



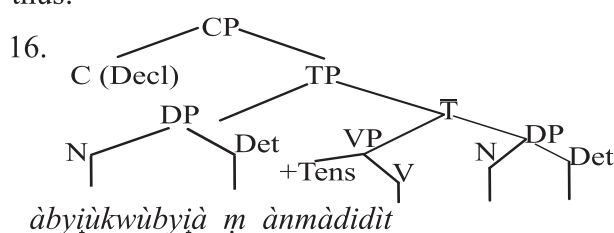
Based on this model, Minimalist theories assume binary branching and that there is at most one complement which is the first merged item and distinguishes between first-merged (complements) and later-merged items (specifiers). The structures that are ultimately licensed depend on the features of the items that are involved in the Merge operation. Such that whether a phrasal projection counts as an $\bar{X}$ or an XP depends on whether the phrase is used as a complement or specifier of another head or whether it is used as head in further Merge operations. If a phrase is used as specifier or complement its status is fixed to be a phrase (XP), otherwise the projectional status of resulting phrases is left under specified. Lexical head daughters in Merge operations have the category X and complex head daughters in Merge operations have the category $\bar{X}$. This can be demonstrated using examples of simple sentences in *Tyáp* thus:

14. *àbyiùkwùbyiàmànàdidit*
 woman.NOM Det.SG have children
 plenty
 'The woman has many children.'

This can be presented in a level bracketing as follows:

15. $[_{CP} C(Decl) [_{TP} [_{DP} \textit{àbyiùkwù} [_{T'} [_{VP} \textit{byià} [_{DP} \textit{mànàdidit}]]]]]]]$

This can also be represented in a configuration thus:



According to the Minimalist approach a full sentence is CP. The empty C head is assumed to be combined with the TP. The empty C contributes a clause type feature 'Decl' to indicate a declarative clause. The Tense Phrase is assumed in current Minimalist analyses, so the TP of Minimalism corresponds to IP in the GB analysis. Since the basic mechanism in Minimalist theories is feature checking, it is assumed that all uninterpretable features have to be used up during the derivation of a complex linguistic object such as phrases and clauses like in the derivation of simple sentences in *Tyáp*. External merge is used to achieve the first merger operation to derive the complement as an instance of first-merge. The next external merge is between the noun and its determiner to derive the DP which functions as the specifier. The final Merge operation is the merging of the complement to the specifier to derive the simple sentence as seen in example (15) above. More examples of this include:

17. i. *à byiàkúrúm*
3SG.MASC.NOM have money.ACC
'He has money.'

External merge is used to achieve the first merger operation in example (17i) by the merging of object-NP *kúrúm* 'money' to the verb *byià* to derive a VP complement which is then merged to the subject-NP pronominal *à* 'he' to derive the simple sentence *à byiàkúrúm* 'he has money'.

- ii. *Kuyètkúsánatyèmká*
Kuyet.NOM PERF buy hoe.ACC
Det.SG
'Kuyet bought the hoe.'

In example (17ii), the first merger operation is the merging of the perfective marker *kú* to the lexical verb *sán* 'buy' to derive the VP *kúsán* 'bought', the next merger is the merging of the noun *atyèm* 'hoe' to the determiner *káto* to derive the DP *atyèmká* 'the hoe' which functions as the object-NP. The derived VP is then merged to the derived DP to derive the VP complement *kúsánatyèmká* 'bought the hoe' which is finally merged to the personal name subject-NP *Kuyèt* which is the specifier to derive the simple

sentence *Kuyètkúsánatyèmká* 'Adamu bought the hoe.' The DP *atyèmká* 'the hoe' is the object-NP of the verb *kúsán* 'bought' and checks the D feature of V for the subject-NP *Kuyèt*.

- iii. *ṁànnànyáàkámhú*
children.NOM Det.PL FUT eat
cocoyam.ACC Det
'The children will eat the cocoyam.'

In example (17iii), the first merger operation is the merging of the modal auxiliary *ná* 'will' to the lexical verb *yá* 'eat' to derive the VP *nyáyá* 'will eat'; next the noun *akám* 'cocoyam' is then merged to the determiner *hú* to derive the DP *akámhú* 'the cocoyam' which functions as the object-NP, after which the derived DP is then merged to the derived VP to derive the VP complement *nyáyáakámhú* 'will eat the cocoyam' as instances of first-merged and intermediate merge respectively. Next, the noun *ṁàn* 'children' is merged to the determiner *nà* as an instance of later-merged operation to derive the DP *ṁànnà* 'the children' which functions as the subject-NP specifier and also checks for number through the use of a plural determiner merged to a plural noun. The derived subject-NP is finally merged to the VP complement through the derived VP to construct the structure *ṁànnànyáàkámhú* 'the children will eat the cocoyam'. The DP *akámhú* 'the cocoyam' is the object of the verb *nyáyá* 'will eat' and checks the D feature of V for the subject-NP *ṁàn ná* 'the children'.

In example (17i-iii) above, the third person personal pronoun *à* 'he', the personal name *Kuyèt*, and the determiner phrase *ṁànnà* 'the children' constitute the subject-NPs which are the specifiers, while every other constituent that comes after the subject-NP constitutes the VP complement. Minimalist Program assumes that all items that are not complements are specifiers, with first-merged items being complements and later-merged items being specifiers as seen in the simple sentences above. Since simple sentences are basic sentences, there is just one VP complement, which is the first merged item. Therefore, the verbs *byià* 'have', *sán* 'buy', and VP *yá* 'eat' function as the head of the VPs to link the

complements to the already derived subject-NP specifiers.

Compound Sentences

Crystal (2008:77) refers to a compound sentence as “a linguistic unit composed of two or more elements, each of which could function independently in other circumstances.” Therefore, a compound sentence is formed through a combination of two main clauses or simple sentences. In *Tyáp* the merging of two main clauses in a compound sentence is derived through the use of coordinating conjunctions. Examples of such compound sentences in *Tyáp* are illustrated with example (18) below:

- 18.i. *ZùgwaikùwànakátihùmiñgKuwótnákwi*
akám hú
 Zugwai. NOMPERF cook porridge.
 ACCDetCONJK uwot. NOM FUTwash
 cocoyam. ACC Det
 'Zugwai cooked the porridge and Kuwot
 will wash the cocoyam.'
- ii. *à chákani*
naùbáàtyìnáachyíkáàwóťàtyìnkánáshì
 3SG.MASC.NOMcut PL-root Det. Plstem
 yam Det. PL CONJstem Det. PL FUT grow
 'He cut the roots of the yam stems but the
 stems will grow.'
- iii. *Aboikúnyéáktsókhuàwóťzikúnát máàvuwó-*
kháp
 Aboi.NOMPERF climbhill.ACC
 DetCONJ1PL.NOMPERF goPREP farm.
 ACC
 'Aboi climbed the hill but we went to the
 farm.'
- (Sanni, Imoh & Umaru 2022:10)

As compound sentences, example (18i-iii) provides instances of sequences of merger operations since they each comprise two simple sentences. External Merge operations can also operate on structures already built. The pairs of verbs and VPs in each of the sentences such as *kùwàn* 'cooked' and *nákwi* 'will wash' in example (18i), *chák* 'cut' and *náshì* 'will grow' in example (18ii) and *kúnyéák* 'climbed' and *kúnát* 'went' in example (18iii) are the already derived VPs

through first-merged operations which then become merged with their complements which are already derived also as instances of first-merged to derive VP complements which are then merged with the already derived subject-NP specifiers which were products of later-merged operations in each of the main clauses; the resultant structures are then directly coordinated through the use of coordinating conjunctions *miñg* 'and' and *àwóť* 'but' (which function as the head) through later-merged operation. The result of this combination is a complex object in the form of a compound sentence which has the same syntactic properties as the combined parts. After the merging of the various VP complements using the respective conjunctions, the resultant structures are then merged with their respective subject-NPs which function as the specifiers in the respective compound sentences. These specifiers comprise the personal names *Zùgwaì* and *Kuwóť* in example (18i), the third person singular pronoun *à* 'he' and the NP *àtyìnká* 'the stem' in example (18ii) and the personal name *Aboi* and the first-person plural pronoun *zi* 'we' in example (18iii).

Complex Sentences

Imoh (2011:150) refers to complex sentences as “consisting of more than one clause, often a main clause and a subordinate clause.” A complex sentence contains at least one independent clause and at least one dependent clause. Dependent clauses can refer to the subject by using the relative pronouns *who*, *which*, *whom*; sequence or time is referred to utilizing the conjunctions *since*, *while*; and causation is expressed through the use of causal elements *if* and *because* which are also conjunctions. Examples of complex sentences in *Tyáp* are:

- 19.I. *kàzìchyuìàgwùkaátàvuwókážònjìnwóbáh*
CONJ.if 1PL.NOM plant cactus.ACC
 PREP place.OBL Det.SG goat Det.PL enter
 NEG
 (Lit.: If we plant cactus around the place
 goats will enter not)
 'Goats will not enter if we make a cactus
 fence.'
- ii. *kàžònnwòyàbáhrogòzìhùnáyètàshám*

CONJ.if goatenter eatNEG
cassava1PL.GEN Det FUT COP fine/well
(Lit.: if goat enter eat not our cassava will be fine/well)

'Our cassava will grow well if goats do not enter to eat them.'

iii. *kàzàv à nà bai*

CONJ.if rain fall 3SG.MASC FUT
come

(Lit.: if rain fall he will come)

'He will come if it rains.'

iv. *zòngùjìshiiàkpábádàniàn à lyáp àkúmká*
goat 3SG.FEM.GEN Det.PL largeherd
few **because** 3SG.FEM sell remain Det.PL
(Lit.: her goats large herd few because she sell the remain)

'Her large herd of goats has reduced because she sold the rest.'

v. *ñgwòneàmwùkùliàbyiùkwùànyànànñgkù*
wànyàvákhi

female child Det. SGPERF see woman

Det.SG**who** REL PERF cook food Det
(Li.: the female child saw the woman who that cooked the food)

'The girl saw the woman who cooked the food.'

(Sanni, Imoh & Umaru 2022:11)

From example (19i-v), it is obvious that complex sentences in *Tyáp* comprise at least one dependent and one independent clause. When the subordinate clause begins with the conjunction *ká* 'if', the dependent clause comes first to be followed by the independent clause, but when the dependent clause is introduced by some other conjunction other than *ká* 'if', the main clause comes first and is followed by the independent clause. In negative clauses, the negation element is post posed to the lexical verb as instances of constituent negation as seen in examples (19i and ii). The building blocks for complex sentence structures are phrases and clauses which have been already derived through several intermediate merger operations derived through External Merge. The stages of the different derivations from phrases to clauses are assumed to be in phases. Each completed phase is spelled

out once it is used in a combination with a head through feature checking, and then it is sent to the interfaces before the whole sentence is completed.

Transformational Approaches to Wh-Question Formation in *Tyáp*

This section provides an insight into the peculiarities of *Tyáp* content questions and the notion of movement. It identifies existing wh-operators with attention given to peculiar features of each wh-word and how they function in clauses. It also establishes the strategies employed for the derivation of wh-questions through movement transformations and the difference between real wh- and pseudo-wh-questions.

Interrogative Operators in *Tyáp* Wh-questions

Interrogative operators in *Tyáp* can be grouped based on the peculiar structural features of these wh-expressions:

Fusion

Wh-expressions in this category are derived through the fusion of the interrogative morpheme *-wá* to another bound morpheme with the semantic connotation of an NP. The *wá* morpheme functions as the interrogative operator in each of the wh-words. Four types of wh-expressions in *Tyáp* belong to this category. These include:

i. *yihwá* 'what'

20. a. *yihwánàñ n' kù chatnàt nyià*
what REL 1SG.NOM PST want
go do
'What was it that I wanted to do?'

b. *anyiùkbanáliyihwá jẹn shuún*
women.NOM Det.PL FUT see what
time evening
'The women will see what in the evening?'

c. *mànnàkùwányihwá*
children.NOM Det.PL PST cook what
'The children cooked what?'

Based on example (20), non-human concepts as NPs whether in the subject or object positions are questioned with *yihwá* 'what' which is a fusion of two bound morphemes, the interrogative *wa* suffixed to *yih*.

- ii. *niniwá*
with what 'How'

- 21.a. *nini -wánàñatyòkwùnyi*
with what REL man.NOM Det.SG do
'How will the man do it?'

- b. *abyiùkwùnákwiayà-atoóthúnini -wá*
woman.NOM Det.SG FUT wash PL
cloth.ACC Det.PL with what
'How will the women wash the clothes?'

The wh-expression *niniwá* 'how' can question a non-human NP which can be an instrument or a tool or it can question manner adverbial as demonstrated in example (21).

- iii. *ajiwá*
place what 'Where'

22. a. *aji -wámànnàna-á-t*
place what children.NOM Det.PL
go.PROG
'Where did the children go?'

- b. *ñgwọseam ká sánatyem aji -wá*
boy.NOM Det.SG buy.PERF hoe
place what
'The boy bought the hoe where?'

In example (22), place or location is questioned using *ajiwá* 'where'.

- iv. *anyánwá*
person what 'Who'

23. a. *anyàn -wáwùkùwán kyàýák hù*
person what Det.NOM PERF cook
food.ACC Det
'Who cooked the food?'

- b. *atyòkwù li anyàn -wa*
man.NOM Det.SG see.PERF person
what

'The man saw who?'

Human NPs in the subject or object position is questioned with *anyánwá* 'who' as seen in example (23).

Compounding

The next set of wh-expression is derived through compounding whereby an interrogative word is attached to a noun to form a compound wh-expression. Compounding is done through the combination of two free morphemes to derive a single interrogative operator. The first free morpheme is an interrogative expression, while the second free morpheme is a noun. Those in this group include:

- i. *yihwámbyiá*
What reason 'why'

24. a. *yihwámbyiáabyiùkwùlákwan kyàýák hù?*
what reason woman.NOM Det.SG
refuse cook food.ACC Det
'Why did the woman refuse to cook the food?'

- b. à *nàbwuòkañgàñbàhyihwámbyiá*
3SG FUT return early NEG
what reason
'S/he will not return early, why?'

The compound wh-expression *yihwámbyiá* 'why' questions reason adverbial.

- ii. *zàñ jèn*
which time 'when'

25. a. *zàñjènatyòkwùnà nát avwuò-kháp ká*
which time man.NOM Det.SG FUT
go farm.ACC Det
'When will the man go to the farm?'

- b. *bánáchóñg zàñjèn*
3PL FUT come which time
'They will come when?'

Time is questioned with *zàñjèn* 'when'.

Single Word/Morpheme

The third set of interrogative operators in

Tyáp comprises of single wh-words. Wh-expressions belonging to this group include:

- i. *amàñ* 'how many'
26. a. *amàñmànnàkùnàt avwuò-khápka*
how many children.NOM Det.PL
PERF go farm.ACC Det
'How many children went to the farm?'
- b. *à jòñnuñamàñ*
3SG.NOM give.PST 1SG.ACC how
many
'He gave me how many?'

Quantity is questioned using *amàñ* 'how many'.

- ii. ***zàn* 'which'**
27. a. ***zàñtatoóthùwánàñà nàsán***
which cloth.ACC Det.SG FOC
REL 2SG.NOM FUT buy
'Which cloth will you buy.'
- b. ***zàñ alì***
which house
'Which house?'

Any NP can generally be questioned with *zāñ* 'which?'

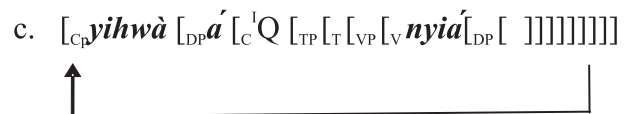
Discussions

Direct questions are considered as “those in which the interrogative structure is an independent sentence where an appropriate reply would be a word, phrase or sentence containing the requisite information” (Radford, 1988: 463). Similar to English and other languages, wh-questions in *Tyáp*, comprise an interrogative operator which could be a wh-word or phrase and the predicate to form a simple declarative sentence. The wh-question is derived through movement transformations when the wh-word becomes fronted by moving from its in-situ position in the predicate to the sentence initial position in spec-CP. Such movement leaves behind a silent copy of the moved wh-word at the extraction site at spell-out level.

Wh-movement Transformations in *Tyáp* Wh-questions

The analysis of *Tyáp* declaratives as involving V-to-T movement and a clause final C provides the structural baseline. Wh-interrogatives can then be derived with minimal additional machinery which is the same C head bearing an uninterpretable Q-feature which attracts the wh-operator. This yields the observed movement without stipulating a separate wh-in-situ rules. Movement of wh-constituents from their in-situ position in the predicate into spec-CP position at clause initial is possible in *Tyáp* without the employment of focus as an aspect of movement transformations. This is demonstrated using the following examples:

28. a. *yihwà á nyiá'*
 INTERRUPT.2SG PROG.do
 'What are you doing?'
- b. *á nyiá' yihwà*
 2SG PROG.do INTERRUPT.2SG
 'You are doing what?'



29. a. *yihwàgulyiat*
 INTERR.OP 3SG PROG.say
 'What is s/he saying?'
- b. *gulyiatyihwá*
 3SG PROG.say INTERR.OP
 'S/he is saying what?'



- 30.a. *yihwàaka-kònnàní yet*
 INTERR. OP PL-tree DEM
 AUX.PRES
 what trees these are
 'What type of trees are these?'
- b. *aka-kón nanì yet yihwá*
 PL-tree DEM AUX INTERR. OP
 Trees these are what
 'These trees are what?'

- c. $[_{CP} yihwa[_{DP} \dot{a}ka-k\acute{o}nnani] [_{C}^1 Q] [_{TP} [_{T} yet] [_{DP} []]]]]$
-

The structures in examples (28-30b) are echoes of the questions in examples (28-30a) showing the wh-operator expressions originating as complements of the different verbs in each of the constructions. A key feature of all movement rules is that they define the landing sites – the positions to which the target constituents move. Scholars have consistently observed that distinct movement operations are linked to specific landing sites. Hence, positions in the (b) examples are the in-situ positions based on their grammatical function before their movement to the sentence initial positions. In the examples the wh-operators *yihwà* 'what' and *zāñ* 'which', are moved into some position preceding the head C position of CP, to occupy a pre-head position within CP which is the specifier position within CP (spec-CP). The moved wh-operators leave behind a null phonetic representation at the extraction site.

- 31.a. *zāñatòótùwù á ná kúp*
 INTERR.OP dress Det.SG 2SG
 FUT wear
 'Which dress will you wear?'

- b. *á ná kúpzāñatòótùwù*
 2SG FUT wear INTERR.OP
 dress Det.SG
 'You will wear which dress?'

- c. $[_{CP} zāñ[_{DP} atòótùwù] [_{C}^1 [_{DP} á] [_{C}^1 ná] Q] [_{TP} [_{T}] [_{VP} kúp]]]]$
-

Two different kinds of movement operations are involved in example (31); the first involves the movement of the wh-operator *zāñ* 'which' from its in-situ position to clausal periphery, which then triggers the movement of the lexical auxiliary *na* from T into C to adjoin to the question affix Q within COMP.

The next set of examples with the use of *yihwambyiá* 'Why (what reason)' has a slightly different movement pattern as demonstrated in

examples (32 and 33) as follows:

32. a. *yihwàmbiyiáatyòkwù m-bai*
 INTERR.OP reason man.NOM
 Det.SG QP-come.PRES
 'Why did the man come?'

- b. *atyòkwùbaiyihwàmbiyiá*
 man.NOM Det.SG come.PRES
 INTERR.OP reason
 the man come (for) what reason
 'The man comes, why?'

- c. $[_{CP} [_{DP} yihwàmbiyiá] [_{DP} atyòkwù] [_{C}^1 m-] Q] [_{TP} [_{T}] [_{VP} bai] [_{DP} []]]]$
-

In example (32) above, the wh-operator *yihwàmbiyiá* 'why' moves to the clause initial position and triggers the detachment of the morpheme *m-* which functions as question particle from the verb to move from T into C to be adjoined to function as the question affix in C.

33. a. *yihwàmbiyiányin n-dákwán kyàyàkhù?*
 INTERR.OP reason 2PL QP-refuse
 cook food Det
 'Why did you (PL) fail to cook?'

- b. *nyin dak wánkyàyàkhù yihwámbyiá?*
 2PL refuse cook food Det
 INTERR.OP reason
 You refuse to cook (for) what reason
 'You fail to cook, why?'

- c. $[_{CP} yihwámbyiá[_{DP} nyin] [_{C}^1 n-dak] [_{TP} [_{T}] [_{VP} wan]]]$
-

Example (33a) is the basic form of the interrogative clauses using the interrogative wh-operator phrase *yihwámbyiá* 'why (what reason)', while example (33b) provides instances of the interrogative wh-operator phrase in its in-situ position functioning as complement to the verb. Example (33c) demonstrates the movement transformation that occurs to bring about the fronting of the wh-expressions. Since specifiers

are positioned before their heads, the interrogative wh-operator phrase moving to occupy the specifier position within CP with movement taking place from its in-situ position at clause final position within VP into spec-CP. Such movement leaves behind a silent copy of the moved element at the extraction site. The negative verb *ndak* 'refuse' which functions as an auxiliary verb gets moved into COMP to be adjoined to the question in C to replace the Q question morpheme since it is already affixed with the interrogative morpheme *n-*. When the auxiliary verb moves into COMP, there is an adjoining of the pre-posed auxiliary verb to an (overt or covert) affixal question-particle in COMP. Since the affix in C in questions has the semantic properties that it marks the illocutionary force of the sentence as an interrogative, the question affix is overtly realized. The question morpheme Q becomes prefixed to the moved verbal auxiliary within C because it has the semantic property that denotes tense and the categorical property that it is a verbal affix (Radford, 1997:246).

Conclusion

The discussion thus far has shown that wh-movement in *Tyáp* does not entail focus. Many languages use displacement of constituents in order to focus on a particular phrase or to make such a constituent prominent in order to emphasize such. It is obvious that wh-movement transformations in *Tyáp*, entails the movement of the wh-constituents to a special position which results in a wh-fronting with the wh-operator constituent moved to a pre-head position in CP to the left edge of the clause as a result of the attraction to the Q-feature in C thus generating the observed word order in interrogative clauses. The movement of the wh-constituent leaves a gap at the point of extraction which is a silent

copy of the moved constituent and thus has null phonetic representation. The verbal auxiliary also becomes displaced moving from VP to T. Such movement is triggered by the movement of the wh-constituent into specifier position within CP.

Chomsky (2000) suggests that wh-movement is triggered by an interpretable Q-feature and the movement of the wh-element in C is driven by the need to check such features. As such, movement and the choice of landing sites depend solely on the structural relation between the probe and the goal as has been clearly demonstrated by instances of transformational approaches in the formation of wh-questions in *Tyáp*. Content questions in *Tyáp* utilize question-words which are synonymous to wh-words as interrogative operators. These question-words function as wh-operators and along with question particles are employed to differentiate interrogative clauses from declaratives in *Tyáp* after movement transformations. The language has eight wh-phrases which function as interrogative operators in information questions to query a variety of information in the language. These expressions which are the equivalent of wh-expressions in English include *yihwá* 'what', *niniwá* 'How (with what)', *ajìwá* 'Where', *anyànwá* 'Who, whose', *yihwámbyiá* 'Why (what reason)', *zànjèñ* 'When (which time)', *amàñ* 'How many' and *zàñ* 'Which'. These expressions do not have uniform features but are considered as having semantic function of interrogative operators since they check for interrogative properties in the language. *Tyáp*wh-question operators can be grouped based on their features into three categories which include those derived through fusion, compounding and single morphemes.

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