# THE PRONOMINAL SYSTEM OF OKIEK 

## Robert Joseph Ochieng University of Nairobi

This paper describes the morphological, morphophonological, morphosyntactic and semantic properties of the pronominal system of the Nessuit variety of Okiek - a branch in the Kalenjin language family in the Southern Nilotic subdivision (Rottland 1982, 1983) of the Nilo-Saharan phylum (Greenberg 1963). The data used in this paper consists of wordlists, phrases and sentences collected through elicitation interviews, from short stories, and from real life speech events during fieldwork conducted by the author in Nessuit town in the Nakuru County of Kenya between 2019 to 2022. The findings show that: (1) there are five sets of pronominal morphemes (personal, demonstrative, possessive, interrogative, and relative pronouns); (2) personal, demonstrative, and possessive pronouns can occur as independent or bound grammatical items; (3) interrogative pronouns occur as independent items; (4) the pronominal system is associated with the grammatical categories of number, tense, aspect, person and case; (7) all bound pronominal elements are suffixes except for bound subject pronouns which are prefixes; (8) bound pronominal elements are subjected to vowel harmony with the exception of bound possessive pronouns; (9) the distribution of bound demonstrative suffixes is governed by tense and aspect categories; (10) independent possessive pronouns are morphosyntactically linked to the head noun by a relative pronoun; and (11) certain verbal and nominal phrases are used for a function that is expressed by indefinite pronouns in English. These findings complement the study of the pronominal system of the Mariashoni variety of Okiek by Micheli (2018) and form a base for further explorations of Okiek and comparative investigations into Southern Nilotic grammar.

Key words: Pronominal morphemes, tense, aspect, case, number, person, Okiek, Kalenjin, Southern Nilotic.

91 Robert J. Ochieng

## List of abbreviations

| ACC | Accusative | SG | Singular |
| :---: | :---: | :---: | :---: |
| ANTIP | Antipassive | SG.REL | Singular relative pronoun |
| ATR | Advance tongue root | V | Vowel |
| C | Consonant | 1 | First-person |
| COP | Copula | 2 | Second person |
| DAT | Dative | 3 | Third person |
| DEM | Demonstrative |  |  |
| DIS | Distal |  |  |
| DPST | Distal past tense |  |  |
| G | Glide |  |  |
| HAB | Habitual |  |  |
| MED | Medial |  |  |
| MPST | Medial past tense |  |  |
| N | Noun |  |  |
| N.SG | Singular noun |  |  |
| N.PL | Plural noun |  |  |
| NMLZ | Nominalizer |  |  |
| NP | Noun phrase |  |  |
| NOM | Nominative |  |  |
| OBJ | Object |  |  |
| OPDP | Okiek Peoples' |  |  |
|  | Development Program |  |  |
| PFUT | Proximal future tense |  |  |
| PL | Plural |  |  |
| PL.REL | Plural relative pronoun |  |  |
| POSS | Possessive |  |  |
| PPERF | Progressive Perfect |  |  |
| PPST | Proximal past tense |  |  |
| PROG | Progressive aspect |  |  |
| PROX | Proximal |  |  |
| PS | Primary suffix |  |  |
| PST | Past tense |  |  |
| S | Subject |  |  |

## 1. INTRODUCTION

Okiek is an under-researched Southern Nilotic minority language, spoken in Kenya. The term Okiek (also written as Ogiek) is a plural noun that means 'caretakers of plants and animals'; its singular is Okiot 'caretaker of plants and animals'. It refers to both the Okiek people and their language. The Okiek are a Kenyan community whose way of life is traditionally linked to hunting and gathering, and bee keeping within the Mau Forest complex and in the forest regions of Mt. Elgon (Blackburn, 1971). At the last Kenyan population census in 2019, there were 52,596 members of the Okiek community (Republic of Kenya, 2019). The Okiek People Development Program (2021: 3) explains that approximately 45,000 members live within the various zones in the Mau Forest Complex while the rest are distributed in the forest regions around Mt . Elgon.

Genetically, Okiek is one of the four branches of the Kalenjin cluster in the Southern-Nilotic subdivision (Rottland 1982: 19, 1983: 210) of the Nilo-Saharan genetic phylum (Greenberg 1963). There are three main sub-families of the Okiek branch found in Eastern Mau namely, Tiepkwererek, Morisionig (Mariashoni), and Gypohorng'woneg (Muchemi and Ehrensperger 2011: 1). The dialect under study is the Nessuit variety of Okiek. Its speakers belong to the Ka:p Shoi clan in the Tiepkwererek living in Nessuit ward (Eastern Mau), in Nakuru County.

Little has been studied about the grammar of the dialects within the Okiek branch. According to Rottland (1983: 216), "For Okiek, we are not only ignorant of the full extent of groups and the degree of linguistic variation, but it is also not clear - apart from lexical peculiarities - what constitutes an Okiek distinctiveness within Kal[enjin]". However, there is one important study to mention: Micheli (2018). This provides a sketch of the grammar of the Okiek of Mariashoni, highlighting its phonology, nominal and verbal morphology, syntax, and provides an Okiek-English vocabulary list. The author identifies seven sets of pronominal elements: subject pronouns, direct and indirect object pronouns, reflexive pronouns, indefinite pronouns, interrogative pronouns, possessive pronouns, and relative pronouns. In order to complement the study by Micheli (2018), this paper adopts a descriptive study of the pronominal system of Okiek across all levels, ranging from phonology over morphology to syntax, firmly based on empirical grounds from the author's own fieldwork with the aim of highlighting similarities and differences between the two studied varieties of Okiek. Comparative analysis
of the study of the pronominal system of the Mariashoni variety and the Nessuit variety indicates the following similarities: free and bound personal, demonstrative, and possessive pronouns are identical inform and function; the formation of empathic personal pronouns by the reflexive suffix -kej; certain verbal phrases and nominal strings serve the functions identical to indefinite pronouns in English. Differences between the two varieties include: the use of 1PL bound subject pronouns $k \varepsilon$ - in the Nessuit variety and kI- in Mariashoni; the presence of the 3 SG bound object pronoun eish- in the Mariashoni variety while the object pronoun is realized by a zero morpheme $\varnothing$ in the Nessuit variety, the use of prepositional phrase headed by the preposition ko 'as' in the formation of $1^{\text {st }}, 2^{\text {nd }}$, and $3^{\text {rd }}$ plural emphatic personal pronouns is attested in the Nessuit variety and not mentioned in the study by Micheli.

## 2. METHODOLOGY

The analysis of the internal organization of the pronominal system of Okiek is informed by the assumptions of Dixon's (2010) Basic Linguistic Theory (BLT) and adopted from the author's PhD dissertation (Ochieng, forthcoming). BLT assumes that the grammatical structures of a language, "can be characterized with sufficient precision in English (or some other natural language) without the use of formalism" Dryer (2001). Based on this assumption, the characterization of the pronominal system of Okiek in this paper is based on methodological procedures such as minimal contrasts, the distribution of linguistic units, and the functional analysis of constructions.

Primary data includes wordlists, phrases, sentences, and narratives collected from native consultants during fieldwork. Secondary data consist of published material on Okiek grammar from Rottland (1982, 1983), of Micheli (2018), of the chapter of Luke published by the Bible Translation and Literacy organization (2021), and of narrative texts published by the Ogiek Peoples' Development Program (OPDP) (2020).

Grammatical structures, regularities, and irregularities will be worked out inductively from Okiek's linguistic resources. Linguistic units will be categorized into phonemes, morphemes, phrases, and clauses. The phonological transcription of consonants and vowels will follow the international phonetic Alphabet (IPA) symbols. Vowel length is indicated by the colon (:), as contrasted with unmarked
short vowels. The high tone $(\mathrm{H})$ will be indicated by the acute accent (') and the low tone (L) by the grave accent ('). The Leipzig conventions for interlinear morpheme by morpheme glossing will be adopted.

## 3. THE PRONOMINAL SYSTEM OF OKIEK

Pronominal elements in Okiek consist of personal pronouns, demonstrative pronouns, possessive pronouns, interrogative pronouns, and relative pronouns. For each of these five subsets, morphological, morphophonological, morphosyntactic, and semantic properties will be described one after the other. All pronouns in syntactic positions will be marked for the nominative or accusative case by tone. Pronominal elements in isolation will be left without specification for tone.

### 3.1 Personal pronouns

The main function of personal pronouns is to indicate number and person distinctions in a speech event. Personal pronouns appear as either free or bound morphemes.

### 3.1.1 Free personal pronouns

Free personal pronouns occur as six independent grammatical items with VCV (SG) and $\mathrm{VC}(\mathrm{G}) \mathrm{VC}$ (PL) morphophonological structures that are semantically and phonotactically analysable into three persons and two numbers as shown in (1). For instance, the phonotactic analysis (the examination of the permissible combinations of consonant and vowel phonemes in a syllable structure) of the structure of free personal pronouns shows that: the grammatical category of person is coded in the initial V for singular and plural free personal pronouns; plurality is coded by the final consonant /k/ in the plural forms; while singular forms are unmarked for number.
(1) Free personal pronouns

| Person | Singular | Plural |
| :---: | :---: | :---: |
| $1{ }^{\text {st }}$ | ane ' l ' | Ecek 'we' |
| $2^{\text {nd }}$ | Ine 'you' | okwek 'you' |
| $3^{\text {rd }}$ | InE '( s )he' | IC $¢ \mathrm{k}$ 'they' |

Free personal pronouns are optional constituents in a clause. When used in a clause, they indicate emphasis of the bound personal pronoun they correspond to in either the subject or object function in the clause. For example, the pronoun ane ' $l$ ' in 2 (a) corresponds to the bound 1SG subject pronoun o-, ine '(s)he' in 2 (b) corresponds to the bound third person bound subject pronoun ko- while the pronoun ine '(s)he' in (2 (c)) corresponds to an unmarked bound object pronoun in the verb stem. Free personal pronouns in the Nessuit variety of Okiek are comparable in form with those attested in Southern Nilotic languages such as Nandi (Creider \& Creider 1989), Cherang’any (Mietzner 2016), Okiek of Mariashoni (Micheli 2018), and Akie of Tanzania (Konig et al., 2015).
(2) Optional uses of free personal pronouns in clauses

Expressions without a free pronoun Expressions with a free pronoun
a) ki-ò-jo-ise

DPST-1SG-cook-ANTIP
'I cooked.'
b) tos kó-com-ej tim-wé-k

PFUT 3-love-PROG forest-PS-PL.ACC
'(s)he will love the forests.'
C) ki-ò-toret

DPST-1SG-help
'I helped.'
ki-ò-jo-ise ánغ̀
DPST-1SG-cook-ANTIP 1SG.NOM
'I, I cooked.'
tos kó-com-ej tim-wé-k ínè
PFUT 3-love-PROG forest-PS-PL.ACC 3SG.NOM '(s)he, $s(h) e$ will love the forests.'

| ki-ò-toret | ánè | Ìné |
| :--- | :--- | :---: |
| DPST-1SG-help | 1SG.NOM | 3SG.ACC |
| 'I helped her/him.' |  |  |

Morphologically, both singular and plural free personal pronouns take up the reflexive suffix $-k \varepsilon j$ in the derivation of emphatic reflexive free personal pronouns shown in 3 (a-b). The velar stop /k/ in the reflexive suffix is deleted to avoid a sequence of identical consonants in the plural free personal pronoun forms.
(3) Forms and expressions with reflexive emphatic free personal pronouns
a) Forms

| Person | Singular | Plural |
| :--- | :--- | :--- |
| $1^{\text {st }}$ | an $\varepsilon-k \varepsilon j$ | $\varepsilon \subset \varepsilon k-\varepsilon j$ |

96 The pronominal system of Okiek

| 1SG-REF | 1PL-REF |
| :--- | :--- |
| 'myself alone' | 'ourselves alone' |
| In $\varepsilon-k \varepsilon j$ | okw $\varepsilon k-\varepsilon j$ |
| 2SG-REF | 2PL-REF |
| 'yourself alone' | 'yourselves alone' |
|  |  |
| In $\varepsilon-k \varepsilon j$ | Ic $\varepsilon k-\varepsilon j$ |
| 3SG-REF | 3PL-REF |
| 'himself/herself alone' | 'themselves alone' |

b) Expressions

Non-reflexive emphatic constructions Reflexive emphatic constructions

1SG-eat-PROG maize-PS-PL.ACC 1SG-eat-PROG maize-PS-PL.ACC 1SG-REF.NOM
'I am eating maize.'
 2SG-eat-PROG maize-PS-PL.ACC 2SG-eat-PROG maize-PS-PL.ACC 2SG-REF.NOM 'You are eating maize.' 'You yourself alone, you are eating maize.'

Singular free personal pronouns can take the singular secondary suffix -t and the primary suffix -t $\varepsilon$ in the derivation of singular emphatic nominal pronouns as shown in 4(a-b). Secondary suffixes and primary suffixes are nominal suffixes used for marking number in nouns and for morphological categorization of nouns, respectively (Ochieng, forthcoming). There are no plural emphatic nominal pronouns. Instead, prepositional phrases are used for a function that is to be expressed by plural emphatic nominal pronouns. The prepositional phrase is introduced by the preposition ko 'as' followed by a plural free personal pronoun. Emphatic nominal pronouns are unattested in the study of Micheli (2018).
(4) Forms and constructions with emphatic nominal pronouns
a) Forms

| Person | Singular | Plural |
| :---: | :---: | :---: |
| $1{ }^{\text {st }}$ | $a n \varepsilon-t \varepsilon-t$ | ko عcek |
|  | 1SG-PS-SG | as 1PL |
|  | 'I myself' | 'we as ourselves' |
| $2^{\text {nd }}$ | ıne-te-t | ko okwek |
|  | 2SG--PS-SG | as 2PL |
|  | 'you, yourself' | 'You as yourselves' |
| $3^{\text {rd }}$ | Ine-t $\varepsilon$ - $t$ | ko Ic\&k |
|  | 3SG-PS-SG | as 3PL |
|  | '(he/she) himself/herself' | 'they as themselves' |

b) Expressions
(i)

## SG

| ki-ò-jo-ise | ánć - ¢ - $t$ |
| :---: | :---: |
| DPST-1SG-cook-ANTIP | 3SG-PS-SG.NOM |
| 'I myself cooked.’ |  |

## PL

$$
\begin{aligned}
& \text { ki-kè-jo-ise ko } \dot{c} \text { ćk } \\
& \text { DPST-1PL-cook-ANTIP as 1PL.PL.ACC } \\
& \text { We as ourselves cooked.' }
\end{aligned}
$$


'You yourself cooked.'

| ki-ò-jo-ise | ko j̀ kw ¢́k |
| :---: | :---: |
| DPST-1PL-cook-ANTIP | as 2PL.PL.ACC |
| You as yourselves cook |  |

### 3.1.2 Bound personal pronouns

Bound personal pronouns are subcategorized into bound subject pronouns and bound object pronouns.

### 3.1.2.1 Bound subject pronouns

Bound subject pronouns are prefixes marked for person, number, and categorized by ATR, as shown in (5). Morphophonologically, the 1SG, 2SG and 2PL occur in a V syllable structure, while the 1 PL and 3 P occur in a CV syllable structure. The +ATR allomorph of 2PL is realized as a long vowel to distinguish it from +ATR allomorph of 1 SG . The marked third person subject pronoun does not distinguish for number and has a zero allomorph ( $\varnothing$ ).

98 The pronominal system of Okiek
(5) Bound subject pronouns
a) -ATR bound subject pronouns

NUMBER

| PERSON | SG | PL |
| :--- | :--- | :--- |
| $1^{S T}$ | $a-$ | $k \varepsilon-$ |
| $2^{\text {ND }}$ | $I^{-}$ | $0-$ |
| $3^{\text {RD }}$ |  | $\varnothing / k o^{-}$ |

b) + ATR bound subject pronouns

NUMBER

| PERSON | SG | PL |
| :--- | :--- | :--- |
| $1^{S T}$ | $o-$ | ke- |
| $2^{\text {ND }}$ | $i-$ |  |
| $3^{\text {RD }}$ |  | Ø/ ko- |

Bound subject pronouns are obligatory prefixes in the morphological structure of verbal, nominal and adjectival predicates. The vowel quality of the subject pronouns is governed by the quality of vowels in the predicate stem they are prefixed to. For example, in the verbal predicates in (6), -ATR subject pronouns for 1 SG/PL and 2SG/PL harmonize with the -ATR vowel/v/ in the root verb put 'fall' in 6a (i-ii). In contrast, the +ATR allomorph of the 1SG/PL and 2SG/PL bound subject pronoun are prefixed on the verb put 'fall' given that the inclusion of the $+A T R$ dominant progressive aspect marker -e/-ej in 6b (i-ii) triggers ATR vowel harmony in the verb stem, including the change from the -ATR put 'fall' in the verb root to +ATR put 'fall' in the verb stem.
(6) The distribution of bound subject pronouns by ATR
a) -ATR allomorphs of bound subject pronouns

SG
(i) kI-à-put $\varepsilon n$ ŋwón

DPST-1SG-fall in down.ACC
'I fell down.

PL
kI-kè-put $\quad$ हn クwón
DPST-1PL-fall in down.ACC
'We fell down.'
（ii）
kI－ì－put $\quad$ हn クwón
DPST－2SG－fall in down．ACC
＇You fell down．＇
kI－う̀－put $\varepsilon n$ ŋwón
DPST－2PL－fall in down．ACC
＇You fell down．＇
（iii）
kI－put $\varepsilon$ пn クwón
DPST－fall in down．ACC
kI－put $\varepsilon n$ ŋwón
DPST－fall in down．ACC ＇（S）he fell down．＇
＇They fell down．＇
b）＋ATR allomorphs of bound subject pronouns

## SG

（i）
ki－ó－put－e $\quad$ हn クwón
DPST－1SG－fall－PROG in down．ACC ＇I was falling down．’
（ii）ki－í－put－e \＆n ŋwón DPST－1SG－fall－PROG in down．ACC ＇You were falling down．＇
（iii）ki－put－ej \＆n ŋwón DPST－1SG－fall－PROG in down．ACC ＇（S）he was falling down．＇

## PL

ki－ké－put－e عn ワwón
DPST－1SG－fall－PROG in down．ACC ＇We wer falling down．＇
ki－ó：－put－e $\quad$ हn ŋwón DPST－1SG－fall－PROG in down．ACC ＇You were falling down．＇
ki－put－ej $\quad$ हn ŋwón
DPST－fall－PROG $\quad$ in down．ACC
＇They were falling down．＇

Phonologically，bound subject pronouns are regularly marked by a low tone in past tense constructions as shown for 1SG／PL and 2SG／PL in 6 （a）and a high tone in the progressive aspect constructions as shown for 1SG／PL and 2SG／PL bound subject pronouns in 6 （b）．The distribution of tone patterns in bound subject pronouns by tense and aspect is attested in other Kalenjin languages such as Nandi（Creider $\mathbb{G}$ Creider 1989）and the Okiek of Mariashoni（Micheli 2018）．

The distribution of the third person bound subject pronoun markers $\varnothing$ ，and ko－ ／ko－is governed by the tense and aspect features of the predicate they are attached to，and by the clause types they occur in，as illustrated in（7）．Thus，the zero－allomorph represented by $\emptyset$ is used in the simple past tense 7 （a（i））；simple progressive aspect 7 （a（ii））；in the past progressive constructions 7 （a（iii））；and in the present perfect progressive aspect 7 （a（iv））．For its part，the third person
prefix ko- is used in the future tense 7 (b (i)), perfect aspect 7 (b (ii)), in the habitual progressive aspect constructions 7 (b (iii)) and in complement clauses 7 (b (iv)). On the one hand, the distribution yields clauses whose noun phrase constituent (tiepto ' a /the girl') in the subject function lacks a marked 3 rd person bound subject pronoun to correspond to in the verb stem and, on the other hand, clauses that contain an independent noun phrase (tiepto 'a/the girl') in the subject function and a corresponding marked $3^{\text {rd }}$ person bound subject pronoun on the verb stem.
(7) The distribution of the third person bound subject pronoun markers $\varnothing$ and ko-/ko-
a) $\varnothing$
(i) Inka-ker tíép-tò áràwé-t

PPST-look girl-SG.NOM moon-SG.ACC
'The girl looked at the moon.'
(ii) ker-ej tíép-tò áràwé-t
look-PROG girl-SG.NOM moon-SG.ACC
'The girl is looking at the moon.'
(iii) inko-ker-ej tíép-tò áràwé-t

PPST-look-PROG girl-SG.NOM moon-SG.ACC
'The girl was looking at the moon.'
(iv)
to-ker-ej tíép-tò áràwé-t PPERF-look-PROG girl-SG.NOM moon-SG.ACC 'The girl is still looking at the moon.'
b) ko-/ko-
(i) tos kó-ker-ej tíép-tò áràwé-t PFUT 3-look-PROG girl-SG.NOM moon-SG.ACC 'The girl will be looking at the moon.'
(ii) kI-ka-kj̀-ker tíép-tò áràwé-t DPST-PERF-3-look girl-SG.NOM moon-SG.ACC 'The girl had looked at the moon.'
(iii) cam kó-ker-ej tíép-tò áràw $\dot{\text { - }}$ - $t$

HAB 3-look-PROG girl-SG.NOM moon-SG.ACC
'The girl usually looks at the moon.'
(iv) $M C$

CompC
ki-mwo-ci kó-nèt-í-k wér-ò
[kò-le kI-ka-kj̀-ker tiép-tò áràw
DPST-tell-DAT NMLZ-teach-PS-PL.ACC boy-PS.NOM 3-tell PPST-PERF-3-look girl-SG.NOM moon-SG.ACC
'The boy told the teachers that the girl had looked at the moon.'

Diachronically, based on the examples provided from (5) to (7), bound subject pronouns fit in well with stage II pronominal markers in African languages. Creissels (2005: 45) explains that

Stage II pronominal markers are obligatory, even if a noun phrase or a free pronoun referring to the same entity is present in subject or object function, whereas the corresponding noun phrases or free pronouns are not obligatory constituents of the clause. In such situations, a given participant is obligatorily referred to by a pronominal marker; the corresponding noun phrase can be viewed as providing additional information helping to identify the referent in case the indications given by the pronominal marker and by the context are not sufficient, and the corresponding free pronoun occurs only to express emphasis.

Additionally, 1SG and 2SG/PL bound subject pronouns are analysable as the initial vowels resulting from the cliticization of their corresponding free personal pronouns (3.1.1).

### 3.1.2.2 Bound object pronouns

Bound object pronouns are phonotactically realized as suffixes with a VC syllable structure subcategorized for number, person, and vowel quality as shown in (8). Number is marked by the alveolar nasal /n/ in the suffix final position in the morphophonological structure of $1^{\text {st }} \mathrm{SG}$ and $2^{\text {nd }} \mathrm{SG}$, and by the voiceless palatal /c/ and the voiceless velar /k/ in $1^{\text {st }} \mathrm{PL}$ and $2^{\text {nd }}$ PL forms respectively. Person is coded by the initial vowel in the suffix initial position, and vowel quality yields -ATR and +ATR allomorphs. 1PL and 2PL object pronouns are diachronically analysable as the initial VC sequence of phonemes in their corresponding free pronoun forms
(3.1.1). The third person object pronoun is morphologically unmarked as indicated by the zero morpheme $\emptyset$.
(8) The inventory of bound object pronouns
a) -ATR allomorphs

| Person | SG |  | PL |
| :--- | :--- | :--- | :--- |
| $1^{\text {st }}$ | $-a n$ |  | $-\varepsilon c$ |
| $2^{\text {nd }}$ | - In |  | $-っ k$ |
| $3^{\text {rd }}$ |  | $\varnothing$ |  |

b) +ATR allomorphs

| Person | SG |  | PL |
| :--- | :--- | :--- | :--- |
| $1^{\text {st }}$ | - on |  | $-e c$ |
| $2^{\text {nd }}$ | $-i n$ |  | $-o k$ |
| $3^{\text {rd }}$ |  | $\varnothing$ |  |

Unlike bound subject pronouns which are prefixed onto nominal, verbal, and adjectival predicates, first and second person bound object pronouns are exclusively suffixed onto verbal predicates, as illustrated by the suffixation of their -ATR allomorphs in (9a) and their +ATR allomorphs in (9b) using the verb luc 'punch'. Bound object pronouns do not co-occur with progressive aspect markers in the morphological structure of the verb in the Nessuit variety of Okiek (Ochieng forthcoming). For instance, in example ( 9 b ), the presence of $1^{\text {st }} \mathrm{SG} / \mathrm{PL}$ and $2^{\text {nd }}$ SG/PL bound object pronouns neutralize the morphological marking of the progressive aspect markers in 9 (b ( $\mathrm{i}-\mathrm{ii}$ )) while the absence of a $3^{\text {rd }}$ SG/PL marker does not block the marking of the $3^{\text {rd }}$ SG/PL progressive aspect marker in 9 (b (iii)). The remnants of the unmarked progressive aspect marker are capable of triggering vowel quality in the verb stem from the -ATR verb luc 'punch' to +ATR verb stem luc 'punch'.
(9) The distribution of the allomorphs of bound object pronouns by ATR
a) -ATR allomorphs

SG
(i)

PL

| ka-kj̀-luc- $\varepsilon c$ | wér-ò |
| :--- | :--- |
| PERF-3-punch-1PL | boy-PS.NOM |

'The boy has punched me.' 'The boy has punched us.'
(ii)

| ka-kj̀-luc-In | wér-ò |
| :--- | :--- |
| PERF-3-punch-2SG | boy-PS.NOM |
| 'The boy has punched you.' |  |

(iii) ka-kj̀-luc wér-ò iné ka-kj̀-luc wér-ò icék

PERF-3-punch boy-PS.NOM
3SG.ACC
'The boy has punched her/him/it.'
ka-kj̀-luc-ok wér-ò PERF-3-punch-2PL boy-PS.NOM 'The boy has punched you.'

PERF-3-punch boy-PS.NOM 3PL.ACC 'The boy has punched them.'
b) -ATR allomorphs of bound object pronouns

SG
(i) luc-on wér-ò punch-1SG boy-PS.NOM
'The boy is punching me.'
(ii) luc-in wér-ò punch-2SG boy-PS.NOM
'The boy is punching you.'
(iii) luc-ej wér-ò iné luc-ej wér-ò icék punch-PROG boy-PS.NOM 3SG.ACC punch-PROG boy-PS.NOM 3PL.ACC 'The boy is punching her/him/it.' 'The boy is punching them.'

## PL

luc-ec wér-ò
punch-1PL boy-PS.NOM
'The boy is punching us.'
luc-ok wér-ò
punch-2PL boy-PS.NOM
'The boy is punching you.'

Free third person personal pronouns InE '(s)he/her/him' and IcEk 'they/them' are used to distinguish for number for the third person singular and plural objects respectively as shown in 9 (a (iii)) and 9 (b(iii)). It should be added, though, that the absence of a third person bound object pronoun is a dialectal variation between the Okiek of Nessuit and that of Mariashoni given that Micheli (2018: 36) explains that in the Okiek of Mariashoni, the 3SG is marked by the suffix -èish while 3 PL is unmarked.

### 3.2 Demonstrative pronouns

Demonstrative pronouns are subcategorized into bound demonstrative pronouns and free demonstrative pronouns.

### 3.2.1 Bound demonstrative pronouns

Bound demonstrative pronouns are realized as suffixes that indicate the location of a referent in relation to a deictic centre identical to the position of the speaker and the tense/aspect configurations within which the referent is in use yielding two categories of demonstrative suffixes, namely the progressive aspect demonstrative suffixes and the past tense demonstrative suffix -ka:n. When nouns are used in isolation without the specification for tense/aspect configuration, as it is in the noun phrase, they are marked by the progressive aspect demonstrative suffixes.

### 3.2.1.1 Progressive aspect demonstrative suffixes

The progressive aspect demonstrative suffixes (DEM.PROG) consists of six monosyllabic suffixes with a (C) $\vee(C)$ syllable structure categorized for degree of spatial contrast, number, and vowel quality, as shown in (10). They represent three degrees of spatial contrast: the proximal (PROX) demonstrative suffixes, which indicate that the referent is near the deictic centre; the medial (MED) demonstrative suffixes, which indicate that the referent is a distance away; and the distal (DIS) demonstrative suffixes, which indicate that the referent is far away from the deictic centre. Examples of their actual usage are given in (11).
(10) The progressive aspect demonstrative suffixes
a) - ATR progressive aspect demonstrative suffixes

|  | SG | PL |
| :--- | :--- | :--- |
| Proximal | $-n I$ | $-c v$ |
| Medial | -nan | -can |
| Distal | -nIn | -cun |

b) + ATR progressive aspect demonstrative suffixes

|  | SG | PL |
| :--- | :--- | :--- |
| Proximal | $-n i$ | $-c u$ |
| Medial | - non | - con |
| Distal | $-n i n$ | $-c u n$ |

Number and spatial reference points are phonotactically marked: the initial /n/ and /c/ encode singular and plural forms, respectively. Singular proximal and distal reference points are marked by the high front vowel /I/, plural proximal and distal reference points by the high back vowel/v/, and singular and plural medial reference points are coded by the low vowel /a/. The alveolar nasal /n/ occurs in the suffix final position of both singular and plural medial and distal demonstrative forms. The initial alveolar nasal /n/ in singular demonstrative suffixes is regularly retained when the demonstrative suffix is attached to a nominal root with a zero coda 11 (a-b) but deleted when the suffix is attached to a nominal root with a coda 11 (c-e).

106 The pronominal system of Okiek
(11) Nouns modified by demonstrative suffixes

|  | Noun | Proximal | Medial | Distal |
| :---: | :---: | :---: | :---: | :---: |
| a) | simu | simu-ni | simu-non | simu-nin |
|  | 'a phone' | phone- DEM.PROX.SG.PROG | phone- DEM.MED.SG.PROG | phone- DEM.DIS.SG.PROG |
|  |  | 'this phone' | 'that phone' | 'that phone far away' |
| b) | mama | mama-ni | mama-nan | mama-nin |
|  | 'an uncle' | uncle-DEM.PROX.SG.PROG | uncle-DEM.MED.SG.PROG | uncle-DEM.DIS.SG.PROG |
|  |  | 'this uncle' | 'that uncle' | 'that uncle far away' |
| c) | nok-to | nok-I | nok-on | nok-in |
|  | dog-SG | dog-DEM.PROX.SG.PROG | dog-DEM.MED.SG.PROG | dog-DEM.DIS.SG.PROG |
|  | 'a dog' | 'this dog' | 'that dog' | 'that dog far away' |
| d) | wak-ta | wak-I | wak-an | wak-In |

road-SG road-DEM.PROX.SG.PROG
road-PL-DEM.MED.SG.PROG road-DEM.DIS.SG.PROG
'that road'

| nok-i-con | クok-i-cun |
| :--- | :--- |
| dog-PS-DEM.MED.PL.PROG | dog-PS-DEM.DIS.PL.PROG |
| 'those dogs' | 'those dogs far away' |

tv-can
cow-DEM.MED.PL.PROG 'those cows'
to-cun
cow-DEM.DIS.PL.PROG
'those cows far away'

Morphophonologically, demonstrative suffixes are harmonizing morphemes in relation to ATR vowel harmony. For example, the +ATR vowels in the nouns used in 11 (a) and 11 (c) trigger change in vowel quality in the demonstrative suffixes while the -ATR demonstrative suffixes harmonize with the -ATR vowels in the nouns used in 11 (b) and 11 (d). Morphotactically, demonstrative suffixes trigger the deletion of secondary suffixes in the noun stem, as shown in 11 (c-f) - where the secondary suffixes -to, -ta, $-k$, and $-k a$ are deleted before the demonstrative suffixes are attached to the head noun.

Exceptionally, demonstrative suffixes have the effect of triggering nominal stem changes, as shown in (12). That is, singular demonstrative suffixes regularly trigger the change of the singular primary suffix -we to -wa in the nouns shown in 12 (a-b) while plural demonstrative suffixes regularly trigger the change of the plural primary suffix -o to -io in the noun shown in 12 (c).
(12) Change of primary suffixes triggered by demonstrative suffixes

| Noun | Proximal | Medial | Distal |
| :---: | :---: | :---: | :---: |
| lak-we-t | lak-wa-ni | lak-wa-nan | lak-wa-nin |
| child-PS-SG | child-PS- | child-PS- | child-PS- |
| 'child' | DEM.PROX.SG.PROG | DEM.MED.SG.PROG | DEM.DIS.SG.PROG |
|  | 'this child' | 'that child' | 'that child far way' |
| cor-we-t | cor-wa-ni | cor-wa-nan | cor-wa-nin |
| friend-PS-SG | friend-PS- | friend-PS- | friend-PS- |
| 'friend' | DEM.PROX.SG.PROG | DEM.MED.SG.PROG | DEM.DIS.SG.PROG |
|  | 'this child' | 'that friend' | 'that friend far way' |
| lok-o-k | lok-oi-cu | lok-oi-con | lok-oi-cun |
| child-PS-PL | child-PS- | child-PS- | child-PS- |
| 'children' | DEM.PROX.PL.PROG | DEM.MED.PL.PROG | DEM.DIS.PL.PROG |
|  | 'these children' | 'those children' | 'those children far a |

The noun tzta 'a cow' is another exceptional case in the use of demonstrative suffixes given that the noun triggers the change of the alveolar nasal $/ \mathrm{n} /$ in the singular progressive demonstrative suffixes to the palatal nasal to / $\mathrm{n} /$ hence, the proximal demonstrative $-\Omega I$, the medial demonstrative suffix -nan, and the distal
demonstrative suffix -תIn in the modification of the noun teta 'a cow', as shown in (13).
(13) The progressive aspect demonstrative suffixes used with the noun tzta 'a cow'

| SG noun | Proximal | Medial | Distal |
| :--- | :--- | :--- | :--- |
| $t \varepsilon-t a$ | $t \varepsilon-n I$ | $t \varepsilon$-nan | $t \varepsilon$-nin |
| cow-SG | cow-DEM.PROX.SG.PROG | cow-DEM.MED.SG.PROG | cow-DEM.DIS.SG.PROG |
| 'a cow' | 'this cow' | 'that cow' | 'that cow far way' |

While the demonstrative suffixes are comparable in form and function to those found in other Kalenjin languages such as Nandi (Creider and Creider 1989), only the singular proximal suffix $-n i$ is identical to the singular proximal demonstrative suffix attested in the Asimjeeg Datooga spoken in Tanzania (Griscom 2019) thus highlighting a partial morphological similarity in relation to the representation of spatial information among the Southern Nilotic languages.

### 3.2.1.2 Past tense demonstrative suffix

The past tense demonstrative suffix -ka:n indicates location that is in a medial reference point from the deictic centre in addition to indicating that the referent is being referred to at a point in time away from the deictic centre, namely the past. It is only used in past tense constructions as illustrated in (14). Unlike the progressive aspect demonstrative suffixes, -ka:n is morphophonologically invariable. That is, it is neutral to ATR vowel harmony as shown in (14 (b), where the +ATR primary suffix -i in the noun stem triggers change in vowel quality from the underlying -ATR singular root $\eta \varepsilon t a t ~ ' m a n ' ~ t o ~ t h e ~+A T R ~ p l u r a l ~ n o u n ~ s t e m ~$ jetotik 'men' but it fails to trigger vowel change in the demonstrative suffix ka:n.
(14) The modification of a noun by the past tense demonstrative suffix

Tense/Aspect

| a) | Progressive | om-ej | pàn-غ́-k | ŋétót-ícon |
| :---: | :---: | :---: | :---: | :---: |
|  | Aspect | eat-PROG | meat-PS-PL.ACC | man-PS- |
|  |  | DEM.PROX. | NOM |  |

110 The pronominal system of Okiek
'Those men are eating meat.'
b) Past tense kI -am pàn- $\dot{\varepsilon}$-k nétót-í-kà:n

DPST-eat meat-PS-PL.ACC man-PS-DEM.PST.NOM
'Those men ate meat.'

### 3.2.2 Free demonstrative pronouns

Free demonstrative pronouns consist of the seven grammatical items presented in (15). They are identical in categorization by tense and aspect with the demonstrative suffixes described in section 3.2.1.
(15) Free demonstrative pronouns

|  | Progressive aspect | Past tense |  |
| :--- | :--- | :--- | :--- |
| Spatial Reference | Singular | Plural |  |
| Proximal | $n I$ | cI | ka:n |
| Medial | nan | con |  |
| Distal | nin | cun |  |

Free demonstrative pronouns serve as heads of a simple noun phrase. For example, the progressive singular proximal demonstrative pronoun ní in (16) exhibits grammatical features of the noun phrase: it is the head of the noun phrase in the copula subject position in the copula clause and it is marked for the accusative case by tone. Noun phrases in preverbal positions are marked for the accusative case while those in post verbal positions are marked for the nominative case by tone (Ochieng, forthcoming).
(16) The free demonstrative pronouns in the NP copula subject position in a copula clause

| ní | ko | Øòk-tó |
| :--- | :--- | :--- |
| DEM.PROX.SG.PROG.ACC | COP | dog-SG.ACC |

'This is a dog.'

### 3.3 Possessive pronouns

There are free and bound possessive pronouns in Okiek. Free forms are similar in form with bound possessive pronouns; they only differ syntactically, in the following respects: (i) unlike their bound counterparts, free possessive pronouns must co-occur with either the singular relative pronoun (SG.REL) $n \varepsilon$ or the plural relative pronoun (PL.REL) $c \varepsilon$; (ii) they may serve as the head of a noun phrase without a noun- an NP whose head noun can be omitted and its modifiers can still occur in subject or object positions in a clause (Dryer 2007:193-4), as illustrated in section 3.3.2.

### 3.3.1 Bound possessive pronouns

There are eight bound possessive pronouns in Okiek which carry three kinds of information: the number of possessed item, the number of the possessor, and the person of the possessor as shown in (17). The possessor is indicated by the possessive roots 0 ( $1 \mathrm{SG} / \mathrm{PL}$ ), v ( $2 \mathrm{SG} / \mathrm{PL}$ ), I (3SG) and vwa (3PL); the circumfixes for singular possessed items are $/ \mathrm{n} /-$ and $-/ \mathrm{n} /$ (with the allomorphs $/ \mathrm{\eta} /-$ and $-/ \mathrm{n} /$ for 2SG/PL possessors); the circumfixes for plural possessed items are /c/- and /k/- with the allomorph circumfixes /k/- and /k/- for 2SG/PL; number of possessor is morphologically distinguished for the $3^{\text {rd }}$ person and neutralized for $1^{\text {st }}$ and $2^{\text {nd }}$ person possessors. The inventory of possessive suffixes is comparable to that of Kalenjin languages described in Rottland (1982: 111).
(17) Inventory of possessive suffixes

Grammatical number of the possessed item

| Number of the possessor | SG | PL |
| :---: | :---: | :---: |
| 1SG/PL | -лэп | -cok |
| 2SG/PL | П | -kuk |
| 3SG | -nin | -cIk |
| 3PL | -nuwan | -cuwak |

Possessive suffixes are neutral to ATR vowel harmony: they can neither trigger ATR vowel harmony nor be subjected to it, as shown in the examples in 18 (a-c), where + ATR plural noun stems co-occur with -ATR possessive suffixes. Morphotactically, possessive suffixes regularly trigger the deletion of the singular

112 The pronominal system of Okiek
secondary suffix $-t$ in nouns, as in the nouns ketrt 'a tree' and konetintet 'a teacher', as shown in 18 (a-b), but not the singular secondary suffixes -to and -ta, as shown in 18 (c-d).
(18) Examples of nouns modified by possessive suffixes Number of the possessed item

SG
a) keti-ŋv
tree-2.POSS.SG 'your tree'
b) ko-net-int-e-nin

NMLZ-teach-PS-3SG.POSS.SG
'his/her teacher'
c) wak-ta-nuwan
road-SG-3PL.POSS.SG
'their road'
d) tiep-to-лuwan
girl-SG-3PL.POSS.SG
'their girl'

PL
ksti-k-kuk
tree-PL-2.POSS.PL
'your trees'
ko-net-i-k-cIk
NMLZ-teach-PS-PL-3SG.POSS.PL
'his/her teachers'
wok-we-k-cuwak
road-PS-PL-3PL.POSS.PL
'their roads'
tiep-i-k-cuwak
girl-PS-PL-3PL.POSS.PL
'their girls'

### 3.3.2 Free possessive pronouns

Free possessive pronouns are phonotactically and semantically similar to the possessive suffixes described in section 3.3.1. Consider (19):
(19) Free possessive pronouns

Number of the possessed item

| Number of possessor | SG | PL |
| :--- | :--- | :--- |
| 1SG/PL | non | cok |
| 2SG/PL | nvn | kuk |
| 3SG | nin | cIk |
| 3PL | nuwan | cuwak |

When used as modifiers to a noun, free possessive pronouns are morphosyntactically linked to the head noun by the relative pronoun $n \varepsilon$ (SG) or $c \varepsilon$ (PL), as shown in (20). The relative pronoun is juxtaposed between the noun, and it must agree in number with the head noun. The possessive constructions introduced by a relative pronoun can serve as a noun phrase without a noun, as also shown in (20).
(20) Uses of free possessive pronouns

NP containing a head noun Noun phrase without a noun
a) salavt-a $n \varepsilon \quad$ лэn
voice-PS SG.REL 1SG.POSS.SG
'voice which is mine '
$n \varepsilon \quad$ лכn
SG.REL 1SG.POSS.SG
'which is mine '
b) teput-i-k $c \varepsilon$ u:su:s-en en tokol $c \varepsilon \quad u: s u: s-e n$ en tokol question-PS-PL PL.REL easy-PL in all PL.REL easy-PL in all 'the easiest questions' 'which are the easiest'

### 3.4 Interrogative pronouns

Interrogative pronouns in Okiek exist as monosyllabic and dissyllabic independent grammatical items, as shown in (21).
(21) Interrogative pronouns

SYLLABLE TYPE FORMS GLOSS
MONOSYLLABIC:

| no | 'who,' 'whom,' 'whose' |
| :--- | :--- |
| ne | 'what' |
| tian | 'how many/much' |

DISYLLABIC:

| omu | 'why' |
| :--- | :---: |
| ano | 'where' |
| aicon | 'which' |
| oijv | 'when' |

Interrogative pronouns can serve as modifiers in a noun phrase. For example, tian 'how many/ how much' only modifies plural nouns. It is introduced by the plural relative pronoun $c \varepsilon$, as shown in (22 (a). The head noun precedes the relative pronoun, and the interrogative is in phrase final position, thus: $\mathrm{NP}=\mathrm{N}$ tian. Interrogative pronouns can also serve as the subject of a clause, as in (23 b); and as indicators of content questions, as in (22 c).
(22) Uses of interrogative pronouns
a) pololon-isie-k $c \varepsilon \quad$ tian
bag-PS-PL PL.REL how
'how many bags'
b) i-kur-e गó

2SG-call-PROG who.ACC
'Who are you calling?'
$\begin{array}{lccc}\text { c) } \begin{array}{lll}\text { クó } & n \varepsilon & \text { ko-kur }\end{array} & \text { ísìkàr-í-k } \\ & \text { who.ACC } & \text { SG.REL } & \text { MPST-call } \\ & \text { police-PS-PL.ACC } \\ & \text { 'Who called the police?' } & \end{array}$

The interrogative verb ite 'do how' is used to express the equivalent reading of the English interrogative pronoun 'how'. The interrogative verb can be modified by the auxiliary verb auxiliary imuc 'can / be able' in the formation of an interrogative verb phrases that serves as a subject of a content question, as shown in (23).
(23) The interrogative verb ite 'do how'
a)
nع
ílo-e
pólòlón
2SG- do how
SG.REL
2SG-carry-PROG bag.ACC
'How do you carry the bag?'
b) í-muc-e í-ite
$n \varepsilon$ ílo-e pólòlón
2SG-can-PROG 2SG-do how
SG.REL 2SG-carry-PROG
bag.ACC
'How can you carry the bag?'

### 3.5 Relative pronouns

They include the singular relative pronoun (SG.REL) $n \varepsilon$ and the plural relative pronoun (PL.REL) $c \varepsilon$. The pronouns must agree in number with the head noun modified, as shown in (24).
(24) Relative pronouns used in nominal modification

| a) | SG head noun | kot- $\varepsilon$-t | nє | ol-ej | r-ínt-è-t |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | arrow-PS-S | SG | buy-P | PROG hunt |
|  |  | 'The arrow which the hunter is buying' |  |  |  |
| b) | PL head noun | teput-i-k | c $\varepsilon$ | u:su:s-en | عn tokol |
|  |  | question-PS-PL PL.REL easy-PL in all |  |  |  |
|  |  | 'the questions which are easiest' |  |  |  |

### 3.6 Indefinite pronouns

Although there are no morphemes identifiable as indefinite pronouns, certain nominal and verbal phrases are used for a function that is expressed by indefinite pronouns in English. The nouns lose part of their phonetic segments, either the primary suffix, the secondary suffix or both as contrasted to the full form of the noun provided in (25(a).
(25) Strategies of expressing the functions of indefinite pronouns
a) Nouns in their full form

| (i) | (ii) | (iii) | (iv) |
| :--- | :--- | :--- | :--- |
| ci-to | $k \varepsilon j-I-t$ | $I j-\varepsilon-t$ | $\jmath j-\varepsilon-t$ |
| PERSON-SG | thing-PS-SG | place-PS-SG | where-PS-SG |
| 'a person' | 'a thing' | 'a place' | 'a where' |

b) Morphologically-eroded nouns expressing the function of indefinite pronouns

NOUN
(i) $\quad c i$
person
'someone'

EXPRESSING INDEFINITE PRONOUNS IN A CLAUSE ki-kur-on ci DPST-call-1SG.OBJ person.NOM 'Somebody called me.'
(ii) $k \varepsilon j$
thing
'something
(iii) $\quad j$
where
'somewhere'
kI-kè-suwa kéy
DPST-call-1SG.OBJ thing.ACC
'We saw something.'
kI-pa ój lók-ò-k
DPST-go where.ACC child-PS-PL.NOM
'The children went somewhere.'
c) Negated noun and negated verbal phrases

NEGATED NOUN EXPRESSING INDEFINITE PRONOUNS IN A CLAUSE
(i) $\mathrm{mo}-\mathrm{ci}$

NEG-person
'no one' mo-mi ci
ci
ne suwo-n NEG-be person.NOM SG.REL see-1SG.OBJ 'No one saw me.'
(ii) mo-kej

NEG-thing
'nothing'
mo-mi kèj ne om-on
NEG-be thing.NOM SG.REL. hurt-1SG.OBJ
'Nothing hurts me.'
(iii) $\quad I j-\varepsilon$
place-PS
'a place'
kaikai mo-mi ij-غ̀
better NEG-be place-PS-NOM
'Nowhere is better.'
d) Nominal phrases

| (i) | ci-to <br> person-SG | ake tokol some all |
| :---: | :---: | :---: |
|  | 'ANYONE' |  |
| (ii) | $k \varepsilon j-I-t$ <br> thing-PS-SG <br> 'anything’ | ake tokol some all |
| (iii) | ${ }^{1 j}-\varepsilon-t$ <br> place-PS-SG <br> 'a place' | ake tokol |

## 4. SUMMARY AND CONCLUSION

This paper has described the morphological, morphophonological, morphosyntactic and semantic properties of the pronominal system of the Nessuit variety of Okiek. Reference was made to typological similarities and differences between Okiek and other Southern Nilotic languages, e.g. the Okiek of Mariashoni, Asimjeeg Datooga, Nandi, Cherang'any, and Akie. The findings show that: (1) there are five sets of pronominal morphemes (personal, demonstrative, possessive, interrogative, and relative pronouns); (2) personal, demonstrative, and possessive pronouns can occur as independent or bound grammatical items; (3) interrogative pronouns occur as independent grammatical items; (4) the pronominal system is associated with the grammatical categories of number, person, case, tense and aspect; (7) all bound pronominal elements are suffixes except for bound subject pronouns which are prefixes; (8) bound pronominal elements are subjected to vowel harmony with the exception of bound possessive pronouns; (9) the distribution of bound demonstrative suffixes is governed by tense and aspect categories; (10) independent possessive pronouns are morphosyntactically linked to the noun they modify by a relative pronoun; and (11) certain verbal and nominal phrases are used for a function that is expressed by indefinite pronouns in English. Detailed description of the pronominal system of the different dialects of Okiek is needed in order to highlight the variations between them.

## REFERENCES

Bible Translation and Literacy. 2021. Luka. Nairobi: Bible Translation and Literacy East Africa.

Blackburn, Roderic. (1971). Honey in Okiek Personality ,Culture and Society. PhD Dissertation. Michigan State University.
Creider, Jane Tapsubei and Chet Creider. 1989. Grammar of Nandi. Hamburg: Buske.

Creissels, Denis. (2005). A typology of subject marker and object marker systems in African languages. In Voeltz, F.K.E. (ed.), Studies in African Linguistic Typology, 43-70. Amsterdam: John Benjamins.

Dixon, M. W. Robert. 2010. Basic Linguistic Theory. Oxford: Oxford University Press.

Dryer, Matthew. 2007. "Noun phrase structure". In Timothy Shopen (ed.), Language Typology and Syntactic Description, 155-205. Cambridge: Cambridge University Press.
Dryer, Matthew. 2001. "What is basic linguistic theory?" www.acsu.buffalo.edu
Greenberg, Joseph H. 1963. The Languages of Africa. The Hague: Mouton.
Griscom, Richard. 2019. Topics in Asimjeeg Datooga Verbal Morphosyntax. PhD Dissertation: University of Oregon.

Micheli, Ilaria. 2018. Grammatical Sketch and Short Vocabulary of the Ogiek Language of Mariashoni. EUT Edizioni Università di Trieste.
Mietzner, Angelika. 2016. Cherang'any: A Kalenjin Language of Kenya. Cologne: Rüdiger Köppe Verlag.
Muchemi, Julius, Albrecht Ehrensperger, and Boniface Kiteme. 2011. Ogiek Peoples Ancestral Territories Atlas. Nairobi: Ermis Africa and Centre for Development
Ochieng, Robert Joseph. (forthcoming). A Descriptive Study of Okiek Grammar. PhD Dissertation. Universität Hamburg.
Okiek Peoples’ Development Program. 2020. Tongoōchiisyegoop Ogiek. www.ogiekpeople.org/reports

Okiek Peoples’ Development Program. 2021. Ogiek Community Bio-Cultural Protocol, $3^{\text {rd }}$ edition. www.ogiekpeople.org/reports.
Republic of Kenya. 2019. Kenya 2019 Population and Housing Census Highlights. Nairobi: Kenya National Bureau of Statistics.

Rottland, Franz. 1982. Die südnilotischen Sprachen: Beschreibung, Vergleich und Rekonstruktion. Berlin: Reimer.

Rottland, Franz. 1983. Southern Nilotic (with an Outline of Datooga). In Lionel Bender (ed.), Nilo-Saharan Language Studies, 208-238. East Lansing: African Studies Center, Michigan State University.

Author's email address: robertjosochi@uonbi.ac.ke

