The Universal Syntactic Head and Parametric Variations in English and Iẓọn Languages

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Abstract
The head parameter is one of several other parameters which provide binary options that create parametric variations among languages. Universal grammar postulates that syntactic constituents such as phrase, clauses and sentences have heads which control the respective constituents principally because the categorial features of the lexical head are projected to the higher constituent. This study focuses on the structure of the determiner phrase, verb phrase, prepositional phrase and the 'that' clause in English and Izon. It relied on data from Standard English texts and native speakers of Izon language in natural situations. The study demonstrates that English is a head-initial language while Izon, being an SOV language and minus some exceptions, is generally a head-final language. Therefore, while the English DPs, VPs, PPs as well as the that-clause .are structurally right-branching, these syntactic atoms in Izon are left-branching. These syntactic configurations contrast diametrically in the two languages. This study provides information for theoretical and pedagogic linguistics for learners of either of the languages as L_2.

Keywords: *Universal Grammar, Head Parameter, Parametric Variation, Syntactic,*
English, Iẓọn

1.0.Introduction

Universal Grammar recognizes the head (directionality) parameter as one of several other parameters which provide binary options that create parametric variations among languages. Universal grammar recognizes the endocentricity of syntactic constituents such as phrases and clauses. The heads control the respective constituents principally because the categorial features of the lexical head are projected to and represented in higher constituents. This is the capsule of the X-bar theory and the Projection Principle in which, according to Newson (2007:99) 'the head projects its categorial status to the X^1 and ultimately to the XP'. The other parameters include, among many others, word order, wh-movement, null-subject or pro-drop.

The parameters of universal grammar are expounded in the Principles and Parameters Theory (PPT). This theory seeks to explain the similarities and variations between natural languages. Apart from the obvious lexical differences, languages also vary in word order or syntactic structure. Smith (2005:38), while explaining the diversity of languages in the proper perspective of Principles and Parameters Theory states that although languages differ along various dimensions, the principles and parameters have been there from the beginning and children are born with the principles with some specifications of the range of variations in

possible human languages. Therefore, the child learning the grammar of any particular language has to find out the permissible values or parameters in his language. Chomsky (1982:7) explains that

The grammar of a language can be regarded as particular values for the parameters available in UG while the overall system of rules, principles and parameters is UG which may be taken to be an element of human biological endowment, namely the 'language faculty' (Chomsky, 1982:7).

Language, therefore, is a system of specifications for parameters in an invariant system of principles of Universal Grammar. Therefore, as Ali ((2007) explains, linguistic diversity is determined by a variation in the setting of certain values. In other words, parametric variations are determined by the parameterized choices languages make in different dimensions. They include, as noted earlier, word order, Null-subject or pro-drop parameter, wh-parameter.and head (directionality) parameter,

Languages have varying word order. Some languages have subject-verb-object (SVO) configuration; some display subject-object-verb (SOV) word order while some languages possess object-verb-subject (OVS) syntagmatic arrangement. .English is canonically SVO and Izon is an SOV language.

The wh- parameter is based on whether languages permit wh-movement or movement of wh-expressions to the front of a sentence when a declarative sentence is transformed into an interrogative. The other option is wh-*in-situ*. The wh- parameter seems to apply universally even when the interrogative words of Complementizers of a given language do not start with wh- like the English wh-expressions *what, which, where, when, why* and *how*. In Ịzọn, for instance, wh-expressions do not have words that contain wh- but it has a set of words that could be classified as Complementizers. English is a language that features wh-movement. When a normal declarative sentence is transformed into an interrogative, the direct object, if there is one, is first replaced with a wh-expression and then moved by operation *Alpha* or *Attract* to the Complementizer phrase (CP) at the sentence initial position, or more appropriately, pre-subject position.

Null-subject is another of the parameters of universal grammar. The concept of null-subject arises from the permissible dropping, in some languages, of subject pronoun of a sentence. This syntactic elision is based on the potential recoverability of the meaning of the dropped subject from the context of discourse by competent native speakers of the language. A null-subject is assumed to possess grammatical and semantic properties even though it lacks overt phonetic form. This parameter of null-subject categorises some languages as null-subject or pro-drop languages while some are classified as non-null-subject or non-pro-drop languages. Chomsky (1995) and Radford (2004) specifically names English as a non-pro-drop language. Izon is a pro-drop language as it permits both overt and covert subjects (see Kwokwo 2016).

2.0.The Head Parameter
Head directionality is a parameter that also classifies word order. It describes the position of the head in relation to its complement within a phrase or a clause. It is a universal principle that every phrase or maximal projection must have a head which determines the nature and function of various categories within the phrase. There are usually lexical heads such as noun, verb, adjective, adverb and preposition, and in more recent work, functional heads such as Determiner (D), Agreement (Agr) and Tense (T), Complementizer (C), Negation (Neg), etc. The syntactic or categorial properties of the head are usually transferred to the phrase and this

accounts for the denotations of Noun Phrase (NP) or Determiner Phrase (DP), Verb Phrase (VP), Adjective Phrase (AdjP/AP), Adverb Phrase (AdvP), Prepositional Phrase (PP), Agreement Phrase (AgrP) and Negation Phrase (NegP). In this essay, the DP, VP, PP and the that-clause constitute the subject of investigation and analyses.

2.1. Head Directionality in English Phrasal Structure

The head of a phrase, as it is designated, is the head and controller of the entire phrase in which it occurs. Every phrase is named after the head since the categorial features of the head are projected to and represented in the phrasal construction. Thus, the head of a Determiner phrase is a determiner, the head of a verb phrase is a verb, and so it is with the prepositional phrase, and others. Determiners are function words such as the articles (a, an, the) possessive or adjectival pronouns (*my, his, his, our, their* and *your) and* quantifiers (some, several, any, each, every, etc) as well as demonstrative pronouns (this, that, these and those). They all have limited complement taking abilities but generally maintain a head-complement relationship with nouns. Determiners also impose restrictions on their NP complements in terms of number agreement feature. In essence therefore, as heads, determiners project their properties to the phrase and so a singular determiner heads a singular DP while a plural determiner heads a plural DP. The point of interest in this paper is the head-complement relationship between a determiner and its NP complement.

In English, following the general X-bar structure explained in Newson (102), the determiner, being the head, precedes its DP complement as the examples in (1) below show.

1a. The mouse
1b. Those men in the garden
1c. Each prescription
1d. An occasion
1e. All answers

2a.

The X-bar structure in Newson (102)

2b.
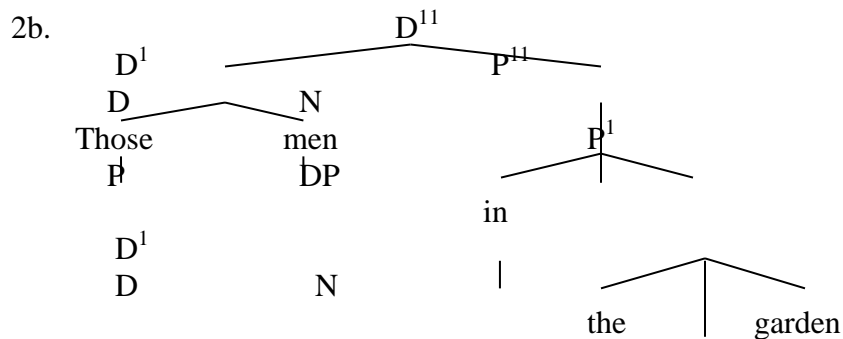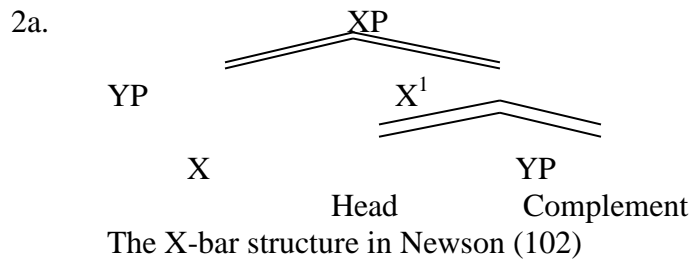
The diagram in [2a] above shows the X^1 schema charting the route of projection of the *head* through the intermediate X-bar to the phrasal category. Similarly, data [2b] shows head-complement configuration of the determiner phrases and a prepositional phrase in which the determiners are the heads (*Those men* and *the garden*) of their respective DPs and the preposition heads the PP (in the garden). It should be noted that the DP is simply a nomenclature for the Noun phrase because, as Newson (2007) explains, 'in some modern theories of syntax, what are called the "noun phrase" is no longer considered to be headed by a noun, but by the determiner (which may be null), and they are thus called determiner phrases (DP) instead of noun phrases'.

The head-complement relationship also manifest in the English verb phrase**.** Traditional grammar characterizes the verb phrase as a combination of a main verb and auxiliary verbs. In generative grammar, a verb phrase is a complete predicate which is a structure consisting of a lexical verb and all the words governed by that verb except a subject. It is a phrase that is headed by a verb. The structure of the VP can be represented as shown below.
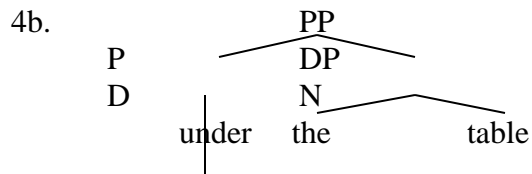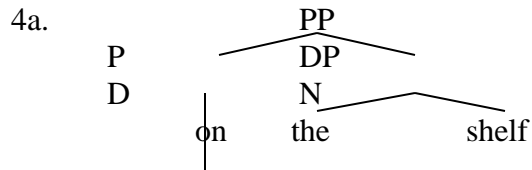
VP ⟶ (AUX) V + (NP) (PP) (ADV) (ADJ)

The verb phrase consists of optional auxiliary verbs which may serve as Specifiers to the main verb which is mandatory and a number of optional complements such as a direct object, a prepositional phrase, a predicate adjective or an adverb. In this syntactic structure also, the verb being the head precedes its complement. Consider these examples.

3a. Achebe **wrote *Things Fall Apart.***   (V + NP)
 b. Achebe **lived in the USA**.   (V + PP)
 c. Achebe **lived well**   (V + ADV)
 d. *Things Fall Apart* **is interesting**.   (V + ADJ)

The prepositional phrase is no exceptions in the canonical syntactic configuration of head-complement relationship. A prepositional phrase is headed by a preposition whose complement Quirk and Greenbaum (1973:143) highlight as being a noun phrase, a wh-clause or a V-ing clause. Prepositional phrases perform adjectival or adverbial grammatical functions, and for this reason, they are sometime described as preposition-headed adverbial or adjectival phrases (see Osisanwo 1999). Here are some examples of PPs in English showing the head-complement structure.

4a. Read the new books **on the shelf.**
 b. The cat is **under the table**.
 c. Tonye walked **across the busy road**
 d. **From what he said**, there seems to be confusion.
 e. **By signing a peace treaty**, the two presidents ended the war.

4a.

```
                     PP
          P          DP
          D           N
               on    the        shelf
```

4b.

```
                     PP
          P          DP
          D           N
             under   the        table
```

2.2. Head Directionality in Izon Phrasal Structure

The verb phrase in Izon is also headed by the verb but its word order shows a complement-head relationship since, syntagmatically, the complement precedes the verb, especially NP. Consider the following sentence, for instance.

5a. Tọbọụ bị **dadiye bị gẹẹmị**
    Boy   the exam the wrote
    'The boy wrote the exam'

5b.

```
                        TP
          Spec/DP                  T¹
          N         Đ        T              VP
                                   DP              V
                             N      Đ
         Tọbọụ      bị      dadiye      bị      gẹẹmị
         Boy        the     exam        the     wrote
```
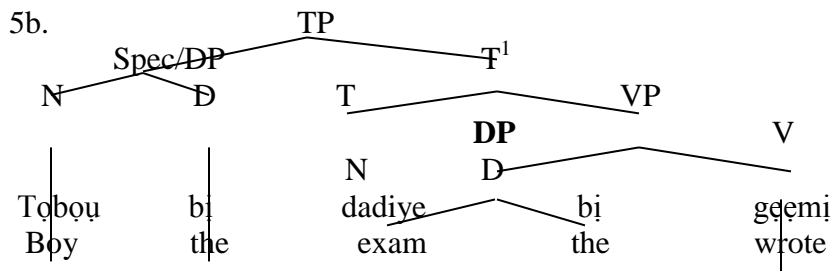
As could be observed in the example above, the determiner phrase follows the complement-head configuration. There are two DPs there: 'Tobou bi' (the boy) and ' dadiye bi' (the exam).

Postpositions instead of prepositions are found in SOV languages such as Ịzọn. Postpositions perform the same syntactic functions as prepositions. Together, prepositions and postpositions constitute adposition. The most common postpositions in Ịzọn are ***ghọ*** (with its allomorphs ***bọ*** and ***kọ***), ***naa, da*** and ***duo.*** These postpositions are relatively few but they perform the syntactic functions performed by a wide range of prepositions in English. The postposition ***ghọ***, for instance, expresses the relations encoded by such prepositions in English as '**on', 'at', 'in'** and **'to'.** The word ***'duo'*** is a postposition that functions like the English preposition 'from'. Creissels (2000:146) explains, as the data in [6] below will show, that postpositions follow their DP complements, unlike English prepositions which precede their DP complements. This means that the postposition and its complement are in Complement-head relation. Since prepositions and postpositions are functional heads, this variation contributes to the argument that English is a

head-first language. Following this evidence provided by the syntactic position of adpositions in Ịzọn, it becomes particularly convincing and appropriate to categorize Ịzọn as a head-final language.

6a. Fun   bi wari **ghọ** emi
      Book the house **in**   is
      'The book is in the house'

b. Tebọ kị waribo **bọ** emi-ó?
Who foc door **at**   is?
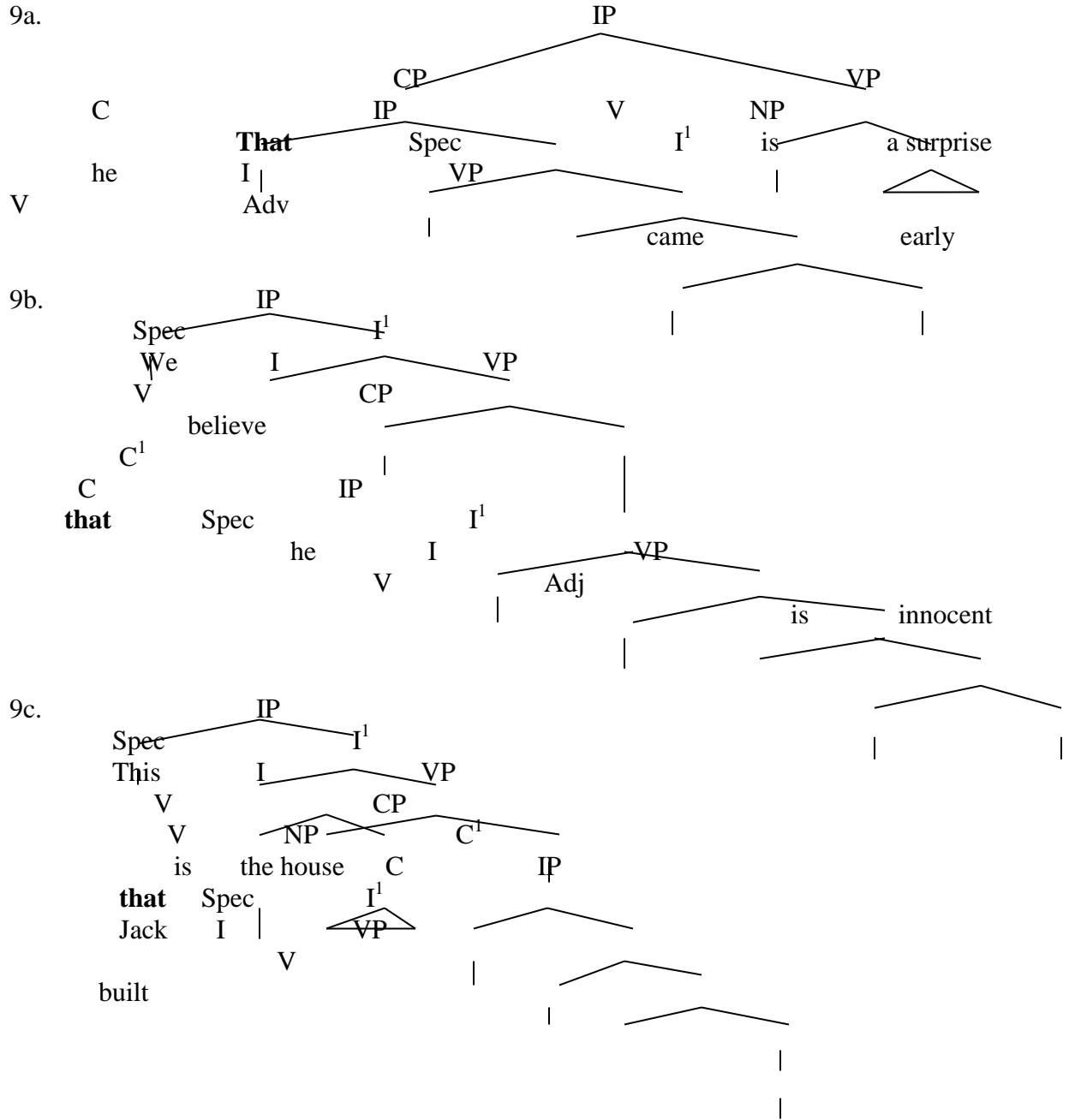'Who is at the door?'

7a. Araụ fọụ   **duo** bodọụ
She   market f**rom** come +perf.
'She has come from (the) market.'

7b.

```
                        IP
          Spec                    I¹
                       I                  VP
                            PP                  V
                      N          P
          Araụ        fọụ       duo        bodọụ
          She         market    from       come +perf.
```
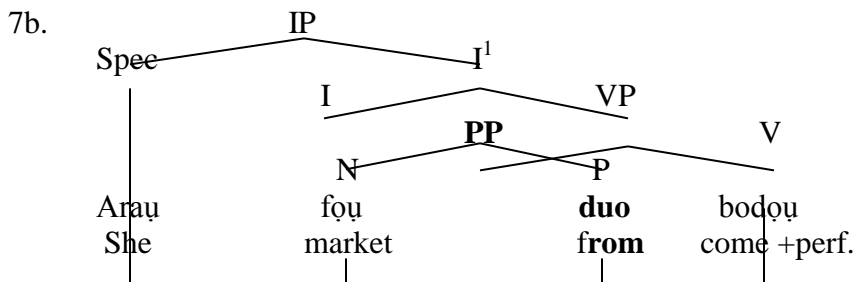
3.0. That-clause in English

The *that-clause* is a subordinate clause headed and introduced by the Complementiser 'that'. Complementizers include subordinate conjunctions, relative pronouns, and relative adverbs. For example, *if* functions as a Complementiser in the sentence "I wonder *if she will come*." A that-clause is primarily a noun clause that functions as subject of a sentence or clausal complement of a verb. It also functions as an embedded adjectival clause. The *that-clause*, like other subordinate clauses, is characterised in generative syntax as a Complementiser phrase (CP). In this respect, *that*, like every other Complementiser heads the CP. In fact, Santorini and Kroch (2007:328) points out that 'structurally, relative clauses headed by 'that' are completely parallel to wh-relative clause'. Here are some examples of clauses headed by 'that'.

8a. **That he came home early** is a surprise.
 b.We believe **that he is innocent**
 c.This is the house **that Jack built.**

9a.
```
                                        IP
                      CP                              VP
        C            IP                  V        NP
             That         Spec             I¹    is        a surprise
        he        I                VP
V                 Adv
                       came                early
```

9b.
```
                  IP
        Spec            I¹
          We       I         VP
          V           CP
          believe
               C¹
          C              IP
          that    Spec            I¹
                   he         I          VP
                   V               Adj
                                       is     innocent
```

9c.
```
                  IP
        Spec            I¹
        This       I          VP
          V              CP
          V       NP            C¹
          is    the house   C        IP
          that   Spec      I¹
          Jack    I    VP
                  V
          built
```

The point that has been highlighted in the data above is the fact that *that* is a Complementiser and as such, it heads the Complementiser phrase. In [9a], the CP '***That he came home early….***' is a clausal subject of the sentence ***;*** in [9b], the CP '***that he is innocent***' is the complement or direct object of the verb *believe*, and in [9c], the CP '***that Jack built***' is an adjectival subordinate clause modifying the preceding NP. In all cases, the CP and its complement are in head-complement relationship and this syntagmatic arrangement is in conformity with the head-first label of the English language. It should be noted, however, that some linguist do not agree that *that* heads a subordinate clause. This school of thought acknowledged in Rodney Huddleston and Geoffrey Pullum (2007:955) and also discussed in Cullicover (2004:10) reject *that* as the

head of the that-clause because it can be elided. This argument is not convincing, however, because even though it is true that *that* can be a covert constituent, it is not different from other null constituents such as Pro in imperative sentences and PRO in infinitival clauses, whose meanings are recoverable to competent speakers who are not oblivious of its covert presence.

4.0.The syntax of the that-clause (*amẹẹ-clause*) in Izon

The equivalent expression for the Complementizer *that* in Izon is *amẹẹ.* This is a subordinating conjunction and performs the hypotactic subordinating function in Ịzọn. In this sense, *amẹẹ* introduces and heads a subordinate clause. The perculiar thing about the that-clause in Izon is that the Complementizer which is the syntactic heads of the clause is actually at the clause-final position contrary to what obtains in an English that-clause. The data in [10] below demonstrate that the Complementizer *amẹẹ* (that) heads the relative clause.

10a. **Ebi gba amẹẹ** eri boyemi-é
  Ebi said that   he come+prog
  Ebi said that he was coming

10b
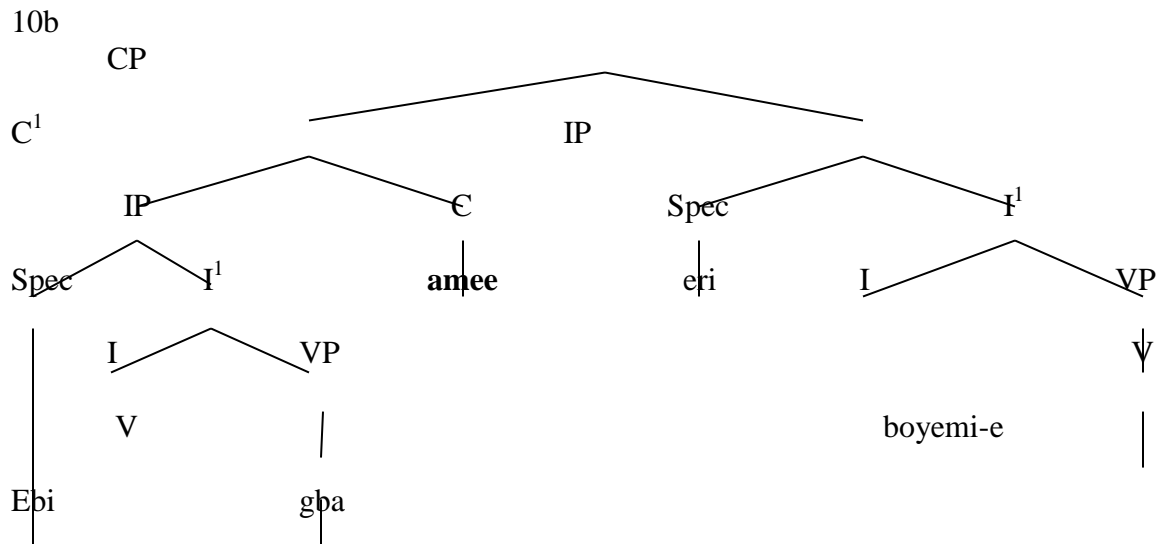
The Complementizer *amẹẹ* (that) heads the subordinate clause (highlighted) and, following Branigan (2004), occupies the C position. This COMP *amẹẹ* bears both wh- and tense features and as a result compels the verb preceding it in the derivation to appear in its base form. In other words, the verb bears no tense feature.

The ***that*-clause** is a subordinate or embedded clause headed by a COMP in both English and Ịzọn. However, the profound difference between them is that while **that** in English precedes its clausal complement, its equivalent, **amẹẹ** in Ịzọn follows its clausal complement. These are variant configurations of the initial state grammars of the two languages. UG provides a universal clause structure but English and Ịzọn opt for SVO and SOV structures respectively. And, in the subordinate clause, because of their varying I-languages, the computation of the English speaker places the COMP in a position preceding its clausal complement.

On the other hand, the computation component of the competent Izon speaker organizes its subordinate clause in such a way that places the COMP in a position immediately following

its clausal complement. The syntactic arrangement of the English 'that-clause' is in head-complement order while the 'that-clause' in Izon is in complement-head order. This, thus, reaffirms English as a head-initial language and Ịzọn as a head-final language. For this reason, a structure such as [12] below in which *amẹẹ* is in clause initial position cannot be acceptable even though there may be temptations to represent the sentence in a manner similar to a typical English complex sentence containing a that-clause as in [9a & b] above where the Complementizer is at clause-initial position.

12
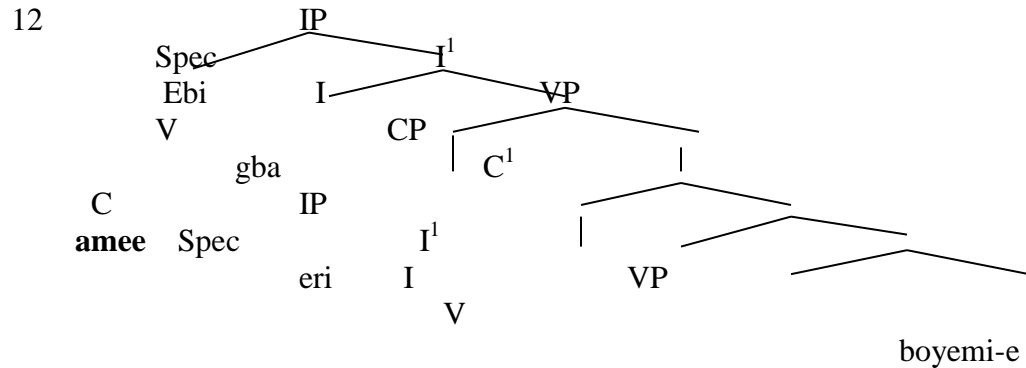
As explained earlier, the head features of the COMP *amee* provide the position of its complement to its left thereby producing a left-branching structure. This is in consonance with the head-final status of the Izon language. This argument remains valid even if the configuration of the sentence is reordered by fronting the matrix clause as the data in [11] show.

11a.   Eri boyemi-ayo **Ebi gba amẹẹ**
        he come+prog   Ebi said that
         Ebi said that he was coming

11b
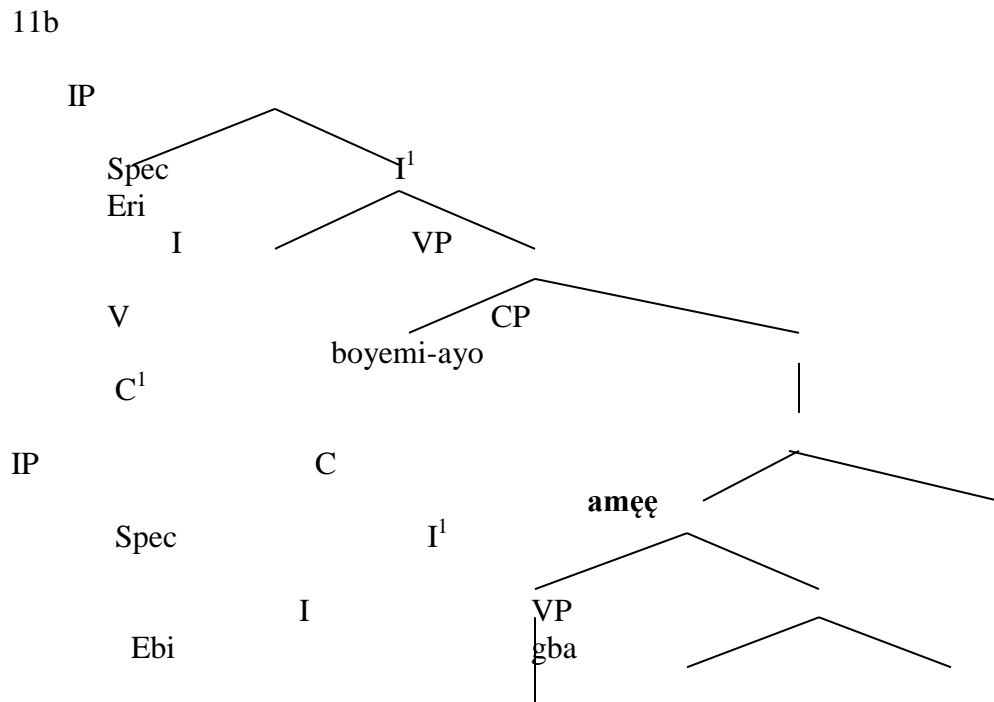
This conclusion we have made in the discussions above receives support in Matthews (1997) who states that one of the characteristics of SOV languages is that their subordinators appear at the end of the subordinate clause. This is corroborated by Raible {2001:8) that in SOV languages, subordination markers tend to be placed at the end of the clause. The examples in [12] further reinforce this conclusion.. In both examples, the subordinate clauses in Ịzọn and the English subordinate clause in the translations are underlined

12a.　Ọrọ̀ dau　ọ̀ bii　*amee* ọ̀mini *teye ki*　mietimima?
　　　　Their father them asked **that**　they　what *foc* (were) doing
　　　　'Their father asked them　　what they were doing'

12b.　Eri wò bii　*amee* woni *dengiseri ki* mungimi-a?
　　　　He us ask **that**　we　when　*foc* go + fut+tonal　question
　　　　'He asked us　　when we would go'

Again, the Ịzọn Complementizer, *amẹẹ* shows that it has complement features to its left, in its initial state grammar as Matthews (1997) has also observed, and so cannot subordinate a clause on its right. Rather, it turns to its left to subordinate the clause immediately above it in the derivation, which is the translational equivalent of the main clause in English. Bayer (2007) also supports this argument. According to him, clausal complementation displays an asymmetry between SVO and SOV languages to the effect that while in SVO languages which display an head-initial configuration, the COMP precedes its clausal complement, in SOV languages most of which display a head-final configuration, the COMP more frequently follows its clausal complement. To demonstrate this hypothesis, let us consider the data in [13] below.

[13]a. Orọ̀ dau　ọ̀ bii **amee** …　　(Izon) (legitimate subordinate clause)
　　　Their father them asked that
　'Their father asked them (**that**)'　　(**English**) (legitimate main clause + COMP)

　　b.　　***amee** ọ̀mịnị *teye ki*　mietimi-maa? (**Izon**)　(iIlegitimate subordinate clause)
　　　　　that　they　what *foc* (were) doing
　　　　　*'**That what** they were doing'　　(**English**) (iIlegitimate clause)

　　c.　　ọ̀mịnị *teye ki*　mietimi-maa?　　(**Izon**)　(legitimate main clause)
　　　　they　what *foc* (were) doing
　　　　'what they were doing'　　(**English**) (legitimate subordinate clause)

In [13a], the COMP *amee* takes the clause preceding it as its complement and makes it a subordinate clause. It is legitimate in Ịzọn. But its equivalent in English is not a legitimate subordinate clause. It is clear that the complement of *that* is missing. In [13b], the Ịzọn COMP, *amee* is given an unlicensed clause complement to its right and the resultant supposed subordinate clause is ill-formed. Its transliteration equivalent in English has two Complementizers '**That what'** which also renders the derivation ill-formed. In [13c], the equivalent of the English subordinate clause is a well-formed Ịzọn main clause. Let us compare this proposition with an English sentence.

[14]. John said that what they were doing was wrong
Jǫnị gba amęę teye <u>òrò mịętimi   bi kirigha</u>
John said that what they doing+pst the wrong

In this example also, the ill-formed clause 'John said that' translates to 'Jǫnị   gba amęę'. In English, the COMP 'that' should not be part of 'John said', but in Ịzǫn, the COMP 'amęę' (that) legitimately collocates with 'Jǫnị gba' which, though, is a main clause in English, becomes a subordinate clause in Ịzǫn. In fact, a proper translation of

[15]a   John said **that what they were doing was wrong**
        Should be:
  b. **Jǫni gba amęę** òrò mịętimi   ye bi   kịrịgha
      John said that   they were doing thing the was wrong
      John said that   the thing they were doing was wrong

Similarly, example [13] illustrates this same proposition.

16a.   Ebi   said [$_{CP}$ [$_C$ **that**   [$_{TP}$ [$_{DP}$ he [$_{VP}$ is coming]]]]]
  b.   [$_{TP}$ [$_{DP}$ Ebi [VP [V gba] [CP [C **amęę**] [$_{TP}$ [$_{DP}$ Eri [$_{VP}$ boyemi]]]]]
       'Ebi said   that   he is coming'

Conclusion
On a final note, what the foregoing discussions have proven is that the matrix clause in the subordinate clause in English and Ịzǫn are configurationally asymmetrical. As mentioned earlier, the proposition that the subordinator in SOV languages, as in Ịzǫn is placed at the end of the subordinate clause finds support in Matthews (1997) and Raible (2001). It is obvious that the articulated clause structure which places a CP as the head of the clause does not envisage the occurrence of a CP at the end of a clause. Therefore, this can be considered to be a parametric variation between these two languages, a variation that derives from the I-grammars of the two languages.

       Another interesting observation is that the verb in the embedded clause of a complex sentence in Ịzǫn does not inflect for tense but the verb in the matrix clause does. This is determined by the COMP *amęę* because it carries tense and wh-features. Therefore, tense and wh-features are checked on this COMP. But where there is no overt COMP, the verb in the matrix clause inflects for tense.

       We conclude, therefore, that while in English, heads canonically precede their complements, there are also head-last languages such as Izon which consistently position complements before their heads. This has been demonstrated in phrasal structures in two two languages under discussion. Since prepositions and postpositions are considered to be functional heads, this variation contributes to the argument that English is a head-first language. Following this evidence provided by the syntactic position of adpositions in Ịzǫn, it becomes particularly appropriate to categorize Ịzǫn as a head-final language. Crystal (1987) supports this view when he says that SOV languages (which include Ịzǫn), are usually head-last languages. And since universal grammar is a biolinguistic property of humans, and given the existence of peripheral

features and parametric variations, children growing up in the speech communities of English and Izon acquire the I-languages of the respective languages with their unique parametric options.

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