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A Morphological Typology of Address Terms in the West-Rift Southern Cushitic Languages

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Abstract

This study analysed the morphological structures of address terms in the West-Rift Southern Cushitic branch. The study employed a qualitative research approach, and data were collected through

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elicitation interviews and a documentary review. Interviews were conducted with native speakers of the West-Rift languages to obtain address terms for detailed morphological analysis, while additional terms were collected from documents containing address terms in the West-Rift languages. These qualitative data were analysed using a thematic method. The findings have revealed the grammatical gender and number markers in nouns or pronouns used as address terms. The results also show that three major processes are involved in the formation of address terms: affixation, compounding, and derivation. Some address terms are formed through affixation, in which suffixes are attached to roots or stems to create new address terms. These suffixes primarily mark demonstrative, possessive, and number features. Other address terms are formed through compounding, in which two morphemes combine to form compound address terms. In addition, some address terms are derived from verbs and converted into nouns by adding nominalising suffixes to verbal bases.

Keywords: address term, affixation, compounding, derivation, morphological process

1. Introduction

This study analysed the morphology of address terms in the West-Rift Southern Cushitic languages. These languages belong to the Cushitic language family within the Afro-Asiatic phylum (Kießling 2000; Kießling and Mous 2003; Mous, Qorro, and Kießling 2002). Cushitic languages are spoken in the north-eastern and eastern parts of Africa (Heine and Nurse 2000; Tosco 2000). Scholars generally classify Cushitic languages into four branches: Northern, Central, Eastern, and Southern Cushitic (Greenberg 1966). The West-Rift languages belong to the Southern Cushitic branch and include Iraqw, Gorwaa, Alagwa, and Burunge (Alphonse 2023). This study focused

on the West-Rift languages to analyse the morphology of address terms. The researchers selected these languages because little information was available on address terms and because their speakers were more accessible than speakers of other Cushitic languages spoken in the Horn of Africa, where data collection would have required a larger budget and additional logistical arrangements.

Address terms in the West-Rift languages have received little systematic investigation. To address this gap, the researchers decided to analyse the information embedded in the morphological structures of address terms. Address terms are linguistic resources that speakers use to address one another in both spoken and written communication (Braun 1988; Keshavarz 2001). Speakers use address terms to secure listeners' attention and manage social interaction. They also use address terms to express respect, indicate familiarity, and convey intimacy.

Given their significance in social interactions, several studies have examined the morphology of address terms in different languages, focusing on the gender of nouns used as address terms, number marking, and the processes involved in their formation. Gender marking morphemes such as *-i* and *-ni* were attested in Nepali kinship terms (Sinha, Sarma, and Purkayastha 2012). These suffixes are added to kinship bases to mark feminine gender in Nepali. For example, the term *devar* "brother-in-law" alters to *devarni* "sister-in-law" by adding the suffix *-ni*, which marks feminine gender. The term *kaka* "paternal uncle" shifts to *kaki* "aunt" through vowel substitution. Number as a morphological aspect is also expressed through address terms. Some morphemes in nouns used as address terms mark number in various languages. Suffixes such as *-ra* and *-der* in Kurmali kinship terms mark plurality. For instance, the term *bōhin* "younger sister" changes to *bōhinra* or *bōhinder* "younger sisters" through the addition of number-marking suffixes *-ra* and *-der* to the kinship base to show

plural forms. These studies have shown that the morphological elements added to some kinship bases change the grammatical gender of nouns, while other suffixes mark number in kinship terms.

Address terms also exhibit different morphological processes. Processes such as affixation, compounding, derivation, and reduplication show how speakers form or modify address terms to express distinctions of number, gender, kinship, and hierarchy. Affixation was observed in the Nepali kinship terms, for example, in the word *kya'ahchaa* “nephew,” which combines *kya'ah* “son” and the suffix *chaa* “junior,” and in *natini* “granddaughter,” derived from *nati* through the addition of the suffix *-ni* (Sinha, Sarma, and Purkayastha 2012). Compounding occurs in Kurmali, as in *mamaʃʃur* “mother-in-law’s brother,” formed from *mama* “mother’s brother” and *ʃʃur* “a wife” (Majumdar 2018). Similarly, the Yoruba language contains address terms formed through compounding, such as *Adéiyè* “crown of salvation” and *Adéifé* “crown of love” (Ehineni 2022). In Akan, the name *Nyameasem* “God’s word” also results from compounding (Owu-Ewie, Obeng, and Hammond 2021). Reduplication forms address terms such as *Habuhabu* “cumbersome” and *Pholaphola* “search for something in darkness” in Sesotho (Mokhathi-mbhele 2020), *bubu* “break repeatedly” and *aboabo* “very rocky” in Akan, and *Wolowolo* “slowly” and *Mendamenda* “overclothing” in Safwa (Mwalyoyo 2024). Derivation produces new nouns from verbs, as in the Sukuma name *βucheyeki* “state of dance,” derived from the verb *cheyeki* “dance.” Likewise, the name *Jilangi* “one who teaches others” derives from the verb *langa* “teach,” while *Mihayo* “one born amid rumours” derives from the verb *haya* “speak” (Shigini and Mapunda 2023). Similar examples appear in Safwa, including the term *Zigona* “of sleeping” and *Mwadenya* “of breaking” (Mwalyoyo 2024).

Previous studies of a similar nature have focused on gender, number marking, and processes involved in the formation of address

terms in other languages, with little attention given to the West-Rift languages. This study, therefore, analyses the morphology of address terms, focusing on gender, number marking, and morphological processes involved in the construction of address terms in the West-Rift languages. It provides insight into the formation processes, gender, and number marking in address terms, thereby contributing to the literature on Cushitic and African languages. The study is also significant for preserving indigenous address terms in the West-Rift Southern Cushitic languages.

2. Literature Review

Since Brown and Gilman's (1960) study on pronouns of address in European languages, the topic of address terms has continued to attract the interest of scholars from different parts of the world. Among the linguistic aspects studied in address terms is morphology. Katamba (1993) views morphology as a study of the internal structure of words. Aronoff and Fudeman (2011) consider morphology not only as the internal structure of words but also as the way in which morphemes are combined to form meaningful lexical units. The internal structure of address terms has also motivated scholars to understand the information embedded in them. The studies have revealed information related to gender and number indicators, as well as processes involved in address term constructions (Boruah 2016; Jillo 2014; Majumdar 2018; Sinha, Sarma, and Purkayastha 2012). For instance, Boruah (2016) observes suffixes marking gender in kinship terms in the Baiga language. Some Baiga kinship address terms contain suffixes such as *-nia*, *-nin*, *-i*, *-en*, and *-m*, which mark feminine gender. The word *b^hneʒɪ* "brother's daughter" is formed by the addition of the gender suffix *-ɪ* to the word *b^haneʒ* "brother's son."

The term *natimin* “granddaughter” is constructed through attaching the gender suffix *-nin* to the word *nati* “grandson.” Similarly, the word *b^hətɪʒen* “husband’s brother’s daughter” contains the gender suffix *-en* attached to the word *b^hətɪʒ*, which means husband’s brother’s son.

Gender markers have also been reported in Kurmali kinship terms (Majumdar 2018). Kurmali kinship terms contain two major gender-marking morphemes: *-i* and *-ni*. For example, the kinship term *natini* “granddaughter” consists of the gender suffix *-ni* attached to the word *nati* “grandson.” Similarly, the word *bɛʃi* “daughter” contains the gender suffix *-i* attached to the term *bɛʃa* “son.” The same gender suffixes, *-i* and *-ni*, have also been reported in Nepali kinship terms (Sinha, Sarma, and Purkayastha 2012). For instance, the word *devarani* “sister-in-law” is formed by attaching the gender suffix *-ni* to *devara* “brother-in-law.” Likewise, the word *chori* “daughter” contains the gender suffix *-i* attached to *chora* “son.” These studies show that gender-marking morphemes indicate whether a term refers to a man or a woman. They differentiate address terms according to the sex of the referent, indicating that a term used to address a man cannot be used to address a woman, and vice versa.

Address terms also contain number-marking morphemes. In Kurmali, morphemes indicating number are appended to kinship terms (Majumdar 2018). For example, the word *bəhinra* or *bəhinder* “younger sisters” contains the plural suffixes *-ra* and *-der* attached to the term *bəhin* “younger sister.” These suffixes mark plurality in the Kurmali kinship terms. Similarly, in the Banna language, kinship terms contain plural-marking morphemes such as *-a* and *-na* (Jillo 2014). The term *ʔikana* “younger brothers or sisters” contains the plural suffix *-a* attached to the word *ʔikan* “younger brother or sister.” Likewise, the plural suffix *-na* attaches to the word *ʔimba* “parent” to form *ʔimbana* “parents.” These studies describe how number-marking morphemes in kinship terms distinguish plural forms from singular

forms. Singular forms are commonly used to address a person and often indicate familiarity, whereas plural forms are used for a group to express deference.

Morphologically, different processes are involved in the formation of address terms across languages, including affixation, compounding, and derivation, among others. Affixation involves adding morphemes to a stem or root to form a new word. These affixes may either change the word class or indicate a grammatical function. They include prefixes, infixes, circumfixes, and suffixes. Suffixation involving suffixes such as *-wa*, *-ba*, *-ma*, *-maa*, and *-aa* has been observed in Akan personal names (Owu-Ewie, Obeng, and Hammond 2021). When added to male names, these suffixes change the gender of the name. For example, the male name *Ofori* becomes the female name *Oforiwa* through the addition of the suffix *-wa*. Similarly, *Ampea* becomes *Ampeaba* through suffixation. These examples indicate that the suffixes added to male names often derive female names. Suffixation also contributes to the formation of kinship terms in Nepali. For example, the word *kya'ahchaa* “nephew” combines the root *kya'ah* “son” and the suffix *-chaa* “junior.” These studies show that affixation, particularly suffixation, is a productive morphological process in the formation of address terms, especially personal names.

Compounding is another word-formation process through which address terms are formed. For example, in Dangme, personal names are formed through compounding (Caesar 2019). The name *Nyakpeni* “wonderful thing” is composed of two elements: *Nyakpe* “wonderful” and *-ni* “thing,” which combine to form a compound name. Similarly, the name *Afeuni* “beautiful thing” is formed from the morphemes *Afeu* “beautiful” and *-ni* “thing.” These two morphemes are combined to form a compound name. The same process has been attested in Yoruba royal names. The name *Adéoyè* “crown of nobility” is formed from two morphemes: *adé* “crown” and *oyè* “title of nobility.” The

name *Adéolá* “crown of wealth or prosperity” consists of *adé* “crown” and *olá* “wealth or prosperity.” These studies revealed that compound names are formed by combining two morphemes to create a single lexical item (Pallangyo and Alphonse 2025).

Reduplication is one of the processes contributing to the formation of address terms in various languages. This process involves repeating either a whole word or part of a word to form a new word. Reduplication has been observed in the formation of Sesotho names (Mokhathi-Mbhele 2020). For example, the name *Pholaphola* “search for something in darkness” is formed by repeating the element *phola*, which carries the same meaning as the name as a whole. In the name *Hatahata* “take a light step more than once,” the element *hata* is reduplicated to form the name. The same process has been observed in Safwa names (Mwalyoyo 2024). The name *Mendamenda* “overclothing” is formed by repeating the element *menda* “cloth.” Similarly, the name *Wolowolo* “slowly” is formed through reduplication of the element *wolo* “laziness.” These studies show that reduplication contributes to the formation of names through the repetition of a lexical element.

There are address terms formed through derivation. Derivation involves attaching affixes to a root or stem, which can either change the meaning or the word class. Shigini and Mapunda (2023) report that some Kemunaukuma personal names are formed through derivation. The name *βucheyeki* “state of dance” is derived from the verb *cheyeka* “dance.” The name *Mihayo* “one born amid rumours” derives from the verb *haya* “speak.” The name *Jilangi*, “one who teaches others,” is derived from the verb *-langa* “teach.” The name *Makoye*, “one born during hardships,” derives from the verb *-koya* “suffer.” In Bantu languages such as Sukuma, the canonical final vowel *-a* in verbs is commonly replaced by derivational suffixes *-e*, *-i*, and *-o*. In addition, noun-class prefixes are attached to verb stems to form nouns. In Safwa, names are also constructed through derivation.

For example, the name *Walonde* “someone from afar” is derived from the stem *londe* “away from home,” with the prefix *wa-* attached to form a personal name. These examples demonstrate that names are derived from verbs or adjectives to form nouns. The studies show that address terms are formed through derivation as one of the productive processes contributing to new personal names in various languages such as Sukuma and Safwa.

In the West-Rift languages, the phenomenon of address terms, especially their morphological features, has received less systematic investigation. Earlier studies have concentrated on investigating address terms from a sociolinguistic perspective in the West-Rift languages. These studies include Mous (2021), Bayo (2023), Alphonc (2024), and Bayo, Alphonc, and Magashi (2024, 2025). These studies have focused on address terms, especially in Iraqw but provide inadequate information on the morphological structures of address terms not only in Iraqw but also in other West-Rift languages. Other works conducted in the West-Rift languages such as those by Kießling (2000) and Kießling and Mous (2003) do not give specific attention to address terms. This study, therefore, builds on previous research by focusing on the information embedded in the morphological structure of address terms in the West-Rift languages.

3. Theoretical Framework

Lexical Morphology Theory guided this present study. This theory was developed by Kiparsky (1982) and later refined by Katamba (1993) and Katamba and Stonham (2006). It is a framework developed to cover the limitations of the Morpheme-Based Model, which treats morphemes as the fundamental unit of morphological analysis. Unlike

the Morpheme-Based Model, Lexical Morphology treats words as primary lexical units of morphological analysis. These words are decomposed into smaller meaningful lexical units that are functionally and grammatically meaningful. In the present study, nouns or pronouns used as address terms were segmented into their smaller units to determine number- and gender-marking morphemes, as well as processes involved in their construction. Lexical Morphology assumes that words are constructed through interactions of morphological and phonological rules. Phonological rules determine how words are pronounced, while morphological rules explain their structural composition or the way words are structurally formed.

In the present study, the focus was on the morphological aspect of the theory, particularly the rules governing word formation. These rules guided the researcher to determine the processes involved in the construction of address terms along with suffixes marking grammatical gender and number. The theory adopted in this study was also employed in similar studies examining morphological processes in distinct languages such as Sukuma, where Shigini and Mapunda (2023) identified three major processes involved in the formation of Kemunasukuma personal names: affixation, derivation, and compounding. In the West-Rift languages, the principles of inflection, compounding, and derivation informed the processes involved in the formation of address terms. These rules were not only useful in determining the processes involved in address term construction but also in identifying suffixes that simultaneously mark grammatical gender and number in nouns or pronouns used as address terms. Using Lexical Morphology, we treated these suffixes as single morphological units that serve two grammatical functions rather than as separate markers for each feature. This treatment is consistent with the framework because it does not require a one-to-one correspondence between an affix and a grammatical feature. This lack of correspondence highlights a limitation

of Lexical Morphology in the present study. The theory also successfully guided the identification of morphological processes and morphemes marking gender and number in address terms; however, it does not fully explain gender polarity, a phenomenon in which nouns or pronouns change their gender during derivation. In some cases, however, nouns or pronouns retain their original gender, thereby restricting gender polarity in address terms to a subset of the data. This limitation suggests that language-specific or lexeme-specific factors may determine the occurrence of gender polarity in the languages under study, although this possibility requires further empirical investigation.

4. Methodology

This study employed a descriptive research design within a qualitative research approach. This approach is suitable for collecting and analysing data based on people's experiences, perceptions, and culturally grounded interpretations of a phenomenon under investigation (Creswell 2009). Data of this nature cannot be effectively obtained through a quantitative approach, which focuses on statistical patterns. Participants provided their experiences and perceptions regarding the terms they use to address other people within their communities. This approach also supported data analysis using a thematic method, allowing for the identification of key themes related to gender, number, and the formation of address terms. Through the descriptive research design, the researcher explored address terms as used by native speakers of the West-Rift languages. This design is used to examine phenomena and their features as they unfold naturally (Dulock 1993; Nassaji 2015).

Data for Iraqw were collected from Kwermusl Village in Mbulu District, Manyara Region, Tanzania. For Gorwaa, data were collected from Endanachan Village in Babati Rural District. Alagwa data were collected from Soera Village in Kondoa Rural District, while Burunge data were collected from Makamaka Village in Chemba District. In these villages, participants were intentionally selected as native speakers of the West-Rift Southern Cushitic languages who were born, raised, and had lived in the selected research sites during the data collection period. Through purposive sampling, we selected a total of 30 native speakers: 6 from Iraqw, 4 from Gorwaa, 9 from Alagwa, and 11 from Burunge. In each language group, the sample size was determined through data saturation.

Data for this qualitative study were collected through elicitation interviews and a documentary review. Interviews were conducted with native speakers of the West-Rift Southern Cushitic languages, with the assistance of trained research assistants during data collection. Through these interviews, the researchers collected address terms used by participants in the languages under study for morphological analysis. The participants' ages ranged from 50 to 90 years. These were elderly individuals selected because they have greater experience with address terms compared to younger speakers, who are more exposed to the social structures of other languages. This has also been reported in other studies, such as Bayo (2023), who notes that elderly individuals possess extensive knowledge of indigenous address terms. Other studies, such as Michael and Mensah (2025), have also reported similar findings, with elders selected for their cultural knowledge of naming practices in the Nsirimo community of Nigeria. Elderly people are considered to possess detailed indigenous knowledge because of their extensive life experience. This experience makes them valuable for inclusion in research focusing on indigenous knowledge in different languages (Ejeba 2025; Kumari

and Kar 2026; Okoye 2023). Their insights are particularly vital because they retain a wealth of cultural and linguistic information. For this reason, we selected elderly speakers of the West-Rift languages who are knowledgeable in the use of address terms.

We conducted a documentary review to determine whether the address terms collected from participants are present in the West-Rift Southern Cushitic languages. We also used the documentary review to identify address terms that are less frequently used in everyday interaction. We reviewed a grammar book titled *The Lexical Reconstruction of West-Rift Southern Cushitic* by Kießling and Mous (2003), which, among other information, contains address terms in the West-Rift Southern Cushitic languages. This document was selected not only because it contains address terms in these languages, but also because of its linguistic authority and credibility regarding the languages under study. Before beginning data collection, we requested permission from the relevant government authorities to access the research sites. We followed these procedures to gain access to the selected research villages and to uphold research ethics. In the field, we obtained both written and oral consent from participants. We then conducted a morphological analysis and identified gender and number marking as well as three major morphological processes: affixation, compounding, and derivation.

5. Findings and Discussion

This study analysed the morphological structures of address terms in the West-Rift languages. The analysis has revealed gender and number marking as well as processes involved in the formation of address terms.

5.1. Gender in Address Terms

The findings show that all address terms are either nouns or pronouns, which are classified into three grammatical gender categories: masculine (m), feminine (f), and neuter (n). The grammatical gender of nouns or pronouns is determined by several linguistic indicators, such as number suffixes, which inherently carry grammatical gender (Mous 1993, 2007). Although not applicable to all nouns and pronominal forms, phonological shape also contributes to gender marking. Subject–verb agreement is another reliable indicator of grammatical gender. In address terms, the natural gender (sex of the referent) also indicates the grammatical gender of nouns or pronouns (Kießling 2000). Natural gender is a semantic category.

The findings reveal that the grammatical gender of nominal or pronominal forms used to address groups of people is not easily predictable from either their form or meaning. Therefore, the criteria outlined in the previous paragraph provide useful clues for identifying the grammatical gender of plural nouns or pronouns used as address terms. Grammatical gender is more easily identifiable in nouns or pronouns used to address a single person. In such cases, the natural gender of the referent determines the grammatical gender of the noun or pronoun, as demonstrated by the data in Table 1.

The data in Table 1 indicate a correspondence between natural and grammatical gender. A noun or pronoun used to address a man indicates masculine gender, while the one used to address a woman indicates feminine gender. For instance, the term *aako* “grandfather,” “old man,” or “husband” in Iraqw and Gorwaa consistently marks masculine gender despite its use in broader relational contexts. The Alagwa and Burunge counterparts also indicate the same grammatical gender. In Iraqw and Gorwaa, the term *aayi* “mother” marks feminine

Table 1. Nouns or Pronouns with Masculine or Feminine Gender

Addressee	Iraqw	Gorwaa	Alagwa	Burunge	Gender
Grandfather or old man	<i>aako</i>	<i>aako</i>	<i>baabu</i>	<i>kookoo</i>	masculine
Grandmother or old woman	<i>aama</i>	<i>aama</i>	<i>maamaaa</i>	<i>maamaaa</i>	feminine
Father	<i>taata</i>	<i>naana</i>	<i>taataaa</i>	<i>taataaa</i>	masculine
Mother	<i>aayi</i>	<i>aayi</i>	<i>iyoo</i>	<i>iyoo</i>	feminine
Older brother	<i>naana or hhiya</i>	<i>hhiya</i>	<i>hhia</i>	<i>naanaa</i>	masculine
Older sister	<i>deede or hho'o</i>	<i>hho'o</i>	<i>yayi</i>	<i>amaa</i>	feminine
Aunt	<i>ayshiga</i>	<i>ayshaga</i>	<i>tlagoo</i>	<i>tlagoo</i>	feminine
Uncle	<i>maamay</i>	<i>maamay</i>	<i>maamay</i>	<i>maamay</i>	masculine
Paternal aunt's granddaughter	<i>hat'aay</i>	<i>hho'o</i>	<i>nuu</i>	<i>hotoi</i>	feminine
Paternal aunt's grandson	<i>nangw'aay</i>	<i>hhiya</i>	<i>hati</i>	<i>nankway</i>	masculine
Son's son	<i>nangw'nango</i>	<i>nangw'nango</i>	<i>mjolimo</i>	<i>kookoo</i>	masculine
Son's daughter	<i>hat'nangó</i>	<i>hat'nangó</i>	<i>mjoli</i>	<i>maamaa</i>	feminine
Daughter's son	<i>nangw'hato</i>	<i>nangw'hato</i>	<i>mjolim</i>	<i>kookoo</i>	masculine
Daughter's daughter	<i>hat'hato</i>	<i>hat'hato</i>	<i>mjoli</i>	<i>maamaa</i>	feminine
A boy	<i>garma</i>	<i>garma</i>	<i>mosombimoo</i>	<i>qaraimoo</i>	masculine
You (man)	<i>kuung</i>	<i>kuung</i>	<i>ku</i>	<i>ugu</i>	masculine
You (woman)	<i>kiing</i>	<i>kiing</i>	<i>ki</i>	<i>igi</i>	feminine

gender, just like the Alagwa and Burunge term *iyoo* “mother,” which also indicates the same gender. This evidence shows the correspondence between natural gender and grammatical gender in address terms in the West-Rift languages.

The results show that some suffixes mark grammatical gender in address terms, indicating whether a term expresses either masculine or feminine gender. Though they are realised as number suffixes, they also simultaneously mark grammatical gender. These number suffixes, which also mark gender, function as a derivational category rather than as simple inflection. Table 2 presents nouns used as address terms, which contain number suffixes that mark grammatical gender.

Table 2. Nouns with Common Suffixes Indicating Gender

Suffixes Indicating Gender	Singular Form	Plural Form	English Gloss	Language
<i>-moo</i>	<i>mulqumoo</i> (m)	<i>mulqee</i> (f)	male friend	Iraqw
<i>-moo</i>	<i>askaarmoo</i> (m)	<i>askaari</i> (f)	male soldier	Iraqw
<i>-imo</i>	<i>garimo</i> (m)	<i>garuu</i> (f)	husband or man	Alagwa
<i>-imo</i>	<i>mjolimo</i> (m)	<i>mjoolo</i> (f)	male grandchild	Alagwa
<i>-imo</i>	<i>qaraimoo</i> (m)	<i>qaraiya</i> (f)	a boy	Burunge
<i>-imoó</i>	<i>mosombimoo</i> (m)	<i>mosombaa</i> (f)	a male youth	Alagwa
<i>-ito'o</i>	<i>waawito'o</i> (f)	<i>waawita</i> (m)	female leader	Iraqw or Gorwaa
<i>-ito'o</i>	<i>mulqito'o</i> (f)	<i>mulqee</i> (f)	female friend	Iraqw
<i>-o'o</i>	<i>ga/awuso'o</i> (f)	<i>ga/awusee</i> (f)	female chief or overseer	Iraqw or Gorwaa

The nouns used as address terms for men in Table 2 contain derived singulative suffixes. These suffixes include *-moo*, *-imo*, and *-imoo*,

which inherently mark masculine gender. Morphemes marking feminine gender are evident in address terms used for designating women, which contain suffixes such as *-ito'o* and *-o'o*. These data show that number suffixes in the West-Rift languages concurrently indicate the grammatical gender of nouns.

The analysis also shows a shift in grammatical gender, especially when nominal or pronominal forms are derived from singular to plural. Scholars described this phenomenon as gender polarity (Kießling 2000; Mous 2007). In the current study, singular terms of address are either feminine or masculine because they are used to designate individuals based on their sex. When these singular forms are derived into their plural counterparts, their grammatical gender alters to neuter, masculine, or feminine. The data in Table 3 show gender change from masculine singular nouns or pronouns to neuter or feminine plurals.

Table 3 presents data indicating that some singular nominal or pronominal forms of address, which mark masculine gender, derive plural forms that either show neuter or feminine gender. For example, the pronoun *kuung* “you,” which indicates masculine gender, derives its plural form *kuunga* “you,” which carries neuter gender. The noun *taata* “father,” which bears masculine gender, becomes *taati'i* “fathers,” which bear neuter gender in Iraqw. These data reveal that plural forms are often assigned neuter gender. In Table 3, the data also indicate that some singular nouns or pronouns derive their plural forms that mark feminine gender. This is the case with the singular masculine noun *hhapaloimo* “chief,” which changes to the plural feminine *hhapalo'ee* “chiefs.” Though nouns or pronouns change their gender from masculine to either neuter or feminine gender, some of them retain their gender when derived to their plural counterparts. One such example is the Iraqw and Gorwaa noun *garma* “boy,” which retains masculine gender even in plural form *daqaay* “boys.”

Table 3. Masculine Singulars Derive Neuter or Feminine Plural Nouns or Pronouns

Language	Singular: Masculine	English Gloss	Plural: Feminine or Neuter	English Gloss
Iraqw and Gorwaa	<i>aako</i>	grandfather	<i>aakwakwi'i</i> (n)	grandfathers
Iraqw	<i>taata</i>	father	<i>taati'i</i> (n)	fathers
Burunge	<i>kookoo</i>	grandfather	<i>okooka'iing</i> (n)	grandfathers
Iraqw and Gorwaa	<i>kuung</i>	you	<i>kuunga</i> (n)	you
Alagwa	<i>ku</i>	you	<i>hunguraa</i> (n)	you
Burunge	<i>ugu</i>	you	<i>unkuraay</i> (n)	you
Iraqw	<i>hhawata</i>	husband or man	<i>hhawatee</i> (f)	husbands or men
Iraqw	<i>mulqumoo</i>	male friend	<i>mulqee</i> (f)	friends
Alagwa	<i>mjolimoo</i>	male grandchild	<i>mjooloo</i> (f)	grandchildren
Alagwa or Burunge	<i>kumba'a</i>	male-in-law	<i>kuumba'ee</i> (f)	in-laws
Alagwa	<i>hhapaloimo</i>	chief	<i>hhapalo'ee</i> (f)	chiefs
Alagwa	<i>mosombimoo</i>	a male youth	<i>mosombaa</i> (f)	male youths
Iraqw and Gorwaa	<i>garma</i>	a male youth	<i>daqaay</i> (m)	male youths

The data further reveal shifts in grammatical gender of nouns or pronouns from feminine to neuter or masculine. This aspect is illustrated by the data presented in Table 4.

Table 4. Feminine Singulars Derive Neuter or Masculine Plural Nouns or Pronouns

Language	Singular: Feminine	English Gloss	Plural: Neuter or Masculine	English Gloss
Alagwa	/abido'o	sister-in-law	/abidadu (n)	sisters-in-law
Burunge	/amido'o	sister-in-law	/amidadu (n)	sisters-in-law
Iraqw and Gorwaa	<i>aama</i>	grandmother	<i>aam'i</i> (n)	grandmothers
Iraqw	<i>deena</i>	married woman	<i>dageeno</i> (n)	married women
Alagwa	<i>ki</i>	you	<i>hunguraa</i> (n)	you
Burunge	<i>igi</i>	you	<i>unkuraay</i> (n)	you
Alagwa	<i>sagimeri</i>	a girl	<i>sagimeru</i> (m)	girls
Alagwa and Burunge	<i>maangeé</i>	sister-in-law	<i>maang'aii</i> (n)	sisters-in-law
Iraqw	<i>deena</i>	sisters-in-law or one's married sister	<i>dageeno</i> (n)	sisters-in-law or one's married sisters
Iraqw and Gorwaa	<i>aama</i>	grandmother, wife, or old woman	<i>aam'i</i> (n)	grandmothers, wives, or old women
Iraqw and Gorwaa	<i>aayo</i>	wife	<i>aam'i</i> (n)	grandmothers, wives, or old women

The data in Table 4 show that singular nominal or pronominal forms, which mark feminine gender, derive plural counterparts that bear either neuter or masculine gender. In the table, the noun /*amido'o* “sister-in-law,” which marks feminine gender, becomes the plural form /*amidadu*, which shows neuter gender in Burunge. Other nouns or pronouns change to plural forms that mark masculine gender. This is the case with the singular noun *sagimeri*, which shows feminine

gender and changes to the plural form *sagimeru*, which shows masculine gender in Alagwa. This evidence shows that pronouns or nouns used as address terms change their grammatical gender from feminine to neuter or masculine during derivation. This shift indicates gender polarity, as none of the forms retains its original gender when derived from singular to plural forms. These data support the idea that gender in some nouns is a derivational phenomenon in the West-Rift languages.

Based on Lexical Morphology, the gender change illustrates the interaction between morphemes marking number and gender assignment in nominal or pronominal forms. The framework considers words, including address terms, as the basis of morphological analysis, which can be decomposed into smaller meaningful units that contribute specific lexical and grammatical functions (Katamba 1993). The presence of morphemes in address terms that concurrently mark number and gender supports the theoretical framework of this study. Moreover, the shift in grammatical gender between singular nouns or pronouns and their plural counterparts reflects the role of derivational morphemes in the grammatical structure of words.

5.2. Singular and Plural in Address Terms

Number in address terms is determined by derivational processes that affect the grammatical gender rather than simple suffixation. In some cases, singular forms derive plural forms and plural forms also derive singular counterparts. Moreover, other address terms do not contribute to a singular–plural formation because their number value is specified lexically. Table 5 presents data on address terms with derived singulative suffixes.

Table 5. Address Terms with Singulative Suffixes

Singulative Suffixes	Singular Form	Plural Form	English Gloss	Language
-moo	<i>qwaslaramoo</i> (m)	<i>qwaslare</i> (f)	male ritual expert	Iraqw or Gorwaa
-moo	<i>mulqumoo</i> (m)	<i>mulqee</i> (f)	male friend	Iraqw
-moo	<i>kahamusmoo</i> (m)	<i>kahamuse</i> (f)	male chief	Iraqw
-moo	<i>askaarmoo</i> (m)	<i>askaari</i> (f)	male soldier	Iraqw
-moo	<i>balosamoo</i> (m)	<i>balosi</i> (f)	male ten-cell leader	Iraqw or Gorwaa
-imo	<i>garimo</i> (m)	<i>garuu</i> (f)	old man or husband	Alagwa
-imo	<i>qaraimoo</i> (m)	<i>qaraiya</i> (f)	a boy	Burunge
-imoo	<i>mosombimoo</i> (m)	<i>mosombaa</i> (f)	male youth	Alagwa
-ito'o	<i>qwaslarito'o</i> (f)	<i>qwaslare</i> (f)	female ritual expert	Iraqw or Gorwaa
-ito'o	<i>askaarito'o</i> (f)	<i>askaari</i> (f)	female soldier	Iraqw or Gorwaa
-o'o	<i>aarus'o</i> (f)	<i>aaruse</i> (f)	female prophet	Iraqw
-o'o	<i>ga/awuso'o</i> (f)	<i>ga/awusee</i> (f)	female overseer or chief	Iraqw or Gorwaa

The singulative suffixes in address terms not only indicate number but also function as grammatical gender markers. These suffixes distinguish an individual addressee from collective referents. The data also show that borrowed address terms, specifically those from Kiswahili, are assigned number markers in the same way as indigenous address terms in the West-Rift languages.

The findings indicate that Swahili plural or number-neutral forms may be borrowed as bases from which singular address terms are

derived. For instance, the term *balosamoo* (m) “male ten-cell leader” is derived from the borrowed Swahili form *balosi* (f), which can function as either a singular or plural form. The form *balosi* (f) differs from its standard Swahili counterpart *balazi* “ten-cell leader,” in which the voiced alveolar fricative /z/ is replaced by the voiceless alveolar fricative /s/, reflecting the absence of the voiced alveolar fricative /z/ in the West-Rift languages. These findings suggest that some borrowed Swahili terms undergo phonological adaptation alongside morphological integration. Morphologically, loanwords may undergo the same singulative derivation as indigenous nouns once they become integrated into the morphological system of the recipient language (Myers-Scotton 2006).

Some borrowed Swahili terms also exhibit gender polarity, whereby the grammatical gender of a noun changes as a result of number derivation. For example, the term *askaari* (f) “soldier(s)” derives its singular counterpart *askaarmoo* (m) “male soldier,” which bears a different grammatical gender from the underived form. These data indicate that some borrowed Swahili nouns undergo gender polarity during derivation. However, other borrowed nouns retain their grammatical gender during derivation, indicating that gender polarity is restricted to a subset of borrowed nouns. Based on the data, gender polarity does not apply to all borrowed Swahili nouns in the West-Rift languages.

The findings show that some address terms lack plural counterparts and therefore occur only in the singular form. In such cases, these address terms do not participate in singular–plural alternation, as presented in Table 6.

The presence of address terms that lack plural forms indicates that the number system is not limited to a singular–plural pattern but also includes nouns whose number value is lexically fixed. These findings corroborate Mous’s (2007) observation on Iraqw nominal morphology,

in which number assignment is not usually predictable from semantic category alone but may instead be lexically specified.

Table 6. Address Terms with Singular Form Only

Language	Address Terms	English Gloss
Iraqw and Gorwaa	<i>deede</i> (f)	older sister
Iraqw	<i>nangw'aay</i> (m)	paternal aunt's grandson or father's maternal cousin's son
Iraqw	<i>hat'aay</i> (f)	paternal aunt's granddaughter or father's maternal cousin's daughter
Iraqw	<i>hat'ama</i> (f)	mother's sister's daughter
Iraqw	<i>nangw'ama</i> (m)	son of mother's sister
Burunge	<i>nankori</i> (m)	biological brother
Burunge	<i>hotori</i> (f)	biological sister
Alagwa	<i>yayi</i> (f)	older sister
Iraqw and Gorwaa	<i>ayshiga</i> (f)	paternal aunt

The results also show the presence of address terms with plural suffixes, which involve a derivational process. Table 7 presents the plural suffixes attested in plural address terms derived from their singular bases.

The suffixes identified in Table 7 indicate plurality in address terms. In their plural forms, the nouns in Table 7 most frequently take neuter gender and less frequently masculine gender. This shift reflects gender polarity, whereby grammatical gender changes as a result of number derivation (Kießling 2000). Plural suffixation, therefore, interacts with gender assignment in the derivation of plural address forms.

Table 7. Address Terms with Plural Suffixes

Plural Suffixes	Plural Form	Singular Form	English Gloss	Language
-u	<i>tleeegu</i> (n)	<i>tleeega</i> (m or f)	brother-in-law or sister-in-law	Burunge
-i	<i>maam'i</i> (n)	<i>maamay</i> (m)	maternal uncles	Iraqw, Gorwaa, Alagwa, and Burunge
-adu	<i>/amidadu</i> (n)	<i>/amido'o</i> (f)	sisters-in-law	Burunge
-adu	<i>/abidadu</i> (n)	<i>/abido'o</i> (f)	sisters-in-law	Alagwa
-é	<i>hhawatee</i> (f)	<i>hhawata</i> (m)	husbands or men	Iraqw and Gorwaa
-aai	<i>maang'aai</i> (n)	<i>maangee</i> (f)	sisters-in-law	Alagwa and Burunge
-a'iing	<i>okooka'iing</i> (n)	<i>kookoo</i> (m)	grandfathers or grandchildren	Burunge
-wakwi'i	<i>aakwakwi'i</i> (n)	<i>aako</i> (m)	grandfathers, old men, or husbands	Iraqw and Gorwaa
-eeri	<i>kwa'amaadeeri</i> (n)	<i>kwa'amaadu</i> (m)	maternal uncles	Burunge

5.3. Processes Involved in Address Term Formation

This study identified three major processes involved in the construction of address terms in the West-Rift languages: affixation, compounding, and derivation.

5.3.1. Affixation

The findings indicate that affixation, specifically suffixation, is a productive morphological process in the formation of address terms

in the West-Rift languages, as demonstrated in Table 8. The first column in Table 8 presents the languages from which the address terms were collected, the second shows the roots or stems, the third lists the suffixes, the fourth shows the resulting address terms after suffixation, and the final column provides the English gloss.

Table 8. Address Terms Formed via Nominal Singulative Suffixes

Language	Root or Stem	Suffix	Address Term	English Gloss
Iraqw	<i>aako</i> (m) +	<i>-wi</i>	<i>aakowi</i> (m)	this husband
	husband	this		
Alagwa	<i>garimo</i> (m) +	<i>-wi</i>	<i>garimowi</i> (m)	this husband
	husband	this		
Alagwa	<i>goroo</i> (f) +	<i>-ri</i>	<i>goroori</i> (f)	this wife
	wife	this		
Burunge	<i>hadee</i> (f) +	<i>-ti</i>	<i>hadeeti</i> (f)	this wife
	wife	this		
Iraqw	<i>aama</i> (f) +	<i>-ri</i>	<i>aamari</i> (f)	this wife
	wife	this		
Burunge	<i>hotu</i> (f) +	<i>-i</i>	<i>hotui</i> (f)	my sister
	sister	my		
Gorwaa	<i>haree</i> (f) +	<i>-ri</i>	<i>hareeri</i> (f)	this wife
	wife	this		
Iraqw	<i>xay</i> (m) +	<i>-gan</i>	<i>xaygan</i> (m)	hey!
	hey!	number suffix		

The results in Table 8 show the presence of suffixes such as *-ri*, *-ti*, *-wi*, *-i*, and *-gan*, which are added to nouns to construct new terms of

address. These suffixes that contribute to the formation of new address terms primarily serve grammatical roles. For example, the suffixes *-ri*, *-ti*, and *-wi* serve demonstrative functions or deixis, while *-i* marks possession. The suffix *-gan* marks number, especially singularity in nouns. Though the suffixes attached to nominal bases participate in new address term formation, they do not alter the grammatical gender or inherent lexical meaning of the base.

The findings reveal that demonstrative suffixes *-ri* and *-ti*, as well as the possessive suffix *-i*, occur mainly with feminine bases, whereas *-wi* and *-gan* occur with masculine bases. Despite this distribution, the suffixes do not change the gender of the base noun. Based on the data in Table 8, the suffixes do not introduce a new semantic category; rather, they serve grammatical and pragmatic functions such as marking deixis and possession in the West-Rift languages. These present findings differ from results on Akan personal names. In Akan, suffixes attached to personal names change the gender of nouns (Owu-Ewie, Obeng, and Hammond 2021). The suffixes such as *-wa* and *-maa* derive feminine names from masculine bases, for example, *Ofiri* (m) becoming *Ofiriwa* (f). The data on the West-Rift languages thus highlight cross-linguistic variation in the functional load of suffixation, supporting the view that affixes may serve different grammatical roles across languages (Haspelmath 2002).

5.3.2. Compounding

Address terms are also formed through compounding, a process that combines two free morphemes into a single lexical unit. The compound address terms identified in the West-Rift Southern Cushitic languages are presented in Table 9.

Table 9. Address Terms Formed via Compounding

First Word	Second Word	Compound Address Term	Addressee
<i>nangw</i> +	<i>hhoo</i>	<i>nangw'hhoo</i> (m)	son of one's sister
son	sister		
<i>hata</i> +	<i>hhoo</i>	<i>hat'hhoo</i> (f)	daughter of one's sister
daughter	sister		
<i>hata</i> +	<i>maamay</i>	<i>hat'maamay</i> (f)	daughter of one's maternal uncle
daughter	uncle		
<i>hata</i> +	<i>hato</i>	<i>hat'hato</i> (f)	daughter of one's daughter
daughter	daughter		
<i>nangw</i> +	<i>hato</i>	<i>nangw'hato</i> (m)	son of one's daughter
son	daughter		
<i>hata</i> +	<i>nango</i>	<i>hat'nango</i> (f)	daughter of one's son
daughter	son		
<i>nangw</i> +	<i>nango</i>	<i>nangw'nango</i> (m)	son of one's son
son	son		
<i>nangw</i> +	<i>aayi</i>	<i>nangw'aay</i> (m)	one's father's maternal uncle's son or paternal aunt's grandson
son	mother		
<i>hata</i> +	<i>aayi</i>	<i>hat'aay</i> (f)	father's sister's granddaughter or one's father's maternal uncle's daughter
daughter	mother		

The data show that compounding is attested in Iraqw and Gorwaa, which largely share the same address terms formed through compounding because of their genetic relatedness. These compound address terms encode kinship relations by combining two kinship nouns, each contributing a distinct semantic component. For example, *nangw*

“son” and *hhoo* “sister” combine to form *nangw'hhoo* “son of one’s sister,” while *hata* “daughter” and *hhoo* “sister” form *hat'hhoo* “daughter of one’s sister.” Through compounding, speakers can express genealogically complex relations that mono-morphemic forms cannot capture.

The use of compounding in kinship address terms reflects the need for semantic precision in societies where extended kin relations play an important role in social organisation. Compounding allows multiple relational dimensions, such as generation and lineage, to be encoded transparently within a single address term (Fox 1967). Similar uses of compounding in kinship systems have been reported in Kurmali, where Majumdar (2018) notes that kinship terms, such as *mama* “mother’s brother,” combine with *ʃʒfur* “father-in-law” or *ʃʒfuri* “mother-in-law” to form *mamaʃʒfur* “mother-in-law’s younger or older brother” or *mamaʃʒfuri* “mother-in-law’s younger or older brother’s wife” as more specific relational expressions. Although the surface forms differ, both Kurmali and the West-Rift languages use compounding as a strategy to encode complex kin relations.

5.3.3. Derivation

The findings further show that some address terms are formed through derivation, specifically by attaching nominalising suffixes to verbal bases. The verbal bases in these forms typically contain the causative (CAU) suffix *-us*, indicating that the derived address terms are associated with actions or roles involving agency or authority. Derivation is attested in Iraqw and Gorwaa data, with no instances of such forms in Alagwa and Burunge data presented in this study. The derived address terms presented in Table 10 share the same linguistic forms in Iraqw and Gorwaa because of their close genetic relationships.

Table 10. Address Terms Derived from Verbs to Nouns

Verb	Nominalising Suffix	Nominal Address Term	Meaning
<i>aar-us</i>	<i>-moo</i>	<i>aarusmoo</i> (m)	seer or prophet
to see-CAU	singulative suffix		
<i>aar-us</i>	<i>-o'o</i>	<i>aaruso'o</i> (f)	seer or prophetess
to see-CAU	singulative suffix		
<i>kaham-us</i>	<i>-moo</i>	<i>kahamusmoo</i> (m)	spokesman of the community
to tell-CAU	singulative suffix		
<i>kaham-us</i>	<i>-o'o</i>	<i>kahamuso'o</i> (f)	spokeswoman of the community
to tell-CAU	singulative suffix		
<i>ga/aw-us</i>	<i>-moo</i>	<i>ga/awusmoo</i> (m)	overseer or chief
to see-CAU	singulative suffix		
<i>ga/aw-us</i>	<i>-o'o</i>	<i>ga/awuso'o</i> (f)	overseer or chief
to see-CAU	singulative suffix		
<i>ya/ab-us</i>	<i>-moo</i>	<i>ya/abusmoo</i> (m)	ward secretary
to send-CAU	singulative suffix		

The data indicate that derivation involves a change in word class, whereby verbs are converted into nouns that function as address terms. For instance, *aarusmoo* “seer” or “prophet” is derived from the verb *aarus* “to see or predict” by attaching the nominalising suffix *-moo*, while *aaruso'o* “prophetess” is formed using the suffix *-o'o*. The nominalising suffixes *-moo* and *-o'o* encode both nominalisation and grammatical gender, with *-moo* marking masculine forms and *-o'o* marking feminine forms. These suffixes also indicate singular reference. This pattern shows that derivation in the West-Rift languages simultaneously encodes word class, gender, and number

within a single morphological operation.

Comparable derivational processes have been reported in other African languages. Shigini and Mapunda (2023) show that personal names in Sukuma are derived from verbs through a combination of noun-class prefixes and nominal suffixes. For instance, the name *βu-cheyek-i* “state of dancing” was derived from the verb *cheyeka* “dance,” *Ji-lang-i* “one who teaches others” was derived from the verb *langa* “teach,” *Ma-koy-e* “a person born during hardship” was derived from the verb *koya* “suffer,” and *Mi-hay-o* “a person born amid rumours” was derived from the verb *haya* “speak.” The verbs from which the names are derived end with the prototypical final vowel *-a*. The default final vowel *-a* in verbs is replaced by nominalising suffixes *-i*, *-o*, and *-e*. The derivational process is completed by attaching the noun class to the noun’s initial position in Sukuma. While both Sukuma and the West-Rift languages employ derivation, the mechanisms differ. Sukuma requires noun-class prefixes, whereas the West-Rift languages attach suffixes directly to verbal bases. The results also align with the findings on gender and number marking in nouns used as kinship terms in the Banna language (Jillo 2014).

The analysis shows that three major morphological processes participate in the formation of terms of address. These include affixation, compounding, and derivation, which play vital roles in the construction of address terms in the languages under study. Based on the findings, affixation contributes basically grammatical information such as demonstrative, possession, gender, and number, without substantially altering the word category or the lexical meaning of the base (Haspelmath 2002). Compounding allows speakers to encode complex kinship relations by combining multiple semantic components within a single address term, a strategy widely attested in kinship systems cross-linguistically (Fox 1967). Derivation enables speakers to form new terms of address from verbal bases, linking social roles

and statuses directly to actions and functions, as observed in some African languages (Shigini and Mapunda 2023). In the West-Rift languages, these morphological processes not only contribute new address terms but also contribute new meanings that differ from those of their constituent elements, particularly through compounding and derivation. While affixation is observed across four languages, compounding and derivation are attested in Iraqw and Gorwaa data. These differences show differing communicative needs, with simpler forms used for socially central relations and more complex forms reserved for relations or roles requiring greater semantic specificity.

The findings show that the formation of address terms in the West-Rift languages is morphologically systematic and socially differentiated. Gender and number operate as core grammatical categories and are realised most clearly through derivational morphology, particularly in verb-to-noun formations where suffixes such as *-moo* and *-o'o* simultaneously affect nominalisation, mark masculine versus feminine gender, and signal singular reference. This pattern supports Lexical Morphology, which treats grammatical structure as the outcome of the systematic combination of meaningful morphemic units. From a comparative perspective, all four languages rely primarily on affixation, specifically suffixation, in the formation of address terms. Additionally, Iraqw and Gorwaa also rely on compounding and derivation in the construction of address terms, with a lack of such data in the Alagwa and Burunge languages. This uneven distribution indicates that morphological complexity is strategically deployed rather than uniformly applied. Address terms in the West-Rift languages thus show how closely related languages may share core social categories yet differ in the morphological strategies through which gender, number, and relational meaning are linguistically expressed.

5.4. Typological Implications of the Findings

The findings reveal that some morphological features of terms of address are shared across four languages, while others vary. The features identified in the study include the grammatical gender of nouns or pronouns, suffixes marking number in address terms, and the processes involved in their formation.

The grammatical gender of nominal or pronominal forms of address is depicted as shared across the West-Rift languages. In all four languages, the gender of the terms used to address individuals is predictable. A person is commonly designated based on natural gender or sex. In this regard, a term used for a woman carries feminine gender and that for a man bears masculine gender. This shows one-to-one correspondence between grammatical gender and natural gender. Moreover, some suffixes mark the gender across the four languages under study. Some suffixes in address terms mark masculine gender, while others indicate feminine gender.

Gender polarity is another morphological feature that depicts a shared tendency. In many cases, nouns or pronouns employed as terms of address change their gender when derived from singular to plural forms. This pattern depicts a phenomenon of gender polarity. Although this phenomenon affects nouns and pronouns in the West-Rift languages, some nouns in Iraqw and Gorwaa maintain grammatical gender both in their singular and plural forms. In this case, gender polarity is not a general property of all nominal or pronominal forms used as address terms in the West-Rift languages.

Address terms also contain suffixes that mark number across the four languages. These suffixes either mark singular or plural forms, distinguishing the individual addressee from a collective referent or a group. While the number system in address terms shows singular–plural opposition, not all of them form such a pattern. Some address

terms occur only in the singular form, which shows that their number is lexically specified. Thus, number in address terms functions either as a derivational category or as a lexical property in the West-Rift languages. Although number marking is often realised as a derivational category, this does not apply to the entire lexicon of address terms in the West-Rift languages. The productivity of number marking is therefore constrained by the lexical properties of individual nouns and pronouns used as address terms.

The morphological processes identified in the study also exhibit both shared and language-specific patterns across the West-Rift Southern Cushitic languages. The findings indicate three major morphological processes involved in the formation of address terms: affixation, compounding, and derivation. Of these three major morphological processes, affixation is attested in all four languages, whereas compounding and derivation are more evident in the Iraqw and Gorwaa data examined in the present study. Regarding affixation, the results show that suffixes are added to roots or stems to form address terms. These suffixes serve demonstrative and possessive functions and also mark number. The addition of these suffixes does not change the grammatical gender or word class of the nouns or pronouns, indicating that their functions are primarily grammatical. The presence of these grammatical features across the four languages highlights shared cross-linguistic tendencies. In contrast, the occurrence of compounding and derivation primarily in the Iraqw and Gorwaa data indicates that some morphological processes are language-specific rather than uniformly distributed in the address-term domain across the West-Rift languages.

The morphological structures of address terms in the West-Rift languages reflect both shared tendencies and cross-linguistic variation. These patterns are evident in the marking of gender and number as well as in the morphological processes involved in the

formation of address terms. Although morphological processes contribute to the formation of address terms across the four languages, their productivity varies. Affixation is attested across all four languages, whereas compounding and derivation are restricted to the Iraqw and Gorwaa address terms in the present study. The findings therefore demonstrate that address terms constitute a productive domain for examining both common morphological patterns and language-specific properties within the West-Rift Southern Cushitic languages.

6. Conclusion

This study analysed the morphological structures of address terms in the West-Rift Southern Cushitic languages. The findings reveal grammatical gender and number marking in nouns and pronouns used as address terms. For an individual, the sex of the addressee determines the grammatical gender of nominal or pronominal forms. A term used for a man marks masculine gender, while a term used for a woman indicates feminine gender. Derived suffixes in address terms also indicate the grammatical gender of address terms. The results further reveal changes in grammatical gender when nouns or pronouns are derived into their plural counterparts, a phenomenon known as gender polarity in West-Rift languages. However, this phenomenon is not generally applicable to all nouns or pronouns used as address terms. Some nouns retained their grammatical gender during derivation, restricting gender polarity to a subset of data. Moreover, the findings show number marking in nouns and pronouns used as address terms. The number system involves a singular–plural opposition. However, some address terms do not participate in regular

number alternations because their number value is lexically fixed.

The results further show that address terms are formed through three major morphological processes: affixation, compounding, and derivation. Affixation involves attaching suffixes to roots or stems to form new address terms. These suffixes primarily serve grammatical functions, including possession, deixis, and number marking. They do not alter the grammatical gender of the nouns used as address terms, indicating that their role is mainly grammatical. Address terms are also formed through compounding, particularly in Iraqw and Gorwaa, where two morphemes combine to create compound address terms. For example, *nangw* (m) “son” can combine with *hhoo* (f) “sister” or “female relative” to form *nangw'hhoo* (m) “son of one’s sister.” The meanings of compound address terms differ from those of their constituent elements. Compound address terms are more commonly used to refer to addressees who are genetically related to the speaker. Additionally, address terms in Iraqw and Gorwaa are formed through derivation. These terms are derived from verbs into nominal address terms through the addition of nominalising suffixes to verbal bases. For example, the verb *aarus* “to see or predict” can take the nominalising suffix *-moo* to form the nominal address term *aarusmoo* (m) “seer” or “prophet.” While affixation is more prominent across all four West-Rift languages, compounding and derivation are more evident in the Iraqw and Gorwaa data examined in this paper. The variation in the morphological processes may suggest that compounding and derivation, along with affixation, are more productive in the semantic domain of address terms in Iraqw and Gorwaa, while Alagwa and Burunge heavily rely on mono-morphemic address terms and those formed through affixation. The lack of compounding and derivation in the present dataset does not establish that these processes are structurally absent in Alagwa and Burunge. Their absence in the domain of address terms does not necessarily imply their absence in other

semantic domains in Alagwa and Burunge.

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