



# Eastern Africa Journal of Contemporary Research (EAJCR)

## **Morphological Analysis of Dholuo Number Markers**

Jackton Otieno Midigo, Boke Joyce Wambura

### **Article information:**

To cite this article:

Midigo, J.O. & Wambura, B.J. (2024). Morphological Analysis of Dholuo Number Markers.  
*Eastern Africa Journal of Contemporary Research*, 4(1), 22– 32.

### **For Authors**

If you would like to publish your conceptual/theoretical and empirical research articles, case studies and book reviews with EAJCR, please use for authors information about how to write your work and submission guidelines. Please, visit [https:// www.eajcr.org/](https://www.eajcr.org/)

### **About Eastern Africa Journal of Contemporary Research (EAJCR)**

The Eastern Africa Journal of Contemporary Research (EAJCR) is both an online (ISSN: 2663-7367) and print (ISSN: 2663-7359) double-blind peer-reviewed quarterly journal published by the Directorate of Research and Publications of Greta University, Kenya.

EAJCR aims at advancing the frontiers of knowledge by publishing contemporary multidisciplinary conceptual/ theoretical and empirical research articles as well as case studies and book reviews.

# Morphological Analysis of Dholuo Number Markers

**Midigo Jackton Otieno**

Department of Languages, Linguistics and Literature, Rongo University, Kenya

Email: [jaktonmidogo@gmail.com](mailto:jaktonmidogo@gmail.com)

**Wambura Boke Joyce**

Department of Education and Languages, Tom Mboya University, Kenya

Email: [Joyce.boke@gmail.com](mailto:Joyce.boke@gmail.com)

## Abstract

*This study examines plural morphemes in Dholuo nouns by investigating their number markers. Dholuo being an agglutinative language, some nouns can hardly be noticed to be broken down into multiple meaningful parts. It is then hard to predict their number marker patterns. Nouns in Dholuo can exist as bare roots without prefixes or suffixes. They can also exist as polymorphemic words with suffixes hard to comprehend. Data for this paper constitutes Dholuo nouns which were collected from twenty Dholuo speakers purposively sampled from Suna East Sub-County in Migori County, Kenya. These were analyzed through descriptive research design, guided by the morphological theory. The findings show that plural morphemes in Dholuo nouns are irregular and number markers majorly forming plural morphemes are suffixes -e, -i and -ni. In compound nouns, number markers are formed through inflection of plural morphemes on the left base, right base or both and in some instances, there is no inflection. The inflection then makes Dholuo nouns vary in form in expressing grammatical contrast in number. The findings of this paper would be significant to syntacticians in contributing towards the ongoing attempts to describe aspects of languages in theoretical linguistics. The findings on Dholuo noun morphology can also help gain insight on how Dholuo how speakers conceptualize and categorize the world, revealing underlying cognitive processes.*

**Keywords:** *Agglutinative Language, Dholuo Nouns, Number Markers, Plural Morphemes*

## 1. Introduction

Dholuo is spoken as a first language in different parts of Africa by Luo community called Joluo. It is in the Nilo-Saharan family of languages having six branches. The Luo people have historically migrated across various East African countries, including Kenya, Sudan, Ethiopia, South Sudan and Tanzania, where Dholuo is currently being spoken. According to Oluoch (2022), Dholuo is mainly confined to Kenya and is not widely spoken outside Kenya. Dholuo belongs to the branch called Chan-Nile (Greenberg, 1966). In Kenya, it is widely spoken in the following Counties: Siaya, Kisumu, Homa Bay and Migori. Dholuo has two major regional varieties: The Trans-Yala dialect; spoken in Ugenya, Alego, Yimbo and parts of Gem (Ojwang, 2018). The South Nyanza dialect is spoken in various locations of South Nyanza, Siaya and Kisumu. The two groups have different dialects. The dialect treated as standard in Dholuo is the one spoken in South Nyanza. The data for this study is analyzed using South Nyanza dialect. Just like the other community



languages in Africa, Dholuo has not been studied extensively. This implies that there are many aspects in Dholuo which need to be clarified through various researches. This gap prompted this paper. The main goal is to analyze Dholuo classified nouns and identify their number markers forming plural morphemes.

### 1.1 Background to the Study

*Dholuo* has distinctive features not similar to other languages hence making the nouns to be unique, having marked sounds. Onyango (2001) explains that *Dholuo* has 22 basic alphabets; 17 consonants and 5 vowels. A, B, (C), E, F, G, H, I, J, K, L, M, N, O, P, R, S, T, U, W, Y. [C] does not stand alone so it takes [h] for its sound to form /tʃ/ e.g *chaki* (begin), *chiel* (fence) and *chieng'* (sun). On the other hand, [s] in *Dholuo* does not take [h] to form /ʃ/ while forming lexemes. We only have words like *sulwe* (star). *Dholuo* is also notable for its complicated phonological alternations, making it be agglutinative in nature. This can affect the formation of number markers morpheme which the current study investigates. The given example (1) demonstrates inalienable possession indicating an agglutinative nature of *Dholuo*.

1.1 Dholuo	Gloss	English
(1) <i>Chok guok</i>	*Bone for dog	The bone for dog (The bone meant as food for dog)

The morpheme *-k* is a possessive morpheme which can also act as a preposition, compounded with the noun *chogo* (bone). The compounding leads to the replacement of the consonant [g] with [k] and deletion of the final vowel [o]. The study investigates the rules and nature of morphemes governing the formation of pluralism in *Dholuo*.

In another sentence demonstrated with example (2) indicates a situation where a noun can refer to more than one entity.

1.2 Dholuo	Gloss
(2) <i>Kendo ber</i>	Marriage is good/fir place is good

As argued out in Anyango (2021), Some words in Dholuo are similar in spellings but with difference in meaning according to the accent. To elaborate on this, the word *kendo* demonstrated in example (2) can mean again when both syllable *ke* and *ndo* have the same accent. It can as well mean fireplace when only *ke* is stressed and pronounced as a long sound. It can also mean to marry if the pronunciation is short. This nature of Dholuo leaves a desire for research for a better understanding of the language especially the investigation of the morpheme number markers and how they are formed which the current study focuses on.

### 1.2 Statement of the problem

African languages are understudied because they lack both national and international outlook. There is need to create an awareness of the descriptive nature of our native languages just like other Western languages. This study therefore makes a deliberate effort to investigate Dholuo noun number markers. Dholuo number markers exhibit intricacies in their formation and usage, including variations in morphology. Dholuo being an agglutinative language, some nouns can hardly be noticed to be broken down into multiple meaningful parts. This may cause a challenge in predicting Dholuo number



marker patterns. Nouns in Dholuo can exist as bare roots without prefixes or suffixes. They can also exist as poly-morphemic words with suffixes hard to comprehend. Studies were hardly found explaining how to interpret the use of morphemes for number markers in Dholuo nouns hence the motivation for this study.

### 1.3 Research Objective

The study was guided by the following objectives:

1. To investigate morpheme number markers in *Dholuo* nouns
2. To Examine the use of morphemes in the formation of *Dholuo* number markers
3. To establish categories of *Dholuo* number markers

## 2. Literature Review

African languages have been the subject of theoretical and descriptive studies of late. However, there is still much to be done on them, especially in Dholuo which is a Nilotic language spoken in western Kenya, Uganda and Tanzania. Most theories have been used to analyze Dholuo word categories. Despite much research work done in Dholuo, few might have been done to analyze Dholuo nouns number markers which unfortunately, did not catch the eye of the researcher. However, the following are some of the researches done in Dholuo.

Connie et al. (2023) analyses morphophonemic processes in Dholuo and Suba languages of Rusinga Island, Homa Bay County –Kenya. This study employs Independent Parallel Theory and finds that, there is no phonological relationship between the Dholuo and Suba words for personal pronouns. An instance is used for illustration where the Dholuo word kanye for relative pronoun ‘where’ is found to be disyllabic with CVCV structure. This is discussed in the study as contrasting with the Suba language word ayi for the relative pronoun ‘where,’ which has the syllable structure VCV. This study concludes that, Dholuo and Suba verbs are nowhere close to each other. They are not related phonetically, phonologically and morphologically. This study uses parameters in morphology under which the current study uses for its discussion. However, its analysis only focuses on syllabic structure and does not account for behaviors of morphemes in characterizing the pronouns. A gap the current study fills by analyzing characteristics of morpheme number markers.

Ogelo (2022) explores relativity effects as evidenced in the behavior of Dholuo-English-Kiswahili (DEK) multilingual individuals. This study supports the current study in finding out the morphological features of the Dholuo nouns as a word category spoken by these multilingual speakers. The investigations in Ogelo (ibid) are carried out under the linguistic domains of stasis (spatial frames) and kinesis (motion events). These were both wrapped within the spatial realm. The results of the investigations are analyzed and interpreted through the theoretical lenses of the thinking-for-speaking hypothesis, the grammatical aspect approach, multicompetence theory as well as cognitive grammar. The study however fails to show sufficient evidence of linguistic relativity at the non-linguistic level for both the spatial reference and the motion event investigations. Instead, there is evidence of conceptual convergence due to possibly a shared grammatical category of Dholuo, English and Kiswahili, at the non-linguistic level of the motion event tasks. The current study on the other hand seeks to concern itself with the analysis of morpheme number markers in nouns as a word category.

Everline (2013) examines morphosyntactic analysis of ambiguity of mood in Dholuo, she uses minimalist programme approach. The study is set out to find out how mood is expressed and how ambiguity is resolved in Dholuo, the modal structure of the language



and how it can be explained within Chomsky (1965)'s Minimalist Programme. Everline (ibid) uses desk research in collecting and gathering data from library sources in Dholuo as well as relying on her intuition (according to Chomsky) as a native speaker. This current study borrows the idea of morphological aspects in the analysis of Dholuo language in the analysis of number markers in Dholuo nouns. The current study is however different from the study of Everline since it investigates morpheme number markers which is not addressed by Everline (ibid).

Omondi (1982) analyses major syntactic structures of Dholuo. Her research investigates major syntax using theoretical frame work of the Standard theory of Generative Transformational Grammar. Her study describes major syntactic structures of Dholuo and provides basic information about Dholuo phonology. She discusses the various categories into which formatives of the language may be divided and their morphological realizations. Her theory presents a survey of the main syntactic structures and gives the main rules. The study deals with the imperatives, negations, questions and emphasis, which is different from what the current study looks at. The findings in Omondi (1982) however, informs the current study in investigating the nature of Dholuo number markers. The few mentioned research works leaves the current study with some gaps to fill. One of which the research did to find out was thus, set of rules governing the formations of Dholuo, number markers.

## **2.1 Theoretical Framework**

### **2.1.1 Morphological theory**

Morphological Theory was initiated by Chomsky (1970) in the domain of generative grammar to explain how words are structured. Adams (1973) and Bauer (1983) are some of the proponents who advanced the operation of this Morphological theory in describing English language. This Theory explains that morphology interacts with representations at different linguistic levels hence stands at the interface between lexicon, phonology and syntax. The study therefore adopts this theory to identify and analyze the morphemes involved in Dholuo number marking. Morphological Theory was derived from Generative grammar which provides a formal Theory of language structure meant to construct a set of rules held to underlie native speaker's tacit (Chomsky 1970). This theory can be used to analyze three aspects of word structure such as: phonological word structure and morphemes, internal structuring of words (relationships between morphologically related words) and relationship between word structure and syntax. Based on this principle, the study uses this theory to explore the relationship between number marking and other grammatical categories, such as agreement and case marking.

Notably, other proponents of this Theory like Halle (1973) analyze morphemes in words and explains that a morpheme is like a morphologically simple word stored in the lexicon. Aronoff (1976) on the other hand developed a tenet in this theory which discusses derivation and posits that lexical roots are stored in the lexicon while inflectional and derivational morphemes are added by morphological operation. This tenet is used by the study to examine morphological features depicted in Dholuo number markers. Beard (1987) further contributed to this morphological theory by proposing another tenet in morphological operation through inflection, which the study uses to investigate the morpheme number markers in Dholuo. The other tenet of this theory states that in morphology, a grammatical property can be signaled by different formative word forms which is also used to analyze various nouns in Dholuo, to find out the formation of plural morphemes. Anderson (1982) argues that grammar takes a word stem together with an



abstract description of an inflectional form hence suggests that there should be a set of rules to generate word forms corresponding to inflectional descriptions. This is investigated in Dholuo number markers hence this theory is found to be relevant in examining Dholuo plural morphemes to find out how Dholuo nouns form their number markers.

### 3. Methodology

This study adopted a descriptive research design in the analysis of data collected from Dholuo speakers living in Suna East Sub County of Migori County, Kenya. Suna East Sub County has a total population of 122674, according to the Kenya national statistics in 2019. This formed the statistics frame from which 20 informants speaking Dholuo as their first language were purposively sampled. The number of informants chosen was convenient and easy to manage in collecting the primary data. The informants were issued with relevant questionnaires to elicit data on Dholuo nouns and their number markers. The questions were open ended and involved translating English nouns under various classifications into Dholuo. Answers given were evaluated and coded to find out if they had the type of primary data required, it was later used for content analysis. The study also relied on Dholuo written texts for secondary data such as, the bible (muma maler), novels (Ogila nyakalondo) and short stories (Apirimar) for validity and reliability. Morphological theory principles were then applied to find out how number markers are manifested in Dholuo nouns.

### 4. Results and Discussion

Warriner (1982), states that a noun is a word used to name a person, place, thing or idea. There are types of nouns classified majorly as common, proper and compound. Others are classified as concrete, abstract, countable and uncountable/mass nouns. Nouns can occur in a group and in a related way with other elements hence referred to as NP which is; a group of words comprising of a determiner, a noun and a modifier. The data analyzed in this study is however on Dholuo nouns and their number markers. The intention is to find out the plural morphemes for number markers as discussed:

#### 4.1 Dholuo nouns number markers

Subsection 4.1.1 shows presentation of data on plural suffixes in Dholuo substantive nouns

##### 4. 1. 1 Plural suffixes

4.1.1.1 Dholuo		English	
Singular	Plural	Singular	Plural
(3) <i>Nyako</i>	<i>Nyiri</i>	Girl	Girls
(4) <i>Buk</i>	<i>Buge</i>	Book	Books
(5) <i>Nanga</i>	<i>Nengni</i>	Clothe	Clothes

Morphological Theory is adopted to analyze how the mentioned plural suffixes acting as number markers changes the internal structures of nouns. Example (3), indicates that the application of the plural suffix -i as a number marker changes the singular morpheme ko to plural morpheme ri, hence the vowel [a] in the first syllable of a single morpheme changes to [ij] after the addition of the number marker. In example (4), the application of

the plural suffix -e changes the singular morpheme k to the plural morpheme ge hence a change from voiceless to voiced final consonant. In example (5), the application of plural suffix -ni changes the singular morpheme nga to plural morpheme ngni

Notably, in Dholuo substantive nouns, it is established that, a plural suffix which may be a vowel such as [i], [e] or suffix -ni is added as a number marker to form a plural morpheme to the stem. This is demonstrated with examples (3), (4) and (5). Formation of plurals in Dholuo nouns are irregular and depends on the use of suffixes which changes the plural form from the initially indicated singular form. It is also complicated to predict any rule governing how number markers are applied. From the analysis done on the data collected, the following observations are made.

There is also a change in the final consonant in the stem if the suffix added is not -ni. The vowel [a] in most cases changes to [e]. Voiceless obstruents (plosive or fricative sounds) become voiced and take an -e suffix. These findings are in agreement with the suggestions in Okoth (1982) which claim that, Dholuo nouns vary in form to express grammatical contrast in number. If /t/ occurs as the last obstruent in a word, it becomes /d/. Whenever /k/ occurs as word final, it becomes /g/ in the plural morpheme as demonstrated with examples (6), (7) and (8) indicating plural morpheme de, ge and dhe

<b>4.1.1.2 Dholuo</b>		<b>English</b>	
<b>Singular</b>	<b>Plural</b>	<b>Singular</b>	<b>Plural</b>
(6) <i>Got</i>	<i>Gode</i>	Mountain	Mountains
(7) <i>Chak</i>	<i>Chege</i>	Milk	Milk
(8) <i>Puth</i>	<i>Pudhe</i>	Cripple	Cripples

Voiced obstruent become voiceless and an -e morpheme acting as a final vowel is added. If /d/ occurs as the last obstruent in a word, it becomes /t/ and whenever /g/ occurs as word final, it becomes /k/ in the plural before the final vowel which is a suffix acting as a plural morpheme -e, is added as shown in example (9) and (10).

<b>4.1.1.3 Dholuo</b>		<b>English</b>	
<b>Singular</b>	<b>Plural</b>	<b>Singular</b>	<b>Plural</b>
(9) <i>Kidi</i>	<i>kite</i>	Stone	Stones
(10) <i>Kede</i>	<i>Kete</i>	Cane	Canes

When /w/ or /o/ occurs as word final, it becomes /p/ in the plural and a suffix acting as a plural morpheme -e which is a final vowel is added as shown in example (11).

<b>4.1.1.4 Dholuo</b>		<b>English</b>	
<b>Singular</b>	<b>Plural</b>	<b>Singular</b>	<b>Plural</b>
(11) <i>Loo</i>	<i>Lope</i>	Soil	Soil

When /p/ occurs as word final, it becomes /w/ in the plural and takes a suffix acting as a



plural morpheme -e, which is also acting at the same time as a vowel final, after changing the vowel [a] to [e] as shown in example (12) hence forming a plural morpheme we.

**4.1.1.5 Dholuo**

<b>Dholuo</b>		<b>English</b>	
<b>Singular</b>	<b>Plural</b>	<b>Singular</b>	<b>Plural</b>
(12) <i>Pap</i>	<i>Pewe</i>	Field	Field

If the alveolar liquid //l/ occurs as word final, it changes to the nasal compound /nd/ in the plural and a morpheme -e, final vowel is added to become morpheme nde for plural marker as show in example (13).

**4.1.1.6 Dholuo**

<b>Dholuo</b>		<b>English</b>	
<b>Singular</b>	<b>Plural</b>	<b>Singular</b>	<b>Plural</b>
(13) <i>Bul</i>	<i>Bunde</i>	Drum	Drums

When the morpheme ch occurs as word final, it changes to morpheme y in the plural and takes an [e] vowel final to become morpheme ye as a number marker. This is demonstrated with example (14).

**4.1.1.7 Dholuo**

<b>Dholuo</b>		<b>English</b>	
<b>Singular</b>	<b>Plural</b>	<b>Singular</b>	<b>Plural</b>
(14) <i>Wich</i>	<i>Wiye</i>	Head	Heads

**4.1.2 Inflected number markers**

The presented data indicates how number markers are inflected in Dholuo nouns.

**4.1.2.1 Dholuo**

<b>Dholuo</b>		<b>Gloss</b>		<b>English</b>	
<b>Singular</b>	<b>Plural</b>	<b>Singular</b>	<b>Plural</b>	<b>Singular</b>	<b>Plural</b>
(15) <i>Ring dhiang'</i>	<i>Ring dhok</i>	Meat cow	Meat cows	Cow's meat	Cows' meat

Through the Morphological Theory, the current study finds that the right-handed heads are inflected number markers for Dholuo nouns. The inflected number markers change the vowel sounds in the compound nouns. This finding confirms the view in Atoh (2001) which explains that some Dholuo compound nouns have right-handed heads. There are however some cases where the left-handed elements which are not the heads of the compound are inflected. In some instances, both bases are inflected for number. Right hand heads inflected compound nouns in Dholuo is demonstrated with example (15)

The diphthong /iɔ/ in singular noun changes to a monothong /ɔ/ in plural noun then /ŋ/ changes to /k/. There are instances where the first noun in the compound noun is inflected for number markers with /ɔ/ changing to /ɔ/ as shown in example (16).

**4.1.2.2 Dholuo**

<b>Dholuo</b>		<b>Gloss</b>		<b>English</b>	
<b>Singular</b>	<b>Plural</b>	<b>Singular</b>	<b>Plural</b>	<b>Singular</b>	<b>Plural</b>
(16) <i>Ja mriambo</i>	<i>Jo mriambo</i>	A liar	liars	A liar	Liars





There are compound nouns where both bases are inflected for number markers with the first base adding the final vowel [e] to form a morpheme -ne for number marker and the second base changing its /ð/ in the first syllable to /i/ and adding the morpheme -ndo for number marker as shown in example (17).

<b>4.1.2.3 Dholuo</b>		<b>Gloss</b>		<b>English</b>
<b>Singular</b>	<b>Plural</b>	<b>Singular</b>	<b>Plural</b>	<b>Singular</b>
<b>plural</b> (17)	<i>Wuon nyathi</i>	<i>Wuone nyithindo</i>	Father of a child	Fathers of children
	Father's child			

**English plural:** Fathers' children

There are however compound nouns in Dholuo which do not go through inflection of any morpheme for number marker hence remain in the same state. Example (18) is a demonstration where none of the bases are inflected.

<b>4.1.2.4 Dholuo</b>		<b>Gloss</b>		<b>English</b>
<b>Singular</b>	<b>Plural</b>	<b>Singular</b>	<b>Plural</b>	<b>Singular</b>
<b>Plural</b>	(18) <i>Rabuond nyaluo</i>	<i>Rabuond nyaluo</i>	Potato of luo	Potato of luo
	Sweet potatoes			Sweet potato

Atoh (2001) explains that speakers often use compounds comprising of two bases as standard. The current study found out that Dholuo compound nouns can have up to three bases, without any inflection for number marker. If they do not, it then becomes difficult to account for the stretch of morphemes semantically. Example (19) shows possibility to recursively attach certain base morphemes to form three compounds in some instances where chi (wife) is compounded to ong'o ng'o ong'o ng'o (ogre).

<b>4.1.2.5 Dholuo</b>	<b>English</b>
(19) <i>Chi ong'o ngo ong'o ngo</i>	Wife of an ogre

#### 4.1.3 Number markers in Dholuo nouns with unchanging final consonants

<b>4.1.3.1 Dholuo</b>		<b>English</b>	
<b>Singular</b>	<b>Plural</b>	<b>Singular</b>	<b>Plural</b>
(20) <i>Bag</i>	<i>Bege</i>	Bag	Bags

Another unique character observed in Dholuo nouns is that voiced consonants such as [b, dh and g] cannot occur in the final position in Dholuo as supported in Tucker (1994). This study also notices that not all noun roots which take the suffix -e as their plural suffix have final consonants or obstruent which alternate for voicing. At least there is a word with a voiced obstruent in the singular noun which doesn't get unvoiced in the plural as shown in example (20).

#### 4.1.4 Number markers in Dholuo nouns with consonant vowel suffixes

There is a class of nouns in Dholuo called CV suffixes where the final suffixes are dropped in plural forms then get inflected with the morpheme for number marker -ni and -e. This is demonstrated with examples (21), (22), (23) and (24).



**4.1.4.1 Dholuo**

**English**

<b>Singular</b>	<b>Plural</b>	<b>Singular</b>	<b>Plural</b>
(21) <i>Pala</i>	<i>pend-ni</i>	Knife	Knives
(22) <i>Kog-no</i>	<i>Kok-e</i>	Nail	Nails
(23) <i>Kud-ni</i>	<i>Kut-e</i>	Worm	Worms
(24) <i>Njok-la</i>	<i>Njok-ni</i>	Thread warm	Thread warms

Suffixes -no, -ni, and -la do not have a clear meaning component and are not involved in productive affixation processes. Inkelas and Zoll (2005) states that they are semantically empty morphs which are lexically part of the nouns with which they appear. In Dholuo, these suffixes are deleted in plural forms due to phonological constrains. The study finds that nouns with underlying voiced obstruent take the plural morpheme -e, hence results in voicing polarity for the plural form since voicing of /g/ cannot be accounted for across the deleted empty suffix.

**4.1.5 Number markers in Dholuo nouns with unrelated forms**

**4.1.5.1 Dholuo**

**English**

<b>Singular</b>	<b>Plural</b>	<b>Singular</b>	<b>Plural</b>
(25) <i>Dhako</i>	<i>Mon</i>	Woman	Women

This study finds that, there is a class of nouns forming their plural marker with suppletive stem allomorph (unrelated form). In this case, there is replacement of one stem with the other hence resulting to an allormorph of a morpheme with no phonological similarity as seen in example (25). Where dhako (woman) changes to mon (women).

**4.1.6 Number markers in Dholuo loan words**

There is a group of nouns categorized as loanwords (Okombo, 1982). These are words from English or Kiswahili which have been borrowed to be used in Dholuo because the items they name did not exist before. Their pronunciations have been affected by the phonology of Dholuo. Example (26) demonstrates nativization of an English noun book to Dholuo noun buk. The vowel [o o] changes to [u]. It forms its number marker by changing the final consonant [k] to [g] which takes the final vowel [e] to form plural morpheme -ge.

**6.1.6.1 Dholuo**

**English**

<b>Singular</b>	<b>Plural</b>	<b>Singular</b>	<b>Plural</b>
(26) Buk	Buge	Book	Books

Ernestus and Baayen (2003) posits that integration of non-words into a language often leads to underlying forms not directly evident in the source. Nevins and Vaux (2006) on the other hand explain that, speakers frequently infer underlying forms with voiced final obstruent from inputs with final voiceless obstruent. The study therefore establishes that in Dholuo, both non-word and in loanword adaptation is based on lexical frequency and syllable number.



#### 4.1.7 Number markers in Dholuo nominal possessors

Nouns in Dholuo can form a class called nominal possessor form in which head nouns appear in possessor and related constructions, where consonant [d] changes to [t] by deleting final vowel [i], in order to agree with the possessor form as shown in example (27).

<b>4.1.7.1 Dholuo form</b>	<b>Possessor form</b>	<b>English</b>	<b>Possessor</b>
(27) <i>Udi</i>	<i>ut lemo</i>	Houses	Houses of prayer

The singular form of udi (houses) is ot (house) whose possessor form is od lemo (house of prayer). It can be noticed that singular morpheme in possessor form od changes to ut in plural morpheme. In this case, there is a change in vowel sounds and voiced consonant to unvoiced.

#### 4.1.8 Number markers in Dholuo nouns consonant final and vowel final

There are nouns in Dholuo which are consonant final words with morpheme -ny changing to -nj then adding final vowel [e] as a number marker to form a plural morpheme -nje as shown in example (28).

<b>4.1.8.1 Dholuo</b>		<b>English</b>	
<b>Singular</b>	<b>Plural</b>	<b>Singular</b>	<b>Plural</b>
(28) <i>Piny</i>	<i>Pinje</i>	Country	Countries

Others are vowel-noun final which changes the final vowel [o] to [e] before adding [b] to become a morpheme for number marker -mbe. For instance, the singular morpheme -amo changes to a plural morpheme -embe as shown in example (29).

<b>4.1.8.2 Dholuo</b>		<b>English</b>	
<b>Singular</b>	<b>Plural</b>	<b>Singular</b>	<b>Plural</b>
(29) <i>Yamo</i>	<i>Yembe</i>	Wind	Wind

### 5. Conclusions and Recommendations

This paper investigates plural morphemes forming number markers in Dholuo nouns using Morphological Theory in generative grammar (Chomsky 1970). The findings show that Dholuo nouns are both substantive and derivative hence irregular in forming number markers for plural morphemes. Number markers majorly forming plural morphemes are suffixes -e, -i and -ni. In compound nouns, number markers are formed through inflection of plural morphemes on the left base, right base or both and in some instances, there is no inflection. These then make Dholuo nouns vary in form in expressing grammatical contrast in number. Plural morphemes are formed through affixation or morphological transformations. Some affixations of plural morphemes in Dholuo nouns occur through change in the tonal pattern by adopting Dholuo vowels [e] and [i], which causes voicing and devoicing of the underlying obstruents. There is a change in the final consonant in the stem of Dholuo nouns when number markers are adopted. Voiceless obstruents (plosive or fricative sounds) become voiced and take an -e suffix to form number markers. In addition, other number markers are formed



through suppletive stem allomorphs (unrelated form) where there is replacement of one stem with the other hence resulting in an allomorph of a morpheme with no phonological similarity. This study recommends that, many studies in African languages need to be done in this multilingual generation, to avoid being undermined by the other languages that have become prestigious in use. The study also recommends that Africans should value using their native languages and learn their complexity.

## References

- Adams, V. (1973). *An Introduction to modern English word-formation*. London: Longman.
- Anderson, R. (1982). Where's Morphology? *Linguistic Inquiry* 13, 571-612.
- Anyango, L. (2021). The Shadow of English. *Kenyan English: Domains of Use, Forms, and Users' Attitudes*, 165.
- Aronoff, M. (1976). *Word formation in generative grammar*. Cambridge, Ma: MIT Press.
- Atoh, F. (2001). *Semantic analysis of Dholuo nouns: The Semantic Field Approach*. Unpublished MA Dissertation. Nairobi: University of Nairobi.
- Bauer, R. (1983). *English word-formation*. Cambridge: Cambridge University Press.
- Beard, R. (1987). Morpheme order in a lexeme morpheme-based morphology. *Lingua* 72, 1-44.
- Chomsky, N. (1970). *Remarks on nominalization*. Jacobs, R. and Rosenbaum, P. (eds.) *Readings in English Transformational Grammar*. Waltham, Ma: Bladell.
- Connie, O. A., Lwangale, D. W., Katie, H. O., & Indangasi, R. D. (2023). A Study of Phonological Processes in Dholuo and Suba Languages. *GPH-International Journal of Social Science and Humanities Research*, 6(06), 92-104.
- Ernestus, M. and Baayen, R. (2003). Predicting unpredictable: interpreting neutralized segments in Dutch. *Lang* 79, 5-38. Google scholar crossref.
- Evaline, A. (2013). *Morphosyntactic analysis of ambiguity of mood in Dholuo*. PhD thesis: unpublished. The University of South Africa.
- Greenberg, J. (1966). *The languages of Africa*. Hague: Bloomington Indiana University
- Halle, M. (1973). The accentuation of Russian words. *Language* 49, 312-348.
- Inkelas, S and Zoll, C. (2005). *Reduplication: doubling in morphology*. Cambridge: Cambridge University Press.
- Nevins, A., and Vaux, B. (2006). *The role of contrast in locality: transparent palatal glides in Kyrgyz*. In MITWPL 54. MITWPL, Cambridge, MA, pp. 275-287.
- Ojwang, B. O. (2018). Linguistic conceptualizations of disease among the Luo of Kenya. *Qualitative health research*, 28(3), 433-445.
- Okombo, O. (1982). *Dholuo Morphophonemics in a Generative framework*. Berlin: Dietrich Reimer Verlag.
- Oluoch, A. (2022). *A morpho-semantic study of toponyms in Dholuo* (Doctoral dissertation, University of Nairobi).
- Omondi, L. N. (1982). Major syntactic structure of Dholuo. *Supplement 1. language and dialect Atlas of Kenya*: Kenyatta University.
- Onyango, P. (2001). *Dholuo grammar for beginners*. Kisumu: Lake Publishers and Enterprises.
- Warriner, E. (1982). *English grammar composition*. Harcourt School: Harcourt Brace Jovanovich.

