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Semantics of Yoruba Mass Nouns: A Preliminary Report

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Abstract
There is a dearth of in-depth work on the semantics of mass nouns in Yoruba language. Also, measurement nouns that are required in many languages are optional with mass nouns in Yoruba. This paper gives an insight on the semantics of mass nouns in Yoruba by studying why Yoruba mass nouns combine directly with numerals without losing their grammaticality, even when there is no intervening measurement noun (MSN) between them and the quantifying elements (numerals/ quantifier). It discusses the mass/count noun distinction showing their interpretations with emphasis on contexts in which the presence of measurement nouns is obligatory. Furthermore, it establishes that different readings of mass nouns in Yoruba can be realized depending on the predicate type. In particular, the occurrence of mass nouns with certain predicate types results in ambiguity. The paper concludes that, to reduce ambiguity, the use of MSN with mass nouns when the quantity of such mass nouns is required in Yoruba is obligatory.

Keywords: semantics, mass nouns, measurement noun, quantifier, predicate, atom

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1. Introduction

Nouns in human language have a lot of criteria by which they are classified, e.g. abstract versus concrete, count versus mass, among others. This paper adopts the count versus mass distinction to examine how mass nouns in Yoruba may be analyzed.

One of the properties of mass nouns is that they cannot be combined with the singular indefinite article or numerals, and cannot be pluralized as in the English examples in (1), compared to their count counterparts in (2) (Christophersen, 1939; Abney, 1987; Doetjes, 1996).

(1) a. *a water *a salt *a rice
b. *two water *two salt *two rice
c. *waters *waters *rices

(2) a. a boy
b. two boys
c. boys rice

They are said to be uncountable because they are indivisible or too numerous to make meaningful count. In other words, the mode of counting cannot be achieved by individuating them (Guillemin, 2011, p. 3).

Mass nouns can be divided into two namely, tangible and intangible categories. Tangible mass nouns comprise liquids (3a), materials (3b), powdery substances (3c), and homogeneous masses such as those in (3d).

(3) a. milk, oil, tea, water and so on;
b. leather plastic, rubber, wood;
c. like flour, rice, sand, sugar;
d. butter, cream, glue, mud etc.

Intangible mass nouns on the other hand include those in (4).

(4) anger, fear, happiness, intelligence

This paper focuses more on the tangible mass nouns of the type in (3a). Recall that those examples show mass nouns (liquids) that are in no way divisible and cannot be picked up. In other words, when they are in their bare form there is no way one can count them to give a figure of their amount, neither is it possible to pick them up the way one would pick up count nouns like *cup*, *spoon*, *book* and so on. On the other hand, items such as rice, sand, and corn (substances), though also classified as mass, can be separated in a special way but not in a way that will make sense in a normal situation. One of such instances is to imagine that a farmer wants to plant corn in his farm; if he wants to be meticulous, he can count the number of grains to be planted per hole/heap.

Since mass nouns cannot be pluralized, measure words are required to modify them as in (5). The measure words (henceforth, measurement noun (MSN)) has to be pluralized.

(5) a. A glass of water > Two glasses of water
b. A bag of salt > Two bags of salt
c. A cup of rice > Two cups of rice.

In Yoruba, these distinctions between count and mass nouns also hold to the extent that we have parallel examples in (6).

(6) a. ife omi > ife omi méjì ‘two cups of water’
b. àpò iyọ̀ > àpò iyọ̀ méjì ‘two bags of salt’
c. agolo ìrẹsì > agolo ìrẹsì méjì ‘two cups of rice’

The point of departure of Yorùbá from English is that mass nouns can be modified with quantificational elements like a numeral without MSN as in (7) in a syntactic construction.

(7) a. Adé mu otí mẹ́fà
PN drink beer six.
‘Adé drank six beers.’

b. Mo ra iyọ̀ méjì ní ójà ní àná
1sg buy salt two P market P yesterday
'I bought two salts at the market yesterday.'[1]

The example in (7) will be bad in English (8) and to make them grammatical, an MSN like bag, tin, drum, carton, and so on is needed, as shown in (9).

(8) a. %Adé drank six beers.
b. %'I bought two salts at the market yesterday.

(9) a. Ade drank six (X-quantity of) beers
b. I bought two (X-quantity of) salts at the market yesterday.

1.1. Goal

The main thrust of this paper is to find out why MSNs are optional in Yoruba mass nouns but obligatory in English as evident in (7)-(9). It can be said that only (7a) may be a bit clear to both the speaker and the hearer; that is to say, the hearer may likely understand that the speaker is referring to bottles of beer, not that beer comes only in bottles, but what is prominent with the filling of beers is bottle. Note that beer can also be filled in cans. On the other hand, (7b) reflects only what the speaker has in mind, the respondent may not be well informed about the quantity of items that the speaker has in mind. Hence, the absence of the measurement element may require asking for the quantity of the items that the speaker has in mind. In English, the quantity of beer or salt must be specified with quantity nouns such as bag, bottle, cup, etc. This then brings us to the issue of definiteness and indefiniteness and mass nouns, where we will need to check

[1] Each of the examples in (7) will be interpreted with "X-quantity of …"

if the two have an important role to play in the use of mass nouns in Yoruba language.

2. Mass/Count Distinction

The putative claim in the literature is that mass nouns appear bare in English language and cannot be pluralized. On the other hand, count noun cannot occur bare in English; it needs a determiner (Guillemin, 2011; Doetjes, 2012). Thus, utterances like those in (11) are not grammatical in English.

(10) a. Please give me a/that/the book.
b. The/That chair is too expensive.
c. The/That cat is friendly.

(11) a. *Please give me book.
b. *Chair is too expensive.
c. *Cat is friendly.

This is the case for English and many other languages that have strong overt determiner system (Guillemin, 2011). However, in Yorùbá, all nouns are overtly bare (count and mass), such that they do not need a determiner before they can appear grammatical (Ajíbóyè, 2009). By bare, we mean they do not appear with any determiner overtly and that their interpretation can denote either the singular or plural reading. The examples in (12) corroborate this.

(12) a. Adé ra ìwé ní ójà
PN buy book P market
'Ade bought book(s) at the market.'

b. Bọ́lá mu omi
PN drink water
'Bola drank water.'

The examples in (12) show that Yoruba is a language that is number neutral (just as the case of Dëne language (Wilhelm, 2008)). It has

been established that Yoruba does not mark plurality morphologically unlike English and some other languages (Ajíbóyè, 2009).

A crucial distinction between English mass and count nouns is that count nouns have plural forms and they can agree with plural verbs. Count nouns occur with numerals. As mentioned earlier, mass nouns cannot be pluralized, they do not agree with plural verbs. Mass nouns agree with singular verb. Also, mass nouns cannot occur directly with numerals except with the aid of what we call measure phrases or measurement noun (MSN).Unlike count nouns, mass nouns employ quantifiers like much, little, (the unstressed) some and most (Pelletier, 2012, p. 10).

Another distinction between English mass and count nouns is that mass nouns can be used as complement of measure words in their bare singular form, whereas count nouns require plural marking as shown in (13).

(13) a. Two tons of furniture.
b. Two tons of chairs.
c. *Two tons of chair. (Bale & Barner, 2012, p. 240)

For the English mass nouns like ‘furniture’, ‘scissors’, ‘cattle’, they must occur with a classifier phrase namely; pair of scissors/trousers. These types of examples do not exist in the same manner in Yoruba. One thing that can be said to be the similarities of Yoruba mass and count nouns is that the two appears as bare (Ajíbóyè, 2007; 2009).

2.1. Interpreting Yoruba Mass Nouns

In this section, we examine the various ways in which mass nouns may be interpreted. First, it is the case that when the information on the quantity of a mass noun is not provided, there is every possibility that its interpretation can be either definite or indefinite. Guillemin (2011) claims that in English both definite and indefinite articles are used for both specific and non-specific entities. Also, aside from the semantic features of definiteness and specificity, other factors that are considered to determine the choice of articles in English includes the noun category, i.e. count or uncountable nouns. The context in which

these nouns occur is also important, i.e. whether the sentence is generic, existential or episodic (Guillemin, 2011, pp. 1-2).

We extend this attribute to Yoruba mass nouns and claim that the absence of measurement noun (MSN) will give an indefinite reading while the presence of it will give the reading of definiteness.

The examples in (14) show a situation where a speaker requests for the price of salt, but because the quantity is not made known to the listener, he requests for clarification on the quantity.[2] However, if the speaker asks such a question including the details of quantity/size, the response in (14b) will be direct and clear as shown in (15).

(14) a. Èló ni wọ́n ń ta *iyọ̀*
Q-word FOC 3pl prog sell salt
'How much is the price for *salt*?'

b. Irú *iyọ̀* wo?
type salt Q-word
'What type of salt?'

(15) a. Èló ni wọ́n ń ta *iyọ̀ àpò kan* báyìí?
Q-word FOC 3pl prog sell salt MSN one now
'How much is the price of *one bag of salt* now?'

b. Àádọ́ta náírà ni
fifty naira FOC
'It is fifty naira.'

With the illustrations in (14) and (15), it can be established that to exclude ambiguity when the quantity/amount of a mass noun is intended, there is the need to make use of the MSN rather than allowing ellipsis to take place and assume or think that the listener

[2]"Type" here refers to the brand and this is because there are different brands of salt such as; Anapuna, Dangote, Mr Cheff and so on, and they also come in different sizes.

will understand. One basic fact is that, there are sometimes when the knowledge of such mass nouns is shared between the speaker and the listener such that they understand what amount/quantity of the mass noun is being referred to without the use of the MSN; among such people includes the traders. This is illustrated in (16).

(16) a. Já *omi* mẹ́fà fún mi
Open water six for 1SG
'Offload *six (bags/gallons of) water* for me.'

b. Mú *òróró* mẹ́ta wá ní ibẹ̀yẹn
bring oil three come P place-there
'Bring *three (sachets/kegs bottles of) oil* there.'

The examples in (16) show a situational context where both the speaker and the listener have a shared knowledge of the nouns and as such the MSN may not be required.[3] Furthermore, the ordering in (16b)[4] regardless of the predicate type is actually not the right order when the quantity of a mass noun is intended. But this ordering is available when emptiness is intended. This is illustrated in (17).

(17) a. Olú fọ́ *ìgò otí méfà*
PN break MSN beer six
'Olu broke *six bottles of beer'*.

b. Bọ́lá ti sọ *àpò iyọ̀ méjì* nù
PN Asp throw MSN salt two away
Bola has thrown away *two empty sacks of salt*.

The emptiness (17b) refers to the absence/unavailability of the MSN with the mass noun.

[3] It is not in all contexts that one can figure out the exact quantity the speaker has in mind. This is why it is important to make use of the MSN when referring to the quantity of mass nouns.
[4] MSN followed by a mass noun and numeral/quantifier.

2.2. Mass Nouns + Measurement Noun

It has been pointed out in the literature that mass nouns cannot be directly put before a numeral, and this is because the nouns in this category cannot be counted in their bare form (Ghomeshi & Massam, 2012). According to Bunt (1979), Chierchia (2010), among others, mass nouns do not have atomic parts. In other words, they do not allow a form of counting or dividing them individually in their bare form.

In the case of measurement nouns when employed to access the atoms of mass nouns. They among other things;

a. make it possible to be able to count a mass noun
b. make their combination with numerals become accessible.
c. make pluralization of mass noun achievable. [5]

For clarity purpose, we provide examples of Yoruba mass nouns in their bare form in (18) and then show them as they appear with the measure nouns in sentences in (19), (20) and (21).

(18)

Liquids/Fluids		*Substances/Particles*[6]	
Otí	'wine/beer'	Ìrẹsí	'rice'
Omi	'water'	Iyẹ̀pẹ̀	'sand'
Òróró	'oil'	Ṣúgà	'sugar'
Epo	'palm oil'	Iyọ̀	'salt'

(19) Mo mu kọfí *kọ́bùù* méjì ní ibi iṣẹ́ lánàá
1SG drink coffee MSN two P place work P.yesterday
'I drank *two cups of coffee* at work yesterday.'

(20) Ṣúgà *hóró* kan ti tó
Sugar MSN one Asp enough
'*One cube of sugar* is enough.'

[5] It is not the mass nouns that get pluralized; rather it is the measurement noun that becomes pluralized.

[6] Note that these nouns are classified as liquid, substance and material things.

(21) *Aṣọ ọ̀pá márùn-ún* ni Tutù fi rán kaba.
Cloth MSN five FOC PN use sew gown
'It is *five yards of fabric* that Tutu used in sewing a dress.'

The examples in (19) depict mass nouns in liquid form; those in (20) show mass nouns in powdery/substance form, while (21) shows mass noun in material form. There is one interesting thing to observe here, namely, the MSNs are count nouns and as a result, they can be pluralized in English. In other words, we opine that count nouns are used to access the atoms of mass nouns as measurement noun.

Also, of a great significance is the restriction of occurrence of the MSN in the domain of mass nouns. For instance, liquids cannot be associated with the measurement noun *àpò – bag* except in the case where the packing of such liquids are made in a sachet form before bagging them. This is the case of *sachet of water*, *sachet of vegetable oil*, and *sachet of palm oil*.

On the other hand, for mass nouns that come in substance/powdery form, it is rare for them to be associated with the measurement noun *ìgò* 'bottle'.In the case of *aṣọ* 'cloth', the MSNs used are *ọ̀pá* 'length' and *ìgàn* 'bundle' and they cannot in any way be used in referring to the quantity of liquids or substances e.g. **ọ̀pá òróró, ìgàn omi*.

One other interesting thing about the occurrence of MSN with Yorùbá mass nouns is that they appear in different syntactic position in relation to the mass noun as shown in (22). Having presented a robust data on what mass nouns are and how they can be interpreted as plural, what remains to be shown fully is the analysis of the semantics of this category of nouns in Yorùbá. We take this up in section 3.

3. Semantics of Yoruba Mass nouns

In this section, we are going to demonstrate that when there is reordering of mass nouns and their satellites, it triggers change in meaning, such that the meaning available from one ordering differs from that of the other. We are of the opinion that speakers are not conscious of the change in meaning. This claim is borne out of our interaction with native speakers, most of whom cannot see any

difference in meaning, irrespective of what order the lexical nouns appear. When a mass noun is modified by MSN, and the MSN is in turn followed by numerals or quantifiers, the following are the possibilities in the order of the noun, the MSN and numerals/quantifiers.

(22) a. otí *ìgò* méjì
beer MSN two
'Two bottles of beer'

b. *ìgò* otí méjì
MSN beer two
'Two bottles of beer'

c. *ìgò* méjì otí
MSN two beer
'Two bottles of beer'

d. *otí méjì *ìgò*
beer two MSN

e. *méjì otí *ìgò*
two beer MSN

f. *méjì *ìgò* ọtí
two MSN beer

Evidently, only three of the six different orderings are attested in Yorubá as illustrated in (22a-c). We shall attempt to account for these three. Again, there remains a question of what accounts for the ill formed orderings in (22a-f)? To provide an answer to this question, we claim that when a numeral modifies a noun, that numeral cannot precede but can only come after it.

We propose that when mass nouns interact with measurement nouns and quantifier/numeral, reordering them can change the meaning depending on the predicate type used. We identify three predicate types, where each type contributes to the meaning of the mass noun.

3.1. Mass Nouns with Predicate Type 1

Predicate Type 1 are verbs whose meanings do not reflect that of emptiness. As such, no particular ordering has any semantic implication on the mass nouns that they take as subject or object. Examples of such verbs are shown in (23).

(23) (a). sè – cook
(b). dà – pour
(c). jẹ - eat
(d). gbé – carry
(e). pọn – fetch
(f). mu – drink
(g). bù – take from
(h). wẹ̀ - to bathe.

When all the verbs listed here interact with MSN, mass nouns, numeral/quantifier in any order, their readings cannot yield emptiness, as illustrated in (24).

(24) i. Olú da *iyọ̀* *àpò* *kan* nù
PN pour salt MSN one away
Olu poured away *one bag of salt*.

ii. Olú da *àpò* *iyọ̀* *kan* nù
PN pour MSN salt one away
'Olu poured away *one bag of salt*.'

iii. Olú da *àpò* *kan* *iyọ̀* nù
PN pour MSN one salt away
'Olu poured away *one bag of salt*.'

From the examples in (24), it is shown that when those verbs interact with mass nouns, the meaning of the nominal expressions, especially (ii) do not result in emptiness. We conclude that irrespective of the verb in this category, the reordering in (ii) do not change the reading of the mass nouns. In other words, the reading of emptiness is not available. However, as we are going to show in "type two predicate", there is interconnectivity between verb type and reordering of mass nouns in relation to MSN.

3.2. Mass Nouns with Predicate Type 2

Here, the use of certain verbs can cause the meaning of the sentences to be two-way ambiguous, in which one of such meanings will be that of emptiness. Examples of verbs in this category includes, *rà – buy, tà – sell, wọ̀n – measure, fọ́ – break,* and so on. When these verbs occur

with MSN followed by a mass noun in a sentence, then the available meaning is that of emptiness, as illustrated in (25).

(25) ai. Adé fọ́ *otí* *ìgò* *méjì*
PN break beer MSN two
'Ade broke *two bottles of beer*.'

ii. Adé fọ́ *ìgò* *otí* *méjì*
PN break MSN beer two
'Ade broke *two empty bottles of beer*.'
'Ade broke *two bottles containing beer'*

iii. Adé fọ́ *ìgò* *méjì* *otí*
PN break MSN two beer
'Ade broke *two bottles of beer*.'

bi. Bọ́lá wọn *epo* *ìgò* *mérin*
PN measure oil MSN four
'Bola measured *four bottles of palm oil*.'

ii. Bọ́lá wọn *ìgò* *epo* *mérin*
PN measure MSN oil four
'Bola measured *four bottles of palm oil*.'
'Bola measured *four empty bottles of palm oil.'*

iii. Bọ́lá wọn *ìgò* *mérin* *epo*
PN measure MSN four oil
'Bola measured *four bottles of palm oil*.'

We claim that the ordering in (ii) results in meaning difference. Thus, in the second interpretation of (25bii), the bottles there are being measured on a scale.

3.3. Mass Nouns with Predicate Type 3

Predicate Type 3 as used in this section denotes verbs which when used with mass nouns, can only have the readings in (ii), i.e. MSN

followed by the mass noun and numeral/quantifier. Examples of such verbs are given in (26).

(26) a. *dì – to tie*
b. *gé – to cut*
c. *fọ̀ – to wash.*

We observe that with this type 3 predicate, utterances like (i) and (iii) will be nonsensical. This is illustrated in (27) below.

(27) ai. %Adé fọ *ọ̀dà* *àgbá* *mẹ́wàá*
PN wash paint MSN ten

ii. Adé fọ *àgbá* *ọ̀dà* *mẹ́wàá*
PN wash MSN paint ten
'Ade washed *ten empty drums of paint*.'

iii. *Adé fọ *àgbá* *mẹ́wàá* *ọ̀dà*
PN wash MSN ten paint

bi. *Adé fi *iyọ̀* *àpò* *kan* di ẹja a rẹ̀
PN use salt MSN one tie fish MTS 3sg

ii. Adé fi *àpò* *iyọ̀* *kan* di ẹja a rẹ̀
PN use MSN salt one tie fish MTS 3sg
'Ade used *an empty bag of salt* to pack his fish.'

iii. *Adé fi *àpò* *kan* *iyọ̀* di ẹja a rẹ̀
PN use MSN one salt tie fish MTS 3sg

ci. *Adé gé *òróró* *rọ́bà* *méjì* sí wẹ́wẹ́
PN cut oil MSN two P pieces

ii. Adé gé *rọ́bà* *òróró* *méjì* sí wẹ́wẹ́
PN cut MSN oil two P pieces
'Ade cut *two empty plastics of oil* into pieces.'

iii. *Adé gé *rọ́bà méjì òróró* sí wẹ́wẹ́
PN cut MSN two oil P pieces

The examples in (27) show that when MSN precedes the mass noun and quantifier/numeral; the intended meaning available is that of emptiness. This is evidently present in (27a); in the case of the verb fọ̀ 'wash', one can only wash the container but not the mass noun itself.

Significantly, we are of the opinion that when the quantity of mass nouns is intended, then the orderings in (i) will be the ideal which will not result to any form of ambiguity. On the other hand, when the quantity of mass nouns is not what is intended, then the orderings in (ii) can be said to be the accurate one.[7] In the light of this, we claim that examples in (27) show that the MSN in those examples are not actually MSN in that context. Also, those examples have shown that only the ordering; whereby MSN precedes mass noun as in (ii) denotes emptiness.

We further test to know if the orderings in (i), (ii) and (iii) denote the quantities of mass nouns, by introducing a lexical item *inú* – *inside*. By this, a lexical item *inú* is inserted after the head noun to show that MSN is modifying the mass noun as illustrated in (28):

(28) a. iyọ̀ *inú* àpò
Salt P MSN
'Salt inside the bag'

ii. *àpò *inú* iyọ̀
MSN P salt

iii. *àpò iyọ̀ *inú*
MSN salt P

b. Òróró *inú* ìgò
oil P MSN
'Oil inside the bottle'

ii. *ìgò *inú* òróró
MSN P oil

iii. *ìgò òróró *inú*
MSN oil P

[7]When MSN comes before the mass noun and numeral/quantifier, the supposed MSN will not function as an MSN rather it modifies the mass noun.

As shown in (28), in isolation, the NPs in (i) are grammatical while those in (ii) and (iii) are ungrammatical. This observation buttresses our claim that when the quantity of a mass noun is intended, the ordering in (i) i.e., mass noun > MSN > numeral is maintained. Though there seems to be a similarity in meaning with the ordering in (i) and (iii)[8], however, the introduction of a noun modifier 'inú' has made the ordering in (iii) to be faulty as well.

In order to further proof our claim, there is the need to use the NPs in (29) in syntactic constructions such as those in (29) rather than the way they appear in (28).

(29) ai. Adé gbé *iyọ̀ inú àpò méjì* fún Bọ́lá
PN carry salt P MSN two for PN
'Ade brought *two bags of salt* for Bola.'

ii. *Adé gbé *àpò inú iyọ̀ méjì* fún Bọ́lá
PN carry MSN P salt two for PN
*Ade brought two bags that are in the salt for Bola.[9]

iii. *Adé gbé *àpò méjì iyọ̀* inú fún Bọ́lá
PN carry MSN two salt P for PN

bi. Bọ́lá ra *òróró inú ìgò mẹ́rin*
PN buy oil P MSN four
'Bola bought *four bottles of oil*.'

ii. *Bọ́lá ra *ìgò inú òróró mẹ́rin*
PN buy MSN P oil four
Bola bought four bottles that are inside oil.

[8] When the MSN is followed by the numeral/quantifier and mass noun.
[9] Note that this can be grammatical in some other contexts but not with the intended meaning herein.

iii. *Bọ́lá ra *ìgò* *mérin* *òróró* *inú*
PN buy MSN four oil P

In (29), it is observed that (a-i) and (b-i) are grammatical. In the case of (a-ii) and (b-ii), the semantic interpretations provided there could be available, but in the real sense, utterances like that are not usually made or used. On the other hand, examples (a-iii) and (b-iii) are out rightly ungrammatical. In fact, for (a-ii & b-ii), one can still conclude that the intended meaning shows that of emptiness[10].

According to Ajíbóyè (2007), when we have dimension and quantity appearing in the same structure, dimension should come first before quantity. By dimension, according to Zhang (2012), she explains that dimension is any noun that denotes shape or size. For this reason, in this context, all our MSN denotes size.[11] Hence, going by this claim, the examples in (i) are the right orderings when the quantity of a mass noun is intended as shown in (30).

(30) a. Mo ra *iyọ̀* *àpò* *méjì*
1SG buy salt MSN two
'I bought *two bags of salt*.'

[10]*Ìgò inú òróró* can mean an empty bottle found inside a bowl of oil as in contexts like:

Bọ́lá mú ìgò inú òróró
PN take MN P oil
'Bola took the (empty) bottle inside the oil.'

For someone conversant with traders, especially those that sell palm oil, vegetable oil, kerosene, and so on, their measuring bottles used for the liquids are usually left inside the content. For instance, palm oil is usually poured in a big bowl and the container used in measuring it is left inside the content. It is when a buyer comes that the container is removed and used to measure the quantity that the buyer wants.

[11] According to the Collins English Dictionary, size is the property resulting from being one of a series of graduated measurements. Hence, for the purpose of this study, size can be referred to as quantity.

b. Adé wọn *òróró ìgò méfà*
PN measure oil MSN six
'Ade measured *six bottles of oil.*'

To conclude this section, we claim that one way to look at these distinctions is to try to see what type of verbs that allow a particular type of reading, and this will lead us to make a proposal that will appeal to the concept of selectional restriction in which case it is possible that what makes certain constructions not well formed is the kind of verb that it takes when in subject or object position.

This much describes the distribution of mass nouns in Yoruba which does not in any significant way differ from their count counterparts.

4 Analysis of Mass nouns

In this section, we provide an analysis of Yoruba mass nouns adapting Pelletier (2012) and Zhang's approach (2012).

4.1 Pelletier's Constructional Approach

One popular theory of semantics in the literature on the analysis of mass nouns is Pelletier's (2012) Constructional Approach. Pelletier claims that it is not possible to tell whether a lexical noun is mass or count until it appears in syntactic constructions where the phrase it occurs with can become marked as mass or count. Here, what Pelletier means is that lexical nouns are neither [+mass] nor [+count] when they occur in isolation or citation. The only way to know what feature a lexical noun has (i.e. +mass/+count) is when it occurs in a larger syntactic construction. Indeed, this is where the theory derives its name.

Below (in 31) are the parameters which Pelletier gave to guide on how to know when a lexical noun is mass or count.

(31). a. beer lexically lacks any syntactic feature of +mass/+count
b. dark beer, beer on the table common Noun Phrase (CNPs) lack any syntactic feature of +mass/+count.
c. beers (a CNP) have the syntactic feature +count.

d. is beer (PRED) has the syntactic feature +mass.
e. a beer, many beers (NPs) have the syntactic feature +count.
f. some beer, a lot of beer, beer (PDs, NPs) has the syntactic feature +mass.

With these parameters, it means that the nouns in (18) above cannot be considered as mass nouns except when they are used in sentences or larger syntactic constructions as shown in (32).

(32) a. Kó *ọtí* orí àga yẹn wá
pack beer on chair that come
'Pack the beer on the chair here.'

b. *Ọtí* dúdú tí Adé gbé wá ti tán
beer black Rel PN carry come Asp finish
'The dark beer that Ade brought is finished.'

In the examples in (32), *ọtí* in (32a) appears to be more than because of the verb *kó*. Hence *ọtí* in (32a) is a count noun. For (32b) one cannot say if the noun ọtí '*beer'* is a mass noun or not in that context.

(33) a. *Otí* ni Adé mu
beer FOC PN drink
'It is beer that Ade drank.'

b. Adé ra *otí*
PN buy beer
'Ade bought beer.'

Following the parameters in (31d), ọtí '*beer*' in (33a) is marked as mass noun. For Yorùbá, plurality is not marked morphologically (Ajíbóyè, 2009). That is why the example in (33b) can be interpreted as either singular or plural. On this note, the parameter in (31c) can be represented with the example in (33b).

(34). ọ̀pọ̀lọpọ̀ *ọtí* ò da fún ara
many beer NEG good for body
'Too much of beer is not good for the body.'

According to the parameter of Pelletier, ọtí '*beer'* in (34) has the syntactic feature of +count.

(35) Adé mu *otí* díẹ̀ ní àná
PN drink beer little P yesterday
'Ade drank a little beer yesterday'.

The example, in (35) follows the parameter in (31f) which shows that the use of *beer* is that of a mass noun. With this, one can conclude that indeed, a lexical noun cannot be regarded as either [+mass] or [+count] except it is used in syntactic constructions as illustrated in (32) to (35).

In sum, we conclude that when those nouns are in their bare form, they cannot be marked for countability or uncountability.

4.2. Zhang's Syntagmatic Approach

Another theory already proposed for other languages concerning mass nouns is the Syntagmatic Approach. This theory adopts two features of numerability and dimensionality in analyzing nouns as mass and count. Zhang claims that a lexical noun cannot be considered as mass or counts unless those two features i.e. numerability and dimensionality are considered.

In the case of numerability, a lexical noun can combine directly with numerals, as in the following examples.

(36)a. Mo jẹ *iṣu* méjì
1SG eat yam two
'I ate two yams'.

b. Adé ra *ìwé* mẹ́fà
PN buy book six
'Ade bought six books'.

According to Zhang, nouns in (36) are assigned the [+numerable] feature. In contrast, nominals that cannot combine directly with numerals cannot be assigned the [+numerable] feature as illustrated in (37).

(37)a. *Adé mu *omi* kan
PN drink water one

b.*	*Ìrẹsí*	mẹ́ta	ni	Olú	jẹ	ní àná
	rice	three	FOC	PN	eat	P yesterday

The underlined nouns in (37) cannot combine directly with numerals except with the aid of a measure phrase which we refer to as measurement noun (MSN) in this study. For this reason, the underlined nouns in (37) are assigned the feature [-numerable] and regarded as non-count. For the syntagmatic approach, any noun that is assigned the [+numerable] feature is a count noun while those that are assigned the [-numerable] feature are non-count nouns. That treats the aspect of the feature of numerability.

We now turn to dimensionality. Dimensionality theory that treats nominals which express size (big, small) or shape (long, round, thin, square) as "denoting expressions". When a nominal is assigned the feature [+dimension], such a noun is said to denote a certain shape or in fact has a precise limit. In this context, the shape and limit of such nouns are definable or measurable in certain dimension which makes its atomicity available. The examples in (38) are useful in driving home this point.

(38) a. Adé ra *iṣu* ńlá méjì
PN buy yam big two
'Ade bought two big yams.'

b. Olú ya *ìwé* kékeré méjì
PN tear book small two
'Olu tore two small books.'

c. Olú mu *otí* púpọ̀
PN drink beer plenty
'Olu drank a lot of beer.'

d. *Epo* díẹ̀ ni ó kán sí ìwé mi
oil little FOC it drop P book 1SG
'It is a little oil that dropped on my book.'

According to Zhang's Syntagmatic approach, *isu* and *ìwé* in (38a&b) will be assigned the feature [+numerable, +dimensional] which makes them count nouns. On the other hand, the feature placement for *ọti* and *epo* in the example will be [-numerable, -dimensional] which makes them mass nouns.

4. Conclusion

This study has established that the use of MSN with mass nouns when quantity is needed is crucial to the understanding of their interpretation in Yoruba language. This is so because the presence of MSN makes it easy for both the speaker and hearer to have shared knowledge of the quantity of such mass nouns.

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