SOME YORUBA QUANTIFIER WORDS AND SEMANTIC INTERPRETATION

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This paper examines the need to look at quantifiers from semantic perspectives unconnected with logical, existential, or universal claims. The focus here is on the quantifier 'many' in Yoruba. Among other observations it is noted that the Yoruba quantifier ṭọpọ|ọpọ 'many' may occur only with those NPs that are viewed as animate.

1. Introduction

Quantifiers have been the subject of considerable discussion in recent linguistic theory. Unfortunately, much of the work has focused on logical analyses and universal or existential claims. One of the few attempts made to examine the secondary semantic properties of quantifiers (assuming that calling a quantifier "universal" or "existential" can be considered a primary property) is that of McCawley [1977]. McCawley identifies the contribution of different quantifiers to the semantic interpretation of sentences and establishes a number of criteria. This paper examines another set of criteria not found in English which affects the interpretation of quantified sentences.

2. Morphology

Yoruba has four morphological encodings for the quantifier 'many'. These are ṭọ, ṭọpọ, ṭọpọ, and ṭọpọ|ọpọ. This choice of different forms has semantic implications. However, before we go into that it is first necessary to examine their possible derivational source.

Of these four words having the meaning 'many' the most primary is ṭọ, all the other three can be said to be derived from it. This assumption is based on the following facts: Firstly, the other three words, namely, ṭọpọ, ṭọpọ, and ṭọpọ|ọpọ contain the word ṭọ. The word ṭọ is thus a common denominator for all. The second piece of evidence comes from word formation
rules in Yoruba. Yoruba has the characteristic of forming nouns from verbs and from other nouns. This is done through various processes the most notable of which are by prefixing and reduplication.

**Prefixing:** A nominalising prefix may consist of a single vocalic element. The prefixes are ₀-, ₋-, ₋-, ₋-, ₋-, and ₋-. Following are examples of nouns formed through this process from Awobuluyi [1978]:

₀-ɓiŋu 'anger' from the verb ɓiŋu 'to be angry'
₀-μuŋa 'preparation' from the verb μuŋa 'to prepare'
₋-gbon 'wisdom' from the verb gbon 'to be wise'
₋-gbo 'old age' from the verb gbo 'to be old'
₋-gọ 'folly' from the verb gọ 'to be stupid'
₋-gbẹ 'chorus' from the verb gbẹ 'to chorus'

**Reduplication:** There are two main types of reduplication. The first, which is known as "partial" reduplication, involves taking the first consonant of the verb, adding the prefix ₋-, and prefixing the resultant to the verb.

lɪlọ 'act of going'
re 'act of buying'
sísún 'act of sleeping'
kíkà 'act of reading'

The second type of reduplication, which is called "total" reduplication, involves repeating a complete word. Examples of such words are:

₋-sẹ - sẹ 'weekly'
₋-gbẹ - gbẹ 'edge'
₋-ẹẹhìn '-ẹẹhìn 'far behind'

This type of reduplication denotes emphasis. Sometimes a word linker is interposed between the parts of the word reduplicated. The two main linkers are -nì, and -kí. These are exemplified below:

enção (ẹnì kí ẹnì) 'anybody'
chunkòhum (ohun kí ohun) 'anything'
àgbààlagbà (àgbà nì àgbà) 'elderly'
Several phonological rules may affect such derived words. For instance, it can be seen from the above words that the -i of the linkers -kí and -ní above have been omitted. This is a result of a contraction rule existing in the language: when a word ending in a vowel is followed by another beginning with a vowel one of the two vowels, usually the first, is dropped [Bamgboye 1965]. This results in a contraction of the two words. This explains the absence of -i in ohunkóhun, ìnikěni, and ìgbàlágbà above.

Another phonological rule affecting the derived words is the n and l alternation rule. The consonants [n] and [l] are in complementary distribution. This rule has been examined in detail in Awobuluyi [1968]. Their occurrence is determined by the following sound. The consonant [n] occurs immediately preceding a nasal vowel while [l] occurs before oral or non nasal vowels. This explains why we have ìgbàlágbà and not ìgbànágbà. From the above evidence ìpò can be said to be derived from pò by the addition of the prefix ì- to pò. This type of prefixing applies mainly to verbs, and a study of the behaviour of the word pò shows that pò is a verb.

Pò occurs in predicate position:

(1) ósàn an pò ní Fídítí 'oranges are many at Fiditi'
oranges ASP many at Fiditi

The other three quantifiers cannot occur in predicate position:

(2) *ósàn an púpò ní Fídítí
oranges ASP many at Fiditi
(3) *ósàn an ìpò ní Fídítí
oranges ASP many at Fiditi
(4) *ósàn an ìpò lòpò ní Fídítí
oranges ASP many at Fiditi

Like a true verb pò cannot occur in nominal position:

(5) *ósàn pò wà ní Fídítí 'there are many oranges at Fiditi'
oranges many are at Fiditi
(6) ósàn púpò wà ní Fídítí
oranges many are at Fiditi
(7) ìpò ósàn wà ní Fídítí
many oranges are at Fiditi
(8) ṣẹ̀n ọ̀pọ̀ọpọ̀ ọsàn wà ní Fídítì
    many oranges are at Fiditi

It can be seen from the above that púpọ̀, ṣẹ̀n ọ̀pọ̀ọpọ̀, and ṣẹ̀n ọ̀pọ̀ are nominals
while pọ̀ is verbal. The verbal characteristics of pọ̀ support our claim
that ṣẹ̀n ọ̀pọ̀ is derived from pọ̀ by prefixing.

The derivation of ṣẹ̀n ọ̀pọ̀ọpọ̀ and púpọ̀ can be attributed to the second
type of word formation process, reduplication. ṣẹ̀n ọ̀pọ̀ọpọ̀ is derived by total re-
duplication of ṣẹ̀n ọ̀pọ̀ and the insertion of the linker ní. This yields
ṣẹ̀n ọ̀pọ̀ọ̀nì. Then contraction of the vowel i and the n and l alternation
rule changes ṣẹ̀n ọ̀pọ̀ọ̀nì to ṣẹ̀n ọ̀pọ̀ọ̀pọ̀.

Finally we consider the derivation of púpọ̀. Púpọ̀ too can be traced to
the process of reduplication but this time the reduplication process is partial.
In partial reduplication, only the initial consonant sound of the word is cop-
ied. This is followed by the insertion of i. First, the initial consonant
of pọ̀ is copied followed by the insertion of i after the copied consonant.
This results in pípọ̀. The occurrence of u rather than i in púpọ̀ may be
attributed to vowel harmony which exists in Yoruba. (For more on vowel harmony
see Bamgbose [1976] and Oye1aran [1971].)

3. Syntactic Features

Although morphologically related, there exist certain syntactic and seman­
tic differences among these words. As mentioned earlier pọ̀ differs syntactically from the other three in that it only occurs in predicative positions while
the other three ṣẹ̀n ọ̀pọ̀, ṣẹ̀n ọ̀pọ̀ọpọ̀, and púpọ̀ occur in nominal positions:

(9) *ènìyàn àn pọ̀ lọ́ ́ibi ́kórè nàà
    people ASP many went place-of festival the

(10) ènìyàn púpọ̀ ọ́ lọ́ ́ibi ́kórè nàà
    people many ASP went place-of festival the
    'many people went to the festival'

(11) ṣẹ̀n ọ̀pọ̀ọpọ̀ ènìyàn àn lọ́ ́ibi ́kórè nàà
    many people ASP went place-of festival the
    'many people went to the festival'
(12) ṣọpọ̀ ènìyànlàn ọn lọ ịbị ịkọrẹ nàà
ço many people ASP went place-of festival the
'many people went to the festival'

Example (9) can be grammatical if we change the construction to that of a rela-
tive clause:

(9') ènìyànlàn tì ọ lọ ịbị ịkọrẹ nàà ọn pọ̀
people that they went place-of festival the ASP many
'the people that went to the festival were many'

But the other three cannot occur in a relative clause construction.

(10') *ènìyànlàn tì ọ lọ ịbị ịkọrẹ nàà púpọ̀
people that they went place-of festival the many
'the people that went to the festival were many'

(11') *ènìyànlàn tì ọ lọ ịbị ịkọrẹ nàà ọpọ̀łọpọ̀
people that they went place-of festival the many
'the people that went to the festival were many'

(12') *ènìyànlàn tì ọ lọ ịbị ịkọrẹ nàà ọpọ̀
people that they went place-of festival the many
'the people that went to the festival were many'

Po in this sense behaves like English 'many'.

Consider the English sentences below:

(13) Many people attended the reception.
(14) The people that attended the reception were many.

In (13) many is in a nominal position while in (14) it is in a predicative posi-
tion. The difference between English and Yoruba here is that whilst English
uses the same word for both positions, Yoruba uses different words.

What these syntactic characteristics indicate is that po is in a differ-
cent class from ṣọpọ̀ , ọpọ̀łọpọ̀ , and púpọ̀ . We shall classify po as a predi-
cative quantifier. Our attention will therefore be focused on the other three
which show nominal characteristics.

Púpọ̀ differs in certain respects from ṣọpọ̀ and ọpọ̀łọpọ̀ . One of these
differences is that of syntactic position. Púpọ̀ has relative freedom of posi-
tion as compared to əpə and əpəlopə in the sense that it can precede or follow the noun. The others can only precede their nouns.

(15) a. wọ́n fún púpọ̀ wa ní ́iwé 'they gave many of us books'
    they gave many of-us prep books
b. wọ́n fún àwa púpọ̀ ni ́iwé 'they gave many of us books'
    they gave us many prep books

(16) a. wọ́n fún əpəlopə wa ní ́iwé 'they gave many of us books'
    they gave many of-us prep books
b. *wọ́n fún àwa əpəlopə ní ́iwé
    they gave us many prep books

(17) a. wọ́n fún əpə wa ní ́iwé 'they gave many of us books'
    they gave many of-us prep books
b. *wọ́n fún àwa əpə ní ́iwé
    they gave us many prep books

However, all three quantifiers can be used partitively. This is illustrated below:

(18) mo mọ́ púpọ̀ nínú àwọn əmqò ́iłe-́iwé tí ́n gbé əgbà
    I know many of them students that ASP live campus
    'I know many of the students that live on the campus'

(19) mo mọ́ əpə nínú àwọn əmqò ́iłe-́iwé tí ́n gbé əgbà
    I know many of them students that ASP live campus
    'I know many of the students that live on the campus'

(20) mo mọ́ əpəlopə nínú àwọn əmqò ́iłe-́iwé tí ́n gbé əgbà
    I know many of them students that ASP live campus
    'I know many of the students that live on the campus'

4. Semantic Features
   A number of semantic differences can also be found to exist among the three quantifier words. This can be seen if we contrast the quantifiers in similar sentences:

(21) əpə ᖐ́nì́yà́n ́lọ́ ́íbì́ ́gbéyà́wó nàá
    many people went place-of wedding the
    'many people went to the wedding'
The above sentences are not synonymous. The first difference relates to set size. The size of the set referred to by ọpọ for instance, is larger than that referred to by púpọ. ọpọ is used when the number is very large. There is an additional implication, which is that the number is excessively large, i.e. beyond normal expectations. This additional connotation is absent in (23), which simply means the number was large, i.e. many people went. ọpọlọpọ is the largest of the three in terms of set size. In addition to it being the largest it is also used for emphasis. This interpretation of ọpọlọpọ is in line with its derivation. As we noted earlier ọpọlọpọ is derived from ọpọ through total reduplication of ọpọ, and in Yoruba reduplication is one of the means used for conveying emphasis. Thus (22) is more emphatic than (21).

The above can be denoted succinctly in set notation as

$$\text{ọpọlọpọ} \supset \text{ọpọ} \supset \text{púpọ}.$$  

Another difference that exists between ọpọlọpọ, púpọ, and ọpọ is that of variety. With púpọ and ọpọ the emphasis is on the number or largeness of the set, whereas with ọpọlọpọ the emphasis is on the variety within the set. This difference affects the interpretation of the following sentences:

(24) a. ọpọlọpọ ẹnìyàn lọ ibi ọkú nàà
many people went place-of funeral the
'many people attended the funeral'

b. ọpọ ẹnìyàn lọ ibi ọkú nàà
many people went place-of funeral the
'many people attended the funeral'

c. ẹnìyàn púpọ lọ ibi ọkú nàà
people many went place-of funeral the
'many people went to the funeral'
The difference between (24a), (24b), and (24c) is not merely that of size or quantity, but also that of variety. (24a) does not just mean that there were many people, it also emphasizes that the people were from different backgrounds or disciplines, for example, lawyers, bankers, engineers, teachers, etc. This implication is absent from (24b) and (24c). This distinction is not made by all languages which have reduplicated quantifiers. For example, Twi also has two morphological encodings of the quantifier 'many', pi and bebread. However, the difference between the two is mainly that of emphasis, bebread being more emphatic than pi, not different in variety.

Another related difference among the quantifiers is that of mass versus individual interpretation. In (24b) and (24c), where the quantifiers are ḍọpọ and pűpọ respectively, the interpretation is that of an undifferentiated mass of people. The implication is that it is impossible to identify individual guests. In (24a), on the other hand, many of the people can be recognized. In fact, this is a necessary condition demanded by ḍọpọlọpọ. ḍọpọlọpọ is used only when the objects or persons are recognizable and distinguishable by the speaker. For example, if a friend wanted to tell me there was a large crowd at the wedding but she did not happen to know anybody there, the appropriate quantifier to use will be pűpọ or ḍọpọ (depending on the set size) rather than ḍọpọlọpọ. ḍọpọlọpọ implies ability on the part of the speaker to be able to distinguish or recognize many of the individuals that comprise the set. Hence (24a) can elicit a question like (25):

(25) àwọn wo ní o rí ní bè? 'who did you see there?'

The speaker can then go on to enumerate some of the people like I saw A, B, C, etc. But a similar sentence with pűpọ or ḍọpọ will not elicit such a question.

A third factor that influences the choice of quantifier word which seems to relate to the earlier two criteria is the criterion of animacy. Yoruba makes a distinction within NPs. One way in which this distinction is manifested is in the use of certain quantifier words. Certain NPs are treated as being higher in animacy than others. NPs that are regarded as higher in animacy are quanti-
fied by ọpọlọpọ while those that are regarded as lower in animacy are quantified by either ọpọ or púpọ. Consider for example the sentences below:

(26) *ọpọlọpọ iyanrin ló ṣe ẹ po sibẹnti
    many sands be do INF mix cement
    'many sands can be used to mix cement'

(27) ọpọlọpọ igi ló ṣe ẹ kọ ilé
    many trees be do INF build house
    'many trees can be used to build a house'

The difference in acceptability between (25) and (26) is that in Yoruba society iyanrin is viewed as lower in animacy while igi is viewed as higher in animacy.

The Yoruba data here agrees with Bernard Comrie's [1981:Chapter 9] observation on animacy. Bernard Comrie observed that the so-called animacy hierarchy is a combination of several factors. One of these is the factor of individuation. Individuated objects as Comrie points out are viewed by humans as being higher in animacy than less individuated objects. Iyanrin is inherently less individuated. For instance, it is difficult to distinguish one grain of sand from another. It is not surprising therefore that it is low in animacy and thus not qualified to be quantified by ọpọlọpọ.

This animacy criteria does not however necessarily correlate with living and non-living things, i.e., whether an entity is a living object or a dead object. Consider for example the two sentences below:

(28) *ọpọlọpọ ɛfon máa n kú ni asìkò ọyẹ
    many mosquitoes habitual die at time cold
    'many mosquitoes die during the cold weather'

(29) ọpọlọpọ ɛèrà máa n kú ni asìkò ọyẹ
    many ants habitual die at time cold
    'many ants die during the cold weather'

Sentence (28) is considered unacceptable while (29) is acceptable although the quantified NPs in both sentences are living objects. The difference in acceptability is due to the fact that ɛèrà is considered as high in animacy while ɛfon is low in animacy. What seems to determine the animacy of an object in
Yoruba is whether or not the object is individuated.

In Yoruba ṑọ́n 'mosquitoes' are not perceived as individuated objects because they are, to the Yoruba, undifferentiable, i.e. you cannot differentiate one ṑọ́n from another, whereas èèrà is differentiable, e.g. in terms of size, form, colour or even smell, and therefore individuated. Thus èèrà can be quantified by ọ̀pọ̀lọ̀pọ̀. Other examples that illustrate this point are the sentences below:

(30) wón kó ọ̀pọ̀lọ̀pọ̀ ìwé dà sí àjá
they carried many books throw at loft
'they threw many books in the loft'

(31) *wón kó ọ̀pọ̀lọ̀pọ̀ koríko dà sí àjá
they carried many grass throw at loft
'they threw many grass in the loft'

Here again the unacceptability of (31) is attributed to the fact that koríko is not individuated. However, if we substitute the quantifier in (31) with púpọ̀ or ọ̀pọ̀ the sentence becomes acceptable.

(31) a. wón kó koríko púpọ̀ dà sí àjá
they carried grass many throw at loft
'they threw a lot of grass in the loft'

b. wón kó ọ̀pọ̀ koríko dà sí àjá
they carried many grass throw at loft
'they threw a lot of grass in the loft'

Thus, ọ̀pọ̀lọ̀pọ̀ is used for human NPs and for non-human NPs and other objects that can be viewed as single individual entities.

5. Conclusions

From the above it can be concluded that objects that can take the quantifier ọ̀pọ̀lọ̀pọ̀ are those objects that are viewed as high in animacy while those that cannot occur with this quantifier are viewed as low in animacy. It is clear from this that quantifiers do contribute in many ways to the interpretation of sentences. However, the nature of this contribution may differ from one language to another. Although in this study we have concentrated mainly
on the use of the quantifier 'many', it is hoped that the above data from Yoruba adds to the point already made by McCawley [1977] of the need to examine quantifiers from semantic perspectives unconnected with universality or existentiality.

REFERENCES


