# *Yes*/*No* questions in Ẹ̀dó: The markers

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**ABSTRACT** The study examines *yes*/*no* questions in the Ẹ̀dó language with the aim of identifying the morphemes that function as *yes*/*no* question markers. Relying on primary data generated from a survey, the study proposes that there are five overt *yes*/*no* question markers in the language. Four of these question markers (*té, yí, rà,* and *kué*) have been discussed in the literature, but this study provides a different account of the role of *té* in polar questions, and suggests that another morpheme, i.e., *nè* can be classified as a *yes*/*no* question marker. Furthermore, the study reveals that the question markers are homonyms of other lexical and functional words. This has implications for the distribution of the question markers, as the co-occurrence with their homonyms yields unacceptable sentences. The paper describes this constraint on the use of the markers within the framework of Distributed Morphology.

*Keywords*: anti-homonymy, impoverishment blocking, morphological dissimilation, polar questions

## 1      Introduction

*Yes*/*no* (polar) questions are interrogatives that elicit either a *yes* or a *no* response. At first glance, it seems like question formation belongs to the domain of syntax given that they are types of sentences, and syntax is the linguistic sub-field that studies how words are arranged to form sentences. This initial perception fails to take cognisance of other sub-fields of linguistics. If one considers the role of other modules in question formation, one would realise that the answer to the problem of *yes*/*no* questions is not the simple *yes* or *no*. This may be the reason why earlier studies on Ẹ̀dó questions have statements concerning the syntax, phonetics and semantics of polar questions.

Unlike previous studies, this paper will not examine the role of phonetics/phonology but, it will touch on one aspect of the semantics of the question markers – homonymy. The reason is that the markers share the same form with other words in the language. Although this fact is mentioned in the literature, earlier studies did not consider its implications. Also, this paper differs from others in terms of its theoretical framework. Some of the question markers are subject to an anti-homonymy constraint which restricts their use. This study examines this constraint within the framework of Distributed Morphology. The aim is to identify morphemes that can be employed as *yes*/*no* question markers. In line with this aim, the paper will attempt to provide answers to the following questions:

- Which morphemes can be used to construct *yes*/*no* questions in the Ẹ̀dó language?
- Where do these morphemes occur?
- Are there any limitations on the use of these morphemes as question markers?

- If there are limitations, how do these limitations operate?

The paper is divided into five sections. Section 1, the introduction, provides an overview of the paper, the problem statement and significance of the study. Section 2 gives a background to the study with a discussion of previous findings on the subject and a proposal for additional question markers. Section 3 discusses the methodology adopted for this study. Section 4 examines the co-occurrence of question markers and restrictions on the use of the markers. Section 5 concludes the paper with a summary.

## 2      Background to the study

The Ẹ̀dó language is spoken natively in the southern part of Nigeria. Based on the 2010 National Population Commission Report, the estimated land area of this linguistic group is 10,835.37 square kilometres, while the population of first language users is 1,686,041. The language has three distinctive tones: high, down-stepped high and low. The order of constituents in the sentence is Subject-Verb-Object (SVO). On the subject of interrogatives, there are no previous studies devoted to polar questions entirely. However, a few works including Agheyisi (1986), Omoigui (1987) and Omoruyi (1988, 1989) touch on some of the markers and the structure of this question type.

Agheyisi's (1986, p. 125) dictionary lists *rà* as an interrogative particle requiring a *yes* or a *no* answer. It also provides an entry for *kué* which is classified as an adverbial, but the author explains that "it occurs before a verb to convert the clause into a question requiring confirmation". The work cites the following examples:

(1)     *Ọ̀        kué        rréè*
        3SG      QM        come
        'Did he/she come at all?'

(2)     *Ọ̀        rréè      rà*
        3SG      come      QM
        'Did he/she come?'

Omoigui (1987) and Omoruyi (1988, 1989) examine polar questions and WH-questions using the framework of Transformational Generative Grammar. Omoigui (1987) discusses the interrogative particle *rà*, as well as *kué*; the thesis also identifies the question morpheme *yí*. Omoruyi (1988, 1989) does not mention the use of *kué* as a question marker, but the papers discuss *té*, *yí* and *rà*. On the morpheme *yí*, Omoruyi (1988) points out the following:

> Polar questions are formed by adding the particle *yí* to the end of a declarative sentence. This particle not only performs the role of transforming declarative sentences into polar questions, it also performs other non-interrogative functions. It occurs optionally in non-polar questions; in negative declarative constructions, it expresses the adverbial meaning of 'before'; in focus constructions, it brings the noun in focus into more prominence; but in negative focus constructions it only functions as an emphatic particle. (p. 20)

In examples (4)-(7) of that paper, Omoruyi (1988, p. 21) illustrates these uses of the morpheme *yí*, and concludes that "*yí* occurring in sentence final position can represent different though

homophonous lexical items". Those examples are renumbered and presented as examples (3)-(6) below.

(3)    a.    *Osarọ ghá    rréè*
              Osarọ  AUX    come
              'Osarọ will come.'

       b.    *Osarọ ghá    rréè    yí*
              Osarọ  AUX    come    QM
              'Will Osarọ come?'

(4)    *Ù      má     rhìé    òkhùò         yí*
        2SG    NEG    take    woman         before
        'You have never married (a woman) before.'

(5)    *Èvbàré        ẹ̀ré    Osarọ        ré     yí*
        food           FOC    Osarọ        eat    QM-EMPH
        'Is it food Osarọ is eating?'

(6)    *Ẹ́-í-ré         èvbàré        Osarọ  ré    yí*
        it-NEG-be       food           Osarọ  eat   EMPH
        'It is not food Osarọ is eating either.'

Omoruyi (1989, p. 289) notes that "statements can be changed to questions when the pitch especially on the final syllable is raised. Such questions commence with a high tone which is traceable to the emphatic particle *té*". If the particle is deleted, the resultant pitch change turns an emphatic statement to a *yes/no* question as illustrated in examples (7) and (8) below. Example (8) is Omoruyi's example (28b), and example (7) was constructed based on the explanations in Omoruyi (1989, p. 290)

(7)    *Té     ùwà    rrié    úgbó*
        EMPH   2PL    go      farm
        'It is the case that you are going to the farm.'

(8)    *Úwà    rrié    úgbó*
        2PL    go      farm
        'Are you going to the farm?'

Another account of the particle is that it functions only as a subject focus marker. According to Agheyisi (1986, p. 142), *té* "occurs optionally at sentence-initial position to indicate affirmation. When *té* occurs in a sentence ending with the question particle *rà*, the subject is usually the focus of the question. If the response to such a question is affirmative, *té* introduces the sentence. When *té* is deleted, the high tone on its vowel replaces the low tone of the pronoun", as illustrated by examples (9)-(12) below (adopted from Agheyisi, 1986, p. 142).

(9)    *Té     ọ̀     yẹ̀ẹ́          mwẹ́*
        EMPH   3SG    like/please    1SG
        'It is the case that I like it (I do like it).'

(10) *Té      ọ̀      yẹ̀ẹ́      rùẹ́     rà*
     EMPH    3SG    like/please    2S    QM
     'Is it the case that you like it (Do you like it)?'

(11) *Ẹ́ẹ́n,    té      ọ̀      yẹ̀ẹ́      mwẹ́*
     yes    EMPH    3SG    like/please    1SG
     'Yes, it is the case that I like it (Yes, I do like it).'

(12) *Ẹ́ẹ́n,    ọ́      yẹ̀ẹ      mwẹ́*
     yes    3SG    like/please    1SG
     'Yes, I like it (Yes, I do like it).'

This paper proposes that *té* functions as a *yes/no* question device, even though previous analyses of its occurrence in interrogative constructions consider the form to be an emphatic particle. Unlike the proposals in Omoruyi (1989) and Agheyisi (1986), the particle *té* in *yes/no* questions need not be deleted for interrogative interpretations to be derived. Also the interrogative particle *rà* may or may not be present, as illustrated below.

(13) *Ùwẹ̀     wẹ́ẹ̀     íràn     dèé*
     2SG    say    3PL    come
     'You said they were coming.'

(14) *Té      ùwẹ̀     wẹ́ẹ̀     íràn     dèé     rà*
     EMPH    2SG    say    3PL    come    QM
     'Is it the case that you said they were coming?'

(15) *Té      ùwẹ̀     wẹ́ẹ̀     íràn     dèé*
     QM    2SG    say    3PL    come
     'Is it the case that you said they were coming?'

The response to the two interrogative sentences could begin with either *yes* or *no*; the difference between them is presence / absence of the sentence final interrogative particle *rà*. On the absence of this question marker Omogui (1987) notes:

> [R]*à* may be deleted in *yes/no* questions. When this happens, the final vowel of the preceding word is lengthened, and the geminate which results from the lengthening carries the low tone of the deleted question marker. The thesis states that it is possible to have *yes/no* questions without the question particle *rà* or its replacing vowel, if the final vowel of the preceding word bears a low or high tone rather than a downstepped high tone. Interrogation in this case is a falling intonation. (pp. 29-32)

The thesis does not provide any illustrations for intonation in the language, but it cites example (15) (renumbered below as example (16)) on page 32 as an example of a polar question derived with falling intonation.

(16) *Ẹ̀sọ́hẹ̣́ dẹ́     ímọ́tò*
     Ẹ̀sọ́hẹ̣ buy    car
     'Did Ẹsọhẹ buy a car?'

Omogui's suggestion on the deletion of *rà* and the use of intonation as a *yes/no* interrogative device is similar to Omoruyi's argument on pitch changes that result from the deletion of the emphatic particle *té*. Although both studies do not have illustrations of how the process obtains, it is pertinent to mention that their arguments on pitch/intonation being interrogative devices are in tandem with research findings on polar questions in other languages.[1]

In addition to suggesting the use of *té* as a *yes/no* question marker, this paper also proposes that the morpheme *nè* can be classified as a *yes/no* question marker. There are no previous analyses on the use of *nè* in interrogative constructions, but the morpheme is mentioned in Agheyisi (1986), and the entries show that the form *nè* is shared by the Ẹ̀dó words which introduce relative clauses, the consequential conjunction equivalent to the English *so that*; and the variant of a preposition which introduces the beneficiary in a sentence. Agheyisi's Ẹ̀dó-English dictionary provides examples which illustrate the non-interrogative uses of *nè*. Examples (17)-(20) were culled from Agheyisi (1986, p. 100).

(17)  *Ọ̀      màá    mwẹ́   èké    nè     ọ̀      dìá*
      3SG    show   1SG    place  where  3SG    reside
      'He/she showed me the place where he/she resides.'

(18)  *Làré   nè             ì      khàmàá          rùẹ́n   èmwí*
      Come   so_that        1SG    tell            2SG    thing
      'Come so that I tell you something.'

(19)  *Ozo    ẹ̀ré   ọ̀     rrìé   íghó   ná*
      Ozo    FOC   3SG    give   money  to
      'It is Ozo that he/she gave money to.'

(20)  *Ọ̀     rrìé   íghó   nè     Ozo*
      3SG    give   money  to     Ozo
      'He/she gave money to Ozo.'

Besides the functions illustrated above, *nè* can also be used for polar questions. Like other polar question markers, the morpheme can turn other sentence types into interrogatives that require responses which begin with either a *yes* or a *no*. See examples (21) and (22).

(21)  *Ọ̀     rrìé   íghó           nè     Ozo*
      3SG    give   money          to     Ozo
      'He/she gave money to Ozo.'

(22)  *Nè     ọ̀     rrìé   íghó           nè     Ozo*
      QM     3SG    give   money          to     Ozo
      'Should he/she give money to Ozo?'

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[1] For example Kügler (2003) reveals that *yes/no* questions in Upper Saxon German may be expressed by two distinct intonational patterns: an overall fall and an overall rising pattern. See also Déprev, Syrett, and Kawahara's (2013) discussion on the possibilities of an intonation morpheme for *yes/no* and wh-questions in French.

## 3        Methodology

The data for the study was obtained in two stages. First, there was a review of literature which provided data used for illustration in section 2. This was supplemented by the author's own examples, which were obtained from observation of the language in use. The second step in the data collection was a small field survey on the language users' understanding of the interrogative uses of *té* and *nè*. The instrument was an open-ended questionnaire. It was administered to fifteen respondents comprising 9 males and 6 females aged 21-70. The place of first contact with the language for 10 of the participants was home, while the other 5 learnt it as a school subject. In terms of occupation, 5 of the respondents work in public administration, 4 teach linguistics and Ẹ̀dó language courses, while 6 are undergraduate students.

### 3.1      Data presentation and analysis

For the analysis, the data was coded using participants' actual responses to the items. The responses were grouped into four types based on the similarity of the choice of words and meaning. Table 1 below contains the survey items numbered 1-7, the glosses and the closest English equivalents. The survey instrument was administered without the glosses and tone marks. All fifteen participants were able to read and respond to the items with minimal assistance from the researcher. A total of 117 responses were provided for the survey items. These responses were sorted into categories based on four functional types of sentences namely declarative, exclamatory, imperative and interrogative. The categories are presented as numerals i-iv next to each item. The number of responses (third column) indicates the actual number of respondents who provided any given type of sentence; the words in parentheses were included in some of the responses.

**Table 1**: Survey on lexical categories in Ẹ̀dó

| Survey Items | Number of Responses |
|---|---|
| Instruction: *Interpret the following sentences using closest equivalent English meaning and the appropriate punctuation marks. If a word/phrase is un-interpretable, please underline it. You may provide more than one interpretation for any given sentence. Thank you.* | |
| 1.  *Íràn ghàé èvbàré vbè  èvbá*<br>they share food in/on/at/over there<br>'They share food over there.'<br>  i.  Food is being shared there.<br>  ii.  They are sharing food over there.<br>  iii.  They are sharing food there.<br>  iv.  Are they sharing food there? | <br><br><br>2<br>2<br>9<br>2 |
| 2.  *Íràn ghàé èvbàré vbè  èvbá rà*<br>they share food in/on/at/over there QM<br>'Do they share food over there?'<br>  i.  They are sharing food there <u>rà</u>.<br>  ii.  Is food being shared there?<br>  iii.  Are they sharing food over there?<br>  iv.  Are they sharing food there? | <br><br><br>1<br>1<br>2<br>9 |

| 3. | *Té  íràn  ghàé  èvbàré  vbè           èvbá*<br>QM they  share  food     in/on/at/over  there<br>'Do they share food over there?' | |
|----|---|---|
| | i.    They are sharing food (over) there! | 6 |
| | ii.   They are surely sharing food (over) there. | 2 |
| | iii.  Is it that they are sharing food there? | 2 |
| | iv.   Are they sharing food (over) there? | 8 |
| 4. | *Té  Èmóndè  khián         rà té  ọ̀  dèé*<br>QM Monday  go/walk/leave  or  QM  he come<br>'Is Monday going or is he coming?' | |
| | i.    Monday stepped out; he will be right back. | 1 |
| | ii.   Is Monday calling him a fool? | 1 |
| | iii.  Is Monday going or coming back? | 2 |
| | iv.   Is Monday going or is he coming? | 11 |
| 5. | *Òzó má  miẹ́  íkóróbá  nékhéré  wẹ́ẹ̀  né  ọ̀  dẹ̀  nọ́khuà*<br>Òzó NEG  see  bucket  small  say  that he  buy  big/large<br>'If Òzó does not find a small bucket, tell him to buy a big one.' | |
| | i.    If Òzó cannot find small bucket, tell him to buy big one. | 12 |
| | ii.   If Òzó does not see big bucket, tell him to buy small one. | 2 |
| | iii.  Òzó didn't see small bucket, as he used to buy big ones. | 1 |
| 6. | *Òzó má  miẹ́  íkóróbá  nékhéré  nè  ọ̀  dẹ̀  nọ́khuà*<br>Òzó NEG see  bucket  small  QM he  buy  big<br>'If Òzó does not find a small bucket, should he buy a big one?' | |
| | i.    If Òzó can't find big bucket, he should buy a small one. | 2 |
| | ii.   If Òzó does not find a small bucket, he should buy a big one. | 13 |
| | iii.  If Òzó does not find a small bucket, should he buy a big one? | 7 |
| 7. | *Nè  Òzó  khuí  ẹkhù  ìyékòwá*<br>QM  Òzó lock  door  backyard<br>'Should Òzó lock the back door?' | |
| | i.    <u>Nè</u> Òzó locked the back door. | 1 |
| | ii.   That Òzó should lock the back door. | 2 |
| | iii.  Òzó should lock the back door. | 6 |
| | iv.   Should Òzó lock the backdoor? | 10 |

Based on the participants' understanding of the functions of Ẹ̀dó lexical categories, one can make the following comments on *yes*/*no* questions and the interrogative uses of *té* and *nè* in the language.

- *Yes*/*no* questions may be morphologically unmarked

Ẹdo *yes*/*no* questions can have the same syntactic structure as declarative sentences. In response to item (1), some of the participants derived a *yes*/*no* question interpretation from a structure without an overt question marker, as illustrated in the respondents' own entries in (1iv). Although the number of participants is small, their response rouses one's curiosity as to how this is achieved.

- The morphemes *té* and *nè* can be categorised as *yes*/*no* question markers

Data on the interrogative uses of *té* and *nè* was gathered from responses to items (3)-(7). On the use of *nè*, participants' responses to items (6) and (7) show that *nè* is perceived as a *yes*/*no* question marker. Up to half of the survey participants interpreted the morpheme as an interrogative marker in item (6). As illustrated in (7i), one of the participants did not specify the role of *nè*, but most of the responses suggest grammatical roles. Of these responses, the most recurrent is the interrogative function.

In addition, the survey suggests that the morpheme *té* can be classified as an interrogative morpheme, as illustrated in item (4), where it is used in an utterance with a conjunction that is similar to another question marker. In response to that item, most of the participants chose *té* as the interrogative morpheme. Also, in response to item (3), many of the participants considered *té* a question marker, while a few participants suggested that it serves as a subject emphatic particle and a question marker. The following actual responses on the use of *té* as a *yes/no* question marker in item (3) further illustrate this point:

- *Are they sharing food in that place?*
- *Is it the case that they are sharing food there?*
- *Did they share food there?*
- *Was food shared there?*

Responses to these questions would typically begin with a *yes* or a *no*. So, the results of this small survey lend credence to the proposal that *té* and *nè* are *yes/no* question markers in the language. The survey is particularly useful for understanding the functions of *té*. Previous analyses suggest that it is a particle which emphasises the subject in interrogative constructions ending with the question morpheme *rà*. Although very few participants were able to perceive the role of *té* as a subject-emphatic particle, most of the responses show that the interrogative interpretation of the morpheme is not dependent on the presence of other question markers. The responses to items 3 and 4 suggest that the interrogative force of *té* stems from its use as an overt question marker.

## 3.2    Which morphemes can be used to construct *yes/no* questions in the Ẹdó language?

Based on the findings of previous studies and the survey, five morphemes: *té, nè, kué, yí*, and *rà* can be used to construct *yes/no* questions in the Ẹdó language. The criterion that sets them apart as question markers is the interpretation that results when the markers are introduced into non-interrogative sentences. In such sentence types, these morphemes interact with the propositions such that they can only be interpreted as enquiries. Consider the illustrations in the table below.

**Table 2:** The question markers

|    | Non-Interrogative Sentences | Yes/No Questions |
|----|----|----|
| 1. | *Ẹkiòmádó ghá rréè èkì érè* <br> Ẹkiòmádó TNS come market today <br> 'Ẹkiòmádó will come to the market today.' | *Ẹkiòmádó ghá rréè èkì érè yí* <br> Ẹkiòmádó TNS come market today QM <br> 'Will Ẹkiòmádó come to the market today?' |
| 2. | *Ẹkiòmádó ghá rréè èkì érè* <br> Ẹkiòmádó TNS come market today <br> 'Ẹkiòmádó will come to the market today.' | *Ẹkiòmádó ghá rréè èkì érè rà* <br> Ẹkiòmádó TNS come market today QM <br> 'Will Ẹkiòmádó come to the market today?' |
| 3. | *Ẹkiòmádó ghá rréè èkì érè* <br> Ẹkiòmádó TNS come market today <br> 'Ẹkiòmádó will come to the market today.' | *Ẹkiòmádó ghá kué rréè èkì érè* <br> Ẹkiòmádó TNS QM come market today <br> 'Will Ẹkiòmádó come to the market today?' |
| 4. | *Ùwẹ̀ wẹ́ẹ̀rè íràn dèè* <br> 2SG say.PST they come <br> 'You said that they were coming.' | *Té ùwẹ̀ wẹ́ẹ̀rè íràn dèè* <br> QM 2SG say.PST 3PL come <br> 'Did you say that they were coming?' |
| 5. | *Ì dẹ óguí* <br> I buy African-mango <br> 'I buy African-mango.' | *Nè Ì dẹ óguí* <br> QM 1SG buy African-mango <br> 'Should I buy African-mango?' |

From the examples in Table 2 above, one can observe that the interrogative morphemes occupy different structural positions: *nè* and *té* occur in the sentence-initial position, *kué* precedes the main verb, while *yí*, and *rà* occur in the sentence-final position. The question markers can also been differentiated based on their lexical categories and semantic interpretations. Agheyisi (1986) classifies *kué* as an adverb, but all the other markers are particles. Melzian's (1937) dictionary lists only two of the question markers – *yí* and *rà*; both of them are classified as particles.

Following the interpretational approach, Omoigui (1987) establishes distinctions between *yí* and *rà,* on the one hand, and between the preverbal question morpheme *kué* and all other question morphemes, on the other hand. The study suggests that *kué* is used in constructions where the speaker is uncertain; it also shows that the adverbial question morpheme can occur in the same sentence with the question morpheme *yí*. The thesis states that "when *yí* is used in the same interrogative construction as *kué*, it makes the question more emphatic even though the semantic readings of the questions appear to be the same. In such questions, *yí* tends to reinforce *kué* in marking interrogation; when *kué* is not in the construction, *yí* functions both as question and emphatic marker" (Omoigui, 1987, p. 42). The author illustrates this explanation with the examples numbered (23)-(25) below; these examples are the same as those numbered (43a)-(43c) in Omogui (1987, p. 41).

(23)    *Osasu kué    dé̞    é̞wù    yí*
        Osasu QM      buy    shirt    EMPH
        'Did Osasu buy a shirt at all?'

(24)    *Osasu kué    dé̞    é̞wù*
        Osasu QM      buy    shirt
        'Did Osasu buy a shirt at all?'

(25)    *Osasu dé̞    é̞wù    yí*
        Osasu buy    shirt    EMPH
        'Did Osasu buy a shirt?'

Similarly, Omoruyi (1989) notes a difference between the sentence-final question markers. In that article, the author states that "*yí* and *rà* elicit slightly different responses. Respondents are only expected to agree or disagree with the assertion contained in questions formed with *yí*, but in the case of *rà*, apart from agreeing or disagreeing with the assertion of the question, the respondent can make an alternative assertion". The article does not provide any illustrations for this kind of question-response pair; being restricted to data on *yes*/*no* questions, this study has no examples to corroborate the distinction.

However, the analysis from the survey sheds some light on how language users distinguish the interpretations of the markers. From the responses to the questionnaire, it was observed that some speakers distinguish *té* from *nè* in terms of the emphasis it places on the subject; none of the respondents associated *nè* with emphasis. If the subject of a question beginning with *nè* is to be emphasized, the emphasis is marked morphologically on the subject itself. Consider the following examples:

(26) a. *Té Ì dẹ̀ óguí*
QM 1SG buy African-mango
'Do I buy African-mango?'

b. *Nè Ì dẹ̀ óguí*
QM 1SG buy African-mango
'Should I buy African-mango?'

(27) a. *Té Ìmẹ̀ dẹ̀ óguí*
QM 1SG-EMPH buy African-mango
'Do I buy African-mango?'

b. *Nè Ìmẹ̀ dẹ̀ óguí*
QM 1SG-EMPH buy African-mango
'Should I buy African-mango?'

The glosses for (27a) and (27b) are the same, but the contexts in which they are used differ. Both question markers can be used to query declarative statements, but the interpretations will differ. The reason is that *té* connotes a sense of habitual action; this habitualness is glossed as *do* in the examples above. So querying an imperative such as *buy African mango* with either (26a) or (27a) is not the asking whether the speaker should buy African mango for the interlocutor. It is asking whether the speaker usually buys African mango. The differences between the five question markers are summarized as features[2] in the table below.

**Table 3**: Features of Ẹ̀dó *yes/no* question markers

| The markers | Word Class Features | Semantic Features | Syntactic Features | Contextual Features |
|---|---|---|---|---|
| *té* | Particle | Emphatic | [+Qu, - wh] | [ _ DP] |
| *nè* | Particle | Non-emphatic | [+Qu, - wh] | [ _ DP] |
| *kué* | Adverb | Non-emphatic | [+Qu, - wh] | [ _ V] |
| *yí* | Particle | Emphatic | [+Qu, - wh] | [ TP _ ] |
| *rà* | Particle | Non-emphatic | [+Qu, - wh] | [ TP _ ] |

## 4    Co-occurrence of the question markers

The interrogative markers can co-occur in the same sentence, but this double-interrogative marking raises two concerns. The first is the limit on the number of question markers that can be employed in a given utterance. The second issue is whether the markers retain their interrogative force when they co-occur. On the number of question markers, it is possible for one to use up to

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[2] The features in Table 3 were adopted from several sources: Agheyisi (1986) for word class features, Ebeling (1978) for semantic features, Ginsburg (2009) for syntactic features and Chomsky (1978) for contextual features. According to Ebeling (1978, p. 111), the emphatic feature is used for indicating significance within a frame of reference. "If the speaker takes W to be more significant, possibly because he supposes that W is significant to the hearer, or because he wants to set W apart from a group of things the hearer might have in mind or the like, then the feature concerned is an emphatic feature". The syntactic Qu-feature occurs possibly in all languages and is contained within Qu(estion)-morphemes, which may be overt or null. The feature [+Qu] is responsible for interrogative interpretation of clauses (Ginsburg, 2009, pp. 71-82). The contextual features follow the idea that a contextual feature specifies the part of a phrase in which an item can be inserted (Chomsky, 1978, p. 72).

three *yes/no* question markers. The number of markers is curtailed by available structural positions, i.e., one marker in the sentence-initial position, *kué* before the main verb and one sentence-final position. For example:

(28) | *Té* | *ùwẹ̀* | *kué* | *wẹ́ẹ̀* | *íràn* | *ghá* | *réè* | *ákhuẹ̀* | *rà*
--- | --- | --- | --- | --- | --- | --- | --- | --- | ---
| QM | you | QM | say | they | TNS | come | tomorrow | QM

'Did you say (that) they will come tomorrow?'

(29) | *\*Té* | *ùwẹ̀* | *kué* | *wẹ́ẹ̀* | *íràn* | *ghá* | *réè* | *ákhuẹ̀* | *rà*
--- | --- | --- | --- | --- | --- | --- | --- | --- | ---
| QM | you | allow | say | they | TNS | come | tomorrow | QM

(30) | *\*Té* | *ùwẹ̀* | *kué* | *wẹ́ẹ̀* | *íràn* | *ghá* | *réè* | *ákhuẹ̀* | *rà…*
--- | --- | --- | --- | --- | --- | --- | --- | --- | ---
| QM | you | allow | say | they | TNS | come | tomorrow | or

Examples (29) and (30) have the same word forms as example (28), but the glosses for the pre-verbal and sentence-final question markers have been changed to reflect other meanings associated with those word forms. The acceptability of (28) and the non-acceptability of examples (29) and (30) demonstrate that the markers retain their interrogative force in constructions where they co-occur.

In section 2, one of the background studies revealed that *yí* is homophonous with other lexical items. The other four question markers share this same relationship with other morphemes in the language. The existence of other distinct meanings holds two implications. On the good side, it clarifies the issue of interrogative force in cases of double question marking, as illustrated above. The flip side of this lexical relationship is a restriction on the use of the question markers. The issue is such that some of the markers, especially those classified as particles, cannot be employed in the same construction with other words which share similar phonological forms. It has been suggested[3] that the similarity is a case of polysemy rather than homonymy, but I think it is as a case of homonymy. Although homonymy and polysemy deal with the similarity of the phonological forms of words, they are not really the same. Saeed (2009, p. 64) points out that

> polysemy is invoked if the senses are judged to be related. This is an important distinction for lexicographers in the design of their dictionaries, because polysemous senses are listed under one lexical entry, while homonymous senses are given separate entries. Lexicographers tend to use the criteria of 'relatedness' to identify polysemy. These criteria include speakers' intuitions, and what is known about the historical development of the items.

This study did not investigate the historical origins of these words forms, but Agheyisi's (1986) dictionary has three entries for the form *kué*[4] and Melzian's (1937) dictionary has two entries for *rà*[5] and four entries for *yí*.[6]

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[3] An anonymous reviewer suggested that the relationship between the *yes/no* question markers and other words is a case of polysemy that could be worked out in terms of Kinyalolo's (1991) constraint.

[4] Example (i) below is taken from Agheyisi (1986, p. 84).

(i)     *Kué*[1] [kwé] *vb.* To agree to something
        *Kué*[2] [kwé] *adv.* It occurs before a verb to convert the clause into a question requiring confirmation
        *Kué*[3] [kwé] *prep.* On, over, at

[5] Example (ii) was taken from Melzian (1937, p. 180).

(ii)    *Rà*[1] [ɽà] or
        *Rà*[2] [ɽà] particle indicating a question

Based on the assumptions of earlier works, the relationship between these question markers and other words with similar phonological forms will be treated in this paper as instances of homonymy. The implications of this lexical relationship on the use of the question markers will be discussed in the following sub-sections. Generally, the markers *té* and *nè* as well as *yí* and *rà* can be used interchangeably but not concurrently. The obvious reason is that they occupy the same sentence-initial and sentence-final positions respectively, but this explanation does not account for the restrictions on the use of some question markers.

## 4.1     Restrictions on the use of the question markers

In the literature, the issue of co-occurrence has been treated from different perspectives including phonology, morphology and psycholinguistics. Thus, the problem is associated with an array of seemingly different terms. Nevins (2012) observes that the large number of terms refer to one concept – morphological dissimilation.

> Morphological dissimilation, also called repetition avoidance, haplology, anti-homophony, or the morphological Obligatory Contour Principle may operate on both form and content of morphemes, banning adjacent identity within a circumscribed domain. One of the reasons that such terms abound for apparently similar phenomena is because they sometimes describe the constraint alone (e.g. anti-homophony, repetition avoidance) and sometimes describe the repair (morphological dissimilation, haplology) (Nevins, 2012, p. 84).

The co-occurrence restriction on question markers will be treated in this paper as an anti-homonymy constraint and its possible repairs will be examined from a morphological perspective, using the framework of Distributed Morphology (Halle and Marantz, 1993). The framework adopts the architecture of the Principles and Parameters grammar, but has a morphological component which interfaces with the syntax and the phonological representation of the sentence. The key features of the theory are its appeal to syntactic hierarchical structure as the primary mode of meaningful composition in grammar and late insertion of vocabulary items into terminal nodes (Bobaljik, 2015). The model is illustrated in Figure 1 below.

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[6] Entries for *yí* were also taken from Melzian (1937, p. 228).

(iii)     *Yí*[1] [jí] a verb indicating the direction in which an action is performed; something like "to put into"
          *Yí*[2] [jí] to create
          *Yí*[3] [jí] to watch; to observe
          *Yí*[4] [jí] a particle often used at the end of questions (but not necessarily), meaning possibly "before"

DS (D-Structure)
|
SS (S-Structure)

LF (Logical Form)        MS (Morphological Structure)
|
PF (Phonological Form)
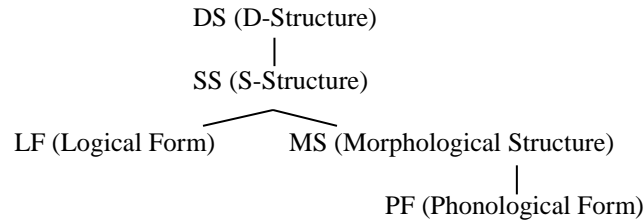
**Figure 1**: Distributed Morphology (Halle and Marantz, 1993, p. 114)

Working with the key assumptions of DM, the restrictions on the use of Ẹ̀dó polar question markers can be analyzed as a constraint on vocabulary insertion of identical morphemes. Vocabulary Insertion (VI) is the mechanism through which phonological features are supplied to the feature bundles. Vocabulary Insertion operates from roots out, cyclically, and is contextually sensitive outward (upward) to locally c-commanding[7] features without information about vocabulary items; sensitive inward (downward) to all features of c-commanded inserted vocabulary items, with context limited to a locality domain Marantz (2006, p. 4)

Other operations in morphological structure "may fuse into one features of several nodes; fission those of a given node into a sequence; and add or delete particular features/feature complexes. The operations Fusion, Fission and Feature Deletion (Impoverishment) precede vocabulary insertion and are constrained by the requirement that interacting constituents stand in a government relation[8] or are structurally adjacent[9]" (Halle and Marantz, 1994, pp. 276-277).

Given the operations Fusion, Fission, and Impoverishment, one explanation for the co-occurrence issue is that Impoverishment blocks insertion of the question markers when their homonyms have been inserted in the same clause. The paper would explicate this argument in the following sub-section, but it is imperative to first take a look at the structure of Ẹ̀dó *yes*/*no* questions. This is because it is the principles and operations of syntax that organize the terminal nodes into which vocabulary items are inserted. It is from these hierarchical structures that one determines relations such as government and structural adjacency.

## 4.2    Hierarchical structure of Ẹ̀dó *yes*/*no* questions

The syntax provides a hierarchical structure where the Ẹ̀dó *yes*/*no* questions markers head the Force Phrase of a split CP (Usenbo, 2014).The split CP approach accommodates constructions where there are multiple question markers; in such constructions, the Force Phrase may be stacked as illustrated below.

---

[7] **C-Command** (Chomsky, 1986, p. 8):

α c-commands β iff

(i)        α does not dominate β and
(ii)       every γ that dominates α dominates β

[8] **Government** (Chomsky, 1986, p. 8):

α governs β iff

(i)        α is a governor (i.e., a lexical head)
(ii)       α m-commands β (i.e., the maximal projection of α dominates β)
(iii)      no barrier (i.e., no maximal projections) intervenes between α and β.

[9] **Structural Adjacency** (Zeller, 2001, p. 36):

A Head X and the head Y of its complement YP are structurally adjacent.

(31)
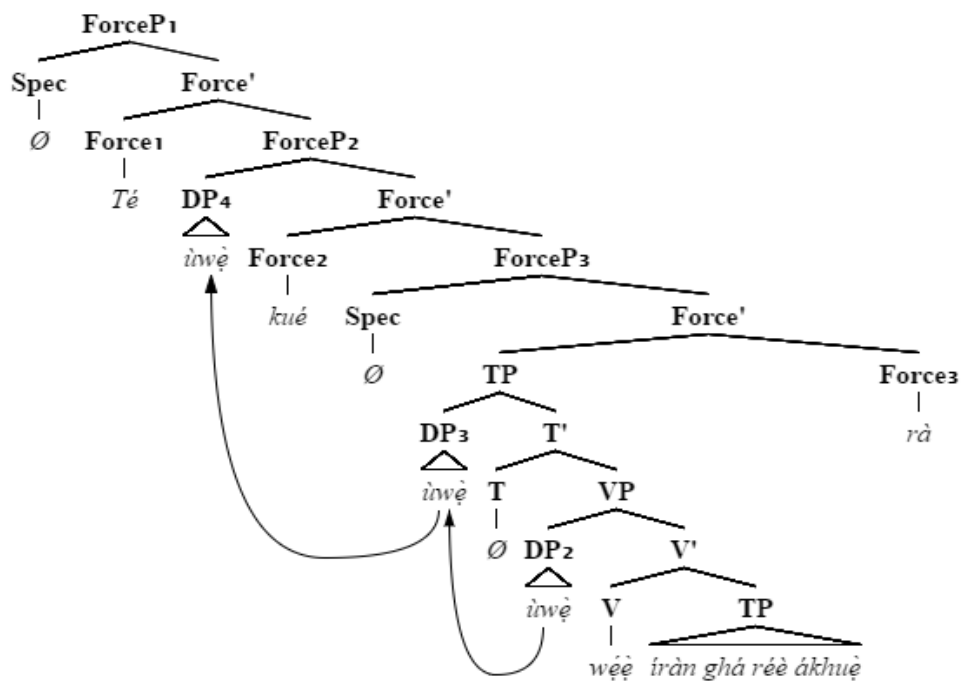


The sentence-initial markers (*té* and *nè*) occupy the highest structural positions, while *kué*, *rà* and *yí* would be inserted as heads of lower ForceP projections. The difference between the sentence-initial (*té* and *nè*), the preverbal (*kué*) and the sentence-final (*rà* and *yí*) markers is that the heads of ForceP$_1$ and ForceP$_2$ are ordered before their complement phrases, while the head of ForceP$_3$ comes last in its phrase.[10] Another notable structural difference between the markers is that Force$_2$ requires that it specifier be filled; this requirement triggers movement of the subject to the specifier of ForceP$_2$.

In terms of the structural relations that hold between the question markers and their homonyms, example (31) shows that the question markers c-command their respective homonyms. When they co-occur, the homonyms of Force$_1$, Force$_2$ and Force$_3$ would be constituents (i.e., the head of a Focus Phrase; Head of a Verb Phrase; the conjunction in a disjunctive Noun Phrase or the head of a Prepositional Phrase) in their respective complement phrases.

---

[10] This flexibility of phrasal constituent order is not particular to ForceP; other functional projections in the language exhibit a similar pattern. For example, the D-head in Determiner Phrases can come before or after its complement as illustrated in the following examples:

(i)  *né*  *òkhuò*              (ii)  *òkhuò*       *níí*
     DEF   woman.SG                   woman.SG     DEM
     'the woman'                      'that woman'

## 4.3      An explanation for the constraint

One explanation for the ban on the co-occurrence of *yes/no* question markers and their homonyms is that the homonyms block vocabulary insertion of the question markers via Impoverishment – a feature deleting operation that occurs prior to phonological spell-out of morphosyntactic and morphosemantic features of morphemes. This operation eliminates offending question markers from the competition for vocabulary insertion by targeting features that distinguish them from other markers. Consider the following examples:

(32)    *Ágá     èré    Emotan    tótàá    yí    yí
         chair   FOC    Emotan    sit_down    in/on/at    QM
        'Is it a chair Emotan is sitting on?'

(33)    Ágá    èré    Emotan    tótàá    yí    rà
         chair   FOC    Emotan    sit_down    in/on/at    QM
        'Is it a chair Emotan is sitting on?'

The question in example (32) illustrates the co-occurrence of a question marker and the stranded form of a locative preposition. Following the brief sketch on the hierarchical structure of *yes/no* questions in sub-section 4.2., the locality for this constraint is the c-command domain of the question markers. However, the repair strategies that can be employed to make (32) legible at PF suggest otherwise. The first strategy, as shown in example (33), employs another *yes/no* question marker. This alternate morpheme has the same interrogative feature as *yí* and both are sentence-final question markers.

Besides the use of an alternate marker, the other strategy for handling the unacceptability of example (32) applies if features for other terminal nodes have been specified in syntax. The vocabulary items inserted under such nodes will intervene between the homonyms; then one can derive an acceptable structure such as the ones provided below in (34) and (35).

(34)           Ágá    èré    Emotan    tótàá    yí    nódè    yí
                chair   FOC    Emotan    sit_down    in/on/at    yesterday    QM
               'Is it a chair Emotan sat on yesterday?'

(35)    a.    *Osaro    mwèé    òwá    rà    òtò    rà
               Osaro    have    house    or    land    QM
              'Does Osaro have a house or a piece of land?'

        b.    Osaro    mwèé    òwá    rà    òtò    vbè    ígué    rà
               Osaro    have    house    or    land    in/at    village    QM
              'Does Osaro have a house or a piece of land in the village?'

Example (34) differs from example (32) because of the adverb, which stands between both instances of *yí*. The stranded preposition is still in the c-command domain of the question marker but the constraint is not instantiated. This is similar to what one finds in example (22), where another question marker is used in the same construction as its homonym. It follows then that the locality for the constraint on co-occurring homonyms includes linear adjacency, not just the hierarchical c-command domain of the question markers. The possibility of linear adjacency

being a local domain for the co-occurrence constraint is also attested by the other sentence-final question marker – *rà*.

The sentence-final *rà* is identical to the Ẹdó disjunctive conjunction; when they co-occur the structure is unacceptable. Such structures can be repaired structurally in the same manner described for example (34), but here, the intervening vocabulary item is not just any morpheme that stands between the disjunctive conjunction and the question marker. The ill-formed example (35a) has a morpheme between both instances of *rà*, yet the constituent does not obviate the constraint. However, if the vocabulary item is inserted into a node that projects a phrase distinct from the disjunctive noun phrase, as illustrated in (35b), the structure would be acceptable.

In summary, the ban on the co-occurrence of *yes/no* question markers and their homonyms can be described by the rules (36a)-(36c).

(36)  a.  Category: Sentence-final question markers
           [+Qu, -WH, TP __, emphatic]        ↔       /yí/
           [+Qu, -WH, TP __ ]                  ↔       /rà/

      b.                      Force
                               |
           [+Qu, -WH, TP __, emphatic]

      c.  [emphatic]   →   Ø      /   ⎛   TP    Force   ⎞
                                       ⎜   ◺      |     ⎟
                                       ⎝  … yí   [ __ ]  ⎠

(36a) indicates the category of question markers to which the rule applies; the features of these markers are in square brackets and the bi-directional arrows connect the feature bundles to their phonological forms. (36b) shows that the makers in this category compete for vocabulary insertion into the same terminal node – Force. The competition favours *yí* because it contains a larger subset of features for that node. Rule (36c) is an impoverishment rule that deletes the emphatic feature in sentence-final question markers when the TP preceding Force contains a stranded locative preposition. This rule which blocks the insertion of *yí* via impoverishment of its emphatic feature encapsulates the first repair strategy outlined in this paper.

The second strategy is unrelated to impoverishment blocking, but works in the same context as rule (36c) – the complement of Force. Rather than target features of the offending morphemes, it relies on the insertion of additional vocabulary items into terminal nodes in the TP. Such nodes break up linear adjacency of the phonologically identical forms, eliminating the domain where the constraint applies.

There are two exceptions to the explanation for the co-occurrence restriction. The first of these is the sentence-initial question marker *té*. The use of *té* is restricted by its homonym – a subject focus marker, but impoverishment of its emphatic feature and insertion of the alternate sentence-initial question marker does not suffice as illustrated in (37b). Also, the strategy of separating the homonyms using other terminal nodes in the syntax fails here, because the homonym is linearly adjacent to the question marker as shown in (37c).

(37)  a.    *Té      ùwà    rrié    úgbó*                    (cf. Omoruyi, 1989, p. 289)
            EMPH    2PL    go      farm
            'It is the case that you are going to the farm.'

      b.    *\*Nè    té      ùwà    rrié    úgbó*
            QM      EMPH    2PL    go      farm
            'Should you go to the farm?

      c.    *\*Té    té      ùwà    rrié    úgbó*
            QM      EMPH    2PL    go      farm
            'Is it the case that you are going to the farm?

Although the locality for this constraint is the same c-command domain established for the other markers, the restriction on the use of *té* is not just about adjacency. It appears that the marker is subject to a constraint which bans its use in sentences with focalized constituents. For example, if we emphasize the subject in example (38) using a focus marker, and then query the resulting structure with *té*, the result would still be an unacceptable *yes/no* question; cf. (37b).

(38)  a.    *Ùwà    ẹ̀ré    ọ̀      rrié    úgbó*
            2PL    FOC    PRO    go      farm
            'You are the ones going to the farm.'

      b.    *\*Té    ùwà    ẹ̀ré    ọ̀      rrié    úgbó*
            QM      2PL    FOC    PRO    go      farm
            'Are you the ones going to the farm?'

Based on these examples, one can state that the co-occurrence restriction on the use of *té* applies as a result of syntactic operations such as focusing (example (38b)), as well as cases of accidental repetition (example (37c)). The conditions barring the use of *té* suggest that there is a need for further studies of the morpheme.

Finally, some comments on *kué* – the second exception to the co-occurrence constraint – are in order. Unlike the other question markers, the pre-verbal *kué* seems opaque to the constraint, as it can be used in the same construction as its homonym – the lexical verb in example (39). Although such statements sound odd, they are acceptable if the speaker pauses between the question marker and the verb.

(39)        *Asoro kué    kué    nè      ù      tótàá yè      òwá    ẹ́rẹ̀*
            Asoro QM      allow  that    2SG    stay  in/on/at house  his
            'Does Asoro allow you to stay in his house?'

From a morphological perspective, the acceptability of example (39) can be ascribed to the fact that the pre-verbal question marker and its homonym are categorized as lexical words, whereas the other markers and their homonyms are functional words. The lexical versus functional morpheme distinction is a plausible explanation, as evident in other cases of co-occurrence restriction in the language.[11]

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[11] Taiwo and Usenbo (2015, pp. 9-10) mention a similar case of co-occurrence restriction on another functor in the language. The constraint applies when there is a co-occurrence of a partitive preposition and possessive pronouns, but it is suspended when homonymy applies to the same preposition and a content word such as a noun. For

## 5 Summary and conclusions

The paper examines *yes/no* questions in the Ẹ̀dó language, with the aim of providing answers to the following questions:

- Which morphemes can be used to construct *yes/no* questions in the Ẹ̀dó language?
- Where do these morphemes occur?
- Are there any limitations on the use of these morphemes as question markers?
- If there are limitations, how do these limitations operate?

Previous studies discuss three question markers: *kué*, *yí,* and *rà*. This paper proposes two additional ones – *té* and *nè*. Following an observation in the literature, the relationship between the question markers and other morphemes with identical phonological forms is examined. This lexical relationship is treated as homonymy and the implication it holds is examined. The data shows that the homonyms restrict the use of the question markers, as some of them cannot co-occur with their respective homonyms.

This study analyzes the problem of co-occurrence as an anti-homonymy constraint and explores its possible repairs using the framework of Distributed Morphology. The explanation is that linear adjacency triggers the constraint, and that impoverishment blocks the constraint by eliminating the question markers from vocabulary insertion, when their homonyms have been inserted at other nodes within their c-command domain. The analysis reveals two exceptional question markers: *té* and *kué*. *Té* is subject to the constraint like other markers, but in this case there is no possible repair. In fact, the restriction on the use of the morpheme *té* as a question marker appears to be subject not only to linear adjacency and homonymy, but also to syntactic operations such as focusing. Unlike *té* and the other question markers, *kué* is not subject to the constraint. Data shows that structures where this marker co-occurs with its homonym are acceptable, if the speaker pauses between both instances of *kué*.

To conclude, there is a need for further studies of the behaviour of the question markers. Hopefully, such studies might employ a different theoretical model, explicate the relations between syntactic operations and the use of the question markers or investigate the problem from a perspective, where prosody can be investigated as a repair strategy.

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example, the noun *Ọ̀ghómwẹ̀* (the shortened form of the personal name *Ọ̀ghómwẹ̀yẹ́mwẹ̀*) has the same form as the first person singular possessive pronoun *Ọ̀ghómwẹ̀* which means 'mine'. While co-occurrence with the preposition is considered acceptable for the noun, the construction becomes ungrammatical if one tries to interpret the complement of the preposition as a pronoun.

| (i) | *... ọ́ghé* | *Ọ̀ghómwẹ̀* | *vbòó?* | (ii) | *\*...ọ́ghé* | *Ọ̀ghómwẹ̀* | *vbòó?* |
|-----|------------|-------------|---------|------|-------------|-------------|---------|
|     | of/from    | Ọ̀ghómwẹ̀    | WH-QM   |      | of/from     | mine        | WH-QM   |
|     | 'Where is Oghomwen's?' | | |    | 'Where is mine?' | | |

markers before discussing their derivation. Lastly, I would like to thank Alec Marantz, Andrew Nevins, and Peter Ackema for valuable discussions and suggestions about this version which focuses only on the question markers.

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