# The Gorwaa Noun:
# Toward a description of the Gorwaa language

A dissertation submitted to the School of Oriental and African Studies, University of London, in partial fulfillment of the requirement for the degree of Doctor of Philosophy in Linguistics

Andrew David Harvey

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# Declaration

I have read and understood Regulation 21 of the General and Admissions Regulations for students of the SOAS, University of London concerning plagiarism. I undertake that all the material presented for examination is my own work and has not been written for me, in whole or in part, by any other person. I also undertake that any quotation or paraphrase from the published or unpublished work of another person has been duly acknowledged in the work which I present for examination.

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# Abstract

Gorwaa is a South Cushitic language of Tanzania whose nouns are particularly complex. Based on detailed documentation of the language (most of which is openly accessible for consultation in an online archive (Harvey 2017)), this dissertation provides a first description of Gorwaa grammar, with a particular focus on the noun. Additionally, a grammatical analysis of Gorwaa nouns is developed using the Distributed Morphology architecture and Minimalist syntax. This offers a different perspective from the typically functional analyses available for South Cushitic languages thus far.

Following a general sketch of Gorwaa grammar, as well as a brief introduction into the theoretical framework, each subsequent chapter of the dissertation focuses on one subpart of the noun and its morphosyntactic characteristics. Composed of several identifiable subparts (e.g. the stem, the suffix, and the linker), each of which in turn presents a rich array of variants, the Gorwaa noun is an ideal entry point for inquiry into Gorwaa as a system, as adequate explanation of nouns in this language touches on all the major modalities of grammar (phonology, morphosyntax, semantics, and pragmatics).

Syntactically, the stem is formed of a root, whose characteristics (phonetic, semantic, and categorial) are determined by the larger syntactic structure in which it is found. Distinguished by two broad groups of morphosyntactic characteristics (those which are regular and those which are listed), the suffix is formed of (maximally) three syntactic heads: Cl (classifier), # (quantifier), and n ('little n'). In order to bear a number value (Sg or Pl), nouns must be classified and quantified. Nouns unvalued for number ('general' number) are neither classified nor quantified. The little n head is the site of the paradigm, itself established as a grammatical formative realized as a specific suffix through instructions post-Spellout. Grammatical gender is a diacritic feature, also realized post-Spellout, making Agree a necessarily post-Spellout operation (cf. Bobaljik 2008). The linker is agreement morphology on the syntactic head D. Cases of mismatch between the form taken by the linker and the gender value of n represents the interpretable (semantic) features of the referent of the noun (itself the external argument of n), intervening in agreement relations between D and n. This mechanism is extended to account for adjectival number agreement on nouns of general number.

# Acknowledgements

This dissertation is a culmination of several years of focused work, and arguably a lifetime of more general 'formation', of which I am duly gratified, and for which I am deeply grateful.  With that said, throughout my life and work, I have consistently benefitted from my sex, the colour of my skin, and the country of my birth.  My privilege (male, white, Western) is not acceptable.  This inequality is thrown into even sharper relief in that much of my work is based on the African continent, and is inextricably linked with African people -- both of which still face the dark impact of colonialism perhaps more directly than any other place on earth.  As an academic, much of whose work has been in the assignment of meaning, there is a role for me to play in addressing these inequities.  In an inaugural speech to the National Assembly, the first president of Tanzania, Mwalimu Julius K. Nyerere said "Of all the crimes of colonialism there is none worse than the attempt to make us believe we had no indigenous culture of our own; or that what we did have was worthless - something of which we should be ashamed, instead of a source of pride."[1]  It therefore follows that, corresponding to my professional capacity and technical ability, my work ought to help affirm what has for so long been denied: the complexity of African language/s, the depth of African history/ies, and the richness of African culture/s.  Ultimately, of course, the role of linguist comes second to the role of human being.  As much as successful linguistics is about formulating the perfect elicitation questions, finding the ideal consultants, and keeping tabs on the

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[1] "President's Inaugural Address" in Julius K. Nyerere, *Freedom and Unity: A selection from Writings and Speeches 1952-1962*. (Dar es Salaam, OUP, 1966): 186-187.

plethora of research data (all while supplying enough electricity to keep the batteries charged), the whole enterprise is meaningless if one comes away without having *felt something*. Nothing is more important than developing with our field communities relationships of trust, friendship, and shared humanity -- perhaps the ultimate cure to the prejudices which continue to detain our progress as the scientific, sympathetic species which we most certainly are. It is therefore my task to ensure that my work is a reflection of the above as truths, and not mere sanctimony.

Tabitha Gwa'i, and Safari ya Dini Nehemia John, and especially my teacher, advocate, and confidante Ayi Raheli (/Atlarír) Lawi.  To the sons and daughters of Ayi Raheli and Baabá Joeli -- Josiah Sumaye, Emmanuel Joeli, Maria Joeli, Daniel Joeli, and Pauline Joeli -- from putting me up when I travelled into town, through sitting by my bed during a stint at the Manyara Referral Hospital, their tireless support of the whole project is probably the reason I have made it this far.  To the hundred-odd other Gorwaa people with whom I worked directly during the process of data collection, and to the scores more whom I met and who helped me on this journey *na'asé' wa ló.*

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Thanks are due to the staff at the Endangered Languages Archive, who helped me turn my data into information, available to virtually anyone, free of charge. The ability of readers to resolve the Gorwaa material back to the original utterances is a central feature of this dissertation, and simply would not have been possible

without their expertise in metadata, data management, and the vicissitudes of technology.

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# Abbreviations

A        -agent of transitive clause
Abl      -ablative
Amp      -amplicative
Ana      -anaphoric pronoun
Atten    -attenuative
Aux      -auxiliary
Back     -background 'tense'
Comp     -comparative
Consec   -consecutive 'tense'
Dem1     -demonstrative, first degree deixis
Dem2     -demonstrative, second degree deixis
Dem3     -demonstrative, third degree deixis
Dem4     -demonstrative, fourth degree deixis
Emph     -emphasis
Expect   -expectative aspect
F        -feminine gender
Fr       -feminine r-type subgender
Ft       -feminine t-type subgender
Imp      -imperative mood
Imprf    -imperfective aspect
Indef    -indefinite determiner
Instr    -instrumental
L        -linker
Lat      -lative
LPA      -level pitch accent
M        -masculine gender
Mk       -masculine k-type subgender
Mo       -masculine o-type subgender
MP       -mediopassive voice
N        -neuter gender
Na       -neuter a-type subgender
NØ       -neuter Ø-type subgender
Neg      -negative
P        -patient of transitive clause
         -speech act participant
Part     -participle
Pl       -plural number
Plur     -pluractional
PolarQ   -polar question

Poss     -possessive determiner
Prep     -preposition
Pres     -present tense
Prf      -perfect aspect
Pro      -pronoun
Prohib   -prohibative mood
Pst      -past tense
Q        -question
Reason   -reason
Rec      -reciprocal
Red      -reduplication
Res      -resumptive
RPA      -rising pitch accent
S        -sole argument of intransitive clause
Sg       -singular number
Subj     -subjunctive mood
Temp     -temporal
Top      -topic
Vent     -ventive
1        -1st person
2        -2nd person
3        -3rd person
♀        -female sex
♂        -male sex
´        -rising pitch accent
`        -falling pitch accent
^        -rising-falling pitch accent

# 1. Introduction

**1.1 Why Gorwaa? Why the noun? Why formalism? A note on motivations.**

Gorwaa (ISO 639-3: gow), a South Cushitic language spoken in north-central Tanzania, is an endangered language, about which very little is known or available to linguists. Beginning in 2012 and extending to present, I have had the privilege of spending long periods of time living with speakers of Gorwaa in and around what may be construed as their traditional homeland of Babati district, conducting audiovisual documentation of their language. This work is one early output of that documentary and descriptive fieldwork.

While learning to speak the language (an ongoing feat, it must be admitted), perhaps one of the most mind-boggling tasks (or group of tasks) was using nouns correctly. Simply put, as a speaker of English (with some familiarity with both French (fra) and Swahili (swa)), I found 'getting the nouns right' in Gorwaa very difficult indeed. Four examples of this characteristic difficulty are outlined below:

TONE: Nouns must be pronounced with the appropriate tone, otherwise they are either misunderstood or deemed incorrect. The noun *aalutumo* 'inheritor ♂' must therefore be pronounced with low tone, and the noun *tlaptumó* 'falcon' must be pronounced with high tone. Several noun pairs exist whose meaning differs solely in whether they are produced with low or high tone. Thus, the word for 'drum' is *niinga*, and the word for 'pigeon species' is *niingá*. The word for 'night' is *amsi*, versus the proper name *Amsí* (typically given to a boy or girl born at night).

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LINKERS: All nouns possess a short form and a long form. The short form of the noun meaning 'cow' is *slee*, the long form of the same noun is *sleér.* Long form morphology (in this case, the high tone and the *-r*) is referred to in the South Cushitic literature as the linker, and is mandatorily present in constructions showing nominal possession, or other concepts of modification (e.g. *sleér aakó* 'grandfather's cow' and *sleерí* 'this cow'), but is also present in other constructions which are clearly not modificational in nature (e.g. *aní a sleér diíf* 'I hit the/a cow').

ADJECTIVAL NUMBER AGREEMENT: Some nouns can take adjectives agreeing in either singular or plural, resulting in slight changes of meaning. For example, the noun *tsaxway* 'grasshopper', could occur with an adjective like *tleér* with either singular agreement (i.e. *tsaxwáy tleér*) or plural agreement (i.e. *tsaxwáy tlét*). In the case of singular adjectival agreement, the resultant meaning is something like 'a long grasshopper'; in the case of plural adjectival agreement, the resultant meaning is something like 'a long swarm of grasshoppers' or 'a species of long grasshopper'. Conversely, some noun suffixes (like the masculine suffix *-(a)mó*) only allow singular adjectival agreement (hence *daka'umó tleér* 'a tall baobab tree', but not *\*daka'umó tlét* (with an intended meaning of something like 'a species of tall baobab trees'); and some suffixes (like the neuter suffix *-(a)du*) only allow plural adjectival agreement (hence *suledú tlet* 'tall schools', but not *\*suledú tleer*). However, while many suffixes can be described as taking only singular adjectival agreement (like *-(a)mó*), taking only plural adjectival agreement (like *-(a)du*), or taking both (like masculine *-ay*), other suffixes do not behave according to this generalization: some suffixes, it seems, can *sometimes*

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take either singular or plural adjectival agreement, but *sometimes* cannot. For example, the noun *loosí* 'beans' (suffix -*i*) can occur in the construction *loosír tleer* 'a long species of bean' (i.e. singular adjectival agreement) *and* the construction *loosír tlet* 'long beans' (i.e. plural adjectival agreement); however, the noun *bi/iní* 'silky blesmol' (with the same suffix -*i*) can *only* occur with singular adjectival agreement: hence, *bi/inír tleer* 'a long silky blesmol', but *\*bi/inír tlet* (intended meaning, 'a species of long blesmol').

ENCAPSULATION: In addition to occurring outside of the verb phrase, nouns may also occur inside of the verb phrase, between the auxiliary (i.e. the selector) and the main lexical verb -- the so-called 'encapsulated position'. Therefore, in the clause *aní slee aga diíf* 'I hit the cow' the noun *slee* 'cow' is outside of the verb phrase (i.e. in 'un-encapsulated position'), whereas in the clause *aní a sleér diíf* 'I hit the cow', the noun *slee* is inside of the verb phrase (i.e. in 'encapsulated position'). As may be seen from the direct translations of each clause, the difference in position does not result in a difference in terms of *content* as such, but of the weight of that content. Unencapsulated nouns may refer to newly-introduced entities in the discourse, whereas encapsulated nouns rarely, if ever, perform this function.

These phenomena, among others, range from fairly straightforward to considerably complex and, collectively, are the reason why the current work is dedicated to the Gorwaa noun. Addressing these patterns provides impetus for deep exploration of Gorwaa morphosyntax and, ultimately, detailed grammatical description of the Gorwaa language: the long-term desideratum of the broader project.

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Indeed, this 'project' does not exist in isolation: interest in the description of the wider South Cushitic language family is not without its scholarly tradition, beginning with Whiteley's (1958) *A Short Description of Item Categories in Iraqw* and gaining considerable advances with the Iraqw grammars of Nordbudstad (1988), Mous (1993), and the major historical survey of Kießling (2002). A long list of papers may also be added to this list, including those focused on historical reconstruction (e.g. Kießling 1998, 2004, Mous 1996, and Kießling & Mous 2003) as well as description of specific grammatical constructions (e.g. Kießling 2007, Mous 2004, and Mous and Qorro 2010). Specifically, this work seeks to engage in this body of description in two ways. Primarily, by treating a South Cushitic language which has, to present, been underrepresented in literature on the family, this work will broaden the empirical basis upon which work about South Cushitic is conducted. Additionally, this work aims for a different perspective on South Cushitic, namely in taking a formal approach to questions which, to present, have been treated from a functional stance.

The division of formal and functional approaches is not neat, and runs the risk of being essentialist. As stated in Carnie and Harley (2003) "[t]here is very little agreement among linguists about which particular assumptions or methodologies mark one as a functionalist or a formalist" (1). With that said, the identification of some common dimensions along which formalist and functionalist approaches differ, and the keys ways in which those differences are manifest will prove useful in orienting this work in relation to past work on South Cushitic. The following table is based on Carnie and Harley (2003:2), itself based on Croft (1995) and Newmeyer (1998).

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Table 1.1 FORMAL VERSUS FUNCTIONAL APPROACHES (ADAPTED FROM CARNIE AND HARLEY 2003:2)

| Dimension | Functional Approach | Formal Approach |
|---|---|---|
| The role of structure in grammatical theory | Less reliance on structure. | More reliance on structure. |
| The role of arbitrariness in grammar | Grammatical arbitrariness is essentially lexical arbitrariness. Radical functionalism sees arbitrariness only in the lexicon. | Language, including grammar, is essentially arbitrary. |
| The autonomy of syntax | Speaking of grammatical form in isolation is meaningless: semantic and pragmatic function is central to grammatical form. | Several grammatical phenomena allow formal characterization without reference to their semantic or pragmatic function. |
| The diachronic/synchronic distinction | Full characterization of a grammatical system is incomplete without an understanding of the historical events that gave rise to it. | The goal of linguistic theory is to characterize the grammatical system of a speaker at a given moment in time, without reference to the historical pressures that gave rise to that system. |
| The competence/performance distinction | The performance system and the comprehension system are isomorphic. | There exists core grammatical knowledge which can be characterized independently of the production/comprehension system that realizes it. |
| What constitutes 'data' for linguistic study | Statistical corpus analysis, historical data, and sociological data. | Grammaticality judgments, typological comparison, and data from language acquisition. |

Almost immediately, this table belies the diversity of previous work on South

Cushitic, as well as what is to be covered in the current work. For example, Mous

and Kooij (2006) represents a particularly structurally-oriented treatment of

incorporation constructions in Iraqw. Additionally, this work does occasionally

discuss certain phenomena from a historical perspective (see esp. §5.3.6.2 on the reanalysis of loanword endings).  Simply put, functionalism and formalism must be seen to exist as poles of a continuum, and this work, as well as other related to it, though located more toward one pole or another, will rarely occupy one of the extremes.

With that said, it is useful to return to the four introductory 'difficulties' of Gorwaa outlined above, and to contrast how they have been approached in the past and how they have been approached in the current work.  Using these four cases (each roughly representing a different modality of the grammar), one can see how the past analyses and the present analysis differ in terms of formal versus functional orientation.

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Table 1.2 SOUTH CUSHITIC: FORMAL VERSUS FUNCTIONAL APPROACHES

| Phenomenon | Functional Account | Formal Account |
|---|---|---|
| TONAL PAIRS [Phonology] | Represent a derivational device historically used to create proper names from common nouns via addition of a high tone (Kießling 2004:10) | Represent the synchronic existence of a series of suffix pairs differentiated solely by tone, added to a noun stem (see e.g. §5.3.2.2). |
| LINKERS [Morphology] | Represent a historical development from general deictics, common in AfroAsiatic (Banti 1997:100) | Represent the synchronic instantiation of D: obligatorily present in the syntax of nouns bearing reference, but whose pronunciation is prosodically conditioned (see Chapter 7). |
| ADJECTIVAL NUMBER AGREEMENT [Semantics] | Represents semantic agreement. "The same noun can have a singular or plural adjective with a difference in meaning." (Mous 1993: 204) | Represents agreement with the R argument for interpretable number features, if and only if the suffix is unvalued for number (see §7.4). |
| ENCAPSULATION [Pragmatics] | Represents a syntactic construction "determined […] by pragmatic factors": the position is for less pragmatically salient material (Kießling 2007: 145). | Represents a pragmatic construction determined by syntactic/phonological factors: the encapsulated noun, by being integrated into the verbal complex, loses perceptual prominence. If the speaker wishes to emphasize a new referent, that speaker will probably not use an encapsulated form to do so (see §7.3.3.1, esp. (7.20); c.f. Baker (1996: 290)). |

As may be seen, in certain cases (such as adjectival number agreement), the

analyses yielded by the new formal approach are virtually the same as those

yielded by the former functional approach. In other cases (such as

encapsulation), the analysis frames the phenomenon in a different way. In still

other cases (tonal pairs, linkers), the two approaches lead to two final analyses

so different that they will surely result in visible differences in, say, glossing for a descriptive grammar of the language.  What ought to be noted is that, though each pair of analyses uses a very different approach and, occasionally, arrives at a very different interpretation of the phenomenon, no single one yields an 'answer'.  Ultimately, each of these interpretations will have their use in the description of the language and, when taken together, represent a richer view of the phenomena at hand.  It is in this spirit of complementarity that the current work adopts a formal approach, and it is hoped that the insight derived from it will stimulate future thought and inquiry.

Specifically, the theory which informs the formal approach taken in this work is Distributed Morphology (DM) (Halle & Marantz 1993, 1994).  Because much of what follows treats the noun as a complex of smaller parts, DM seemed the most obvious framework to follow.  Because DM asserts that sub-word components (i.e. morphemes) enter into structural relationships according to the same mechanisms which drive the structuring of phrases and clauses, the same vision of the syntax (i.e. Minimalism) may be adopted at all levels throughout the work.

The remainder of this chapter situates the Gorwaa language within its larger social and historical context, and provides details on the methods and methodology used to collect the data used herein.

Following this introduction is a general sketch of Gorwaa.  Providing a general introduction to the language, this chapter is intended as both an empirical contribution to a language for which no previous description was available, as

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well as to ground the reader in some basic concepts which will be further elaborated in following chapters.

The third chapter is an introduction to the formal model employed in the linguistic analysis: the Minimalist Programme and Distributed Morphology.

The fourth chapter discusses the core subject matter of the work: the noun. Following some discussion on wordhood criteria, the noun is established as composed of three major parts: the stem, the suffix, and the linker.  The remainder of the chapter provides a formal DM analysis of the Gorwaa noun stem.

The fifth chapter turns to the suffix.  Morphosyntactically complex, suffixes are identified as having phenomena which may be described as regular as well as phenomena which may be described as listed.  This chapter treats the former characteristics, and the following chapter treats the latter.  With this established, an overview of the regular phenomena ensues, as well as a detailed presentation of the suffixes of Gorwaa.  From a formal (DM) perspective, these regular characteristics are accounted for as products of feature bundles being manipulated in the syntax.

The sixth chapter treats the listed phenomena of the suffix.  Following an introduction to the idea of declension class (or paradigm), an overview of the listed phenomena is given, as well as a detailed presentation of the paradigms into which noun suffixes enter in Gorwaa.  Formally, these listed phenomena are accounted for as realizations of rules post-Spellout.

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The seventh chapter treats the linker -- the final major part of the Gorwaa noun. Following a presentation of linker forms and the morphosyntactic distribution of the linker, it is argued that, contra previous analyses in South Cushitic, that the linker represents agreement morphology manifest on the determiner, whose pronunciation is morphophonologically conditioned. Formal analysis in this chapter is focused on accounting for agreement patterns.

Concluding, chapter eight summarizes the thesis, discusses the implications of the thesis both for South Cushitic and for formal syntax, and proposes prospects for further research.

It will be noted that this work does not include a specific 'literature review' chapter. This was a conscious decision, motivated primarily by the disparate nature of the literature drawn upon in this work. Aside from the overarching framework of Distributed Morphology and Minimalism (which *are* given their own dedicated chapter (see Chapter 3), there is no one concept which informs the entire work. Instead, concepts are employed when they are needed, and as the narrative progresses.

**1.2 Language context**

The following subsection is concerned with situating the Gorwaa language within its larger social, historical, and social-cultural context. Before doing this, however, a comment on the researcher's own situatedness (i.e. involvement within the research context) is also worthwhile.

As a university student (and during Masters-level work, a student at the local University of Dar es Salaam), it was widely recognized among the people with

whom I was working that I occupied a position of an apprentice -- analogous to young Tanzanians conducting fieldwork on the behalf of NGOs or the central government. Research was, then, a necessary step, conducted in order to graduate and progress in my chosen field of work. As a result, many people with whom I have worked have seen themselves as teachers (either of the Gorwaa language or of the Gorwaa lifeways), and seen their knowledge and labour as a contribution to the concrete task of helping me 'write a report' or 'pass an examination'. At the same time, as a white, Western-educated researcher, I am clearly also viewed as part of a lineage of foreign agents: anthropologists, philanthropists, evangelists, and colonists -- the influence of whom has had a tremendous effect on the reality of contemporary Tanzania, and not always benign. I use the word 'agent' consciously, as white people who do not fit into the tourist (Sw. *mtalii*) trope do not simply arrive in rural Tanzania for nothing -- they are there to *do* something. For the Gorwaa, this has meant things like converting people to Christianity, buying up land for large-scale agriculture, or surreptitiously hunting for treasure. Whatever the motivation, white interactions with the Gorwaa people are consistently an exercise of white privilege and (neo-)colonial power over a largely passive (or 'pacified') indigenous peasantry, and may very often be characterized as a process of extraction (of converted souls, of farmed produce, of treasure). Indeed, the current work is a product of the extraction of audiovisual material from the Gorwaa language community. Written in English, and in such a way that many well-educated Western audiences might still find opaque, the work will largely remain inaccessible and (due to differences in the Western-academic and Gorwaa epistemologies) of limited use to the Gorwaa-language community.

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How to address the (often problematic) nature of white involvement in Gorwaaland is not the purpose of this dissertation, and even if it were, such a dissertation would be of little practical use to the Gorwaa people.  Instead, commitment to long-term, reflexive, engagement with the Gorwaa language community, with the ultimate goal of inverting the traditional template of interaction (power held by the outsider, extractive) in favour of a new model (power held by the Gorwaa people, creative/locally meaningful) is perhaps the most appropriate approach.  Actions taken during the current research toward this new model include developing a locally-led research advisory committee, holding extensive public engagement, and committing to fair payment for language consultants, but such measures represent what can only be called a tentative beginning to addressing a very old and often pernicious issue indeed.

Following this reflection on the history of white outsiders among the Gorwaa, it may seem paradoxical (or perhaps even hypocritical) to attempt to engage in an ethnographic analysis.  After all, in writing about "the Gorwaa", is it not the underlying assumption that they are therefore some homogeneous mass, somehow bound to the dictates of tradition or "tribe"?  No.  To paraphrase Sanders' (2008) comment on the Isanzu, the Gorwaa are a collection ultimately composed of individuals: some practice religion, some do not, some possess high levels of Western education, political power, and economic advantage, some do not.  There are families living in towns and cities throughout the country who probably identify as Gorwaa, and there are no doubt a very few who live in Europe, America, or other parts of 'the West'.  This diversity would seem to confound any coherent approach to writing about 'the Gorwaa', if it were not for

the fact that the Gorwaa often employ the term to essentialise themselves. The image of the Gorwaa given below therefore attempts to capture how the Gorwaa imagine themselves. "On this score it is important to note that anthropological projects that essentialize Others are not the same thing as anthropological projects like this one that aim to write about and through Others' projects of essentialization" (207n5).

With that said, the following subsection offers a discussion of the Gorwaa language context, which is necessarily tentative on matters relating to Gorwaa culture. One day, a Gorwaa scholar will undoubtedly do better, but, until then, this attempts to fill the lacuna.

### 1.2.1 History

Oral traditions of the Datooga people state that around 1700, the leader of the Barbaig clan, Ruida, came to the Hanang area to find other groups of Datooga living alongside farmers known as 'Gobreik' (Wilson 1952: 42, 45). Today, this term is the Datooga word used to refer to the Gorwaa. It is argued, however (Kießling & Mous 2003: 119) that, given the time-depth, 'Gobreik' referred not to the Gorwaa people specifically (c.f. Thornton 1980: 199), but an earlier group of Cushitic-speaking peoples from which the Gorwaa and Iraqw peoples (and possibly Alagwa and Burunge) derive. This is corroborated by Gorwaa oral tradition, which holds the Gorwaa, Iraqw, Alagwa, and Burunge peoples to be born of one father [20151125j].

In one version of this story, the Gobreik live near the banks of the Ya'eér Qantsar (Green River) [20151125i]. In another, it is a place called Ma/angwe

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[DSC_5354_20150705b.6].  Depending on the account, changing climate or exhaustion of natural resources bred internal unrest which led to conflict between the Gobreik and the neighbouring Datooga people.  Dealt a decisive defeat, the Ya'eér Qantsar-Ma/angwe settlement was abandoned[1], the leader of the Gobreik fled, and the people were scattered.  The people who retreated to the high plateau between Lake Manyara and Lake Eyasi performed a rite of atonement, and were subsequently spared further battles with the Datooga.  These people became the Iraqw.  The people who remained on the wide lowlands did not perform atonement rites, and became the Gorwaa.  No mention in the oral accounts I have collected make mention here of either the Alagwa or Burunge peoples.

The Gorwaa went on to settle small communities in the area between Mount Hanang to the west and Mount Kwaraa to the east, but were frequently driven out in a long series of skirmishes with the Datooga.  The arrival of another group of Nilotic speaking people -- the Maasai -- brought an end to the Datooga incursions, and seemed to allow the Gorwaa to resettle communities from the east bank of the Duuru river to the far side of Mount Kwaraa.  Shortly thereafter (approximately 1885), the German colonial administrators (based in Kondoa)

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[1] The location of the Ya'eér Qantsar-Ma/angwe settlement remains unknown, but the site of the iron-age ruins of Engaruka is a tantalizing candidate.  Archaeological evidence shows that "[...] sorghum was the main crop, [...] fertilized with manure from stall-fed cattle." (Sutton 2000: 2), an agricultural practice still used by the Iraqw and Gorwaa today.  In addition to this, the Engaruka community seems to have collapsed due to a "decline in the river flows so that several of the irrigation canals could not be sustained to satisfy the demands of so intensive a system supporting so concentrated a population. [O]ne can imagine pressure on resources and unavoidable overworking, with erosion and soil-exhaustion in its train [...]" (2).  Furthermore, abandonment of Engaruka seems to have been complete by around 1700, approximately the same time Ruida saw the Gobreik at Hanang.  However, many oral histories of the area place the Ya'eér Qantsar-Ma/angwe settlement much further south, with alternate inhabitants of the Engaruka settlement being the precursors of the Sonjo people.

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took control of the region, largely bringing a definitive end to large-scale raids from both the Datooga and Maasai, and allowing the area occupied by the Gorwaa to be consolidated as what is now considered Gorwaaland.

The account above runs the risk of reducing the relationship of the Gorwaa and Datooga to one of cat-and-mouse antagonism. In fact, the interplay of these cultures is much more complex and nuanced. Lexical borrowings from Datooga into Gorwaa are common in semantic fields such as cattle diseases and plant and animal names (Kießling & Mous 2003: 33), and many place names in Gorwaaland are Datooga in origin. In fact, older speakers of Gorwaa often report that at least one of their parents spoke Datooga, or identified as a Datooga person themselves. To this day, Datooga traditional doctors, as well as historical figures such as the Datooga prophet Saygilo Mageena, are held in high regard. Suffice it to repeat Kießling, Mous, & Nurse (2008) in saying that "[t]he Tanzanian Rift Valley is an area with a long period of contact with unstable power relations in which the directions of influence changed over time [...]" (2), the Gorwaa-Datooga dynamic described above representing just one moment in this long interplay of different peoples.

Colonial rule (as part of German East Africa from 1885-1919, and as part of Tanganyika Territory (ruled by the British) from 1922-1961), saw a reorganization of Gorwaa society, with the existing hereditary chiefdom given unprecedented power, serving as a proxy for the German and then the British colonial administrators. Power was placed in the chiefs' hands to collect taxes, to arrest and imprison criminals and dissenters, as well as to impose fines for non-compliance with large colonial projects, such as compulsory military service

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[20151202e].  From this arose a strict hierarchy, at the top of which was the

*wawutumo* 'chief', followed by the *ga/awusmo* 'overseer, sub-chief', followed by

the *ya/abusmo* 'steward, ward secretary' followed by the *boyimo* (from the

English 'boy'): 'village headman'.  Particularly popular stories from this era

include those relating to the communal clearing of the forests across Gorwaaland

in order to rid the region of tsetse flies, as well as to open the land to agriculture

[20151202d].  It was at this time that the Gorwaa began to settle to the north as

well as to the east of Mount Kwaraa.

Independence from Britain in 1961 saw the creation of the country of

Tanganyika, and the abolition of the chiefdoms.  From independence until the

mid-1980s, the country (renamed Tanzania upon union with Zanzibar in 1964)

was a socialist one-party state.  During this time Gorwaaland was a remote part

of the large Arusha region, and the Gorwaa people continued to live traditionally

as farmers and pastoralists.  Babati, the largest urban centre in the area,

remained a small outpost town, served by a post office and a health centre

[20150805].

2003 marked the beginning of a period of great change in the area, when the

Arusha region was divided in two, its southern half renamed Manyara, and

Babati declared the regional capital.  This has spurred a sudden, intensive influx

of development (paving roads, building government offices, opening banks, retail

businesses, etc.) as well as sizeable migration of people to the new capital: both

from within the region as well as from other regions.  Increasingly, electricity is

arriving in the towns and villages all around Gorwaaland, and paved roads and

bridges are opening up communities to the commerce, culture, and language of

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the national majority.  Time will tell how the Gorwaa people will respond to

these recent titanic shifts.

**1.2.2 Language family**

Gorwaa is a member of the Southern Cushitic group of the Cushitic family - itself

a branch of the Afro-Asiatic phylum.  The exact position of South Cushitic within

Cushitic is a matter of some debate, with Greenberg proposing Southern Cushitic

as an independent branch of Cushitic (equal with Northern, Eastern, and Central

Cushitic), and Ehret (1995: 490) including Southern Cushitic within Eastern

Cushitic.  An internal classification of Southern Cushitic is presented in Figure

1.1.

Figure 1.1: Internal classification of Southern Cushitic (adapted from Ehret
1980a: 132)

**Southern Cushitic**

| **Mbugu Branch** | **Rift Branch** | **Dahalo Branch** |
|---|---|---|
| Ma'a (mhd; Tanzania) | | Dahalo (dal; Kenya) |
| | **West-Rift** | **East-Rift** |
| | Iraqw (irk; Tanzania) | Qwadza[†] (wka; Tanzania) |
| | Gorwaa (gow; Tanzania) | Aasax[†] (aas; Tanzania) |
| | Alagwa (wbj; Tanzania) | |
| | Burunge (bds; Tanzania) | |
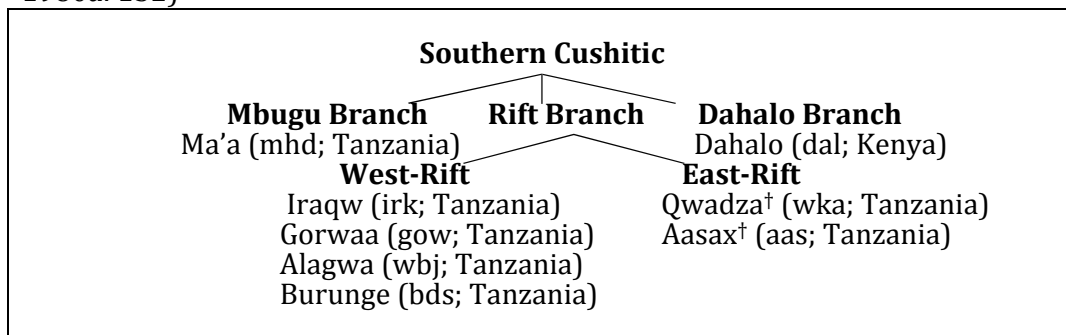
Kießling and Mous (2003: 2-3) note that classification of Southern Cushitic is a

challenge for several reasons.  Firstly, of the East-Rift branch, both languages are

now assumed to be extinct, with only small amounts of lexical data remaining

(see Ehret (1980a+b) for Qwadza, and Ehret (1980a), Fleming (1969), Merker

(1910), Maguire (1927/1928), and Winter (1979) for Aasax).  Secondly, Ma'a of

the Mbugu Branch is best described as a 'mixed language' (Mous 1994), featuring

Bantu morphology and two registers: one containing Cushitic roots and the other

of Bantu origin.  Because of this, inclusion of Ma'a in any genetic classification

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proves problematic.  The status of Dahalo, whether Southern Cushitic, Eastern

Cushitic (Blazek & Tosco 1994), or neither (Rowe 2000), is, ultimately, unclear.

As such, Kießling and Mous (2003) focus on the internal classification of West-

Rift, presented in Figure 1.2.

Figure 1.2: Internal classification of West-Rift (adapted from Kießling & Mous
2003: 2).
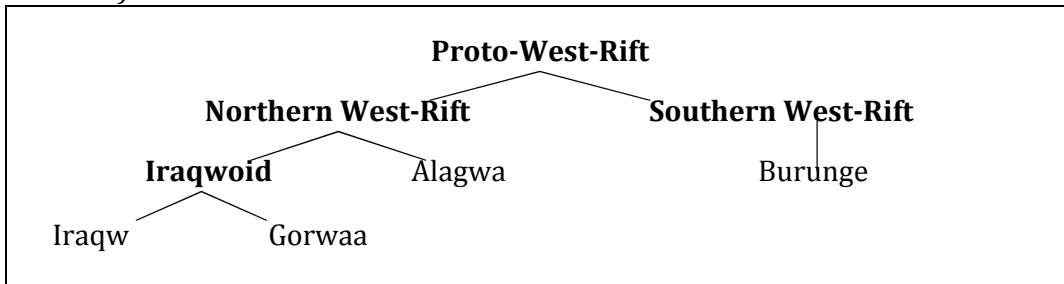


The internal classification is useful: for example, Gorwaa and Iraqw are mutually

intelligible, which is reflected here in the relatively late split between the two

languages.  Limitations, however, do exist.  Contact has played a large role in the

development of all four of these languages, and cannot be represented

genetically.  For example, in the nominal suffixes *-iimi*, *-aC_zee*, and *-aC_zu* occur in

both Gorwaa and Alagwa (whose language communities currently border each

other), but not in Iraqw (which no longer borders Alagwa).  Lexical borrowings

from Alagwa into Gorwaa are also present.

Mutual intelligibility between Gorwaa and Iraqw is high, with several recordings

having been made of Gorwaa speakers addressing Iraqw speakers with no

apparent issues of comprehension [20150913a], [20150913d], [20150927a-f].

The two languages do, however, feature some considerable differences.  In

addition to the nominal suffixes noted above, Gorwaa also shows a different

agreement pattern with several adjectives in the plural form: compare the Iraqw

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*muukú buuxay**én*** with the Gorwaa *muukú buux**áx*** ('grey people').  The marker for

third person agent is also different: compare the Iraqw ***g**una diif* with the Gorwaa

***ng**una diif* ('he hit it(M)').  Syntactically, Gorwaa seems to feature a somewhat

freer argument order than Iraqw: post-verbal nouns which index arguments,

such as the Gorwaa *ina tláy **gofaangw*** ('the **buck** went'), are considered either

strange or ungrammatical in Iraqw.

### 1.2.3 Language use and attitudes

This subsection treats language use and attitudes, 1.2.3.1 discusses the number

of speakers, 1.2.3.2 discusses language use, and 1.2.3.3 discusses language

attitudes.

### 1.2.3.1 Number of speakers

Estimates of the number of Gorwaa speakers vary greatly.  This is largely due to

the fact that no dedicated language survey has been conducted for Gorwaa, and

very little was known about the linguistic makeup of communities in and around

Gorwaaland.  Ethnologue (Simons & Fennig 2017) currently puts speaker

numbers at 50,000.  This figure is from Kießling's (1999) historical

reconstruction of South Cushitic - and seems to be an educated guess.  Indeed,

the following year, Kießling (2000: 1), revises this estimate to 100,000 speakers.

In a 2007 manuscript, Mous estimates the number of Gorwaa speakers at "about

fifteen thousand speakers or less".  In comparison with the Iraqw people -

expanding and culturally dominant in the region (and whose language is the

main focus of that particular work) - Gorwaa does seem a minuscule quantity.

The first methodologically rigorous figure for Gorwaa speakers comes in the

*Atlasi ya Lugha za Tanzania* (LOT 2009), in which informants (mainly university

students who grew up in the administrative region of interest) were asked to

indicate which languages (up to five) were spoken in each area (villages for rural

areas and streets for urban areas) shown in the population census database

(Tanzania Government 2002), as well as estimate what percentage of people

spoke which language. Project researchers then spent 6 weeks in all regions of

the country during July-August 2006 filling gaps and assessing the validity of

informants' estimates (Muzale & Rugemalira 2008: 78-79). The number of

Gorwaa speakers resultantly recorded in the *Atlasi* was 112,941 (LOT 2009: 3).

In an attempt to arrive at a yet sharper conclusion, I recorded population figures

from the latest available census data (Tanzania Government 2014) for each ward

within both Babati Town and Babati District - the area within which Gorwaaland

is located - and made an estimate on what percentage of inhabitants speak

Gorwaa. An additional 2,500 speakers have been added to places where small

communities or individual families of Gorwaa speakers may live which are

outside of the survey area (places like Mto wa Mbu, Arusha, and Dar es Salaam).

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Table 1.3: ESTIMATE OF GORWAA-SPEAKERS BY WARD

| Ward | Population | Percentage of Gorwaa speakers | Number of Gorwaa speakers |
|---|---|---|---|
| BABATI TOWN | | | |
| Babati | 16,718 | 30% | 5,015 |
| Mutuka | 4,910 | 60% | 2,946 |
| Nangara | 7,468 | 30% | 2,240 |
| Singe | 6,620 | 50% | 3,310 |
| Bonga | 9,603 | 40% | 3,841 |
| Bagara | 28,920 | 30% | 8,676 |
| Sigino | 10,038 | 30% | 3,011 |
| Maisaka (Maisák) | 8,831 | 30% | 2,649 |
| BABATI DISTRICT | | | |
| Magara | 15,336 | 5% | 767 |
| Nkaiti | 14,150 | 5% | 708 |
| Mwada | 16,139 | 5% | 807 |
| Mamire | 9,014 | 60% | 5,408 |
| Gallapo (Galapoo) | 19,578 | 50% | 9,775 |
| Qash | 19,549 | 50% | 9,774 |
| Ayasanda | 6,182 | 90% | 5,564 |
| Gidas | 7,392 | 80% | 5,914 |
| Duru | 11,526 | 60% | 6,916 |
| Riroda | 12,179 | 80% | 9,743 |
| Arri (/Ari) | 14,146 | 50% | 7,073 |
| Dareda | 22,880 | 15% | 3,432 |
| Dabil | 16,781 | 10% | 1,678 |
| Ufana | 20,189 | 10% | 2,018 |
| Bashnet | 13,367 | 15% | 2,005 |
| Madunga | 21,094 | 15% | 3,164 |
| Kiru | 13,119 | 30% | 3,936 |
| Magugu | 32,774 | 30% | 9,832 |
| Baoy (Bo/ay) | 6,565 | 60% | 3,939 |
| Nar | 11,186 | 5% | 559 |
| Endakiso | 9,246 | 60% | 5,548 |
| OTHER AREAS | | | ~2,500 |
| | | **Total:** | **132,748** |

The total yielded by this exercise is 132,748. This number represents, to the best

of my knowledge, the total possible number of Gorwaa speakers. A more

nuanced figure can be arrived at by adding up only those areas which I believe

Gorwaa to be actively spoken and used in everyday life (shaded above): this

yields a total of 79,751. These two numbers would suggest that, taken together,

60% of Gorwaa speakers are using Gorwaa actively. The remaining 40% may

know Gorwaa, but are probably not using it extensively, nor passing it on to their children.

## 1.2.3.2 Language use

Further tentative generalizations may be reached from personal observation. Based on interactions observed among Gorwaa families, the language falls somewhere between 6b and 7 on the Expanded Graded Intergenerational Disruption Scale (EGIDS) (Lewis and Simons 2010). EGIDS Level 6b describes a threatened language status: one in which the language is not being passed onto children reliably enough for numbers of speakers to remain stable into the coming generations. As time goes on, "there will be fewer speakers or fewer domains of use or both" (13). EGIDS Level 7 describes a shifting language status: a situation in which the language is clearly not being passed on to younger generations.

In Babati Town, parents of Gorwaa families commonly understand Gorwaa, and may use Gorwaa among themselves in the home. Children, however, either understand Gorwaa but do not use it, or may only know basic items such as greetings and how to form questions. Either way, it is rare to observe Gorwaa children using Gorwaa, even in the home. The language used outside the home, in virtually all interactions, is Swahili. Barring a further, more nuanced, examination of language use among Gorwaa people in this urban setting, Gorwaa may be assessed as 7 (shifting) in Babati Town.

More rural areas (Babati District) see more robust use among all generations, even the youngest, but the domains in which Gorwaa is used are increasingly

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restricted.  Virtually all speakers of Gorwaa also speak Swahili (see Appendix A),

and it is considerably more common to hear Swahili being spoken in social

spaces (at the shop, at worship, etc.) than Gorwaa.  Public life (see Muzale and

Rugemalira 2008) is dominated by Swahili: school, healthcare, and most all

interactions with government officials of every level is conducted in Swahili.  In

the home and among neighbours, Gorwaa may still be heard, but code-switching

is ubiquitous[2].  Rapid societal change (introduction of new farming methods and

technology, arrival of electricity, cash-based trade, mobile phones, computers,

etc.) brings with it entirely new semantic domains, virtually all of which are seen

as more efficient to talk about in Swahili than Gorwaa.  As such, though

intergenerational transmission of Gorwaa is occurring in these rural areas, the

language is clearly losing domains, and the competence of younger speakers

must be seriously questioned.  Gorwaa may therefore be assessed as 6b

(threatened) in Babati District.

Language of early schooling (roughly ages 5-13) in Tanzania is Swahili, with

English as a taught language.  Later schooling (roughly ages 14-19) is in English,

with Swahili as a taught subject.  Virtually no schools offer provision for local

languages (i.e. languages which are not Swahili or English), either as languages of

instruction or taught languages.  Historically, literacy (in Swahili) among Gorwaa

speakers was very low, with a marked improvement in the *Ujamaa* period

following independence in 1961, followed by a decline following restructuring of

---

[2] Though very common in most speech situations, code-switching is relatively rare in
the corpus (though see [20151025], and [20150811c-f]).  This might be explained by the
fact that those recorded knew that the research was being conducted on the Gorwaa
language, and were therefore conscious to ensure they were speaking in Gorwaa, and
not Swahili.

the economy to a capitalist model, which began in 1986. Today, while many

Gorwaa speaking children do attend school, education may be disrupted or not

completed depending on the economic fortunes of the family. Illiteracy among

young adults is not uncommon. Literate Gorwaa speakers will be literate in

Swahili (which employs the Roman alphabet), and possibly English.

In 1977, an Iraqw translation of the Old Testament was produced by the

Tanzania Bible Society which employed a writing system developed principally

by the Catholic mission at Tlawi. As an appendix, a glossary of Gorwaa terms

were included in order to make the book useable by the Gorwaa speaking

Christian community as well. Though the book (nor Gorwaa-language worship)

never became particularly widespread, it did establish the Iraqw writing system

as the standard for Gorwaa as well. With that said, a great diversity of non-

standard writing conventions are in use (e.g. [20150815m], [20150920n],

[20151001z], [20151127g], and [20151127h]), and the language is not very

commonly seen in written form.

In addition to the Gorwaa of everyday interaction, several specific genres of

Gorwaa also exist. Though these have not been given enough attention so as to

be discussed in any great detail, they will briefly mentioned below.

Riddles, a common way of passing the time following the evening meal and

before bed, are often based on guessing the identity of a cryptic description. A

teller will pose their riddle, and others will provide a guess. If nobody guesses

correctly, the riddle either goes unanswered, or may be 'bought' from the teller

by offering a village, town, or city (I once observed a particularly good riddle sell

in exchange for all of Canada).

(1.1)   *Sinik!*                                    [20130206b_20150720b.3-7]
        *My calabash is small,*
        *It has two mouths,*
        *And has much oil that never runs out.*
        [Answer: the nose]

Another speech genre is the *firoo*: a litany-like pronouncement, usually asking

for the intercession of the indigenous god *Loo'aa*.  The contents of the *firoo*

seems relatively variable, and I have yet to observe the more formulaic *slufay* as

described for Iraqw (Thornton 1977, Wada 1978, Kamera 1987/1988, Beck &

Mous 2014).


As a genre, Gorwaa song represents a diverse array of material, often associated

with particular events or occasions.  Wedding songs (e.g. [20160229n]), dancing

songs (e.g. [20160120h]), songs of praise and songs of victory (e.g. [20151004f]),

farming songs (e.g. [20150903f]), and circumcision songs (e.g. [20151202a]) are

all examples which have been recorded.  Certain songs are typically only sung by

men, such as some of the *Mandaa* songs (e.g. [20160927c]), and certain songs are

typically only sung by women (e.g. [20160225t]).

(1.2)   Singer 1:      oo yoo hee balilohee umalohee oo yoo hee
                                                            [20160225t.10-13]
        Singer 2:      *Buraá of the house of Para you are moonlight* hee hee
        Singer 1:      oo yoo hee balilohee umalohee oo yoo hee
        Singer 2:      ee hee *you are shining moonlight* hee hee

Songs may be thematically-linked to the occasion for which they are sung, but

may also be wholly different.  Typical themes include highly poetic entreaties to

lovers, descriptions of parties and their attendees, as well as historical events.

Songs are often performed unaccompanied, but may also be sung along with

music from the *seense* (lute/guitar, see e.g. [20160127o], [20160217o], [20160217zc]), *irimba* (mbira, thumb piano, see e.g. [20160210j], [20160217d], [20160210a]), *gidondoori* (musical bow with a gourd resonator, see e.g. [20161112d], [20161112e], [20161112w-z]), *foori* (flute, see e.g. [20160217j], [20161113f], [20160217ze]), and the *niinga* (drum, see e.g. [20151004d], [20151001w]).  To date, over 250 recordings of Gorwaa songs have been made.

The mystical monologues (or perhaps dialogues) into which traditional doctors enter during the performance of various rites represent another genre of speech. Due to the secretive nature of this type of speech, the only recorded examples are that of the diviner reading stones in order to determine a client's prospects (e.g. [20151003d-e], [20151211c-e]).  Cursory examination shows these sessions are highly structured, and feature specialized vocabulary.

**1.2.3.3 Language attitudes**

As with language use, no dedicated survey of language attitudes has been undertaken for Gorwaa, and as such, the generalizations made here are tentative. Overall, there appears to be a rather sharp divide in language attitudes, particularly in terms of age, as well as identification with a rural versus urban way of life.  Typically, older Gorwaa speakers from rural areas tend to be most enthusiastic about their language, seeing it as useful in the widest range of domains, and valuable as a badge of a culture with which they strongly identify. Younger Gorwaa speakers in more urban areas tend to view Gorwaa as being less useful in day-to-day life, and, in some cases, tend to be somewhat embarrassed to be heard speaking Gorwaa, especially when non-Gorwaa speakers are present.  A large proportion of younger speakers have gone so far

as to eliminate the concept of Gorwaa altogether, in favour of the exonym 'Mbulu'. Mbulu, name of the largest Iraqw settlement, has recently emerged to subsume both the Iraqw and the Gorwaa peoples, cultures, and languages, and is perhaps the most common way for both Gorwaa and Iraqw youth to refer to themselves. Resultantly, many young Gorwaa speakers typically refer to themselves as of Mbulu ethnicity, and to the language which they speak as Mbulu or Kimbulu. Superficially, this simply represents the adoption of a new title, as the language which speakers use remains the same. In the longer-term this perhaps represents a larger shift to Iraqw, as the Gorwaa are most certainly the minority within this neo-ethnicity.

With that said, there has been considerable interest from Gorwaa speakers of all ages in the work surrounding the current Gorwaa language documentation, with the contribution of some (considerably elderly) consultants resulting in a large body of data (such as songs, traditional justice, and uncommon or archaic vocabulary) being collected in a relatively short period of time. Younger speakers directly involved in the translation and transcription of the material have become researchers in their own right, and are taking increasing ownership of the project, and ultimately the documentation and description of their own culture. Such energy would seem to suggest that those exposed to the full richness of the language tend to approach it with new esteem, and may be a route to explore should the speaker community ever desire to further valorize Gorwaa.

**1.2.4 Linguistic Environment**

The eastern branch of the East African Rift is unique in that it is the only area

where all four major African language phyla (Afro-Asiatic, Khoisan, Niger-Congo,

and Nilo-Saharan) have been in sustained contact.  The convergence in parts of

the grammatical structures of the languages in this region has led Kießling, Mous

& Nurse (2008) to propose a Rift Valley Linguistic Area, comprised of the 13

languages shown in Table 1.4.

Table 1.4 Languages of the Rift Valley Linguistic Area

| Phylum | Language (Alternate Names) | ISO 639-3 | Number of Speakers (from Ethnologue) | Major Published Works |
|---|---|---|---|---|
| Afro-Asiatic | Iraqw (Mbulu) | [irk] | 460,000 | Mous (1993) Berger & Kießling (1998) Mous, Qorro & Kießling (2002) |
| | Gorwaa (Fiome) | [gow] | 50,000 | |
| | Alagwa (Uasi) | [wbj] | 30,000 | Mous (2016) |
| | Burunge | [bds] | 30,000 | Kießling (1994) |
| Nilo-Saharan | Datooga | [tcc] | 88,000 | Rottland (no date) |
| Niger-Congo | Nyaturu (Limi) | [rim] | 801,000 | Olson (1964a) Olson (1964b) |
| | Rangi | [lag] | 410,000 | Dunham (2005) Stegen (2011) |
| | Mbugwe (Buwe) | [mgz] | 24,000 | Mous (2004b) |
| | Nyilamba | [nim] | 613,000 | Johnson (1923/26) |
| | Isanzu (Ihaansu) | [isn] | 32,400 | |
| | Kimbu (Yanzi) | [kiv] | 78,000 | |
| Khoisan | Sandawe | [sad] | 60,000 | Steeman (2012) ten Raa (2012) |
| Isolate | Hadza | [hts] | 650 | |

Today, Gorwaaland is located roughly in the geographic centre of this linguistic

area.  With that said, not all of the languages presented in Table 1.1 are in any

sort of regular contact with Gorwaa.  Day-to-day contact between contemporary

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Gorwaa communities and other languages is largely limited to Iraqw, Rangi,
Mbugwe, Alagwa, and Datooga.

Cultural ties and everyday contact between Gorwaa speakers and Iraqw
speakers are strong and frequent.  In addition to arrivals of Iraqw farmers in the
northwestern villages of Gorwaaland over the past several generations,
communities all along the B143 road from Babati to Katesh are, more or less,
mixed Iraqw-Gorwaa.  Intermarriage between Gorwaa speakers and Iraqw
speakers is common.  Gorwaa speaking elders and traditional leaders were often
observed travelling to Iraqwland in order to help resolve conflicts, and
customary leaders (including chiefs, rainmakers, and traditional doctors) of both
ethnicities regularly meet to conduct major rites.  As mentioned above, Gorwaa
speaking youth mix with their Iraqw speaking counterparts in urban areas
including Babati, Mbulu, Katesh, Dareda, and further afield, Arusha, which has
lead to the emergence of a larger Mbulu identity, comprising both.

Similarly, contact between Gorwaa speakers and Rangi speakers is also very
frequent.  Communities toward the south and east of Gorwaaland, such as Bonga
and Galapoo are typically mixed Rangi-Gorwaa.  Perhaps due to religious
differences (the majority of Gorwaa speakers are Christian, while most Rangi
speakers are Muslim), intermarriage and greater cultural integration is not as
profound as that of Gorwaa and Iraqw.

Gorwaa and Mbugwe communities are in contact to the north of Gorwaaland, and
towns such as Magugu and Kiru are mixed, with speakers of Gorwaa and
Mbugwe living and working side-by-side.

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As with Rangi, though perhaps not to the same degree, Alagwa and Gorwaa communities are in contact in extreme southern communities, such as Bereko. Again, because the majority of Alagwa are Muslim, contemporary contact between Gorwaa and Alagwa communities is not as extensive as that between Gorwaa and Iraqw.

Evidence from the very recent past (perhaps only one or two generations) shows that contact between Gorwaa speakers and speakers of the various Datooga dialects was very strong. Indeed, in addition to the 3 Gorwaa consultants who considered themselves fluent in Datooga, at least 13 Gorwaa consultants reported that Datooga was either the first or second language of one or both of their parents (see Appendix A). The Gorwaa still rely on Datooga traders for the metalwork bracelets worn by many Gorwaa people following marriage, as well as for soda harvested from the alkaline Lake Balangida.

Within Gorwaaland itself, speakers are (and historically have been) highly mobile. Because of strict rules regarding intermarriage, it was very common for women to marry into families in villages quite distant from their own. More recently, the concentration of services in a handful of communities has resulted in high levels of movement from one area to another: secondary-level students may live in a different community from their families during term time, and expecting mothers commonly travel from rural areas to Babati in order to give birth in the larger hospitals. The recent improvements in roads and construction of bridges will only further facilitate this tendency.

Historically, Gorwaa speakers did not typically leave Gorwaaland, save for reasons related to grave illness, specialist training, or military service (see [20151202e], [20160225o]). Today, this situation is markedly different, with young men travelling all around central Tanzania for odd jobs or work tending cattle, secondary school graduates moving to Arusha, Dodoma, or Dar es Salaam for skilled employment or post-secondary education, and families settling in Arusha to take up jobs with large companies or as independent entrepreneurs. Indeed, remittances from families employed in larger urban centres is often used to help support ageing parents or younger siblings. This is a relatively new phenomenon, whose impact on the language environment of Gorwaaland has yet to be observed.

## 1.2.5 Language name

The earliest references to the Gorwaa in Western literature come from German explorers (Seidel 1910; Obst 1913; Reche 1914; Heepe 1930), in which the people and language were both referred to as Fiome, Fiomi, or Ufiomi. This seems to be derived from one of the names given to the volcanic mountain to the immediate east of Babati town, today known as Mount Kwaraa. Indeed, the area of government-protected forest atop Mount Kawaraa is today named Ufiome Nature Reserve. Some speakers refer to themselves as Fiomi (or the Swahilized *Mfiomi* or *Wafiomi* for 'Fiomi person' and 'Fiomi people', respectively), and their language as Fiomi (or the Swahilized *Kifiomi* 'Fiomi language'), but this is not particularly widespread. This is interesting, however, in that it establishes this area as somehow salient to identifying the Gorwaa people and their land. This is

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perhaps unsurprising, in that Mount Kwaraa is an imposing free standing

mountain: the highest within Gorwaaland and visible for miles in any direction.

More common is the glottonym and ethnonym Gorwaa.  Reconstructed as

*\*goburaa* for West Rift, Kießling and Mous (2003) suggest that it was the name

used to refer to the "ethnic group closely related or part of [Proto-West-Rift],

[Proto-North-West-Rift], or [Proto-Iraqwoid] community" (119).  In many ways

the most "archaic continuation of [Proto-Iraqwoid]" (33), it is not surprising that

the Gorwaa language would maintain a glottonym and ethnonym most closely

related to the proto-group.  In early academic work conducted by the British (e.g.

Bagshawe 1925; Whiteley 1958), and much work conducted since (e.g. Wada

1984), this (or variants, including Gorowa and Goroa) was the name used to

refer to both the people and the language.  The Gorwaa themselves employ the

ethnonym *Gorwaa* 'Gorwaa people', *Gormo* 'Gorwaa man', and *Gorto'o* 'Gorwaa

woman'.  The language is known as *tsifrír Gorwaa* 'language of the Gorwaa

people', or, slightly less commonly, *Gorti'i* 'Gorwaa language'.  Swahili renders

these forms as *Mgorowa* 'Gorwaa person', *Wagorowa* 'Gorwaa people', and

*Kigorowa* 'Gorwaa language'.

With that said, and as mentioned above, the term *Mbulu* is gaining in popularity,

especially among urban youth.  Derived from the name of the largest urban

centre of Iraqwland, it is assumed that this is an outward sign of a newly-

emerging identity, designed to serve as a cover-term for 'speaker of a Cushitic

language' or 'person of Cushitic origin' -- a useful handle in the multiethnic mixes

of new centres, such as Arusha.  Compare *Mchaga* as a cover term for a speaker

of the various, very different Chaga dialects, and *Mang'ati* as a cover term for a

speaker of one of the Datooga dialects.  As such, as speakers of Kirombo or
Kimoshi are subsumed under *Kichaga* (spoken by an *Mchaga*), and as speakers of
Barbaig or Tsimajega are subsumed under *Kimang'ati* (spoken by a *Mang'ati*), so
too are speakers of Gorwaa subsumed under *Kimbulu* (spoken by an *Mbulu*).
Whether this term becomes widely adopted, and whether it eventually replaces
*Gorwaa* altogether will depend on attitudes of speakers themselves.

### 1.2.6 Existing literature

August Seidel's *Die Sprache von Ufiomi in Deutsch-Ostafrika* (1910) is the first
reference to the Gorwaa language in Western literature.  Following this, the most
significant work is Martin Heepe's *Fiome Texte* (1930), a transcription and
translation of a Gorwaa folk tale.  Further linguistic work has either treated
Gorwaa as part of a larger comparison of South Cushitic (Kießling 1999; Kießling
& Mous 2003), or has remained unpublished (Maghway 2009; Nahhato,
Margwee, and Kießling 1994).  All publications may be found on the Gorwaa
Glottolog page.

### 1.2.7 Notes on culture

The following covers several areas of Gorwaa life relevant to language
maintenance or to Gorwaa's historical relationship to other language
communities in the area.  This description is cursory at best, and much remains
to be learned from further ethnolinguistic documentation.  1.2.6.1 treats natural
resource use, and 1.2.6.2 treats Gorwaa clans.

**1.2.7.1 Natural resources**

As a primarily agro-pastoralist people, Gorwaa livelihoods rely heavily on the land for both the production of crops, as well as the grazing of zebu cattle, goats, and sheep. Forests are also essential for providing food, fuel, building materials, and medicine. At the same time, according to traditional Gorwaa belief, the natural world is imbued with a certain sanctity, around which have grown indigenous land management practices and institutions inspired by myth (c.f. Arhem et al. (2004), writing about the Piraparaná, Colombia). Any change to the allocation, utilization, and management of natural resources has a direct impact on Gorwaa speakers' everyday lives, as well as the maintenance of the Gorwaa language.

Historically (Maganga 1995: 105-118) all land in Gorwaaland was held by the *wawutumo* 'paramount chief', and tenure of arable land was based on membership in traditional community and occupancy on the land to be used. Absentee landlordism was therefore disallowed. Grazing land was mainly designated as a community common, as were forests (subject to significant restrictions to be mentioned below). Waves of immigration (first represented by European settlers in the 1940's and continuing today with groups from land-scarce regions such as Kilimanjaro) and land expropriation (such as that conducted for the establishment of Tarangire National Park in 1969) has resulted in traditional land allocation norms being upended, especially with regards to ownership. Maganga (1995: 115) notes that buying land has now become normal, with the majority of buyers not indigenous to the Gorwaa-

speaking area.  Languages being introduced by new migration include especially the various dialects of Chaga.

Resource utilization is also changing: where sorghum and millet were once the staple crops of the Gorwaa, the cultivation of maize has increased so much that some of the indigenous varieties of sorghum grown a generation ago have all but disappeared [DSC_5354_20150705b.59-69].  Population pressures have likewise put strain on common grazing areas and forests (Maganga 1995: 117-118).

Traditional resource management is perhaps best illustrated in the practices and institutions inspired by indigenous myth.  Maganga (1995: 131-132) notes that Gorwaa rituals and social gatherings often take place in forests and sacred groves carefully preserved for these purposes, that large trees (especially *ficus*) are protected as dwellings of rain-bringing sprits, and that "land blessing ceremonies under which various unsustainable land use practice[s] were prohibited were part and parcel of the traditional Gorowa religion" (132).  This is evident in recordings such as [20151126c] in which Aakó Manangu Qamsillo describes the sacred */aantsimó* fig tree, and [20151223b] in which Aakó Bu'ú Saqwaré and Paschal Bu'ú discuss the history of the *qalalandí* tree at the centre of Yerotoni village.  Maganga notes that the adoption of Christianity and Islam threaten to undermine this spiritually-inspired resource management system, as there is a danger that "many of the resource conservation norms and practices may be dismissed as merely traditional superstitions" (132).

The direct consequences of recent changes in resource allocation, utilization, and management have had a profound impact on transmission and maintenance of

the Gorwaa language throughout the Gorwaa-speaking area. The relatively new phenomena of absentee landlordism and purchase of traditional Gorwaa land by non-Gorwaa speakers has resulted in the introduction of not only new languages in the area, but also a new higher class of landowners who, crucially, do not speak Gorwaa. Gorwaa speakers looking for work on this land are incentivized to either learn the language of the landowners (I have worked with at least one consultant who learned Somali (som) expressly for this reason), or to use the national language, Swahili. The widespread switch from sorghum and millet to maize cultivation has resulted in the disappearance of a whole series of cultural occasions -- indeed, some of the most important social gatherings of the year were based on the precise stages during the ripening and harvest of the first sorghum. In addition to the songs, dances, specialized clothing, and instruments which are being steadily forgotten, Gorwaa speakers have lost an opportunity to come together as a community, to socialize, and, as one speaker put it to me, "be Gorwaa". This social atomization of the Gorwaa language community is mirrored in a very literal sense by the physical atomization of the Gorwaa language community caused by soil erosion. Both population pressure and a decline in adherence to traditional resource management practices has resulted in continuous cultivation of arable land, overgrazing, and a rapid increase in cutting trees. Maganga notes the formation of gullies (*we/eeri*) in Nangara village (1990:125), carrying precious soil away and into Lake Babati. This phenomenon is widespread throughout the Gorwaa speaking area: Endabeg's *we/eeri* are described in [20150722f], and [20150810c]. These gullies have grown rapidly, Ayi Raheli Lawi told me that the wide *Wa/aángw Endabeg* -- over ten meters deep, and just as wide in places -- was formed in her lifetime. In addition to

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reducing the agricultural potential of wide swathes of Gorwaaland, these gullies have split communities, resulting in a situation where regular contact between one-time neighbors is impossible, particularly for the elderly.  Given that elders held (and still hold) an important place in Gorwaa society as arbiters, teachers, and knowledge-holders, this type of extreme erosion will most certainly have an effect on Gorwaa language maintenance.

**1.2.7.2 Clans**

Gorwaa people are divided into a large number of clans.  Today used primarily as a reference for determining whom one may marry and whom one may not, a large number of ritual taboos and requirements were traditionally associated with clan affiliation.  For our purposes, Gorwaa clans give an idea of historical relationships to other language communities in the Tanzanian Rift Valley.

Even today, a Gorwaa person will generally know his or her clan (inherited from their father), as well as that of their mother, as this represents the bare minimum for restrictions on whom one may marry.  Marrying among the same clan, or into the clan of one's mother, is disallowed (*hatík*).  Depending on the clan, there may be further restrictions on marriage, all of which are generally determined by a group of elders.

In traditional Gorwaa culture, clan affiliation dictated several aspects of a person's daily life: certain clans were required to build their houses with the cooking fire on the right-hand side, whereas others would have it on the left.  The *Qooloo* clan was not allowed to eat greens made with the vegetable *qooli*.  In a restriction which resembles those on natural resources (discussed above), many clans were sanctioned from using certain species of trees, either in building their

homes, or as fuel.  Members of the clan *Harna'aa* would be met with misfortune if they owned cattle with a brindled coat.

Some clans were associated with particular functions in society.  The aforementioned clan *Harna'aa* is the clan of the paramount chief (*wawitumo*), a role inherited from father to eldest son.  The clan *Haryaambi* are the rainmakers for all of Gorwaaland.

Clan names sometimes appear to be semantically transparent: *Harhumay* (*har-* 'clan' + *humay* 'earth dug from the floor of a house and placed on the roof'), *Har'aari* (*har-* + *aari* 'prophecy'), and *Kuuntoo* (*kuuntoo* 'grain containers') are all examples.  Still others seem to derive from other words (see *Qooloo-qooli* above): the clan *Gilawee*, known for being unlucky, is quite similar to *gila'* 'to quarrel'. Still other clan names seem non-decomposable: *Gaytu*, *Sumaye*, and *Har'iwa/ay* are examples.

In terms of the historical relationships which clans suggest, many of which are recorded in the individual clan histories: the clan *Harna'aa* are said to be descended from Datooga peoples, whereas the clan *Harahama* is said to be descended from the Maasai.  Both the clans *Harxoopa* and *Warindoo* are said to be of Alagwa derivation.  Perhaps most well-known is the story of the rainmaker clan *Haryaambi*, known to have descended from the Isanzu people of current-day Singida region.  Aakó Rashid Layda tells the story of the arrival of these rainmakers as refugees in Gorwaaland in [20160202h].  To this day, the Isanzu people are known as the rainmakers of the Tanzania Rift Valley *par excellence* (e.g. Sanders 2008, Dadi (no date: 52-55)).  More concretely, several of the clans

are shared between the Gorwaa and the Iraqw: the Gorwaa clan *Sumaye* is

known as *Sumawee* among the Iraqw - many others simply replace the prefix

*har-* with *hay-*, the Gorwaa clan *Harsule* becomes the associated clan *Haysule* in

Iraqw.

## 1.3 Methods and methodology

Because the current work relies heavily on a single body of data, the following

section makes the process of collecting, processing and presenting this data

explicit.  Subsection 1.3.1 provides information about participants in the study.

Subsection 1.3.2 details the data collection.  Subsection 1.3.3 outlines the speech

genres collected.  Finally, subsection 1.3.4 discussed accessing, finding, and using

the data.

### 1.3.1 Information about participants in the study

All participants in the study have provided their informed consent.  Prior to

participation, speakers were introduced to the project and, where necessary,

equipment such as the voice recorder and video camera.  Usually, speakers'

informed consent was formalized in a dialogue with the researcher (1.3) based

heavily on Bowern 2008 (220-221), which were recorded and are available as

part of the larger deposit of recorded materials[3].

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[3] Most consent (and most research in general) was conducted in Swahili, and a Swahili
version of this script is provided in Appendix B.  In circumstances where the consultant
did not speak Swahili, an interpreter was employed to translate the Swahili into Gorwaa.

(1.3)   ENGLISH SCRIPT FOR ORAL CONSENT DIALOGUE
-I want to talk some things over, so that we understand our work.  Is that alright?
-You have the right to stop working with me at any time, and you don't have to tell me why you want to stop.
-You will be paid X Tanzanian shillings per hour of work, or products equal to this value.  Is this alright?
-Is it alright if our work is recorded with a voice recorder or video camera?  I record our work so I can ensure that I heard the words correctly, and so other people can listen to the words and stories later.
-If you are uncomfortable with being recorded, we can turn off the voice recorder and video camera at any time.  You don't have to give a reason why.
-Is it alright if other people listen to or watch the recordings we have made?  Other researchers?  Students?  Your family?  Other people from this area?
-Is it alright if I tell other people that you are working on the Gorwaa language with me?  For example, is it alright if I put your name on a list of people who have contributed to this work?  If not, is it alright if I refer to you by a made-up name? (ask for alias)
-Is it alright if I put our work in a language archive?  A language archive is a place where you can put work like this, so that even if my personal copies are destroyed or damaged, the work remains safe.
-Is it alright if I write (books) about the Gorwaa language?
-Is it alright if I use this work for other purposes?  For example, perhaps today I have made a recording to help me understand the sounds of Gorwaa.  Is it alright if I listen to this work at a later date to learn about the words or the grammar of Gorwaa?
-Thank you, I have finished all of my questions for you.  Before we begin our work, do you have any questions you would like to ask me, or anything you would like to say to me?

Typically, participants were paid a salary of 4,000 Tanzanian shillings per hour of work.  Time worked referred to time spent with researcher, even if this was not recorded.  Rehearsing narratives, doing 'practice-runs' of elicitation questions, finding suitable locations to record, etc. all counted toward paid time.  In 2015, 4,000 Tanzanian shillings was equivalent to approximately 1.85 GBP.  A Tanzanian secondary school teacher at the lower end of their pay-scale in 2015 could expect to earn approximately the same.  Thus, this was an hourly amount which seemed commensurate with the skill set of a language consultant.  Participants who were known in the community as specialists (diviners or

traditional healers, for example) would sometimes be paid slightly more.  In most cases, participants were paid in cash.  In some cases (such as individuals dealing with issues such as gambling addictions or alcoholism), salaries were paid in commodities such as sugar, rice, or airtime vouchers.

126 Gorwaa speakers are represented in the sample.[4]  With this said, however, the amount of material from each participant varies greatly, from over 20 hours' worth of targeted elicitation with one participant, to perhaps a single utterance in the background of a group discussion from another.  Indeed, I estimate that 10% of the participants make up for close to 80% of the recordings.

Of the participants, 88 were male and 38 were female.  This disparity in gender representation was due to several factors, the most important perhaps being that I am male, and I was therefore often limited in the age range of women with whom it was deemed appropriate to have contact, as well as in what kinds of women's domains I could effectively work.  For example, older women were generally deemed appropriate to work with, whereas opportunities to work with younger women around my age were not very common.  This also has to do with the disproportionate amount of labour expected of younger women: with virtually all domestic duties considered the job of women, finding time to

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[4] This figure excludes recordings made of large groups, such as the Subira Elim Pentekoste Adult Choir of Endabeg, the Yerotoni Cultural Group, or the Group at Ayá Manangu on 09/10/2015, during which it was deemed impractical (or simply impossible) to collect information on each individual present.  In terms of permission, informed consent for group recordings was sought from group leaders (such as the choir conductor for the church choir) or heads of a household (e.g. Manangu Qamsilo for the recording made at his home).  If the group was an established entity (such as the Yerotoni Cultural Group), remuneration was made in the form of a donation to the group.  If the group was less established (such as the group at Ayá Manangu), a suitable remuneration was discussed with the owner of the household (in that particular case, remuneration was in the form of a large crate of soda).

conduct recordings was very difficult indeed.  Regarding contexts of work with women, though I made a couple of recordings from inside a kitchen, this was considered an extraordinary exception.  In addition to this, though recordings of groups of men discussing village politics or conflict resolution were made, no such equivalent exists for a group of women.  In order to somewhat mitigate this, a special 'women's focus group' was brought together on February 20th of 2016 for a day of recorded discussion, specifically of women's issues, however, for obvious reasons, this context can only be seen as contrived.

The oldest speaker was estimated to be born in 1912 (100 years old at the date he was first recorded for the project), and the youngest was born in 2003 (12 years old at the date he was first recorded for the project).  Mean age across all 126 participants was 51 years in 2015.

An effort was made to include speakers from all major areas of Gorwaaland, and records on where each participant grew up shows that most major towns and villages are represented.  With that said, a bias remains in favour of the areas in and around Endabeg village, where the researcher lived and worked during most of the data collection.  Least represented are the communities in the southeast of Gorwaaland, as well as those which lay between the foot of Mount Kwaraa and the Tarangire plain.  This is largely due to these places being sparsely populated and difficult to get to by road, as well as their ethnically-mixed nature: some village quarters in these areas having no speakers of Gorwaa whatsoever.

7 participants were Gorwaa monolinguals: typically very old indeed, and having spent all or most of their lives in one or two rural villages.  98 further

participants were bilingual in Gorwaa and Swahili.  The 21 individuals who could

speak three or more languages invariably spoke Swahili, as well as other nearby

languages (Rangi (8), Iraqw (4), Alagwa (3), Datooga (1), Nyaturu (1)), the

official language English (11), or languages associated with faith or business

(Arabic (1), Somali (1), Mandarin Chinese (1)).

Further information on all participants, including name(s), date of birth, where

they were born and where they grew up, sex, language(s) spoken, father's

language(s) and mother's language(s), can be found in Appendix A.

## 1.3.2 Data collection

A basic workflow (based on that provided by Bowern 2008 (48)) describing how

most of the data was processed during this project is provided in Figure 1.1

below.

The majority of the audio recordings were made using a Zoom H2 Handy

Recorder, which produced files in .wav format.  .mp4 video recordings were

made using a JVC Everio GZ-HD40EK video camera, and the video function on a

Nikon D7000 camera equipped with a 50mm Nikor lens.  Typically, in all cases in

which video was recorded, audio was also recorded using the audio recorder,

and the two were later synchronized (see below).  For situations in which the

participant (or participants) is moving, the audio recorder was linked to an

Audio-technica AT803b Lavalier (lapel) microphone, both of which were carried

in a backpack by the participant while the researcher made video recordings

with the video recorder while following along.

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As soon after recording as possible (usually the same night), audio and video files were transferred from the memory cards of the audio and video recorders and placed in a new folder (referred to as a *bundle*) on a MacBook Pro. All files in the bundle (audio, video, and the folder itself) were assigned a unique identifying number. The system is based on the date on which the recording was made: therefore, the first eight digits refer to the year, month, and day of recording. Recordings made on the same day are further differentiated by being assigned letters. If more than 26 recordings were made in a single day, the labeling would proceed za, zb, etc. As such, a bundle assigned the unique identifying number 20151128b was the second recording to be made on the 28th of November, 2015. Further information (item title, place of recording, speaker(s), speech genre, brief description, etc.) was recorded in a Microsoft Excel for Mac (2007) sheet database. All new bundles and metadata recorded in the spreadsheet database was saved on an ADATA 1TB hard drive, and backed up on a second hard drive of the same model. Bundles were then processed and uploaded to the ELAR archive using the software Archive Builder (Arbil) (2013).

Figure 1.3: Basic Data Collection Workflow

| | |
|---|---|
| **BEFORE SESSION** | PLAN SESSION<br>    -Check equipment (batteries full, memory cards empty)<br>    -Compile goals (questions, prompts, etc.) |
| **DURING SESSION** | CONDUCT SESSION<br>    -Monitor recording<br>    -Take notes (interesting items, questions for immediate of later follow up)<br>    -Ask questions, listen to answers |
| **AFTER SESSION** | FILE DATA<br>    -transfer audio/video from equipment to a new folder (bundle)<br>    -assign all items of new bundle a unique identifying number<br>    -add bundle description to database<br><br>SEND ALL NEW BUNDLES TO ARCHIVE<br><br>TRANSCRIBE/TRANSLATE DATA<br>    -set up ELAN project for bundle<br>    -transcribe material in Gorwaa working orthography<br><br>GLOSS DATA<br>    -export ELAN project to FLEx<br>    -gloss line-by-line<br>    -add notes where necessary<br>    -re-export project from FLEx to ELAN<br><br>SEND ALL GLOSSED ELAN FILES TO ARCHIVE<br><br>BEGIN AGAIN |

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Once bundled and backed up, data was then transcribed and translated. Audio and video files were synchronized in the ELAN Linguistic Annotator software programme (2011) and transcribed in the working Gorwaa orthography, then translated into Swahili and English. In the beginning, this was conducted largely by the researcher with help from speaker Ayí Raheli Lawi. This method proved extremely time consuming, and was later vastly improved by employing three local speakers: Stephano Edward, Paschal Bu'ú, and Festo Massani, who would take the prepared ELAN files onto an 8GB USB on a weekly basis and translate and transcribe them independently using HP Stream 11.6 inch HD laptop computers.

Following transcription and translation, the researcher would once again take the ELAN files, review the transcription and translations in order to make sure the orthography was consistent with the rest of the corpus, and then gloss the materials. Files were exported from ELAN to the Fieldworks Language Explorer programme (FLEx) (SIL, 2015) and glossed using the parsing tool. Glosses were checked, adjusted, and corrected, and material was then re-exported from FLEx back to ELAN. These new files were backed up, and then uploaded to the ELAR archive, once again using Archive Builder.

Data collection tools were not often employed, with much of the elicited material collected through translation exercises, and much of the naturalistic material simply being volunteered by participants. Sophie Salffner provided a set of wooden bricks for a speech activity in which one speaker had to build an unseen model with the verbal cues of a friend on the other side of a partition (see also the description of

'Block Worlds' in Salffner 2015:254-255). I also used two identical sets of twenty cow photos, of which a subset was given to one speaker, who had to help a second speaker choose the identical image from their set by describing how it looked. The same activity was also conducted with a set of bird photos. The Comparative African Wordlist (SILCAWL) (Snider & Roberts 2006), as well as the SIL RapidWords (SIL International) questions were also used with a focus on eliciting new nouns. Old recordings of Gorwaa music from Radio Tanzania Dar es Salaam (Kirombo & Ndumbalo 1967) also served as useful stimuli for further discussion.

Time spent in the field totaled twenty-six months. This was divided into three individual periods: a thirteen-month period for research associated with Master's degree between October 2012 and October 2013, and then two periods for Doctoral-level research: nine months between July 2015 and March 2016, and three months between September 2016 and November 2016. Figure (1.2) below shows approximately how many minutes of recordings were collected during each month of fieldwork, as well as what type of material this was. Natural speech refers to recordings made with the least amount of input or constraint imposed from the researcher: they range from traditional songs and stories, to procedural descriptions of how to complete an everyday task. Prompted speech refers to recordings made in which the participant (or participants) respond within a larger context contrived by the researcher: the picture-matching task described above is one example. Elicitation refers to recordings made in highly-controlled situations: generally in a question-answer format in which the researcher presents a phrase for

translation or back-translation, or asks for a grammaticality judgment. Consent

refers to the recordings of the scripted consent dialogue, as given in (1.1) above.

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Figure 1.4: RECORDINGS COLLECTED DURING EACH MONTH OF FIELDWORK
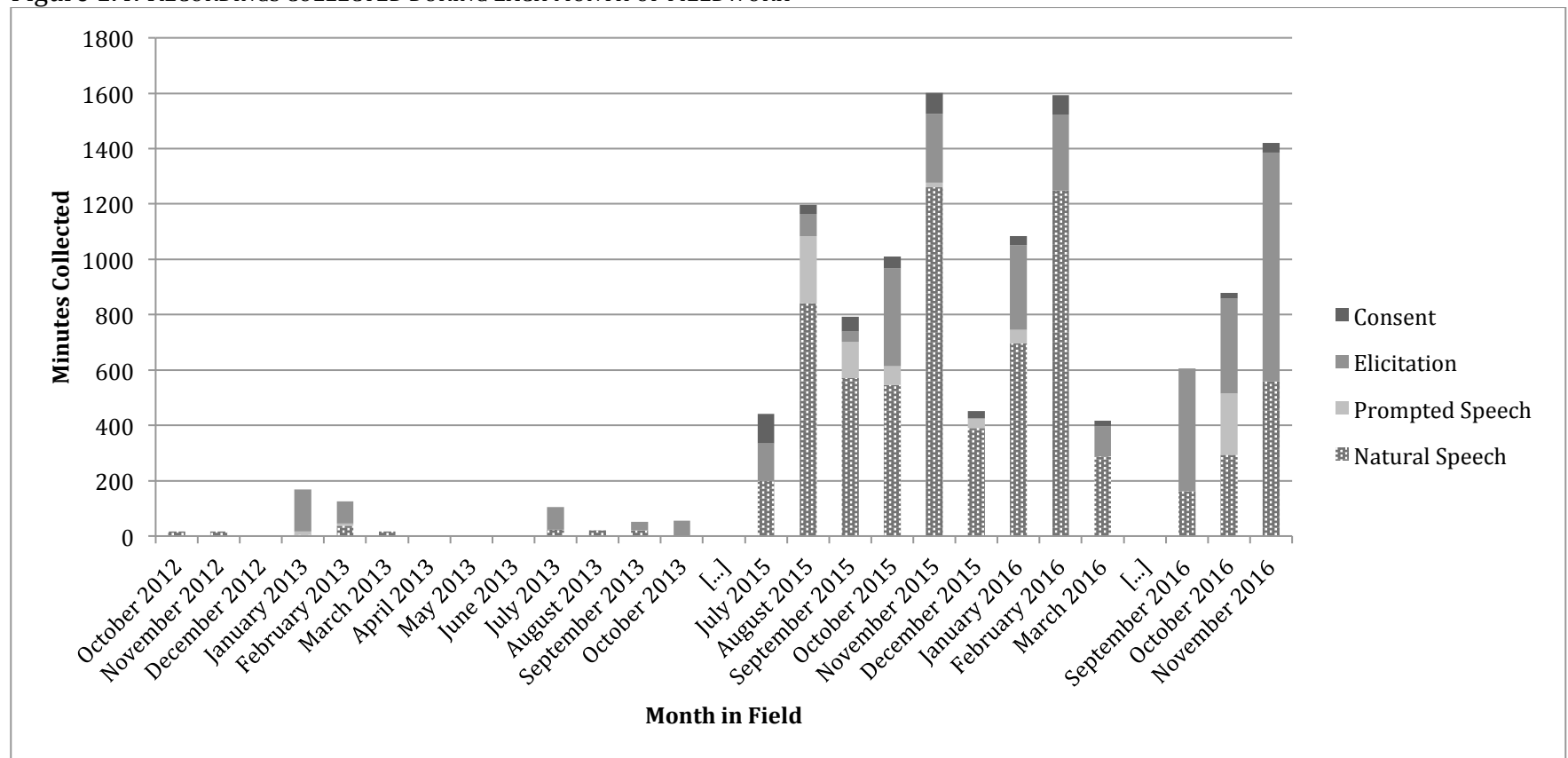
**1.3.3 Speech genres collected**

During data collection, an attempt was made to include as diverse a range of speech

genres as possible. As such, the corpus includes materials ranging from discussions

of jural traditions (e.g. Justice 5 [20160219h]), to historical epics (e.g. History 1-A

[20151125i]), to recordings of children playing games (e.g. Usuji [20151025]).

However, only a subset of recordings from the entire corpus are referenced in the

current work. Some of the most frequently used are described below, along with

excerpted English translations.

The most uniform type of recording was those featuring elicitation, where the main

contents were translation or back-translation of phrases (1.4), or grammaticality

judgments (1.5). I hesitate to refer to these as 'genres', as they are most certainly

not natural speech. They do, however, feature their own norms and different types

of elicitation result in different language outputs.

(1.4)   TRANSLATION "NOMINALIZATIONS 1" [20150724.34-37]
        *I travel at nighttime.*
        *This person is a traveller.*
        *This person missed the journey.*
        *A long trip takes time.*

(1.5)   GRAMMATICALITY JUDGMENTS "MASS/COUNT NOUNS" [20150810d.8-11]
        *'Water' is uncountable.*
        *We say 'that water is in a vessel.'*
        *We say: 'water - three bottles, two bottles, one bottle, two bottles, three bottles,*
        *four bottles, five bottles' of water.*
        *Because 'water' is uncountable.*

Prompted speech typically featured uncontrived speech but within a situation which

was contrived by the researcher, typically to collect a specific type of grammatical

construction or vocabulary. The most commonly recorded instances of prompted

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speech included Salffner's block worlds task (1.6), and the photo match task (1.7),

both described above.

(1.6)   BLOCK WORLDS TASK "BUILDING BLOCKS 5 [20150817d.487-491]
        [S.J.]   *the other leg, build it in the place in front of you - build it in the place in*
        *front of you*
                 *build those legs there, leave this thing there alone*
        [H.J.]   *there on this side?*
        [S.J.]   *yes, build it on that side*
        [H.J.]   *why is this house so damn big?*

(1.7)   PHOTO MATCH TASK "BIRD IMAGES 11-A [20151021c.292-296]
        [B.S.]   *this other one*
                 *it has a long mouth I say! it has red eyes*
        [P.B]    *what is this bird called?*
        [B.S.]   *this, I don't even know its name*
        [P.B.]   *its mouth is red?*

Natural speech recordings produced the most diverse range of speech genres,

including narratives (e.g. Honey Stories [20131108b_20150725j]), Christian prayers

(e.g. Blessing the Meal 1 [20150725l]), and group conversations (e.g. The local

football championship [20150726d]). Among this range of genres, two which are

commonly cited in this work include personal biographies, and procedural

descriptions.

(1.8)   PERSONAL BIOGRAPHY "LIFE STORY 2" [20131027_20150725c.159-162]
        *If a man saw me*
        *"You, a woman, will go in this way!*
        *That husband of yours is a fool."*
        *I said "No, he's not a fool [...]*

(1.9)   PROCEDURAL DESCRIPTION "HONEY HUNTING 2" [20150808a.50-53]
        *Hey - let me lie on my stomach so that I dig it out once more.*
        *The beehive is full of liquid honey - look here, this is dried honey.*
        *Ah! I was bitten hard, they bite hard!*
        *Ouch! I was bitten!*

**1.3.4 Accessing, finding, and using the data**

All data has been archived with the Endangered Languages Archive at SOAS, University of London. This includes all audiovisual files (.wav, .mp4, .jpeg), as well as analysis files (i.e. ELAN files (.eaf)). Material is being continually updated as recordings are transcribed, translated, and glossed. It is expected that future Gorwaa recordings and analysis will also be deposited here. All data is openly accessible, requiring only that users register with ELAR and agree to its Terms and Conditions of use.

For every example of phrasal length or longer in this work, a citation has been provided which will allow the reader to identify the larger recording in the archive, as well as to resolve back to that particular phrase within the recording. Citations (bolded in (1.10)) occur in square brackets to the right of the first line of the numbered example.

(1.10)  *inós a Gormo*          **[20160119f.12]**
         inós            Ø        Gormó
         Pro.3M          Aux      Gorwaa.person.♂.LMo
         "He is a Gorwaa person."

Each citation has two parts, divided by a full stop. The alphanumerical part to the left of the full stop corresponds to the unique identifying number of the recording (discussed above), and allows the reader to locate the recording within the archive. This can be done by visiting the deposit page (https://elar.soas.ac.uk/Collection/MPI1014224) and entering the unique identifying number into the box titled 'Search this deposit' in the upper left corner,

as shown in Figure 1.3.  This will lead to the contents of the specific bundle, which

can be viewed and downloaded.

Figure 1.5: DEPOSIT PAGE WITH 'SEARCH THIS DEPOSIT' IN THE UPPER LEFT



Returning to the citation, the numerical part to the right of the full stop corresponds

to the number of the phrase segment in the ELAN (.eaf) file.  Once the reader has

accessed the bundle from the deposit page, they may download its contents (.wav

and/or .mp4, and .eaf), and simply search within the ELAN file to the exact number

cited (as shown in Figure 1.4) in order to listen to and view the exact moment in the

recording in which the utterance of choice was produced.

Figure 1.6: ELAN file with 'phrase segment number' as the fourth tier from the bottom
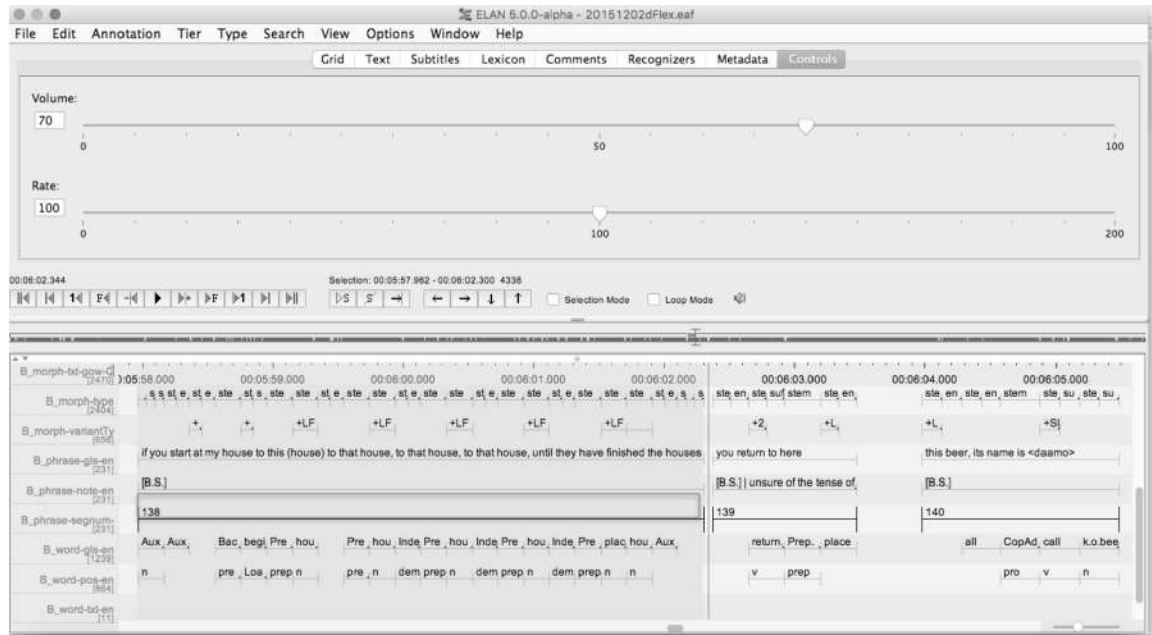


## 1.4 Summary

This chapter introduced the reader to the aims of this dissertation, to the larger

context in which the Gorwaa language exists, as well as the way in which the

language data was collected.  The next chapter provides a general discussion of the

Gorwaa data in the form of a sketch grammar.

# 2. A grammatical sketch of Gorwaa

## 2.1 Introduction

Among other things, the previous chapter discussed some of the wider context (historical, cultural, sociolinguistic) in which the Gorwaa language exists (see §1.2), as well as the research methodology used during data collection (see §1.3). What follows is a preliminary sketch of Gorwaa, written with two central purposes in mind. First, the sketch provides descriptive material on the main points of Gorwaa grammar: both the most cross-linguistically common features, as well as those most peculiar to the language. As a language with no previous description, this is meant as an empirical contribution to understanding the language in general. Second, the sketch ought to ground the reader in a basic understanding of the noun phrase and associated phenomena such as agreement – the theoretical and analytical focus of the thesis.

The sketch begins with an overview of Gorwaa phonetics and phonology (§2.2). It is followed by a presentation of the lexical categories of the language (nouns, verbs, adjectives, adverbs), with an excursionary remark on ideophone (§2.3). Next, the fuctional categories (determiners, selectors, and pronouns) are examined (§2.4). Moving on to clausal constituents, comment is made on canonical word order, the verb phrase, the noun phrase, the adpositional phrase, as well as comparatives (§2.5). A section on pragmatically marked structures includes focus, contrast, topicalization, negation, and non-declarative speech acts (§2.6). The sketch ends with complex clauses: relatives and coordination (§2.7).

## 2.2 Phonetics and phonology

This section introduces the phonetics and phonology of Gorwaa. The first subsection introduces the consonant inventory. The second subsection introduces the vocalic inventory. Third, attention is given to pitch and intonation. The fourth subsection is on stress. The final subsection treats phonotactics.

### 2.2.1 Consonants

Gorwaa has 33 consonants, and is notable for its paucity of voiced fricatives and wealth of pharyngeal and glottal sounds. Several consonants are labialized. Four consonants are ejective. The most articulatorily complex consonant is the ejective lateral affricate, [tɬ'].

Table 2.1: PHONEMIC INVENTORY OF GORWAA CONSONANTS

| | Bilabial | Labio-dental | Alveolar | Palato-Alveolar | Palatal | Velar | Uvular | Pharyngeal | Glottal |
|---|---|---|---|---|---|---|---|---|---|
| *Nasal* | *m* | | *n* | | *(ɲ)* | *ŋ* <br> *ŋʷ* | | | |
| *Stop* | *p  b* | | *t  d* | | | *k  g* <br> *kʷ* <br> *gʷ* | | | *ʔ* |
| *Ejective Stop* | | | | | | | *q'* <br> *q'ʷ* | | |
| *Fricative* | | *f* | *s* | *(ʃ)* | | | *χ* <br> *χʷ* | *ħ    ʕ* | *h* |
| *Approximant* | *w* | | | | *j* | | | | |
| *Trill* | | | | | *r* | | | | |
| *Lateral Fricative* | | | | | *ɬ* | | | | |
| *Lateral Approximant* | | | | | *l* | | | | |
| *Affricate* | | | | *(tʃ)(dʒ)* | | | | | |
| *Ejective Affricate* | | | | | *ts'* | | | | |
| *Ejective Lateral Affricate* | | | | | *tɬ'* | | | | |

Consonant phonemes in brackets represent non-native phonemes, present

exclusively in loanwords.

(2.1)  NON-NATIVE PHONEMES OCCUR EXCLUSIVELY IN LOANWORDS
      a.    [**tʃ**upa]      *chupa* 'bottle'from Sw. *chupa* 'bottle'
      b.    [**ɲ**a**ɲ**a]      *nyanya* 'tomato' from Sw. *nyanya* 'tomato'
      c.    [**dʒ**e:la]      *jeela* 'private room' from Sw. *jela* 'prison'
      d.    [bija**ʃ**ara]      *biyashara* 'commerce' from Sw. *biashara* 'commerce'

Orthographic representation of consonants, where different from the IPA, are

given in Table 2.2 below.

Table 2.2: CONSONANTS: IPA EQUIVALENTS FOR ORTHOGRAPHIC REPRESENTATIONS

| Orthography | IPA Symbol |
|:---:|:---:|
| ny | [ɲ] |
| ng | [ŋ] |
| ' | [ʔ] |
| q | [q'] |
| sh | [ʃ] |
| x | [χ] |
| hh | [ħ] |
| / | [ʕ] |
| y | [j] |
| sl | [ɬ] |
| ch | [tʃ] |
| j | [dʒ] |
| ts | [ts'] |
| tl | [tɬ'] |
| kw | [kʷ] |
| gw | [gʷ] |
| ngw | [ŋʷ] |
| qw | [q'ʷ] |
| xw | [χʷ] |

## 2.2.2 Vowels

Gorwaa has 5 vowels: two front-back pairs at two heights, and a single low

vowel.

Figure 2.1: THE GORWAA VOWELS

| *i*  *ii* | | | *u uu* |
|---|---|---|---|
| | *e*  *ee* | *o  oo* | |
| | | *a  aa* | |

Gorwaa distinguishes long vowels from short vowels. Each of the vowels above has a short version and a long version. Orthographically, short vowels are written with one character: *a, e, i, o, u*, and long vowels are written with two characters: *aa, ee, ii, oo, uu*. Length distinction can be lexical, though the cases are rare and, as in (2.2), stress may play more of a role in disambiguating the two forms than vowel quality itself. Grammatically, however, the functional load of vowel-length distinction is high (2.3).

(2.2)  LEXICAL VOWEL-LENGTH DISTINCTION
[ts'aχ**ara:**]    *tsax**araa***    'blood-drawing arrow'
vs.
[ts'aχ**a:r**a]    *tsax**aara***    'shooting (with arrow)'

(2.3)  GRAMMATICAL VOWEL-LENGTH DISTINCTION
a.    [ʔa d**ó:ɬ**]    *a d**oó**sl*    'I farm'
vs.
[ʔa d**óɬ**]    *a d**ó**sl*    'you farm'

b.    [he: t̴**á:**kʷ]    *heé tl**aá**kw*    'a bad person'
vs.
[mu:kú t̴**á**kʷ] *muukú tl**á**kw* 'bad people'

## 2.2.3 Pitch and intonation

Kießling (2004), establishes that across South Cushitic there are two predominant phonemic tone contours, which operate within phonological words including the subject noun, as well as the vP. He names these accent 1 "neutral tone" (herein level pitch accent), and accent 2 "marked tone" (herein rising pitch accent). However, there exist a further three intonational tone contours, used primarily for pragmatic purposes. This therefore requires a slight expansion to his description.

The two 'grammatical' contours described by Kießling (2004), and which bear the largest functional loads by far, are level pitch accent (LPA), in which default low tone is assigned to all syllables of a domain, and rising pitch accent (RPA), in which prominent high tone is manifested on the final syllable of the phonological word. Nouns may possess LPA or RPA lexically. In addition to this, these two tone contours play an important role in many morphosyntactic distinctions, including TAM, adjectival concord, and derivational operations[1].

(2.4)   TWO 'GRAMMATICAL' CONTOURS
      a.   LEVEL PITCH ACCENT (LPA)
            i) [desi]         *desi*        'girl'
            ii) [ħara]       *hhara*     'stick'
            iii) [ʔi gu:ʔ]    *i guu'*    'he sleeps'

      b.   RISING PITCH ACCENT (RPA)
            i) [desír ʔa:ko]   *desír aako*   'grandfather's girl'
            ii) [ħartá tle:r]   *hhartá tleer*  'a long stick'
            iii) [ʔaga gú:ʔ]   *aga guú'*   'he slept'

Additionally, there are three intonational tone contours which serve a largely pragmatic function. The first of these, vocative pitch accent (VPA), assigns high tone to the penultimate syllable, followed by low tone on the final syllable. Vocative is typically used when addressing someone[2]. Falling pitch accent (FPA) assigns prominent low pitch to the final syllable of the phonological word. Falling pitch accent is used as an emphatic or contrastive device. Rising-falling pitch accent (RFPA), features what Mous (1993:287) describes as "an extra high tone and a subsequent fall", and is situated on the penultimate syllable. Rising-falling pitch accent signals a polar question. These three 'intonational tone

---

[1] Accent marks are used in these examples to indicate tone assigned to the syllable. Lack of accent indicates low tone. An acute accent (´) indicates high tone. A grave accent (`) indicates extra low tone. A circumflex accent (ˆ) indicates rising-falling tone.

[2] Gorwaa personal names are uniformly polysyllabic – in addition to contextual clues, the possibility of confusion between a hypothetical monosyllable in RPA versus one in VPA is very slim indeed.

contours' will supersede any original 'grammatical tone contour' of the

phonological word of interest.

(2.5)   THREE 'PRAGMATIC' CONTOURS
   a.      VOCATIVE PITCH ACCENT (VPA)
            [dési]  *desi!*    'girl!'

   b.      FALLING PITCH ACCENT (FPA)
            i)       [ħartá tlè:r]    *hhartá tleèr*    'a <u>long</u> stick' (as opposed to
                                                          a short one)
            ii)      [ʔaga gù:ʔ]     *aga guù'*        'he <u>slept</u>' (finally, or as
                                                          opposed to ate)

   c.      RISING-FALLING PITCH ACCENT (RFPA)
            i)       [gár bô:ʕ]      *gár boô/*        'a black thing?'
            ii)      [aga gû:ʔi]     *aga guu'î*       'has he slept?'

Finally, it should be noted that Gorwaa features downdrift through the course of

the intonational phrase.  Tentatively, this type of downdrift resembles tone

terracing – where both high and level tones trend downward in pitch, and

differences in pitch become progressively narrow until pitch is reset at the

beginning of the next intonational phrase.

Beyond the special notation made in these examples (see fn. 1), the orthography

marks tone as follows.  Level tone is left unmarked.  Rising pitch accent is

marked in the writing system by placing an acute accent on the final vowel of the

phonological word.  Vocative pitch accent is indicated with an exclamation mark

directly following the word.  Falling pitch accent is marked by placing a grave

accent on the final vowel of the phonological word.  Rising-falling pitch accent is

marked by placing a circumflex accent (ˆ) on the final vowel of the phonological

word.

**2.2.4 Stress**

Stress occurs by default on the first syllable.  If the penult contains a long vowel, then it is stressed instead. If the penult contains a short vowel and the final syllable has a high tone, stress will be on the final syllable.

(2.6)   STRESS ASSIGNMENT
    a.    STRESSED FIRST SYLLABLE

| | | | |
|---|---|---|---|
| i) | [ʕa:lusumo] | /<u>aa</u>lusumo | 'heir' |
| ii) | [kaliʔi] | <u>ka</u>li'i | 'colour' |
| iii) | [lawala:] | <u>la</u>walaa | 'spear' |

    b.    STRESSED PENULTIMATE SYLLABLE

| | | | |
|---|---|---|---|
| i) | [ʕare:ma] | /a<u>ree</u>ma | reduction |
| ii) | [ʔafaʼħo:wa] | afa<u>hhoo</u>wa | eloquence |
| iii) | [q'antsare:ma] | qantsa<u>ree</u>ma | greenness |

    c.    STRESSED FINAL SYLLABLE

| | | | |
|---|---|---|---|
| i) | [ʕorruʔumó] | /orru'u<u>mó</u> | sp. of tree |
| ii) | [karkarí] | karka<u>rí</u> | sp. of grub |
| iii) | [ne:armó] | nee/ar<u>mó</u> | sp. of bird |

**2.2.5 Phonotactics**

This section deals with the permissible combinations of phonemes in Gorwaa. Considerable similarities exist between Iraqw and Gorwaa with regard to phonotactics, and this section owes a considerable debt to Mous' work in this area with Iraqw (1993: 24-39).  First, syllable shape is examined.  This is followed by root-level phonotactics, and then word-level phonotactics.

**2.2.5.1 Syllables**

Canonical syllables in Gorwaa are of the form CV, CVC, CVNC, CV:, CV:C, and CV:NC, where N is a homorganic nasal.

(2.7)    CANONICAL SYLLABLES
      a. CV      i) [di]      *di*      'place' (n)
                     ii) [ga]     *ga*      'thing' (n)
                     iii) [ja]    *ya*      'thus' (adv)

      b. CVC     i)  [dáh]   *dáh*    'come in' (v)
                     ii) [dóʔ]   *dó'*    'house' (n)
                     iii) [tám]   *tám*    'three' (n)

      c. CVNC   i)  [ʕónd]   */ónd*   'dry.up.F' (v)
                     ii) [tɬʼánqʷ] tlánqw   'spotted.F' (adj)
                     iii) [ħúnɬ]  *hhúnsl*  'wash.F' (v)

      d. CV:     i) [matɬʼeː] *matlee*  'morning' (n)
                     ii) [firoː]  *firoo*   'prayer' (n)
                     iii) [muː]  *muu*    'people' (n)

      e. CV:C   i) [qʼóːm]  *qoóm*  'be.good.1Sg' (v)
                     ii) [hóːt]  *hoót*   'live.1Sg' (v)
                     iii) [baːqʼ] *baaq*  'house.partition' (n)

      f. CV:NC  i) [faːnqʷʼ] *faanqw* 'seven' (n)

In some loanwords from Swahili, the initial syllabic nasal is tolerated (see

Harvey & Mreta 2016: 4).

(2.8)    INITIAL SYLLABIC NASAL TOLERATED IN LOANWORDS
      a. [m̩tʃongoma]     *mchongoma*  'shrub sp.' from Sw. *mchongoma*
'shrub

                                           sp.'
      b. [n̩dowa]        *ndowa*     'wedding' from Sw. *ndoa* 'wedding'

## 2.2.5.2 Stem-level phonotactics

Mous (1993: 29) notes that stems longer than three syllables usually contain a

reduplicated syllable, or an *r*.

(2.9)    STEMS LONGER THAN THREE SYLLABLES
      a. [mataħar#á]    *matahhar-*  *-á*    'insect sp. (pl.)'
      b. [ʕaraʕant#i]    */ara/ant-*  *-i*    'fire-ball lilies'
      c.  [ʔindaχaχ#áʔ]  *indax**ax**-*  *-á'*   'plant sp.'

As noted in Mous (1993: 27), initial syllables of polysyllabic stems are usually of

CV, NCV, CVC, or NCVC structure.  CVV is sometimes possible, usually before an

NC cluster (see (2.10))[3]. A set of other cases are given in (2.11). CV:C, CVNC, and CV:NC are never acceptable structures for polysyllabic roots.

(2.10)  CVV SYLLABLE BEFORE AN NC CLUSTER
        a. [ba:mbár]      ***baa***mbár     'finger millet'
        b. [da:ngaf#i]     ***daa***ngaf- *-i*   'millet-filled gourd'

(2.11)  OTHER CASES OF CVV SYLLABLES
        a. [ne:ʕár]       ***nee***/*ár*           'heavy clouds'
        b. [se:sékʷ]     ***see***sékw          'bustard'
        c. [ʔi:rimb#í]    ***ii***rimb-    *-í*     'crested cuckoo'

In addition to restrictions on syllable structure for polysyllabic roots, Mous (1993: 28-29) also notes restrictions on their vowel sequences. These restrictions hold for Gorwaa as well, and are formulated as follows: i) the first vowel is [+high] or [+low] (not [+mid]), and the second vowel is either epenthetic, [+low], or [+mid] (not [+high]) (see (2.12)); or ii) all vowels are identical (see (2.13)).

(2.12)  FIRST V IS NOT [+MID], SECOND VOWEL IS EITHER EPENTHETIC OR NOT [+HIGH]
        a. [barij#a]      *bariy-*     *-a*    'k.o. disease' (underscored i is
                                                       epenthetic)
        b. [gases#mó]   *gases-*    *-mó*   'reptile sp.'
        c. [fuʔun#i]     *fu'un-*    *-i*    'meat (i.e. one piece)'
                                                      (underscored u is
                                                   epenthetic)
        d. [kitange:r#i] *kitangeer-* -i     'drying rack'
        e. [gise:r#í]    *giseer-*   *-í*    'pot for special beer'

(2.13)  ALL Vs ARE IDENTICAL
        a. [baʔa:r#i]     *ba'aar-*   *-i*    'bees'
        b. [pulul#ú]     *pulul-*    *-ú*   'kingfisher (i.e. a group)'
        c. [toqor#i]      *toqor-*    *-i*    'crippled person'
        d. [biʕin#i]     *bi/in-*    *-i*    'silky blesmol'
        e. [kʷeʕeʕen#i] *kwe/e/en-* *-i*    'black-necked rock hyrax'

---

[3] Mous (1993: 27) does not include the group in (2.12), as they are not considered stems in his account (therein roots, see esp. (2) in 1993: 27-28). In this work, I consider many of these forms stems. See **[CROSS REFERENCE]** for further analysis.

Mous (1993) notes that Owens identifies similar restrictions in Oromo (1985: 17).

An exception exists for polysyllabic roots with a long vowel in their initial syllable, in that this long vowel may be mid.

(2.14)  EXCEPTION: POLYSYLLABIC ROOTS WITH LONG V IN INITIAL SYLLABLE, THIS SYLLABLE V
MAY BE [+MID]
a. [neˤár]     *nee/ár*        'heavy clouds'
b. [seːsékʷ]   *seesékw*       'bustard'
c. [poːhám]    *poohám*        'baboon'

## 2.2.5.3 Word-level phonotactics

***Vowels***
Vowels never occur word-initially, a glottal stop is always inserted.   For economy, this is not usually represented in the orthography.

Mous (1993: 27) also notes a correlation between vowel length in the second syllable and stress.  The vowel of the initial syllable receives stress if the vowel of the second syllable is epenthetic.

(2.15)  IF THE SECOND SYLLABLE IS EPENTHETIC, THE INITIAL VOWEL RECEIVES STRESS
a. [ˤal#umó]  */al      -(a)mó*         'bird sp.'
b. [tsʼifir#i]  *tsifir   -i*            'language'
c.  [qʼaduwee] *qaduweé*               'consulting the traditional doctor'

If the second syllable contains a long vowel or a high tone, then the second syllable receives stress.

(2.16)  IF THE SECOND SYLLABLE CONTAINS A LONG V OR A HIGH TONE, IT IS STRESSED
a. [tɬʼangás]    *tlangás*              'quivers (for arrows)'
b. [meːméːħ]   *meemeéhh*           'woven backpacks'
c. [siroːr#aː]  *siroor-          -aa*    'canaries'

Hall (2006) describes epenthetic vowels as inserted vowels which (contrary to excrescent vowels) are phonologically visible, and participate in the phonology by repairing structures which would otherwise be marked in the language.  Mous

(1993: 28) lays out rules for where epenthetic vowels may be expected, though notes that there is variation between speakers of Iraqw as to how acceptable different clusters are. Using Mous' consonant groupings, the Gorwaa data suggests the following:

An epenthetic vowel almost always occurs between clusters composed of the following consonants: [q], [hh], [tl], [m], [n], [ŋ], [m].

(2.17) Epenthetic vowel between certain consonant clusters
      a. [ɬaqʼamaje]      *slaqamaye*      'fatigue'
      b. [ʔafurtɬʼum#áy]   *afurtlum*  *-áy*   'simple knots'
      c. [feːħim#i]      *feehhim*   *-i*   'crevice'

An epenthetic vowel will almost always occur between [m]C clusters, where C is [t], [k], [g], or [ŋ].

(2.18) Epenthetic vowel occurs between [m]C clusters, where C is [t], [k], [g], or [ŋ]
      [damit#o]      *damit*   *-o*   'waiting'

An epenthetic vowel will almost always occur before a syllable with high tone.

(2.19) Epentheic vowel before a syllable with a high tone
      a. [ħurahúr]      *hhurahúr*      'bulbul, greenbul'
      b. [χundurúf]     *xundurúf*      'insect sp.'

An epenthetic vowel may intervene between other CC clusters, but this seems both less common than in the above listed environments, but also than as seems to occur in Iraqw.

(2.20) Other cases of epenthetic vowels between CC clusters, and exceptions
          a. [tsʼaraʔas#i]    *tsara'as*  *-i*   'flame'
  But:  b. [furʔa]        *fur'a*        'wind'
          c. [tɬʼat#eteː]    *tlat*   *-etee*  'debts'
  But:  d. [ʕat#teː]     */at*   *-tee*  'curds'
          e. [maraʕantsʼ#i]  *mara/ants*  *-i*  'insect sp.'
  But:  f. [tsʼirʕ#i]    *tsir/*    *-i*  'bird'

In fact, within South Cushitic, one of the defining features of Gorwaa is its tendency to tolerate consonant clusters (Kießling 2002: 107). Geminate consonants are brought about by reduplicative suffixes, 3-consonant clusters, and glottal stops following consonants are all examples.

(2.21) CONSONANT CLUSTERS IN GORWAA
    a. [dan#ne:]       *dan*   *-nee*     'honies'
    b. [ʕatɬʼ#tɬʼe:]   */aatl* *-tlee*    'jaws'
    c. [sim#me:]       *sim*   *-mee*     'phones' (from Sw. *simu*
'phone')
    d. [kun#nu]        *kun*   *-nu*      'mortars'
    e. [gʷarʕ#i]       *gwar/* *-i*       'wildebeest'
    f. [marʔaf#i]      *mar'af* *-i*      'unmarriageable clan'

Series of vowels are disallowed in Gorwaa. Illicit clusters are repaired either through vowel deletion, or glide formation. Both processes, as well as evidence for each, are well laid out in Mous (1993: 33-35), and a similar line of reasoning will be presented here.

Rules of vowel deletion may be seen in the effect that the masculine linker /-ó/ has on nouns stems ending in a vowel. (2.22)a) shows that the vowel [a], when followed by [o], is deleted, whereas (2.22)b) shows that the vowel [aj] followed by [o] results in the vowel [aj]. (2.22)c) shows that the vowel [o] followed by [o] results in no change. For more on linkers, see Chapter 7.

(2.22) V + LINKER -ó
    a. *hhawata*   + *-ó*   →   [ħawató]      *hhawató tleér*      'a tall
man'
    b. *slaqankay*  + *-ó*   →   [slaqʼankáy]  *slaqankáy tleér*    'a long
                                                                    chameleo
                                                           n'
    c. *tsoyo*     + *-ó*   →   [tsoyó]       *tsoyó tleér*        'a tall
dikdik'

## 2. A grammatical sketch of Gorwaa

A second source of evidence for deletion patterns is the effect that the vowel-initial noun suffixes -í (Dem1) has on stems ending in a vowel. For more information on demonstrative suffixes, see §2.4.1.2.

(2.23) V + DEM1 -í
      a. *muukú*    + *-í*   →   [mu:kí]    *muukí*    'these people'
      b. *asltá*     + *-í*   →   [ałtí]     *asltí*     'these fires'

Based on data gathered to present, the following table can be given. Blanks indicate a lack of examples.

Table 2.3: VOWEL DELETION

| Following Vowel ↔ / Preceeding Vowel ↕ | i | e | a | o | u | ay |
|---|---|---|---|---|---|---|
| **i** |  | e | a |  |  |  |
| **e** |  |  |  |  | u |  |
| **a** | i | e |  | o | u |  |
| **o** |  | e | a | o | u |  |
| **u** | i | e |  | u |  |  |
| **ay** |  | e |  | ay |  |  |

In addition to vowel deletion, if a rounded vowel occurs following a velar consonant and before an unrounded vowel, this rounded vowel will be realized as a glide.

(2.24) V[+ROUND] → [W] /C[VELAR]__V[-ROUND]
      a.    k**u** -**a** tsawaár                 → *k**wa** tsawaár* 'he was chosen'

           t-     ng-   **u-**   Ø     **-(g)a**  tsawaár
           MP-  A.3-  P.M-  AUX  -PRF   choose.PST

      b.    ng**u** -**a** hhe'és               → *ng**wa** hhe'és* 'she had finished it'

           ng-   **u-**   Ø   **-(g)a**  hhe'és
           A.3-  P.M-  AUX  -PRF   finish.F.PST

Epenthetic vowels undergo regressive assimilation across the glottal consonant [ʔ].

(2.25) V₁→V₂ /___ ʔV₂ WHERE V₁ IS AN EPENTHETIC VOWEL
 *af -aʼi* → [ʔaf#iʔi] *afiʼi* 'mouths'

Epenthetic vowels undergo progressive assimilation if the preceding vowel is [a],

[i], or [u] and if the intervening consonant is velar, uvular, pharyngeal, or glottal.

(2.26) V₁→V₂/V₂C___ WHERE: V₂ IS [-MID]
 C IS VELAR, UVULAR, PHARYNGEAL, OR
 GLOTTAL
 a. *duux -iim* → [dux#ú:m] *duxuúm* 'take out; marry'
 b. *wah -iim* → [wah#á:m] *wahaám* 'drink'

### Consonants

[r] never occurs word-initially. Two exceptions exist: the place name *Riroó*

'Riroda', and the personal name *Ri/oo.*

The series of consonant cluster simplification rules listed in Mous (1993: 35-36)

apply less strictly to Gorwaa than they do to Iraqw. Each applicable rule is

presented and exemplified below:

In a cluster of two oral alveolar consonants, the first is deleted.

(2.27) C₁C₂→C₂ WHERE: C [+ORAL]
 [ALVEOLAR]
 a. *gár* -*dáʼ* → [ga#dáʔ] *gadáʼ* 'that thing'
 b. *bombót* -*du* → [bombo#dú] *bombodú* 'old beers'
 c. *qwar* -*t* → [qʷʼát] *qwát* 'get lost-2Sg'

Glottal consonants are deleted if directly followed by an oral consonant.

(2.28) C₁C₂→C₂ WHERE: C₁ [GLOTTAL]
 C₂ [ORAL]
 a. *bara/ʼ* -*í* → [baraʕw#í] *bara/wí* 'this dance'
 b. *oh* -*t* → [ʔót] *ót* 'catch.2Sg'

Labialized consonants lose their labiality if they are followed by a rounded vowel

[u] or [o]. Alternatively, the perceptibility of the labiality may simply be

decreased to the point of zero.

(2.29) C[+LABIAL] → C[-LABIAL] /___V[+ROUND]⁴
     a. *dee**qw***       *-u(!)*    →    [deqʼ#u]     *dequ*       'razors'
     b. *kwa/aa**ngw***     *-oô*    →    [kʷaʕa:ng#ô] *kwa/aa**ng**oô* 'a hare?'

Word-final consonant reduction operations are optional.

(2.30) [nd] -> [n] /___#
     a. *siigan**d***     →      [si:gan]            *siigan*       'grasshopper'
                         or [si:gand]      *siigand*     'grasshopper'
                         But: [si:dand#ê:]    *siigan**de**ê*    'a grasshopper?'
     b. *Hoshan**d***    →      [hoʃan]            *Hoshan*       'Hoshan (place name)'

                         [hoʃand]          *Hoshand*      'Hoshan (place name)'

                         But: [hoʃand#ê:]    *Hoshan**de**ê*   'Hoshan?'

Voiced stops are optionally devoiced word-finally. Impressionistically, this

seems to be most common in fast or informal speech.

(2.31) C[-CONTINUANT] → C[-CONTINUANT] /__#
     [+VOICED]           [-VOICED]
           *qaá**b***   →     [qʼá:b] *qaá**b***   or      [qʼá:p] *qaá**p*** 'to stanch'

## 2.3 Lexical Categories

The lexical categories – those sematically-endowed parts of speech that name

entities, actions, or qualities – are outlined below. The subsection will cover

nouns, verbs, adjectives and quantifiers, and adverbs. It will finish with a brief

excursus on ideophones.

### 2.3.1 Nouns

As the controller of most agreement operations, it is with the noun that the

examination of lexical categories will begin. First, a brief exposition is provided

on the syntactic distribution of the noun. Next, nominal gender and number are

introduced. Subcategories of nouns are next presented, followed by noun-

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⁴ Note that the ! symbol which follows the suffix *-u* in this example is used to represent
an accompanying phonological operation (shortening of a long vowel, eliminating a
glide, and fortition effects ([w] → [b], [r] → [d])).

forming derivational operations. Finally, a model is provided of the structure of

the noun word.

### 2.3.1.1 Syntactic distribution

Below is a list, with examples, of the syntactic configurations in which a noun

may occur.

#### *Subject*
In pragmatically unmarked phrases, subject nouns occur clause-initially.

Subject of Transitive Verb

(2.32) SUBJECT *GARMA* IS AGENT OF A TRANSITIVE VERB
**garma** *baahaa ngina taáhh* [20160921i.1]
**garmá** baahaár ng- a- Ø -na taáhh
**boy.LM**o hyaena.LFʀ A.3- P.F- Aux -Imprf hit.M.Pst
"The boy hit they hyaena."

Subject of Intransitive Verb

(2.33) SUBJECT *GARMA* IS AGENT OF INTRANSITIVE VERB
**garma** *ina /akuút* [20160921i.23]
**garmá** i- Ø -na /akuút
**boy.LM**o S.3- Aux -Imprf jump.M.Pst
"The boy jumped."

Subject of Copular Construction
*Nominal Predicate*

(2.34) *GARMA* IS SUBJECT OF COPULAR CONSTRUCTION
**garma** *a Gormo* [20160119f.1]
**garmá** Ø Gormó
**boy.LM**o Aux Gorwaa.person.♂.LMo
"The boy is a Gorwaa person."

*Locative Predicate*

(2.35) *GARMA* IS SUBJECT OF A LOCATIVE PREDICATE
**garma** *i bará qaymoo* [20160119f.14]
**garmá** i- Ø bará qaymoór
**boy.LM**o S.3- Aux in field.LFʀ
"The boy is in the field."

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*Adjectival Predicate*

(2.36) GARMA IS SUBJECT OF AN ADJECTIVAL PREDICATE
      **garma** *ku tleér*      [20160119f.25]

| **garmá** | t- | ng- | u- | Ø | tleér |
|---|---|---|---|---|---|
| **boy.LMo** | MP- | A.3- | P.M- | Aux | tall.M |

      "The boy is tall."

**Object**

<u>Direct Object</u>

The position of the direct object nouns is best analyzed in relation to the selector -- a cluster of clitics which consistently occurs to the left of the lexical verb (see §2.4.2). The direct object may occur: i) immediately before the selector (2.37); ii) immediately after the selector, in which case the linker is pronounced (2.38); and iii) immediately before (or as part of) the verb, in which case the linker is never present (2.39). In the second case, the direct object is no longer indexed as agreement on the selector (see §2.4.2.1). In the third case, the noun is probably incorporated into the verb, and is never an argument (see §7.4.1.1).

(2.37) DIRECT OBJECT SLEE OCCURS IMMEDIATELY BEFORE THE SELECTOR AGA
      **slee** *aga gaás*      [20161102b.51]

| **sleér** | Ø- | a- | Ø | -(g)a | gaás |
|---|---|---|---|---|---|
| **cow.LFR** | A.P- | P.F | Aux | -Prf | kill.1Sg.Pst |

      "I killed the cow."

(2.38) DIRECT OBJECT SLEE OCCURS IMMEDIATELY AFTER THE SELECTOR A
      *aní a* **sleér** *diíf*      [20160927l222-228.26]

| aní | Ø- | Ø | **sleér** | diíf |
|---|---|---|---|---|
| Pro1Sg | S.P- | Aux | **cow.LFR** | hit.1Sg |

      "I hit the cow."

(2.39) (NOTIONAL) DIRECT OBJECT SLEE OCCURS IMMEDIATELY BEFORE THE VERB GÁS
      *uga* **slee**-*gás*      [20161119f.34]

| Ø- | u- | Ø | -(g)a | **slee**- | gás |
|---|---|---|---|---|---|
| A.P- | P.M- | Aux | -Prf | **cow**- | kill.2Sg.Pst |

      "You(M) killed a cow on him."

Predicate of Copular Construction
*Nominal Predicate*
(2.40) DAAWAA IS PREDICATE OF COPULAR CONSTRUCTION
     *xaa'í sla/a a **daawaa***[20131108b_20150725j.7]

| xaa'í | sla/atá | i- | Ø | -(g)a | **daawaár** |
|-------|---------|-----|----|-------|-------------|
| trees.LNØ | forest.LFT | S.3 | AUX | -PRF | **medicine.LFR** |

     "The trees of the forest are medicine."


*Temporal Predicate*

(2.41) ASKOFÚ MKOWÁR ARUSHA IS PREDICATE OF TEMPORAL COPULAR CONSTRUCTION
     *inós tawa **askofú mkowár Arusha*** [20131027.27]

| inós | ta- | Ø | -wa | **askofú** | **mkowár** | **Arushár** |
|------|-----|----|-----|-----------|-----------|-------------|
| PRO.3SG | TEMP- | AUX | -BACK | **bishop.LMO** | **region.LFR** | |

     **Arusha.LFR**
     "When he was bishop of Arusha region."

Indirect Object
Indirect object nouns may occur in one of two positions: i) as an adjunct

following the locational noun *dír* (2.42); or ii) immediately before the selector

(2.43). If the indirect object noun occurs in this position, the direct object noun

must be marked with the lative suffix *-i*.


(2.42) INDIRECT OBJECT *DESI* IS AN ADJUNCT FOLLOWING *DÍR*
     *mwalimu kitaabu ngwa hariís dír **desi***     [20160928c.44]

| mwalimú | kitaabú | ng- | u- | Ø | -(g)a | hariís |
|---------|---------|-----|-----|----|-------|--------|
| teacher.LMO | book.LMO | A.3- | P.M- | AUX | -PRF | bring.M.PST |

     dír **desír**
     to  **girl.LFR**
     "The teacher brought the book to the girl."

(2.43) INDIRECT OBJECT *DESI* IS IMMEDIATELY BEFORE THE SELECTOR *NGINA*
     *mwalimu **desi** ngina kitaabuwi hariís*     [20160927l23-29.3]

| mwalimú | **desír** | ng- | a- | Ø | -na | kitaabú | **-i** |
|---------|-----------|-----|-----|----|-----|---------|--------|
| teacher.LMO | **girl.LFR** | A.3- | P.F- | AUX | -IMPRF | book.LMO | - |

**LAT**
     hariís
     bring.M.PST
     "The teacher brought the girl the book."

Object of Comparison
The object of comparison occurs following the *ta* of comparison, and must occur

with topic morphology.

(2.44) Garma is object of comparison
      *inós ka tleer ta **garmawoo***      [20160927m.1]

| inós | t- | ng- | a- | Ø | tleer | ta | **garmá** | =oo |
|------|-----|------|------|-----|-------|------|-----------|------|
| Pro3Sg | MP- | A.3- | P.F- | Aux | tall.F | Comp | **boy.LMo** | =Top |

      "She is tall compared to the boy."

### Agent in Pseudopassive Construction

Agents of pseudopassive (i.e. impersonal) constructions occur as adjuncts

following the agentive preposition *nee.*

(2.45) Agent of pseudopassive construction garma is an adjunct following nee
      *baahaa kana taáhh nee garma*      [20160927m.31]

| baahaár | t- | ng- | a- | Ø | -na | taáhh | nee | **garmá** |
|---------|-----|------|------|-----|------|-------|------|-----------|
| hyaena.LFr | MP- | A.3- | P.F- | Aux | -Imprf | hit.Pst | by | **boy.LMo** |

      "The hyaena was hit by the boy."

### Sole Argument of Impersonal

By their very nature, impersonal constructions need not have an explicit agent.

(2.46) Baahaa is sole argument of impersonal construction
      ***baahaa** kana taáhh*      [20160927m.46]

| **baahaár** | t- | ng- | a- | Ø | -na | taáhh |
|-------------|-----|------|------|-----|------|-------|
| **hyaena.LFr** | MP- | A.3- | P.F- | Aux | -Imprf | hit.Pst |

      "(Somebody) hit the hyaena."

### Possessor

Possessors either directly follow their possessum (2.47) or are preceded by an

anaphoric pronoun which refers to their possessum (as in (2.48), where the

posessum *daawa* 'medicine' is separated from its possessor *seehha* 'tsetse fly' by

a verb phrase *ngin amosí leehh*).

(2.47) Possessor gura' directly follows its possessum daawaa
      *a daawáar **gura'***      [20150808a.92]

| Ø | daawaár | **gurá'** |
|-----|---------|-----------|
| Aux | medicine.LFr | **stomach.LMo** |

      "It is stomach medicine."

(2.48) Possessor *seehhaa* is preceded by anaphoric pronoun *ar*
       *daawaa ngin amosí leehh ar **seehhaa** [...]*   [20151202d.171]

| daawaár | ng- | a- | Ø | -n | amór | =sí |
|---------|-----|-----|-----|-----|------|-----|
| medicine.LFᴿ | A.3- | P.F- | Aux | -Expect | place.LFᴿ | =Dᴇᴍ2 |

| leehh | | ar | **seehhaár** |
|-------|---|-----|--------------|
| look.for.3.Subᴊ | | Aɴᴀ.F | **tsetse.flies.LFᴿ** |

       "He will look for tsetse fly medicine."

***Possessum***
If directly preceding the possessor, the linker of the possessum is pronounced

((2.49)).

(2.49) Possessum *daawaa* directly preceedes Possessor *gura'*
       *a **daawaár** gura'*   [20150808a.92]

| i- | Ø | -(g)a | **daawaár** | gurá' |
|-----|-----|-------|-------------|-------|
| S.3- | Aux | -Pʀꜰ | **medicine.LFᴿ** | stomach.LM0 |

       "It is stomach medicine."

## 2.3.1.2 Gender and number

Gender and number in South Cushitic is intertwined in a complex manner. The first subsection will treat biological/semantic sex, and the second will treat semantic number. The third subsection will treat syntactic gender, and the fourth will treat syntactic number (both defined strictly in terms of the agreement that they trigger). Finally, the concept of 'gender polarity' will be briefly introduced in subsection five.

***Semantic Sex***
Working on South Cushitic as a whole, Kießling (2000: 7-9) identified some correspondence between syntactic gender and semantic sex. Many female beings are feminine in gender, and many male beings are masculine in gender.

(2.50) ♀ beings are (F) gender, ♂ beings are (M) gender
       a. (F)eminine: */ameeni* 'woman'; *hho'oo* 'sister'; *koonki* 'hen'
       b. (M)asculine: *hhawata* 'man'; *hhiya'* 'brother'; *gurtu* 'male goat'

Some "remarkable deviations" (2000: 8) also exist: male organs tend to be F in gender and female organs tend to be M in gender.

(2.51) 'REMARKABLE DEVIATIONS' TO CORRESPONDENCE BETWEEN SYNTACTIC GENDER AND
SEMANTIC SEX
a. (F)eminine:*na/ani* 'penis'; *gudo* 'testicle'; *poo/i* 'Adam's apple'
b. (M)asculine: *gwalay* 'vagina'; *isamó* 'breast'

A second pattern appears in botanical vocabulary: masculine forms referring to a

plant, and feminine forms referring to the fruit (2000: 8).[5]


(2.52)  (M) FORMS REFER TO PLANT, (F) FORMS REFER TO FRUIT
a. *maangware'umó* (M)        |  *maangware'ito'o* (F)
'sorghum sp. (one plant)'           'sorghum sp. (one head)'
b. *baranqumó* (M)           |  *barangeto'o* (F)
'tree sp. (one tree)'                'tree sp. (one fruit)'
c. *xoowáy* (M)              |  *xoowí* (F)
'vine sp. (one plant)'              'vine sp. (one fruit)'

Beyond humans, salient animals (livestock and pets), and plants, other semantic

groupings do not produce any sort of obvious patterns.


***Semantic Number***
Both Mous, working on Iraqw, (1993: 44-46) and Kießling, working on South

Cushitic, (2000: 11) establish that number systems like that of Gorwaa are

complex semantically.  Much of this complexity has to do with nouns being

arranged in a manner that does not always fit well with traditional notions of

"singular = one" and "plural = many".  Several patterns are examined below:

A noun may exist in a "singular" form, referring to one entity, versus a "plural"

form, referring to many (2 or more) of such entities.  This is an arrangement

which would be most familiar to English speakers.

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[5] Use of the pipe | is intended to suggest that two forms shown side-by-side are in some
way related, but does not propose any derivational or inflectional direction (i.e. from a
root to a stem, or a "base form" to a "derived form").

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(2.53)  SINGULAR VS. PLURAL
     a. *tsukurumó* 'a ladle'    |    *tsukuruma'*  'ladles'
     b. *tlaptumó*  'a falcon'    |    *tlapteema'*  'falcons'
     c. *ga/atini*  'a high fever' |    *ga/atanáy*  'high fevers'

Nouns may also exist in a "collective" form, referring to an undifferentiated group of an entity, or an entity in general, versus either a singular or plural form.

(2.54)  SINGULAR VS. COLLECTIVE
     *bami'to'o*    'okra' (one fruit or flower)  |    *bamiya*    'okra' (as food or as a crop'

(2.55)  COLLECTIVE VS. PLURAL
     *sandaa*    'cloth pouch' (a kind of    |    *sandadu*  'cloth pouches'
     pouch or group of pouches)

Three-way distinctions also exist.

(2.56)  SINGULAR VS. COLLECTIVE VS. PLURAL
     *fuqumó* 'an acacia'  |  *fuqaa* 'acacia'    |  *fuqi* 'acacias'
     (as a kind or species)

Mass nouns, refer to uncountable entities of undifferentiated consistency. Some mass nouns may be pluralized (2.57), and others may not (2.58).

(2.57)  MASS NOUN *TSUNQAA* MAY BE PLURALIZED
     *tsunqaa*    'saliva'|    *tsunqu'u*    'saliva' (scattered in different places)

(2.58)  MASS NOUN *MAA'AY* MAY NOT BE PLURALIZED
     *maa'ay*    'water'

**Syntactic Gender**
Syntactic gender is gender as manifested in the agreement patterns triggered on forms beyond the noun (see Corbett 1991). In Gorwaa, there are three: (M)asculine, (F)eminine, and (N)euter. Forms which show gender agreement are: tonic pronouns (possessive, demonstrative, and anaphoric), non-tonic pronouns (i.e. the P argument marker), adjective copulas, adjectives, verbs, 1st degree demonstrative enclitics, indefinite enclitics, and linkers. These forms, and examples, are provided in Table 2.4 below.

*2. A grammatical sketch of Gorwaa*

Table 2.4: The Targets of Gender Agreement in Gorwaa

| Agreement Type | Category[A] | M[B] | Example | F | Example | N | Example |
|---|---|---|---|---|---|---|---|
| **Anaphor** | ProPoss | ko- + Poss | *awu a **kw**'eé'* 'the bull is mine' | to- + Poss | *slee a **te**'eé'* 'the cow is mine' | ko- + Poss | *hhayso a **kw**'eé'* 'the tail is mine' |
| | ProDem | ko- + Dem | *awu a **ko**qá'* 'the bull is that one there' | to- + Dem | *slee a **to**qá'* 'the cow is that one there' | ko- + Dem | *hhayso a **ko**qá'* 'the tail is that one there' |
| | Ana | oo | *awuwí **oo** tleér* 'this tall bull' | ar | *sleerí **ar** tleer* 'this tall cow' | oo | *hhaysowí **oo** tleer* 'this long tail' |
| **Subject** | V (1) | -V:C | *garma ni tl**iiq*** 'the boy is late' | -VC ~RPA~ | *desi ni tl**íq*** 'the girl is late' | -V:C –iyá' -iyí' | *tlataa ni tl**iiq**iyá'* 'the vision is late' |
| | V (2) | -V:n ~RPA~ | *garma i q**oón*** 'the boy is good' | -Vnd ~RPA~ | *desi i q**ónd*** 'the girl is good' | -V:n –iyá' -iyí' | *tlataa i q**oon**iyí'* 'the vision is good' |
| | V (3) | -ay ~RPA~ | *garma ni x**áy*** 'the boy comes' | -eer ~RPA~ | *desi ni x**eér*** 'the girl comes' | -ay –iyí' -iyí' | *tlataa ni xay**iyá'*** 'the vision comes' |
| | V (4) | -ar ~RPA~ | *naanú ni ham**ár*** 'the side-dish is cooked' | -an ~RPA~ -at | *fa/a ni ham**át*** 'the ugali is cooked' | -ar –iyí' -iyá' | *tlataa ni ham**ariyí'*** 'the vision is realized' |
| | V (5) | -Vh | *garma ni d**ah*** 'the boy enters' | -Vt ~RPA~ | *desi ni d**át*** 'the girl enters' | -Vh –iyá' -iyí' | *tlataa ni dah**iyá'*** 'the vision enters' |
| | V (6) | -Vw ~RPA~ | *garma ngi h**úw*** 'the boy brings it' | -Vp ~RPA~ | *desi ngi h**úp*** 'the girl brings it' | -Vw –iyá' -iyí' | *tlataa ngi hu**wiyí'*** 'the vision brings it' |
| **Object** | P | u | *garma awu ng**u** taáhh* 'the boy hits the bull' | a | *garma slee ng**a** taáhh* 'the boy hits the cow' | i | *garma hhayso ng**i** taáhh* 'the boy hits the tail' |

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| Agreement Type | Category | M | Example | F | Example | N | Example |
|---|---|---|---|---|---|---|---|
| **Head** | Adj (1) | ~RPA~ | *awú **úr*** 'a big bull' | ~LPA~ | *sleér **ur*** 'a big cow' | ~LPA~ | *hhaysó **ur*** 'a big tail' |
| | Adj (2) | ~RPA~ | *awú* tl**aá**kw 'a bad bull' | ~LPA~ | *sleér* tl**aa**kw 'a bad cow' | ~LPA~ | *hhaysó* tl**aa**kw 'an ugly tail' |
| | Adj (3) | ~RPA~ | *awú b**uú**x* 'a grey bull' | ~LPA~ | *sleér b**uú**x* 'a grey cow' | ~LPA~ | *hhaysó b**uu**x* 'a grey tail' |
| | =Dem1 | =í | *awuw**í*** 'this bull' | =í | *sleer**í*** 'this cow' | =ká | *hhayso**ká*** 'this tail' |
| | =Indef | =ko | *awu**ko*** 'some such bull' | =ka | *sleer**ka*** 'some such cow' | =ko | *hhayso**ko*** 'some such tail' |
| | Linkers | -o | *aw**ú** baabá* 'father's bull' | -r | *sleé**r** baabá* 'father's cow' | -a | */ew**á** saw* 'the far west' |
| | | -ku -ko | *da**kó** baabá* 'father's hand' | -ta | *asl**tá** baabá* 'father's fire' | -∅ | *hhaysó slee* 'the cow's tail' |

[A]N.B. bracketed numbers refer to pattern-type (e.g. V (1) refers to a Pattern 1 Verb).

[B]N.B. morphemes which appear one on top of the other in the columns M, F, and N, represent alternative forms. Some (such as *–iyá'* vs. *–iyí'*) are in free variation. Some (such as *–r* vs. *–ta*) are lexically conditioned.

*2. A grammatical sketch of Gorwaa*

As may be seen in the table, "linkers" exhibit two different morphemes for each gender. Within this three-gender system, each gender exhibits subgender – that is, a second agreement pattern within the larger pattern that functions with a subset of nouns, and in a subset of environments (c.f. Corbett 1991: 163). In Gorwaa, subgender is only distinguished in linker morphology, obligatory suffixes which appear on nouns when a) modified within the noun phrase or b) encapsulated within the verb phrase. For more information on these environments, see §7.3.1. All linker morphology is realized with rising pitch accent. Mo-type subgender is instantiated by the morpheme –*o* (2.59). Mk-type subgender is instantiated by the morpheme –*ko* or –*ku* (2.60). Fr-type subgender is instantiated by the morpheme –*r* (2.61). Ft-type subgender is instantiated by the morpheme –*ta* (2.62). Na-type subgender is instantiated by the morpheme –*a* (2.63). NØ-type subgender is instantiated by the morpheme -Ø (2.64). The only noun of the Na-type subgender identified thus far is /*ew* 'west'.

(2.59) Mo LINKER -*ó*
    hhawata    **-ó**      baabá →    *hhawató baabá*
    man          **-LMo**  father       "father's man"
    "father's man"

(2.60) Mk LINKER -*KÚ*
    kuru   **-kú**   -í         →    *kurkí*
    year   **-LMk**  -DEM1        "this year"

(2.61) Fr LINKER -*R~´~*
    desi   **-r~´~**  -'eé'     →    *desir'eé'*
    girl   **-LFr**  -Poss1Sg     "my girl"

(2.62) Ft LINKER -*TÁ*
    asla **-tá**    -ka      →    *asltaka*
    fire **-LFt**   -INDEF.F      "some such fire"

(2.63) Nᴀ ʟɪɴᴋᴇʀ -Á

    /ew   **-á**    saaw         →     */ewá saaw*

    west  **-LNᴀ**  far.N                   "the far west"

(2.64) NØ ʟɪɴᴋᴇʀ ~´~

    /ayla        **-∅~´~** -dá'         →     */ayladá'*

    wedding.song**-LNØ**  -Dᴇᴍ4            "that wedding song"

### Syntactic Number

*Semantically*, several groupings for number have been established directly above.

However, *syntactically* (i.e. as instantiated through agreement), number has two

values in Gorwaa: singular (Sg) and plural (Pl).  The only category to show number

agreement is the adjective.  Full paradigms for each of the three inflectional patterns

for adjectives can be found in Table 2.10 in §2.3.3.1.

(2.65) Sɪɴɢᴜʟᴀʀ (Sɢ) ɴᴜᴍʙᴇʀ ᴀɢʀᴇᴇᴍᴇɴᴛ

    *[...] hhaysodá'* **ur** [20161109b.51]

    hhaysó       -dá'   **ur**

    tail.LNØ      -Dᴇᴍ4 **big.N**

    "[...] that big tail"

(2.66) Pʟᴜʀᴀʟ (Pʟ) ɴᴜᴍʙᴇʀ ᴀɢʀᴇᴇᴍᴇɴᴛ

    *[...] hhaysusudá'* **uren** [20161109b.52]

    hhaysusú     -dá'   **uren**

    tails.LNØ    -Dᴇᴍ4 **big.N.Pʟ**

    "[...] those big tails"

### Gender "polarity"

A final pattern of which to take note is that, *when changed for number, the syntactic*

*gender of a noun may also change*.  This phenomenon, dubbed "gender polarity" by

Meinhof (1912: 18-20) has since been identified as a salient characteristic of many

Cushitic languages (see e.g. Hetzron 1967).  For example, a singular noun which

triggers (F) agreement on target adjectives, verbs, etc. can pluralize to a noun which

triggers (M) agreement on those same target adjectives, verbs, etc.  Compare the

verbal agreement of *desu* 'girls' with that of *garma* 'boy' in (2.67) below:

(2.67)    GENDER POLARITY: *DESI* (F) 'GIRL' AND *DESU* (M) 'GIRLS'
    a.  ***desír tleer*** *i qwala/amís*
       **desír**      **tleér** i-      ∅      qwala/am**ís**
       **girl.LFR**    tall.**F**  S.3-   AUX   make.happy.**F**.PRES
       'a tall girl makes one happy'

    b.  ***desú tlét*** *i qwala/amiis*
       **desú**       **tlét**       i-      ∅      qwala/am**ii**s
       **girls.LMo**   tall.**M**.PL   S.3-   AUX   make.happy.**M**.PRES
       'tall girls make one happy'

    c.  ***garmá*** *tleér i* ***qwala/amiis***
       **garmá**     tleér  i-    ∅      qwala/am**ii**s
       **boy.LMo**    tall.**M**  S.3-  AUX   make.happy.**M**.PRES
       'a tall boy makes one happy'

Indeed, this process is widespread, and results in forms of any gender resulting in

forms of almost any other gender.

(2.68)    MORE EXAMPLES OF GENDER POLARITY
    a.  *siyó***(M)** 'fish'          |     *siyumó***(M)** 'one fish'
    b.  *gufú***(M)** 'smouldering stick' |     *guffee***(F)** 'smouldering sticks'
    c.  *dakw***(M)** 'procedure'     |     *dakwi'i***(N)** 'procedures'
    d.  */urfi***(F)** 'skink'       |     */urfaa***(F)** 'skinks'
    e.  desi**(F)** 'girl'          |     desu**(M)** 'girls'
    f.  *tlafi***(F)** 'cloud'       |     *tlafoo***(N)** 'clouds
    g.  *hhaysoo***(N)** 'tail'     |     *hhaysusu***(N)** 'tails'
    e.  */aatloo***(N)** 'jaw'     |     */aatltlee***(F)** 'jaws'

This phenomenon demonstrates a complex intertwining of gender and number, a

phenomenon which will be further examined in the next chapter. For this, as well as

information on the mechanics of changing nouns for number in Gorwaa, see §6.3.5,

and §6.5.5.

### 2.3.1.3 Subcategories of nouns

The major formally distinct subcategories of nouns include the tonic pronouns, proper nouns, mass nouns, singularia and pluralia tantum, locational nouns, and numerals.

***Tonic pronouns***
The tonic pronouns include personal pronouns (e.g. *aní* 'I, me'), possessive pronouns (e.g. *korén* 'ours (MorN)'), demonstrative pronouns (e.g. *tí* 'this here (F)'), interrogative pronouns (e.g. *ma'â* 'who'), and modified form pronouns (e.g. *ar tleer* 'the tall one (F)'). Described in more detail in §2.4.3.1, tonic pronouns share many of the characteristics of nouns. They have stress and tone, and they may serve as full arguments in any position occupied by a noun (see (2.69)-(2.72)). The primary difference is that, as a subcategory, tonic pronouns are a functional category. As their role is deictic, they do not have full semantic content. Additionally, the subgroup is closed (i.e. does not admit new members, such as loans or neologisms).

(2.69) ***aní*** *asla a ga/áw* [20150724.71]

| **aní** | asltá | Ø- | a- | Ø | ga/áw |
|---------|-------|-----|-----|-----|--------|
| **Pro.1Sɢ** | fire.LFᴛ | A.P- | P.F- | Aᴜx | look.at.1.Psᴛ |

"I look at the fire."

(2.70) ***te'eé'*** *a faák ee* [DSC_5354_20150705b.34]

| **te'eé'** | Ø- | a- | Ø | faák | ee |
|-----------|-----|-----|-----|------|-----|
| **PʀoPoss.F.1Sɢ** | A.P | P.F- | Aᴜx | finish.1.Psᴛ | yes |

"I finish mine, yes."

(2.71) *moro'ó na axamamiís dír baaborén a **kwí** [...]*      [DSC_5354_20150725b.73]

| moro'ó | ni- | ∅ | -(g)a | | |
|---|---|---|---|---|---|
| things.LM0 | MP.A.1- | AUX | -PRF | | |
| ~Red~ | axaás | -iím | –iis | dír baabó | =rén |
| ~PLUR~ | hear.1 | –DUR.1 | –CAUS.1.SUBJ | at fathers.LM0 | =POSS.1PL |
| i- | ∅ | -(g)a | **kwí** | | |
| S.3 | AUX | -PRF | **PRODEM1.M** | | |

"The things I heard from the ancestors are this:"

(2.72) *hareerí a **ma'â*** [20160111h.22]

| hareér | -í | i- | ∅ | -(g)a | **ma'â** |
|---|---|---|---|---|---|
| woman.LFR | -DEM1 | S.3 | AUX | -PRF | **who** |

"Who is this woman?" (lit. This woman is who?)

***Proper nouns***
Proper nouns typically refer to a unique entity (versus common nouns which typically refer to a class of entities), as such, they cannot be modified by possessives, nor can they be pluralized. Proper nouns may be subdivided into personal names and place names. Each will be examined below.

Personal names
The majority of Gorwaa personal names are derived from common nouns via three principal strategies: zero derivation (2.73), high tone insertion (2.74), and simplification[6] (2.75). Many other personal nouns are loans from other languages, especially Datooga. As may be seen, most Gorwaa names are unisex: applicable to both men and women. [7]

(2.73) PERSONAL NAMES: ZERO DERIVATION
a. *yamee* 'lands'         →    Yamee ♂
b. *na/aa* 'children'     →    Na/aa ♂
c. *mabiwá* 'sorghum sp.' →    Mabiwá ♂/♀
d. *heelo* 'kind of song' →    Heelo ♂
e. *bee/i* 'ewe'         →    Bee/i ♂

---

[6] Coates (2016) mentions simplification as a particularly common change undergone diachronically by proper names.

[7] ♂ indicates that a name is reserved for a male, ♀ that a name is reserved for a female, and ♂/♀ that a name may be used for either a male or a female.

(2.74) PERSONAL NAMES: DERIVATION BY INSERTION OF A HIGH TONE
      a. *ba/ata* 'fatigue'      →     Ba/atá ♀
      b. *dahayee* 'visitors'      →     Dahayeé ♂/♀
      c. *mani/i* 'unripe corn'      →     Mani/í ♂
      d. *oona* 'kind of gourd'      →     Ooná ♂/♀
      e. *siigan* 'grasshopper'      →     Siigán ♂/♀

(2.75) PERSONAL NAMES: DERIVATION BY SIMPLIFICATION
      a. *galaxandí* 'small thing'      →     Galaxoo ♀
      b. *hhayuma* 'travelling'      →     Hhayma ♂/♀
      c. *matlatlee* 'morning'      →     Matlee ♂/♀
      d. *tahhahhaní* 'biting ants'      →     Tahhaní ♂/♀
      e. *xeerangw* 'scorpion'      →     Xeera ♂/♀

Gorwaa people are also given a patronymic surname, thus a personal name may be modified by the noun phrase *dó'* X, where X is the first name of the person's father. As such, *Yahhí oo dó' Tluwáy* refers to 'Yahhí ♂ of the house of Tluway'. *Yahhí ar dó' Tluwáy* refers to 'Yahhí ♀ of the house of Tluwáy'. These formulae may also be expressed by attaching the linker to the end of the name: *Yahhí Tluwáy* and *Yahhír Tluwáy*, respectively.

Place names
Gorwaa place names fall into three broad groups: place names derived from common nouns (2.76), place names based on a personal name (2.77), and loans (2.78).

(2.76) PLACE NAMES DERIVED FROM COMMON NOUNS
      a. *Daka'umó*    (from *daka'umó* 'baobab sp.)
      b. *Hhaala*       (from *hhaala* 'well')
      c. *Tsamasi*     (from *tsamasi* 'giraffe')

(2.77) PLACE NAMES BASED ON A PERSONAL NAME
      a. *Ayaxoxo*     (from *aya* 'land' and *Xoxo*, a personal name)
      b. *Ayasanda*    (from *aya* 'land', and *Sanda*, a personal name)
      c. *Ayamaango* (from *aya* 'land', and *Maango*, a personal name)

(2.78) Place names from other languages
      a. *Endabeg*    (supposedly from Datooga 'river of water'?)
      b. *Majengo*    (from Swahili *majengo* 'buildings')
      c. *Oysterbay*    (from English 'Oyster Bay')

Several place names may be either masculine or feminine, with the variation sometimes occurring in the same speaker.

Figure 2.2: Place names showing (M) and (F) agreement

| *Ayá Tla/aa* | *Daanda/áy* | *Maisák* | *Qásh* |
|---|---|---|---|
| *Baambáy* | *Dawár* | *Manaxa* | *Qatadiyángw* |
| *Bubu* | *Kaandák* | *Muumbalá* | *Sigín* |
| *Chemchem* | *Komotó* | *Negamsí* | *Tururú* |

**Mass nouns**

Mass nouns refer to uncountable entities of undifferentiated consistency. They differ from count nouns in that they cannot be modified by numerals. Gorwaa masses include mud (*ba/i*), water (*maa'ay*), and knowledge (*qeeru*) as well as entities less commonly construed as mass, including ideas (*hasloo*), footprints (*kala/a*), and flames (*duru'i*).

Some, but not all, mass nouns may be pluralized. The result is a new mass noun with a distributive meaning (i.e. the substance of the mass in different places, or at different instances of time).

(2.79) Some mass nouns may have plural forms
      a. *danú* 'honey'    |    *dannee* 'honies' (i.e. different types of honey, or the same honey in different containers)
      b. *tlamfí* 'beeswax'    |    *tlamfáy* 'beeswaxes' (i.e. wax in different places)
      c. *tseeree* 'blood'    |    *tseerdu* 'blood' (i.e. different spots or pools of blood in different places)

### Singularia/Pluralia Tantum

Several singular nouns in Gorwaa do not have a plural form, including *dawri* 'sky',

*hoomoo* 'full moon', and *serkaari* 'central government'.  Several plural nouns do not

have a singular form, including *moro'ó* 'menses', and *gwa/ateema'* 'light'.

### Locational nouns

Locational nouns serve a prepositional function.  Typically derived from common

nouns (and very often body parts), they may occur postverbally as verb phrase

adjuncts, and, when used with the prepositions *ay* (lative) and *wa* (ablative), serve

to add locational precision.  Some locational nouns are highly selective, and must

follow other specific locational nouns.  Others may occur in any order.  Table 2.5

provides the locational nouns, the orders in which they may occur, and their

approximate meaning.

Table 2.5: LOCATIONAL NOUNS AND THEIR COMBINATIONS

| Noun 1 (source noun) | Noun 2 (source noun) | Example |
|---|---|---|
| *amór* 'at' (*amo* 'place') | *guro'ó* 'inside' (*gura'* 'stomach') | *amór guro'o mar'i* 'inside the cave' |
| | *bihhí* 'beside' (*bihhi* 'side') | *amór bihhí sokodá'* 'beside that market' |
| | *bartá* 'side' (*bara* 'side') | *amór bartá muukuqá'* 'on the side of those people' |
| | *geerá* 'in front' (*geera* 'front') | *amór geerá tsir/i* 'in front of the bird' |
| *dír* 'at' (*di* 'place') | *geerá* 'in front' (*geera* 'front') | *dír geerá do'* 'in front of the house' |
| | *afeé* 'to the side' (*afeetloo* 'waist') | *dír afee uruwa* 'at the side of the road' |
| | *bihhí* 'at the side' (*bihhi* 'side') | *dír bihhí ya'awoo* 'beside its legs' |
| *bará* 'in' (*bara* 'side') | *tla/aángw* 'among' (*tla/aangw* 'middle') | *bará tla/aángw yiikwa'ín* 'among their cattle' |
| | *daandó* 'on' (*daanda* 'back') | *bará daandó yaamu* 'on the earth' |
| | *guro'ó* 'underneath' (*gura'* 'stomach') | *bará guro'ó meesa* 'underneath the table' |
| *gawá* '*on*' (*gawa* 'top') | *daandó* 'on top' (fig. 'about') (*daanda* 'back') | *gawá daandó xa'ano* 'on top of the tree' |
| *alú* '*behind*' (*alu* 'rear') | | *alú do'* 'behind the house' |
| *afkó* '*edge*' (*afa* 'mouth') | | *afkó wa/aangw* 'the edge of the arroyo' |

### Numerals

Numerals are typically singulare tantum, except for *miibaangw* 'ten', *tsiru* 'hundred', and *kumá* 'thousand', which all have plural forms (*mibeeri*, *tsiree*, and *kumee*, respectively). Cardinal numbers occur as modifiers to their head noun (2.80). Ordinal numbers take the same form, but must be preceeded by the anaphoric pronoun (2.81).

(2.80) CARDINAL NUMBER *WÁK* 'ONE'
       *fuqunó **wák** ku tleér wa ló* [20151021c.327]

| fuqunó | **wák** | t- | ng- | u- | Ø | tleér | wa.ló |
|--------|---------|-----|------|------|-----|--------|-------|
| claw.LM0 | **one** | MP- | A.3- | P.M- | AUX | long.M | very |

       "one claw is very long"

(2.81) ORDINAL *OO WÁK* 'FIRST'
       *kana gaás nee tahhatá **oo wák***      [20150724.6]

| t- | ng- | a- | Ø | -na | gaás | nee | tahhatá | **oo** |
|-----|------|------|-----|------|------|-----|---------|--------|
| MP- | A.3- | P.F- | AUX | -IMPRF | kill.PST | by | hitting.LFT | **ANA.M** |

       **wák**
       **one**

       "it (i.e. the hyaena) was killed by the first blow"

The Gorwaa numeral system is decimal, and vocabulary up to the thousands means that the language may, theoretically, accommodate a maximum figure as low as 9,999 and as high as 999,999.  With that said, the highest numeral recorded in the database is 1,947 (2.82), and it is highly common for Swahili numerals to be used instead of Gorwaa numerals (2.83).

## 2. A grammatical sketch of Gorwaa

Figure 2.3: NUMERALS IN GORWAA

| | |
|---|---|
| *wák* | one |
| *tsár* | two |
| *tám* | three |
| *tsiyéhh* | four |
| *ko'án* | five |
| *lehhó* | six |
| *faanqw* | seven |
| *dakaát* | eight |
| *gwaleél* | nine |
| *mibaangw* | ten |
| *miibá nee wák* | eleven |
| *miibá nee tsár* | twelve |
| ⋮ | |
| *miibá nee gwaleél* | nineteen |
| *mibeerí tsár* | twenty |
| *mibeerí tsár nee wák* | twenty one |
| ⋮ | |
| *mibeerí tám* | thirty |
| *mibeerí tám nee wák* | thirty one |
| ⋮ | |
| *mibeerí gwaleél nee gwaleél* | ninety nine |
| *tsiru* | a hundred |
| *(tsirú wák)* | (one hundred) |
| *tsiru nee wák* | one hundred and one |
| ⋮ | |
| *tsiru nee miibá nee wák* | one hundred and eleven |
| *tsiru nee miibá nee tsár* | one hundred and twelve |
| ⋮ | |
| *tsiru ne gwaleél nee gwaleél* | one hundred and ninety nine |
| *tsireé tsár* | two hundred |
| ⋮ | |
| *tsireé gwaleél nee mibeerí gwaleél nee gwaleél* | nine hundred and ninety nine |
| *kumá* | a thousand |
| *(kumó wák)* | (one thousand) |
| *kumó wák nee wák* | one thousand and one |
| ⋮ | |
| *kumó wák nee tsirú wák nee miibá nee wák* | one thousand, one hundred and eleven |
| ⋮ | |
| *kumó wák nee tsireé gwaleél nee mibeerí gwaleél nee gwaleél* | one thousand, nine hundred and ninety nine |
| *kumeé tsár* | two thousand |
| *kumeé tsár nee wák* | two thousand and one |
| ⋮ | |
| *kumeé tsár nee mibaá nee faanqw* | two thousand and seventeen |
| ⋮ | |
| *kumeé gwaleél nee tsireé gwaleél nee mibeerí gwaleél nee gwaleél* | nine thousand, nine hundred and ninety nine |

(2.82) Hɪɢʜᴇsᴛ ɴᴜᴍʙᴇʀ ʀᴇᴄᴏʀᴅᴇᴅ ɪɴ ᴛʜᴇ Gᴏʀᴡᴀᴀ ᴄᴏʀᴘᴜs: 1,947
 *aní ta laqwaál kurkú kumó wák tsireé gwaleél nee mibeerí tsiyéhh nee faanqw*
*bará kijijír Rirod wa alé*                [20131027_20150725c.2]

| aní | t- | Ø- | i- | Ø | -(g)a | laqwaál |
|---|---|---|---|---|---|---|
| Pʀᴏ.1Sɢ | MP- | A.1- | P.1Sɢ | Aᴜx | -Pʀꜰ | give.birth.Psᴛ |
| kurkú | **kumó** | | **wák** | **tsireér** | | **gwaleél nee** |
| year.LMᴋ | **thousand.LM0** | | **one** | **hundreds.LFʀ** | | **nine** | **and** |
| **mibeerí** | **tsiyéhh** | **nee** | **faanqw** | bará | kijijír | | Rirod |
| **tens.LNØ** | **four** | **and** | **seven** | in | village.LFʀ | | Riroda |
| wa.alé | | | | | | |
| Pʀᴏʀᴇs | | | | | | |

 "I was born the year one thousand nine hundred and forty seven in the
 village of Riroda."

(2.83) Sᴡᴀʜɪʟɪ ɴᴜᴍᴇʀᴀʟs ʙᴇɪɴɢ ᴜsᴇᴅ ɪɴsᴛᴇᴀᴅ ᴏꜰ Gᴏʀᴡᴀᴀ
 *xoroór boo/, xooroo bar a muukú [...] mia, bar a tsireé ko'án*
                            [20151202d.104]

| xoroór | boo/ | xoroór | bar | i- | Ø | -(g)a |
|---|---|---|---|---|---|---|
| crowd.LFʀ | black.F | crowd | if | S.3 | Aᴜx | -Pʀꜰ |
| muukú | **mia** | bar | i- | Ø | -(g)a | tsireé |
| people | **one.hundred** | if | S.3- | Aᴜx | -Pʀꜰ | hundreds.LNØ |
| ko'án | | | | | | |
| five | | | | | | |

 "a huge crowd, maybe one hundred people – maybe five hundred"

### 2.3.1.4 Derivational operations

***Noun-to-noun***
Noun-noun compounds are uncommon in Gorwaa. The only uncontroversial form

attested thus far is *hareekuráy* 'hammerkop' from *haree* 'wife' and *kuráy* 'any sp. of

wedge-tailed raptor'.


More common, but less clearly an instance of compounding, is the prefixation of

*ama-* to a noun in oder to derive a new noun (2.84). It has been suggested by

Maarten Mous (p.c.) that *ama-* may be related to the noun *aamá* 'grandmother'.

(2.84)  POSSIBLE COMPOUNDS IN *AMA-*

| | | |
|---|---|---|
| *fa/a* 'ugali' | → | *amafa/a* 'sp. of fruit-bearing tree' |
| *fuqunó* 'claw' | → | *amafuqunó* 'sp. of thorny tree' |
| *maa'o* 'cat' | → | *amamaa'o* 'fork-tailed drongo *Dicrurus adsimilis*' |
| *geenda* 'plant sp.' | → | *amageenda* 'sp. of tree' |
| */anta* 'termite mound' | → | *ama/anta* 'sp. of tree' |

### Verb-to-noun

Gentilic nouns

Verbs with the ending *–uus* (see Causitive and Factitive in §2.3.2.4) serve as stems upon which the suffixes *–(a)mo*, *-(a)so'o* or *–(a)to'o* and *–ee* can form gentilic nouns: nouns referring to people associated with the action of the verb.  *–(a)mo* derives a male, *-(a)so'o* and *–(a)to'o* derives a female, and *–ee* derives their plural form.

(2.85)  GENTILIC NOUNS

| | | | |
|---|---|---|---|
| a. *fiís* 'steal' | → | *fiisusumo* | 'thief ♂' |
| | | *fiisuso'o* | 'thief ♀' |
| | | *fiisusee* | 'thieves' |
| b. *aál* 'inherit' | → | *aalutumo* | 'heir ♂' |
| | | *aaluto'o* | 'heir ♀' |
| | | *aalutee* | 'heirs' |
| c. *wák* 'hate' | → | *wakusumo* | 'enemy ♂' |
| | | *wakuso'o* | 'enemy ♀' |
| | | *wakusee* | 'enemies' |

Deverbal nouns

In addition to gentilic nouns, a noun may be derived from a verb through the addition of a nominalizing suffix (2.86).  These forms are nouns because they have gender, and may fill many of the syntactic positions of nouns (e.g. *qato* 'sleeping', derived from *qaát* 'to sleep' fills the subject position in the adjectival copular construction in (2.87).

(2.86) DEVERBAL NOUNS
a.   *doósl* 'to farm'      →      *doosla* 'farming'
b.   *ga/áw* 'to look'      →      *ga/awngw* 'looking'
c.   *slakaát* 'to hunt'    →      *slakat* 'hunting'

(2.87) DEVERBAL NOUN AS SUBJECT OF COPULA WITH ADJECTIVAL PREDICATE
**qato***wós koqá' ku tleér wa ló*                [20161102b.19]
**qató**      =ós        koqá'       t-      ng-     u-      Ø
**sleeping** =POSS.3SG  PRODEM3.M   MP-    A.3-    P.M-    AUX
tleér    wa.ló
long.M very
"His sleeping is very long."

## 2.3.2 Verbs

This subsection begins by describing the distribution of verbs. Next is an overview

of verbal inflection, followed by an examination of adnominals. Verbalizing

derivations are then given. Finally, the structure of the verb phrase is given.

### 2.3.2.1 Syntactic distribution

In pragmatically unmarked sentences, the verb is typically clause-final (2.88). Verbs

may be followed by an adverbial clause (2.89).

(2.88) VERB IS CLAUSE-FINAL
a.   *aní a sleér **diíf***      [20150724.4]
aní            Ø-      Ø      sleér          **diíf**
PRO1SG        S.P-    AUX    cow.LFR        **hit.1.PST**
"I hit the cow."

b.   *slee a **gwá'*** [20160120q.66]
sleér          i-      Ø      -(g)a    **gwá'**
cow.LFR        S.3-    AUX    -PRF     **die.F.PST**
"The cow died."

(2.89) VERB IS FOLLOWED BY AN ADVERBIAL PHRASE
a.   *aga hi'imamiít **ay bará Duwanqee***    [20131027_20150725c.126]
Ø-      Ø      -(g)a    ~Red~          hi'imiít       **ay**     **bará**
S.P-    AUX    -PRF     ~PLUR~         travel.1.PST   **to**     **in**
**Duwanqeér**
**Maasai.people.LFR**
"I have travelled among the Maasai."

b.　　*Burá i sihhimiit **wa gawá daandó meesa*** [20150815n.3]

| Burá | i- | Ø | sihhimiit | **wa** | **gawá** | **daandó** |
|------|-----|-----|-----------|--------|---------|-----------|
| Burá.LM0 | S.3- | Aux | stand.M.Pres | **from** | **on** | **top** |

**meesaár**
table.LFR

"Burá is standing on top of the table."

## 2.3.2.2 Verbal inflection

The Gorwaa verb may inflect for person, gender, and number, tense, and mood, which will be examined below.

### *Person, gender, and number*

It is important to distinguish pronominal subjects (for which verbs agree for person and number) from nominal subjects (i.e. for which verbs agree for gender). We will first examine verbal inflection for pronominal subjects, and then examine nominal subjects.

Pronominal subjects
There are at least 6 verbal paradigms, which each inflect differently for person.

Table 2.6: Inflectional paradigms for lexical verbs: present indicative

| *Pattern* | *1st Person Subject Examples* | *2nd Person Subject Examples* | *3rd Person Subject Examples* |
|-----------|-------------------------------|-------------------------------|-------------------------------|
| *1* | *-V:C ~RPA~* <br> *xuú' (know.1Sg)* | *-VC ~RPA~* <br> *xú' (know.2Sg)* | *-V:C* <br> *xuu' (know.3Sg)* |
| *2* | *-V:m ~RPA~* <br> *ya/aám (agree.1Sg)* | *-Vnd ~RPA~* <br> *ya/ánd (agree.2Sg)* | *-Vn ~RPA~* <br> *ya/án (agree.3Sg)* |
| *3* | *-aw ~RPA~* <br> *xáw (come.1Sg)* | *-eer ~RPA~* <br> *xeér (come.2Sg)* | *-ay ~RPA~* <br> *xáy (come.3Sg)* |
| *4* | *-ar ~RPA~* <br> *qwár (get.lost.1Sg)* | *-an or –at ~RPA~* <br> *qwát (get.lost.2Sg)* | *-ar ~RPA~* <br> *qwár (get.lost.3Sg)* |
| *5* | *-Vh ~RPA~* <br> *dáh (enter.1Sg)* | *-Vt ~RPA~* <br> *dát (enter.2Sg)* | *-Vh* <br> *dah (enter.3Sg)* |
| *6* | *-Vw ~RPA~* <br> *húw (bring.1Sg)* | *-Vp ~RPA~* <br> *húp (bring.2Sg)* | *-Vw ~RPA~* <br> *húw (bring.3Sg)* |

Plural forms are built from their respective singular bases, plus a plural suffix. First person plurals are of the form: [1Sg Base] + *-aán* (1Pl). Second person plurals are of

the form: [2Sg Base] + *-á'* (2Pl).  Third person plurals are of the form: [3Sg Base] +

either *-iyá'* (3Pl) or *-iyí'* (3Pl).  Both 3rd person plural suffixes are used

interchangeably, with no difference in meaning.

Table 2.7: PLURAL INFLECTIONAL PARADIGM

| Verb | 1st Person Plural Subject [1Sg Base] + *-aán* | 2nd Person Plural Subject [2Sg Base] + *-á'* | 3rd Person Plural Subject [3Sg Base] + *-iyá'* *-iyí'* |
|---|---|---|---|
| *xuu'* 'know' | xuú' + -aán *xuu'aán* (know.1Pl) | xú' + -á' *xu'á'* (know.2Pl) | xuu' + -iyá' + -iyí' *xuu'iyá'* or *xuu'iyí'* (know.3Pl) |
| *ya/án* 'agree' | ya/aám + -aán *ya/aamaán* (agree.1Pl) | ya/ánd + -á' *ya/andá'* (agree.2Pl) | ya/án + -iyá' + -iyí' *ya/aniyá'* or *ya/aniyí'* (agree.3Pl) |
| *sláy* 'get' | sláw + -aán *slawaán* (get.1Pl) | sleér + -á' *sleerá'* (agree.2Pl) | sláy + -iyá' + -iyí' *slayiyá'* or *slayiyí'* (get.3Pl) |

From a morphological perspective, then, it must be said that verbs in the plural are

double-marked for person: once in the base of the verb, and again on the plural

person suffix.

(2.90)  VERBS IN THE PLURAL ARE DOUBLE-MARKED FOR PERSON
       *[…] atén na waatlaán* [20151202e.89]
       atén         ni     -(g)a   w**aá**tl        **-aán**
       PRO1PL    VENT  -PRF   return.**1**      -**1**PL.PST
       "[…] we have returned"

<u>Nominal subjects</u>
When the subject is a common noun, agreement is not for person/number, but for

gender.  Masculine nouns trigger the same agreement on a verb as 3rd person

singular pronouns (2.91).  Feminine nouns trigger the same agreement on a verb as

2<sup>nd</sup> person singular pronouns (2.92). Neuter nouns trigger the same agreement on a

verb as 3<sup>rd</sup> person plural pronouns (2.93).

Table 2.8: INFLECTIONAL PARADIGM FOR NOMINAL SUBJECTS: PRESENT INDICATIVE

| Verb | Masculine Subject | Feminine Subject | Neuter Subject |
|---|---|---|---|
| ***xuu'* 'know'** | *xuu'* (know.M) | *xú'* (know.F) | *xuu'iyá'* or *xuu'iyí'* (know.N) |
| ***ya/án* 'agree'** | *ya/án* (agree.M) | *ya/ánd* (agree.F) | *ya/aniyá'* or *ya/aniyí'* (agree.N) |
| ***sláy* 'get'** | *sláy* (get.M) | *sleér* (get.F) | *sláyiyá'* or *slayiyí'* (get.N) |

(2.91) M NOUNS AND 3<sup>RD</sup> PERSON SINGULAR PRONOUNS TRIGGER THE SAME AGREEMENT

    a.     *inós baahaa ngina ta**á**hh* [20160921i.10]

| inós | baahaár | ng- | a- | Ø | -na | t**a**áhh |
|---|---|---|---|---|---|---|
| PRO3SG | hyaena.LFR | A.3- | P.F | AUX | -IMPRF | hit.**3**.PST |

"He hit the hyaena."

    b.     *garma baahaa ngina ta**á**hh* [20160921i.1]

| garmá | baahaár | ng- | a- | Ø | -na | t**a**áhh |
|---|---|---|---|---|---|---|
| boy.LM0 | hyaena.LFR | A.3- | P.F- | AUX | -IMPRF | hit.**M**.PST |

"The boy hit the hyaena."

(2.92) F NOUNS AND 2<sup>ND</sup> PERSON SINGULAR PRONOUNS TRIGGER THE SAME AGREEMENT

    a.     *kuúng a gog**óp*** [20160119f.28]

| kuúng | a- | Ø | ~Red~ | g**óp** |
|---|---|---|---|---|
| PRO2SG.M | A.P- | AUX | ~PLUR~ | flee.**2**.PRES |

"You(M) flee."

    b.     *haree i gog**óp*** [20160119f.30]

| hareér | i- | Ø | ~Red~ | g**óp** |
|---|---|---|---|---|
| woman.LFR | A.3 | AUX | ~RED~ | flee.**F**.PRES |

"The woman flees."

(2.93) N NOUNS AND 3<sup>RD</sup> PERSON PLURAL PRONOUNS TRIGGER THE SAME AGREEMENT

    a.     *ino'ín [...] baahaa ngina diif**iyí'*** [20160927l110-124.9]

| ino'ín | baahaár | ng- | a- | Ø | -na | diif | **-iyí'** |
|---|---|---|---|---|---|---|---|
| PRO3PL | hyaena.LFR | A.3- | P.F- | AUX | -IMPRF | hit.3 | **-3PL**.PST |

"They [...] hit the hyaena."

    b.     *na/i'i [...] bahaa ngina diif**iyí'*** [20160927l110-124.3]

| na/i'í | baahaár | ng- | a- | Ø | -na | diif | **-iyí** |
|---|---|---|---|---|---|---|---|
| children.LNØ | hyaena.LFR | A.3- | P.F- | AUX | -IMPRF | hit | **-N**.PST |

"The [...] children hit the hyaena."

*2. A grammatical sketch of Gorwaa*

***Tense***

Verbs inflect for tense, namely past and present[8]. Past tense is realized by rising

pitch accent (see Table 2.9). Present tense is zero-marked (see Table 2.6 above).

Because of extensive syncretism, the only time present and past tense may be

distinguished on the verb is when inflected for a 3rd person singular pronoun, or a

masculine noun, where there is level pitch accent for present and rising pitch accent

for past (2.94). All other present forms feature rising pitch accent as part of their

person/number agreement and are therefore identical to their past forms.

Table 2.9: INFLECTIONAL PARADIGM FOR PAST INDICATIVE

| Verb | Masculine Subject | Feminine Subject | Neuter Subject |
|---|---|---|---|
| *xuu'* 'know' | xuú' | xú' | xuu'iyá' or xuu'iyí' |
| *ya/án* 'agree' | ya/án | ya/ánd | ya/aniyá' or ya/aniyí' |
| *sláy* 'get' | sláy | sleér | sláyiyá' or slayiyí' |

(2.94) PRESENT AND PAST TENSE ARE DISTINGUISED ONLY FOR A M NOUN OR A 3RD PERSON
SINGULAR PRONOUN
    a.    *na/i'i ngi diif* [20161004b.49]
        na/i'í       ng-   i-     Ø     d**ii**f
        children.LNØ A.3-  P.N-  AUX  hit.M.**PRES**
        "He hits the children."

    b.    *na/i'i ngina diíf* [20161004b.60]
        na/i'í       ng-   i-     Ø   -na   d**ií**f
        children.LNØ A.3-  P.N-  AUX  -IMPRF  hit.M.**PST**
        "He hit the children."

***Mood***

Mood includes indicative, subjunctive, and interrogative. All three are indicated

primarily by pitch-accent on the verb. Indicative is zero-marked (2.95). Subjunctive

is marked by level pitch accent (2.96), and by the suffix *-i* for pattern 1 verbs (see

Table) with a 3rd person singular or masculine subject (2.97). Interrogative is

[8] Technically, this dichotomy should be worded 'past' and 'non-past' in that it is the present
tense which is used for all non-past tenses. Given that this is not the central focus of the
dissertation, the terms 'past' and 'present' will be retained.

marked by rising-falling pitch accent on an extension suffix: *-a* in the present, and *-i*

in the past (2.98).

(2.95)  INDICATIVE MOOD (NO MARKING)
        *[...] /oonaa na hardát*      [20150729b.15]

| /oonaár | ni- | ∅ | -(g)a | hardát |
|---------|-----|---|-------|--------|
| new.moon.LFR | VENT- | AUX | -PRF | arrive.F.PST |

        "The new moon has arrived."

(2.96)  SUBJUNCTIVE MOOD (LEVEL PITCH ACCENT)
        *[...] ni hardah, i haslìt* [20150810d.33]

| ni- | ∅ | hard**ah** | i- | ∅ | haslìt |
|-----|---|-----------|----|---|--------|
| MP.S.1 | AUX | arrive.1.**SUBJ** | S.3- | AUX | think.F.PRES.EMPH |

        "[...] when I arrive, she is *thinking*."

(2.97)  SUBJUNCTIVE MOOD (SUFFIX *-I* FOR PATTERN 1 VERBS WITH 3ᴿᴰ PERSON SG PRONOMINAL
    OR M NOMINAL SUBJECT)
        *[...] Muungú ngu tsuunqi* [20131027_20150725c.22]

| Muungú | ng- | u- | ∅ | tsuunq**i** |
|--------|-----|----|---|------------|
| God.LMO | A.3- | P.2SGM | AUX | bless.M.**SUBJ** |

        "May God bless you(M)."

(2.98)  INTERROGATIVE MOOD (RISING-FALLING PITCH ACCENT ON EXTENSION SUFFIX *-I*)
        *aama na hardatî* [20150808a.126]

| aamár | ni- | ∅ | -(g)a | hardat | **-î** |
|-------|-----|---|-------|--------|--------|
| grandmother.LFR | VENT- | AUX | -PRF | arrive.F | **-Q**.PST |

        "Has grandmother arrived?"

## 2.3.2.3 Adnominals

Adnominals in Gorwaa are deverbal constituents which modify a head noun. Like

adjectives, they follow their head noun, which is in long-form. Adnominals agreeing

with a singular pronominal, or masculine nominal head show rising pitch accent

(2.99); adnominals agreeing with a feminine nominal head show level pitch accent

(2.100); adnominals agreeing with a plural pronominal, or neuter nominal head

show the suffix *-a'* and rising pitch accent (2.101). However, adnominals cannot be

used predicatively, nor do they agree for nominal number (see (2.102), in which

*muu* (M.Pl) triggers the same agreement pattern as *garma* (M.Sg)), meaning that

their function is not exactly that of an adjective (c.f. Haspelmath 1995). As such,

they cannot be called participles.

(2.99) ADNOMINALS AGREEING WITH A SINGULAR PRONOMINAL OR M NOMINAL SUBJECT SHOW
RISING PITCH ACCENT

a. *aniwí do**ó**sl baahaa ana taáhh*  [20160927l110-124.4]

| aní | -í | do**ó**sl | | baahaár | |
|---|---|---|---|---|---|
| PRO1SG | -DEM1 | farm.**ADN.1SG** | | hyaena.LFR | |
| Ø- | a- | Ø | -na | taáhh | |
| A.P- | P.F- | AUX | -IMPRF | hit.1.PST | |

"I, farming, hit the hyaena."

b. *kuúng kwisíng do**ó**sl baahaa ana taáhh* [20160927l110-124.5]

| kuúng | kwisíng | do**ó**sl | baahaár |
|---|---|---|---|
| PRO2SG.M | PRODEM2.M | farm.**ADN.2SG** | hyaena.LFR |
| Ø- | a- | Ø | -na | táhh |
| A.P- | P.F- | AUX | -IMPRF | hit.2.PST |

"You there, farming, hit the hyaena."

c. *inós oo do**ó**sl baahaa ngina taáhh* [20160927l110-124.6]

| inós | oo | do**ó**sl | baahaár |
|---|---|---|---|
| PRO3SG | ANA.M | farm.**ADN.3SG** | hyaena.LFR |
| ng- | a- | Ø | -na | taáhh |
| A.3- | P.F- | AUX | -IMPRF | hit.3.PST |

"He, farming, hit the hyaena."

d. *garmá do**ó**sl bahaa ngina taáhh*  [20160927l110-124.1]

| garmá | do**ó**sl | baahaár | ng- | a- | Ø | -na |
|---|---|---|---|---|---|---|
| boy.LM0 | farm.**ADN.M** | hyaena.LFR | A.3- | P.F- | AUX | -IMPRF |

taáhh
hit.M.PST

"The farming boy hit the hyaena."

(2.100) ADNOMINALS AGREEING WITH A F NOMINAL SUBJECT SHOW LEVEL PITCH ACCENT
*desír do**o**sl baahaa ngina táhh* [20160927l110-124.2]

| desír | do**o**sl | baahaár | ng- | a- | Ø | -na |
|---|---|---|---|---|---|---|
| girl.LFR | farm.**ADN.F** | hyaena.LFR | A.3- | P.F- | AUX | -IMPRF |

táhh
hit.F.PST

"The farming girl hit the hyaena."

(2.101)     ADNOMINALS AGREEING WITH A PLURAL PRONOMINAL OR N NOMINAL SUBJECT
SHOW THE SUFFIX *-Á'*

     a.    *ateká dooslá' baahaa ana diifaán*   [20160927l110-124.7]

| atén | -ká | doosl | **-á'** | baahaár |
|------|-----|-------|---------|---------|
| PRO1PL | -DEM1 | farm | **-ADN.PRO1PL** | hyaena.LFR |

| Ø- | a- | Ø | -na | diíf | -aán |
|----|----|----|-----|------|------|
| A.P- | P.F- | AUX | -IMPRF | hit.1 | -1PL.PST |

"We, farming, hit the hyaena."

     b.    *kuungá' koká' dooslá' baahaa ana difé'*   [20160927l110-124.8]

| kuungá' | koká' | doosl | **-á'** | baahaár |
|---------|-------|-------|---------|---------|
| PRO2PL | PRODEM1.M | farm | **-ADN.PRO2PL** | hyaena.LFR |

| Ø- | a- | Ø | -na | dif | -é' |
|----|----|----|-----|-----|-----|
| A.P- | P.F- | AUX | -IMPRF | hit.2 | -2PL.PST |

"You(pl.), farming, hit the hyaena."

     c.    *ino'ín koká' dooslá' baahaa ngina diifiyí'* [20160927l110-.9]

| ino'ín | koká' | doosl | **-á'** | baahaár |
|--------|-------|-------|---------|---------|
| PRO3PL | PRODEM1.M | farm | **-ADN.PRO3PL** | hyaena.LFR |

| ng- | a- | Ø | -na | diif | -iyí' |
|-----|----|----|-----|------|-------|
| A.3- | P.F- | AUX | -IMPRF | hit.3 | -3PL.PST |

"They, farming, hit the hyaena."

     d.    *na/i'í dooslá' bahaa ngina diifiyí'* [20160927l110-124.3]

| na/i'í | doosl | **-á'** | bahaár |
|--------|-------|---------|--------|
| children.LNØ | farm | **-ADN.N** | hyaena.LFR |

| ng- | a- | Ø | -na | diif | -iyí' |
|-----|----|----|-----|------|-------|
| A.3- | P.F- | AUX | -IMPRF | hit | -N.PST |

"The farming children hit the hyaena."

(2.102)     ADNOMINALS ARE NOT ADJECTIVAL (AND ARE THEREFORE NOT PARTICIPLES):
PREDICATES DO NOT SHOW NUMBER AGREEMENT (PL *MUU* AND SG *GARMA* TRIGGER THE SAME
AGREEMENT PATTERN)

     a.    *muukú doósl baahaa ngina diíf*   [20160927l110-124.10]

| muukú | d**oó**sl | baahaár | ng- | a- | Ø | -na |
|-------|-----------|---------|-----|----|----|-----|
| people.LMK | farm.**ADN.M** | hyaena.LFR | A.3- | P.F- | AUX | -IMPRF |

diíf
hit.M.PST

"The farming people hit the hyaena."

     b.    *garmá doósl baahaa ngina taáhh*   [20160927l110-124.1]

| garmá | d**oó**sl | baahaár | ng- | a- | Ø | -na |
|-------|-----------|---------|-----|----|----|-----|
| boy.LMO | farm.**ADN.M** | hyaena.LFR | A.3- | P.F- | AUX | -IMPRF |

taáhh
hit.M.PST

"The farming boy hit the hyaena."

*2. A grammatical sketch of Gorwaa*

<u>Causative</u>
The causative suffix –*VVs* (Mous 1993:174) adds an extra argument to the verb,

whose role is the causer or instigator of the action of the verb.


(2.105)     *OHIÍS*, CAUSATIVE FORM OF *ÓH*
            *óh* 'ignite' (i.e. fire)  →       *ohiís* 'light' (i.e. fire)

(2.106)     *OHIÍS* IS TRANSITIVE
            *asloó tsár oo dirèn ngina* **ohiís** [20150729b.17]
            asloó        tsár oo       diren   ~`~
            fires.LN∅    two ANA.N     big.N   ~EMPH~
            ng-    i-     ∅       -na   **ohiis**
            A.3-   P.N-   AUX     -IMPRF **light.M.PST**
            "He lit two *great* fires."

<u>Durative</u>
The durative contributes a continuous reading to the verb.  This operation is

realized by two alternate morphemes: the suffix -*VVm* (Mous 1993:178) ( (2.107)

and (2.108)), and the infix <*ar*> (Mous 1993: 185-186) ((2.109) and (2.110)).


(2.107)     *HUBIÍM*, DURATIVE FORM OF *HÚW*
            *húw* 'bring'     →       *hub**iím*** 'bringing'

(2.108)     *HUBÍM:* CONTINUOUS BRINGING
            *kan* **hubin** *bará pakani* [20151202e.6]
            t-     ng-    a-     ∅       -n   **hubin**              bará
            MP-    A.3-   P.F-   AUX     -EXPECT **bringing.SUBJ**    to
            pakanír
            borderland.LFR
            "They were being brought to the borderland."

(2.109)     *DARÁH*, DURATIVE FORM OF *DÁH*
            *dáh* 'enter'     →       *da**r**áh* 'entering'

(2.110)     *DARÁH:* CONTINUOUS ENTERING
            *aní a* **daráh** *bará do'* [20150727.45]
            aní          ∅-     ∅     **daráh**              bará   dó'
            PRO1SG       S.P-   AUX   **entering.1.PRES**    in     house.LMO
            "I am going into the house."

*2. A grammatical sketch of Gorwaa*

Middle voice
Middle voice indicates that the subject of the verb bears both agentlike and

patientlike qualities. The suffix is –*VVt*.

(2.111)      *XASLIÍT*, MIDDLE FORM OF *XAÁSL*
           *xaásl* 'be quiet'      →      *xasliít* 'keep quiet'

(2.112)      *XASLIÍT*: SUBJECT IS BOTH AGENT- AND PATIENTLIKE
           *ina **xasliít** [...]* [20131108b_20150725j.74]
           i-      Ø     -na    **xasliít**
           S.3-   AUX   -IMPRF  **keep.quiet.PST**
           "He kept quiet [...]"

Pluractionality
Verbs may also express pluractionality. This is typically accomplished through

reduplication of part of the verb root.


(2.113)      *TLATLÁW*, PLURACTIONAL FORM OF *TLÁW*
           *tláw* 'go'     →      ***tla**tláw* 'go repeatedly'

(2.114)      *TLATLÁW*: ACTION IS REPEATED
           *garmaqá' a **tlatláy*** [20161102b.28]
           garmá      -qá'  i-    Ø     -(g)a  **~Red~ tláy**
           boy.LM0    -DEM3 S.3-  AUX  -PRF  **~PLUR~ go.M.PST**
           "The boy was leaving."

Semantically, pluractionality is not always uniform and the meaning of any

pluractional form depends on the semantics of the root verb, as well as the larger

context of the phrase. As such, it cannot be reduced to simply an aspectual

inflection.

(2.115)      *DEDEÉR*: PLURACTIONAL IS ATTENUATING
           *boó/ ar nakw i **dedeer*** [20150818a.19]
           boó/  ar     nakw i-    Ø    **~Red~ deer**
           black ANA.F a.bit S.3-  AUX   **~PLUR~ be.present.F.PRES**
           "A bit of black is kind of there."

(2.116)    *Xₐxáy*: ᴘʟᴜʀᴀᴄᴛɪᴏɴᴀʟ ᴄᴏɴᴛʀɪʙᴜᴛᴇѕ ᴀ ᴄᴏɴᴛɪɴᴜᴏᴜѕ ᴍᴇᴀɴɪɴɢ
           *muukuqá' a **xaxáy**, koqá' bili ina hardahiyí', koqá' motloo, koqá'*
           *boloqá' [...]*                              [20151202d.19]

| muukú | -qá' | i- | Ø | -(g)a | **~Red~ xáy** |
|-------|------|-----|-----|-------|-----------|
| people.Lᴍᴋ | -Dᴇᴍ3 | S.3- | Aᴜx | -Pʀꜰ | **~Pʟᴜʀ~ come.M.Pѕᴛ** |
| koqá' | bili | i- | Ø | -na | hardah -iyí' |
| PʀᴏDᴇᴍ3.M | today | S.3- | Aᴜx | -Iᴍᴘʀꜰ | arrive -N.Pѕᴛ |
| koqá' | motloo | | koqá' | | boloqá' |
| PʀᴏDᴇᴍ3.M | tomorrow | | PʀᴏDᴇᴍ3.M | | day.after.tomorrow |

           "Those people were coming, some arrived today, some tomorrow,
some the day after tomorrow."

### Noun to verb

The two denominal suffixes identified in Mous (1993) for Iraqw have also been

identified for Gorwaa. The factitive *–uus* and the middle *–uut* are each presented

below.

<u>Factitive</u>

Though this morpheme *-uus* appears related in form to the causative morpheme,

Mous (1993: 189) makes the point of not referring to this form as causative 'because

the derived verb need not have the causative meaning and can be intransitive'. As

such, it is therein referred to as factitive. The evidence is the same in Gorwaa, and

the terminology will therefore be adopted.

The factitive suffix is added to a nominal stem to form a new verb.

(2.117)    ꜰᴀᴄᴛɪᴛɪᴠᴇ ѕᴜꜰꜰɪx *-ᴜᴜѕ*
           a.    *tlatu* 'debt'          →    *tlat**uús*** 'be indebted'
           b.    *ilatleeri* 'greed'     →    *ilatleer**uús*** 'to covet, to want badly'

(2.118)     IʟᴀᴛʟᴇᴇʀᴜÚs 'ᴡᴀɴᴛ ʙᴀᴅʟy'
            *a **ilatleeruús** mwalimu garma ngwa kitaabuwi hariisi*
                                                    [20160927l102-107.25]
            ∅-      a-      ∅      -a   **ilatleeruús**      mwalimú      garmá
            A.P-    P.F-    Aᴜx    -Pʀꜰ want.badly.1.Psᴛteacher.LMo  boy.LMo
            ng-             u-     ∅      -wa   kitaabú         -i     hariisi
            Dᴇᴘ.A.3-        P.M-   Aᴜx    -Bᴀᴄᴋ book.LMo        -Lᴀᴛ  bring.M.Sᴜʙᴊ
            "I really wanted the teacher to bring the boy the book."

This suffix also serves as a common way of nativizing loan nouns from Swahili (see

Harvey & Mreta 2017).

(2.119)     Fᴀᴄᴛɪᴛɪᴠᴇ *-ᴜᴜs* ᴜsᴇᴅ ᴛᴏ ɴᴀᴛɪᴠɪᴢᴇ ʟᴏᴀɴs ꜰʀᴏᴍ Sᴡᴀʜɪʟɪ
            a. *fyeka* Sw. 'clear ground'     →      *fek**uús*** 'clear ground'
            b. *tafsiri* Sw. 'translate'       →      *tafsir**uús*** 'translate'

Middle
The suffix *–uut* (Mous 1993: 190), clearly related in form to the middle morpheme *–*

*iit*, is added to a nominal stem to form a new verb in the middle voice.

(2.120)     Mɪᴅᴅʟᴇ sᴜꜰꜰɪx *-ᴜᴜᴛ*
            a.      *da'aye* 'fear'                          →      *da'ay**uút*** 'fear'
            b.      *kwasleema* 'bring forth a complaint' →      *kwasleem**uút*** 'hold
                                                                      counsel'

**Adjective-to-verb**
The de-adjectival suffixes *–uw* and *–ees* are examined here.

Inchoative
The suffix *–úw* (Mous 1993: 186-188), is added to an adjectival stem to form a new

verb with the meaning 'to become X', where X is the quality of the verb.

(2.121)     Iᴄʜᴏᴀᴛɪᴠᴇ sᴜꜰꜰɪx *-Úᴡ*
            a.      */awaákw* 'white'   →      */awak**úw*** 'become white'
            b.      *boó/* 'black'       →      *bo/**áw*** 'become black, become
                                                                  dark'

Factitive
The suffix –*ees* (Mous 1993: 188-189) – clearly related to the factitive and causative

forms described above – is added to an adjectival stem to form a new verb with the

meaning 'to make X', where X is the quality of the verb.

(2.122)      F<small>ACTITIVE SUFFIX</small> -*EES*
       a.    */awaákw* 'white'    →    */awaak**eés*** 'whiten'
       b.    *niinaw* 'small'    →    *niinaw**eés*** 'lessen'

## 2.3.3 Adjectives and quantifiers

This section treats adjectives, and the single quantifier *umó*.

## 2.3.3.1 Adjectives

Adjectives form a distinct word class in Gorwaa. Adjectives are not nouns in that

they may not be modified by nominal modifiers (prepositions, quantifiers,

demonstratives, and other nouns), and cannot fill any of the syntactic functions of

nouns (see §2.3.1.1). Adjectives are not verbs in that they do not show the same

kinds of morphosyntactic agreement as verbs. Verbs agree with nouns in gender,

adjectives agree with nouns in gender *and number*. Agreement patterns also

separate adjectives from other nominal modifiers. While some modifiers (e.g.

possessive) show agreement for person and number, and other modifiers (e.g.

indefinite) show agreement for gender, no other nominal modifier agrees with the

head noun in both number *and* gender.

Following discussion of the distribution of adjectives, agreement patterns, as well as

expression of amplification or attenuation are examined. The section concludes

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with a review in which all basic forms are presented, and other methods of adjective-formation are mentioned.

### *Distribution*

Adjectives occur to the right of the noun they modify, and may occur in both attributive (2.123) constructions and predicative (2.124) constructions (in which the adjective occurs following a mediopassive form of the selector). Given that they also agree with their head noun in number and gender, this makes Gorwaa consistent with Greenberg's Universal 40, which states that 'when the adjective follows the noun, the adjective expresses all the inflectional categories of the noun. In such cases, the noun may lack overt expression of one or all of these categories.' (Greenberg, 1963).

(2.123)     ATTRIBUTIVE ADJECTIVAL CONSTRUCTION
            *[...] garmá tleér*        [20160927m.35]
            garmá          tleér
            boy.LM0        tall.M
            "The tall boy."

(2.124)     PREDICATIVE ADJECTIVAL CONSTRUCTION
            *garma ku tleér*        [20160119f.25]
            garmá        t-      ng-     u-      Ø        tleér
            boy.LM0      MP-     A.3-    P.M-    AUX      tall.M
            "The boy is tall."

Nominal modifiers may intervene between the head noun and the adjective, in which case an anaphoric particle (see §2.4.3.1) will occur immediately before the adjective.

(2.125)     NUMERAL *WÁK* INTERVENES BETWEEN NOUN */AYMU* AND ADJECTIVE *TLEÉR*
            */aymú wák **oo** tleér* [20160111h.13]
            /aymú          wák      **oo**      tleér
            word.LM0      one      **ANA.M** long.M
            "One long word."

(2.126)        POSSESSIVE PRONOUN -*'É'* INTERVENES BETWEEN NOUN *FIITSI* AND ADJECTIVE *HHOHHOO'*

> *fiitsir'é' **ar** hhohhoo' [...]* [20150729b.48]
> fiitsír        -'é'           **ar**       ~Red~           hhoo'
> broom.LFR    -POSS1SG    **ANA.F**   ~PLUR~        good.F
> "my nice broom [...]"

### Gender and number

As stated above, adjectives show agreement for both the gender *and* number of the noun they modify.  Gorwaa adjectives show three major patterns of inflection, given in 2.10 below.

Table 2.10: INFLECTIONAL PARADIGMS FOR ADJECTIVESA

| Pattern | M Sg. | M Pl. | F Sg | F Pl | N Sg | N Pl |
|---|---|---|---|---|---|---|
| **1**<br>E.g. *úr* 'big' | ~RPA~<br>úr | -en!~RPA~<br>urén | ~LPA~<br>ur | -en!~LPA~<br>uren | ~LPA~<br>ur | -en!~LPA~<br>uren |
| **2**<br>E.g. *tlaákw* 'bad' | ~RPA~<br>tlaákw | -!~RPA~<br>tlákw | ~LPA~<br>tlaakw | -!~LPA~<br>tlakw | ~LPA~<br>tlaakw | -!~LPA~<br>tlakw |
| **3**<br>E.g. *buúx* 'grey' | ~RPA~<br>buúx | -aCz!~RPA~<br>buxáx | ~LPA~<br>buux | - aCz!~LPA~<br>buxax | ~LPA~<br>buux | -aCz!~LPA~<br>buxax |

N.B.A The symbol ! indicates a shortening of the final vowel of the root, if the vowel is long.

A handful of adjectives show slightly irregular patterns, each of which is discussed below.


The adjective */aben* 'new' is a subset of pattern 1, defective in that it is not zero-marked for singular (thus: */abén* 'new.M.Sg.'; */abén* 'new.M.Pl.'; */aben* 'new.F.Sg.'; */aben* 'new.F.Pl.'; */aben* 'new.N.Sg.'; */aben* 'new.N.Pl.')

The adjective *naá/* 'fresh' is a subset of pattern 2, defective in that it does not undergo shortening of its root vowel when agreeing for plural (thus: *naá* 'fresh.M.Sg.'; naá/ 'fresh.M.Pl.'; naa/ 'fresh.F.Sg'; naa/ 'fresh.F.Pl.'; naa/ 'fresh.N.Sg.'; and naa/ 'fresh.N.Pl.).

The adjective *diimbáy* 'different' is a member of pattern 3, but irregular in that it seems to possess a number suffix -áy, blocking any tonal agreement with the gender of the noun (thus: *diimbáy* 'different.M.Sg.'; *diimbabáy* 'different.M.Pl.'; *diimbáy* 'different.F.Sg.'; *diimbabáy* 'different.F.Pl.'; *diimbáy* 'different.N.Sg.'; *diimbabáy* 'different.N.Pl.').

The adjective */aankwéts* 'naked' is invariable (thus: */aankwéts* 'naked.M.Sg.'; */aankwéts* 'naked.M.Pl.'; */aankwéts* 'naked.F.Sg.'; */aankwéts* 'naked.F.Pl.'; */aankwéts* 'naked.N.Sg.'; */aankwéts* 'naked.N.Pl.').

The adjective *niiná* 'small' is irregular (thus: *niiná* 'small.M.Sg'; *niinákw* 'small.M.Pl.'; *niina* 'small.F.Sg.'; *niinakw* 'small.F.Pl.'; *niina* 'small.N.Sg.'; *niinakw* 'small.N.Pl.').

### Amplification and attenuation

Adjectives may undergo reduplication, the resulting adjective either intensified in meaning, or, conversely, attenuated. That is, every reduplicated form either reads as a stronger form of its base adjective, or as a weaker form – it cannot read as both. Whether a given adjective's reduplicated form results in amplified meaning or attenuated meaning is a property peculiar to the individual adjective, and must be learned.

(2.127)      AMPLIFICATION VERSUS ATTENUATION IN ADJECTIVES

| | | | |
|---|---|---|---|
| a. | *tsá'* 'cold' | → | *tsatsa'aár* 'very cold' |
| b. | *tleér* 'tall, long' | → | *tlarantleér* 'very tall, very long' |
| c. | *úr* 'big' | → | *uraúr* 'somewhat big, biggish' |
| d. | *buúx* 'grey' | → | *buuxabuúx* 'somewhat grey, greyish' |

As may be gathered from the examples above, even the type of reduplication is inconsistent. Many forms show reduplication of the form (CVC)$_z$a-, where (CVC)$_z$ is the first sequence of the stem, and V may be long or short (hence forms such as *uraúr* 'biggish' above or */aw/awaákw* 'whitish' from */awaákw* 'white'). However, other forms do not follow this pattern (e.g. *sirira/aát* 'tawny-ish' from *sira/aát* 'tawny'), nor look strictly reduplicative (e.g. *darra/aát* 'reddish' from *da/aát* 'red').

### Adjectives: review
A list of basic (i.e. non-compound and underived) adjectives is presented below.

Figure 2.4: BASIC ADJECTIVES IN GORWAA

| | |
|---|---|
| /aankwéts 'naked, bare' | meéhh 'spotted' (of livestock) |
| /abén 'new' | moqaáy 'red and white' (of livestock) |
| /awaákw 'white' | muúr 'black and red' (of livestock) |
| básl 'insignificant' | naá/ 'fresh, wet' |
| biíf 'with small spots' (of livestock) | niiná 'small' |
| boó/ 'black' | ni/i/iíl (or niqiqiíl) 'tiny' |
| buúx 'grey' | niináw 'few' |
| da/aát 'red' | qomár 'short' |
| da/aáw 'tough' | quúnts 'important' |
| díhh 'sharp, harsh, potent' | saáw 'far' |
| dikií' 'straightforward' | sira/aát 'tawny' (of livestock) |
| diimbáy 'different' | tlaákw 'bad' |
| duúq 'red and black striped' (of livestock) | tlaánqw 'with large spots' (of livestock) |
| gawit 'difficult, hard' | tleér 'long, tall' |
| hhoó/ 'good' | tsá/ 'cold, calm' |
| hibíl 'lacking a necklace, unadorned' | úr 'big' |
| iinslaáxw 'vast' | yaariír 'many' |
| kahaár 'dry, empty' | |

In addition to this, there exists a large series of noun-adjective compounds (2.128), which expand the total list of adjectives in Gorwaa significantly.

(2.128)    Noun-adjective compounds
a.    *slaqwa* 'body' + *tlaákw* 'bad'    →    *slaqwatlaákw* 'thin, sickly'
b.    *ila* 'eye' + *kahaár* 'dry'    →    *ilakahaár* 'watchful, brave'
c.    *gura'* 'stomach' + *hhoó'* 'good'    →    *gur'hhoó'* 'benevolent'

## 2.3.3.2 The quantifier *umó*

The quantifier *umó* 'every' is the only nominal modifier which precedes the noun.

The modified noun is obligatorily marked with 'topic' morphology (see §2.6.1.2).

(2.129)    Quantifier *umó*
a.    *umó* 'every' + *di* 'place'    →    *umó diroo* 'everywhere'
b.    *umó* 'every'+ */awtú* 'monkey'    →    *umó /awtuhee* 'every monkey'

## 2.3.4 Adverbs

Adverbs in Gorwaa form a heterogeneous group, united by three main characteristics: i) adverbs are optional, and their presence or absence does not affect the grammaticality of the utterance; ii) adverbs are invariable; and iii) adverbs modify any head or larger constituent which is not a noun.

An exhaustive list of adverbs identified in Gorwaa follows. Adverbs are categorized into semantically-based categories.

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Figure 2.5: ADVERBS IN GORWAA

| | | | | |
|---|---|---|---|---|
| Manner | | | *hhoo'* | 'well, good' |
| Temporal | | | | |
| | | Absolute Time | *hindí* | 'now' |
| | | | *hamí* | 'now' |
| | | | *alkwí* | 'now' |
| | | | *bilí* | 'today' |
| | | | *isá'* | 'yesterday' |
| | | | *motloo* | 'tomorrow' |
| | | Relative Time | *daqane* | 'then' |
| | | | *daxta* | 'then' |
| | | | *aluwo* | 'then' |
| | | | *motloo* | 'in the morning' |
| | | | *tseewa* | 'early' |
| | | | *aáng* | 'in the past' |
| | | | *geera* | 'after' |
| | | Aspectual | *qaro* | 'already' |
| Temporal/Spatial | | | *imir* | 'from' |
| | | | *tangu* | 'from' |
| Degree | | | | |
| | | Amplifying | *tlami* | 'moreover' |
| | | | *tsíl* | 'pure, deep' (only used for the adjective *da/aát* 'red') |
| | | | *tíng* | 'pure, deep' (only used for the adjective *boó/* 'black') |
| | | | *shángw* | 'pure, bright' (only used for the adjective */awaákw* 'white') |
| | | Attenuating | *alo* | 'somewhat' |
| | | | *alge* | 'somewhat' |
| | | | *mak* | 'somewhat' |

(2.130)    MANNER ADVERB *HHOO'*
*amór bartaqahee i* **hhoo'** *káhh uú, gwéh*    [20150817d.215]
amór         bartá       -qá' =hee  i-   Ø    **hhoo**
place.LFR    side.LFT    -DEM3 =TOP  S.3-  AUX  **well**
káhh          uú          gwéh
be.absent.F   PRO.2SG.M   go.IMP
"Hey you!  That side doesn't concern us!  Let's go!" (*lit.* "That side is well absent.")

(2.131)     ABSOLUTE TIME ADVERB *HINDÍ*
            *Nada **hindí** a slaqaát simú diftaroo* [20151021c.137]
            Nadá        **hindí**  i-      Ø      -(g)a   slaqaát     simú
            Nada.LM0    **now**    S.3-    AUX    -PRF    tire.M.PST  phone.LM0
            diftár          =oo
            hitting.LFR     =TOP
            "Nada's tired of phoning."

(2.132)     ASPECTUAL ADVERB *QARO*
            *[...] idosí aga **qaro** hhe'eesaán*          [20150817d.213]
            idór        -sí      Ø-      Ø       -ga   **qaro**
            manner.LFR  -DEM2    S.P-    AUX     -PRF  **already**
            hhe'eés -aán
            finish.1 -1PL.PST
            "This way we have already finished."

(2.133)     AMPLIFYING ADVERB *SHÁNGW*
            *giitsee/a' ki /awakw **shángw***          [20150818a.51]
            giitsee/á'      t-      ng-     i-      Ø      /awakw    **shángw**
            face.LNØ        MP-     A.3-    P.N-    AUX    white.N   **pure**
            "The face is pure white."

(2.134)     ATTENUATING ADVEB *MAK*
            *garí a **mak** sakweeli, aní bar ga/áw ee*          [20151021c.461]
            gár         -í      i-      Ø       -(g)a   **mak**         sakweelír
            thing.LFR   -DEM1   S.3-    AUX     -PRF    **somewhat**    ostrich.LFR
            aní      bar=     Ø-      Ø       ga/áw     ee
            PRO1SG   if=      S.P-    AUX     look.1    yes
            "This thing is like an ostrich, if *I* look, yes."

## 2.3.5 An excursus on ideophones

It must be noted that ideophones in Gorwaa do not form a lexical class per se.

Instead, they are distributed throughout the lexical categories of the language. As

such, they will be briefly be examined here as a conclusion to the subsection on

lexical categories.

Gorwaa makes extensive use of ideophones – that is, words which *depict* their

referent, rather than *denote* it. As an English example, the verb 'call' in the phrase

'the birds are calling' denotes the action undertaken by the birds, but the verb

'tweet' in the phrase 'the birds are tweeting' depicts the action undertaken by the birds, in that it mimics the sound produced. Idiophones are, therefore, *iconic* in nature, and give rise to different subtypes of ideophone according to the subtype of iconicity: direct, Gestalt, and relative (Dingemanse 2018). Each is examined, with examples, below.

## 2.3.5.1 Direct iconicity (onomatopoeia)

Gorwaa has a long list of onomatopoeias – words imitating the sound of the event or item named. This is common across several categories, including: animals (*maa'o* 'cat', *bee/i* 'sheep', *wahhahhamó* 'rock hyrax', *qoonqál* 'crowned crane'), domestic activities (*xaáf* 'grind millet for making food', *tsaát* 'cut with a knife', *tlaáq* 'chop', *taáhh* 'beat'), and body actions (*iíf* 'sneeze', *guú/* 'swallow', */aáy* 'eat', *waáh* 'drink', */aá/* 'cry', *aáhh* 'be fed up', *soóx* 'urinate', *waá/* 'vomit', *o/oós* 'defecate'). An onomatopoeia also exists to depict being silent: *xaásl*.

## 2.3.5.2 Gestalt iconicity

In addition to depicting a word by its sound, words may depict their referents through their shape or structure. That is, a word representing a long entity may itself be long; short, punctual events may be depicted by short, punctual words. These types of ideophones are called Gestalt Ideophones (German for 'shape'), and Gorwaa exhibits several patterns of Gestalt iconicity.

One productive example of Gestalt iconicity in Gorwaa is the reduplication of verb forms. This results in what has been referred to as *pluractional* (*taáhh* 'hit' →

*tataáhh* 'hit repeatedly'; *guú'* 'sleep' → *guguú'* 'fall asleep repeatedly'; *qaseé* 'laugh' →

*qaseeseé* 'laugh repeatedly').

A further (albeit less regular) form of reduplication operates on many adjectives and results in an attenuative reading (i.e. that the property is somehow more discontinuous or vague than the non-reduplicated form).  The internal consistency of the adjective has been somehow 'muddled up' to reflect the muddled meaning of the derived adjective: (*buúx* 'grey' -> *buuxabuúx* 'greyish'; *qantsaár* 'blue, green' -> *qatsqantsaár* 'greenish, bluish'; */aben* 'new' -> */ab/aben* 'newish'; *sira/aát* 'tawny' -> *sirira/aát* 'tawny-ish').

**2.3.5.3 Relative iconicity**

The final, perhaps most abstract form of iconicity is known as relative iconicity, is a relational form of depiction where related words map related meanings, some possible examples from Gorwaa include: words beginning in [ts], which seem to evoke entities that are wet, cold, or far away (*tseere* 'blood', *tsiinqa* 'stream', *tsá'* 'cold', *tsee/a* 'faraway place', *tsetse/* 'stars', BUT: *tsee/amá* 'sunshine'); words beginning in [hh] evoke entities related to the windpipe or respiration: (*hhartsi* 'air', *hheehhá* 'gullet', *hhumpu* 'lungs'); words containing the vowel [i] + [hh] evoke sharp entities or events involving sharp entities: (*sihhina* 'tooth', *kiíhh* 'bite', *diíhh* 'sharp'). It must be noted that this last type of iconicity is very hard to nail down indeed – and all classes here must be posited as provisional.

**2.3.5.4 The morphosyntax of ideophones**

Notably in Gorwaa, most ideophones fit seamlessly into the larger syntax of the language. Ideophones depicting entities pluralize like regular nouns (the ideophone *maa'oo* 'cat' pluralizes as the non-ideophone *kooloo* 'heel' in (2.135)); ideophones depicting events conjugate like regular verbs (the ideophone *guguú'* inflects for gender like the non ideophone */akuút* in (2.136)); and ideophones depicting qualities agree with their head nouns like regular adjectives (the ideophone *qatsqantsaár* 'bluish' inflects for gender like the non-ideophone *qantsaár* 'blue' in (2.137)).

(2.135)   IDEOPHONE *MAA'OO* PLURALIZES AS THE NON-IDEOPHONE *KOOLOO*
   a.   *maa'oo* 'cat'   | *ma'u* 'cats'
   b.   *kooloo* 'heel'  | *kolu* 'heels'

(2.136)   IDEOPHONE REDUPLICATED *GUGUÚ'* INFLECTS FOR PAST TENSE AS NON-IDEOPHONE */AKUÚT*
   a.   *i guguú'* 'he slept repeatedly'| *i gugú'* 'she slept repeatedly'
   b.   *i /akuút* 'he jumped'         | *i /akút* 'she jumped'

(2.137)   IDEOPHONE REDUPLICATED *QATSQANTSAÁR* AGREES WITH ITS HEAD NOUN *GARMA* AS NON-IDEOPHONE *QANTSAÁR*
   a.   *garmá qatsqantsaár* 'a bluish boy'  | *desír qatsqantsaar* 'a bluish girl'
   b.   *garmá qantsaár* 'a blue boy'        | *desír qantsaar* 'a blue girl'

**2.4. Functional Categories**

The major functional categories (i.e. those forms lacking semantic content and playing primarily a syntactic role) are examined below. The subsection covers the major classes of determiners, selectors, and pronouns. Further functional categories are often highly syntactically restricted to a small number of grammatical constructions. These will be introduced along with their grammatical construction, in the following subsections 2.5, 2.6, and 2.7.

## 2.4.1 Determiners

The determiners – possessive, demonstrative, and indefinite – will be examined in turn below.

### 2.4.1.1 Possessive determiners

Possessive determiners occur as suffixes to their head noun, and, and agree in person and number with the possessor. The head noun occurs with a linker (see §2.3.1.2). Possessive determiners are glossed Poss, along with the person and number value of the possessor.

(2.138)  THE POSSESSIVE DETERMINER -*'EÉ'*
         *heeqá' a mulqumo'eé' [...]*    [20131108b_20150725j.37]
         heé          -qá'   ∅      mulqumó      **-'eé'**
         person.LM0  -DEM3 AUX     friend.LM0    **-Poss1SG**
         "That person is my friend [...]"

Table 2.11: POSSESSIVE DETERMINERS

|  | ***Singular*** | ***Plural*** |
|---|---|---|
| ***1st Person*** | *-'eé'* *balaangw'eé' 'my millet'* | *-rén* *balaangwrén 'our millet'* |
| ***2nd Person*** | *-ók* *balaangók 'your millet'* | *-hung* *balaangwhúng 'your(pl.) millet'* |
| ***3rd Person*** | *-ós* *balaangós 'his/her millet'* | *-'ín* *balaangw'ín 'their millet'* |

### 2.4.1.2 Demonstrative determiners

Demonstrative determiners in Gorwaa occur as suffixes to their head noun, and encode four different levels of deixis: 1 *-í* (*-ká* for nouns of neuter gender), near to speaker; 2 *-síng* (often reduced to *-sí*), near to the addressee; 3 *-qá'*, distant from both but within view, and 4 *-dá'*, distant and out of view. The head occurs in long-form. Demonstrative determiners are glossed Dem, along with the level of deixis expressed.

(2.139)    THE DEMONSTRATIVE DETERMINERS

a.    *tsir/ir**í** umowós [...] a il/arimo*          [20151021c.241]

| tsir/ír | -**í** | umó | -ós | Ø | il/arimo |
|---------|-------|-----|-----|---|----------|
| bird.LFR | -DEM1 | name | -POSS3SG | AUX | sp.of.bird |

"This bird, its name [...] is i*l/arimo*." (uttered while holding a picture of the bird)

b.    *amór bartók amo**sí** ta iwit*    [20150817d.186]

| amór | bartá | -ók | | | |
|------|-------|-----|---|---|---|
| place.LFR | side.LFT | -POSS2SG | | | |
| amór | **-sí** | t- | Ø- | Ø | iwit |
| place.LFR | **-Dem2** | MP- | S.P- | AUX | sit.2.SUBJ |

"On your side, there where you are sitting." (uttered while sitting next to the addressee)

c.    *nina qaatiyí' gawá tlomi'i**qá'***[20150813.75]

| ni | -na | qaat | -iyí' | gawá |
|----|-----|------|-------|------|
| VENT | -IMPRF | sleep.3-3PL.PRES | | on |
| tlomi'í | **-qá'** | | | |
| hills.LNØ | **-DEM3** | | | |

"They are sleeping in those hills." (uttered when the mountains in question are visible from the house)

d.    *[...] di**dá'** ka báy Itebula*        [20131027_20150725c.146]

| dír | **-dá'** | t- | ng- | a- | Ø | báy |
|-----|----------|----|-----|-----|---|-----|
| place.LFR | **-DEM4** | MP- | A.3- | P.F | AUX | say |
| Itebulár | | | | | | |
| Itebula.LFR | | | | | | |

"That place called Itebula" (uttered when in Manyara, referring to a district in faraway Kigoma)

In addition to spatial reference, all demonstrative forms are metaphorically extended to also mark for proximity or distance in terms of time. Forms used for spatial closeness are also used for temporal closeness. Forms used for spatial distance are used for more remote time.

(2.140)        DEMOSTRATIVE DETERMINERS METAPHORICALLY EXTENDED FOR TEMPORAL
    REFERENCE
      a.    *[...] bara/owí i galây [...]*    [20131108b_20150725j.55]
          bara/ó        -í      i-     Ø      galây
          dance.LM0   -DEM1 S.3-  AUX   where
          "Where is this dance?" (uttered when the dance was (obviously) not present, but taking place that night)

      b.    *[...] gadiyeesíng ana imu/uúm* [20131027_20150725c.105]
          gadiyeér     **-síng** Ø-    a-    Ø     -na     imu/uúm
          work.LFR    **-DEM2** A.P-  P.F-  AUX  -IMPRF begin.1.PST
          "[...] I began this work." (uttered when the work was began in the past, but continues to this day)

      c.    *[...] boolooqá' nin hardahiya'*[20151202d.19]
          booloór    **-qá'** ni   -n        hardáh -iya'
          day.LFR    **-DEM3** VENT -EXPECT    arrive.3 -3PL.SUBJ
          "They would arrive the next day." (referring not to tomorrow, but the day after)

      d.    *[...] moro'odá' oo Gorwaa*    [20151202e.170]
          moro'ó     **-dá'** oo    Gorwaá
          things.LM0   **-DEM4** ANA.M Gorwaa.people.LNØ
          "[...] those Gorwaa things." (lit. things that the Gorwaa did in the distant past)

## 2.4.1.3 Indefinite determiners

Indefinite determiners occur as suffixes to their head noun, and inflect for its gender. The form for the masculine and neuter is *-ko*, and the form for the feminine is *-ka*. The head noun occurs in long-form. Indefinite determiners are glossed Indef, along with the gender of their head. Indefinites cannot occur with pronominal heads, as pronouns in Gorwaa are inherently definite.

(2.141)        THE INDEFINITE DETERMINERS
      a.    *daaqayko tsár, booloó geera a mulqee* [20131108b_20150725j.16-17]
          daaqáy      **-ko**     tsár booloór.geera Ø      mulqeér
          boys.LM0    **-INDEFM** two long.ago      AUX    friends.LFR
           "Two boys, once were friends."

b.      *aamar**ka** i deer nee aakowós*      [20131108b_20150725j.118]

| aamár | **-ka** | i- | Ø | deer | | nee |
|---|---|---|---|---|---|---|
| grandmother.LFʀ | **-IɴᴅᴇꜰF** | S.3- | Aᴜx | be.present.F.Pʀᴇs | | and |

aakó      -ós
grandfather.LMo      -Poss3Sɢ

"(There once was) a certain grandmother and her grandfather (i.e. her husband)."

c.      *a hardáh dír na/i'i**ko** uren* [20161109a.22]

| i- | Ø | -(g)a | hardáh | dír | na/i'í | **-ko** |
|---|---|---|---|---|---|---|
| S.3- | Aᴜx | -Pʀꜰ | arrive.M.Psᴛ | at | children.LNØ | **-IɴᴅᴇꜰN** |

uren
big.N.Pʟ

"He arrived at some big children."

As can be seen from the above examples, the indefinite marker is commonly used to introduce an entity into a story (*daaqay* 'boys' in (a.), and *aama* 'grandmother' in (b.)).

## 2.4.2 Selectors

Virtually every clause in Gorwaa contains what is known in the literature as a preverbal clitic cluster (e.g. Kießling 2000) or, more commonly, the selector (e.g. Mous 2005)[9]. The most straightforward definition of the selector is "[...] an additional inflectional element that is separate from the verb" (Mous 2005: 305).

Phonologically, selectors bear no stress and are assigned no tone. Syntactically, however, they are independent: constituents including nouns (2.142), determiner phrases (2.143), and adverbs (2.144) may intervene between it and the lexical verb.

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[9] In South Cushitic, the term typically used is 'selector'. For Somali, the term is 'indicator particle'. For Oromo, the term is 'focus marker'.

(2.142)　　　Noun intervenes between selector and V
　　　　　　*aní a **sleér** diíf*　　　[20150724.4]
　　　　　　aní　　　　Ø-　　Ø　　-(g)a　**sleér**　　　diíf
　　　　　　Pro.1Sg　　S.P-　Aux　-Prf　**cow.LFr**　hit.1.Pst
　　　　　　"I hit the cow."

(2.143)　　　Determiner phrase intervenes between selector and V
　　　　　　*aní a **sleér wák** diíf*　[20160927l222-228.28]
　　　　　　aní　　　　Ø-　　Ø　　-(g)a　**sleér**　　　**wák**　diíf
　　　　　　Pro.1Sg　　S.P-　Aux　-Prf　**cow.LFr**　**one**　hit.1.Pst
　　　　　　"I hit one cow."

(2.144)　　　Adverb intervenes between selector and V
　　　　　　*[...] a **mak** sakweeli [...]*　　　[20151021c.462]
　　　　　　Ø　　　**mak**　　　　sakweelír
　　　　　　Aux　**somewhat**　ostrich.LFr
　　　　　　"it is like an ostrich'

These intervening (elsewhere, *encapsulated*) forms are not incorporated, as there is

a separate construction for incorporated forms.

(2.145)　　　Incorporation construction
　　　　　　*uga **slee**-gás*　　　[20161119f.34]
　　　　　　Ø-　u-　　Ø　　-(g)a　**slee-**　gás
　　　　　　A.2-　P.M-　Aux　-Prf　**cow-**　kill.2Sg.Pst
　　　　　　"You(M) killed a cow on him." (lit. 'You cow-killed him.')

In Gorwaa, selectors can formally mark: clause type (independent vs. dependent),

voice (active vs. mediopassive), deixis (movement toward vs. movement away from

the *origo*), argument structure (maximally, sole argument vs agent vs patient),

person, gender, and number of arguments, aspect (perfect vs. imperfective vs.

expectational vs. consecutive vs. background), mood (indicative vs. conditional vs.

prohibitive vs. questioning), and adverbial case (reason vs. lative vs. ablative vs.

instrumental). Combinations of these formal markers are used to express further

meanings. Each of these dimensions of marking will be further examined below.

Structurally, the selector is composed of a null auxiliary verb surrounded by a series of clitics. When the auxiliary has no phonologically-realised argument markers, it is realized as *a*. Schematically, the selector may be illustrated as follows (where elements within the same column are mutually exclusive of each other).

Figure 2.6: Schematic of the selector

| MOOD | VOICE | ARGUMENTS | AUX | ASPECT | ADVERBIAL CASE |
|---|---|---|---|---|---|
| Indicative Conditional Prohibitive Questioning | Active Mediopassive | S A ǀ P | Ø | Perfect Imperfective Expectational Consecutive Background | Reason Lative Ablative Instrumental |

### 2.4.2.1 Arguments

Gorwaa indexes all core arguments as proclitics to the auxiliary. That is, arguments are mandatorily marked on the head. Morphosyntactic alignment is split, depending on whether the argument is third person, or a speech act participant (i.e. 1st or 2nd person). For third person arguments, alignment is tripartite: the (S)ole argument of an intransitive clause, the (A)gent of a transitive clause, and the (P)atient of a transitive clause are all realized differently. This can be seen in the examples in (2.146), where the noun *garma* is realized in three different ways, depending on whether it is S (a), A (b), or P (c).

(2.146)     TRIPARTITE ALIGNMENT FOR 3RD PERSON ARGUMENTS
            a.     *GARMA* AS (S) ARGUMENT: REALIZED AS *I-*
                   *garma ina maamaá/* [20160921i.33]
                   garmá        **i-**      Ø        -na     maamaá/
                   boy.LM0      **S.3-**    AUX      -IMPRF  be.ill.M.PST
                   "The boy was ill."

    b.    *GARMA* AS (A) ARGUMENT: REALIZED AS *NG-*
          *garma baahaa* **ng***ina taáhh*  [20160921i.1]

| garmá | baahaár | **ng-** | a- | Ø | -na |
|-------|---------|---------|-----|-----|-----|
| boy.LMO | hyaena.LFR | **A.3-** | P.F- | AUX | -IMPRF |

taáhh
hit.M.PST
"The boy hit the hyaena."

    c.    *GARMA* AS (P) ARGUMENT: REALIZED AS *U-*
          *hhawata garma* **ng***u**na taáhh*     [20160119f.39]

| hhawató | garmá | ng- | **u-** | Ø | -na |
|---------|-------|-----|--------|-----|-----|
| man.LMO | boy.LMO | A.3- | **P.M-** | AUX | -IMPRF |

taáhh
hit.M.PST
"The man hit the boy."

For arguments which are speech act participants (i.e. 1st or 2nd person), alignment is accusative: the (S)ole argument of an intransitive clause and the (A)gent of a transitive clause are marked in one way, and the (P)atient of a transitive clause are is realized differently. This can be seen in the examples in (2.147), where the 1st person pronoun *aní* is realized in three different ways, depending on whether it is S (a), A (b), or P (c).

(2.147)     ACCUSATIVE ALIGNMENT FOR ARGUMENTS WHICH ARE SPEECH ACT PARTICIPANTS
    (I.E. 1ST OR 2ND PERSON)

    a.    *ANÍ* AS (S) ARGUMENT: REALIZED AS Ø-
          *aní ana mamaá/*    [20160921i.38]

| aní | Ø- | Ø | -na | mamaá/ |
|-----|-----|-----|-----|--------|
| PRO1SG | S.P- | AUX | -IMPRF | be.ill.1SG.PST |

"I was ill."

    b.    *Aní* as (A) argument: Realised as Ø-
          *aní baahaa ana taáhh*

| aní | baahaár | Ø- | a- | Ø | -na |
|-----|---------|-----|-----|-----|-----|
| PRO1SG | hyaena.LFR | A.P- | P.F- | AUX | -IMPRF |

taáhh
hit.1SG.PST
"I hit the hyaena."

| | | | | | | |
|---|---|---|---|---|---|---|
| c. | *Aní* as (P) argument: Realised as *ti-* | | | | | |
| | *hhawata aní ina taáhh* | | | | | |
| | hhawató | aní | i- | Ø | -na | taáhh |
| | man.LM0 | PRO1SG | P.1SG- | AUX | -IMPRF | hit.M.PST |
| | "The man hit me." | | | | | |

The argument markers inflect differently, and each will be examined below, followed by a brief note on copular constructions.

### The (S)ole argument of an intransitive clause

The paradigm for (S)ole argument of an intransitive clause is shown in Table 2.12 below. As mentioned above, the distinction is between speech act participant (1st and 2nd person) (2.148)a) versus non-speech act participant (3rd person) (2.148)b).

Table 2.12: (S) argument

| (S) PERSON | FORM |
|---|---|
| 1st or 2nd | Ø- |
| 3rd | i- |

(2.148)    MARKING OF SPEECH ACT PARTICIPANT (P) VERSUS NON-SPEECH ACT PARTICIPANT
   (3)

| | | | | | | |
|---|---|---|---|---|---|---|
| a. | *aní **a**na maamaá/* | [20160921i.38] | | | | |
| | aní | Ø- | Ø | -na | maamaá/ | |
| | PRO.1SG | **S.P-** | AUX | -IMPRF | be.ill.1.PST | |
| | "I was ill." | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| b. | *garma **i**na maamaá/* | [20160921i.33] | | | | |
| | garmá | **i-** | Ø | -na | maamaá/ | |
| | boy.LM0 | **S.3-** | AUX | -IMPRF | be.ill.M.PST | |
| | "The boy was ill." | | | | | |

### The (A)gent of a transitive clause argument

The paradigm for (A)gent arguments makes the same two-way distinction as above: speech act participant (1st and 2nd person) on the one hand (2.149)a), and non-

speech act participants (3rd person) on the other (2.149)b).  The paradigm is shown

in Table 2.13 below.

Table 2.13: (A) argument

| (A) person | Form |
|---|---|
| 1st or 2nd | Ø- |
| 3rd | ng- |

(2.149)     MARKING OF SPEECH ACT PARTICIPANT (P) VERSUS NON-SPEECH ACT PARTICIPANT
   (3)

a.     *aní baahaa ana taáhh*     [20160921li.6]
       aní          baahaár     Ø-     a-     Ø      -na
       PRO1SG      hyaena.LFR   **A.P**  P.F-  AUX    -IMPRF
       taáhh
       hit.1.PST
       "I hit the hyaena."

b.     *garma baahaa **ng**ina taáhh*  [20160921i.1]
       garmá        baahaár     **ng-**  a-     Ø      -na
       boy.LM0     hyaena.LFR   **A.3-** P.F-  AUX    -IMPRF
       taáhh
       hit.M.PST
       "The boy hit the hyaena."

### The (P)atient of a transitive clause argument

The paradigm for (P)atient is different.  If the anaphor of the patient is a pronoun,

the P form inflects for either gender, number, or both (see Table 2.14).  In addition

to this, the A argument, no matter the person, *is not marked*.  If the anaphor of the

patient is a noun, the P form inflects for gender only (see Table 2.15), and the A

argument *is marked*.  Examples follow in (2.150).

Table 2.14: (P) argument, pronominal paradigm

| Person | Number | Gender | Pronoun | Base Form |
|--------|--------|--------|---------|-----------|
| 1 | **Singular** | | *aní* | i |
| | **Plural** | | *atén* | tindi |
| 2 | **Singular** | **M** | *kuúng* | u |
| | | **F** | *kiíng* | i |
| | **Plural** | | *kuungá'* | tundu *or* nu |
| 3 | **Singular** | **M** | *inós* | u |
| | | **F** | *inós* | a |
| | **Plural** | | *ino'ín* | i |

Table 2.15: (P) argument, nominal paradigm

| Object Gender | **M** | **F** | **N** |
|---------------|-------|-------|-------|
| **Form** | u | a | i |

(2.150)     EXAMPLES OF PATIENT (P) ARGUMENT MARKING

a.     *garma aní ina taáhh*  [20160927l168-171.1]
garmá          aní          **i-**   ∅    -na    taáhh
boy.LM0        PRO.1SG      **P.1SG-** AUX  -IMPRF hit.M.PST
"The boy hit me."

b.     *garma atén tindina diíf*     [20160927l168-171.12]
garmá          atén          **tindi-** ∅    -na    diíf
boy.LM0        PRO.1PL      **P.1PL-** AUX  -IMPRF hit.M.PST
"The boy hit us."

c.     *garma baahaa ngina taáhh*  [20160921i.1]
garmá          baahaár        ng-   **a-**   ∅     -na
boy.LM0        hyaena.LFR     A.3-  **P.F-** AUX   -IMPRF
taáhh
hit.M.PST
"The boy hit the hyaena."

d.     *garma hhawata nguna taáhh*     [20160927l168-171.6]
garmá          hhawató        ng-   **u-**   ∅     -na
boy.LM0        man.LM0        A.3   **P.M-** AUX   -IMPRF
taáhh
hit.M.PST
"The boy hit the hyaena."

It must be noted that the 1st person plural form *tindi*, and the 2nd person plural form

*tundu* are irregular.  It appears as if these forms have been adopted from their use as

mediopassive constructions (see §2.4.2.2), which were themselves formed from the

original forms *ti* and *nu*, respectively. In Iraqw, the forms *ti* and *nu* are still used as

the forms for the P argument for 1st and 2nd person plural, respectively (Mous 1993:

127).

### *Copular constructions*

It has been long established that there are, broadly speaking, two types of copular

construction (e.g. Halliday 1967, Higgins 1979). Mikkelson (2006) labels these as

specificational and predicational copular constructions, examples of which are given

below.

(2.151)    SPECIFICATIONAL COPULAR CONSTRUCTIONS
        a.    The boy is a Gorwaa person.
        b.    I am a nurturer.

(2.152)    PREDICATIONAL COPULAR CONSTRUCTIONS
        a.    The boy is in the field.
        b.    I am tall.

One of the main semantic differences between these two types of constructions,

Mikkelson establishes, is that predicational copular constructions tell us something

about the referent of their subject, whereas specificational copular constructions tell

us who the subject is. For a language like Gorwaa, which must mark all core

arguments on the selector, this is an essential division, as predicational copular

constructions assign theta roles (i.e. have argument structure), whereas

specificational copular constructions do not (i.e. do not have argument structure).

This is manifest in the difference between adjectival and locational (i.e.

predicational) copular constructions, in which the subject noun is encoded as an

argument, and nominal (i.e. specificational) copular constructions, in which no

argument is encoded at all, and the (normally null) auxiliary is realized as *a*.

(2.153)     PREDICATIONAL COPULAR CONSTRUCTIONS (ADJECTIVAL)
        a.      *aní ti tleér*     [20160119f.31]
                aní           t-      i-      Ø       tleér
                PRO.1SG       MP-     P.1SG   AUX     tall.1SG
                "I am tall."

        b.      *garma ku tleér*     [20160119f.25]
                garmá         t-      ng-     u-      Ø       tleér
                boy.LMO       MP-     A.3-    P.M-    AUX     tall.M
                "The boy is tall."

(2.154)     PREDICATIONAL COPULAR CONSTRUCTIONS (LOCATIONAL)
        a.      *garma i bará qaymoo*     [20160119f.14]
                garmá         i-      Ø       bará    qaymoór
                boy.LMO       S.3-    AUX     in      field
                "The boy is in the field."

        b.      *aní a bará qaymoo*     [20160119f.19]
                aní           Ø-      Ø       bará    qaymoór
                Pro.1SG       S.P-    AUX     in      field
                "I am in the field."

(2.155)     SPECIFICATIONAL COPULAR CONSTRUCTIONS (NOMINAL)
        a.      *garma a Gormo*     [20160119f.1]
                garmá         Ø       Gormó
                boy.LMO       AUX     Gorwaa.person.♂.LMO
                "The boy is a Gorwaa person."

        b.      *aní a Gormo*     [20160119f.6]
                aní           Ø       Gormó
                Pro.1SG       AUX     Gorwaa.person.♂.LMO
                "I am a Gorwaa person."

### Encapsulation and change in valency

Note also that when the object argument is located between the selector and the

verb (a configuration known as 'encapsulation' (e.g. Whiteley 1958, Kießling 2007)),

it is *not marked* on the selector. That is to say, a selector which otherwise would

have marked an A and a P for a transitive verb (2.156)a), will now only mark one

argument. This argument will be marked as if it were S, and therefore as if the

clause were intransitive (2.156)b). Note that, in this work, encapsulation

constructions are differentiated from incorporation constructions (see e.g. §7.3.1).

(2.156)     ENCAPSULATION OF DIRECT OBJECT *BALAANGW* REDUCES V VALENCY
    a.     *garma balaangw **ngu** doosl* [20161109c.29]
           garmá          balaángw       **ng-**   **u-**   Ø       doosl
           boy.LM0        millet.LM0     **A.3-**  **P.M-**  AUX     farm.M.PRES
           "The boy is farming millet."

    b.     *garma **i** balaángw doosl*     [20160927l222-228.1]
           garmá          **i-**    Ø       balaángw       doosl
           boy.LM0        **S.3**   AUX     millet.LM0     farm.M.PRES
           "The boy is farming millet."

**2.4.2.2 Voice**

The voice alternation formally marked in the selector is between active voice (zero,

or unmarked) and mediopassive voice (marked by the morpheme *t-*)[10]. Active voice

indicates that the grammatical subject of the verb behaves as an agent, and is the

most common voice to be employed. All examples in this subsection have, insofar,

been in active voice (2.157).

(2.157)     ACTIVE VOICE
    a.     *garma baahaa **ng**ina taáhh* [20160921i.1]
           garmá          baahaár        **ng-**   a-      Ø       -na
           boy.LM0        hyaena.LFR     **A.3-**  P.F-    AUX     -IMPRF
           taáhh
           hit.M.PST
           "The boy hit the hyaena."

    b.     *garma **a** Gormo*        [20160119f.1]
           garmá          **i-**    Ø       -(g)a   Gormó
           boy.LM0        **S.3-**  AUX     -PRF    Gorwaa.person.♂.LM0
           "The boy is a Gorwaa person."

Mediopassive voice subsumes the meanings of both the passive voice (in which the

grammatical subject of the verb has characteristics of the patient), and the middle

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[10] Note that, eslsewhere, the form *t* is also recognizable in the suffix *-VVt*, which marks the
middle on the lexical verb (see §2.3.2.4).

voice (in which the grammatical subject of the verb has characteristics of both the agent and the patient) and is used in combination with other affixal configurations within the selector to fulfill many different functions, each of which is discussed below.

Commonly, the mediopassive is used to form an impersonal passive. Along with having the mediopassive prefix *t-*, the subject of this construction is marked as the (P)atient argument and, in cases in which the (A)gent argument may be marked (i.e. when the (P) argument is 3rd person such as (2.158)d)), the subject is marked as the (A)gent argument as well. The verb takes default 3rd person singular agreement for an impersonal subject.[11]

(2.158)    IMPERSONAL PASSIVE CONSTRUCTION
    a.    *aní **ti** /aay*    [20160119f.38]
          aní            t-      i-      Ø        /aay
          PRO.1SG        **MP-**   **P.1SG-** **AUX**    eat.3SG.PRES
          "I am being eaten."

    b.    *kuúng **tu** /aay*        [20160119f.39]
          kuúng          t-      u-      Ø        /aay
          PRO.2MSG       **MP-**   **P.2MSG-**      **AUX**    eat.3SG.PRES
          "You are being eaten."

    c.    *kuungá' **tundu** /aay*  [20160119f.43]
          kuungá'        t-      nu-     Ø        /aay
          PRO.2PL        **MP-**   **P.2PL-** **AUX**    eat.3SGPRES
          "You (Pl.) are being eaten."

    d.    *hhawata **ku** /aay*    [20160119f.41]
          hhawató        t-      ng-     u-      Ø        /aay
          man.LM0        **MP-**   **A.3-**  **P.M-**  **AUX**    eat.3SG.PRES
          "The man is being eaten."

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[11] The 2nd person plural (P)atient marker *nu-* is realized as [nu] word-initially, and as *ndu-* elsewhere (Mous 1993: 128). The mediopassive *t-* and the 3rd person (A)gent marker *ng-* are realized together as [k].

*2. A grammatical sketch of Gorwaa*

The same selector configuration is used with adjectival predicates.

(2.159)    Adjectival predicate constructions
           a.    *aní **ti** tleér*     [20160119f.31]
                 aní           **t-**     **i-**     ∅        tleér
                 Pro.1Sg       **MP-**    **P.1-**   Aux      tall.1Sg
                 "I am tall."

           b.    *kuúng **tu** tleér*[20160927l128-137.2]
                 kuúng         **t-**     **u-**     ∅        tleér
                 Pro.2MSg      **MP-**    **P.2-**   Aux      tall.2SgM
                 "You (M) are tall."

           c.    *kuungá' **tundu** tlét*     [20160119f.33]
                 kuungá'       **t-**     **nu-**    ∅        tlét
                 Pro.2Pl       **MP-**    **P.2Pl-** Aux      tall.2Pl
                 "You (Pl.) are tall."

           d.    *hhawata **ku** hhoó'*     [20160118d.59]
                 hhawató       **t-**     **ng-**    **u-**   ∅        hhoó'
                 man.LMo       **MP-**    **A.3-**   **P.M-** Aux      nice.M
                 "The man is nice."

Mediopassive is also employed with no argument marking whatsoever in order to indicate that the arguments are either unimportant or have already been established. The (normally null) auxiliary takes the form *a*. Person, number, and gender is unmarked on the lexical verb.

(2.160)    Arbitrary Argument marker *ta*
           *[...] matlatleeroo ya **ta** /a/amiín*     [20131108b_20150725j.105]
           matlatleér    =oo     ya       **t-**     ∅        ~Red~        /amiín
           morning.LFr   =Top    thus     **MP-**   Aux      ~Plur~       cry.Pst
           "In the morning it was thus: they cried." (where 'they' has been established from context)

One can also distinguish the mediopassive marker on the invariable markers *ta* (temporal), and *ti* (reciprocal). This seems consistent with the semantics of mediopassive being employed with states, as well as situations (as above) in which the subject is both agentlike and patientlike.

(2.161)  Temporal marker *ta*
 *inós **tawa** askofú mkoár Arusha* [20131027.27]

| inós | **ta** | ∅ | **-wa** | askofú | mkoár |
|------|--------|---|---------|--------|-------|
| Pro.3Sg | **Temp** | **Aux** | **-Back** | bishop.LMo | region.LFr |

 Arushár
 Arusha.Fr
 "When he was bishop of Arusha region."

(2.162)  Reciprocal marker *ti*
 *na/i'i **ti** diifiyá'* [20161109a.36]

| na/i'í | **ti** | diif | -iyá' |
|--------|--------|------|-------|
| children.LN∅ | **Rec** | hit.3 | -3Pl.Pres |

 "The children fight." (lit. hit each other)

## 2.4.2.3 Clause type

Dependent clauses (bracketed in the examples below) are marked differently from independent clauses. Broadly, there are two categories of dependent clauses: those in which there is no internal A(gent) argument (2.163)b), and those in which there is no internal (P)atient argument (2.163)c).

(2.163)  Dependent (b, c) versus independent (a) clauses
 a.  *kuúng kitaabu **u**na harís dír garma* [20161003.9]

| kuúng | kitaabú | ∅- | **u-** | ∅ | -na |
|-------|---------|-----|--------|---|-----|
| Pro.2SgM | book.LMo | **A.P-** | **P.M-** | Aux | -Imprf |

 harís    dír    garmá
 bring.2.Pst  to  boy.LMo
 "You(M) brought a book to the boy."

 b.  *kuúng oo [kitaabu **ngw**a harís dír garma]* [20161003.8]

| kuúng | oo | kitaabú |
|-------|-----|---------|
| Pro.2SgM | Ana.2Sg | book.LMo |

| **ng-** | **u-** | ∅ | -(g)a | harís | dír | garmá |
|---------|--------|---|-------|-------|-----|-------|
| **A.3-** | **P.M-** | Aux | -Prf | bring.2.Pst | to | boy.LMo |

 "You(M) who brought the book to the boy."

 c.  *kitaabú [kuúng **ta** harís dír garma]* [20161003.61]

| kitaabú | kuúng | **t-** | ∅- | ∅ | -g(a) |
|---------|-------|--------|-----|---|-------|
| book.LMo | Pro.2SgM | **M.P-** | **S.P-** | Aux | -Prf |

 harís    dír    garmá
 bring.2.Pst  to  boy.LMo
 "The book that you(M) brought to the boy."

**Dependent clauses lacking an internal A(gent) argument**
Clauses which lack an internal (A)gent argument take the 3rd person form *ng-* as a

default. As such, even though the notional agent of (2.164)b is *kuúng*, it is external

to the dependent clause, and cannot trigger the form Ø-. Because of this, default

agreement is made, hence the form *ng-*.

(2.164)     DEPENDENT CLAUSE LACKING AN INTERNAL AGENT (B) VERSUS INDEPENDENT
    CLAUSE (A)

a.     *kuúng kitaabu **u**na harís dír garma*          [20161003.9]
       kuúng        kitaabú      Ø-    **u-**    Ø      -na
       PRO.2SGM     book.LMO     **A.P-**  **P.M-**  AUX    -IMPRF
       harís        dír    garmá
       bring.2.PST  to     boy.LMO
       "You(M) brought a book to the boy."

b.     *kuúng oo* [*kitaabu **ngw**a harís dír garma*]  [20161003.8]
       kuúng        oo          kitaabú
       PRO.2SGM     ANA.2SGM    book.LMO
       **ng-**  **u-**   Ø       -(g)a  harís         dír    garmá
       **A.3-** **P.M-** AUX     -PRF   bring.2.PST   to     boy.LMO
       "You(M) who brought the book to the boy."

As with independent clauses, when the P argument of the dependent clause is 1st or

2nd person, the A argument is not marked. As may be seen in (2.165) below, the

argument marking on the selector is the same in both the dependent (2.165)b and

independent (2.165)a clause.

(2.165)     DEPENDENT CLAUSE LACKING AN INTERNAL AGENT (A) VERSUS INDEPENDENT
    CLAUSE (B)

a.     *mwalimu hhara ngina húw* [*garma **i**wa taahhi*]
                                           [20160927l150-158.16]
       mwalimú      hhartá      ng-    a-    Ø      -na
       teacher.LMO  stick.LFT   A.3-   P.F-  AUX    -IMPRF
       húw          garmá       **i-**   Ø      -wa     taahhi
       bring.PST    boy.LMO     **P.1SG-** AUX    -BACK   hit.M.SUBJ
       "The teacher brought a stick such that the boy hit me."

b.     *garma **i**na taáhh*              [20160927l150-158.1]
       garmá        **i-**      Ø       -na      taáhh
       boy.LM0      **P.1SG-** AUX    -IMPRF  hit.M.PST
       "The boy hit me."

### Dependent clauses lacking an internal (P)atient argument

Clauses which lack an internal (P)atient argument treat the (A)gent argument as the

(S)ole argument of an intransitive clause, prefixed with mediopassive morphology

(hence the form *ta* in (2.166)b)).

(2.166)      DEPENDENT CLAUSE LACKING AN INTERNAL PATIENT (B) VERSUS INDEPENDENT

   CLAUSE (A)

a.     *kuúng kitaabu **u**na harís dír garma*         [20161003.9]
       kuúng        kitaabú     Ø-     **u-**     Ø      -na
       PRO.2SGM     book.LM0    **A.P-** **P.M-** AUX    -IMPRF
       harís         dír      garmá
       bring.2.PST    to      boy.LM0
       "You(M) brought a book to the boy."

b.     *kitaabú [kuúng **ta** harís dír garma]* [20161003.61]
       kitaabú        kuúng       **t-**     Ø-      Ø       -g(a)
       book.LM0       PRO.2SGM    **M.P-**   **S.P-** AUX    -PRF
       harís         dír      garmá
       bring.2.PST    to      boy.LM0
       "The book that you(M) brought to the boy."

The form *ta* above in (2.166)b) is the most morphologically transparent of the

forms. The rest are given in the table below, and must be treated as irregular

portmanteaux of both a mediopassive morpheme and a S argument marker.

Table 2.16: MEDIOPASSIVE MORPHEME + S ARGUMENT MARKER FOR DEPENDENT CLAUSES
LACKING AN INTERNAL (P)ATIENT ARGUMENT

| Person | Singular | Plural |
|--------|----------|--------|
| 1st    | ni       | ta     |
| 2nd    | ta       | ta     |
| 3rd    | i        | i      |

Clauses expressing simultaneous action (employing the background suffix, such as in (2.167)), and consecutive action (employing the consecutive suffix, such as in(2.168)) also employ these forms.  Both are common in narrative genres.

(2.167)     SIMULTANEOUS
            *iinslaweewók aa lawe'eesiyí' **niwa** waraáhh* [20150729b.70]
            iinslaweér    =ók     i-    ∅    -a     lawe'ees  -iyí'
            neighbours.LFR =Poss.2SG S.3-  AUX  -PRF   say.hello.3 -3PL.PST
            **ni**          ∅     **-wa**   waraáhh
            M.P.S.1-      AUX   **-BACK** pass.1.PST
            "Your neighbours said hello as I passed."

(2.168)     CONSECUTIVE
            *[...] kuúng an amorqá' iwit [...] **tare** dirí axwees [...]*
                                               [20151202b.113,114]
            kuúng         a-    ∅    -n     amór     =qá'    iwit
            PRO.2MSG      S.2-  AUX  -EXPECT place.LFR =DEM3   sit2.SUBJ
            **t-**   **a-**  ∅    **-re**   dír      =í      axwes
            **MP-**  **S.2-** **AUX** **-CONSEC**  place.LFR  =DEM1    speak.2.SUBJ
            "[...] you will sit there [...] and (you) talk there [...]"

**2.4.2.4 Deixis**

For actions in which movement is *toward* the *origo* (usually the speaker), the ventive ("hither" in Mous 2007: 18-19) form *ni* is used.  The form is invariable, and glossed Vent.

(2.169)     VENTIVE FORM (MOTION *TO*)
            *uchagusi **ni** hi'ít slehheéngw miibangoo* [20150724.76]
            uchagusír    **ni**   hi'ít           slehheéngw  miibaángw  =oo
            election.LFR **VENT** come.F.PRES  month.LMO   ten.LMO     =TOP
            *"The election comes in October." (lit. 'month ten')*

(2.170)     VENTIVE FORM (MOTION *TO*)
            *giyee **na** tleér [...]* [20151202e.113]
            giyeér        **ni**    -a    tleér
            famine.LFR    **VENT** -PRF  go.F.PST
            *"The famine came [...]"*

## 2.4.2.5 Aspect

Aspect refers to the "internal temporal consistuency of a situation" (Comrie 1976: 3): rather than situating the action of the verb in time (as tense), it functions to express how that action is carried out over time. Aspect is expressed in the selector through a series of suffixes on the base, which will each be examined below.

### *Perfective Suffix -(g)a*

The perfective suffix ("perfect" in Mous 1993: 141-144) is realized as *-ga* for stems of the form V, and as *-a* elsewhere. Irregularly, if the stem vowel is the 3ʳᵈ person sole argument form *i-*, *-(g)a* is realized as *-a* (for the historical roots of this irregularity, see Mous 1993: 142, 39).

(2.171)    PERFECTIVE SUFFIX REALIZED AS *-GA* IF STEM IS V, AND AS *-A* ELSEWHERE

    a.   Ø-    Ø    -(g)a    → *aga* (E.g. *aga faák* 'I have
        S.P-  AUX  -PRF        finished it.')

    b.   ng-  a-  Ø    -(g)a  → *nga* (E.g. *baha nga gaás* 'He
        A.3-  P.F-  AUX  -PRF    killed the hyaena.')

(2.172)    IRREGULARLY, PREFECTIVE SUFFIX *-GA* REALIZED AS *-A* IS STEM IS S.3 *I-*

    i-    Ø    -(g)a  →    *a*    (E.g. *afkú slee a gweeriít* 'The
    S.3-  AUX  -PRF        cow's mouth opened.')

Because of vowel assimilation, final vowels of the stem assimilate to the [a] of the suffix.

(2.173)    ASSIMILATION OF [i] TO [a]

    ni    -(g)a  →    na    (E.g. *na amodá' tlayiyé'* 'They left there.
    VENT  -PRF        (to come to me)'.)

Optionally, the consonant [g] of the stem is labialized if its preceding vowel is [u].

(2.174)    OPTIONAL LABIALIZATION OF [g] TO [gʷ]

    Ø-  u-  Ø    -(g)a  →    uga    (E.g. *uga sláw* <u>or</u> *ugwa sláw*
    A.P-  P.M-  AUX  -PRF        'I got it.')

The perfective suffix describes the action as a unitary whole, lacking internal structure (e.g. English perfective 'he has hit' vs. imperfective 'he is hitting').

(2.175)      PERFECTIVE ASPECT: ACTION IS A UNITARY WHOLE
             a.      *ana**ga** buúhh* [20150810d.43]
                     aní          Ø-      Ø     **-(g)a**   buúhh
                     PRO.1SG      S.P-    AUX   **-PRF**    get.angry.1.PRES
                     *"I am angry."*

             b.      *fooxarí, gár ng**a** tlehh* [20150808a.150]
                     fooxár       -í      gár         ng-    a-     Ø      **-(g)a**
                     hole.LFR     -DEM1   thing.LFR   A.3-   P.F-   AUX    **-PRF**
                     tlehh
                     make.F.SUBJ
                     "This hole – what made it?"

### Imperfective Suffix –na
The imperfective suffix ("imperfective past" in Mous 1993: 145-146) is realized as -*na*.

When -*na* is suffixed to the form *nga*, the [a] of the stem is raised to become [i].

(2.176)      RAISING OF [a] TO [i] PRECEDING -*NA*
             ng-    a-     Ø      -na              →       *ngina*  (E.g. *hhinhhiní ngina*
             A.3-   P.F-   AUX    -IMPRF                            *húp.* 'She brought
                                                                   pumpkins.')

Generally, the imperfective suffix describes an action with internal structure, specifically duration (2.177).  However, this is not always the case, with many examples recorded of this suffix occurring with verbs of punctual, very short-term action (2.178).

(2.177)      IMPERFECTIVE ASPECT: ACTION WITH INTERNAL STRUCTURE (I.E. DURATION)
             *i**na** eét neer gaanslay*          [20131108b_20150725j.66]
             i-     Ø      **-na**      eét                  neer    gaanslay
             S.3-   AUX    **-IMPRF**   descend.M.PST        with    speed
             "He was descending with haste."

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(2.178)   Imperfective aspect: action seems to be punctual
          *desirqá' aní ana gaás*          [20131108b_20150725j.83]

| desír | -qá' | aní | Ø- | a- | Ø | **-na** |
|---|---|---|---|---|---|---|
| girl.LFr | -Dem3 | Pro1Sg | A.P- | P.F- | Aux | **-Imprf** |

gaás
kill.1.Pst
"That girl – I killed her."

### Expectational Suffix *-n*

The expectational suffix (Mous 1993: 144) is realized as *-n*.

When *-n* is suffixed to the form *nga*, the [a] of the stem is raised to become [i].

(2.179)   Raising of [a] to [i] preceding *-N*

| ng- | a- | Ø | -n | → | *ngin* | (E.g. *ba'aari umoqo /ayitoo* |
|---|---|---|---|---|---|---|
| A.3- | P.F- | Aux | -Expect | | | *ngin nuunuu'* Bees suck |

every flower.)

The expectational suffix generally describes an action whose outcome is expected,

automatic, or otherwise certain.

(2.180)   Expectational aspect: action whose outcome is automatic
          *danú kun tleehhiit nee ba'aari* [20131108b_20150725j.4]

| danú | t- | ng- | u- | Ø | **-n** | tleehhiit nee |
|---|---|---|---|---|---|---|
| honey.LM0 | MP- | A.3- | P.M- | Aux | **-Expect** | make by |

ba'aarír
bees.LFr
*"Honey is made by bees."*

(2.181)   Expectational aspect: Action whose outcome is certain
          *[...] Bee'o daawaa ngin leéhh* [20151202d.170]

| Bee'ó | daawaár | ng- | a- | Ø | **-n** |
|---|---|---|---|---|---|
| Bee'o.LM0 | medicine.LFr | A.3- | P.F- | Aux | **-Expect** |

leéhh
look.for.M.Pst
"Bee'o would look for medicine."

### Consecutive Suffix *-re*

The consecutive suffix (Mous 1993: 146) is realized as *-re*.

When *-re* is suffixed to the form *nga*, the [a] of the stem is raised to become [i].

(2.182)    Raising of [a] to [i] preceding *-RE*

| ng- | a- | Ø | -re | → | *ngire* | (E.g. [...] *Dodó sleerós ngire* |
|-----|-----|---|-----|---|---------|------------------------------------|
| A.3- | P.F- | Aux | -Consec | | | *húw.* '(and) Dodo brought |
| | | | | | | him his cow.') |

The consecutive suffix describes an action that follows naturally from the preceeding action. It is used very commonly in narratives.

(2.183)    Consecutive aspect: Action whose outcome follows naturally from the preceding action

*mulqumo nguna sakií/, gadá' inós ngure kí/*

[20131108b_20150725j.113]

| mulqumó | ng- | u- | Ø | -na | sakií/ |
|---------|-----|-----|---|-----|--------|
| friend.LMo | A.3- | P.M- | Aux | -Imprf | betray.M.Pst |
| gár | -dá' | inós | ng- | u- | Ø | **-re** |
| thing.LFr | -Dem4 | Pro3Sg | A.3- | P.M- | Aux | **-Consec** |
| kí/ | | | | | | |
| return.F.Pst | | | | | | |

"He betrayed a friend, and that thing (i.e. the betrayal) returned to him."

(2.184)    Consecutive aspect: Action whose outcome follows naturally from the preceding action

*ga a diwi, kana ku'uús nee marlboro kure kwaáhh amór bihhi*

[20150726d.188]

| gár | Ø | diwitá | t- | ng- | a- | Ø | -na |
|-----|---|--------|-----|-----|-----|---|-----|
| thing.LFr | Aux | salt.LFt | MP- | A.3- | P.F- | Aux | -Imprf |
| ku'uús | nee | marlboró | | t- | ng- | u- | Ø | **-re** |
| pour.Pst | with | large.plastic.bag.LMo | MP- | A.3- | P.M- | Aux | **-Consec** |
| kwaáhh | amór | bihhír | | | | | |
| throw.Pst | to | side.LFr | | | | | |

"It was (like) salt, it was poured from a large plastic bag and it (i.e. the bag) was thrown to the side."

### Background Suffix *-wa*

The background suffix (Mous 1993: 147) is realized as *-wa*. The background suffix occurs only in dependent clauses.

The background suffix marks an action as occurring as part of the action directly preceding or following it (that is, a background-marked action occurs simultaneously to or before its associated action).

(2.185)     BACKGROUND ASPECT: ACTION OCCURRING AS PART OF THE ACTION DIRECTLY
     FOLLOWING IT
          *imir ti**wa** haragaasaán, inós a intsahhatimiís*
                                                  [20131027_20150725c.12]
          imir     ti     **-wa**    haragaás                 -aán
          since    REC    **-BACK**  join.together.1          -1PL.PST
          inós            i-      ∅      -(g)a    intsahhatimiís
          PRO3SG          S.3-    AUX    -PRF     teach.M.PST
          "From the time that we married, he taught."

## 2.4.2.6 Mood

Mood provides information on the speaker's attitude toward what they are saying. Mood is expressed in the selector through three[12] (primarily) affixal morphemes, which will be examined below.

### *Conditional "Prefix" bar*

The conditional affix (Mous 1993: 147) is derived from the adverb *bar* 'if'. In its adverbial use, *bar* appears either clause-initially (2.186), or directly before the selector (2.187).

(2.186)     ADVERB *BAR* OCCURRING CLAUSE-INITIALLY
          **bar** *tlaqoo u sla'akáng, awu un haris*     [20151202d.147]
          **bar** tlaqoór        ∅-    u-    ∅     sla'  -akáng      awú
          **if**  cutting.LFR    A.P-  P.M-  AUX   like.2 -NEG.PRES  bull.LMO
          ∅-    u-    ∅     -n       haris
          A.P-  P.M-  AUX   -EXPECT  bring.2.SUBJ
          "If you don't like cutting (i.e. forest-clearing), (then) you will bring a
bull."

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[12] In addition to anologues of three mood affixes discussed here, Mous identifies a further, Concessive mood affix in Iraqw, derived from the adverb *tam* (1993: 147-150). Though the adverb *tam* exists in Gorwaa, I have not identified any instances of it being used as a mood prefix to the selector.

(2.187)     ADVERB *BAR* OCCURRING DIRECTLY BEFORE THE SELECTOR
            *firimbi **bar** ka taáhh*  [20151202d.50]

| firimbír | **bar** | t- | ng- | a- | ∅ | taáhh |
|----------|---------|-----|------|------|------|-------|
| whistle.LFR | **if** | MP- | A.3- | P.F- | AUX | hit.PST |

            "If the whistle is blown."

In the latter position, the selector may encliticize to *bar*.  The vowel [a] of *bar* often

assimilates to the initial vowel of the selector.  Optional deletion of the final vowel

(i.e. the selector base) results in what looks like suprafixation.

(2.188)     VOWEL [a] OF *BAR* ASSIMILATING TO INITIAL VOWEL OF THE SELECTOR, FINAL
        VOWEL [i] DELETED

| bar= | i- | ∅ | → bir | (E.g. *dawa bir dáh diriyee...* 'if a |
|------|-----|-----|-------|-------------------------------------|
| if= | S.3- | AUX | | hand goes here...') |

As per its name, the conditional suffix expresses a condition.

(2.189)     CONDITIONAL MOOD: EXPRESSING A CONDITION
            ***bur**ta óh, tun diif*       [20151202d.152]

| **bar**= | t- | u- | ∅ | -(g)a | óh |
|----------|-----|-----|------|--------|------|
| **if**= | MP- | P.2SG.M | AUX | -PRF | catch.PST |
| t- | u- | ∅ | -n | | diif |
| MP- | P.2SG.M- | AUX | -EXPECT | | beat.SUBJ |

            "If you were caught, you will be beaten."

### Prohibitive Prefix m-

The prohibitive prefix *m-* (Mous 1993: 151-152) is used in two primary ways.  First,

it is employed with the two negative imperative suffixes (-*aar*, and -*ara'*) to

complete a negative imperative construction (2.190).  Second, it is employed with

the background suffix (-*wa*) to express negative commands for all persons other

than 2nd (which are covered by the imperative forms) (2.191).

(2.190)     PROHIBITIVE MOOD EMPLOYED WITH THE NEGATIVE IMPERATIVE
    a.      *[...] tisí ta o' **m**a inki/aar*     [20151021c.171]

| tisí | t- | ∅- | a- | ∅ | -(g)a | o' |
|------|-----|-----|------|------|--------|------|
| PRODEM2.F | MP- | A.P- | P.F- | AUX | -PRF | say.2.SUBJ |
| **m-** | ∅- | a- | ∅ | inkí/ | -aar | |
| **PROHIB**- | A.P- | P.F- | AUX | repeat.2 | -IMP.NEG | |

            "[...] this which you have said, don't repeat it."

b.     *kuungá' **m**a kwatiitara'*     [20150808a.155]

| kuungá' | **m-** | ∅- | a- | ∅ | kwatiit | -ara' |
|---|---|---|---|---|---|---|
| PRO.2PL | **PROHIB-** | A.P- | P.F- | AUX | touch | -IMP.NEG.PL |

"Don't you(pl.) touch (it)!"

(2.191)      PROHIBITIVE MOOD EMPLOYED WITH BACKGROUND SUFFIX *-WA*
         *mwalimu hhara nga huwiká as gidabá garma **m**uwa taáhh*

                                             [20160927l150-158.25]

| mwalimú | hhartá | ng- | a- | ∅ | -(g)a |
|---|---|---|---|---|---|
| teacher.LMO | stick.LFT | A.3- | P.F- | AUX | -PRF |
| húw | =iká | as.gidabá | garmá | | |
| bring | =NEG.PST | such.that | boy.LMO | | |
| **m-** | u- | ∅ | -wa | taáhh | |
| **PROHIB-** | P.2SG.M- | AUX | -BACK | hit.M.PST | |

*"The teacher did not bring the stick such that the boy may not hit you."*

### Questioning Prefix m-

The questioning prefix *m-* (Mous 1993: 150-151) is used along with the reason affix

(see below) to form a 'why' question[13].

(2.192)      QUESTIONING MOOD: FORMING A 'WHY' QUESTION
         *fu'unay **m**isa bo/eemís*          [20160116.59]

| fu'unáy | **m-** | s- | ∅- | i | ∅ | -(g)a |
|---|---|---|---|---|---|---|
| meat.LNØ | **Q-** | REASON- | A.P- | P.N- | AUX | -PRF |
| bo/eemís | | | | | | |
| blacken.2.PST | | | | | | |

 "Why did you blacken the meat?"

(2.193)      QUESTIONING MOOD: FORMING A 'WHY' QUESTION
         *baahaa **m**aska taâhh*          [20160927l172-175.14]

| baahaár | **m-** | s- | t- | ng- | a- | ∅ | -(g)a |
|---|---|---|---|---|---|---|---|
| hyaena.LFR | **Q-** | REASON- | MP- | A.3- | P.F- | AUX | -PRF |
| taâhh | | | | | | | |
| hit.PST.Q.PST | | | | | | | |

"Why was the hyaena hit?"

---

[13] The occurrence of this prefix in Gorwaa appears more restricted than the analogue described in Iraqw, which can affix to most any selector to produce the meaning 'what', as well as work with a number of adverbial case clitics to produce the meanings 'how', 'why', and 'where to'.

## 2.4.2.7 Adverbial case

The only adverbial case affixes (Mous 1993: 152-154) attested thus far are the

reason suffix -*s*, the instrumental suffix -*r*, the lative suffix -*i*, and the ablative suffix -

*wa*.

### Reason Suffix -*s*

The reason suffix is typically used with the temporal copula to produce a

construction with the meaning 'the reason why...'.

(2.194)      Reason suffix used with temporal copula *ta*
             *gár ta**s** daawa a tí*     [20131108b_20150725j.6]
             gár          t-      i-      ∅       -(g)a    **-s**              daawaár
             thing.LFʀ     MP-     S.3-    Aux     -Pʀf    **-Reason**         medicine.LFʀ
             i-      ∅       -(g)a   tí
             S.3-    Aux     -Pʀf    Dem.F
             "The reason why it is medicine is this:"

### Instrumental Suffix -*r*

To this point, the instrumental suffix has only been found on encapsulated nouns,

producing a construction meaning 'with...' or 'in the manner of'.  The only way to tell

the difference between an encapsulated noun ending in the linker -*r~´~* and the

instrumental suffix -*r* is that the form taking the instrumental suffix lacks the high

tone.

(2.195)      Level pitch accent on *sleer* indicates instrumental suffix's presence
             *[...] heeko oo qwaru ngun **sleer** slaaxw* [DSC_5354_20150705b.63.2]
             heé           -ko           oo      qwarkú
             person.LMo    -Indef.M      Ana.M   hunger.LMк
             ng-     u-      ∅       -n
             A.3-    P.M-    Aux     -Expect
             **sleér**        **-r**       slaaxw
             cow.LFʀ         -Instr    buy.M.Subj
             "[...] some hungry person would buy it (i.e. millet) with a cow."

(2.196)     Level pitch accent on *idosir* indicates instrumental suffix's presence
            *kií ar haree an **idosir** hi'imit*          [20131027_20150725c.160]

| kií | ar | hareér | Ø- | Ø | -n |
|---|---|---|---|---|---|
| Pro.2Sg.F | Ana.F | woman.LFr | S.P- | Aux | -Expect |

| **idór** | **-sí** | **-r** | hi'imit |
|---|---|---|---|
| **manner.LFr** | **-Dem2** | **-Instr** | travel.2.Subj |

            "You, woman travel in this way."

### Lative Suffix *-i*
As for the instrumental suffix, the lative suffix *-i* has only been found on

encapsulated nouns, producing a construction meaning 'toward...' or 'to...'.

(2.197)     Lative suffix: motion toward
            *xareemiwós ngina la/aás ina **amodi** hi'iít*

                                                      [20131108b_20150725j.141]

| xareemí | -ós | ng- | i- | Ø | -na | la/aás |
|---|---|---|---|---|---|---|
| horns.LNØ | -Poss.3Sg | A.3- | P.N- | Aux | -Imprf | wag.M.Pst |

| i- | Ø | -na | **amór** | **-dá'** | **-i** | hi'iít |
|---|---|---|---|---|---|---|
| S.3- | Aux | -Imprf | **place.LFr** | **-Dem4** | **-Ill** | walk.M.Pst |

            "He wagged his horns from side to side and went to there."

Note that the encapsulated noun does not need to be the location to which the

action of the verb is directed.  In (2.198), it is not 'to the medicine' that the hitting is

directed, but rather 'to the tsetse flies'.

(2.198)     Lative suffix: motion is not necessarily toward the marked noun
            *[...] seehhaa kan **daawaari** taahh* [20151202d.171]

| seehhár | t- | ng- | a- | Ø | -n |
|---|---|---|---|---|---|
| tsetse.flies.LFr | MP- | A.3- | P.F- | Aux | -Expect |

| **daawaár** | **-i** | taahh |
|---|---|---|
| **medicine.LFr** | **-Ill** | hit.Subj |

             "The tsetse flies would be hit by this medicine."

### Ablative Suffix *-wa*
As for the instrumental and lative suffixes, the ablative suffix *-wa* has only been

found on encapsulated nouns, producing a construction meaning, roughly, 'from...'.

(2.199)  ABLATIVE SUFFIX: MOTION FROM
*birkwa **baraqawa** sláy [...]* [20151202d.78]

| bar= | t- | ng- | u- | ∅ | -(g)a | **bará** | **-qá'** | **-wa** |
|------|-----|-----|------|-----|-------|----------|---------|---------|
| if=  | MP- | A.3- | P.M- | AUX | -PRF | **in** | **-DEM3** | **-ILL** |

sláy
get.PST
"if he is detected there [...]"

(2.200)  ABLATIVE SUFFIX: MOTION FROM
*kina **didawa** tahhtaáhh*       [DSC_5354_20150705b.14.5]

| t- | ng- | i- | ∅ | -na | **dír** | **-dá'** | **-wa** |
|-----|-----|------|-----|-----|---------|---------|--------|
| MP- | A.3- | P.N- | AUX | -IMPRF | **place.LFR** | **-DEM4** | **-ABL** |

tahhtaáhh
drive.out.PST
"They were driven out from there."

### 2.4.3 Pronouns

A division of Gorwaa anaphoric devices between the traditional concept of "pronoun" ("independent" (Mous 1993: 114-117)) versus "anaphoric clitic" (Payne 1997: 42-44) does not seem entirely appropriate. Indeed, the argument marking affixes of many selectors, glossed herein as S, A, and P are fully capable of standing as individual phonological words within most phrases, especially when in indicative mood and present tense, which add no additional morphology to which the form may affix. However, these forms are different in that they cannot bear tone or stress. As such, the proposed division is that of *tonic* versus *non-tonic* pronouns. This section will begin with a description of the tonic pronouns, and will then cover the non-tonic pronouns.

### 2.4.3.1 Tonic pronouns

The *tonic* pronouns are, by all measures, full nouns. As their name suggests, they have stress and tone. Tonic pronouns may serve as full arguments in any position

occupied by a full noun (e.g. subject of a nominal copula (2.201), object of a nominal

copula (2.202), subject of an adjectival copula (2.203), object of a verb (2.204)), as

well as be modified as a full noun (e.g. NP modifier (i.e. possession) (2.205)).[14]

(2.201)     *ANÍ* IS SUBJECT OF NOMINAL COPULA
            **aní** *a uumtuuso'oo*     [20131027_20150725c.194]
            **aní**          Ø          uumtuuso'oór
            **PRO1SG**       AUX        nurturer.♀.LFR
            "I am a nurturer."

(2.202)     *TÍ* IS OBJECT OF NOMINAL COPULA
            *aní, loohír ni tsawdiit a **tí*** [20150724.74]
            aní              loohír         ni-          Ø          tsawdiit
            PRO1SG           path.LFR       DEP.1SG-     AUX        choose.1.SUBJ
            a-      Ø       -(g)a **tí**
            COPN    AUX     -PRF **PRODEM1.F**
            "Me, the path I choose is *this.*"

(2.203)     *INÓS* IS SUBJECT OF ADJECTOVAL COPULA
            **inós** *ku tleér* [20160119f.36]
            **inós**   t-     ng-    u-     Ø     tleér
            **PRO3SG** MP-    A.3-   P.M-   AUX   tall.M
            "He is tall."

(2.204)     *TÓK* IS OBJECT OF VERB
            **tók** *a faakaanaká **tók*** [20150808a.152]
            **tók**                    Ø-     a-     Ø     faák   -aán -aká
            **PROPOSS.2SGF**           A.P-   P.F-   AUX   finish.1 -1.PL –NEG.PRES
            **tók**
            **PROPOSS.2SGF**
            "*Yours*, we won't finish yours."

(2.205)     *ATÉN* IS MODIFIED BY A FULL NP
            **atén** *oo hhawata* [20160927l181-182.14]
            **atén**          oo      hhawató
            **PRO1PL**        ANA.M   men.LMO
            "we men"

---

[14] In addition to the three types of tonic pronoun identified here (i.e. personal, possessive, and demonstrative), Mous (1993: 115) identifies a set of *indefinite* pronouns: independent forms which take indefinite noun suffixes.  Though such noun suffixes exist in Gorwaa (see §2.4.1.3), a corresponding set of indefinite pronouns has not been identified.

### Personal Pronouns

Personal pronouns refer back to entities associated with grammatical person. As noted by Mous (1993: 113), personal pronouns are semantically definite, and therefore may not be followed by indefinite suffixes. As they typically refer to people, they also may not be possessed. Personal pronouns are glossed: ProPrs

Table 2.17: PERSONAL PRONOUNS

| Person | Singular | Plural |
|---|---|---|
| 1 | aní  (Formal Pron. aníng) (Reduced Form án) | atén  (Relaxed Pron. át) |
| 2M | kuúng (Relaxed Pron. kuú) (Reduced Form ku) | kuungá' |
| 2F | kiíng  (Relaxed Pron. kií) | |
| 3 | inós    (Reduced Form ino) | ino'ín  (Relaxed Pron. inín) |

As can be seen, the pronouns vary slightly in form depending on factors including register (formal versus relaxed), and speed (fast speech typically results in reduced forms).

In usage, the presence of a personal pronoun generally has an effect of focusing that information (2.206) (which may include contrastive readings, such as in (2.207)).

(2.206)      PERSONAL PRONOUN *ANÍ*: OBJECT FOCUS
            *garma **aní** ngina taáhh*        [20160927l168-171.1]
            garmá        **aní**        ng-    i-    Ø      -na    taáhh
            boy.LM0      **PRO1SG**      A.3-  P.1SG- AUX    -IMPRF hit.M.PST
            "The boy hit *me*." (Where 'me' is new information.)

(2.207)      PERSONAL PRONOUN *ANÍNG*: CONTRASTIVE FOCUS
            ***aníng** mi ga/awaar* [20150817d.811]
            **aníng**  m-          i-    Ø      ga/aw  -aar
            **PRO1SG** PROHIB-     P.1SG- AUX    look.at.2 -IMP.NEG
            "Don't look at *me*!" (i.e. look at the task at hand)

*2. A grammatical sketch of Gorwaa*

### Possessive Pronouns

Possessive pronouns indicate possession. Morphologically, they are formed from

the stems *ko-* (M/N) and *to-* (F), and the possessive determiners (see §2.4.1.1).

Again, their use may result in a focus reading (2.208), including contrastive focus

(2.209). Possessive pronouns are glossed ProPoss.

Table 2.18: POSSESSIVE PRONOUNS

| Person / Number | Masculine / Neuter | Feminine |
|---|---|---|
| 1Sg. | *kwe'eé'* | *te'eé'* |
| 2Sg. | *kók* | *tók* |
| 3Sg. | *kós* | *tós* |
| 1Pl. | *korén* | *torén* |
| 2Pl. | *kohúng* | *tohúng* |
| 3Pl. | *ko'ín* | *to'ín* |

(2.208)  POSSESSIVE PRONOUN *TÓK*: OBJECT FOCUS
*kuú, **tók** aqo an aluqa'wa dog* [20151202d.25]
kuú         **tók**          aqo  Ø-    a-   Ø      -n
PRO2SG.M  **PROPOSS.2SG.F** EMPH A.P-  P.F-  AUX  -EXPECT
alú  -qá'    -wa    dog
after -DEM3  -ABL   add.2.SUBJ
"You, yours you add after that."

(2.209)  POSSESSIVE PRONOUN *TOHÚNG*: CONTRASTIVE FOCUS
*a'a ge! **tohúng** ar koloni* [DSC_5354_20150705b.73]
a'a      ge    **tohúng**          ar       koloni
no      EMPH  **PROPOSS.2PL.F**    ANA.F   colonial.times
"No! Yours (i.e. your mores) are from colonial times." (i.e. your mores
versus ours)

### Demonstrative Pronouns

Demonstrative pronouns are highly common, replacing common nouns.

Morphologically, they are formed from the stems *ko-* (M/N) and *to-* (F), and the

demonstrative determiners (see §2.4.1.2). Demonstrative pronouns are glossed

ProDem, with a following number indicating the deixis of the demonstrative.

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Table 2.19: DEMONSTRATIVE PRONOUNS

| Level of Deixis | Masculine | Feminine | Neuter |
|:---:|:---:|:---:|:---:|
| 1 | *kwí* | *tí* | *koká'* |
| 2 | *kwisíng* | *tisíng* | *kusíng* |
| 3 | *koqá'* | *toqá'* | *koqá'* |
| 4 | *kodá'* | *tidá' / todá' / tadá'* | *kodá'* |

(2.210)　　　DEMONSTRATIVE PRONOUN *KODÁ'*
　　　　　　*/Orundiyeeká sleeme, **kodá'** gitlay tleèr, /Orundí daqa niinà*

　　　　　　　　　　　　　　　　　　　　　　　　　[20150726d.59]
　　　　　　/Orundí　　=ee　=ká　sleeme**kodá'**　　gitlay　tleèr
　　　　　　/Orundí　　=TOP　=NEG　also　**PRODEM4.M**　FILL　tall.M.EMPH
　　　　　　/Orundí　　daqa　niinà
　　　　　　/Orundí　　FILL　small.M.EMPH
　　　　　　"It wasn't /Orundí either, the one there was – uh – *tall*, /Orundí is – uh
　– *short*."

(2.211)　　　DEMONSTRATIVE PRONOUN *TOQÁ'*
　　　　　　*[...] **toqá'** /awaakw amorqá' taataahhee [...]* [20150817d.430]
　　　　　　**toqá'**　　　/awaakw　amór　　　　=qá'　taataahh -eek
　　　　　　**PRODEM3.F**　white.F　　place.LFR　　=DEM3 remove　-IMP.O.SG
　　　　　　"That white one there – take it away!"

Possessive and demonstrative pronouns are also used to contribute their meaning

to a noun which has already been modified by an analogous suffix carrying one of

these meanings (see §2.4.1).

(2.212)　　　DEMONSTRATIVE PRONOUN *KWISÍNG* USED TO MODIFY A NOUN ALREADY MODIFIED
　　　BY A POSSESSIVE SUFFIX -*ÓK*
　　　　　　*qwala/u**ók kwisíng** oo umó siwaroo a milâ* [20150727.49]
　　　　　　qwala/ú　　　　　**-ók**　　　　**kwisíng**　oo　　umó
　　　　　　happiness.LMO　　**-POSS2SG**　　**PRODEM2.M** ANA.M　every
　　　　　　siwár　　　　=oo　Ø　　milâ
　　　　　　time.LFR　　=TOP　AUX　what
　　　　　　"What is this permanent happiness of yours?" (lit. happiness of every
time)

### Interrogative Pronouns

Interrogative pronouns are used in forming wh-questions (see §2.6.3.2).

Morphologically, each is composed of a nominal element, plus the suffix –*(l)â*. The

'nominal element' for 'when' (*daqa-* ~ *daqi* 'time'), and 'where' (*di-* ~ *di* 'place') is

transparent. The 'nominal elements' (if they are indeed that) for 'who' (*ma'-*) and

'what' (*mi-*) are less clear. Interrogative pronouns are glossed with their English

equivalent.

*Why*-questions are formed on the selector using the questioning mood prefix (see

§2.4.2.6).

Table 2.20: INTERROGATIVE PRONOUNS

| English Equivalent | Form |
|:---:|:---:|
| 'who' | ma'â |
| 'what' | milâ |
| 'when' | daqalâ |
| 'where' | dilâ |

(2.213)    INTERROGATIVE PRONOUN 'WHEN' *DAQALÂ*
           *hhayumarók a **daqalâ***        [20150727.31]
           hhayumár    =ók             ∅     **daqalâ**
           journey.LFR  =POSS.2SG      AUX   **when**
           "When is your trip?"

***Anaphoric Pronouns***
Anaphoric pronouns occur last on this list because they are somewhat different

from their tonic counterparts. They are described by Mous (2016: 66) as pronouns

referring to nouns, rather than directly to a referent. Anaphoric pronouns agree

with the gender of the noun to which they refer, masculine and neuter forms are *oo*,

and feminine forms are *ar*. The anaphoric pronoun is glossed Ana, along with the

gender of its referent.

(2.214)    ANAPHORIC PRONOUN (M) GENDER: *OO*
           *[...] garmaqá' **oo** dó' isa' [...]*  [20131108b_20150725j.33]
           garmá        -qá'   **oo**  dó'          isá'
           boy.LM0      -DEM3  **ANA.M** house.LM0    so-and-so.LM0
           "[...] that boy of the house of so-and-so [...]"

(2.215)     ANAPHORIC PRONOUN (N) GENDER: *OO*
            *Asloó tsár **oo** dirèn ngina ohiís.* [20150729b.17]

| asloó | tsár | **oo** | dirèn | ~`~ | ng- | i- | Ø | -na |
|-------|------|--------|-------|-----|-----|-----|----|-----|
| fires.LNØ | two | **ANA.N** | fat.N | EMPH | A.3- | P.N- | AUX | -IMPRF |

ohiís
light.M.PST
"He lit two great fires."

(2.216)     ANAPHORIC PRONOUN (F) GENDER: *AR*
            *[...] qasee **ar** da/aat* [20150817d.110]

| qas | -ee | **ar** | da/aat |
|-----|-----|--------|--------|
| put | -IMP.Sg.O | **ANA.F** | red.F |

"[...] put a red one."

## 2.4.3.2 Non-tonic pronouns

Non-tonic pronouns are different from their tonic counterparts in many ways. As their name indicates, they do not bear stress or tone, and their environments are highly restricted within the clause. While they may occur directly before the verb (2.217), other material, such as adverbs (2.218) and direct objects (2.219), may intervene.

(2.217)     NON-TONIC PRONOUN: (P)ATIENT ARGUMENT MARKER *A-* (DIRECTLY BEFORE THE VERB)

*aní baahaa **a** da'ayumiít* [20150727.43]

| aní | baahaár | Ø- | **a-** | Ø | da'ayumiít |
|-----|---------|----|--------|----|-----------|
| PRO1SG | hyaena.LFR | A.P- | **P.F-** | AUX | fear.1.PRES |

"I am afraid of the hyaena."

(2.218)     NON-TONIC PRONOUN: (P)ATIENT ARGUMENT MARKER *A-* (ADVERB INTERVENES BETWEEN PRONOUN AND VERB)

*aní, garí **a** lowa slaa'akáng [...]* [20150808a.161]

| aní | gár | -í | Ø- | **a-** | Ø | lowa |
|-----|-----|----|----|--------|----|------|
| PRO1SG | thing.LFR | -DEM1 | A.P- | **P.F-** | AUX | very |

slaá' =akáng
like.1 =NEG.PRES
"Me, I really don't like this thing."

(2.219)      NON-TONIC PRONOUN: (S)OLE ARGUMENT MARKER *A*- (DIRECT OBJECT
     INTERVENES BETWEEN PRONOUN AND VERB)
                 *aní **a** sleér diíf*           [20150724.4]
                 aní            Ø-      Ø       sleér         diíf
                 PRO1SG        **S.P-**   AUX    cow.LFR       hit.1.PRES
                 "I hit the cow."

Non-tonic pronouns are mandatory in every finite VP.  Even if its noun anaphor

(2.220) or a tonic pronoun equivalent (2.221) is present, the non-tonic form will

occur concurrently with it.

(2.220)      NON-TONIC PRONOUNS ARE MANDATORY: EVEN IF N ANAPHOR *AAMARKA* IS
     PRESENT
                 *aamarka **i** deer [...]*    [20131108b_20150725j.118]
                 aamár              -ka             **i-**      Ø       deer
                 grandmother.LFR    -INDEF.F      **S.3-**   AUX    be.present.3.PRES
                 "(Once) there is this old lady

(2.221)      NON-TONIC PRONOUNS ARE MANDATORY: EVEN IF TONIC PRONOUN *KUÚNG* IS
     PRESENT
                 *kuúng **a** iwiiwít* [20150727.2]
                 kuúng          Ø-      Ø       iwiiwít
                 PRO2SG.M      **S.P-**   AUX    sit.2.PRES
                 "You are sitting."

### 2.4.4 Prepositions

Prepositions in Gorwaa form a small class: just three forms.  Two take a locative

complement, and one takes an agentive complement.  All forms precede the element

they modify, and may thus be labeled prepositions.

### 2.4.4.1 Locative prepositions

The two most uncontroversial adpositional elements in Gorwaa are the lative *ay*

(roughly, 'to') (2.222), and the ablative *wa* (roughly, 'from') (2.223).  These may be

used in a concrete, spatial sense, as well as extended figuratively (to describe, say,

time (2.224)).  *Ay* is glossed by its English equivalent 'to', *wa* is glossed by its English

equivalent 'from'.

(2.222)     LATIVE PREPOSITION *AY*
            *garma ina tláy **ay** alú /aslaangw* [20160927l74-101.22]
            garmá       i-     ∅     -na    tláy       **ay**    alú
            boy.LM0     S.3-   AUX   -IMPRF go.M.PST   **to**    rear.LM0
            /aslaángw
            hut
            "The boy went to the back of the hut."

(2.223)     ABLATIVE PREPOSITION *WA*
            *garma ina tláy **wa** alú /aslaangw* [20160927l74-101.23]
            garmá       i-     ∅     -na    tláy       **wa**    alú
            boy.LM0     S.3-   AUX   -IMPRF go.M.PST   **from**  rear.LM0
            /aslaángw
            hut
            "The boy went from the back of the hut."

(2.224)     PREPOSITION *AY* EXTENDED TO DESCRIBE TIME
            *aqo tan tlaaq **ay** deeloór mibeerí tám* [20151202d.118]
            aqo         t-     a     =n           tlaaq        **ay**
            EMPH        MP-    ∅     =EXPECT       cut.SUBJ     **to**
            deeloór         mibeerí        tám
            days.LFR        tens.LM0       three
            "They would cut until thirty days (elapsed)."

As demonstrated in the examples, these prepositions indicate motion (i.e. dynamic

location).  These two prepositions are commonly combined with a special set of

'locational nouns' in order to give more precise descriptions of static location and

space (see §2.3.1.3).


**2.4.4.2 Agentive preposition *nee***

The third peoposition of Gorwaa occurs in constructions in which the agent has

been suppressed from the argument structure of the verb, and serves to re-

introduce an agent as an onlique argument.  It is glossed by its English equivalent

'by'.

(2.225)        AGENTIVE PREPOSITION *NEE*
               *danú kun tleehhiit* **nee** *ba'aari* [20131108 b_20150725j.3]
               danú          t-       ng-      u-       Ø        -n               tleehhiit
               honey.LMO     MP-      A.3-     P.M-     AUX      -EXPECT          make.SUBJ
               **nee** ba'aarír
               **by**   bees.LFR
               "Honey is made by bees."

**2.4.5 The coordinative conjunction**

The coordinative conjunction *nee* is used to connect constituents such as NPs

(2.226), as well as adjectives (2.227).  Instances of it connecting clauses in the same

manner is not present.  This may be due to the occurrence of morphology which can

express the concepts of simultaneity and consecutiveness (see §2.4.2.5).    *Nee* is

glossed by its English equivalent 'and'.

(2.226)        COORDINATIVE CONJUNCTION *NEE*: COORDINATING TWO NPS
               *tunáy ngu lowa kón – garí – tunáy* **nee** *naanagí* [20150808a.43]
               tunáy                  ng-      u-       Ø        lowa     kón
               dried.honey.LMO        A.3-     P.M-     AUX      very     have.M.PRES
               gár            -í       tunáy                     **nee**  naanagitá
               thing.LFR      -DEM1   dried.honey.LMO            **and**  larvae.LFT
               "It has lots of dried honey, this - dried honey and larvae."

(2.227)        COORDINATIVE CONJUNCTION *NEE*: COORDINATING TWO ADJECTIVES
               *hayoo kin /awakw* **nee** *bo/abò/*        [20151021c.443]
               hayoó          t-       ng-      i-       Ø        -n               /awakw
               feathers.LNØ   MP-      A.3-     P.N-     AUX      -EXPECT          white.N.PL
               **nee**    ~Red~          bò/
               **and**    ~ATTEN~        black.N.PL.EMPH
               "the feathers will be white and *blackish*"

**2.5 Constituents**

The following subsection is concerned with words or word groupings which act as a

single unit within the structured hierarchy of the larger clause.  Following the

presentation of constituent order in main clauses, this subsection will treat verb

phrases, noun phrases, adpositional phrases, and comparatives.

## 2.5.1 Constituent order in main clauses

Basic constituent order in pragmatically neutral clauses is Subj. Obj. Sel V, where:

Subj. = Subject
Obj.= Object
P= Patient
Sel= Selector (glossed here as ProObj and =Imprf)
V= Verb

(2.228)  BASIC CONSTITUENT ORDER
*garma*SUBJ *baahaa*OBJ *ngina*SEL *taáhh*V          [20160921i.1]

| garmá | baahaár | ng- | a- | Ø | -na | taáhh |
|---|---|---|---|---|---|---|
| boy.LM0 | hyaena.LFR | A.3- | P.F- | AUX | -IMPRF | hit.M.PST |

"The boy hit the hyaena."

## 2.5.2 Verb phrase

Within the VP, the selector always occurs to the left of the lexical verb.

(2.229)  SELECTOR ALWAYS OCCURS TO THE LEFT OF THE LEXICAL VERB
   a.  *aní maa'ay i waáh*   [20160120q.48]

| aní | ma'aáy | Ø- | i- | Ø | waáhh |
|---|---|---|---|---|---|
| PRO1SG | water.LNØ | A.P- | P.N- | AUX | drink.PRES |

"I drink water."

   b.  *aní a hhayuút [...]* [20150727.30]

| aní | Ø- | Ø | hhayuút |
|---|---|---|---|
| PRO1SG | S.P- | AUX | travel.PRES |

"I am travelling [...]"

The only free elements obligatory to the VP are the selector (which, itself is

composed of a series of dependent affixes) and the lexical V.  Clauses in imperative

mood lack a selector.

VPs may feature incorporated nouns, or encapsulated nouns.

Incorporated nouns are located between the selector and the lexical verb, but do not exhibit linker morphology (as do 'encapsulated' forms):

(2.230)   INCORPORATED NOUN *SLEE*
          *uga **slee**-gás*        [20161119f.34]
          Ø-      u-      Ø       -(g)a  **slee-**  gás
          A.P-    P.M-    AUX     -PRF   **cow-**   kill.2SG.PST
          "You(M) killed a cow on him." (lit. 'You cow-killed him.')

According to the literal translation given, incorporated patients appear to be non-specific (which would be consistent with the semantics of incorporated nouns in many languages).

Nouns may also be 'encapsulated' (so named by Wifred H. Whiteley (1958: 31)), where a patient occurs to the immediate left of the lexical V, but unlike incorporated nouns, retains a specific reading. Encapsulated nouns always show a linker:

(2.231)   ENCAPSULATED NOUN *SLEE*
          *aní a **sleér** diíf*       [20160927l222-228.26]
          aní           a-      Ø     **sleér**         diíf
          PRO1SG        S.1-    AUX   **cow.LFR**       hit.1SG.PST
          "I hit the cow."

The vast majority of VP adverbs occur in one of two patterns. First, a set consistently occurs directly to the left of the V:

(2.232)   VP ADVERBS CONSISTENTLY OCCURRING TO THE LEFT OF THE LEXICAL VERB
          a.   *[...] i **mak** maahhát [...]*       [20131108b_20150725j.179]
               i-      Ø      **mak**        maahhát
               S.3-    AUX    **somewhat**   crouch.down.F.PRES
               "She crouches down somewhat."

          b.   *[...] aga **qaro** hhaáf*  [20150817d.161]
               Ø-      a-      Ø       -(g)a  **qaro**      hhaáf
               A.P-    P.F-    AUX     -PRF   **already**   lay.out.1.PST
               "I've already lain it out."

Many of the VP adverbs which occur in this position are those of degree (i.e. affecting the intensity of the verb), or those of aspect (i.e. affecting the temporal consistency of the verb). Other VP adverbs are less loosely bound, often occurring to the right of the V, or possibly at the very beginning of the clause.

(2.233)      Adverbs occurring clause-initially, or clause-finally
      a.    **hindí** *u tu/uúm [...]*   [20150808a.49]

| **hindí** | ∅- | u- | ∅ | tu/uúm |
|---|---|---|---|---|
| **now** | A.P- | P.M- | Aux | dig.out.Pres |

"Now I am digging it out [...]"

      b.    *aní aqo hardáh* **hindí**[20151021c.139]

| aní | ∅- | ∅ | -a | =qo | hardáh | **hindí** |
|---|---|---|---|---|---|---|
| Pro1Sg | S.P- | Aux | -Prf | =Emph | arrive.1.Pst | **now** |

"I have arrived now."

## 2.5.3 Noun phrase

When modified, the noun occurs first (2.234), except when modified by the quantifier *umó*, which itself precedes the noun it modifies (2.235). Nouns quantified by *umó* obligatorily occur with the topic marker.

(2.234)      Noun-modifier order
      *garmaqá' wák tlarantleér [...]* [20160927l124-128.12]

| garmá | -qá' | wák | ~Red~ | tleér |
|---|---|---|---|---|
| boy | -Dem3 | one | ~Amp~ | tall.M |

"That one very tall boy [...]"

(2.235)      Special modifier-noun order for *umó*
      *[...] umó kurkoo [...]* [20151202d.158]

| umó | kurkú | =oo |
|---|---|---|
| every | year.Lmk | =Top |

"[...] every year [...]"

Greenberg's Universal 20 states that, if demonstratives, numerals, and descriptive adjectives follow the noun, that they should either occur in the order listed, or in the exact opposite order (i.e. descriptive adjective, numeral, demonstrative). Gorwaa

complies with this universal, in that these elements can occur in the first of these

orders (demonstrative, numeral, descriptive adjective) only (2.236).

(2.236)     Demonstrative-numeral-descriptive adjective order
            *moro'osí tám afahhamít*     [20131027_20150725c.89]
            moro'ó        -sí      tám     afahhamít
            things.LMo    -Dem2 three   important.M.Pl
            "These three important things."

## 2.5.4 Adpositional phrase

The two most uncontroversial adpositional elements in Gorwaa are the lative *ay*

(roughly, 'to'), and the ablative *wa* (roughly, 'from').   These may be used in a

concrete, spatial sense, as well as extended figuratively (to describe, say, time).

(2.237)     Adpositions
        a.    *nire ki/á' **ay** dirí*     [20151202d.136]
              ni     -re            ki/          -á'       **ay**
              Vent  -Consec        return.2     -2Pl    to
              dír             -í
              place.LFr      -Dem1
            "And you(pl.) returned to this place."

        b.    *ina oó' **wa** gawaqá' [...]* [20131108b_20150725j.78]
              i-     Ø      -na      oó'            **wa**  gawá -qá'
              S.3-  Aux    -Imprf say.M.Pst        from  on    -Dem4
              "He said from on there [...]"

        c.    *aqo tan tlaaq **ay** deelór mibeerí tám* [20151202d.118]
              aqo    t-     Ø       -n            tlaaq          **ay**    r
              Emph  MP-   Aux    -Expect        cut.Subj        to
              deeló           mibeerí        tám
              days.LFr       tens.LMo        three
            "They would cut until thirty days (elapsed)."

As demonstrated in the examples, these forms precede the element they modify, and

may thus be labeled prepositions.

*2. A grammatical sketch of Gorwaa*

Prepositions are commonly combined with a special set of 'locational nouns' in order to give more precise descriptions of space. Such preposition-locational noun strings can run up to 3 elements long, and exhibit restrictions on ordering and co-occurrence. For more on locational nouns, see §2.3.1.3.

The lative *ay* is undoubtedly related to the adverbial suffix, *-i*. *-i* occurs consistently in dative-shift constructions, in which a noun which may otherwise be expressed as an adjunct is promoted to an object of the verb in a now double-object construction (compare (2.238) (non-dative-shift) with (2.239) (dative-shift)). In this new dative-shift construction, *-i* encliticises to the end of the noun which would have served as the direct object in the non-dative-shift construction.

(2.238)    DITRANSITIVE (DOUBLE-OBJECT) CONSTRUCTION: NO DATIVE-SHIFT
          *mwalimu kitaabu ngwa hariís dír desi*      [20160928c.44]
          mwalimú      kitaabú      ng-   u-    Ø      -(g)a   hariís
          teacher.LM0  book.LM0     A.3-  P.M-  AUX    -PRF    bring.M.PST
          dír      desír
          to       girl.LFR
          "The teacher brought the book to the girl."

(2.239)    DITRANSITIVE (DOUBLE-OBJECT) CONSTRUCTION: DATIVE-SHIFT
          *mwalimu desi ngina kitaabuwi hariís*      [20160927l23-29.3]
          mwalimú      desír        ng-   a-    Ø      -na
          teacher.LM0  girl.LFR     A.3-  P.F-  AUX    -IMPRF
          kitaabú        -i       hariís
          book.LM0       -LAT     bring.M.PST
          "The teacher brought the girl the book."

This enclitic form should not be viewed as a case-marker in Gorwaa, as the noun to which it affixes is not the dative (recipient or destination) noun. Perhaps the most explicit role of *-i* is to identify the double-object clause as one which has undergone dative-shift.

**2.5.5 Comparatives**

Comparative constructions in Gorwaa place the item being compared to the standard (*inós* in (2.240) below) in an adjectival copula construction, followed by the quality by which comparison is being made (in this case *tleer*), followed by the comparative marker *ta*, and then the standard (in this case *garma*). The standard occurs with topic morphology.

(2.240)      Comparative construction
             *inós ka tleer ta garmawoo*          [20160927m.1]
             inós    t-      ng-    a-     ∅      tleer    ta      garmá       =oo
             she     MP-     A.3-   P.F-   Aux    tall.F   Comp    boy.LM0     =Top
             "She is tall compared to the boy."

As may be seen, the construction in Gorwaa features comparative deletion – obligatory ellipsis in the clause featuring the standard (the elided material (underlined) in (2.240) above is *inós ka tleer ta garmawoo <u>ku tleér</u>* 'she is taller than the boy <u>is tall</u>').

**2.6 Pragmatically marked structures**

Pragmatically marked structures convey salient information structure (focus, contrast, topicalization), as well as negation, and non-declarative speech acts. Each will be examined below.

**2.6.1 Focus, contrast, and topicalization**

An array of different morphosyntactic tools exist for the signaling of salient information structure. First, use of demonstrative (determiners and pronouns) and indefinites (determiners) will be examined. Second, comment will be made on

'topic' morphology. Third, dislocation and special constituent orders will be described. The subsection will conclude with comment on clefts and pseudo-clefts.

### 2.6.1.1 Use of demonstratives and indefinites

Perhaps the most common markers of pragmatic status are the series of demonstratives – suffixes which attach to nouns, or independent pronouns. For more comment on the forms of demonstrative determiners, see §2.4.1.2. For more on demonstrative pronouns, see §2.4.3.1. Pragmatically, these forms are often used to give nouns a definite reading.

(2.241)   DEMONSTRATIVE SUFFIX -*DÁ'*
        *[...] hee i kaáhh, aqo gofaangw**dá'** oo tlaqati*
                                        [20131108b_20150725j.149-150]
        heé          i-      Ø      kaáhh        Ø      =qo
        person.LM0   S.3-    AUX    be.absent.M  AUX    =EMPH
        gofaángw     **-dá'**          oo           tlaqatír
        buck.LM0     **-DEM4**         ANA.M        antelope.LFR
        "[...] there was no one to bee seen, it was that antelope buck." (i.e. the
same buck that the old woman had met earlier in the story)

(2.242)   DEMONSTRATIVE PRONOUN *KOQÁ'*
        *A tsa/a/án. **Koqá'** na/áy deti nguna tsaát [...]*
                                        [20131108b_20150725j.86-87]
        i-      Ø      -(g)a   ~Red~      tsa/án    **koqá'**
        S.3-    AUX    -PRF    ~PLUR~     climb.M   **PRODEM3.M**
        na/áy          detitá           ng-    u-     Ø      -na    tsaát
        child.LM0      tree.sp.LFT      A.3-   P.M-   AUX    -IMPRF cut.M.PST
        "He is climbing. That one, cut a seed pod of the deti tree [...]" (i.e. The
*antagonist* is climbing up the tree. The *protagonist* – *koqá'* (lit. *that* one) – cut a seed
pod.)

In addition to the demonstrative determiners, which give nouns a definite reading, there is also an indefinite suffix, which renders the noun in question not-yet-identified (2.243). For more on the forms of the indefinite determiner, see §2.4.1.3.

(2.243)     INDEFINITE SUFFIX *-KO*
            *tana hardáh dír xa'anoko yariìr*     [20131108b_20150725j.53]
            t-     Ø      -na    hardáh        dír    xa'anó     **-ko**
            MP-    AUX    -IMPRF arrive.PST    at     tree.LM0   **-INDEF.M**
            yariìr
            big.EMPH
            "They arrived at a *great* tree." (i.e. a tree that is being mentioned for
the first time, and one that will feature prominently in the story).


## 2.6.1.2 'Topic' morphology

An enclitic exists to background information.  In this sketch, it will be referred to as

the 'topic' marker.  The form is *=oo*, *=ee* if the noun to which it attaches ends in RPA.

(2.244)     TOPIC MARKER
   a.    *[...] matlatleeroo ya ta /a/amiín* [20131108b_20150725j.105]
         matlatleér   **=oo**   ya    t-    Ø      ~Red~       /amiín
         morning.LFR  **=TOP**  thus  MP-   AUX    ~PLUR~      cry.PST
         "In the morning it was thus: they cried."

   b.    *idosiyee ugwa gwét neer awu*         [20151202d.31]
         idór         -sí    **=ee**  Ø-    u-           Ø       -(g)a
         manner.LFR   -DEM3  **=TOP** A.P-  P.2SG.M-     AUX     -PRF
         gwét            neer   awú
         free.2.PST      with   bull.LM0
         "In this way you freed with a bull."

As can be seen from the last example, the 'topic' marker can join to a demonstrative

clitic already attached to the head noun.


The term 'topic' marker is not particularly satisfactory for this form, as it occurs in

several, seemingly disparate morphosyntactic environments, including on the object

of comparison (2.245), on nouns quantified by umó (2.246), as part of the negative

morphology for nominals (2.247), and on polar questions (2.248).

(2.245)    Topic marker on the object of comparison
           *inós ka tleer ta garmawoo*          [20160927m.1]
           inós         t-      ng-    a-    Ø       tleer   ta
           Pro.3Sg      MP-     A.3-   P.F-  Aux     tall.F  Comp
           garmá        **=oo**
           boy.LM0      **=Top**
           "She is tall compared to the boy."

(2.246)    Topic marker on nouns quantified by *umó*
           *[...] umó qoomaroo*    [20150730.74]
           umó    qoomár      =oo
           every  time.LFr     =Top
           "[...] all the time"

(2.247)    Topic marker as part of negative morphology on nouns
           *a tsir/ooweeká garí*  [20151021c.354]
           Ø      tsir/oór     **=ee**   =(a)ká gár         -í
           Aux    birds.LFr    **=Top**  =Neg  thing.LFr     -Dem1
           "this is not a type of bird"

(2.248)    Topic marker as part of polar questions
           *[...] gár a idór tsir/iroô*      [20151021c.369]
           gár             Ø      idór          tsir/ír       **=oo**   ~ˆ~
           thing.LFr       Aux    manner.LFr    bird.LFr      **=Top**  -Q
           "[...] the thing is like a bird?"

## 2.6.1.2 Dislocation

This section will first treat left- and right- dislocation, then repetition.

### Left- and right-dislocation

Left- (2.249) and right-dislocation (2.250) are both commonly employed special

constituent orders. Pragmatically, dislocated elements are focused. Left-dislocation

is not fronting, because there is a referential pronoun in the main clause.

(2.249)    Left-dislocation
           **desirqá'** *aní ana gaás*       [20131108b_20150725j.83]
           **desír**        **-qá'**  aní         Ø-    a-    Ø      -na
           girl.LFr         -Dem3  Pro1Sg       A.P-  P.F-  Aux    -Imprf
           gaás
           kill.1.Pst
           "That girl, I killed her."

(2.250)     Rɪɢʜᴛ-ᴅɪsʟᴏᴄᴀᴛɪᴏɴ
            *a da'ayumiít **da'aang**oo*     [20150727.21]
            Ø-      Ø       da'ayumiít   **da'aángw**   =oo
            S.P-    Aᴜx     fear.1.Pʀᴇs   **singing.LMo**  =Tᴏᴘ
            "I am afraid of singing."


***Repetition***

A variant of dislocation, a noun may be repeated. This too seems to function as a

pragmatic focus operation. Sometimes, it even appears that more than an NP may

be repeated, as in (2.252), where the form *nee* is doubled as well as the noun *danú*.


(2.251)     Rᴇᴘᴇᴛɪᴛɪᴏɴ ᴏꜰ NP *ᴅᴏᴡí*
            *aní **dowí** oo dír afeé uruwa u slaa'aká **dowí***
                                        [20131108b_20150725j.123]
            aní     **dó'**      **-í**    oo            dír afeé   uruwár
            Pʀᴏ1Sɢ  **house.LMo**  **-Dᴇᴍ1** PʀᴏMᴏᴅ.M     at beside road.LFʀ
            Ø-      u-      Ø       slaá'  =aká     **dó'**          **-í**
            A.P-    P.M-    Aᴜx     like.1 =Nᴇɢ.Pʀᴇs **house.LMo**      **-Dᴇᴍ1**
            "This house beside the road I do not want – this house."

(2.252)     Rᴇᴘᴇᴛɪᴛɪᴏɴ ᴏꜰ PP *ᴅᴀɴú ɴᴇᴇ*
            ***danú nee** an al/a/ayaan **danú nee*** [20131108b_20150725j.38]
            **danú**        **nee**  Ø-    a-    Ø     -n
            **honey.LMo**   **with** A.P-  P.F-  Aᴜx   -Exᴘᴇᴄᴛ
            al/a/áy         -aan     **danú**        **nee**
            eat.together.1-1Pʟ.Sᴜʙᴊ  **honey.LMo**   **with**
            "With honey we would eat together – with honey!"

## 2.6.1.3 Clefts and pseudo-clefts

The two cleft-constructions identified in Gorwaa thus far are the it-cleft

construction, as well as the pseudo-cleft construction. it-cleft constructions (2.253)

feature the auxiliary, followed by an NP, followed by a dependent clause. The NP

following the auxiliary is generally in focus. Pseudo-cleft constructions (2.254)

feature a wh-relative clause, an auxiliary, and an NP. The NP following the clause is

in focus.

(2.253)     IT-CLEFT CONSTRUCTION
            *hindí a /ayto'oo an dooslaan* [DSC_5354_20150705b.69.6]
            hindí    Ø         /ayto'oór        Ø-      a-      Ø        -n
            now     AUX      corn.LFR         A.1-   P.F-   AUX    -EXPECT
            doósl   -aan
            farm.1 -1PL.SUBJ
            "Now, it is *corn* that we farm."

(2.254)     PSEUDO-CLEFT CONSTRUCTION
            *gár ni slaa a fa/aa*          [20160927l159-158.39]
            gár            ni-        Ø       slaa                     Ø
            thing.LFR      DEP.1SG-   AUX    want.1SG.SUBJ           AUX
            fa/aár
            ugali.LFR
            "What I want is *ugali*."

## 2.6.2 Negation

Negation is accomplished in Gorwaa by the enclitic *=ká(ng)*. The following provides

an overview of verbal negation, nominal negation, and clausal negation (in Gorwaa,

derivational negation (such as the *un-* in English *unhappy*), has not been identified).

Finally, a creative usage of the enclitic *=ká(ng)* is described.

## 2.6.2.1 Verbal negation

Negative clauses are marked by the negative clitic *=káng* (often reduced to *=ká*).

This clitic attaches to verb roots only if the roots have been extended by the suffix *-a*

(in the present tense) and *-i* (in the past tense).

(2.255)     VERBAL NEGATION IN THE PRESENT TENSE
            *tam motloo ngi xu'**aká***       [20131108a.191]
            tam  motloo        ng-    i-    Ø     xú'      **-aká'**
            even tomorrow      A.3-  P.N-  AUX   know.F  **-NEG.PRES**
            "She doesn't even know tomorrow." (lit. she isn't thinking about
tomorrow)

(2.256)      VERBAL NEGATION IN THE PAST TENSE
             *inós tunáy ngu xu'**iká'*** [20150808a.147]
             inós            tunáy                 ng-     u-      Ø
             PRO3SG          dried.honey.LM0       A.3-    P.M-    AUX
             xú'        **-iká'**
             know.F   **-NEG.PST**
             "She didn't know of dried honey."

## 2.6.2.2 Nominal and adjectival negation

On nouns, noun phrases, and adjectives the negative clitic *=ká(ng)* attaches to forms

extended with the topic clitic.

(2.257)      NEGATION OF N *TSIR/OO*
             *garí a tsir/iroo**ká** ge* [20151021c.376]
             gár             -í      Ø       tsir/iroór      **=ee**    **=ká**  ge
             thing.LFR       -DEM1   AUX     bird.LFR        **=TOP**   **=NEG**  EMPH
             "This thing isn't a type of bird."

(2.258)      NEGATION OF NP *DIRÍ*
             */aatsoroók a diri**heeká*** [20150727.17]
             /aatsoór        -ók      Ø       dír             -í      **=ee**   **=ká**
             playing.LFR   -POSS2SG   AUX     place.LFR       -DEM1   **=TOP**  **=NEG**
             "Your playing is not here."

(2.259)      NEGATION OF ADJECTIVE *BOO/*
             *[...] ka boo/**eeká** [...]* [20150818a.13]
             t-      ng-     a-      Ø       boo/            **=ee**   **=ká**
             MP-     A.3-    P.F-    AUX     black.F         **=TOP**  **=NEG**
             "[...] it is not black [...]"

## 2.6.2.3 Clausal negation

Entire clauses may be negated, in which case the morphology attaches to the last

element in the clause.

(2.260)      CLAUSAL NEGATION
             *Babati saweemawós a idór oo Dawar**eeká*** [20150727.64]
             Babatír         saweemá     -ós            Ø       idór
             Babati.LFR     distance.LN0  -POSS3SG       AUX    manner.LFR
             oo      Dawár       **=ee**    **=ká**
             ANA.M  Dawár.LM0    **=TOP**   **=NEG**
             "The distance of Babati isn't like the distance of Dawár."

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**2.6.2.4 Creative use of the negative**

Negative morphology may be applied to a constituent not to negate it, but to emphasize its superlative or astonishing nature (2.261).

(2.261)      Negative morphology to emphasize a superlative quality
             *gadá' a uru'umisooaká* [20150726d.35]
             gár          -dá'  ∅      uru'umís          **=oo  =aká**
             thing.LFR    -Dem4 Aux    ululation.LMo     **=Top =Neg**
             "That thing was astounding ululation." (lit. not ululation)

The form *kangokang* is a reduplication of two negative clitics, to mean something like 'astonishing' or 'unbelievable'.

(2.262)      *Kangokang*: 'astonishing' or 'unbelievable'
             *a **kangokang***       [20150818a.154]
             ∅       **kangokang**
             Aux     **astonishing**
              "it's astonishing"

**2.6.3 Non-declarative speech acts**

Below is a description of polar questions, information questions, and imperatives.

**2.6.3.1 Polar questions**

Polar questions are usually marked by the particle *xáy*, which occurs as the first element in the phrase.

(2.263)      Polar question particle *xáy*
             a.    ***xáy, do' u tlehhanâ*** [20160120q.9]
                   **xáy**         dó'          ∅-   u-   ∅
                   PolarQ         house.LMo    A.P- P.M- Aux
                   tleéhh -aán   -â
                   make.1-1Pl    -Q.Pres
                   "Are we making a house?"

      b.     ***xáy**, sukaari aga qasî bará chayiroô*      [20160120q.7]

| **xáy** | sukaarír | Ø- | a- | Ø | -(g)a |
|---|---|---|---|---|---|
| PolarQ | sugar.LFr | A.P- | P.F- | Aux | -Prf |
| qás | -î | bará | chayír | | =oo |
| put.2 | -Q.Pst | in | tea.LFr | | =Top |

          "Did you put sugar in the tea?"

## 2.6.3.2 Information questions

Information question words are predicates in copular constructions (2.264). For

'why' questions, question morphology is prefixed to the selector (2.265).

(2.264)       Information questions are predicates in copular constructions

      a.     *hareerí a **ma'â***     [20160111h.22]

| hareér | -í | Ø | **ma'â** |
|---|---|---|---|
| woman.LFr | -Dem1 | Aux | **who** |

          "Who is this woman?"

      b.     *tsir/ír hatlá' a **milâ***   [20151021c.147]

| tsir/ír | hatlá' | Ø | **milâ** |
|---|---|---|---|
| bird.LFr | other | Aux | **what** |

          "What is the other bird?"

      c.     *hhayumarók a **daqalâ***     [20150727.31]

| hhayumár | -ók | Ø | **daqalá** |
|---|---|---|---|
| journey.LFr | -Poss2Sg | Aux | **when** |

          "When is your journey?"

      d.     *dirí a **dilâ***     [20160111h25]

| dir | -í | Ø | **dilâ** |
|---|---|---|---|
| place.LFr | -Dem1 | Aux | **where** |

          "Where is this place?"

(2.265)       'Why' questions: question morphology is prefixed to the selector

       *fu'unay **m**isa bo/eemís*

| fu'unáy | **m-** | s- | Ø- | i- | Ø | -(g)a |
|---|---|---|---|---|---|---|
| meat.LNØ | **Q-** | Reason- | A.P- | P.N- | Aux | -Prf |
| bo/eemís | | | | | | |
| blacken.2.Pst | | | | | | |

       "Why did you blacken the meat?"

In why questions in which the state of affairs seems unexpected or is surprising in some way, the adverb *bere* may be used as a stronger alternative to question morphology. A possible English translation is 'whyever'.

(2.266)     BERE: 'WHYEVER'
            *dowí **bere** ku lowa úr*[20150817d.491]
            do'         -í      **bere**       t-      ng-     u-      Ø       lowa
            house.LM0   -DEM1   **whyever**    MP-     A.3-    P.M-    AUX     very
            úr
            big.M
            "Why is this house so damn big?"

### 2.6.3.3 Imperatives

Imperatives are formed by a group of suffixes added to the verb. Most imperatives do not feature a selector, though the two negative imperatives are used with the prohibitive selector *ma*.

Table 2.21: IMPERATIVES IN GORWAA

| *Meaning* | **Suffix** *Example* | |
|---|---|---|
| | **Sg** | **Pl** |
| **Imperative** | **-Ø** <br> *oo'* 'speak!' | **-e'** <br> *oo'e* 'speak!' (many addressees) |
| **Imperative with object** | **-ee(k)** <br> *oo'ee* 'say it!' | **-aak** <br> *oo'aak* 'say it!' (many addressees) |
| **Imperative towards the speaker (ventive)** | **-áng** <br> *oo'áng* 'speak to me!' | **-aré'** <br> *oo'aré'* 'speak to me!' (many addressees) |
| **Imperative towards the speaker (ventive) with object** | **-ang** <br> *oo'ang* 'say it to me!' | **-are'** <br> oo'are' 'say it to me' (many addressees) |
| **Negative imperative** | **ma -aar** <br> ma oo'aar 'don't speak!' | **ma –ara'** <br> ma oo'ara' 'don't speak!' (many addressees) |

So-called 'first person imperatives', or hortatives, occur as verb forms marked with

1st person plural morphology, and no selector.

(2.267)        Hortatives: 1st person pl morphology on the V, no selector
               *tlaw**aán***
               tláw **-aán**
               go.1  **-1Pl**
               'let's go'

## 2.7 Clause combinations

Below provides an overview of relative clauses, as well as coordination.

## 2.7.1 Relative clauses

Relative clauses in Gorwaa are postnominal, that is, the relative clause follows the

head noun it modifies. The head noun shows the linker. Mous (1993: 281) notes

that conditional and prohibitive mood prefixes, as well as imperfect, expectative,

and consecutive aspect suffixes cannot be used within relative clauses.

(2.268)        Subject relative clauses
               a.  *garmá baahaa nga taahh*          [20160928c.32]
                   garmá        baahaár      ng-    a-    Ø      -(g)a
                   boy.LM0      hyaena.LFr   A.3-   P.F-  Aux    -Prf
                   taahh
                   hit.M.Subj
                   'The boy who hit the hyaena.'

               b.  *desír baahaa nga tahh*           [20160928c.34]
                   desír        baahaár      ng-    a-    Ø      -(g)a
                   girl.LFr     hyaena.LFr   A.3-   P.F-  Aux    -Prf
                   tahh
                   hit.F.Subj
                   'The girl who hit the hyaena.'

    c.    *na/i'í baahaa nga diifiyi'*   [20160928c.36]

| na/i'í | baahaár | ng- | a- | Ø | -(g)a |
|---|---|---|---|---|---|
| children.LNØ | hyaena.LFR | A.3- | P.F- | AUX | -PRF |

| diif | -iyí' |
|---|---|
| hit.N | -N.PST |

'The children who hit the hyaena.'

    d.    *anír kitaabu ngwa hariis dír garma*[20161003.7]

| anír | kitaabú | ng- | u- | Ø | -(g)a |
|---|---|---|---|---|---|
| PRO1SG | book.LM0 | A.3- | P.M- | AUX | -PRF |

| hariis | dír | garmá |
|---|---|---|
| bring.1.SUBJ | to | boy.LM0 |

'I(F) who brought the book to the boy.'

    e.    *kuúng oo kitaabu ngwa haris dír garma* [20161003.8]

| kuúng | oo | kitaabú | ng- | u- | Ø | -(g)a |
|---|---|---|---|---|---|---|
| PRO2SGM | ANA.M | book.LM0 | A.3- | P.M- | AUX | -PRF |

| haris | dír | garmá |
|---|---|---|
| bring.2.SUBJ | to | boy.LM0 |

'You(M) who brought the book to the boy.'

    f.    *garmá a mamaa/*   [20160928c.26]

| garmá | i- | Ø | -(g)a | mamaa/ |
|---|---|---|---|---|
| boy.LM0 | S.3- | AUX | -PRF | be.ill.M.SUBJ |

'The boy who was ill.'

    g.    *desír a mama/*   [20160928c.27]

| desír | i- | Ø | -(g)a | mama/ |
|---|---|---|---|---|
| girl.LFR | S.3- | AUX | -PRF | be.ill.F.SUBJ |

'The girl who was ill.'

Positions on the relativizability hierarchy which can be relativized in Gorwaa range from subject (2.269), to direct object (2.270), to indirect object (2.271), to oblique (2.272).

(2.269)       SUBJECT RELATIVE CLAUSE (B) VERSUS INDEPENDENT CLAUSE (A)

    a.    *garma baahaár ngina taáhh*   [20160921i.1]

| garmá | baahaár | ng- | a- | Ø | -na |
|---|---|---|---|---|---|
| boy.LM0 | hyaena.LFR | A.3- | P.F- | AUX | -IMPRF |

| taáhh |
|---|
| hit.M.PST |

'The boy hit the hyaena.'

b.     *garmá baahaa nga taahh*     [20160928c.32]

| garmá | baahaár | ng- | a- | Ø | -(g)a |
|---|---|---|---|---|---|
| boy.LM0 | hyaena.LFR | A.3- | P.F- | AUX | -PRF |

taahh
hit.M.SUBJ
'The boy who hit the hyaena.'

(2.270)     DIRECT OBJECT RELATIVE CLAUSE (B) VERSUS INDEPENDENT CLAUSE (A)

a.     *mwalimu na/i'i ngina kitaabuwi hariís* [20160927l23-29.5]

| mwalimú | na/i'í | ng- | i- | Ø | -na |
|---|---|---|---|---|---|
| teacher.M0 | children.LNØ | A.3- | P.N- | AUX | -IMPRF |

| kitaabú | -i | hariís |
|---|---|---|
| book.LM0 | -LAT | bring.M.PST |

'The teacher brought the children the book.'

b.     *kitaabú mwalimu a hariís dír na/i'i* [20160928c.49]

| kitaabú | mwalimú | i- | Ø | -(g)a |
|---|---|---|---|---|
| book.LM0 | teacher.LM0 | MP.S.3- | AUX | -PRF |

| hariís | dír | na/i'í |
|---|---|---|
| bring.M.PST | to | children.LNØ |

'The book that the teacher brought to the children.'

(2.271)     INDIRECT OBJECT RELATIVE CLAUSE (B) VERSUS INDEPENDENT CLAUSE (A)

a.     *mwalimu na/i'i ngina kitaabuwi hariís* [20160927l23-29.5]

| mwalimú | na/i'í | ng- | i- | Ø | -na |
|---|---|---|---|---|---|
| teacher.LM0 | children.LNØ | A.3- | P.N- | AUX | -IMPRF |

| kitaabú | -i | hariís |
|---|---|---|
| book.LM0 | -LAT | bring.M.PST |

'The teacher brought the children the book.'

b.     *na/i'í mwalimu a kitaabuwi hariís [...]*     [20160928c.47]

| na/i'í | mwalimú | i- | Ø | -(g)a |
|---|---|---|---|---|
| children.LNØ | teacher.LM0 | MP.S3- | AUX | -PRF |

| kitaabú | -i | hariís |
|---|---|---|
| book.LM0 | -VENT | bring.M.PST |

'The children to whom the teacher brought the book [...]'

(2.272)     OBLIQUE RELATIVE CLAUSE (B) VERSUS INDEPENDENT CLAUSE (A)

a.     *garma tla/anó nguna kwaáhh bará qaymoo*  [20161004b.1]

| garmá | tla/anó | ng- | u- | Ø | -na |
|---|---|---|---|---|---|
| boy.LM0 | stone.LM0 | A.3- | P.M- | AUX | -IMPRF |

| kwaáhh | bará | qaymoór |
|---|---|---|
| throw.M.PST | in | field.LFR |

'The boy threw the stone into the field.'

    b.    *qaymoór garma a tla/anowi kwaáhh*    [20161004b.2]

| qaymoór | garmá | i- | Ø | -(g)a |
|---|---|---|---|---|
| field.LFR | boy.LMO | MP.S.3- | AUX | -PRF |
| tla/anó | -i | kwaáhh | | |
| stone.LMO | -LAT | throw.M.PST | | |

'The field into which the boy threw the stone.'

In each case, the relativized NP is conspicuously absent from the relative clause, including in any sort of agreement on the selector. It is this 'gapping' phenomenon which allows case recoverability from the relative. Subject agreement (on the verb of the relative clause) indicates gender of the subject.

(2.273)    SUBJECT RELATIVE CLAUSE (B) VERSUS INDEPENDENT CLAUSE (A)

    a.    *garma baahaa ngina taáhh*    [20160921i.1]

| garmá | baahaár | ng- | a- | Ø | -na |
|---|---|---|---|---|---|
| boy.LMO | hyaena.LFR | A.3- | P.F- | AUX | -IMPRF |
| taáhh | | | | | |
| hit.M.PST | | | | | |

'The boy hit the hyaena.'

    b.    *garmá [Ø baahaa nga taahh]*    [20160928c.32]

| garmá | [Ø | baahaár | ng- | a- | Ø | -(g)a |
|---|---|---|---|---|---|---|
| boy.LMO | [boy] | hyaena.LFR | A.3- | P.F- | AUX | -PRF |
| taahh] | | | | | | |
| hit.M.SUBJ | | | | | | |

'The boy who hit the hyaena.'

(2.274)    OBJECT RELATIVE CLAUSE (B) VERSUS INDEPENDENT CLAUSE (A)

    a.    *mwalimu na/i'i ngina kitaabuwi hariís* [20160927l23-29.5]

| mwalimú | na/i'í | ng- | i- | Ø | -na |
|---|---|---|---|---|---|
| teacher.LMO | children.LNØ | A.3- | P.N- | AUX | -IMPRF |
| kitaabú | -i | hariís | | | |
| book.LMO | -LAT | bring.M.PST | | | |

'The teacher brought the children the book.'

    b.    *na/i'í [mwalimu Ø a kitaabuwi hariís] [...]* [20160928c.47]

| na/i'í | [mwalimú | Ø | i- | Ø | -(g)a |
|---|---|---|---|---|---|
| children.LNØ | teacher.LMO | [children] | MP.S3-AUX | | -PRF |
| kitaabú | -i | hariís] | | | |
| book.LMO | -LAT | bring.M.PST | | | |

'The children to whom the teacher brought the book [...]'

## 2.7.2 Coordination

As mentioned above (see §2.4.5), the conjunction *nee* is used solely to coordinate

constituents such noun phrases (2.275) and adjectives (2.276).  For verbal concepts,

a more complex interplay of mood and morphological marking achieves a similar

effect of simultaneity (2.277)  and consecutiveness (2.278).

(2.275)     COORDINATING CONJUNCTION *NEE* COORDINATING TWO NPS
            *[...] **na/a'ín** nee **tiyay'ín***      [20131027_20150725c.31]
            **na/á'**          **-ín**              nee     **tiyáy**          **-'ín**
            **children.LNØ-Poss.3Pl**         and     **wives.LNØ**    **-Poss.3Pl**
            "[...] their children and their wives"

(2.276)     COORDINATING CONJUNCTION *NEE* COORDINATING TWO ADJECTIVES
            *hayoo kin **/awakw** nee **bo/abò/***      [20151021c.443]
            hayoó          t-          ng-      i-       Ø       -n                **/awakw**
            feathers.LNØ  MP-     A.3-    P.N-    AUX    -EXPECT          **white.N.Pl**
            nee     **~Red~**          **bò/**
            and     **~ATTEN~**       **black.N.Pl.Emph**
            "the feathers will be white and *blackish*"

(2.277)     BACKGROUND ASPECT SUFFIX *-WA* MARKS SIMULTANEITY
            */aatsoo **kwa** hhe'eés pernat kuna diíf*      [20150726d.13]
            /aatsoór       t-          ng-      a-       Ø       **-wa**   hhe'eés
            game.LFR       MP-     A.3-    P.F-    AUX    **-BACK**  finish.PST
            pernató        t-          ng-      u-       Ø       -na     diíf
            penalty.LMO    MP-     A.3-    P.M-   AUX    -IMPRF  hit.PST
            "When the game was over, the penalties were taken."

(2.278)     CONSECUTIVE ASPECT SUFFIX *-RE* MARKS CONSECUTIVENESS
            *[...] yiikwa ka húw dó' Dodoód, koqá' Dodó sleerós ngire húw*
                                                        [20151202e.161-163]
            yiikwá         t-          ng-      a-       Ø       húw        dó'
            cow.LNØ        MP-     A.3-    P.F-    AUX    bring.PST house.LMO
            Dodoód         koqá'                Dodó           sleér          -ós
            Dodoód.LMO     PRODEM3.M        Dodoód.LMO cow.LFR        -Poss.3SG
            ng-      a-       Ø       **-re**            húw
            A.3-    P.F-    AUX    **-CONSEC**        bring.M.PST
            "[...] a cow was brought to Dodoód, and that person (i.e. that
rainmaker), Dodoód brought him the cow."

# 3. The theoretical framework

## 3.1 Introduction

Following the sketch grammar presented in the previous chapter (which was necessarily both brief and general) the rest of this work will provide more detailed description and analysis of the Gorwaa noun.  This chapter is primarily concerned with furnishing a basic description of the theoretical framework employed for analysis: Distributed Morphology (Halle & Marantz 1993, 1994). This will provide a basis for further elaboration and modification in the coming chapters.

Because Distributed Morphology (hereafter DM) is largely predicated on some model of syntax, the next section (3.2) of this chapter introduces Minimalist Syntax as the chosen model of syntax for this work.  Section 3.3 provides a sample derivation of a basic English phrase using the Minimalist model.  Having established a model of syntax, section 3.4 introduces DM proper.  The section 3.5 summarizes and concludes.

## 3.2 A model of syntax

Distributed morphology is 'distributed' because there exists no single repository for words, their meanings, and their pronunciations in the grammar.  Rather, these functions are spread (distributed) throughout different parts of the grammar.  It is the syntax, broadly construed, which ties these different parts together, allowing abstract bundles of structural primitives to receive both

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pronunciation and meaning. Because of the central role the syntax plays in this system, it is here where our introduction to DM will begin.

There exist a great range of frameworks available to linguists wishing to both represent syntactic structure, as well as conduct syntactic analysis, many of which have produced interesting and useful insight on empirical data. The framework chosen in this work is Minimalism. This is, to some degree, a choice of convenience: it is the framework with which the author is most familiar. More pertinently, it is largely within this tradition of Generative Phrase Structure Grammars (e.g. Chomsky 1995) that DM was conceived. As such, Minimalism and DM are largely compatible.

What follows is based heavily on Merchant (2014) and Adger (2002). The reader is referred to these two works if further detail is required.

To begin, a grammar is made up of two sets: a set of lexical elements, and a set of operations.

(3.1)    THE GRAMMAR

| Lexical Elements $\begin{cases} \text{Charles} \\ \text{young} \\ \text{finch} \\ \text{examine} \\ \text{Galapagos} \\ \text{write} \\ T_{\text{PRESENT}} \\ \dots \end{cases}$ | Operations $\begin{cases} \text{Merge} \\ \text{Adjoin} \\ \text{Agree} \\ \text{Move} \end{cases}$ |
| --- | --- |

Each of these sets will be further examined in the subsections below.

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## 3.2.1   The lexical elements

All utterances are derived from a numeration, which itself is a set of lexical

elements drawn from the grammar's larger set of lexical elements, and (possibly)

a set of phrase markers, themselves the result of separate derivations[1].

(3.2)    INITIAL NUMERATION FOR: *Charles examines finches on the Galapagos*

| Lexical Elements $\begin{cases} \text{examine} \\ \text{T}_{\textbf{PRESENT}} \\ \text{Charles} \\ \text{v}_{\text{TRANS}} \\ \text{finches} \end{cases}$ | Phrase Markers {PP [on the Galapagos] |
|---|---|

All lexical elements (and most phrase markers) are composed of features.  These

features are of three broad types: categorical (cat) features, which determine the

lexical category and the inherent semantic features of a given lexical item;

inflectional features (infl), which are sensitive to the syntax and determine the

particular shape a word has; and selectional (sel) features, which dictate the

further lexical elements with which the lexical element must occur to result in a

grammatical (convergent) structure.

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[1] Note that it is not necessary that the PP [on the Galapagos] already be derived at this
stage.  In fact, it is likely that all the forms would first exist in the set of lexical elements
at the very beginning of the derivation.  The PP is represented here as previously
derived simply in order to exemplify what may constitute a phrase marker.

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(3.3)  FEATURE STRUCTURES FOR THE LEXICAL ELEMENTS IN (3.2)

$$\text{examine} \begin{cases} \text{cat } [V, -\text{aux}] \\ \quad \text{infl } [\ ] \\ \quad \text{sel } [N] \end{cases}$$

$$\text{T}_{\text{PRESENT}} \begin{cases} \text{cat } [T, +fin, \text{Tns: } pres] \\ \quad \text{infl } \begin{bmatrix} \phi: [\ ] \\ N^* \\ \text{Case: NOM} \end{bmatrix} \\ \quad \text{sel } [v] \end{cases}$$

$$\text{Charles} \begin{cases} \text{cat}[N, \phi: \text{3SgM}] \\ \text{infl } [\text{Case: } [\ ]] \\ \quad \text{sel } [\ ] \end{cases}$$

$$v_{\text{TRANS}} \begin{cases} \text{cat } [v, -\text{aux}] \\ \text{infl } \begin{bmatrix} \phi: [\ ] \\ V^* \\ \text{Infl: } [\ ] \\ \text{Case: ACC} \end{bmatrix} \\ \quad \text{sel } [N, V] \end{cases}$$

$$\text{finches} \begin{cases} \text{cat } [N, \phi: \text{3PlM}] \\ \text{infl } [\text{Case: } [\ ]] \\ \quad \text{sel } [\ ] \end{cases}$$

Features are of two types: interpretable, and uninterpretable. Interpretable features have an effect on the semantic interpretation of the lexical item. For example, person/number/gender features (abbreviated $\phi$) are essential to the interpretation of nouns[2], the Pl. $\phi$-feature on *finches*, ensures that it will be interpreted as more than one finch. Uninterpretable features do not have an effect on semantic interpretation of the lexical item. Accusative case on the transitive light verb $v_{\text{TRANS}}$ is an example of an uninterpretable feature. In addition to this, features may enter the numeration as valued, or as unvalued. *Charles* is valued for category (i.e. it is N), but unvalued for Case, for example. Features play an integral role in agreement operations, to be examined below.

---

[2] But see §7.4.2 and §7.5.1 below for more on gender and interpretability.

With the numeration having been established as two unordered sets -- one set of lexical elements and one set of phrase markers -- where lexical items are essentially bundles of features, the derivation (i.e. the formation of the utterance) may now proceed.  This is accomplished via the application of a set of operations (displayed in  (3.1) as the second set of the grammar).

### 3.2.2   The operations

Minimalism employs four syntactic operations, each of which will be briefly described and exemplified below.  Note that the operations given below do not necessarily occur in this order, nor do the examples (3.4)-(3.8) represent sequential stages in the derivation of the clause *Charles examines finches on the Galapagos*.  For the full derivation, see subsection 3.3.

#### 3.2.2.1 Merge

Merge joins two syntactic objects together.  Merge begins with a syntactic object $\alpha$ which bears an unchecked selectional feature F, and joins $\alpha$ with a syntactic object $\beta$ bearing a matching categorical feature F'.  F is checked (checked features will be written as <F>), and the two syntactic objects fall under the new label $\gamma$, of which $\alpha$ is the head.  All category features and unchecked selectional features of the head project, or, in other words, are inherited as features of the new label $\gamma$.  The operation is demonstrated in (3.4).

## 3. The theoretical framework

(3.4)    MERGE OF *EXAMINE* AND *FINCHES*

a.    Step 1: *examine* (syntactic object α) bears an unchecked selectional feature N, and *finches* (syntactic object β) bears a matching categorial feature N

$$
\begin{array}{cc}
\text{examine} & \text{finches} \\
\begin{bmatrix} \text{cat } [\text{V}, -\text{aux}] \\ \text{infl } [\quad] \\ \text{sel } [\textbf{N}] \end{bmatrix} &
\begin{bmatrix} \text{cat } [\textbf{N}, \phi: 3\text{PlM}] \\ \text{infl } [\text{Case: } [\quad]] \\ \text{sel } [\quad] \end{bmatrix}
\end{array}
$$

b.    Step 2: Merge joins the two syntactic objects together, and the unchecked selectional feature of *examine* is checked

$$
\begin{array}{cc}
\text{examine} & \text{finches} \\
\begin{bmatrix} \text{cat } [\text{V}, -\text{aux}] \\ \text{infl } [\quad] \\ \text{sel } < [\textbf{N}] > \end{bmatrix} &
\begin{bmatrix} \text{cat } [\textbf{N}, \phi: 3\text{PlM}] \\ \text{infl } [\text{Case: } [\quad]] \\ \text{sel } [\quad] \end{bmatrix}
\end{array}
$$

c.    Step 3: The two syntactic objects *examine* and *finches* fall under a new label (label γ)  of which *examine* (by virtue of it being syntactic object α) is head, hence its label VP.  VP inherits all categorial and unchecked selectional features of the head, *examine*.

$$
\begin{array}{c}
\textbf{VP} \\
\textbf{examine finches} \\
\begin{bmatrix} \textbf{cat } [\textbf{V}, \textbf{-aux}] \\ \textbf{infl } [\quad] \end{bmatrix} \\
\end{array}
$$

$$
\begin{array}{cc}
\text{examine} & \text{finches} \\
\begin{bmatrix} \text{cat } [\text{V}, -\text{aux}] \\ \text{infl } [\quad] \\ \text{sel } < [\text{N}] > \end{bmatrix} &
\begin{bmatrix} \text{cat } [\text{N}, \phi: 3\text{PlM}] \\ \text{infl } [\text{Case: } [\quad]] \\ \text{sel } [\quad] \end{bmatrix}
\end{array}
$$
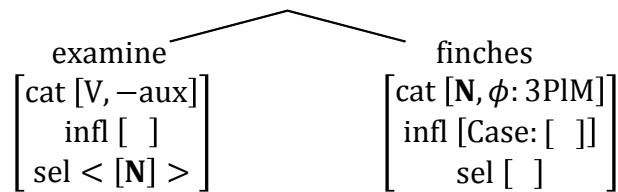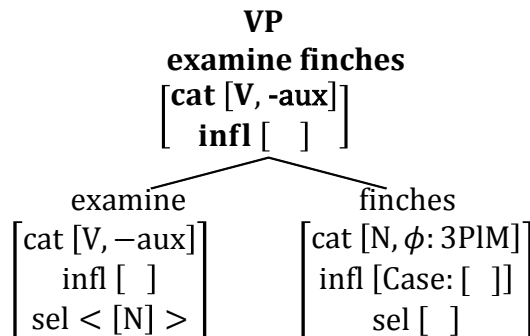
### 3.2.2.2 Agree

Agree values unvalued inflectional features.  In order for agree to apply, both syntactic objects must be in a relationship of c-command.  Using (3.5) as an example, because $v_{TRANS}$ and VP *examine finches* are siblings, and both *examine* and *finches* are descendants of VP *examine finches*, a relationship called c-command exists between the $v_{TRANS}$ and *finches*: $v_{TRANS}$ c-commands *finches*, and *finches* is c-commanded by $v_{TRANS}$.

*3. The theoretical framework*

(3.5)   AGREE BETWEEN *v_TRANS* AND *FINCHES*
         a.   Step 1: *v_TRANS* c-commands *finches*

$$
\begin{array}{c}
\text{vP}\\
\text{v}_{\text{TRANS}}\ \text{examine finches}\\
\begin{bmatrix} \text{cat } [\text{v}, -\text{aux}] \\ \text{sel } [\text{N}] \end{bmatrix}
\end{array}
$$

$$
\underset{
\begin{bmatrix}
\textbf{cat } [\textbf{v}, -\textbf{aux}] \\[2pt]
\textbf{infl}
\begin{bmatrix}
\boldsymbol{\phi}: [\ \ ] \\
\textbf{V}^{*} \\
\textbf{Infl}: [\ \ ] \\
\textbf{Case}: \textbf{ACC}
\end{bmatrix} \\[2pt]
\textbf{sel } [\textbf{N}, <\textbf{V}>]
\end{bmatrix}
}{\textbf{v}_{\textbf{TRANS}}}
\qquad
\underset{
\begin{bmatrix}
\text{cat}[\text{V}, -\text{aux}] \\
\text{infl } [\ \ ]
\end{bmatrix}
}{\text{VP examine finches}}
$$

$$
\underset{
\begin{bmatrix}
\text{cat } [\text{V}, -\text{aux}] \\
\text{infl } [\ \ ] \\
\text{sel } [<\text{N}>]
\end{bmatrix}
}{\text{examine}}
\qquad
\underset{
\begin{bmatrix}
\textbf{cat } [\textbf{N}, \boldsymbol{\phi}: \textbf{3PlM}] \\
\textbf{infl } [\textbf{Case}: [\ \ ]] \\
\textbf{sel } [\ \ ]
\end{bmatrix}
}{\textbf{finches}}
$$

         b.   Step 2: *v_TRANS* has a valued case feature, and *finches* has an
unvalued case feature
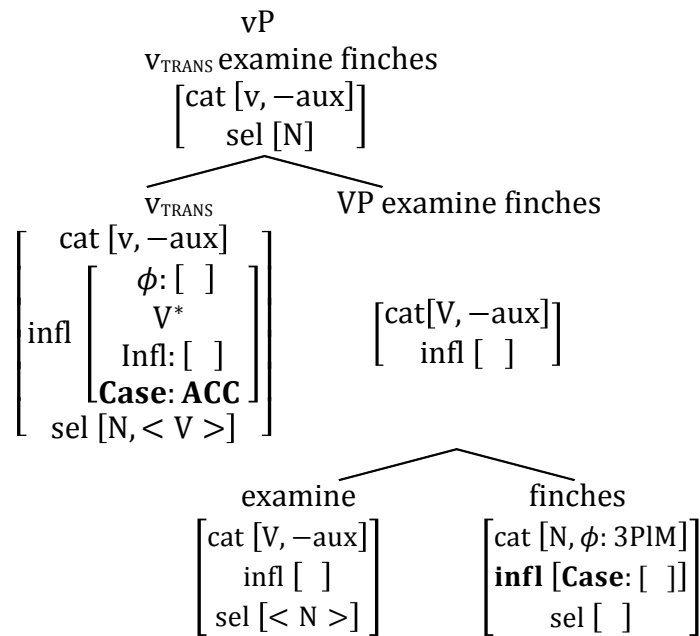
$$
\begin{array}{c}
\text{vP}\\
\text{v}_{\text{TRANS}}\ \text{examine finches}\\
\begin{bmatrix} \text{cat } [\text{v}, -\text{aux}] \\ \text{sel } [\text{N}] \end{bmatrix}
\end{array}
$$

$$
\underset{
\begin{bmatrix}
\text{cat } [\text{v}, -\text{aux}] \\[2pt]
\text{infl}
\begin{bmatrix}
\boldsymbol{\phi}: [\ \ ] \\
\text{V}^{*} \\
\text{Infl}: [\ \ ] \\
\textbf{Case}: \textbf{ACC}
\end{bmatrix} \\[2pt]
\text{sel } [\text{N}, <\text{V}>]
\end{bmatrix}
}{\text{v}_{\text{TRANS}}}
\qquad
\underset{
\begin{bmatrix}
\text{cat}[\text{V}, -\text{aux}] \\
\text{infl } [\ \ ]
\end{bmatrix}
}{\text{VP examine finches}}
$$

$$
\underset{
\begin{bmatrix}
\text{cat } [\text{V}, -\text{aux}] \\
\text{infl } [\ \ ] \\
\text{sel } [<\text{N}>]
\end{bmatrix}
}{\text{examine}}
\qquad
\underset{
\begin{bmatrix}
\text{cat } [\text{N}, \boldsymbol{\phi}: \text{3PlM}] \\
\textbf{infl } [\textbf{Case}: [\ \ ]] \\
\text{sel } [\ \ ]
\end{bmatrix}
}{\text{finches}}
$$

c.     Step 3: $v_{TRANS}$, which c-commands *finches*, agrees in case with *finches*, valuing the unvalued case feature on *finches* as ACC.

$$
\begin{array}{c}
\text{vP} \\
v_{TRANS} \text{ examine finches} \\
\begin{bmatrix} \text{cat } [v, -aux] \\ \text{sel } [N] \end{bmatrix}
\end{array}
$$

$$
v_{TRANS} \qquad \text{VP examine finches}
$$

$$
\begin{bmatrix}
\text{cat } [v, -aux] \\
\text{infl} \begin{bmatrix} \phi: [\ ] \\ V^* \\ \text{Infl: } [\ ] \\ \textbf{Case}: \textbf{ACC} \end{bmatrix} \\
\text{sel } [N, < V >]
\end{bmatrix}
\qquad
\begin{bmatrix} \text{cat}[V, -aux] \\ \text{infl } [\ ] \end{bmatrix}
$$

$$
\text{examine} \qquad\qquad \text{finches}
$$

$$
\begin{bmatrix} \text{cat } [V, -aux] \\ \text{infl } [\ ] \\ \text{sel } [< N >] \end{bmatrix}
\qquad
\begin{bmatrix} \text{cat } [N, \phi: 3\text{PlM}] \\ \textbf{infl } [\textbf{Case}: [\ \textbf{ACC} \ ]] \\ \text{sel } [\ ] \end{bmatrix}
$$
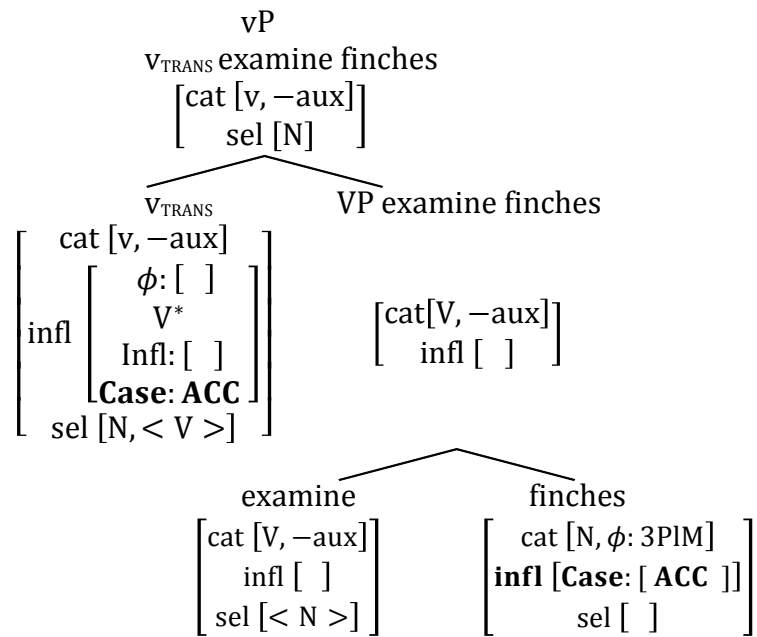
## 3.2.2.3 Move

Move moves a syntactic object to a higher projection.  This is exemplified in (3.6).

## 3. The theoretical framework

(3.6)  MOVE TO SATISFY THE FEATURE V* ON $v_{TRANS}$

     a.    Step 1: $v_{TRANS}$ is a head with a strong inflectional feature V* (where * indicates a feature is strong).  *examine* is a head with a matching categorial feature V.

$$
\begin{array}{c}
\text{vP} \\
v_{TRANS} \text{ examine finches} \\
\left[\begin{array}{c} \text{cat } [v, -\text{aux}] \\ \text{sel } [N] \end{array}\right]
\end{array}
$$

$$
\begin{array}{cc}
v_{TRANS} & \text{VP examine finches} \\[2pt]
\left[\begin{array}{l}
\text{cat } [v, -\text{aux}] \\
\text{infl}\left[\begin{array}{l} \phi: [\ ] \\ \mathbf{V}^* \\ \text{Infl: } [\ ] \\ \text{Case: ACC} \end{array}\right] \\
\text{sel } [N, <V>]
\end{array}\right]
&
\left[\begin{array}{c} \text{cat}[V, -\text{aux}] \\ \text{infl } [\ ] \end{array}\right]
\end{array}
$$

$$
\begin{array}{cc}
\text{examine} & \text{finches} \\[2pt]
\left[\begin{array}{l}
\text{cat } [\mathbf{V}, -\text{aux}] \\
\text{infl } [\ ] \\
\text{sel } [<N>]
\end{array}\right]
&
\left[\begin{array}{l}
\text{cat } [N, \phi: 3\text{PlM}] \\
\text{infl } [\text{Case: } [\text{ACC}]] \\
\text{sel } [\ ]
\end{array}\right]
\end{array}
$$

     b.    Step 2: $v_{TRANS}$ c-commands *examine*

$$
\begin{array}{c}
\text{vP} \\
v_{TRANS} \text{ examine finches} \\
\left[\begin{array}{c} \text{cat } [v, -\text{aux}] \\ \text{sel } [N] \end{array}\right]
\end{array}
$$

$$
\begin{array}{cc}
\mathbf{v_{TRANS}} & \text{VP examine finches} \\[2pt]
\left[\begin{array}{l}
\mathbf{cat}\ [\mathbf{v}, -\mathbf{aux}] \\
\mathbf{infl}\left[\begin{array}{l} \boldsymbol{\phi}: [\ ] \\ \mathbf{V}^* \\ \mathbf{Infl}: [\ ] \\ \mathbf{Case}: \mathbf{ACC} \end{array}\right] \\
\mathbf{sel}\ [\mathbf{N}, <\mathbf{V}>]
\end{array}\right]
&
\left[\begin{array}{c} \text{cat}[V, -\text{aux}] \\ \text{infl } [\ ] \end{array}\right]
\end{array}
$$

$$
\begin{array}{cc}
\mathbf{examine} & \text{finches} \\[2pt]
\left[\begin{array}{l}
\mathbf{cat}\ [\mathbf{V}, -\mathbf{aux}] \\
\mathbf{infl}\ [\ ] \\
\mathbf{sel}\ [<\mathbf{N}>]
\end{array}\right]
&
\left[\begin{array}{l}
\text{cat } [N, \phi: 3\text{PlM}] \\
\text{infl } [\text{Case: } [\text{ACC}]] \\
\text{sel } [\ ]
\end{array}\right]
\end{array}
$$

c.　　　Step 3: *examine* moves to a higher projection, checking the strong feature of V. *examine* leaves behind a trace, written <examine> which goes unpronounced. The new syntactic object is still headed by $v_{TRANS}$, and is therefore still labeled vP.

vP
examine $v_{TRANS}$ finches

$$\begin{bmatrix} \text{cat } [v, -\text{aux}] \\ \text{sel } [N] \end{bmatrix}$$

**examine**
$v_{TRANS}$ examine finches

$$\begin{bmatrix} \text{cat } [v, -\text{aux}] \\ \text{sel } [N] \end{bmatrix}$$

vP

$$\begin{bmatrix} \textbf{cat } [\textbf{V}, -\textbf{aux}] \\ \textbf{infl } [\;\;] \\ \textbf{sel } [< \textbf{N} >] \end{bmatrix}$$

$v_{TRANS}$　　　VP examine

finches

$$\begin{bmatrix} \text{cat } [v, -\text{aux}] \\ \text{infl} \begin{bmatrix} \phi : [\;\;] \\ V^* \\ \text{Infl: } [\;\;] \\ \text{Case: ACC} \end{bmatrix} \\ \text{sel } [N, < V >] \end{bmatrix}$$

$$\begin{bmatrix} \text{cat}[V, -\text{aux}] \\ \text{infl } [\;\;] \end{bmatrix}$$

**<examine>**
finches

$$\begin{bmatrix} \text{cat } [N, \phi : 3\text{PlM}] \\ \text{infl } [\text{Case: } [\text{ ACC }]] \\ \text{sel } [\;\;] \end{bmatrix}$$

**3.2.2.4 Adjoin**

Adjoin attaches two syntactic objects, where neither has any unchecked

selectional features remaining. This final operation is demonstrated in (3.7).

*3. The theoretical framework*

(3.7)  ADJOIN IN *CHARLES EXAMINES FINCHES ON THE GALAPAGOS*
　　　a.　　Step 1: The TP *Charles T$_{PRESENT}$ examine v$_{TRANS}$ -s finches* (syntactic object α) bears no unchecked selectional features, and the PP *on the Galapagos* (syntactic object β) also bears no unchecked selectional features.

```
        TP                                    PP
    Charles   T'                          on    the Galapagos
         T_PRESENT    vP
              <Charles>   v'
                   examine   v
                        v_TRANS   VP
                        -s
                            <examine>  finches
```

　　　b.　　Step 2: Adjoin joins the two syntactic objects together, with the TP as the host.

```
                TP
           T'          PP
       Charles  T'    on    the Galapagos
            T_PRESENT   vP
                 <Charles>   v'
                      examine   v
                           v_TRANS   VP
                           -s
                               <examine>  finches
```
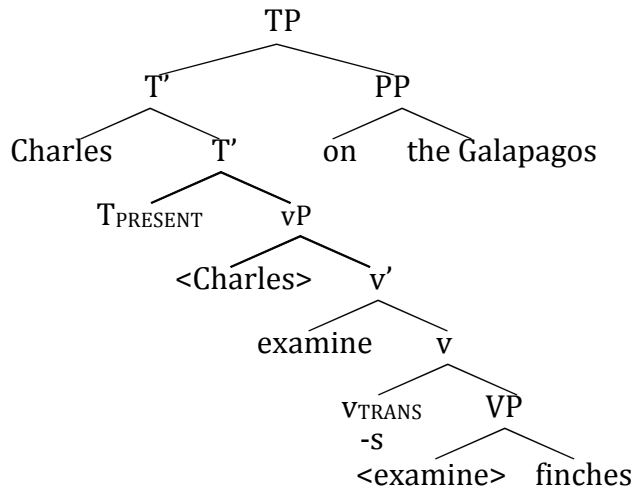
c.    Step 3: The two syntactic objects TP *Charles T$_{PRESENT}$ examine v$_{TRANS}$ -s finches* and PP *on the Galapagos* fall under a new label (label $\gamma$) of which TP *Charles T$_{PRESENT}$ examine v$_{TRANS}$ -s finches* (by virtue of it being host) is head, hence its label TP. VP inherits all categorial and unchecked selectional features of the clausal head, *Charles T$_{PRESENT}$ examine v$_{TRANS}$ -s finches*.

TP
Charles T$_{PRESENT}$ examine v$_{TRANS}$ -s finches on the Galapagos
$\{cat[T, +fin, Tns: pres$

```
                        T'              PP
                 Charles     T'      on    the Galapagos
                        T_PRESENT   vP
                              <Charles>     v'
                                    examine     v
                                         v_TRANS     VP
                                         -s
                                            <examine>   finches
```
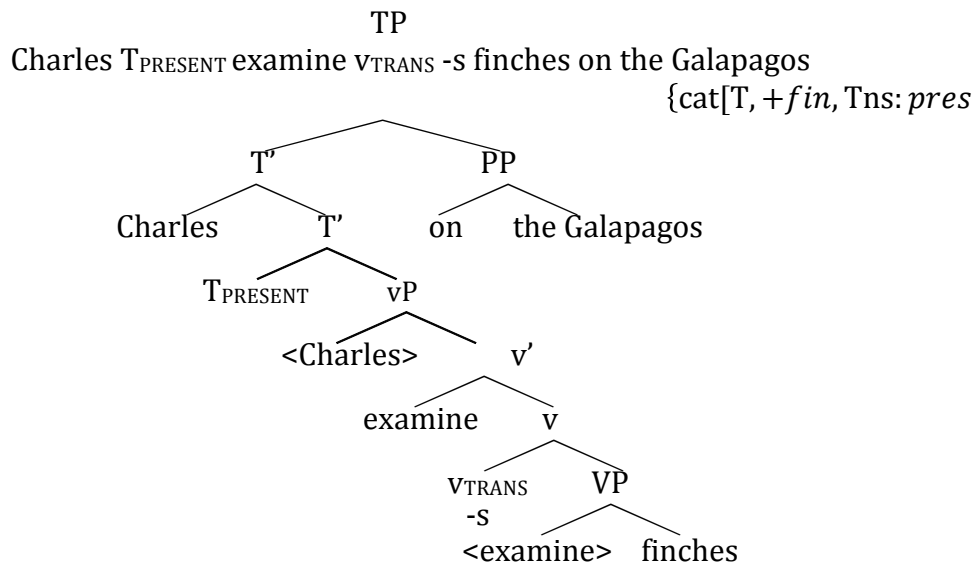
## 3.3    Sample derivation of an English clause

The following provides a description of the full derivation for the clause *Charles examines finches on the Galapagos*.

The numeration for this clause contains the lexical elements *examine*, *T$_{PRESENT}$*, *Charles, v$_{TRANS}$*, and *finches*, and the phrase markers *on the Galapagos*. This numeration is shown in (3.2) above. All lexical elements exist as bundles of specific features. Feature bundles for each lexical element in the numeration are shown in (3.3) above.

The first operation to apply is Merge of *examine* and *finches*. Step 1: *examine* (syntactic object α) bears an unchecked selectional feature N, and *finches* (syntactic object β) bears a matching categorial feature N. Step 2: Merge joins

the two syntactic objects together, and the unchecked selectional feature of

*examine* is checked.  Step 3: The two syntactic objects *examine* and *finches* fall

under a new label (label $\gamma$) of which *examine* (by virtue of it being syntactic

object $\alpha$) is head, hence its label VP.  VP *examine finches* inherits all categorial

and unchecked selectional features of the head, *examine*.  This operation is

illustrated in (3.4) above.


The second operation to apply is Merge of $v_{TRANS}$ and VP *examine finches*.  Step 1:

$v_{TRANS}$, a transitive light verb (syntactic object $\alpha$) bears an unchecked selectional

feature V, and *examine finches* (syntactic object $\beta$) bears a matching categorial

feature V.  Step 2: Merge joins the two syntactic objects together, and the

unchecked selectional feature of $v_{TRANS}$ is checked.  Step 3: The two syntactic

objects $v_{TRANS}$ and *examine finches* fall under a new label (label $\gamma$)  of which $v_{TRANS}$

(by virtue of it being syntactic object $\alpha$) is head, hence its label vP.  vP inherits all

categorical and unchecked selectional features of the head, $v_{TRANS}$.

The third operation to apply is Agree between $v_{TRANS}$ and *finches*.  Step 1: $v_{TRANS}$ c-

commands *finches*.  Step 2: $v_{TRANS}$ has a valued case feature, and *finches* has an

unvalued case feature.  Step 3: $v_{TRANS}$, which c-commands *finches*, agrees in case

with *finches*, valuing the unvalued case feature on *finches* as ACC.  This operation

is illustrated in (3.5) above.


The fourth operation to apply is Move of *examine* to satisfy a strong feature V\* on

$v_{TRANS}$.  Step 1: $v_{TRANS}$ is a head with a strong inflectional feature V\*.  *examine* is a

head with a matching categorial feature V.  Step 2: $v_{TRANS}$ c-commands *examine*.

Step 3: *examine* moves to a higher projection, checking the strong feature of V.

*examine* leaves behind a trace, written <examine> which goes unpronounced. The new syntactic object is still headed by $v_{TRANS}$, and is therefore still labeled vP. This operation is illustrated in (3.6) above.

The fifth operation to apply is Merge of vP *examine $v_{TRANS}$ finches* and *Charles*. Step 1: vP *examine $v_{TRANS}$ finches* (syntactic object α) bears an unchecked selectional feature N, and *Charles* (syntactic object β) bears a matching categorial feature N. Step 2: Merge joins the two syntactic objects together, and the unchecked selectional feature of vP $v_{TRANS}$ *examine finches* is checked. Step 3: The two syntactic objects *Charles* and vP $v_{TRANS}$ *examine finches* fall under a new label (label γ) of which vP *examine $v_{TRANS}$ finches* (by virtue of it being syntactic object α) is head, hence its label vP. VP inherits all categorial and unchecked selectional features of the head, vP *examine $v_{TRANS}$ finches*.

The sixth operation to apply is Agree between *Charles* and *examine*. Step 1: *Charles* c-commands $v_{TRANS}$. Step 2: *Charles* has valued $\phi$-features, and $v_{TRANS}$ has a unvalued $\phi$-features. Step 3: *Charles*, which c-commands $v_{TRANS}$, agrees *in $\phi$-features* with $v_{TRANS}$, valuing the unvalued case feature on $v_{TRANS}$ as 3SgM. Since $\phi$-features are interpretable on $v_{TRANS}$, this will be instantiated as the morpheme *-s*.

The seventh operation to apply is Merge of $T_{PRESENT}$ and vP *Charles $v_{TRANS}$ examines finches*. Step 1: $T_{PRESENT}$ (syntactic object α) bears an unchecked selectional feature v, and vP *Charles $v_{TRANS}$ examines finches* (syntactic object β) bears a matching categorial feature v. Step 2: Merge joins the two syntactic

objects together, and the unchecked selectional feature of $T_{PRESENT}$ is checked.

Step 3: The two syntactic objects $T_{PRESENT}$ and *Charles $v_{TRANS}$ examines finches* fall under a new label (label $\gamma$) of which $T_{PRESENT}$ (by virtue of it being syntactic object α) is head, hence its label TP.  TP inherits all categorial and unchecked selectional features of the head, $T_{PRESENT}$.

The eighth operation to apply is Agree between $T_{PRESENT}$ and *Charles*.  Step 1: $T_{PRESENT}$ c-commands *Charles*.  Step 2: $T_{PRESENT}$ has a valued Case feature, and *Charles* has an unvalued Case feature.  Step 3: $T_{PRESENT}$, which c-commands *Charles*, agrees in Case with *Charles*, valuing the unvalued case feature on *Charles* as NOM.

The ninth operation to apply is Agree between $T_{PRESENT}$ and $v_{TRANS}$.  Step 1: $T_{PRESENT}$ c-commands $v_{TRANS}$.  Step 2: $T_{PRESENT}$ has a Tns: *pres* categorial feature, and $v_{TRANS}$ has an unvalued inflection feature.  Step 3: $T_{PRESENT}$, which c-commands $v_{TRANS}$ agrees in Case with $v_{TRANS}$, valuing the unvalued inflection feature on $v_{TRANS}$ as *pres*.

The tenth operation to apply is Move of *Charles* to satisfy a strong N* feature on $T_{PRESENT}$.  Step 1: $T_{PRESENT}$ is a head with a strong inflectional feature N* (where * indicates a feature is strong).  *Charles* is a head with a matching categorial feature N.  Step 2: $T_{PRESENT}$ c-commands *Charles*.  Step 3: *Charles* moves to a higher projection, checking the strong feature of N.  *Charles* leaves behind a trace, written <Charles> which goes unpronounced.  The new syntactic object is still headed by $T_{PRESENT}$ and is therefore still labeled TP.

*3. The theoretical framework*

The eleventh operation to apply is Agree between *Charles* and $T_{PRESENT}$. Step 1: *Charles* c-commands $T_{PRESENT}$. Step 2: *Charles* has valued $\phi$-features, and $T_{PRESENT}$ has unvalued $\phi$-features. Step 3: *Charles*, which c-commands $T_{PRESENT}$, agrees in $\phi$-features with $T_{PRESENT}$ valuing the unvalued $\phi$-features on $T_{PRESENT}$ as 3SgM. The twelfth operation to apply is Adjoin of the TP *Charles $T_{PRESENT}$ examine $v_{TRANS}$-s finches* and the PP *on the Galapagos*. Step 1: The TP *Charles $T_{PRESENT}$ examine $v_{TRANS}$-s finches* (syntactic object α) bears no unchecked selectional features, and the PP *on the Galapagos* (syntactic object β) also bears no unchecked selectional features. Step 2: Adjoin joins the two syntactic objects together, with the TP as the host. Step 3: The two syntactic objects TP *Charles $T_{PRESENT}$ examine $v_{TRANS}$-s finches* and PP *on the Galapagos* fall under a new label (label $\gamma$) of which TP *Charles $T_{PRESENT}$ examine $v_{TRANS}$-s finches* (by virtue of it being host) is head, hence its label TP. VP inherits all categorial and unchecked selectional features of the head, *Charles $T_{PRESENT}$ examine $v_{TRANS}$-s finches*. This operation is illustrated in (3.7) above.

**3.4 Distributed Morphology**

In the preceding two subsections, the syntax was introduced as the mechanism which gives lexical elements structure. As such, from an inchoate numeration such as (3.2) emerges a structured clause *Charles examines finches on the Galapagos*. Our topic, of course, is the noun. What has been represented in the examples thus far as a single lexical element, nouns are, in fact, considerably more complex than this. Consider the noun *finches*: what was above represented as a single lexical element may easily be subdivided into at least two identifiable elements: *finch*, and the pluralizing element -*s*. Furthermore, such sub-word

elements exhibit restrictions on ordering: *\*es-finch* is as meaningless a

correspondent to *finch-es* as *\*examines finches Charles on the Galapagos* is to

*Charles examines finches on the Galapagos*.  It is at this point that appeal will be

made to Distributed Morphology.

Based on observations such as *finch, finch-es, \*es-finch*, and numerous others, DM

(Halle & Marantz 1993, 1994) views the process of building phrases from words,

and building words from morphemes as the same.  That is, as the words in

sections 3.2 and 3.3 above were formulated as feature bundles and manipulated

in the syntax by operations, so too are the individual morphemes.  As such,

*finches* may be reanalyzed as follows[3]:

(3.8)  INITIAL NUMERATION FOR: *finches*

| | |
|---|---|
| Lexical Elements $\begin{cases} \text{-s} \\ \text{finch} \end{cases}$ | |

(3.9)  FEATURE STRUCTURES FOR THE LEXICAL ELEMENTS IN (3.8)

$$\text{-s} \begin{cases} \text{cat } [F, \phi: Pl] \\ \quad \text{infl } [\ \ ] \\ \quad \ \text{sel } [N] \end{cases}$$

$$\text{finch} \begin{cases} \text{cat} \quad \begin{bmatrix} N \\ \phi \begin{bmatrix} 3 \\ M \end{bmatrix} \end{bmatrix} \\ \text{infl } [\text{Case } [\ \ ]] \\ \quad \text{sel } [\ \ ] \end{cases}$$

Derivation of *finches* would proceed thus.[4]

---

[3] Note that the category of the lexical element *-s* is simply labeled F (for 'functional').
This is an indication that the identity of this element is unknown, and not of central
importance to the current explanation.

[4] Note that, for this derivation, the morpheme *-s* (syntactic object α) has merged as the
rightmost element, and the morpheme *finch* (syntactic object β) has merged as the

*3. The theoretical framework*

(3.10) FINCHES UNDER DISTRIBUTED MORPHOLOGY
       a.      Operation 1: Merge of *-s* (syntactic object α) and N *finch* (syntactic object β).

$$
\begin{array}{c}
\text{FP} \\
\text{finch -s} \\
[\text{cat } [\text{F}, \phi\text{: Pl}]]
\end{array}
$$

$$
\begin{array}{cc}
\text{finch} & \text{-s} \\
\begin{bmatrix} \text{cat} & \begin{bmatrix} \text{N} \\ \phi \begin{bmatrix} 3 \\ \text{M} \end{bmatrix} \end{bmatrix} \\ \text{infl } [\text{Case: } [\ \ ]] \\ \text{sel } [\ ] \end{bmatrix} & \begin{bmatrix} \text{cat } [\text{F}, \phi\text{: Pl}] \\ \text{infl } [\ ] \\ \text{sel } [< \mathbf{N} >] \end{bmatrix}
\end{array}
$$
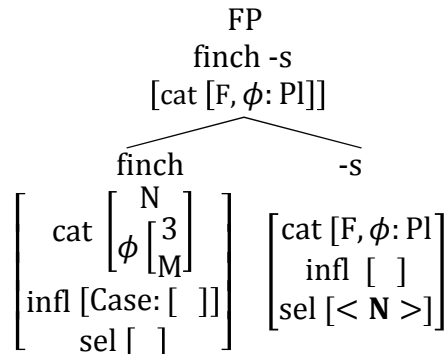
Within the larger architecture, this syntactic derivation represents one step in the larger process. Following derivation, syntactic items are 'spelled-out', and simultaneously transferred to the phonological component, where they receive pronunciation (*List 2*), and to the semantic component, where they receive meaning (*List 3*). Harley's (2014) model, based Halle and Marantz (1993), is a classic representation.

---

leftmost element. This is the first time that such a configuration has been displayed, and is essentially one of convenience, in that merging the elements in this way results in *finch-s*, rather than *-s finch* and, therefore, eliminates the need for a Move operation. Such a decision is not uncontroversial (see esp. Kayne 1994), but is licit under the rules given up to this point (where the structure is sensitive to *hierarchy*, but not *linear order*). This configuration will, in fact, suit the structure of the Gorwaa noun as well, and will be employed throughout.

*3. The theoretical framework*

Figure 3.1: MODEL OF DISTRIBUTED MORPHOLOGY (BASED ON HARLEY (2014: 228)

| Numeration: Subset of *List 1* |
|---|

Syntactic Operations: Merge, Move, Agree, Adjoin

Spell-Out

Morphological Adjustments: Linearization, Fusion, etc.

Vocabulary Insertion from *List 2*

Phonological Component

Semantic Component

Encyclopedic Contribution from *List 3*

*List 1*: Feature bundles
*List 2*: Instructions for pronouncing terminal nodes in context
*List 3*: Instructions for interpreting terminal nodes in context

As exposition progresses, the DM architecture will be modified and further refined. Suffice it to say at this point that, nouns (and other lexical elements) may have a complex structure. Resultantly, their feature structures will be considerably less complete than has been represented in (3.3), and their internal syntactic structures considerably more rich. This will be a central assumption running throughout the rest of the work, visited and re-visited with the DM architecture as a useful framework.

**3.5 Summary**

This chapter has outlined Distributed Morphology as the theoretical framework which will be applied in the coming chapters to analyse the structure of the Gorwaa noun. The basis provided here will be further elaborated and modified as necessary.

*3. The theoretical framework*

Because the DM architecture is built around a phrase structure grammar, section 3.2 provided an introduction to Minimalist syntax, its components and its functions. Section 3.3 provided a stepwise derivation of a simple sentence in the language of examination: English. Section 3.4 introduced DM as an architecture within which i) syntax applies to morphemes n the same way in which it applies to words and ii) pronunciation and meaning are fed by feature bundles (*List 1*) structured and mediated by the syntax.

# 4. Fundamentals: nominal structure and noun stems

## 4.1 Introduction

In Chapter 3, it was identified that English nouns are not unitary lexical

elements, but decomposable into subparts (*finches*, in a rudimentary example,

was recognized as being composed of *finch* and *-s*).  Further, it was established

that the mechanisms which dictate the composition of the word *finches* were the

same as those which dictate the composition of larger units: *finch* and *-s* are

bundles of features which undergo Merge in the syntax to form *finches* – the

same mechanisms to how larger elements form, say, clauses.  This chapter

examines these claims at a greater level of detail, applying them to the Gorwaa

noun.

§4.2 establishes the precise object of study -- the Gorwaa noun -- and establishes

its major subparts.  §4.3 makes some comment on the noun's wordhood criteria.

§4.4 provides an analysis for the stem (STM).  §4.5 provides a summary.

## 4.2 Nominal structure

In the sketch grammar presented in Chapter 2, nouns were identified as those

forms highlighted in ((4.1))[1].

(4.1)   a.   ***garma*** *ina /akuút*          [20160921i.23]
             **garmá**i-      ∅      -na    /akuút
             **boy**   S.3-   Aux   -Imprf jump.M.Pst
             "The boy jumped."

        b.   ***slee*** *aga gaás*          [20161102b.51]
             **sleér** ∅-      a-      ∅      -(g)a   gaás
             **cow**   A.P-   P.F-   Aux    -Prf    kill.1Sg.Pst
             "I killed the cow."

---

[1] The unbolded forms in ((4.1)c) *xaa'í* and *sla/aa* are also nouns.

c.      *xaa'í sla/aa a **daawaa***          [20131108b_20150725j.7]
      xaa'í    sla/aatá      i-      Ø      -(g)a **daawaa**
      trees   forest            S.3-    Aux    -Prf  **medicine**
      "The trees of the forest are medicine."

Up to this point, the Gorwaa nouns have been presented as unitary lexical

elements, evident in the way in which the nominal gloss appears in a one-to-one

relationship with the form identified.  In fact, nouns are formed of at least three

identifiable subparts: the stem (STM), the suffix (SFX), and the linker (L).  The

nouns above may therefore be reanalyzed as follows:

(4.2)   a.      *garma*
       garm-  -a          -ó
       STM-    -SFX     -L
             boy
       'a boy'

b.      *slee*
       sl-      -ee        -r~´~
       STM-    -SFX     -L
             cow
       'a cow'

c.      *daawaa*
       daaw-  -aa        -r~´~
       STM-    -SFX     -L
            medicine
       'medicine'

The decompositions made here may not be immediately intuitive, and will be

motivated below.  In the meantime, it is important to state that I adopt an

underbrace notation in order to indicate that, at this level, the meaning of the

noun (e.g. 'boy', 'cow', or 'medicine') is purely compositional: as will be seen in

§4.4, the stems are not interpretable in a denotational sense (e.g. *garm-* does not

mean 'boy') unless they are combined with the proper suffix (in this case, *-a*).

This special notation will be used throughout the rest of this work for nouns to

*4. Fundamentals: nominal structure and noun stems*

which the reader's attention should be drawn.  Otherwise, nouns will be given a

simplified notation, as in (4.1).

The first decomposition to be made is between the stem (STM) and the suffix

(SFX).  The nouns *daawaa* 'medicine' and *daawudu* 'medicines' suggest two

distinguishable parts: that meaning 'medicine', the stem, and that indicating

number, the suffix.  This basic decomposition appears as in (4.3).[2]

(4.3)  a.  *daawaa*     'medicine'    =    *daaw-*      +      *-aa*
                                           medicine            Sg.
       b.  *daawudu*    'medicines'   =    *daaw-*      +      *-udu*
                                           medicine     +      -Pl.

Further occurrences of both suffixes *-aa* and *-udu* may be observed on other

noun pairs, including *bur**aa*** 'beer' and *bur**du*** 'beers', *lay**aa*** 'branding iron' and

*lay**du*** 'branding irons', and *naad**aa*** 'cattle market' and *naad**adu*** 'cattle markets'.

In other cases, *-aa* enters into pairs with other suffixes: *baah**aa*** 'hyaena' and

*bah**u*** 'hyaenas', for example.  *-udu* may also occur with other suffixes: *lo'**oo***

'curse' and *lo'**odu*** 'curses', for example.  A total of 42 different suffixes have been

identified in Gorwaa thus far, and are treated in detail in Chapter 5.  Note that

suffixes may also be null, such as *gwar**/i*** 'wildebeest' and *gwár**/*** 'wildebeests'.

As with the suffixes, the stems may also occur in different combinations as well.

Consider the pairs ***yaa'ee*** 'river' and ***ya'ee**mi* 'stream', and ***tsifir**aangw* 'tongue'

and ***tsifir**i* 'language'.  Stems will be examined in §4.4 below.

---

[2] As explained above, this is a simplification (i.e. *daaw-* does not mean 'medicine', nor
does   *-aa* mean 'singular' or *-udu* mean 'plural'). The labeling here is useful for our
purpose of introducing these subparts of the noun.

*4. Fundamentals: nominal structure and noun stems*

A further element exists, which has been labeled the linker (L). Its overt

occurrence is restricted to certain syntactic environments (4.4)a, and elsewhere

is either unpronounced (4.4)b or absent (4.4)c [3].

(4.4)  a.  *aní a **sleér** diíf*                [20160927l222-228.26]

aní            Ø-      Ø      **sl-**    **-ee**    **-r~´~**  diíf
Pro1Sg         S.P-    Aux    **Stm-**   **-Sfx**   **-L**     hit.1Sg
                                           cow
"I hit the cow."

b.  ***slee** aga gaás*         [20161102b.51]

**sl**      **-ee**    **-r~´~**  Ø-      a-      Ø        -(g)a   gaás
**Stm-**    **-Sfx**   **-L**     A.P-    P.F-    Aux      -Prf    kill.1Sg.Pst
              cow
"I killed the cow."

c.  *uga **slee**-gás*          [20161119f.34]

Ø-      u-      Ø        -(g)a   **sl-**    **-ee**    gás
A.P-    P.M-    Aux      -Prf    **Stm-**   **-Sfx**   kill.2Sg.Pst
                                    cow
"You(M) killed a cow on him."

This final distinction -- that of whether the linker is absent or unpronounced -- is

not trivial, and analysis will be provided in §7.3. In cases in which the linker is

present but unpronounced, it will be represented in both the second and third

line of the gloss.

For the purposes of the immediate discussion, it suffices to point out two major

properties of the linker. First, when the linker is expressed, it makes explicit the

agreement patterns that the noun will trigger on targets such as the adjective

(i.e. its gender). As shown in (4.5), the nouns *desi* 'girl' and *booloo* 'day' are both

(F) gender (triggering the same agreement on the adjective *hhoó'* 'nice' in (a) and

(b)). When the gender linker is overt (as in (c) and (d)), both *desi* and *booloo* are

---

[3] In (4.4)a the form *aní* 'I' is a pronoun. These are considered a special kind of noun, and will not be considered here.

marked with the same morphology, making this gender value explicit on the

noun[4].

(4.5)  a.  *desi **ka hhoo'***
        des-   -i       -r~´~  t-       ng-   **a-**    Ø     **hhoo'**
        <u>Stm- -Sfx   -L</u>      MP-  A.3-  **P.F-**  Aux  good.**F**
                  girl
        'the girl is good'

    b.  *booloo **ka hhoo'***
        bool-  -oo     -r~´~  t-       ng-   **a-**    Ø     **hhoo'**
        <u>Stm-   -Sfx   -L</u>    MP-  A.3-  **P.F-**  Aux  good.**F**
                 day
        'the day is good'

    c.  *des**ír** hhoo'*
        des-   -i       **-r~´~**  hhoo'
        <u>Stm-   -Sfx   **-L**</u>   good.F
                 girl
        'a good girl'

    d.  *bool**oór** hhoo'*
        bool-  -oo    **-r~´~**  hhoo'
        <u>Stm-   -Sfx   **-L**</u>  good.F
                 day
        'a good day'

Second, the form taken by the linker is controlled not by the *stem*, but by the

*suffix*. Note that in (4.6), the stem *tlaf-* is the same in both (a) and (b), but the

suffixes are different: *-i* in (a) and *-oo* in (b). Resultantly, the form of the linker in

(a) is *-tá*, and the form of the linker in (b) is rising pitch accent. It is, therefore,

the suffix which determines the gender of the linker.[5]

(4.6)  a.  *tlaf**i**tá /awaakw*
        tlaf-  **-i**     -tá    /awaakw
        <u>Stm-  **-Sfx**   -L</u>   white.F
                cloud
        'a white cloud'

---

[4] When further data is considered, the picture is slightly less straightforward than this. More detailed discussion will take place in §6.3.5.

[5] Furthermore, it is the suffix that determines the gender agreement of all forms beyond the noun (such as the adjective */awaákw* 'white' in the example). This will be more explicitly established in Chapter 6 below.

    b.    *tlaf**oó** /awakw*

           tlaf-    **-oo**    ~´~    /awakw

           S̄ᴛᴍ-    **-Sfx**   -L    white.N.Pl

                      cloud

           'white clouds'

This section established the noun as morphologically complex, and identified the three major elements into which every noun can be subdivided[6]. The following section examines some criteria by which these three elements may be considered a word.

## 4.3 Nouns as words?  Comments on wordhood

With a basic structure for the noun established, the forms in (4.1), originally identified as nouns in the sketch grammar (see esp. §2.3.1) may be re-glossed as follows:

(4.7)  a.    ***garma** ina /akuút*       [20160921i.23]

           **garm-** **-a**    **-ó**    i-    ∅    -na   /akuút

           **Stm-**  **-Sfx**  **-L**   S.3-  Aux   -Imprf jump.M.Pst

                    boy

           "The boy jumped."

      b.    ***slee** aga gaás*      [20161102b.51]

           **sl-**    **-ee**    **-r~´~**  ∅-    a-    ∅      -ga    gaás

           **Stm-**  **-Sfx**  **-L**   A.P-  P.F  Aux    -Prf   kill.1Sg.Pst

                    cow

           "I killed the cow."

      c.    *xaa'í sla/a a **daawaa***[20131108b_20150725j.7]

           xaa'í  sla/atá     i-      ∅     -(g)a  **daaw-** **-aa**    **-r~´~**

           trees  forest      S.3-  Aux   -Prf  **Stm-**  **-Sfx**  **-L**

                                       medicine

           "The trees of the forest are medicine."

---

[6] Though see §5.2.1 below for a possible further subdivision of some suffix morphemes.

*4. Fundamentals: nominal structure and noun stems*

It is when nouns appear with additional morphology that the issue of identity

becomes more complex. Why, for example, should the bolded forms in (4.8)a,c,e

be analyzed as part of the noun, and the forms in (4.8)b,d,f be analyzed as extra-

nominal morphology?

(4.8)  a.  *[...] garmá tleér*         [20160927m.35]
           garm-  **-a**      **-ó**      tleér
           Stm-   **-Sfx**   **-L**     tall.M
           ⎵⎵⎵⎵⎵
               boy
           'The tall boy.'

  b.  *garmaqá' a tlatláy* [20161102b.28]
      garm-  -a      -ó      **-qá'**        i-      Ø      -(g)a
      Stm-   -Sfx    -L      **-Dem3**       S.3-    Aux    -Prf
      ⎵⎵⎵⎵⎵
          boy
      ~Red~          tláy
      ~Plur~         go.M.Pst
      'That boy was leaving.'

  c.  *aní a sleér diíf*        [20160927l222-228.26]
      aní          a-      Ø      sl-     -ee     **-r~´~**  diíf
      Pro1Sg       S.1-    Aux    Stm-    -Sfx    **-L**     hit.1Sg
                                  ⎵⎵⎵⎵⎵
                                      cow
      'I hit the cow.'

  d.  *Dodó sleerós ngire húw* [20151202e.161-163]
      Dodó          sl-     -ee     -r~´~   **-ós**
      Dodoód        Stm-    -Sfx    -L      **-Poss.3Sg**
                    ⎵⎵⎵⎵⎵
                        cow
      ng-     a-      Ø      -re             húw
      A.3-    P.F-    Aux    -Consec         bring.M.Pst
      '[...] Dodoód brought him his cow.'

  e.  *daawaa*
      daaw-  **-aa**     **-r~´~**
      Stm-    -Sfx       -L
      ⎵⎵⎵⎵⎵
          medicine
      'medicines'

  f.  *daawaaroô*
      daaw-  -aa     -r~´~   **=oo**    ~^~
      Stm-    -Sfx    -L      **=Top**   ~Q~
      ⎵⎵⎵⎵⎵
          medicine
      'medicine?'

*4. Fundamentals: nominal structure and noun stems*

This is clearly important for the scope of the present work: if it claims to treat

'the noun', then there must be some reason why the stem, suffix, and linker are

considered part of the noun, whereas forms such as demonstratives (such as *=qá'*

and *=ós*) as well as the topic and question morphology (e.g. *=oo* and *~ˆ~*) are not.

To this end, this section explores wordhood in Gorwaa, arriving at a cluster of

criteria which hold within a word, but do not hold elsewhere.  As such, the

primary evidence for considering the *-aa* of *daawaa* (4.8)e) a part of the noun,

and the *-roô* of *daawaroô* (4.8)f) as not part of the noun is that certain relations

hold between *daaw-* and *-aa* that do not hold between *daawaa* and *-roô*.  These

relations differ between languages (c.f. Haspelmath 2011), but four which are

commonly cited (and for which there is sufficient data in Gorwaa) are

orthographic boundaries, potential pause, phonetic boundaries, and

indivisibility.  Each of these criteria will be examined in turn below, and

evaluated to determine their usefulness for identifying words.


**4.3.1 Orthographic boundaries**

The first commonly-cited criterion for identifying a word are orthographic

boundaries.  The assumption is that, Gorwaa-speakers who are acquainted with a

writing system which conventionally separates words with spaces (such as

Swahili and English) will generalize this spacing convention to Gorwaa, writing

what they perceive as words with a space before and after.  The data used to test

this hypothesis are examples of the Gorwaa language as written by Gorwaa-

speakers unacquainted with either formal linguistic analysis, or the standardized

Gorwaa writing system.  Throughout the samples of informal Gorwaa

orthographies recorded in the corpus, nouns are consistently separated from

other lexical categories by spaces. Examples are provided in (4.9) below. Note

especially the object nouns (*na/ay* 'child' (written NAAY) in (a), and *yiikwa*

'cattle' (written HIKWA) in (b), both of which are realized as distinct

orthographic units.

(4.9)   a.   **MUNGU NAAY** GHWA HUU  [20150815m]
             *Muungú na/ay ngwa húw*

| **Muungú** | **na/ay** | ng- | u- | Ø | -wa | húw |
|---|---|---|---|---|---|---|
| **God** | **child** | A.3- | P.M- | Aux | -Imprf | bring.Pst |

             'God brought a child.'

        b.   [...] **AMAMII** UREN ONA LAQWALIIKANG NE I **HIKWA** KONAH
                                                             [2015112
                                                             7h]
             *amaami'í uren nguna laqwaalikáng nee i yiikwá koná'*

| **amaami'í** | | uren | ng- | u- | Ø | -na |
|---|---|---|---|---|---|---|
| **grandmothers.LF** | | old.F.Pl | A.3- | P.M- | Aux | -Imprf |
| laqwaal | -ikáng | nee | i- | Ø | **yiikwá** | koná' |
| give.birth.F | -Neg.Pst | and | S.3- | Aux | **cattle.LF** | have.N.Pst |

             "[...] old women have not given birth and they have cattle"

However, the written materials collected also tend to represent additional

suffixes as part of the orthographic unit.

(4.10)   a.   HE BIRA GWA, HHIYA**WOS** HARE NG'IN AL [20151127g]
              *hee bira gwaá hhiyawós haree ngin aal*

| hee | bar= | i- | Ø | -(g)a | gwaá | hhiyá **-ós** |
|---|---|---|---|---|---|---|
| person | if= | S.3- | Aux | -Prf | die.M.Pst | brother **-Poss.3** |
| haree | ng- | a- | Ø | -n | aal | |
| wife | A.3- | P.F- | Aux | -Expect | inherit.M.Subj | |

              "If a person dies, his brother will inherit the wife."

        b.   AMA**SI** BIRA-HARDAT DOO**WOSE** [20151127h]
             *aamasí bira hardát dowosee*

| aamár | **-síng** | bar= | i- | Ø | -(g)a | hardát |
|---|---|---|---|---|---|---|
| grandmother | -**Dem2** | if= | S.3- | Aux | -Prf | arrive.F.Pst |
| dó' | **-ós** | **=oo** | | | | |
| house.LF | **-Poss.3** | **=Top** | | | | |

             "If that lady arrived at their house [...]"

As such, Gorwaa speakers seem to consistently separate lexical categories from

each other, but many functional categories are written together with the noun as

one orthographic unit. This criterion is therefore not entirely useful for distinguishing noun-internal morphology from extra-nominal morphology.

### 4.3.2 Pausa

In slow speech, subject nouns occur with distinguishable post-pause. Defining pause as "any interval of the oscillographic trace where the amplitude is indistinguishable from that of the background noise" (Duez 1982: 13) for a period of 100ms or longer, the following pausa were identified and measured using the Praat software programme (Boersma &Weenink, 2016).

(4.11) a.     *slee* **(0.1)** *i galây*        [20160111h.26]
           slee **(0.1)**   i-        Ø     galây
           cow **PAUSE** S.3-     AUX    where
           "Where is the cow?"

     b.     *[...] ilaá* **(0.2)** *tám [...]*[20150810.15]
           ilaá  **(0.2)**   tám
           eyes **PAUSE** three
           "three eyes"

However, pausa are not a particularly reliable criterion of wordhood in Gorwaa. First, most nouns end in a vowel, which, even in slow speech, tend to eliminate pausa by filling them with residual vocalic sound. Second, object nouns, even when consonant-final, do not show significant pausa. In (4.12)a), this seems to be due both to the object noun *baahaa* 'hyaena' being vowel-final, and to the general tendency of the following selector to be uttered in very close succession with the object noun. In (4.12)b), this seems to be due both to the object noun */aaymár* 'food' ending in a vocalic consonant, as well as the general tendency for the encapsulated object noun and the following verb to be uttered in very close succession.

(4.12) a.    *desi* (0.5) *baahaa* **(0.0)** *ngina táhh*  [20160921.2]

          desi (0.5)  baahaa    **(0.0)**   ng-     a-      Ø      -na

    táhh

          girl  Pause hyaena  **NoPause** A.3-   P.F-    Aux     -Imprf

    hit.Pst

          "The girl hit the hyaena."

     b.     *[…] bar /aaymár* **(0.0)** *sla'*   [20150808a.117]

          bar-    Ø-     Ø      /aaymár **(0.0)**     sla'

          if      S.P-   Aux   food.LF  **NoPause** want.2.Subj

          […] if you want food."

Pause is therefore not a reliable criterion for distinguishing noun-internal morphology from extra-nominal morphology.

### 4.3.3 Word-internal phonological operations

A third criterion (or rather, set of criteria) to explore are phonological operations which operate within the domain of the word. Detailed in §2.2.5.3 above, these word-internal operations will be repeated briefly below. Essentially, these phonological operations are of two kinds: metrical (syllabification and stress assignment), and segmental (vowel epenthesis).

Firstly, it is within the word that the rules of syllabification and stress-assignment apply. This is especially manifest when nouns are used in their vocative forms, which targets the penultimate syllable for high tone, followed by low tone on the final syllable.

(4.13) a.    [dési]       *desi!*        'girl!'

     b.    [hhe:wá:si]  *Hheewaasi!*  'Mr. Hheewaasi!'

The noun in Gorwaa is therefore a metrical domain.

The segmental operation of epenthesis also operates exclusively within the

domain of the word, producing an epenthetic vowel to break a consonant cluster

in (4.14)a,b), but not in (4.14)c).


(4.14)  a.      *hhura̱húr*              'bulbul, greenbul'
         b.      *qoonqal**u**mó*          'a crowned crane'
         c.      *qoonqalsíng*            'this flock of crowned cranes' (i.e.
*qoonqalØsíng*)

Note that other segmental operations, notably vowel coalescence, vowel

assimilation, and consonant cluster simplification also operate within the word.

They do not, however, operate solely within the word, and may hold between

larger elements.  (4.15) shows vowel deletion between a noun and its

determiner.

(4.15)  a.      *muukú + -í*    →      *muuk**í*** 'these people'
         b.      *asltá + -í*    →      *aslt**í*** 'these fires'

As such, these segmental operations, though sometimes word-internal, are not

exclusively so.


## 4.3.4 Indivisibility

Perhaps the most consistent criterion for determining morphology internal to

the noun versus morphology external to the noun is indivisibility.  Word-external

morphology is separable from the noun itself (such as the determiner *-dá'* in

(4.16), whereas morphology internal to the word cannot be separated from it

(such as the suffix and linker *-udú* in (4.17).

(4.16)  a.      *garma**dá'** una taáhh* [20160927l159-168.21]
         garmá **-dá'**        Ø-    u-    Ø      -na    taáhh
         boy.LF **-Dem4**      A.P-  P.M-  Aux    -Imprf hit.1.Pst
         "I hit that boy."

b.  [...] *garmasí - ku**dá'** oo da/alusumo [...]*

garmá -sí       ku**dá'**        oo           da/alusumo
boy.LF -Dem2 Pro**Dem2.M**  ProMod.M   sorcerer
"[...] this boy - that one of the sorecerer [...]"

(4.17) a.   *daaw**udu***
daaw**udu**
medicines
"medicines"

b.  *\*daawasí **t**odu ar da/alusumo*
daawár          -sí       to**(a)du**       ar           da/alusumo
medicine.LF -Dem2 ProDem.Pl.F  ProMod.F sorcerer
(intended meaning: 'this medicine - those ones of the sorcerer')

As such, that the noun is a word may be based on its indivisibility.

## 4.3.5 Wordhood: summary

To summarize, four types of evidence were examined above in order to establish

the noun as a word: orthographic boundaries, pausa, word-internal phonological

operations, and indivisibility.  Informal Gorwaa orthographies consistently place

boundaries between all lexical categories, but treat lexical categories with

enclitics as one orthographic word.  Pausa occur following subject nouns, but not

obligatorily.  Furthermore, no such pausa can be identified for object nouns.

Phonologically, the noun is reliably a metrical domain for syllabification and

stress-assignment.  The segmental operation of epenthetic vowel insertion is a

consistent word-internal operation, but vowel coalescence, vowel assimilation,

and consonant cluster simplification may apply both within the word, as well

within elements larger than the word (e.g. the noun phrase).  Most consistently,

noun-internal morphology cannot occur separate from the noun, whereas extra-

nominal morphology may appear separate from the noun, attached to elements

such as demonstratives.

*4. Fundamentals: nominal structure and noun stems*

As such, perhaps the best definition of the Gorwaa noun we may present thus far

is a complex structure whose subparts are indivisible from each other and which

serves as a metrical domain for syllabification and stress assignment, and is a

domain for epenthetic vowel insertion.  Further research, along the lines of Dyck

(2009), Haspelmath (2011), and Green and Morrison (2016) would be highly

useful but will remain a desideratum for now.

This work is largely concerned with the phenomena which fall within the noun

as defined above.  This includes the stem, the suffix, and the linker.  All other

material falls outside the scope of the present inquiry.

## 4.4 The stem

The remainder of this chapter will treat the leftmost subpart of the noun: the

stem (STM).  All bolded material in (4.18) below corresponds to stems.

(4.18)  a.  ***tsir/i***
      **tsir/-** -i      -r~´~
      **Stm-**   -SFX   -L
             bird
      'a bird'

    b.  ***tsifiri***
      **tsifir-** -i     -r~´~
      **Stm-**   -SFX   -L
           language
      'a language'

    c.  ***slee***
      **sl-**    -ee    -r~´~
      **Stm-**   -SFX   -L
           cow
      'a cow'

d.     ***wa/**aangw*
        **wa/-**   -aangw      -ó
        $\underbrace{\text{\textbf{Stm-} \quad -S\textsc{fx} \qquad -L}}_{\text{arroyo}}$
        'an arroyo'

e.     ***do'***
        **do'**     -∅      -ó
        $\underbrace{\text{\textbf{Stm-} \quad -S\textsc{fx} \quad -L}}_{\text{house}}$
        'a house'

Subsection 4.4.1 offers a review of the phonotactic constraints that hold within stems. Subsection 4.4.2 examines the difficulty associated with defining the stem, and concludes that a unified account of stems based on either phonological or semantic identity is impossible. Subsection 4.4.3 applies a DM analysis to the stem, decomposing it into a categoriless root ($\sqrt{}$) within a nominal syntactic environment. This allows a unified syntactic account of the stem. Subsection 4.4.4 summarizes.

## 4.4.1 Stem-internal phonotactic constraints

Stems are the domain of several phonotactic constraints. Detailed in §2.2.5.2 above, they will be briefly reviewed here, a subset of the examples given in Chapter 2 have been parsed according to the underbrace notation, showing the stem, suffix, and linker.

Initial syllables of polysyllabic stems are usually of CV or CVC structure, with CVV possible, but usually before an NC cluster (see (4.5), based on (2.12.b)). CV:, CVNC, and CV:NC are never licit structures for polysyllabic stems.

(4.19) *d**aang**afi*
      d**aang**af-      -i      -tá
      S&#x1D0F;&#x1D0A;-           -S&#x1D0F;&#x1D18;&#x1D05;   -L
      ⎵‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾
           millet−filled.gourd
      "a millet-filled gourd"

Vowel-sequencing restrictions apply to polysyllabic stems. Either i) the first vowel is high or low (not mid), and the second vowel is either epenthetic, low, or mid (not high) (see (4.20)), or ii) all vowels are identical (see (4.21)).

(4.20) *kitangeeri*
      k**ita**ngeer-    -i      -r ~́~
      S&#x1D0F;&#x1D0A;-           -S&#x1D0F;&#x1D18;&#x1D05;   -L
      ⎵‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾
           drying.rack
      "a drying rack"

(4.21) *kw**e**/**e**/**e**ni*
      kw**e**/**e**/**e**n-   -i      -tá
      S&#x1D0F;&#x1D0A;-           -S&#x1D0F;&#x1D18;&#x1D05;   -L
      ⎵‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾
        black−necked.rock.hyrax
      "a black-necked rock hyrax"

Exceptionally, for polysyllabic stems with a long vowel in their initial syllable, this vowel may be mid (see (4.22)).

(4.22) *n**ee**/ár*
      n**ee**/ár-     -∅      -ó
      S&#x1D0F;&#x1D0A;-           -S&#x1D0F;&#x1D18;&#x1D05;   -L
      ⎵‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾
          heavy.clouds
      "heavy clouds"

## 4.4.2 Phonetics and semantics: difficulties in identifying the stem

Thus far in the analysis, our definition of the stem is that i) they are the part of the noun which is both not the suffix and not the linker, and ii) they are domains of certain phonotactic constraints. This, in fact, represents the full extent by which the stem may be defined. As we shall see, while it is possible to identify two instances of the same stem by phonetic identity *and* by semantic identity some stems can be identified *only* by phonetic identity, and some can be identified *only* by semantic identity.

**4.4.2.1 Stems identifiable by phonetic identity and semantic identity**

Consider the following pair in (4.23), in which the stem has been bolded.

(4.23) a.   ***tsir/i***
   **tsir/-** -i        -r~´~
   **Stm-**    -Sꜰx     -L
   <u>                                  </u>
                    bird
   'a bird'

   b.   ***tsir/oo***
   **tsir/-** -oo     -r~´~
   **Stm-**    -Sꜰx     -L
   <u>                                  </u>
                    bird
   'birds'

In this example, the stems of both forms (i.e. 'a bird' and 'birds') may be identified as two instances of the same stem by applying *both* phonetic and semantic criteria.  Phonetically, the stems have the same form: *tsir-*.  Semantically, the stems have the same meaning: 'bird'.  Such stems, which may be identified by both phonetic and semantic criteria, are common, with some further examples below.

(4.24) a.   ***daawaa***
   **daaw-** -aa      -r~´~
   **Stm-**     -Sꜰx     -L
   <u>                                  </u>
                   medicine
   'medicine'

   b.   ***daawudu***
   **daaw-** -(a)du  ~´~
   **Stm-**     -Sꜰx     -L
   <u>                                  </u>
                  medicines
   'medicine'

(4.25) a.   ***awu***
   **aw-**      -u       -ó
   **Stm-**     -Sꜰx     -L
   <u>                                  </u>
                    bull
   'a bull'

b.      ***aw**ee*

     **aw-**     -ee     -r~´~

     **Stm-**    -S<small>FX</small>    -L

               bulls

     'bulls'

(4.26) a.      ***qaf**i*

     **qaf-**     -i      -tá

     **Stm-**    -S<small>FX</small>    -L

               bark

     'bark, shells'

b.      ***qaf**oo*

     **qaf-**     -oo     ~´~

     **Stm-**    -S<small>FX</small>    -L

               barks

     'barks, shells'

Based on this data alone, one could posit that the stem possesses both a phonetic

and a semantic identity. The picture is, however, considerably more complex

than this, as the other two configurations will make clear.

**4.4.2.2 Stems identifiable by phonetic identity only**

Consider the following pair in (4.27).

(4.27) a.      ***tsifir**i*

     **tsifir-** -i       -r~´~

     **Stm-**     -S<small>FX</small>    -L

               language

     'a language'

b.      ***tsifir**eeri*

     **tsifir-** -eeri    -r~´~

     **Stm-**     -S<small>FX</small>    -L

               languages

     'languages'

Once again, it would appear that the bolded form is identifiable as two instances

of the same according to *both* phonetic (as *tsifir-*) and semantic (as 'language')

criteria. Data in (4.28) complicates the picture.

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(4.28) a.     ***tsifir**aangw*
              **tsifir**- -aangw -ó
              **Stm-**    -Sꜰx    -L
              $\underbrace{\hspace{3cm}}_{\text{tongue}}$
              'a tongue'

(4.28) shows that, given the right suffix, the stem *tsifir-* means not only

'language', but also means 'tongue'.  This indicates that the form *tsifir-* as it

occurs in (4.27) and (4.28) is no longer identifiable as the same stem by using

semantic criteria, as it is being used to express two different meanings[7].  Further

examples are provided below.

(4.29) a.     ***niing**a*
              **niing-** -a        -ó
              **Stm-**     -Sꜰx     -L
              $\underbrace{\hspace{3cm}}_{\text{drum}}$
              'a drum'

       b.     ***niing**á*
              **niing-** -á        -ó
              **Stm-**     -Sꜰx     -L
              $\underbrace{\hspace{3cm}}_{\text{green.pigeon}}$
              'a green pigeon'

(4.30) a.     ***se'**eengw*
              **see'-**   -aangw          -ó
              **Stm-**    -Sꜰx              -L
              $\underbrace{\hspace{3cm}}_{\text{hair}}$
              'hair'

       b.     ***soo'**ay*
              **see'-**   -ay      -ó
              **Stm-**     -Sꜰx     -L
              $\underbrace{\hspace{3cm}}_{\text{dog}}$
              'a dog'

(4.31) a.     ***bee/**i*
              **bee/-** -i        -r~´~
              **Stm-**     -Sꜰx     -L
              $\underbrace{\hspace{3cm}}_{\text{sheep}}$
              'a sheep'

---

[7] The argument may be made that the two meanings (i.e. 'language' and 'tongue') are
sufficiently similar so as to still constitute 'one meaning'.  Examples with less clear
semantic ties are given in (4.29)-(4.31).

b.      ***bee/****amó*
      **bee/-**  -(a)mó-ó
      **Stm-**    -Sꜰx   -L
             bird.sp.
      'a sp. of bird'

c.      **Bee/**á
      **bee/**  -á     -ó
      **Stm-**    -Sꜰx   -L
            [personal.name]
      'a (male) person named Bee/á'

## 4.4.2.3 Stems identifiable by semantic identity only

Finally, consider the following pair in (4.32)[8]:

(4.32) a.      ***slee***
           **sl-**     -ee     -r~´~
           **Stm-**   -Sꜰx    -L
                     cow
           'a cow'

b.      ***yiikw****a*
      **yiikw-**-a'i     ~´~
      **Stm-**    -Sꜰx     -L
              cattle
      'cattle'

(4.32) shows two instances of a single stem identifiable not by phonetic form,

but by semantic meaning. Further examples are provided below[9]:

(4.33) a.      ***garm****a*
           **garm-** -a      -ó
           **Stm-**    -Sꜰx    -L
                    boy
           'a boy'

b.      ***daaq****ay*
      **daaq-** -ay    -ó
      **Stm-**    -Sꜰx   -L
              boys
      'boys'

---

[8] Note that in (4.32)b) the final vowel and the glottal consonant of the suffix are not present. This is due to word-final apocope - a common process for this suffix, further explained in §5.3.4.4.

[9] With an additional case of the apocope described in fn.7 in(4.35).

(4.34) a.     ***har**ee*
         **har-**    -ee     -r~´~
         **Stm-**    -S<small>FX</small>    -L
                 woman
         'a woman'

      b.     ***tiy**ay*
         **tiy-**    -ay     ~´~
         **Stm-**    -S<small>FX</small>    -L
                 women
         'women'

(4.35) a.     ***lee'**i*
         **lee'-**    -i       -r~´~
         **Stm-**    -S<small>FX</small>    -L
                 goat
         'a goat'

      b.     ***aar**a*
         **aar-**    -a'i     ~´~
         **Stm-**    -S<small>FX</small>    -L
                 goats
         'goats'

To summarize, this subsection shows us that the stem is not consistently a coherent entity by either phonetic or semantic criteria. As will be shown in the following subsection, this confounding pattern can be addressed by appealing to a higher level of abstraction available in the DM architecture.

## 4.4.3 The internal structure of the stem

Having determined above that establishing any two instances of a given stem is not always possible using phonetic or semantic criteria, we will begin this subsection by posing the question of whether the stem may even be considered nominal in nature. All the examples in this section thus far (4.23)-(4.35) would indicate yes: the elements identified as stems consistently occur as part of a larger noun. Consider, however, the following:

(4.36) a.   ***wa/**aangw*
          **wa/-**  -aangw     -ó
          **Stm-**   -Sᴏx         -L
                  arroyo
          'an arroyo'

     b.   *aga **waá/***
          Ø-     Ø     -(g)a  **waá/**
          S.P-   Aux   -Prf  vomit.1.Pst
          'I vomited'

The bolded material in (4.36) could reasonably be two instances of the same stem, both by phonetic criteria (*wa/-* and *waá/* are quite similar), as well as semantic criteria (an arroyo is a dry river bed which occasionally floods, an action evocative of vomiting). However, the example in (a) is a noun, and the example in (b) is a verb. Similar examples are given below, where (4.37) is a noun-verb pair, (4.38) is a noun-adjective pair, and (4.39) features a noun, a verb, and an adjective.

(4.37) a.   ***da'**aangw*
          **da'-**   -aangw     -ó
          **Stm-**   -Sᴏx        -L
                   song
          'a song'

     b.   *aga **daá'***
          a             -ga    **daá'**
          ProSubjI.P   -Prf  sing.1.Pst
          'I sang'

(4.38) a.   ***dir**aangw*
          **dir-**   -aangw     -ó
          **Stm-**   -Sᴏx        -L
                   lion
          'a lion'

     b.   *ku **dir**én*
          ku           **dir**én
          CopAdj.M    big.M.Pl
          'they are big'

(4.39) a.     ***na/ay***
              **na/-**    -ay    -ó
              **Stm-**    -Sꜰx    -L
                        child
              'a child'

       b.     *uga **na/aás***
              Ø-      u-      Ø      -(g)a    **na/**aás
              A.P-    P.M-    Aux    -Prf     daub.with.mud.1.Pst
              'I daubed it with mud'

       c.     *ku **naá/***
              t-      ng-     u-      Ø       **naá/**
              MP-     A.3-    P.M-    Aux     wet.M
              'it is wet, it is unripe'

Pairs such as this are common cross-linguistically, English being no exception[10].

(4.40) a.     *Hans Zimmer to score Sir **David Attenborough's** Blue Planet II*
       b.     *[...] I turned on my torch and **David Attenboroughed** the entire*
*incident [...]* (said of an event in which the author narrates a cat eating a rat)

(4.41) a.     *Charles examines **finches** on the Galapagos.*
       b.     *The young are fed in the usual **fringilline** manner, on the pulp from*
*the crops of the parent birds.*

The obvious argument here is that these forms are all simply products of

historical processes: *tsifiraangw* 'a tongue' – *tsifiri* 'a language' show a

metonymic link; *slee* 'a cow' – *yiikwa* 'cows' are a suppletive pair; *niinga* 'a drum'

– *niingá* 'a sp. of pigeon' show a large degree of homophony.  To rely on such

descriptions, many of which have already been well documented in work such as

Kießling and Mous (2003), is to miss the point of the present work, which, rather

than seeking to describe such phenomena as the result of historical change, aims

---

[10] Example (4.40)a) is taken from the headline in the Belfast Telegraph Digital
http://www.belfasttelegraph.co.uk/entertainment/film-tv/news/hans-zimmer-to-
score-sir-david-attenboroughs-blue-planet-ii-35568331.html (accessed 22.10.2017).
Example  (4.40)b) taken from Eleven, Beck "Beck Eleven: Beauty and fear under the
sea." in: Stuff. (New Zealand) http://www.stuff.co.nz/travel/destinations/pacific-
islands/91043821/beck-eleven-beauty-and-fear-under-the-sea (accessed 22.10.2017).
Example (4.41)b) taken from an online archive of the full text of "Foreign birds for cage
and aviary."
https://archive.org/stream/foreignbirdsforc01butl/foreignbirdsforc01butl_djvu.txt
(accessed 22.10.2017)

for a synchronic account of how these forms are represented in the grammar of a given speaker, none of whom would be expected to know or feel that most of these pairs are in any way linked, either historically or conceptually.

With the aim of a synchronic description in mind, and having seen the evidence in (4.36)-(4.39), a valid question that may be asked is whether stems are nominal at all.  The answer to be developed here is yes, but not in a primitive sense.  In many works, including Marantz (2001), Arad (2003, 2005), Borer (2005a, b), and Merchant (2018), it is argued that lexical items enter the derivation without a predetermined lexical category, and that this category is realized by their larger syntactic context.  Therefore, the pair *wa/aangw* 'arroyo' and *waá/* 'to vomit' are formed of the same categoriless base, *wa/aangw* coming to be a noun through its larger nominal structure, and *waá/* coming to be a verb through its larger verbal structure.  A (rudimentary) example of what a nominal structure versus a verbal structure *might* look like is offered below, where √x refers to the categoriless base (i.e. root) common to both *wa/aangw* and *waá/*.[11]

(4.42)  CATEGORILESS BASE √x REALIZED AS DIFFERENT LEXICAL CATEGORIES BASED ON DIFFERENT SYNTACTIC CONTEXTS

a. *wa/aangw*

```
          DP
         /  \
       NP    D
      /  \   -ó
    √x    N
        -aangw
```

b. *waá/*

```
           TP
          /  \
        VP    T
       /  \   ~´~
     V'    pro
    /  \   [1, Sg]
  √x   V_intrans
```

---
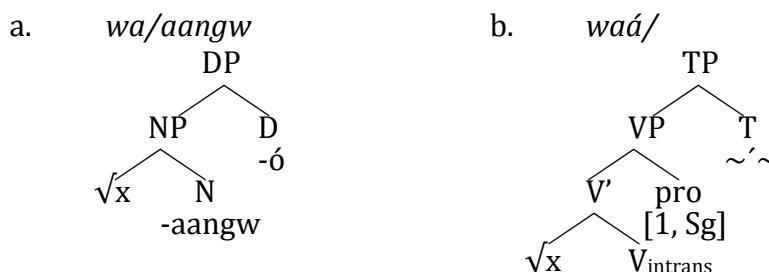
[11] The nominal structure arrived at in this work will, ultimately, look very different from this one, but this structure (based on Abney 1987) is useful as a simplified starting point.

In fact, this analysis will not only be able to account for data such as (4.36)-(4.39), but will also provide a unified account for stems which does not rely on phonetic or semantic criteria, thus addressing data discussed above, and exemplified in (4.27)-(4.35). An implementation of the DM principle of late insertion will be undertaken directly below, beginning with a discussion of the roots as an unspecified index, and followed by a description of how these underspecified indices are realized post-syntactically.

**4.4.3.1 The root**

In the previous chapter, the Distributed Morphology concept of syntax governing both the construction of phrases *and* the construction of words allowed us to propose *how* the individual subparts of nouns were put together. In this chapter, the DM concept of late insertion will help specify *what*, exactly, these subparts are, and how they are realized.

Late insertion views syntactic categories as abstract. With reference to the model of Distributed Morphology (see Figure 3.1, §3.4), all elements in *List 1* (and resultantly, all elements in the Numeration) are feature bundles lacking in any phonetic content. Phonetic values are inserted, following Spellout, at the phonological component (*List 2*). This concept is extended by Acquaviva (2009) and Harley (2014) to semantic content: all elements in *List 1* are semantically empty as they are processed in the syntax, and semantically valued following spellout, at the semantic component (*List 3*).

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In the case of the stems examined above, by putting the rest of the syntactic structure aside, what is left (i.e. what we are calling the root) seems to be an element virtually free of features. Aside from the categorial (cat) feature √, roots have no inflectional (infl) features, nor selectional (sel) features. This seems uncontroversial (Merchant (2018) argues the same, though see Lowenstamm (2014)). Essentially, the sole function of roots is providing instructions for pronunciation and interpretation, which in turn, contributes to the pronunciation and interpretation of the larger structure of which they are part. The instructions of $\sqrt{x}$ in (4.42)a) are: i) *in the environment of the heads N and D, pronounce as* wa/ *and interpret as 'arroyo'*; ii) *in the in the environment of the heads $V_{intrans}$ and T, and a pro with the feature [1, Sg], pronounce as* waá/ *and interpret as 'to vomit'.* If this root -- $\sqrt{x}$ of (4.42)-- were replaced by another, say the root of (4.37), let us call it $\sqrt{y}$, then the instructions would be different: i) *in the environment of the heads N and D, pronounce as* da' *and interpret as 'song'*; ii) *in the in the environment of the heads $V_{intrans}$ and T, and a pro with the feature [1, Sg], pronounce as* daá' *and interpret as 'to sing'.* Such instructions are listed (see Acquaviva 2008) in the sense that the pronunciations and meanings cannot be reduced to the syntactic features. Taking this logic to its natural conclusion, Acquaviva (2008) adopts an index notation (e.g. $\sqrt{709}$, $\sqrt{028}$, etc.) for roots in the syntax, where the unique number refers to an 'entry' in both *List 2* and *List 3*, containing the appropriate instructions for pronunciation and interpretation, respectively. As such, the feature structure for the root in (4.42)would appear thus:

(4.43) FEATURE STRUCTURE FOR THE ROOT IN (4.42)
[Let: $\sqrt{364}$ represent the root common to the forms *wa/aangw* and *waá/*]

$$\sqrt{}_{364}\{\text{cat}\,[\sqrt{}]$$

Having arrived at a feature structure for the root, it is possible to insert it in the syntax. This will satisfy the contexts which were specified in the instructions above (i.e. the part of the instructions which read *in the environment of*). These instructions are spellout rules, and will be discussed below.

**4.4.3.2 The post-syntax**

Having established that the identity of the stem as a featureless index $\sqrt{}$ within a larger (nominal) syntactic context, the process of its realization (in the case of (4.41)a), as *wa/aangw* 'an arroyo') post-syntax, can now be examined.

According to the principle of late insertion, phonetic and semantic realization can only be accomplished following spellout, where the structured elements (which are at this point still feature bundles) are 'shipped off' to both the phonological component and the semantic component. It is likely that spellout only occurs after the syntactic structure has reached a certain point (Chomsky 2001), most likely at a point after merger with the suffix and the linker. For the sake of exposition, a simplified example of how the element $\sqrt{}_{364}$ is valued (where $\sqrt{}_{364}$ is the root common to the forms *wa/aangw* and *waá/*) is given in Table 4.1.

Table 4.1: Valuation of the root of the set *wa/aangw*, *waá/* ($\sqrt{}_{364}$)

| Phonological Component (*List 2*) | | | Semantic Component (*List 3*) | | |
|---|---|---|---|---|---|
| Root Input | Syntactic Context | Value | Root | Syntactic Context | Value |
| $\sqrt{}_{364}$ | / N, D | [waʕ] | $\sqrt{}_{364}$ | / N, D | 'arroyo' |
| | /V$_{intrans}$, T pro [1, Sg] | | | /V$_{intrans}$, T pro [1, Sg] | 'vomit' |

*4. Fundamentals: nominal structure and noun stems*

Returning to the data presented subsection 4.4.2, it is precisely this valuation

process which can account for stems identifiable by phonetic identity only, and

for stems identifiable by semantic identity only.  In each of these cases, the root

of the stem is the same: an acategorial element, devoid of most syntactic features,

but which serves as a reference for the phonetic and semantic components after

spellout.  The difference comes with valuation.  As can be seen in the case of

***tsifiri*** 'language' and ***tsifiraangw*** 'tongue' (originally given in (4.27) above), the

phonetic component values the forms in the same way, and the semantic

component values them differently, depending on which suffix they receive (in

this table, represented by a different subscripts on the head N).  Conversely, in

the case of ***garma*** 'boy' and ***daaqay*** 'boys' (originally given in (4.33) above), the

semantic component values the forms in the same way, and the phonetic

component values them differently.

Table 4.2: Valuation of the root of the set *tsifiri* and *tsifiraangw* ($\sqrt{709}$)

| Phonological Component (*List 2*) | | | Semantic Component (*List 3*) | | |
|---|---|---|---|---|---|
| Root Input | Syntactic Context | Value | Root | Syntactic Context | Value |
| $\sqrt{709}$ | / N, D | [ts'ifir] | $\sqrt{709}$ | / N$_{1428}$, D pro [Sg] | 'language' |
| | | | | / N$_{2528}$, D pro [Sg] | 'tongue' |

Table 4.3: Valuation of the root of the set *garma* and *daaqay* ($\sqrt{765}$)

| Phonological Component (*List 2*) | | | Semantic Component (*List 3*) | | |
|---|---|---|---|---|---|
| Root Input | Syntactic Context | Value | Root | Syntactic Context | Value |
| $\sqrt{765}$ | / N$_{1218}$, D [Sg] | [garm] | $\sqrt{765}$ | / N$_{1218}$, D | 'boy' |
| | / N$_{1218}$, D [Pl] | [da:q] | | | |

Both of these cases represent extremes: *tsifiraangw – tsifiri* of a root with a

strong phonological identity, and *garma – daaqay* of a root with a strong

semantic identity.  More typically, however, a given root will not fall toward one

of the extremes, but rather, occupy a sort of middle ground: its superficial

identity not strongly phonological, nor strongly semantic.  A good example of this

is the following set, where the stem is highlighted:

(4.44)  a.  ***do'***
        **do'-**   -∅     -ó
        <u>**Stm-**   -S$_{FX}$   -L</u>
                  house
        'a house'

    b.  ***mar$_{áy}$***
        **mar-**  -ay    ~´~
        <u>**Stm-**   -S$_{FX}$   -L</u>
                 houses
        'houses'

    c.  ***mar'i***  'cave'
        **mar'-** -i      -r~´~
        <u>**Stm-**   -S$_{FX}$   -L</u>
                cave
        'a cave'

    d.  ***mar'oo***
        **mar'-** -oo    -r~´~
        <u>**Stm-**   -S$_{FX}$   -L</u>
                caves
        'caves'

Valuation would proceed thus.

Table 4.4: Valuation of the root of the set *do'*, *maray*, *mar'i*, and *mar'oo* ($\sqrt{}_{201}$)

| Phonological Component | | | Semantic Component | | |
|---|---|---|---|---|---|
| Root Input | Syntactic Context | Value | Root | Syntactic Context | Value |
| $\sqrt{}_{201}$ | / N$_{1510}$, D [Pl] | [mar] | $\sqrt{}_{201}$ | / N$_{1413}$, D | 'cave' |
| | / N$_{1510}$, D [Sg] | [doʔ] | | / N$_{1510}$, D | 'house' |
| | / N$_{1413}$, D | [marʔ] | | | |

## 4.5 Remarks and summary

This chapter has provided a basis for those that follow, first by establishing the

Gorwaa noun as a complex structure and naming its major parts, and second by

providing a morphosyntactic analysis of the leftmost of these parts, the stem.

Subsection 4.5.1 offers some further discussion of *syntactic context*, and

subsection 4.5.2 summarizes.

### 4.5.1 Remarks on *syntactic context*

In §4.4.3 above, it was established that a common conceptualization of lexical

items was that they enter the derivation without a predetermined lexical

category, and that this category is realized by their larger *syntactic context*. In

this chapter, the syntactic context relevant for the realization of nouns has been

presented as the presence of a head N and a head D, though (as mentioned in

fn.11), this context is a simplification, used mainly to introduce the way in which

a root may come to be nominal.

In fact, most works are much more explicit about the kind of syntactic context

which result in a root becoming a noun or noun stem. Typically (e.g. Marantz

2001, Arad 2003, 2005, Merchant 2017), this is accomplished by a categorizing

head, N, which directly dominates the root. Using the structure posited above,

this categorizing head could be identified directly in the above structure as N.

(4.45)  √x REALIZED AS NOMINAL BY THE CATEGORIZING HEAD N (AS PER MARANTZ 2001,
        ARAD 2003, 2005, AND MERCHANT 2017)
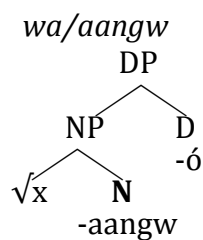


Borer (2005a, b), on the other hand, eliminates the categorizing head entirely,

arguing that a nominal reading arises not from an explicitly nominalizing head,

but from a more complex nominal structure, often involving heads lower than D which mediate functions such as divison and quantification -- heads which may occur in a verbal syntactic context to mediate similar functions. Evidence for this nominal morphology will be presented for Gorwaa (see esp. §5.4). This would, therefore, seem to motivate an approach which either dispenses of the categorizing head completely (as in the work of Borer), or in which the categorizing head is (or can be) merged at a point higher up in the structure. This work opts for the latter approach, positing the categorizing head n, which, at its highest merge point (i.e. for number-valued nouns) directly dominates the #P. Such an approach will be discussed in §5.4 and §6.5).

Acquaviva (2008: 270) provides a structure with quantification and division projections as well as a categorizing head n, but in this structure, n directly dominates the root, as in (4.45). As such, the approach of the present work is, as far as I know, unique.

## 4.5.2 Summary

§4.2 established the precise object of study -- the Gorwaa noun -- and establishes its major subparts as the stem (STM), the suffix (SFX), and the linker (L). §4.3 reviewed wordhood criteria that may be applied to the noun, distinguishing these core subparts from extra-nominal material such as demonstrative enclitics and topic markers. §4.4 appealed to DM to provide an analysis for the stem (STM), establishing it as composed of an acategorial root ($\sqrt{}$) within a larger syntactic context (in the case of the STM, a nominal context). Phonetic form and semantic meaning are realized post-syntactically in a process of evaluation in

which the index provided by the root and the larger syntactic context is processed by *List 2* and *List 3*.  In concluding, section 4.5 provided some closing marks on the specific identity of the larger syntactic context (to be developed in some detail in the coming chapters), and summarized.

# 5. The suffix 1: the regular phenomena

## 5.1 Introduction

In chapter 4, the noun was established as consisting of three major subparts: the stem, the suffix, and the linker. The stem was analysed as an acategorial root ($\sqrt{}$) within a larger nominal syntactic context (the description of which will form much of the subsequent discussion in this work). Attention will now turn to the next element in the series: the suffix (SFX).

(5.1)   THE SUFFIX (SFX)
  a.   *wa/**aángw** wák*
      wa/-   **-aangw**   -ó   wák
      STM-   **-Sfx**   -L   one
            $\underbrace{\qquad\qquad\qquad\qquad}_{\text{arroyo}}$
      "one arroyo"

  b.   *we/**eerí** tsár*
      wa/-   **-eeri**   ~´~   tsár
      STM-   **-Sfx**   -L   two
            $\underbrace{\qquad\qquad\qquad}_{\text{arroyos}}$
      "two arroyos"

Suffixes are morphosyntactically complex elements: a list of their basic characteristics follows in (5.2) below.

(5.2)   MORPHOSYNTACTIC CHARACTERISTICS OF THE GORWAA SUFFIX
  I.   Regular Phenomena:
      a.   *Many suffixes (identified thus far as SFX) may be divided into separate morphemes: SFX1 and SFX2. All suffixes feature the SFX2 morpheme, not all suffixes feature the SFX1 morpheme.*
      b.   *Suffixes with a SFX1 morpheme are either Sg or Pl in number, and can therefore occur with external elements (e.g. adjectives) only if they show matching agreement.*
      c.   *Suffixes without a SFX1 morpheme are unvalued for number, and can therefore occur with external elements (e.g. adjectives) which show either Sg or Pl agreement. (though see II.d. for exceptions.)*

*5. The suffix 1: the regular phenomena*

    II.     Listed Phenomena
        a.      *A given noun stem takes a set of suffixes, known as a*
              *paradigm. Paradigms may be monads, pairs, or triads.*
        b.      *The paradigm taken by any given noun is unpredictable.*
        c.      *A given noun stem may have more than one paradigm.*
              *Selection of paradigm may or may not affect the semantic*
              *interpretation of the resultant noun.*
        d.      *Suffixes unvalued for number may have the kinds of*
              *agreement with which they may occur restricted by the*
              *composition of their paradigm.*
        e.      *The grammatical gender (i.e. M, F, or N) of a noun is*
              *determined by the SFX2 morpheme, which has a stable*
              *association with gender. If a noun is changed for number, its*
              *gender may also change.*

It will be observed that the major division in the list above is between

phenomena deemed 'regular', and phenomena deemed 'listed'. Using the

Distributed Morphology architecture as the point of reference (Figure 3.1 in

§3.4), regular phenomena are defined as stable correspondences which can

largely be explained as products of feature bundles (i.e. material from *List 1*)

being manipulated in the syntax (i.e. the syntactic operations), whereas listed

phenomena require recourse to more detailed explanations of realization rules

post-Spellout (i.e. material from *List 2* and *List 3*) -- hence the term *listed*.

Each of the morphosyntactic characteristics described above is relatively

complex, and a full understanding requires a detailed look at a rather large body

of data. Because of these two factors, discussion of the suffix will span two

chapters. The current chapter will address the regular phenomena of (5.2), and

the next chapter, Chapter 6, will address the listed phenomena of (5.2).

Following this introduction, §5.2 of this chapter will provide a brief overview of

each of the regular phenomena listed in (5.2) above. §5.3 is a detailed

presentation and description of the empirical basis of this chapter: the suffixes.

§5.4 provides a syntactic analysis to account for these regular phenomena.  §5.5

summarizes.

## 5.2 Overview of the regular phenomena

This section expands on each of the regular phenomena associated with the

Gorwaa suffix.  For ease of presentation, these are repeated in (5.3) below.

(5.3)   THE REGULAR MORPHOSYNTACTIC CHARACTERISTICS OF THE GORWAA SUFFIX

   a. *Many suffixes (identified thus far as SFX) may be divided into separate
      morphemes: SFX1 and SFX2.  All suffixes feature the SFX2 morpheme, not all
      suffixes feature the SFX1 morpheme.*
   b. *Suffixes with a SFX1 morpheme are* either *Sg* or *Pl in number, and can
      therefore occur with external elements (e.g. adjectives)* only *if they show
      matching agreement.*
   c. *Suffixes without a SFX1 morpheme are unvalued for number, and can
      therefore*
      *occur with external elements (e.g. adjectives) which show* either *Sg* or *Pl
      agreement. (though see II.d. for exceptions.)*

What follows is a discussion of each characteristic.  Subsection 5.2.1 treats

characteristic (a): the decomposability of the suffix.  Subsection 5.2.2 treats

characteristic (b): suffixes with number value.  Subsection 5.2.3 treats

characteristic (c): suffixes without number value.

## 5.2.1 Characteristic (a): the decomposability of the suffix

Mous (1993: 47) noticed that several suffixes in Iraqw are present "as fused

elements in other suffixes".  This is important to the analysis, and will be

established here.  Many suffixes themselves may be divided into two separate

morphemes, all of which are bolded in (5.4) below[1].

---

[1] From this point on, SFX1 and SFX2 will be indicated in the gloss.

*5. The suffix 1: the regular phenomena*

(5.4)   THE SUFFIX (SFX): COMPOSED OF SUBPARTS SFX1 AND SFX2
   a.   *wa/**aángw** wák*
   wa/-   **-aangw**        -ó      wák
   STM-   **-Sfx2**         -L      one
   ⏟ arroyo
   "one arroyo"

   b.   *we/**eerí** tsár*
   wa/-   **-eer -(a)'i**   ~´~    tsár
   STM-   **-Sfx1 -Sfx2**   -L     two
   ⏟ arroyos
   "two arroyos"

As may be seen in (5.4) above, when both morphemes are present, SFX1 occurs

closest to the stem.  Additionally, (5.4) shows that, while all suffixes feature a

SFX2 morpheme, not all suffixes feature an SFX1 morpheme.


The example in (5.4) risks implying that SFX1 ought to be interpreted as plural

marking.  Data in (5.5) shows that this is not the case, with SFX1 present on the

singular form of the noun, and absent on the form used for plural.

(5.5)   SFX1 IS PRESENT IN SINGULAR NOUNS, SUCH AS *IRE/IMI* 'COSMETIC SCAR'
   a.   *ire/**imi**tá wák*
   ire/-   **-iim**   **-i**     -tá      wák
   STM-    **-Sfx1**  **-Sfx2**  -L       one
   ⏟ cosmetic.scar
   "one cosmetic scar"

   b.   *ire/**iíngw** tsár*
   ire/-   **-aangw**        **-ó**      tsár
   STM-    **-Sfx2**         **-L**      two
   ⏟ cosmetic.scars
   "two cosmetic scars"

**5.2.2 Characteristic (b): suffixes with number value**

There are two number values in Gorwaa: singular (Sg) and plural (Pl).  Notably,

the only category that shows number agreement in Gorwaa is the adjective.  This

is true in modifier constructions (as in (5.6)), as well as predicate adjective

*5. The suffix 1: the regular phenomena*

constructions (as in (5.7)). For a full description of the adjective and its

agreement patterns, see §2.3.3.1.

(5.6)   NUMBER AGREEMENT ON MODIFIER ADJECTIVES
   a.   *kookumó **tleér***

   | kook- | -(a)m | -ó | -ó | **tleér** |
   |---|---|---|---|---|
   | STM- | -SFX1 | -SFX2 | -L | **tall.M** |

   rooster
   'a tall rooster'

   b.   *kookumá' **tlet***

   | kook- | -(a)m | -a'(!) | ~´~ | **tlet** |
   |---|---|---|---|---|
   | STM- | -SFX1 | -SFX2 | -L | **tall.N.Pl** |

   roosters
   'tall roosters'

(5.7)   NUMBER AGREEMENT ON PREDICATE ADJECTIVES
   a.   *kookumo ku **tleér***

   | kook- | -(a)m | -ó | -ó | t- | ng- | u- | Ø | **tleér** |
   |---|---|---|---|---|---|---|---|---|
   | STM- | -SFX1 | -SFX2 | -L | MP- | A.3- | P.M- | Aux | **tall.M** |

   rooster
   'the rooster is tall'

   b.   *kookuma' ki **tlet***

   | kook- | -(a)m | -a'(!) | ~´~ | t- | ng- | i- | Ø | **tlet** |
   |---|---|---|---|---|---|---|---|---|
   | STM- | -SFX1 | -SFX2 | -L | MP- | A.3- | P.N- | Aux | **tall.N.Pl** |

   roosters
   'the roosters are tall'

Suffixes with a SFX1 morpheme are *either* Sg *or* Pl in number. As such, the suffix

*-(a)mó* is always Sg, and only used with nouns denoting singular entities (see

(5.8)). Conversely, the suffix *-(a)ma'* is always Pl, and only used with nouns

denoting plural entities (see (5.9)).

(5.8)   THE SUFFIX *-(A)MÓ* IS SG IN NUMBER

   a.   *kook**umó***

   | kook- | **-(a)m** | **-ó** | -ó |
   |---|---|---|---|
   | STM- | **-Sfx1** | **-Sfx2** | -L |

   rooster
   'a rooster'

      b.       *xar**mó***

              xarm-  **-(a)m -ó**     -ó

              <u>S</u><u>тм</u>-    **-Sfx1 -Sfx2**  -L

                         horn

              'a horn'

      c.       *tlapt**umó***

              tlapt-  **-(a)m -ó**     -ó

              <u>S</u><u>тм</u>-    **-Sfx1 -Sfx2**  -L

                         falcon

              'a falcon'

(5.9)   Tʜᴇ sᴜꜰꜰɪx *-(ᴀ)ᴍᴀ'* ɪs Pʟ ɪɴ ɴᴜᴍʙᴇʀ

      a.       *kookuma'*

              kook-  -(a)m  -a'(!)   ~´~

              <u>S</u><u>тм</u>-    **-Sfx1 -Sfx2**  -L

                        roosters

              'roosters'

      b.       *irindima'*

              irind-  -(a)m  -a'(!)   ~´~

              <u>S</u><u>тм</u>-    **-Sfx1 -Sfx2**  -L

                        biceps

              'biceps, calves'

      c.       *slahhama'*

              slahh-  -(a)m  -a'(!)   ~´~

              <u>S</u><u>тм</u>-    **-Sfx1 -Sfx2**  -L

                        acacias

              'acacias (*Acacia kirkii*)'

Suffixes with an SFX1 morpheme occur with external elements, such as

adjectives and numerals, *only* if they show matching agreement, or are otherwise

semantically consistent with the number value of the noun.

(5.10)  Tʜᴇ ɴᴏᴜɴ *ᴋᴏᴏᴋᴜᴍó* ᴄᴀɴɴᴏᴛ ᴏᴄᴄᴜʀ ᴡɪᴛʜ ᴇxᴛᴇʀɴᴀʟ ᴇʟᴇᴍᴇɴᴛs ɪɴᴄᴏɴsɪsᴛᴇɴᴛ ᴡɪᴛʜ

    sɢ ɴᴜᴍʙᴇʀ

      a.       *\*kookumó tlét*

              kook-  -(a)m  -ó     -ó     tlét

              <u>S</u><u>тм</u>-    -Sꜰx1  -Sꜰx2  -L     tall.M.Pl

                        rooster

              (intended meaning) 'a tall rooster' or 'tall roosters'

*5. The suffix 1: the regular phenomena*

b.       *\*kookumó tsár*

          kook-  -(a)m  -ó      -ó      tsár

          S<small>TM</small>-    -S<small>FX</small>1  -S<small>FX</small>2  -L      two

                        rooster

          (intended meaning) 'two roosters', 'two (groups of) roosters'

(5.11)  T<small>HE NOUN</small> *KOOKUMA'* <small>CANNOT OCCUR WITH EXTERNAL ELEMENTS INCONSISTENT WITH</small> <small>PL NUMBER</small>

a.       *\*kookumá' tleer*

          kook-  -(a)m  -a'(!)   ~´~    tleer

          S<small>TM</small>-    -S<small>FX</small>1  -S<small>FX</small>2  -L     tall.M.Pl

                        roosters

          (intended meaning) 'a tall rooster', 'tall roosters'

b.       *\*kookumá' wák*

          kook-  -(a)m  -a'(!)   ~´~    wák

          S<small>TM</small>-    -S<small>FX</small>1  -S<small>FX</small>2  -L     one

                        roosters

          (intended meaning) 'one rooster', 'one (group of) roosters'

Configurations of nouns valued for number therefore result in the highly common distinction of *singular vs. plural*.

(5.12)  S<small>INGULAR VS. PLURAL</small>

| 'R<small>OOSTER</small>' | |
|---|---|
| S<small>INGULAR</small> | P<small>LURAL</small> |
| *kookumó* | *kookuma'* |
| *kookumó úr* | *kookumá' uren* |
| kook--(a)m -ó     -ó úr | kook- -(a)m -a'   ~´~ uren |
| S<small>TM</small>-  -S<small>FX</small>1 -S<small>FX</small>2 -L **big.M** | S<small>TM</small>-  -S<small>FX</small>1 -S<small>FX</small>2 -L   **big.N.Pl** |
| rooster | roosters |
| 'a big rooster' | 'big roosters' |

At this point, noting such a configuration may seem painfully obvious. However, in the coming subsection, a range of less common configurations will be introduced, allowing this *singular* vs. *plural* configuration to act as a familiar benchmark.

## 5.2.3 Characteristic (c): suffixes without number value

Suffixes without a SFX1 morpheme are unvalued for number, and can be used

with nouns referring to entities whose number value is either not important or

indeterminate (5.13).

(5.13)  THE SUFFIX *-oo* (FR) IS UNVALUED FOR NUMBER

    a.    *tsir/oo*
        tsir/-  -oo     -r~´~
        STM-   -SFX2  -L
                    birds
        'a species, kind of, or flock of birds', 'birds'

    b.    *daka'oo*
        daka'- -oo     -r~´~
        STM-   -SFX2  -L
                    baobabs
        'a species, kind of, or stand of baobabs', 'baobabs'

    c.    *xooroo*
        xoor-  -oo     -r~´~
        STM-   -SFX2  -L
                    multitude
        'a multitude (of people)'

Because these suffixes are unvalued for number, they may occur with external

elements (such as adjectives or numerals) with show *both* Sg *or* Pl agreement.

(5.14)  THE NOUN *TSIR/OO* CAN OCCUR WITH EXTERNAL ELEMENTS SHOWING BOTH SG OR PL
  AGREEMENT

    a.    *tsir/oór **tleer***
        tsir/-  -oo     -r ~´~ **tleer**
        STM-   -SFX2  -L      **tall.F**
                    birds
        "a tall species of bird"

    b.    *tsir/oór **wák***
        tsir/-  -oo     -r ~´~ **wák**
        STM-   -SFX2  -L      **one**
                    birds
        "one species of bird"

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      c.      *tsir/oór **tlet***
              tsir/-  -oo     -r ~´~ **tlet**
              S<small>TM</small>-    -S<small>FX</small>2 -L       **tall.F.Pl**
                          birds
              "tall species of birds", "tall birds"

      d.      *tsir/oór **tsár***
              tsir/-  -oo     -r ~´~ **tsár**
              S<small>TM</small>-    -S<small>FX</small>2 -L       **two**
                          birds
              "two species of birds", "two birds"

Having noun forms unspecified for number is not unique to Gorwaa and is also described in Corbett (2000:9) as occurring in the Cushitic language Bayso (bsw; Ethiopia) and other unrelated languages. Mous 2008 notes the same phenomenon in Tsamakko (tsb; Ethiopia) (relevant data in Savà 2005: 61) and K'abeena (alw; Ethiopia) (relevant data in Crass 2005:63). The form is labeled by Corbett as *general number*, and the distinction between it and number-valued forms is represented as follows.

Figure 5.1: General number versus singular and plural (from Corbett 2000: 11)
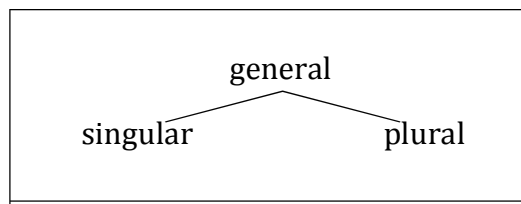


As such, the noun *tsir/oo* (with the suffix *-oo* (Fr)) is, on its own, noncommittal as to number. Perhaps the best translation would be 'bird' in the general sense. That is, if one 'hunts bird', it is uncertain as to how many birds are actually involved: perhaps one, perhaps many -- it is simply not conveyed in the utterance.

Close examination of the translations of these forms is salutary. In every case in which the noun is unambiguously expressing general number (Gen), the noun

*5. The suffix 1: the regular phenomena*

refers to a kind or group, not an individual or plurality of individuals. This is

demonstrated in the translations in (5.15).

(5.15) TRANSLATIONS OF GEN FORMS
      a.    *qoonqál*
           qoonqal-     -∅    -ó
           STM-      -SFX2  -L
                     crowned.crane
           **'a flock of crowned crane', or 'a species of crowned crane', or
           'crowned crane'**

      b.    *malmáw*
           malmaw-    -∅    -ó
           STM-      -SFX2  -L
                   lime.tree
           **'a stand of lime tree', or 'a species of lime tree', or 'lime tree'**

      c.    *nee'ár*
           nee'ar--∅    -ó
           STM-  -SFX2  -L
                 thrush
           **'a flock of thrush', or 'a species of thrush', or 'thrush'**

Crucially, then, these nouns of general number in Gorwaa may be defined as

referring to a kind of undifferentiated unity, homogeneous in consistency and

indeterminate in shape and boundary. This therefore explains *qoonqál* having

the resultant meaning of 'flock of crowned cranes', 'type of crowned crane', or

'crowned crane' *tout court*. Conversely, nouns which occur with Sg or Pl number

agreement refer to discrete individuals or sets of individuals, both well-defined

in terms of shape and physical boundary (Koptjevskaya-Tamm, 2006).


The introduction of nouns unvalued for number (i.e. general number) allows for

a system of considerable complexity. As noted in the sketch above (§2.3.1.2),

much of this complexity has to do with nouns being arranged in a manner that

does not always fit well with the traditional notions of singular versus plural.

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With *singular* vs. *plural* as a benchmark in (5.12) above, all patterns are
examined in detail below.

A less familiar configuration is a noun stem which takes two different suffixes,
one triggering singular agreement on the adjective, and the other allowing the
noun to occur with either singular *or* plural agreement on the adjective. This
configuration is called *singular* vs. *general*.

(5.16) SINGULAR VS. GENERAL

| ‘LEAF’ | | |
|---|---|---|
| SINGULAR | GENERAL | |
| *loo/i* | *loo/oo* | |
| *loo/ír ur* | *loo/oór ur* | *loo/oór uren* |
| loo/- -i   -r ~´~ ur | loo/- -oo  -r ~´~ ur | loo/- -oo  -r ~´~ uren |
| STM- -SFX2 -L      **big.F** | STM- -SFX2 -L      **big.F** | STM- -SFX2 -L |
| ︸ leaf | ︸ leaves | ︸ bird |
| ‘a big leaf’ | ‘many leaves (foliage)’ | **big.F.Pl** |
| | | ‘big leaves’ |

Conversely, a noun stem may take two different suffixes, one triggering plural
agreement on the adjective, and the other occurring with either singular *or*
plural agreement on the adjective. This configuration is called *general* vs. *plural*.

(5.17) GENERAL VS. PLURAL

| ‘DRAGONFLY’ | | |
|---|---|---|
| GENERAL | | PLURAL |
| *piiró* | | *piireema'* |
| *piiró úr* | *piiró urén* | *piireemá' uren* |
| piir- -ó   -ó *úr* | piir- -ó   -ó *urén* | piir- -eem-a'(!) ~´~ *uren* |
| STM- -SFX2 -L **big.M** | STM- -SFX2 -L **big.M.Pl** | STM- -SFX1-SFX2-L   **big.N.Pl** |
| ︸ dragonfly | ︸ dragonfly | ︸ dragonflies |
| “a big dragonfly” | “a big (group of) dragonflies” | “big dragonflies” |

A noun stem may take three different suffixes. In this configuration, one triggers
singular agreement on the adjective, another triggers plural agreement on the

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adjective, and the third may occur with either singular *or* plural agreement on

the adjective.  This configuration is called *singular* vs. *general* vs. *plural*.

(5.18)  SINGULAR VS. GENERAL VS. PLURAL

| ‘CROWNED CRANE’ | | | |
|---|---|---|---|
| SINGULAR | GENERAL | | PLURAL |
| *qoonqalumó* | *qoonqál* | | *qoonqalima’* |
| *qoonqalumó uúr* | *qoonqaló uúr* | *qoonqaló urén* | *qoonqalima’ uren* |
| qoonqál- -(a)m -ó    -ó úr | qoonqál- -∅ -ó uúr | qoonqál- -∅ -ó uren | qoonqál- -(a)m -a’(!)  ~´~ urén |
| STM-    -SFX1 -SFX2 -L big.M | STM-    -SFX2 -L big.M | STM-    -SFX2 -L big.M.Pl | STM-    -SFX1 -SFX2 -L   big.M.Pl |
| crowned.crane | crowned.cranes | crowned.cranes | crowned.cranes |
| “a big crane” | “a big (flock of) cranes” | “many (flocks of) cranes” | “big cranes” |

When a noun takes only one suffix, it may be *mass*, as in (5.19), *singularia*

*tantum*, as in (5.20) or *general*  (5.21).  Properties associated with Gorwaa mass

nouns recorded so far (based on Chierchia 1998) are their inability to take

cardinal numerals without use of an obligatory measure (5.22), the choice of

adjectives of quantity available to them (5.23), and their independence from

structure of the matter at hand (5.24).

(5.19)  MASS

| ‘WATER’ |
|---|
| MASS |
| *ma’ay* |
| *ma’áy yaariir* |
| ma’- -ay    ~´~ yaariir |
| STM- -SFX2 -L     much.N |
| water |
| “much water” |

(5.20)  SINGULARIA TANTUM

| ‘SKY’ | |
|---|---|
| SINGULAR | PLURAL |
| *dawri* | |
| *dawrír ur* | |
| dawr- -i    -r~´~ ur | |
| STM- -SFX2 -L     big.F | |
| sky | |
| “the great sky” | |

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(5.21)  General

| 'Earthquake' |
| --- |
| General |
| *kuunseeli* |

| | |
| --- | --- |
| *kuunseelír ur* | *kuunseelír uren* |
| kuunseel- -i    -r~´~ ur | kuunseel- -i    -r~´~ uren |
| Stm-     -Sfx2 -L    big.F | Stm-     -Sfx2 -L    big.F.Pl |
| <u>     earthquake     </u> | <u>     earthquake     </u> |
| "a big earthquake" | "big earthquakes" |

(5.22)  Mass Nouns Cannot Take Cardinals Without A Measure

    a.     *\*ma'áy wák*         [see comment in 20150810d.8]

            ma'-  -ay    ~´~   wák

            Stm-  -Sfx2 -L     one

                    water

            (intended meaning) 'one water'

    b.     *[...] ma'ay **chupadú** tám [...]*     [20150810d.10]

            ma'-  -ay    ~´~   **chupadú**     tám

            Stm-  -Sfx2 -L     **bottles.LN∅**   three

                    water

            "[...] three bottles of water [...]"

(5.23)  Mass Nouns And Quantity Adjectives

    a.     *\*tseereér **uren***

            tseer-  -ee     -r ~´~  **uren**

            Stm-   -Sfx2   -L    **big.F.Pl**

                    blood

            (intended meaning) 'much blood'

    b.     *#tseereér **ur***

            tseer-  -ee     -r ~´~  **ur**

            Stm-   -Sfx2   -L    **big.F**

                    blood

            (intended meaning) 'much blood'

    c.     *tseereér **yaariir***

            tseer-  -ee     -r ~´~  **yaariir**

            Stm-   -Sfx2   -L    **much.F**

                    blood

            'much blood'

(5.24)  Masses are independent of the structure of the matter

        **karkari**       vs.     *naanagumó*     |     *naanagí*

        **'grubs'**             'a (single) larva'    'larvae'

In some cases noun stems may take one suffix and be mass, and take another

suffix and trigger plural agreement.  In this latter case, they come to mean the

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substance of the mass has been dispersed.  They gain all the properties of count

nouns.  As demonstrated in (5.23), the mass noun *tseeree* most naturally takes

the quantity adjective *yaariír*, and is ungrammatical with the quantity adjective

*uren*.  In (5.25), the pluralized form of *tseeree* can grammatically take the

quantity adjective *uren*.

(5.25)  Mass vs. plural

| 'Blood' | |
|---|---|
| Mass | Plural |
| *tseeree* | *tseerdu* |
| *tseereér yaariir* | *tseerdú uren* |
| tseer- -ee  -r~´~  yaariir | tseer- -(a)d -u(!)   -r~´~ uren |
| Stm-  -Sfx2 -L       much.F | Stm-  -Sfx1-Sfx2  -L      big.N.Pl |
| blood | blood |
| "much blood" | "many spots (or pools) of blood" |

For exceptions to this characteristic, i.e. situations in which forms marked with

general number suffixes are restricted to only Sg or only Pl contexts, see §6.3.4.

**5.3 Characterizing the suffix: data presentation**

This is a detailed presentation and description of the empirical basis of this

chapter: the suffixes.

42 different noun suffixes have been identified in Gorwaa thus far, and are

presented in Table 5.1 below.  A detailed discussion of each suffix follows.

Suffixes have been organized according roughly to their occurrence with Sg

versus Pl morphology: 'Sg' suffixes occurring toward the top, and 'Pl' suffixes

occurring toward the bottom.  Those suffixes in between are organized on a cline

with those which are 'general (Sg-leaning)' bleeding into the 'general' suffixes,

which in turn bleed into the suffixes which are 'general (Pl-leaning)'.  This

continuum is based on frequency in the sample: as shown above, the *-oo* (F)

suffix of *lo/oo* in (5.16) and the -Ø (M) suffix of *qoonqál* in (5.17) can both take

either a Sg or a Pl adjective: a different (or larger) sample could indeed yield a

different arrangement of these in-between cases. What is certain is that there

are three broad groups: suffixes that are consistently Sg number, suffixes that are

consistently Pl number, and suffixes that are, more or less, general number.

Suffixes are shown with their gender, as well as their subgender. As described

above (§2.3.1.2), subgender refers to a different morphological pattern occurring

within a given gender, usually in a very restricted environment. In the case of

Gorwaa, every gender has two subgender patterns: Mo and Mk, Fr and Ft, and NØ

and Na. This morphology is only ever instantiated on the gender linker, and each

suffix is linked with one and only one subgender. This is why, for example, the

morpheme -*a* is considered three different suffixes: one suffix -*a* triggers Mo

agreement, another suffix -*a* triggers Mk agreement, and a third suffix -*a* triggers

Ft agreement. There is further evidence for why this division is valid, and will be

dealt with later in the sections describing the paradigms (see §6.2, §6.3, and

§6.4).

## 5. The suffix 1: the regular phenomena

Table 5.1: NOUN SUFFIXES

| | SUFFIX | GENDER | CONSTITUENT MORPHS | | EXAMPLE |
|---|---|---|---|---|---|
| | | | SFX1 | SFX2 | |
| SG | -(a)mó | Mo | (a)m | ó(M) | *gasesmó* 'a black snake' |
| | -ito'o | Fr | it | o'o(F) | *makito'o* 'an animal' |
| | -imo | Mo | iim | o(M) | *nanahhumo* 'a skull' |
| | -iimi | Fr | iim | i(Fr) | *se'eemi* 'a strand of hair' |
| | -aaC$_z$i | Fr | aaC$_z$ | i(Fr) | *balaali* 'a grain of millet' |
| GENERAL (SG-LEANING) | -o | Mo | | | *aako* 'a grandfather' |
| | -í | Fr | | | *fuufí* 'a weasel' |
| | -í | Ft | | | *hhinhhiní* 'pumpkins' |
| | -ó | Mo | | | *boohoontó* 'a hole' |
| GENERAL | -a | Mk | | | *dawa* 'a hand' |
| | -a | Mo | | | *niinga* 'a drum' |
| | -i | Ft | | | *luki* 'a reed mat' |
| | -i | Fr | | | *ba'aari* 'bees' |
| | -∅ | Mo | | | *gumbayaya'* 'a kidney' |
| | -ay | N∅ | | | *fu'unay* 'meat' |
| | -ú | Mo | | | */aamú* 'fruit' |
| | -oo | Fr | | | *tsir/oo* 'birds' |
| | -a | Ft | | | *asla* 'fire' |
| | -aa | Fr | | | */ameenaa* 'women' |
| | -ee | Fr | | | *yaa'ee* 'a river' |
| | -á | Mo | | | *niingá* 'green pigeons' |
| | -ay | Mo | | | *na/ay* 'a child' |
| | -u | Mo | | | *daawu* 'an elephant' |
| | -aangw | Mo | | | *kwu/uungw* 'a wall' |
| | -oo | N∅ | | | *daqoo* 'herds' |
| GENERAL (PL-LEANING) | -áy | Mo | | | *fiitsáy* 'brooms' |
| | -u! | N∅ | | | *gamu* 'an underside' |
| | -a'(!) | N∅ | | | *gongoxa'* 'elbows' |
| | -a'i | N∅ | | | *tsati'i* 'knives' |
| PL | -náy | Mo | (a)m | áy(M) | *ga/atanáy* 'fevers' |
| | -iya' | N∅ | iy | a'i(N) | *tsi/iya'* 'shins' |
| | -(a)ma' | N∅ | (a)m | a'(!)(N) | *tla/ama'* 'ditches' |
| | -iyoo | N∅ | iy | oo(N) | *kuriyoo* 'anuses' |
| | -aC$_z$i'i | N∅ | (a)C$_z$ | a'i(N) | *aamaami'i* 'grandmothers' |
| | -<ee>-aC$_z$u | N∅ | ee(t,m,r)+aC$_z$ | u!(N) | *tla/eefufu* 'living quarters' |
| | -eemoo  or -<ee>-oo | N∅ | eem / ee(t,m,r) | oo(N) / oo(N) | *hhafeetoo* 'large reed mats' |
| | -aawee | Fr | aw | ee(F) | *himtaawee* 'owls' |
| | -eeri | N∅ | eer | (a)'i(N) | *kwa/eeri* 'hares' |
| | -eema' | N∅ | eem | a'(!)(N) | *murungeema'* 'bellybuttons' |
| | -(a)du | N∅ | (a)d | u!(N) | *laydu* 'branding irons' |
| | -aC$_z$ee | Fr | (a)C$_z$ | ee(F) | *himtetee* 'metal necklace' |
| | -aC$_z$u | N∅ | (a)C$_z$ | u!(N) | */ampupu* 'platforms' |

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**5.3.1 Sg**

As the label implies, this group of suffixes form nouns which only occur with[2] other

forms showing Sg agreement.  Put differently, these suffixes *never* occur with Pl

agreement on the adjective (5.26).  Note that, crucially, this is not the case with

other groups of suffixes (5.27).

(5.26) Sg SUFFIX -*(A)MÓ* MAY OCCUR ONLY WITH OTHER FORMS SHOWING SG AGREEMENT
    a.    *gasesmó **tleér***
         gases- -(a)m -ó     -ó    **tleér**
         S<span style="font-variant:small-caps">tm</span>-   -S<span style="font-variant:small-caps">fx</span>1 -S<span style="font-variant:small-caps">fx</span>2   -L    **long.M**
                   black.snake
         'a long black snake'

    b.    **gasesmó *tlét***
         gases- -(a)m -ó     -ó    **tlét**
         S<span style="font-variant:small-caps">tm</span>-   -S<span style="font-variant:small-caps">fx</span>1 -S<span style="font-variant:small-caps">fx</span>2   -L    **long.M.Pl**
                   black.snake
         (intended meaning) 'long black snakes'

    c.    *gases**ima' tlet***
         gases- -(a)m -a'(!)   ~´~   **tlet**
         S<span style="font-variant:small-caps">tm</span>-   -S<span style="font-variant:small-caps">fx</span>1  -S<span style="font-variant:small-caps">fx</span>2   -L    **long.N.Pl**
                   black.snakes
         'long black snakes'

(5.27) G<span style="font-variant:small-caps">en</span> SUFFIX -*Ú* MAY OCCUR WITH OTHER FORMS SHOWING EITHER SG OR PL AGREEMENT
    a.    *slanú **tleér***
         slan-   -ú     -ó    **tleér**
         S<span style="font-variant:small-caps">tm</span>-   -S<span style="font-variant:small-caps">fx</span>2  -L    **long.M**
                python
         'a long python'

    b.    *slanú **tlét***
         slan-   -ú     -ó    **tlét**
         S<span style="font-variant:small-caps">tm</span>-   -S<span style="font-variant:small-caps">fx</span>2  -L    **long.M.Pl**
                python
         'long python' (i.e. as a species, versus short kinds of python)

---

[2] The choice of the term 'occur with' rather than 'trigger' is used advisedly, as it seems as if number agreement (seen on the adjective) consistently comes from an element other than the noun.  Number agreement (as well as cases of gender agreement 'mismatch') will be examined fully in Chapter 7.

This group may also be distinguished by its 'composed' suffixes. That is, all the suffixes of this group may be broken down into two smaller subcomponents. The first subcomponent is one of a series of morphemes readily identifiable as 'derivational' when used with verb stems (c.f. §2.3.2.4). The second subcomponent is always a number suffix from the 'general' group.

Each member of the 'Sg' group is further examined below.

**5.3.1.1 -(a)mó (Mo)**

*-(a)mó* is one of the most common suffixes, with approximately 190 tokens identified. The initial vowel is epenthetic, and thus its surface form may vary.

(5.28)  THE SUFFIX *-(A)MÓ* (MO)
    a.    *gasesmó*
         gases- **-(a)m**  -ó    -ó
         STM-   **-SFX1**  **-**SFX2  -L
                 black.snake
         'a black snake'

    b.    *bee/amó*
         bee/- **-(a)m**  -ó    -ó
         STM-   **-SFX1**  **-**SFX2  -L
                 flycatcher
         'a flycatcher'

    c.    *piindimó*
         piind- **-(a)m**  -ó    -ó
         STM-   **-SFX1**  **-**SFX2  -L
                 door.plank
         'a door plank'

The primary difference between the suffixes *-(a)mó* and *-imo* is in the presence of rising pitch accent.

A similar form -- *-mo* -- exists in Iraqw (Mous 1993: 63), which is probably cognate, but does not have rising pitch accent.  No such suffix is reported in Alagwa (Mous 2016).

The suffix may be decomposed into two parts: *(a)m* SFX1, and *ó* SFX2.  Note that SFX1 is recognizable in the *-VVm* of the durative verbal suffix (§2.3.2.4).  SFX2 is the general suffix *-ó*.

### 5.3.1.2 -(i)to'o (Fr)

*-(i)to'o* occurs only 7 times in the sample.

(5.29)  THE SUFFIX *-(I)TO'O* (FR)
    *makito'o*
    mak-  **-it**    **-o'o**   -r~´~
    STM-   **-SFX1**  **-SFX2**  -L
                  animal
    'an animal

Kießling (2000:8) noted that a masculine suffix is typically used to refer to one specimen of a tree or shrub, whereas a feminine suffix is used to refer to its flower or fruit.  Where it is the suffix *-(a)mó* accomplishes the former, it is the suffix *-(i)to'o* which is often used for the latter.

(5.30)  SUFFIX *-(A)MÓ* (MO) USED TO DENOTE A PLANT, SUFFIX *-(I)TO'O* (FR) USED TO DENOTE A FLOWER OR FRUIT
    a.      *maangwaré'*
            maangware'-  **-∅**     ~´~
            STM-          **-SFX2**  -L
                      k.o.sorghum
            'sorghum'

b.       *maangware'umó*
         maangware'- **-(a)m   -ó**      -ó
         S<small>TM</small>-              **-S<small>FX</small>1   -S<small>FX</small>2**  -L
         $\underbrace{\qquad\qquad\qquad\qquad\qquad}_{\text{k.o.sorghum.plant}}$
         'a sorghum plant'

c.       *maangware'ito'o*
         maangware'- **-it        -o'o**   -r~´~
         S<small>TM</small>-              **-S<small>FX</small>1   -S<small>FX</small>2**  -L
         $\underbrace{\qquad\qquad\qquad\qquad\qquad}_{\text{k.o.sorghum.head}}$
         'a head of sorghum'

The Iraqw cognate is identical (Mous 1993: 67). No equivalent exists in Alagwa.

The suffix may be decomposed into two parts: *it* SFX1, and *o'o* SFX2. SFX1 is

isomorphic with the verbal middle voice suffix -*VVt* (§2.3.2.4). SFX2 is not

immediately identifiable with a current suffix of Gorwaa, but Iraqw has a feminine

nominal suffix -*o'o* (Mous 1993:67), cognate with the current Gorwaa general suffix -

*oo* (F).

### 5.3.1.3 -imo (Mo)

*-imo* is rare, with just 2 occurrences in the sample.

(5.31)  T<small>HE SUFFIX</small> -*IMO* (M<small>O</small>)
        a.       *bambarimo*
                 bambar-        **-iim   -o**      -ó
                 S<small>TM</small>-              **-S<small>FX</small>1   -S<small>FX</small>2**  -L
                 $\underbrace{\qquad\qquad\qquad\qquad\qquad}_{\text{millet.grain}}$
                 'a grain of bulrush millet'

        b.       *nanahhumo*
                 nanahh-        **-iim   -o**      -ó
                 S<small>TM</small>-              **-S<small>FX</small>1   -S<small>FX</small>2**  -L
                 $\underbrace{\qquad\qquad\qquad\qquad\qquad}_{\text{skull}}$
                 'a skull'

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In Iraqw, the form may have been subsumed into the more widespread *-mo*. In

Alagwa, the cognate *-imoo* (Mous 2016: 98) can be identified.


The suffix may be decomposed into *-im* for SFX1 (once again, recognizable as the

durative), and the general suffix *-o* for SFX2.

### 5.3.1.4 -iimi (Fr)

*-iimi* occurs 10 times in the sample.

(5.32)  THE SUFFIX *-IIMI* (FR)

    a.    *se'eemi*

| se'- | **-iim** | **-i** | -r~´~ |
|------|----------|--------|-------|
| STM- | **-SFX1** | **-SFX2** | -L |

              strand.of.hair

        'a strand of hair'

    b.    *ya'eemi*

| ya'- | **-iim** | **-i** | -r~´~ |
|------|----------|--------|-------|
| STM- | **-SFX1** | **-SFX2** | -L |

              stream

        'a stream'

    c.    *gitsiimi*

| gits- | **-iim** | **-i** | -r~´~ |
|-------|----------|--------|-------|
| STM- | **-SFX1** | **-SFX2** | -L |

              leaf

        'a single leaf'

There is no recorded cognate in Iraqw. In Alagwa, the cognate is identical, but only

has 1 form (Mous 2016: 96).


The suffix may be decomposed into *-iim* for SFX1 (isomorphic with the durative),

and the general suffix *-i* (Fr) for SFX2.

**5.3.1.5 -aaCₖi (Fr)**

The suffix *-aaCₖi* (where the Cₖ is a consonant reduplicated from the last in the stem)

occurs on a single noun in the sample.

(5.33)  THE SUFFIX *-AACₖI* (FR)
     *balaali*
     bal-  **-aaCₖ**  **-i**     -r~´~
     STM-  **-SFX1**  **-SFX2**  -L
           ⎵‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾⎵
               sorghum.grain
     'a grain of millet'

The cognate is identical in Iraqw (Mous 1993: 69), as well as in Alagwa (Mous 2016:

96).


The suffix may be decomposed into *-aaCₖ* for SFX1, and *-i* for SFX2.  *-aaCₖ* is

recognizable in the pluractional suffix for verbs (§2.3.2.4), and *-i* is the *-i* (Fr)

general suffix below.


**5.3.2 General (Sg-leaning) (Gen_SG)**

This group of suffixes are general in number, but are often used with nouns to

denote Sg entities.  Nouns formed with these suffixes *usually* occur with Sg

agreement only (5.34), but when they exist in a pair with a noun formed with a Sg

suffix (5.35), or a noun formed with a Pl suffix (5.36), they may occur with either Sg

or Pl agreement.

(5.34)  THE GEN SUFFIX *-I* (FR) IS USUALLY SG
     a.    *fuufír tleer*
           fuuf-  **-í**     -r~´~  tleer
           STM-   **-SFX2**  -L     long.F
                  ⎵‾‾‾‾‾‾‾‾‾‾‾‾‾⎵
                      weasel
           'a long weasel'

b.     *\*fuufír tlet*
       fuuf-  **-í**       -r~´~  tlet
       <u>Stm-  **-Sfx2 -L**</u>    long.F.Pl
                weasel
       (intended meaning) 'long weasels'

c.     *fuufeemoó tlet*
       fuuf-  **-eem  -oo**   ~´~    tlet
       <u>Stm-  **-Sfx1 -Sfx2** -L</u>    long.N.Pl
                weasels
       'long weasels'

(5.35) Sg and Gen<sub>Sg</sub>

| 'Fish' | | |
|---|---|---|
| <u>*siyumó*</u> | <u>*siyó*</u> | |
| *siyumó úr* | *siyó úr* | *siyó urén* |
| siy- **-(a)m** -ó    -ó úr | siy-  -ó    -ó úr | siy-  -ó    -ó uren |
| <u>Stm- **-Sfx1** -Sfx2 -L</u>  big.M | <u>Stm- -Sfx2  -L</u> big.M | <u>Stm- -Sfx2 -L</u> big.M.Pl |
| fish | fish | fish |
| 'a big fish' | 'a big (species of) fish' | 'big fishes' |

(5.36) Gen<sub>Sg</sub> and Pl

| 'Dragonfly' | | |
|---|---|---|
| <u>*piiró*</u> | | *piireema'* |
| *piiró úr* | *piiró urén* | *piireemá' uren* |
| piir-  -ó    -ó  úr | piir-  -ó    -ó  uren | piir- **-eem** -a'(!) ~´~ uren |
| <u>Stm-  -Sfx2 -L</u> big.M | <u>Stm- -Sfx2 -L</u> big.M.Pl | <u>Stm- **-Sfx1-Sfx2** -L</u>  big.M.Pl |
| dragonfly | dragonfly | dragonfly |
| 'a big dragonfly' | 'a big (group of) dragonflies' | 'big dragonflies' |

None of the suffixes in this group may be broken down into smaller constituent

parts.  Indeed one of the forms (the suffix *-ó*), forms part of the Sg suffix *-(a)mó*.

Each member of the 'general (Sg-leaning) group is examined below.

## 5.3.2.1 -o (Mo)

Nouns formed in the suffix *-o* are found only twice in the sample.

(5.37) THE SUFFIX -*o* (MO)

    a.    *aako*

           aak-   -o     -ó

           STM-   -SFX2  -L

                   grandfather

           'a grandfather'

    b.    *tsoyo*

           tsoy-   -o     -ó

           STM-   -SFX2  -L

                   dikdik

           'a dikdik'

This suffix is slightly different from the rest in this group, in that, though there are recorded cases of it in nouns which may occur with either Sg or Pl agreement (as the examples in (5.37)) there are no recorded cases of it occurring within *only* Sg agreement. This trait makes it more similar to the general suffixes (to be discussed below). In addition to this, there exists little evidence for formally differentiating this suffix from -*u*. No cognates are identified in either Iraqw or Alagwa. Ultimately, this morpheme is not well-represented in the sample, and because of this, it is hard to classify it exactly based on its behavior.

The suffix -*o* is recognizable as the SFX2 of the Sg suffix -*imo*.

## 5.3.2.2 -í (Fr)

There are 23 occurrences of nouns taking the suffix -*í* (Fr) in the sample.

(5.38) THE SUFFIX -*í* (FR)

    a.    *bi/iní*

           bi/in-  -í      -r~´~

           STM-   -SFX2  -L

                 silky.blesmol

           'a silky blesmol'

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        b.        *loosí*

                loos-    -í       -r~´~

                STM-    -SFX2  -L

                         beans

                'beans'

        c.        *fuufí*

                fuuf-    -í       -r~´~

                STM-    -SFX2  -L

                         weasel

                'a weasel'

The suffix *-í* (Fr) and the suffix *-í* (Ft) may be distinguished chiefly based on the subgender they display in the gender linker. This seems a legitimate basis for making the division, in that there are no general patterns by which to predict which *-í* suffix will be Fr and which will be Ft.

(5.39)  THE SUFFIX *-í* (FR) VS. THE SUFFIX *-í* (FT)

        a.        *loosír uren*

                loos-   -í     **-r~´~**  uren

                STM-   -SFX2  **-L**     big.F.Pl

                         beans

                'big beans'

        b.        *babitá uren*

                bab-   -í     **-tá** uren

                STM-   -SFX2  **-L** big.F.Pl

                       k.o.insect

                'big insects'

The suffix *-í* (Fr) and *-í* (Fr) are different based solely on their pitch accent. Morphological ramifications of pitch accent can be seen most clearly in 'topic' morphology, which (among other environments), occurs obligatorily after *umó* 'every'. If a noun has rising pitch accent, the form will be *-ee*, if a noun has level pitch accent, the form will be *-oo*.

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(5.40)  THE SUFFIX *-í* (FR) VS. THE SUFFIX *-i* (FR)
   a. *umó bi/inihee*
     umó bi/in- **-í**  -r~´~ **-oo**
     every STM- **-SFX2** -L  **-Top**
           silky.blesmol
     'every silky blesmol'

   b. *umó ba'aariroo*
     umó ba'aar-**-i**  -r~´~ **-oo**
     every STM- **-SFX2** -L  **-Top**
           bee
     'every bee'

Kießling describes high tone suffixes as lexicalizations of high tone used for deriving onomastica from existing, level-toned, suffixes. As such, the common noun *siigan(d)* 'grasshopper' derives the proper name *Siigán*. The mechanism is extended from deriving proper nouns from common nouns, to deriving common nouns from an associated common noun, thus: *xir'ima* 'swelling' and *xir'imá* 'catarrh' (Kießling 2004: 10). This then explains why every high-toned suffix has a level-toned counterpart, as well as why many of the nouns with high-toned suffixes are for plant and animal names (5.41). This pattern is not absolute, however, and many exceptions occur (5.42), thus requiring the (synchronic) division of what, historically may have been only one suffix into two.

(5.41)  HIGH-TONED SUFFIXES FOR PLANTS AND ANIMALS
   a. *-í* (Fr) *bi/iní*
        bi/in- **-í**  -r~´~
        STM- **-SFX2** -L
            silky.blesmol
        'a silky blesmol'

   b. *-í* (Ft) *hhinhhiní*
        hhinhhin-  **-í**  -tá
        STM-    **-SFX2** -L
             pumpkin
        'pumpkin'

c.	*-ó* (Mo) *mootó*

   moot-  **-ó**  -ó

   S<small>TM</small>-   -S<small>FX</small>2 -L

     Swahili.sparrow

   'Swahili sparrow'

d.	*-ú* (Mo) *puundú*

   puund-  **-ú**  -ó

   S<small>TM</small>-   -S<small>FX</small>2 -L

     plant.sp.

   'a plant'

e.	*-áy* (Mo) */aráy*

   /ar- **-áy**  -ó

   S<small>TM</small>- -S<small>FX</small>2 -L

  white−galled.acacia

   'white-galled acacias'

(5.42) a. H<small>IGH</small>-T<small>ONED</small> S<small>UFFIXES FOR</small> N<small>ON</small>- P<small>LANTS AND</small> A<small>NIMALS</small>

    i.  */eetlí*

      /eetl- **-í**  -r~´~

      S<small>TM</small>-  -S<small>FX</small>2 -L

        pimple

      'a pimple'

    ii.  *duutsú*

      duuts- **-ú**  -ó

      S<small>TM</small>-  -S<small>FX</small>2 -L

        soup

      'soup'

    iii.  *naqáy*

      naq- **-áy**  -ó

      S<small>TM</small>-  -S<small>FX</small>2 -L

        canoe

      'canoe'

  b. L<small>EVEL</small> P<small>ITCH</small> A<small>CCENT</small> S<small>UFFIXES FOR</small> P<small>LANTS AND</small> A<small>NIMALS</small>

    i.  *tsoyo*

      tsoy- **-o**  -ó

      S<small>TM</small>-  -S<small>FX</small>2 -L

        dikdik

      'a dikdik'

    ii.     *tsarma'**i***

            tsarma'-     **-i**     -r~´~

            S<small>TM</small>-           **-S<small>FX</small>2**  -L

                         plant.sp.

            'plants'

    iii.    *daaw**u***

            daaw- **-u**     -ó

            S<small>TM</small>-    **-S<small>FX</small>2**  -L

                    elephant

            'elephant'

*-í* (Fr) does not seem to be separated from the larger *-i* (Fr) suffix in Mous' (1993) grammar, but in the dictionary (Mous, Qorro, Kießling: 2002), many forms appear with the suffix: *awkí* (p.17), *busí* (p.23), and *qulmí* (probably cognate with the Gorwaa *qaalimí*) (p.88). No such cognate is evident for Alagwa.

### 5.3.2.3 -í (Ft)

4 nouns take the suffix *í* (Ft) in the sample.

(5.43)  T<small>HE SUFFIX</small> *-í* (F<small>T</small>)

    a.    *naanag**í***

        naanag-     **-í**     -tá

        S<small>TM</small>-          **-S<small>FX</small>2**  -L

                   larvae

        'larvae'

    b.    *ma/a/ay**í***

        ma/a/ay-    **-í**     -tá

        S<small>TM</small>-          **-S<small>FX</small>2**  -L

                  insect.sp.

        'insects'

    c.    *hhinhhin**í***

        hhinhhin-    **-í**     -tá

        S<small>TM</small>-          **-S<small>FX</small>2**  -L

                  pumpkin

        'pumpkin'

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As detailed above, the suffix is distinct from *-í* (Fr) in the subgender it takes, and is

distinct from *-i* (Ft) in its tone.

The forms *-i* (Fr), *-í* (Fr), *-i* (Ft) and *-í*(Ft) are not differentiated in the Iraqw

grammar.  A cursory look through the Iraqw dictionary do not yield any *-í* (Ft)

forms.  No cognate is evident for Alagwa.

**5.3.2.4 -ó (Mo)**

The suffix *-ó* occurs with 11 nouns in the sample.

(5.44)  THE SUFFIX *-ó* (MO)
      a.     *piiró*
            piir-   **-ó**     -ó
            STM-   -SFX2  -L
                   dragonfly
            'a dragonfly'

      b.     *loomó*
            loom- **-ó**     -ó
            STM-   -SFX2  -L
                 plant.sp.
            'a plant'

      c.     *amayó*
            amay- **-ó**     -ó
            STM-   -SFX2  -L
                 plant.sp.
            'plants'

*-ó* is differentiated from *-o* in tone.  As for *-o* vs. *-u*, there exists little evidence for

formally differentiating *-ó* from *-ú*.  No cognates are identified in either Iraqw or

Alagwa.

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*-ó* is present as the SFX2 of the common Sg suffix *-(a)mó.*

### 5.3.3 General

The general suffixes consist of forms which may occur with other forms showing

either Sg or Pl morphology (5.45).

(5.45) THE GEN SUFFIX *-oo* (FR) MAY OCCUR WITH OTHER FORMS SHOWING EITHER SG OR PL
    AGREEMENT

    a.    tsir/**oó**r **hatlee**

        tsir/-  **-oo**   -r~´~  **hatlee**

        STM-   **-SFX2**  -L     **other.F.Pl**

               birds

        'other birds'

    b.    tsir/**oó**r **hatlá'** a milá […]             [20151021c.354]

        tsir/-  **-oo**   -r~´~  **hatlá'**     a     milá

        STM-   **-SFX2**  -L     **other.F.Pl**   CopN  what

               birds

        'what is another bird (species)?'

As a general pattern (and excluding the suffixes *-i* (Fr) and *-i* (Ft)), these suffixes do

not commonly form pairs with each other.  As an exhaustive list, the general suffixes

*-ú* and *-aa* pair once, and *-a* (Ft) and *-oo* (N) pair nine times (5.46).

(5.46) a. THE SINGLE -Ú (MO) AND -AA (FR) PAIR

        i.    *puund**ú***

            puund-        **-ú**    -ó

            STM-        **-SFX2**  -L

                      plant.sp

            'a plant'

        ii.    *puund**aa***

            puund-        **-aa**   -r~´~

            STM-        **-SFX2**  -L

                     plant.sps

            'plants'

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    b. EXAMPLE OF AN -A (FT) AND -OO (N) PAIR

        i.     *asla*

            asl-  **-a**    -tá

            STM-  **-SFX2** -L

                    fire

            'fire'

        ii.    *asloo*

            asl-  **-oo**   ~´~

            STM-  **-SFX2** -L

                    fires

            'fires'

Common to all general forms is that they have at least one noun which has no other form. Whether such forms are mass, singularia tantum or pluralia tantum is unclear. The other group that shares this pattern are the 'general (Pl-leaning)' suffixes.

(5.47) EXAMPLES OF 'ONE FORM NOUNS' WITH GENERAL SUFFIXES

    a.    *bahhi*

        bahh- **-i**    -r~´~

        STM-   **-SFX2** -L

               excessive.noise

        'excessive noise'

    b.    *tsoobú*

        tsoob- **-ú**    -ó

        STM-   **-SFX2** -L

               liquid.honey

        'liquid honey'

    c.    *boohhaa*

        boohh-      **-aa**  -r~´~

        STM-        **-SFX2** -L

               firewood.bundle

        'bundle of firewood'

    d.    *ageengw*

        ag-  **-aangw**     -ó

        STM-  **-SFX2**        -L

               dry.season

        'the dry season'

e.     *siigan(d)*
       siigand-        -Ø      -ó
       S<small>TM</small>-          **-S<small>FX</small>2**  -L
                     grasshopper
       'grasshoppers'

None of the suffixes in this group may be broken down into smaller constituent

parts.  Several forms: *-i* (Fr), *-oo* (NØ), and *-ee* are used to form composed suffixes.

### 5.3.3.1 -a (Mk)

The suffix *-a* (Mk) occurs 4 times in the sample.

(5.48)  T<small>HE SUFFIX</small> *-A* (M<small>K</small>)
       a.     *daw**a***
              daw-    **-a**      -kú
              S<small>TM</small>-   **-S<small>FX</small>2**  -L
                            hand
              'a hand'

       b.     *qar**a***
              qar-    **-a**      -kú
              S<small>TM</small>-   **-S<small>FX</small>2**  -L
                            gall
              'gall, bile'

       c.     *af**a***
              af-     **-a**      -kú
              S<small>TM</small>-   **-S<small>FX</small>2**  -L
                            mouth
              'mouth'

In an examination of nouns elicited in verbal contexts, the *-a* (Mk) affix is somewhat

commoner (5.49).  I am hesitant to call these forms 'nominalisations', because it is

not at all clear what the entire range of syntactic properties of these forms are.

Suffice it to say that, though there is significant overlap between noun suffixes and

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the set of suffixes used for this type of noun, many of the suffixes are entirely

different to those presented here.

(5.49)  THE *-A* (MK) SUFFIX FOR NOUNS ELICITED IN VERBAL CONTEXTS
      *tsu'a*         (c.f. *tsuú'* 'be sweet')
      tsu'-   **-a**   -kú
      STM-   **-SFX2**  -L
               sweetness
      'sweetness'

The suffixes *-a* (Mk), *-a* (Mo), and *-a* (Ft) all take different gender linkers, and can

therefore be established as separate suffixes.

(5.50)  -A (MK), -A (MO) AND -A (FT) ARE DIFFERENT SUFFIXES
    a.     *af**kú** úr*
         af-     -a     **-kú**   úr
         STM-   -SFX2  **-L**   big.M
                 mouth
         'a big mouth'

    b.     *niing**ó** úr*
         niing-  -a     **-ó**   úr
         STM-   -SFX2  **-L**   big.M
                 drum
         'a big drum'

    c.     *asl**tá** ur*
         asl-    -a     **-tá**   ur
         STM-   -SFX2  **-L**   big.F
                 fire
         'a big fire'

The suffix *-a* (Mk) is not listed as a separate suffix in the Iraqw grammar, but is

attested on several forms (Mous 1993: 84), all of which have identical cognates in

Gorwaa.  *-k* is identified as one of the gender linkers in Alagwa (Mous 2016: 49).

**5.3.3.2 -a (Mo)**

The suffix *-a* (Mo) occurs on 19 nouns in the sample.

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(5.51) THE SUFFIX *-A* (MO)

    a.    *yaqamba*

            yaqamb-    **-a**    -ó

            STM-          **-SFX2**  -L

                          buck

            'a buck'

    b.    *goranga*

            gorang-    **-a**    -ó

            STM-         **-SFX2**  -L

                     hero′s.song

            'hero's song'

    c.    *hima*

            him-   **-a**    -ó

            STM-   **-SFX2**  -L

                   rope

            'rope'

The suffix *-a* (Mo) is different from the suffixes *-a* (Mk) and *-a* (Ft) because each realize separate gender linkers. The suffix *-a* (Mo) is different from the suffix *-á* (Mo) because of pitch accent.

(5.52) A MINIMAL PAIR FOR THE SUFFIXES -A (MO) AND -Á (MO)

    a.    *niinga*

            niing-  **-a**    -ó

            STM-   **-SFX2**  -L

                   drum

            'a drum'

    b.    *niingá*

            niing-  **-á**    -ó

            STM-   **-SFX2**  -L

               green.pigeons

            'green.pigeons'

*-a* (Mo) is not recognized as a separate suffix in Iraqw, but cursory examination of the Iraqw dictionary (Mous, Qorro, and Kießling 2002) produces forms such as *bela* (p.21), *daanda* (p.26), and *musa* (p.75), all of which seem to be good evidence of a

cognate *-a* (Mo) in this language. *bi/ina* (p.275), *muuna* (p.301), and *uma* (p.321)

are possible cognates from the Alagwa grammar (Mous 2016).

**5.3.3.3 -i (Ft)**

The suffix -i (Ft) occurs on a total of 58 nouns in the sample.

(5.53)  THE SUFFIX *-I* (FT)
    a.    *bu'i*
        bu'-   **-i**    -tá
        STM-  **-SFX2**  -L
            cosmetic.burn.mark
        'a cosmetic burn mark'

    b.    *iingigi*
        iingig- **-i**    -tá
        STM-  **-SFX2**  -L
            locust
        'locusts'

    c.    *deli*
        del-   **-i**    -tá
        STM-  **-SFX2**  -L
            mushroom
        'a mushroom'

This suffix is different from the other general suffixes in that it freely pairs with

other suffixes of this group.

(5.54)  a. THE GENERAL SUFFIXES -I (FT) AND -OO (FR) AS A PAIR
        i.    *tsisi*
            tsis-   **-i**    -tá
            STM-   **-SFX2**  -L
                 spark
            'a spark'

        ii.   *tsisoo*
            tsis-   **-oo**   -r~´~
            STM-   **-SFX2**  -L
                 sparks
            'sparks'

b. THE GENERAL SUFFIXES -I (FT) AND -AA (FR) AS A PAIR
    i.     *kut**i***
             kut-   **-i**      -tá
             STM-  **-SFX2**  -L
                          mole
             'a mole' (i.e. the rodent)

    ii.    *kut**aa***
             kut-   **-aa**    -r~´~
             STM-  **-SFX2**  -L
                         moles
             'moles' (i.e. the rodents)

As mentioned above, the suffix -*i* (Ft) differs from the suffix -*i* (Ft) in pitch accent.

The suffix -*i* (Ft) differs from the suffix -*i* (Fr) in the form of the gender linker it

takes.

The suffix -*i* (Ft) is included in the suffix -*i* in the Iraqw grammar, which includes

both the -*i* (Ft) and the -*i* (Fr) suffixes (Mous 1993: 68).  There is no cognate in

Alagwa.

## 5.3.3.4 -i (Fr)

The suffix -*i* (Fr) occurs on a total of 194 nouns in the sample.

(5.55)  THE SUFFIX -*I* (FR)
    a.    *fiits**i***
             fiits-  **-i**     -r~´~
             STM-  **-SFX2**  -L
                      broom
             'a broom'

    b.    *ba'aar**i***
             ba'aar-     **-i**    -r~´~
             STM-       **-SFX2**  -L
                          bees
             'bees'

c.     *wa'ami*
wa'am-        **-i**      -r~´~
STM-           **-SFX2**  -L
$\underbrace{\phantom{wa'am-\quad\quad\quad\quad\quad}}_{\text{bone.marrow}}$
'bone marrow'

This suffix is different from the other general suffixes in that it freely pairs with

other suffixes of general suffix group.

(5.56)  a. THE GENERAL SUFFIXES -I (FR) AND -Ø (MO) AS A PAIR
 i.     *sakweeli*
sakweel-       -**i**      -r~´~
STM-           **-SFX2**  -L
$\underbrace{\phantom{sakweel-\quad\quad\quad\quad\quad\quad}}_{\text{ostrich}}$
'an ostrich'

 ii.    *sakwél*
sakweel-       -Ø       -ó
STM-           **-SFX2**  -L
$\underbrace{\phantom{sakweel-\quad\quad\quad\quad\quad}}_{\text{ostrich}}$
'ostriches'

 b. THE GENERAL SUFFIXES -I (FR) AND -AA (FR) AS A PAIR
 i.     */urfi*
/urf-   **-i**      -r~´~
STM-    **-SFX2**  -L
$\underbrace{\phantom{/urf-\quad\quad\quad\quad}}_{\text{skink}}$
'a skink'

 ii.    */urfaa*
/urf-   **-aa**     -r~´~
STM-    **-SFX2**  -L
$\underbrace{\phantom{/urf-\quad\quad\quad\quad}}_{\text{skinks}}$
'skinks'

As mentioned above, the suffix *-i* (Fr) is included in the suffix *-i* in the Iraqw

grammar (Mous 1993: 68).


The suffix *-i* (Fr) is present as SFX2 in the Sg suffixes *-iimi* and *-aaC$_z$i*.

**5.3.3.5 -∅ (Mo)**

The suffix -∅ (Mo) occurs on 71 nouns in the sample.

(5.57)  THE SUFFIX -∅ (MO)
      a.      *magá'*
             maga'--∅     -ó
             S<small>TM</small>-    **-S<small>FX</small>2**  -L
                        leech
             'leech'

      b.      *tlangás*
             tlangas-       -∅     -ó
             S<small>TM</small>-        **-S<small>FX</small>2**  -L
                        quivers
             'quivers'

      c.      *poohám*
             pooham-     -∅     -ó
             S<small>TM</small>-        **-S<small>FX</small>2**  -L
                     baboon
             'baboon'

Together with a zero suffix -∅, this suffix has the associated suprasegmental effects of shortening long vowels and adding high tone.  The fact that these suprasegmental features are *not* present in the stem can be seen in examining the other member of a pair (5.58).  In most every case, the long vowel and level pitch accent seem to indicate that it is the suffix -∅ (Mo) which is adding these effects.

(5.58)  LONG VOWEL, LEVEL PITCH ACCENT IN THE MATE OF -∅ (MO)
      a.      *sakweeli*
             sakweel-     -i     -r~´~
             S<small>TM</small>-        -S<small>FX</small>2  -L
                      ostrich
             'an ostrich'

      b.      *sakwél*
             sakweel-     -∅     -ó
              S<small>TM</small>-        -S<small>FX</small>2  -L
                    ostriches
             'ostriches'

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Kießling (2000: 11) describes the suffix -Ø (Mo) as a historical process of regressive

high tone spreading and apocope, an example is given below:

(5.55) Tᴏɴᴇ sᴘʀᴇᴀᴅɪɴɢ ᴀɴᴅ ᴀᴘᴏᴄᴏᴘᴇ ʀᴇsᴜʟᴛɪɴɢ ɪɴ -Ø (Mo)

| Pʀᴏᴛᴏ Wᴇsᴛ Rɪꜰᴛ | Pʀᴏᴛᴏ-Iʀᴀǫᴡᴏɪᴅ | | Gᴏʀᴡᴀᴀ |
|---|---|---|---|
| | Hɪɢʜ Tᴏɴᴇ Sᴘʀᴇᴀᴅ | Aᴘᴏᴄᴏᴘᴇ | |
| *masladú 'fruit trees' | *maslárú | *maslár | maslár |

Adapted from Kießling (2000: 11)

This form is not mentioned in the Iraqw grammar, but is clearly present, in both the

grammar and dictionary.

**5.3.3.6 -ay (NØ)**

The suffix -*ay* (NØ) occurs on three nouns in the sample.

(5.59)  Tʜᴇ sᴜꜰꜰɪx -*ᴀʏ* (NØ)
> a.    *fu'un**ay***
>       fu'un-  **-ay**      ~´~
>       ꜱᴛᴍ-   **-Sꜰx2** -ʟ
>                    meat
>       'meat'
>
> b.    *mak**ay***
>       mak-   **-ay**      ~´~
>       ꜱᴛᴍ-   **-Sꜰx2** -ʟ
>                    animals
>       'animals'
>
> c.    *maa'**ay***
>       maa'-  **-ay**      ~´~
>       ꜱᴛᴍ-   **-Sꜰx2** -ʟ
>                    water
>       'water'

It is difficult to see the difference between the suffix -*ay* (NØ) and the suffixes -*ay*

(Mo), and the suffix -*áy* (Mo) because the gender linker, due to vowel coalescence,

will often appear the same (i.e. a rising pitch accent on the final vowel). As shown in

*5. The suffix 1: the regular phenomena*

(5.60), when comparing *fu'unay* (-*ay* (NØ) suffix), *sookitáy* (-*áy* (Mo) suffix), and

*tsa/atay* (-*ay* (Mo) suffix), the gender agreement on the adjective provides the most

salient difference.

(5.60)  THE SUFFIXES -*AY* (NØ), -*AY* (MO), AND -*ÁY* (MO) APPEARING THE SAME IN SURFACE FORM
   a.     *fu'unáy naa/*
          fu'un-  **-ay**     ~´~      naa/
          STM-    **-SFX2**  -L       fresh.N
          ︹‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾︺
                      meat
          'fresh meat'

   b.     *sookitáy naá/*
          sookit--**ay**    -ó      naá/
          STM-    **-SFX2**  -L       fresh.M
          ︹‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾︺
               green.vegetable
          'fresh greens'

   c.     *tsa/atáy naá/*
          tsa/at--**áy**    -ó      naá/
          STM-    **-SFX2**  -L       fresh.M
          ︹‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾︺
                   egg.yolk
          'fresh egg yolk'

The -*ay* (NØ) suffix is not identified as a suffix in the Iraqw grammar, but is clearly

present in cognates of the three forms given above.

**5.3.3.7 -ú (Mo)**

The suffix -*ú* (Mo) occurs on 34 nouns in the sample.

(5.61)  THE SUFFIX -*Ú* (MO)
   a.     */aamú*
          /aam-  **-ú**     -ó
          STM-   **-SFX2**  -L
          ︹‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾︺
                     fruit
          'fruit'

b.  */awt**ú***
    /awt-  **-ú**    -ó
    STM-   **-SFX2** -L
    $\underbrace{\phantom{STM----SFX2--L}}_{\text{butterfly}}$
    'butterfly'

c.  *du/**ú***
    du/-  **-ú**    -ó
    STM-   **-SFX2** -L
    $\underbrace{\phantom{STM----SFX2--L}}_{\text{fat}}$
    'fat'

As mentioned above, the suffix *-ú* (Mo) can be differentiated from the suffix *-u* (Mo) on the basis of pitch accent. What is less certain is that the suffix *-ú* (Mo) and the suffix *-ó* (Mo) are different.

The Iraqw dictionary (Mous, Qorro, Kießling 2002) records several forms with this ending, including */awtú* (p.17), *danú* (p.27), and *tsamú* (p.107), all of whose suffixes are cognate with the one at hand.

**5.3.3.8 -oo (Fr)**

The suffix *-oo* (Fr) occurs on 51 nouns in the sample.

(5.62) THE SUFFIX *-OO* (FR)
a.  *tsir/**oo***
    tsir/-  **-oo**    -r~´~
    STM-    **-SFX2** -L
    $\underbrace{\phantom{STM----SFX2--L}}_{\text{birds}}$
    'birds'

b.  *daka'**oo***
    daka'-  **-oo**    -r~´~
    STM-    **-SFX2** -L
    $\underbrace{\phantom{STM----SFX2--L}}_{\text{baobab.trees}}$
    'baobab trees'

c.      *hho'oo*
        hho'-   **-oo**   -r~´~
        S<small>TM</small>-   **-S<small>FX</small>2**  -L
        $\underbrace{\hspace{3cm}}_{\text{sister}}$
        'sister'

This suffix can be differentiated from the suffix *-oo* (N∅) based on the gender

agreement it triggers.

(5.63)  T<small>HE SUFFIX</small> *-OO* (F<small>R</small>) <small>VS. THE SUFFIX</small> *-OO* (N∅)
        a.      *tsir/oór tsár*
                tsir/-  -oo     **-r~´~**  tsár
                S<small>TM</small>-   -S<small>FX</small>2  **-L**   two
                $\underbrace{\hspace{4cm}}_{\text{birds}}$
                'two birds'

        b.      *dageenoó tsár*
                dageen-         -oo     **~´~**   tsár
                S<small>TM</small>-           -S<small>FX</small>2  **-L**   two
                $\underbrace{\hspace{4cm}}_{\text{young.women}}$
                'two young women'

The cognate of the suffix *-oo* (Fr) is identified in Iraqw as *-o* (Mous 1993: 60), and in

Alagwa as *-oo* (Mous 2016: 87).

## 5.3.3.9 -a (Ft)

The suffix *-a* (Ft) occurs on 15 nouns in the sample.

(5.64)  T<small>HE SUFFIX</small> *-A* (F<small>T</small>)
        a.      *asla*
                asl-    **-a**    -tá
                S<small>TM</small>-   **-S<small>FX</small>2**  -L
                $\underbrace{\hspace{3cm}}_{\text{fire}}$
                'fire'

        b.      *hhafa*
                hhaf-   **-a**    -tá
                S<small>TM</small>-   **-S<small>FX</small>2**  -L
                $\underbrace{\hspace{3cm}}_{\text{ceiling.poles}}$
                'ceiling poles'

c.   *far**a***
far-  **-a**  -tá
STM-  -**SFX2** -L
︸_____︸
     bone
'bone'

In an examination of nouns elicited in verbal contexts, the *-a* (Mk) affix is somewhat

commoner (5.65).

(5.65)   THE *-A* (FT) SUFFIX FOR NOUNS ELICITED IN VERBAL CONTEXTS
a.   *ar**a***                   (c.f. *aár* 'to see')
ar-  **-a**  -tá
STM-  -**SFX2** -L
︸_____︸
     seeing
'seeing'

b.   *da/**a***                  (c.f. *daa/* 'to burn')
da/-  **-a**  -tá
STM-  -**SFX2** -L
︸_____︸
     burning
'burning'

c.   *kwahh**a***               (c.f. *kwaáhh* 'to throw')
kwahh-       **-a**  -tá
STM-         -**SFX2** -L
︸_____︸
       throwing
'throwing'

In Iraqw, the suffix *-a* (Ft) is grouped together with the suffix *-a* (Fr) as a productive

'nominalizing suffix' (Mous 1993: 76).  In Alagwa, an identical suffix is also identified

as a nominalizer (Mous 2016: 107).  Its nominalizing status forces one to review the

stems of what were considered in (5.64) to be entirely 'nominal', and draw some

interesting associations: in (5.64).b), the stem *hhaf-* seems to be the same as the

verb *hhaáf* 'to lay out'; in (5.64).c), the stem *far-* and the verb *faár* 'to count' are also

temptingly similar.  No such parallel could be found between *asl-* the stem in

(5.64).a) and any other verb.

**5.3.3.10 -aa (Fr)**

The suffix *-aa* (Fr) occurs on 132 nouns in the sample.

(5.66)  THE SUFFIX *-AA* (FR)

    a.    *hhanslaa*

            hhansl-      **-aa**   -r~´~

            STM-          **-SFX2** -L

                         cornstalks

            'cornstalks'

    b.    *deeqwaa*

            deeqw-      **-aa**   -r~´~

            STM-          **-SFX2** -L

                         razor

            'razor'

    c.    */aantaa*

            /aant- **-aa**   -r~´~

            STM-   **-SFX2** -L

                   termite.mound

            'a termite mound'

The suffix *-aa* (Fr) is grouped with the *-a* suffix in Iraqw, discussed above in its 'nominalizing' function, and discussed in its function as noun suffix in (Mous 1993: 60).  The only comparable suffix in Alagwa is once again the 'nominalizer' (Mous 2016: 107).

**5.3.3.11 -ee (Fr)**

The suffix *-ee* (Fr) occurs 19 times in the sample.

(5.67)  THE SUFFIX *-EE* (FR)

    a.    *bambaree*

            bambar-     **-ee**   -r~´~

            STM-          **-SFX2** -L

                    bulrush.millet

            'bulrush millet'

b.     *tseeree*
       tseer- **-ee**    -r~´~
       S<small>TM</small>-   **-S<small>FX</small>2**  -L
                blood
       'blood'

c.     *iimpee*
       iimp- **-ee**    -r~´~
       S<small>TM</small>-   **-S<small>FX</small>2**  -L
               trough
       'a trough'

The suffix *-ee* (Fr) is the same as what Mous identified as *-e* in Iraqw (1993: 50), and as *-ee* in Alagwa (2016: 82).

The suffix *-ee* (Fr) is visible as SFX2 in the Pl composed suffixes *-aawee* and *-aC<sub>z</sub>ee*.

### 5.3.3.12 -á (Mo)

The suffix *-á* (Mo) occurs on 11 nouns in the sample.

(5.68)  T<small>HE SUFFIX</small> *-Á* (M<small>O</small>)
    a.     *niingá*
        niing- **-á**     -ó
        S<small>TM</small>-   **-S<small>FX</small>2**  -L
              green.pigeons
        'green pigeons'

    b.     *filá*
        fil-    **-á**     -ó
        S<small>TM</small>-   **-S<small>FX</small>2**  -L
              anteater
        'anteater'

    c.     *kuumbá*
        kuumb-      **-á**     -ó
        S<small>TM</small>-        **-S<small>FX</small>2**  -L
              brother−in−law
        'brother-in-law'

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The Iraqw grammar does not list -*á* (Mo) as a separate suffix, but a cursory look through the Iraqw dictionary (Mous, Qorro, and Kießling 2002) yields forms such as *aará* (p.15) and *il/ará* (p.55).

### 5.3.3.13 -ay (Mo)

The suffix -*ay* (Mo) occurs on 34 nouns in the sample.

(5.69)  THE SUFFIX -*AY* (MO)
a.　　*na/**ay***
　　　　na/-　　**-ay**　　-ó
　　　　STM-　　**-SFX2**　-L
　　　　　　　　child
　　　　'child'

b.　　*tsaxw**ay***
　　　　tsaxw-**-ay**　　-ó
　　　　STM-　　**-SFX2**　-L
　　　　　　　grasshopper
　　　　'a grasshopper'

c.　　*tsuh**ay***
　　　　tsuh-　　**-ay**　　-ó
　　　　STM-　　**-SFX2**　-L
　　　　　　　lower.back
　　　　'lower back'

The suffix -*ay* (Mo) is identified in Iraqw as the suffix -*aay* (Mous 1993: 48). No such suffix is identified for Alagwa.

### 5.3.3.14 -u (Mo)

The suffix -*u* (Mo) occurs on 24 nouns in the sample.

(5.70)  THE SUFFIX -*U* (MO)
      a.    *daaw**u***
            daaw-  **-u**     -ó
            STM-    -**SFX2**  -L
                      elephant
            'elephant'

      b.    *des**u***
            des-   **-u**     -ó
            STM-    -**SFX2**  -L
                      girls
            'girls'

      c.    *mus**u***
            mus-   **-u**     -ó
            STM-    -**SFX2**  -L
                      pestle
            'a pestle'

The Iraqw dictionary (Mous, Qorro, Kießling 2002) records several forms with this ending, including *awu* (p.17), *qaytsu* (p.86), and *yuundu* (p.122).

### 5.3.3.15 -aangw (Mo)

The suffix -*aangw* (Mo) occurs on 36 nouns in the sample.

(5.71)  THE SUFFIX -*AANGW* (MO)
      a.    *se'**eengw***
            se'-   -**aangw**     -ó
            STM-   -**SFX2**       -L
                      hair
            'hair'

      b.    *dir**aangw***
            dir-   -**aangw**     -ó
            STM-   -**SFX2**       -L
                      lion
            'a lion'

c.     *kwu/**uungw***
        kwu/-  **-uungw**     -ó
        S<small>TM</small>-   **-S<small>FX</small>2**       -L
                   wall
        'a wall'

The suffix *-aangw* (Mo) is identified in Iraqw as *-angw* (Mous 1993: p.49). No similar suffix exists in Alagwa.

## 5.3.3.16 -oo (N∅)

The suffix *-oo* (N∅) occurs on 23 nouns in the sample.

(5.72)  T<small>HE SUFFIX</small> *-OO* (N∅)
    a.     *dageen**oo***
        dageen-      **-oo**    ~´~
        S<small>TM</small>-          -S<small>FX</small>2  -L
               young.women
        'young women'

    b.     *daq**oo***
        daq-   **-oo**    ~´~
        S<small>TM</small>-   -S<small>FX</small>2  -L
            herds
        'herds'

    c.     *gwe'ed**oo***
        gwe'ed-      **-oo**    ~´~
        S<small>TM</small>-          -S<small>FX</small>2  -L
               buttock
        'a buttock'

The suffix *-oo* (N∅) is identified as *-o* in Iraqw (Mous 1993: 57), and as *-oo* in Alagwa (p.87).

The suffix *-oo* (N∅) is present as SFX2 in the Pl composed suffixes *-iyoo* and *-eemoo* or *-<ee>-oo*.

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**5.3.4 General (Pl-leaning) (Gen_{PL})**

This group of suffixes is general number, but are *usually* used to form nouns which

denote Pl entities (5.73), but when they exist in a pair with a noun formed with a Sg

suffix (5.74), or a noun formed with a Pl suffix (5.75), they may occur with other

forms showing either Sg or Pl agreement.

(5.73)  GEN_{PL} SUFFIX -*AY* MAY ONLY OCCUR WITH OTHER FORMS SHOWING PL AGREEMENT

      a.     *purusáy tlét*

            purus- **-ay**   -ó    **tlét**

            STM-  **-Sғx2** -L    **long.M.Pl**

                    insect.sp

            'long insects'

      b.     *\*purusáy tleér*

            purus- **-ay**   -ó    **tleér**

            STM-  **-Sғx2** -L    **long.M**

                    insect.sp

            (intended meaning) 'a long insect'

      c.     *puruseér* **tleer**

            purus- **-ee**     -r~´~ **tleer**

            STM-  **-Sғx2** -L    **long.F**

                    insect.sp

            'a long insect'

(5.74)  SG AND GEN_{PL}

| 'ORPHAN' | | |
|---|---|---|
| *panimó* | *panáy* | |
| *panimó úr* | *panáy úr* | *panáy urén* |
| pan- -(a)m -ó   -ó úr | pan- -áy  -ó úr | pan- -áy   -ó urén |
| STM- -Sғx1 -Sғx2 -L big.M | STM- -Sғx2 -L big.M | STM- -Sғx2 -L big.M.Pl |
| orphan | orphan | orphans |
| 'a big orphan' | 'a big (group of) orphans' | 'big orphans' |

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(5.75) Gen<sub>PL</sub> AND P<sub>L</sub>

| 'Evening'[3] | | |
|---|---|---|
| *xweera* | | *xweerdu* |
| *xweerá tleer*<br>xweer- -a'(!)  ~´~ tleer<br>Stm-    -Sfx2 -L  long.N<br><span style="text-decoration:underline">evening</span><br>'a long evening' | *xweerá tlet*<br>xweer- -a'(!)  ~´~ tlet<br>Stm-    -Sfx2 -L  long.N.Pl<br><span style="text-decoration:underline">evening</span><br>'a long (series of) evenings' | *xweerdu tlet*<br>xweer- -(a)d -u!    ~´~ tlet<br>Stm-    -Sfx1 -Sfx2 -L  long.N.Pl<br><span style="text-decoration:underline">evening</span><br>'long evenings' (i.e. isolated evenings, not in series) |

None of the suffixes in this group may be broken down into smaller constituent

parts.  In fact, all of these forms are used to form the composed 'Pl' suffixes, to be

discussed below.


**5.3.4.1 -áy (Mo)**

The suffix *-áy* (Mo) occurs on 121 nouns in the sample.

(5.76) The suffix *-áy* (Mo)

    a.    *deeláy*
            deel- -**áy**    -ó
            Stm- -**Sfx2** -L
                    kids
            'kids' (i.e. baby goats)

    b.    *fiitsáy*
            fiits- -**áy**    -ó
            Stm-  -Sfx2 -L
                  brooms
            'brooms'

    c.    *yaaháy*
            yaah- -**áy**    -ó
            Stm-  -Sfx2 -L
                  soft.rain
            'soft rain'

---

[3] The noun in the example *xweera* 'evening' is, on the surface, a noun ending in *-a*.  However, because of the NØ agreement it triggers, it is assumed that the suffix is *-a'(!)*, and that the final glottal stop has undergone apocope.

## 5. The suffix 1: the regular phenomena

The suffix -*áy* (Mo) is identified in Iraqw as the suffix -*aay*, following a tone-spreading operation. This signals a significant difference in the classification of suffixes to that undertaken in this work, and will be expanded upon.

Mous (1993: 49) notes that the suffix identified here as -*áy* (Mo) is actually the suffix -*ay* (Mo) (discussed above), and is realized with rising pitch accent (RPA) because of tone spreading from high tone on the lexical root (modeled in (5.77)). The argument seems valid for two primary reasons: i) a high-toned suffix may be paired with other high-toned suffixes (5.78), which creates the appearance of a common high-toned stem spreading RPA to the suffix underlyingly, and ii) when a high-toned suffix is paired with the suffix -∅ Mo (5.79), which could be interpreted as a bare root rather than a suffixed form.

(5.77)  PROGRESSIVE TONE SPREAD TO THE SUFFIX (Mous 1993: 49)

| SURFACE SUFFIX | STEM + SUFFIX | SURFACE FORM FOLLOWING HIGH TONE SPREAD |
|---|---|---|
| -ay (Mo) | na/ + ay (Mo) | na/ay 'a child' |
| -áy (Mo) | deél + ay (Mo) | deeláy 'kids' (i.e. baby goats) |

(5.78)  HIGH-TONED PAIRS, CREATING THE IMPRESSION OF A HIGH-TONED STEM (Mous 1993: 49)

$$\begin{matrix} & & -u & xuuntlú & \text{'unusual protuberance'} \\ xu\textbf{ú}ntl- & + & = & \\ & & -ay & xuuntláy & \text{'unusual protuberances'} \end{matrix}$$

(5.79)  HIGH-TONED SUFFIX PAIRED WITH SUFFIX -∅ (MO), CREATING THE IMPRESSION OF A HIGH-TONED STEM (MOUS 1993: 49)

$$\begin{matrix} & & -i & tsaxweelí & \text{'spring trap'} \\ tsaxwe\textbf{é}l- & + & = & \\ & & -∅ & tsaxwél & \text{'spring traps'} \end{matrix}$$

*5. The suffix 1: the regular phenomena*

In both of these configurations, the rising pitch accent could be viewed as inherent

to the stem, and undergoing *progressive* tone spread to the suffix.

It is argued in this work, contra Mous (1993) that tone is, in fact, not a property of

the *stem*, but a property of the *suffixes.*

Though the 'high tone on the stem' (demonstrated in (5.77)-(5.79)) argument holds

well for pairs in which tone is the *same* on both members (as above), it fares less

well for pairs in which tone is *different* (5.80).  This is rendered especially

problematic when in some cases, the suffix can bear RPA, and in other cases, it does

not (5.81).

(5.80)  PAIR WITH DIFFERING TONE VALUE

|  |  |  |  | -i | *bi/iní* | **(RPA)** | 'silky blesmol' |
|---|---|---|---|---|---|---|---|
| *bi/ín-* | + | = |  |  |  |  |  |
|  |  |  |  | -aa | *bi/in**aa*** | **(LPA)** | 'silky blesmols' |

(5.81)  ONE SUFFIX, TWO TONAL REALIZATIONS

    a. -I OF *FIITSI*: LEVEL PITCH ACCENT

|  |  |  |  | -i | *fiits**i*** | **(LPA)** | 'spring trap' |
|---|---|---|---|---|---|---|---|
| *fiíts-* | + | = |  |  |  |  |  |
|  |  |  |  | -ay | *fiits**áy*** | **(RPA)** | 'spring traps' |

    b. -I OF *DO/Í*: RISING PITCH ACCENT

|  |  |  |  | -i | *do/í* | **(RPA)** | 'cane rat' |
|---|---|---|---|---|---|---|---|
| *dó/-* | + | = |  |  |  |  |  |
|  |  |  |  | -ay | *do/**áy*** | **(RPA)** | 'cane rats' |

The progressive tone spreading argument could be saved by positing that, in some

cases, tone spreading is blocked, as it must be in cases such as *-aa* in (5.80), but this

is a harder argument to make when the suffix is phonologically the same, as in the *-i*

of *fiitsi* and the *-i* of *bi/iní*.  Essentially, one would have to posit two different kinds

of *-i* suffix, one that allows tone spreading, and one that does not.  This yields the

same number of suffixes as proposed in the current work, but has the additional

complexity of either i) having to store information on tone in the root/stem (e.g. to

achieve the correct surface forms, the (otherwise identical) *niinga* 'drum' and *niingá*

'green pigeon', would have to exist as two separate underlying stems, *niing-* and

*niíng-*, respectively); or ii) having to store one noun of an otherwise identical pair as

a lexicalized entry (e.g. *niinga* 'drum' and *niingá* 'green pigeon', would have to exist

as two separate underlying stems, *niing-* and *niingá*, respectively). The system

envisaged in the current work proposes that tonal information is stored neither on

the root, nor in its spell-out rules in List 2, but that this work is carried out by the

suffix in a principled, regular way. In addition to this, lexical entries (including

many proper names) are minimized, and left to be derived constructionally (c.f.

§4.4.3). As such, suffice it to say at this point that the difference between *-áy* (Mo)

and *-ay* (Mo) (and of other high-tone, low-tone suffix pairs) is not due to progressive

tone spreading, but is because the suffixes themselves are different, and their tone

pattern is inherent to them.

No equivalent to the suffix *-áy* (Mo) is identified in Alagwa.

The suffix *-áy* is present as SFX2 in the Pl composed suffix *-náy*.

### 5.3.4.2 -u! (N∅)

The suffix *-u!* (N∅) occurs on 34 nouns in the sample.

(5.82)  THE SUFFIX *-U!* (N∅)
  a. *gam**u***
    gam- **-u!**  ~´~
    STM- -SFX2 -L
        underside
    'underside'

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b.    *bol**u***
      bool-  **-u!**    ~´~
      STM-   -SFX2  -L
      ⏟
      days
      'days'

c.    *man**u***
      maan- **-u!**    ~´~
      STM-   -SFX2  -L
      ⏟
      zombies
      'zombies'

Together with a *-u*, this suffix has the suprasegmental effect in the preceeding

syllable of shortening a long vowel (5.83), eliminating a glide (5.84) as well as

changing [w] to [b] and [r] to [d] in a process of fortition (5.85).  Following a

convention begun by Kießling (1994), this effect is represented by the symbol !.  The

fact that this suprasegmental effect is *not* present in the stem can be seen by

examining the other member of a pair.

(5.83)  SHORTENING EFFECT OF -U! (NØ)
        a.    i. ***boo**loo*
                 b**oo**l--oo    -r~´~
                 STM-  **-SFX2**  -L
                 ⏟
                 day
                 'a day'

              ii. *b**o**lu*
                  b**oo**l-     -u**!**    ~´~
                  STM-        **-SFX2**  -L
                  ⏟
                  days
                  'days'

        b.    i. *y**aa**'ee*
                 y**aa**'- -ee     -r~´~
                 STM-  **-SFX2**  -L
                 ⏟
                 river
                 'a river'

ii. *ya'u*

yaa- -u**!**　　～´～

S<small>TM</small>- -**S<small>FX</small>2** -L

<u>　　　　　　　</u>
rivers

'rivers'

(5.84) G<small>LIDE</small>-E<small>LIMINATION</small> <small>EFFECT OF</small> *-u!* (NØ)

a.　　*qaymoo*

qaym- -oo　　-r～´～

S<small>TM</small>-　-**S<small>FX</small>2** -L

<u>　　　　　　　</u>
field

'field'

b.　　*qamu*

qaym- -u**!**　　～´～

S<small>TM</small>-　-**S<small>FX</small>2** -L

<u>　　　　　　　</u>
fields

'fields'

(5.85) F<small>ORTITION</small> <small>EFFECT OF</small> *-u!* (NØ)

a.　i. *siiwaa*

siiw--aa　　-r～´～

S<small>TM</small>- -**S<small>FX</small>2** -L

<u>　　　　　　　</u>
protocol

'protocol'

ii. *sibu*

siiw-　　　-u**!**　　～´～

S<small>TM</small>-　　　-**S<small>FX</small>2** -L

<u>　　　　　　　</u>
protocols

'protocols'

b.　　i. *fara*

far- -a　　　-tá

S<small>TM</small>-　-**S<small>FX</small>2** -L

<u>　　　　　　　</u>
bone

'a bone'

ii. *fadu*

far--u**!**　　～´～

S<small>TM</small>- -**S<small>FX</small>2** -L

<u>　　　　　　　</u>
bones

'bones'

*5. The suffix 1: the regular phenomena*

The suffix *-u!* (NØ) is identical in Iraqw (Mous 1993: 55), as well as in Alagwa (Mous 2016: 92).

The suffix *-u!* (NØ) is present as SFX2 in the Pl composed suffixes *-aCzu*, *-(a)du*, and *-<ee>-aCzu*.

**5.3.4.3 -a'(!) (NØ)**

The suffix *-a'(!)* (NØ) occurs on 37 nouns in the sample.

(5.86)  THE SUFFIX *-A'(!)* (NØ)
    a.    *laqeela'*
        laqeel-**-a'(!)**  ~´~
        STM-    -SFX2 -L
                    thorns
        'thorns'

    b.    *gongoxa'*
        gongoox-     **-a'(!)**  ~´~
        STM-           -SFX2 -L
                     elbows
        'elbows'

    c.    *giitsee/a'*
        giitsee/-     **-a'(!)**  ~´~
        STM-           -SFX2 -L
                   face
        'a face'

The group of suprasegmental effects ! that accompany the suffix *-a'* do not consistently apply, and are therefore represented as (!). Effects can be seen when comparing members of a pair (5.87).

*5. The suffix 1: the regular phenomena*

(5.87) Sᴜᴘʀᴀsᴇɢᴍᴇɴᴛᴀʟ ᴇꜰꜰᴇᴄᴛs ᴏꜰ -*A'(!)* (NØ)

    a. ᴇꜰꜰᴇᴄᴛs ᴏʙsᴇʀᴠᴇᴅ

        i. *gong**oo**xi*

        gong**oo**x-   -i       -r~´~

        Sᴛᴍ-       **-Sꜰx2**  -L

                     elbow

        'an elbow'

        ii. *gong**o**xa'*

        gong**oo**x-  -a'(**!**)   ~´~

        Sᴛᴍ-       **-Sꜰx2**  -L

                     elbows

        'elbows'

    b. ᴇꜰꜰᴇᴄᴛs ᴜɴᴏʙsᴇʀᴠᴇᴅ

        i. *ak**ee**si*

        ak**ee**s-    -i       -r~´~

        Sᴛᴍ-       **-Sꜰx2**  -L

                   cooking.stone

        'a cooking stone'

        ii. *ak**ee**sa'*

        ak**ee**s-    -a'(**!**)  ~´~

        Sᴛᴍ-       **-Sꜰx2**  -L

                   cooking.stones

        'cooking stones'

Sometimes, the final glottal stop is not present. This is due to word-final apocope.

(5.88) Wᴏʀᴅ-ꜰɪɴᴀʟ ᴀᴘᴏᴄᴏᴘᴇ ᴏꜰ ɢʟᴏᴛᴛᴀʟ sᴛᴏᴘ

    a.     /ayl**a**

        /ayl-  **-a'(!)**  ~´~

        Sᴛᴍ-   -Sꜰx2  -L

              wedding.song

        'wedding song'

    b.     *xweer**a***

        xweer- **-a'(!)** ~´~

        Sᴛᴍ-    -Sꜰx2 -L

               evening

        'an evening'

*5. The suffix 1: the regular phenomena*

The suffix *-a'(!)* is identified in these forms, as opposed to other *-a* suffixes (*-a* (Ft),

*-a* (Mk) or *-a* (Mo)) because of agreement patterns present on the gender linker as

well as adjective (5.89).

(5.89) AGREEMENT PATTERNS DIFFERENTIATE *-A(!)* (NØ) WITH WORD-FINAL APOCOPE, *-A*(MK),
   *-A*(MO), AND *A* (FT)
   a.   *dungá ur*          (suffix: *-a'(!)*, with word-final apocope)
        dung- **-a'(!)**  ~´~      ur
        S̲T̲M̲-̲ ̲ ̲-̲S̲F̲X̲2̲ ̲-̲L̲      big.N
                  nose
        'a big nose'

   b.   *afkú úr*          (suffix: *-a* (Mk))
        af-      **-a**      -kú      úr
        S̲T̲M̲-̲ ̲ ̲ ̲-̲S̲F̲X̲2̲ ̲-̲L̲      big.M
                  mouth
        'a big mouth'

   c.   *niingó úr*        (suffix: *-a* (Mo))
        niing- **-a**      -ó      úr
        S̲T̲M̲-̲ ̲ ̲ ̲-̲S̲F̲X̲2̲ ̲-̲L̲      big.M
                  drum
        'a big drum'

   d.   *asltá ur*         (suffix: *-a* (Ft))
        asl-     **-a**      -tá      ur
        S̲T̲M̲-̲ ̲ ̲ ̲-̲S̲F̲X̲2̲ ̲-̲L̲      big.F
                  fire
        'a big fire'

The suffix *-a'(!)* is identical in Iraqw (Mous 1993: 57), and *-a* in Alagwa (Mous 2016:

94).

The suffix *-a'(!)* (NØ) is present as SFX2 in the Pl composed suffixes *-(a)ma'*, and

*eema'*.

**5.3.4.4 -a'i (N∅)**

The suffix *-a'i* (N∅) occurs on 33 nouns in the sample.

(5.90)  THE SUFFIX *-A'I* (N∅)
      a.     *tloomi'i*
            tloom- **-a'i**   ~´~
            STM-   **-SFX2** -L
                    mountains
            'mountains'

      b.     *na/i'i*
            na/-   **-a'i**   ~´~
            STM-   **-SFX2** -L
                   children
            'children'

      c.     *himi'i*
            him-   **-a'i**   ~´~
            STM-   **-SFX2** -L
                 ropes
            'ropes'

In virtually all cases, the [a] of the suffix has undergone regressive assimilation across the glottal consonant, thus resulting in a suffix whose form is typically *-i'i*.

In some cases, the final vowel and the glottal consonant are not present. This is due to word-final apocope.

(5.91)  WORD-FINAL APOCOPE OF GLOTTAL STOP AND [i]
      a.     *bihhi*
            bihh- **-a'i**   ~´~
            STM-   **-SFX2** -L
                 side
            'side' (i.e. of the body)

      b.     *amsi*
            ams-   **-a'i**   ~´~
            STM-   **-SFX2** -L
                 night
            'night'

*5. The suffix 1: the regular phenomena*

The suffix *-a'i* is identified in these forms, as opposed to other *-i* suffixes (*-i* (Fr), or *-a* (Ft)) because of agreement patterns present on the linker as well as adjective (5.92).

(5.92)  AGREEMENT PATTERNS DIFFERENTIATE *-A'I* (NØ) WITH WORD-FINAL APOCOPE, *-I*(FR), AND *-I* (FT)

      a.    *amsí tleer*          (suffix: *-a'i*, with word-final apocope)

          amsi- **-a'i**    ~´~   tleer

          STM-   **-SFX2**  **-L**   long.N

                  night

          'a long night'

      b.    *mulkír tleer*        (suffix: *-i* (Fr))

          mulk- **-i**     **-r~´~** tleer

          STM-   **-SFX2**  **-L**   long.F

                 scar

          'a long scar'

      c.    *lukitá tleer*       (suffix: *-i* (Ft))

          luk-   **-i**     **-tá**  tleer

          STM-   **-SFX2 -L**   long.F

               reed.mat

          'a long reed mat'

The suffix *-a'i* (NØ) is identical in Iraqw (Mous 1993: 52), and *-(a)a'i* in Alagwa (Mous 2016: 83).

The suffix *-a'i* (NØ) is present as SFX2 in the Pl composed suffixes *-iya'*, *-eeri*, and *-aC_zi'i*.

## 5.3.5 Pl

This group of suffixes form nouns which only occur with Pl agreement. These suffixes *never* show Sg agreement on the adjective (5.93). This is a crucial difference from all other groups of suffixes (5.94).

*5. The suffix 1: the regular phenomena*

(5.93) P<span style="font-variant:small-caps">L. SUFFIX</span> *-EEMA'* (N∅) <span style="font-variant:small-caps">MAY OCCUR ONLY WITH OTHER FORMS SHOWING</span> P<span style="font-variant:small-caps">L AGREEMENT</span>

    a.    *tlapteemá'* **tlet**

| tlapt- | -eem | -a'(!) | ~´~ | **tlet** |
|--------|------|--------|-----|----------|
| S<span style="font-variant:small-caps">TM</span>- | -S<span style="font-variant:small-caps">FX</span>1 | -S<span style="font-variant:small-caps">FX</span>2 | -L | **long.N.Pl** |

                falcons

        'tall falcons'

    b.    *\*tlapteemá'* **tleer**

| tlapt- | -eem | -a'(!) | ~´~ | **tleer** |
|--------|------|--------|-----|-----------|
| S<span style="font-variant:small-caps">TM</span>- | -S<span style="font-variant:small-caps">FX</span>1 | -S<span style="font-variant:small-caps">FX</span>2 | -L | **long.N** |

                falcons

        (intended meanings) 'tall falcons', 'a group of tall falcons'

    c.    *tlaptumó* **tleér**

| tlapt- | -(a)m | -ó | -ó | **tleér** |
|--------|-------|----|----|-----------|
| S<span style="font-variant:small-caps">TM</span>- | -S<span style="font-variant:small-caps">FX</span>1 | -S<span style="font-variant:small-caps">FX</span>2 | -L | **long.M** |

                falcon

        'a tall falcon'

(5.94) G<span style="font-variant:small-caps">ENERAL SUFFIX</span> *-AA* (F<span style="font-variant:small-caps">R</span>) <span style="font-variant:small-caps">MAY OCCUR ONLY WITH OTHER FORMS SHOWING EITHER</span> S<span style="font-variant:small-caps">G OR</span> P<span style="font-variant:small-caps">L AGREEMENT</span>

    a.    *sirooraár* **tleer**

| siroor- | -aa | -r~´~ | **tleer** |
|---------|-----|-------|-----------|
| S<span style="font-variant:small-caps">TM</span>- | -S<span style="font-variant:small-caps">FX</span>2 | -L | **tall.F** |

             canaries

        'tall canary' (i.e. as a species, versus short kinds of canary)

    b.    *sirooraár* **tlet**

| siroor- | -aa | -r~´~ | **tlet** |
|---------|-----|-------|----------|
| S<span style="font-variant:small-caps">TM</span>- | -S<span style="font-variant:small-caps">FX</span>2 | -L | **long.F.Pl** |

             falcons

        'tall canaries'

This group may also be distinguished by its 'composed' suffixes. This is, all the suffixes of this group may be broken down into two smaller subcomponents. As for the Sg suffixes, the subcomponents of this group of Pl suffixes show the same sort of composition. The first subcomponent is one of a series morphemes readily identifiable as 'derivational' when used with verb stems **[CROSS REFERENCE]**, and which will be further discussed below. The second subcomponent is always a suffix from the general group.

*5. The suffix 1: the regular phenomena*

(5.95)  Sᴜʙᴅɪᴠɪsɪᴏɴ ᴏғ 'ᴄᴏᴍᴘᴏsᴇᴅ sᴜғғɪxᴇs' ɪɴᴛᴏ SFX1 ᴀɴᴅ SFX2
    *murung**eema'***
    murung-    **-eem -a'(!)**  ~´~
    Sᴛᴍ-      **-Sꜰx1 -Sꜰx2** -L
                  bellybuttons
    'bellybuttons'

Each of the suffixes of the Pl group will be examined in detail below.


**5.3.5.1 -náy (Mo)**

The suffix *-náy* (Mo) occurs on six nouns in the sample.

(5.96)  Tʜᴇ sᴜꜰꜰɪx *-ɴÁʏ* (Mᴏ)
    a.    *ga/atanáy*
           ga/at- **-(a)m -áy**   -ó
           Sᴛᴍ-   **-Sꜰx1 -Sꜰx2**  -L
                     fevers
           'fevers'

    b.    *tsetse/imáy*
           tsetse/-       **-(a)m -áy**   -ó
           Sᴛᴍ-        -Sꜰx1 -Sꜰx2  -L
                    open.places
           'open places'

    c.    *afurtlumáy*
           afurtl- **-(a)m -áy**   -ó
           Sᴛᴍ-   **-Sꜰx1 -Sꜰx2**  -L
                   simple.knots
           'simple knots'

As can be seen from (5.96).b) and (5.96).c), the suffix is often realized with an [m]

instead of an [n].


The suffix *-náy* (Mo) has no identified equivalent in either Iraqw or Alagwa.

The suffix *-áy* may be further decomposed into two parts: *(a)m* SFX1, and *áy* SFX2.

Note that SFX1 is recognizable in the *-VVm* of the durative verbal suffix (see

§2.3.2.4).  SFX2 is the Genₚʟ suffix *-áy* (Mo).

**5.3.5.2 -iya' (N∅)**

The suffix *-iya'* (N∅) occurs on four nouns in the sample.

(5.97)  THE SUFFIX *-IYA'* (N∅)
  a. *sluf**iya'***
    sluf- **-iy**  **-a'(!)** ~´~
    S<small>TM</small>- -S<small>FX</small>1 -S<small>FX</small>2 -L
           lips
    'lips'

  b.  *tsi/**iya'***
    tsi/- **-iy**  **-a'(!)** ~´~
    S<small>TM</small>- -S<small>FX</small>1 -S<small>FX</small>2 -L
          shins
    'shins'

  c. *tsin**iya'***
    tsin- **-iy**  **-a'(!)** ~´~
    S<small>TM</small>- -S<small>FX</small>1 -S<small>FX</small>2 -L
          ends
    'ends'

The fourth occurrence of the suffix *-iya'* (N∅) involves word-final apocope of the glottal stop.

(5.98)  WORD-FINAL APOCOPE OF THE GLOTTAL STOP OF THE SUFFIX *-IYA'* (N∅)
  *laqay**iya***
  laqay- **-iy**  **-a'(!)** ~´~
  S<small>TM</small>- -S<small>FX</small>1 -S<small>FX</small>2 -L
        thorns
  'thorns'

The equivalent of the suffix *-iya'* (N∅) in Iraqw is identical (Mous 1993: 57). No similar form is identified in Alagwa.

Mous (1993: 57) notes that this form is identical to the verbal third person plural suffix *-iya'*. Decomposition is possible, but slightly less satisfying than the other decompositions, in that the first element (SFX1) is not identifiable with an

independent morpheme.  Nevertheless, the two parts are as follows: *iy* SFX1, and

*a'(!)* SFX2.  SFX2 is the Gen<sub>PL</sub> suffix *-a'(!)* (NØ).

**5.3.5.3 -(a)ma' (NØ)**

The suffix *-(a)ma'* (NØ) occurs on 61 nouns in the sample.

(5.99)  THE SUFFIX *-(A)MA'* (NØ)

      a.     *tla/**ama'***

            tla/-   **-(a)m**  **-a'(!)**  ~´~

            STM-   **-SFX1**  **-SFX2**  -L

                          ditches

            'ditches'

      b.     *kitangeer**ima'***

            kitangeer-     **-(a)m**  **-a'(!)**  ~´~

            STM-          -SFX1  -SFX2  -L

                         drying.racks

            'drying racks'

      c.     *kiint**ima'***

            kiint-  **-(a)m**  **-a'(!)**  ~´~

            STM-   **-SFX1**  **-SFX2**  -L

                       thickets

            'thickets'

The suffix *-(a)ma'* is identified as *-ma'* in Iraqw (Mous 1993: 52).  There is no

equivalent form in Alagwa.

The suffix *-(a)ma'* may be further decomposed into two parts: *(a)m* SFX1, and *a'(!)*

SFX2.  Note that SFX1 is recognizable in the *-VVm* of the durative verbal suffix (see

§2.3.2.4).  SFX2 is the Gen<sub>PL</sub> suffix *-a'(!)* (NØ).

**5.3.5.4 -iyoo (NØ)**

The suffix *-iyoo* (NØ) occurs on two nouns in the sample.

(5.100)    THE SUFFIX *-IYOO* (NØ)
    a.    ***kuriyoo***

| kur- | **-iy** | **-oo** | ~´~ |
|------|---------|---------|-----|
| STM- | -**SFX1** | -**SFX2** | -L |

$$\underbrace{\phantom{\text{STM- -SFX1 -SFX2 -L}}}_{\text{anuses}}$$

'anuses'

    b.    ***tsariyoo***

| tsar- | **-iy** | **-oo** | ~´~ |
|------|---------|---------|-----|
| STM- | -**SFX1** | -**SFX2** | -L |

$$\underbrace{\phantom{\text{STM- -SFX1 -SFX2 -L}}}_{\text{clitorises}}$$

'clitorises'

Equivalents to the suffix *-iyoo* (NØ) have been identified neither in Iraqw, nor in

Alagwa.

Decomposition of the suffix *-iyoo* (NØ) yields: *iy* for SFX1 (discussed above), and *oo*

for SFX2.  SFX2 is the general suffix *-oo* (NØ).

### 5.3.5.5 -aC$_z$i'i (NØ)

The suffix *-aC$_z$i'i* (NØ) (where the C$_z$ is a consonant reduplicated from the last in the

stem) occurs on two nouns in the sample.

(5.101)    THE SUFFIX *-AC$_Z$I'I* (NØ)
    a.    ***akoki'i***

| ako- | **-aC$_z$** | **-a'i** | ~´~ |
|------|---------|---------|-----|
| STM- | -**SFX1** | -**SFX2** | -L |

$$\underbrace{\phantom{\text{STM- -SFX1 -SFX2 -L}}}_{\text{grandfathers}}$$

'grandfathers'

    b.    ***aamami'i***

| aama- | **-aC$_z$** | **-a'i** | ~´~ |
|------|---------|---------|-----|
| STM- | -**SFX1** | -**SFX2** | -L |

$$\underbrace{\phantom{\text{STM- -SFX1 -SFX2 -L}}}_{\text{grandmothers}}$$

'grandmothers'

No similar form is identified in Iraqw or Alagwa.

The suffix may be decomposed into $aC_z$ for SFX1, and *a'i* for SFX2. $aC_z$ is recognizable in the pluractional suffix for verbs, and a'i is the *-a'i* Gen$_{PL}$ suffix, described above.

### 5.3.5.6 -<ee>-aC$_z$u (N∅)

The suffix *-<ee>-aC$_z$u* (N∅) (where the $C_z$ is a consonant reduplicated from the last in the stem) occurs on four nouns in the sample.

(5.102)       THE SUFFIX *<EE>-AC$_Z$U* (N∅)
    a.    *tlaqeesusu*
        tlaqas- **-ees**  **-aC$_z$**  **-u!**   ~´~
        STM-  **-SFX1**  **-SFX1**  **-SFX2**  -L
                  sorghum.mashes
        'sorghum mashes'

    b.    *hhafeetutu*
        hhaf-  **-eet**  **-aC$_z$**  **-u!**   ~´~
        STM-  **-SFX1**  **-SFX1**  **-SFX2**  -L
                  reed.mats
        'reed mats'

    c.    *tsa/eetutu*
        tsa/at- **-eet**  **-aC$_z$**  **-u!**   ~´~
        STM-  **-SFX1**  **-SFX1**  **-SFX2**  -L
                  yolks
        'yolks'

The *-<ee>* part of the suffix refers to an infixed *ee*, which breaks the final consonant from the stem. Interestingly, this suffix is only ever applied when the consonant concerned is *t*, *m*, *s*, all of which serve as verbal derivational morphemes (*-t* the middle, *-m* the durative and *-s* the causative). It is predicted that the consonant *-r*, missing from the current sample, would also undergo this process, as it is also a durative verbal suffix. In his section on verbal derivational morphemes, Mous

*5. The suffix 1: the regular phenomena*

(1993: 190) observes the ability of certain operations to reanalyze the content of their bases, several operations seeming to treat the consonants *t, m, s* or *r* as if they were indeed the derivational morphemes. For example, the verb *lakiit* 'to wait' has no underived form (therefore \**lak*), but the *iit* of the stem seems to be reanalyzed and treated as the middle suffix *-iit* in the reduplicative durative construction (hence *lakmaamiit* 'to be waiting'). Perhaps the same operation is taking place in this nominal operation, thus the stem of (5.102).c) *tsa/at* is reanalyzed as *tsa/ -t.* No similar suffix is identified for Iraqw or Alagwa.

The suffix *-<ee>-aCzu* (NØ) is unique in that it may be decomposed into three subcomponents, rather than two. The first, as discussed above, is the reanalysis of a stem-final *t,m, s,* or *r* into *-eet, -eem*, *-ees*, or *eer.* The second is *aCz.* Both of these are labeled SFX1. The third element, SFX2 is *-u.* As stated above, *-eet, -eem*, *-ees*, and *-aar* are all similar to verbal derivational suffixes, as is *-aCz*, which also serves as a durative suffix. The element *-u* is the Gen<sub>PL</sub> suffix *-u!*, discussed above.

### 5.3.5.7 -eemoo or -<ee>-oo (N)

The suffix *-eemo* (N) or its allomorph *-<ee>-oo* (N) occur 21 times in the sample.

(5.103)    THE SUFFIX *-EEMOO* (NØ)
    a.    ***uuneemoo***
        uun-   **-eem  -oo**    ~´~
        STM-   -**SFX1**  -**SFX2**   -L
                laws
        'laws'

b.    *fuufeemoo*
fuuf-   **-eem**   **-oo**      ~´~
STM-     -SFX1   -SFX2   -L
        weasels
'weasels'

c.    *slareemoo*
slar-   **-eem**   **-oo**      ~´~
STM-     -SFX1   -SFX2   -L
        armpits
'armpits'

The allomorph *-<ee>-oo* (N) occurs only when the final consonant of the stem is *t*, *m*,

or *r*.  It is predicted that *-s* would also behave the same, but this is not recorded in

the sample.  Reminiscent of the pattern discussed above, this may represent the

same operation of reanalysis.

(5.104)      THE SUFFIX -<EE>-OO (NØ)
a.    *ya/eetoo*
ya/at-  **-<ee>**   **-oo**      ~´~
STM-     -SFX1   -SFX2   -L
        shoes
'shoes'

b.    *wa'eemoo*
wa'am-            **-<ee>**   **-oo**      ~´~
STM-              -SFX1   -SFX2   -L
        bone.marrow
'bone marrow'

c.    *anxeeroo*
anxar-  **-<ee>**   **-oo**      ~´~
STM-     -SFX1   -SFX2   -L
        phlegm
'phlegm'

This operation does not occur for every case of a stem-final *t*, *m*, or *r*, however.

(5.105)     *[t]* OF */AANTEEMOO* IS NOT REANALYSED
            */aan**teem**oo*
            /aan**t**- -ee**m**   -oo     ∼´∼
            S<small>TM</small>-   -S<small>FX</small>1   -S<small>FX</small>2   -L
            ⏟
            termite.mounds
            'termite mounds'

An identical suffix is identified in both Iraqw (Mous 1993: 58) and Alagwa (Mous

2016: 85).

The suffix *-eemoo* (N) can be broken into two subparts, *eem* as SFX1, and *oo* as SFX2.

Similarly, its allomorph *-<ee>-oo* can be subdivided into a reanalysis of a stem-final

*t, m, s,* or *r* into *-eet*, *-eem*, *-ees*, or *aar* as SFX1, and *oo* as SFX2.  Both SFX1 elements

are similar to verbal derivational suffixes.  The final element *oo*, however, is slightly

problematic.  In many cases, the gender-linker realized by this form is rising pitch

accent ∼´∼, this makes the suffix identical with *-oo* (NØ), the general suffix identified

above (see §5.3.3.16).  However, in some cases, the linker realized by this form is *-á*,

making the suffix Na subgender.  This subgender is not common, and the suffix *-oo*

as identified above is consistently NØ in subgender.  As such, it may be necessary to

posit a new morpheme *-oo* (Na) to account for this pattern.

(5.106)     T<small>WO</small> D<small>IFFERENT</small> S<small>UBGENDERS</small> F<small>OR</small> *-EEMOO* O<small>R</small> *-<EE>-OO*
       a. NØ S<small>UBGENDER</small>
            *fuufeemoó uren*
            fuuf-   -eem   -oo     ∼´∼     uren
            S<small>TM</small>-   -S<small>FX</small>1   -S<small>FX</small>2   **-L**     big.N.Pl
            ⏟
            weasels
            'big weasels'

b. Nᴀ ꜱᴜʙɢᴇɴᴅᴇʀ

*ayeem**á** uren*

| ay- | -eem | -oo | **-á** | uren |
|---|---|---|---|---|
| Sᴛᴍ- | -Sꜰx1 | -Sꜰx2 | **-L** | big.N.Pl |

lands

'big lands'

## 5.3.5.8 -aawee (Fr)

The suffix -*aawee* (Fr) occurs on 16 nouns in the sample.

(5.107)    Tʜᴇ ꜱᴜꜰꜰɪx -*ᴀᴀᴡᴇᴇ* (Fʀ)

a.    *himt**aawee***

| himt- | **-aw** | **-ee** | -r~´~ |
|---|---|---|---|
| Sᴛᴍ- | **-Sꜰx1** | **-Sꜰx2** | -L |

owls

'owls'

b.    *tsuh**aawee***

| tsuh- | **-aw** | **-ee** | -r~´~ |
|---|---|---|---|
| Sᴛᴍ- | **-Sꜰx1** | **-Sꜰx2** | -L |

lower.backs

'lower backs'

c.    *xeer**aawee***

| xeer- | **-aw** | **-ee** | -r~´~ |
|---|---|---|---|
| Sᴛᴍ- | **-Sꜰx1** | **-Sꜰx2** | -L |

scorpions

'scorpions'

Identical suffixes exist in Iraqw (Mous 1993: 51) and Alagwa (Mous 2016: 82).

The suffix -*aawee* (Fr) may be decomposed into *aaw* for SFX1, and *ee* for SFX2. *aaw* is recognizable in the inchoative suffix for verbs -*uw* (see §2.3.2.4), and *ee* is the -*ee* general suffix, described above.

## 5.3.5.9 -eeri (N∅)

The suffix -*eeri* (N∅) occurs on 25 nouns in the sample.

*5. The suffix 1: the regular phenomena*

(5.108)     THE SUFFIX *-EERI* (NØ)
   a.     */areeri*

|        | **-eer** | **-(a)'i** | ~´~ |
|--------|----------|------------|-----|
| /ar-   | -**SFX1** | -**SFX2** | -L  |
| STM-   |          |            |     |

   tobacco.balls
   'tobacco balls'

   b.     *kwa/eeri*

|        | **-eer** | **-(a)'i** | ~´~ |
|--------|----------|------------|-----|
| kwa/-  | -**SFX1** | -**SFX2** | -L  |
| STM-   |          |            |     |

   hares
   'hares'

   c.     *tsifireeri*

|         | **-eer** | **-(a)'i** | ~´~ |
|---------|----------|------------|-----|
| tsifir- | -**SFX1** | -**SFX2** | -L  |
| STM-    |          |            |     |

   languages
   'languages'

Identical suffixes exist in Iraqw (Mous 1993: 53) and Alagwa (Mous 2016: 80).

The suffix *-eeri* (NØ) may be decomposed into *eer* for SFX1, and *'i* for SFX2, where

the glottal stop undergoes deletion in phonological cluster simplification. *eer* is

recognizable in the durative infix for verbs *-<ar>* (see §2.3.2.4), and *'i* is the *-(a)'i*

Gen_PL suffix, described above.


## 5.3.5.10 -eema' (NØ)

The suffix *-eema'* (NØ) occurs on 35 nouns in the sample.

(5.109)     THE SUFFIX *-EEMA'* (NØ)
   a.     *murungeema'*

|         | **-eem** | **-a'(!)** | ~´~ |
|---------|----------|------------|-----|
| murung- | -**SFX1** | -**SFX2** | -L  |
| STM-    |          |            |     |

   bellybuttons
   'bellybuttons'

b.     *poohameema'*

    pooham-    **-eem**  -**a'(!)**   ~´~

    STM-        -SFX1  -SFX2  -L

                   baboons

    'baboons'

c.     *tlapteema'*

    tlapt-  **-eem**  -**a'(!)**   ~´~

    STM-    -SFX1  -SFX2  -L

               falcons

    'falcons'

An identical suffix exists in Alagwa (Mous 2016: 81). No such suffix is recorded for

Iraqw.

The suffix *-eema'* (NØ) may be decomposed into *eem* for SFX1, and *a'* for SFX2. *eem*

is recognizable in the durative suffix for verbs *-iim* (see §2.3.2.4), and *a'* is the *-a'(!)*

Gen<sub>PL</sub> suffix, described above.

**5.3.5.11 -(a)du (NØ)**

The suffix *-(a)du* (NØ) occurs on 55 nouns in the sample.

(5.110)        THE SUFFIX *-(A)DU* (NØ)

    a.     *baqaydu*

        baqay--**(a)d**  -**u!**     ~´~

        STM-    -SFX1  -SFX2  -L

                   chambers

        'chambers'

    b.     *laydu*

        lay-     **-(a)d**  -**u!**     ~´~

        STM-    -SFX1  -SFX2  -L

               branding.irons

        'branding irons'

    c.    *ga/al**edu***
           ga/al-  **-(a)d**  **-u!**     ~´~
           Sᴛᴍ-   **-Sғx1**  **-Sғx2**  -L
                     shields
           'shields'

The suffix *-(a)du* (NØ) has identical forms in Iraqw (Mous 1993: 53) and in Alagwa (Mous 2016: 89).

The suffix *-(a)du* (NØ) may be decomposed into *(a)d* for SFX1, and *u* for SFX2. It is argued that *(a)d* represents a historical change from the suffix *-aC_z* (Kießling and Mous 2003: 11), which is recognizable as a durative suffix for verbs (see §2.3.2.4), and *u* is the *-u!* Genᴘʟ suffix, described above.

## 5.3.5.12 -aC_zee (Fr)

The suffix *-aC_zee* (Fr) occurs on 23 nouns in the sample, where $C_z$ represents a reduplication of the final consonant of the stem.

(5.111)      Tʜᴇ sᴜғғɪx *-AC_zEE* (Fʀ)
      a.    *himt**etee***
           himt-  **-aC_z**  **-ee**    -r~´~
           Sᴛᴍ-   **-Sғx1**  **-Sғx2**  -L
                   metal.necklaces
           'metal necklaces'

      b.    *tluwe**/e/ee***
           tluwa/-      **-aC_z**  **-ee**    -r~´~
           Sᴛᴍ-        **-Sғx1**  **-Sғx2**  -L
                    upper.arms
           'upper arms'

*5. The suffix 1: the regular phenomena*

    c.    *tuumb**ebee***

        tuumb-    **-aC$_z$**    **-ee**    -r~´~

        S$_{TM}$-       -S$_{FX}$**1**  -S$_{FX}$**2**  -L

                            pools

        'pools'

A process of vowel assimilation of the [a] of the suffix allows a process of haplological syncope to take place (V → Ø / C$_i$ _ C$_i$). This results in many of these reduplicated forms reducing to feature geminate consonants.

(5.112)        G<small>EMINATE CONSONANTS FORMED FROM THE SUFFIX</small> *-AC$_z$EE* (F<small>R</small>)

    a.    **fureree*

        fur-    -aC$_z$    -ee    -r~´~

        S$_{TM}$-    **-S$_{FX}$1**  **-S$_{FX}$2**  -L

        *fureree

             *fur**e**ree → fu**rr**ee

                       'twigs'

    b.    **ufefee*

        uf-    -aC$_z$    -ee    -r~´~

        S$_{TM}$-    **-S$_{FX}$1**  **-S$_{FX}$2**  -L

        *ufefee

             *uf**e**fee → u**ff**ee

                     'piles'

    c.    **kanenee*

        kan-    -aC$_z$    -ee    -r~´~

        S$_{TM}$-    **-S$_{FX}$1**  **-S$_{FX}$2**  -L

        *kanenee

             *kan**e**nee → kannee

                       'tendons'

One interesting piece of evidence that this is indeed the path to geminates in Gorwaa exists in a Gorwaa text recorded by Martin Heepe in 1930. Kießling (2002:54) was the first to point out that, in this source, there are reduplicated forms where present-day Gorwaa has gemination.

*5. The suffix 1: the regular phenomena*

(5.113)        Reduplicated forms in Heepe (1930), geminate forms in current Gorwaa
        a.    *muun**ane[e]***   →      *muun**nee***      'anger'

        b.    *'al**alee***        →      *al**lee***             'house posts'

The suffix *-aC<sub>z</sub>ee* (Fr) has an identical form in Alagwa (Mous 2016: 79). No such

form exists in Iraqw.

The suffix *-aC<sub>z</sub>ee* (Fr) may be decomposed into *aC<sub>z</sub>* for SFX1, and *ee* for SFX2. *aC<sub>z</sub>* is

recognizable as a durative suffix for verbs *-aC<sub>z</sub>* (see §2.3.2.4), and *ee* is the *-ee*

general suffix described above.

**5.3.5.13 -aC<sub>z</sub>u (N∅)**

The suffix *-aC<sub>z</sub>u* (N∅) occurs on 22 nouns in the sample.

(5.114)        The suffix *-AC<sub>z</sub>U* (N∅)
        a.    */aamp**upu***
              /aamp-        **-aC<sub>z</sub>**    **-u!**       ∼´∼
              Stm-              **-Sfx1**    **-Sfx2**   -L
                          bird−watching.platforms
              'bird-watching platforms'

        b.    *yand**udu***
              yand-  **-aC<sub>z</sub>**    **-u!**       ∼´∼
              Stm-      **-Sfx1**   **-Sfx2**   -L
                            hammers
              'hammers'

        c.    *afeetl**atlu***
              afeetl-  **-aC<sub>z</sub>**    **-u!**       ∼´∼
              Stm-      **-Sfx1**   **-Sfx2**   -L
                              waists
              'waists'

*5. The suffix 1: the regular phenomena*

As for the suffix -$aC_z ee$ above, a process of vowel assimilation of the [a] of the suffix

allows a process of haplological syncope to take place (V → Ø / $C_i$ __ $C_i$).  This results

in at least two of these reduplicated forms reducing to feature geminate consonants.

(5.115)       GEMINATE CONSONANTS FORMED FROM THE SUFFIX -$AC_z U$ (NØ)
   a. *kinnu*
    kin- -$aC_z$ -u!  ~´~
    S<small>TM</small>- **-S<small>FX</small>1** **-S<small>FX</small>2** -L

    kinunu
      kin**u**nu → kinnu
         'small clay water pots'

   b. *kunnu*
    kun- -$aC_z$ -u!  ~´~
    S<small>TM</small>- **-S<small>FX</small>1** **-S<small>FX</small>2** -L

    kununu
      kun**u**nu → kunnu
         'mortars'

The suffix -$aC_z u$ (NØ) has an identical form in Alagwa (Mous 2016: 92).  No such

form exists in Iraqw.


The suffix -$aC_z u$ (NØ) may be decomposed into $aC_z$ for SFX1, and $u$ for SFX2.  $aC_z$ is

recognizable as a durative suffix for verbs -$aC_z$ (see §2.3.2.4), and $u$ is the -$u!$ Gen<small>PL</small>

suffix described above.


**5.3.6 A note on loans**

**5.3.6.1 Loans from Datooga**

17 nouns in the sample have been identified as loans from Datooga, identifiable by

their pattern of ending in a stop and possessing RPA.  Nouns of this group can be

either Mo or Fr in gender.

(5.116)        LOANS FROM Datooga
             a. *gewoó(d)*
               'disease'
             b. *qereé(g)*
               'infant'
             c. *kiinsororó(q)*
               'snail'

## 5.3.6.2 Loans from Swahili (and possibly English)

This second group of loans is numerous, and is distributed throughout the sample.

These loans tend to exist on a continuum, from those whose endings have been

completely reanalyzed into suffixes (nativized loans) (5.117), to those whose

endings are sometimes analyzed as suffixes, and sometime analyzed as part of the

stem (unnativized loans) (5.118).

(5.117)        NATIVIZED LOANS
             a. DAAWA

| | | | |
|---|---|---|---|
| | *daawa* | suffix: -aa | 'medicine' |
| Sw. *dawa* 'medicine' → *daaw-* | *daawudu* | suffix: -(a)du | 'medicines' |
| b. BAMIYA | | | |
| | *bamiyito'oo* | suffix: -(i)to'oo | 'okra fruit' |
| Sw. *bamia* 'okra' → *bamiy-* | *bamiya* | suffix: -aa | 'okra' |

(5.118)        UNNATIVIZED LOANS
             a. SULEE

| | | | |
|---|---|---|---|
| | *sule* | suffix: -ee | 'school' |
| Sw. *shule* 'school' → *sule-* | *suledu* | suffix: -(a)du **BUT: [e] still present on stem** | 'schools' |
| b. KATAANI | | | |
| | *kataanimó* | **BUT: [i] still present on stem** suffix: -(a)mó | 'sisal plant' |
| Sw. *katani* 'sisal' → *kataani-* | *kataani* | suffix: -i(Fr) | 'sisal' |

*5. The suffix 1: the regular phenomena*

This concludes the presentation of the suffixes.  What follows is a syntactic analysis to account for these regular phenomena.

**5.4 Analysis**

Following the data presentation above, Gorwaa nominal suffixes can be characterized as a set of 42 forms.  Morphologically, of the 42 suffixes, 24 are 'simple' (formed of only one identifiable morpheme), and 18 are 'composed' (formed of one of the simple suffixes (labeled SFX2) and a second morpheme analogous to the verbal 'derivational suffixes' (labeled SFX1)).  Syntactically, there are 2 number values: Sg and Pl.  The 18 'composed' suffixes may only ever occur with one of these number values, hence, of this 'composed' group there are 5 Sg suffixes, and 13 Pl suffixes.  The 24 'simple' suffixes are unvalued for number (i.e. general number), and may occur with *either* Sg agreement *or* Pl agreement.  Restrictions on how freely general suffixes may associate with either number value is largely dependent on the paradigm into which these suffixes enter, and will be discussed in the following chapter.

This general-singular-plural distinction translates into the minimalist framework by positing three different features: [individuation], [singular], and [plural].  Following the morphosyntactic feature geometry proposed by Harley and Ritter (2002), in order for a form to bear the [singular] or [plural] feature, it must first bear the [individuation] feature.

*5. The suffix 1: the regular phenomena*

Returning to the morphology of the Gorwaa noun, if nouns which consistently occur with Sg agreement and nouns which consistently occur with Pl agreement (e.g. *qoonqalumó* 'a crowned crane' and *qoonqalama'* 'crowned cranes') are always marked by a composed suffix, and if composed suffixes are different from simple suffixes by their containing a SFX1, I propose that SFX1 corresponds to a head carrying the [individuation] feature (5.119). Furthermore, given that SFX1 occurs closer to the stem than SFX2, it is this head which projects directly above the root (√) (5.120).

(5.119)    FEATURE STRUCTURE FOR THE LEXICAL ELEMENT SFX1 (VERSION 1)

$$\text{SFX1} \begin{cases} \text{categorial [SFX1, Indiv]} \\ \quad \text{inflectional } [\emptyset] \\ \quad \text{selectional } [\sqrt{}] \end{cases}$$

(5.120)    *QOONQALUM-* (VERSION 1)
Merge of SFX1 (syntactic object α) and √*qoonqal* (syntactic object β).

SFX1P
√qoonqal -(a)m
[cat [SFX1, Indiv]]

√qoonqal
$\begin{bmatrix} \text{cat } [\sqrt{}] \\ \text{sel } [\ \ ] \end{bmatrix}$

**-(a)m**
$\begin{bmatrix} \text{cat } [\text{SFX1, Indiv}] \\ \text{infl } [\emptyset] \\ \text{sel } [\sqrt{}] \end{bmatrix}$
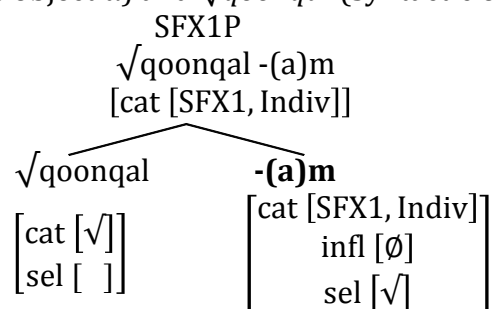
Having been valued for [individuation], the form *qoonqalum-* will go on to be valued for either [singular] or [plural], most likely through merger with another functional head.

*5. The suffix 1: the regular phenomena*

Looking at the morphology, it is tempting to assume that it is this head which hosts the SFX2 material. However, it should be noted that SFX2 occurs on forms both specified and unspecified for number. Consider (5.121) below, where the SFX2 is shared on a singular noun with a consistently singular suffix *qoonqalumó*, and a general number noun with a suffix *siyó*.

(5.121)    SFX2 OCCURS ON NOUNS BOTH SPECFIED AND UNSPECIFIED FOR NUMBER
   a.    *qoonqalumó wák*
         qoonqál-      -(a)m **-ó**    -ó       wák
         STM-              -SFX1 **-SFX2**   -L       one
         $\underbrace{\phantom{qoonqál-(a)m-ó-ó}}_{\text{crowned.crane}}$
         "one crowned crane"

   b.    *siyó wák*
         siy-     **-ó**      -ó       wák
         STM-    **-Sfx2**    -L       one
         $\underbrace{\phantom{siy--ó-ó}}_{\text{fish}}$
         "one type of fish"

   c.    *siyó tsár*
         siy-     **-ó**      -ó       tsár
         STM-    **-Sfx2**    -L       two
         $\underbrace{\phantom{siy--ó-ó}}_{\text{fish}}$
         "two types of fish, two fish'

SFX2 morphology being unrelated to expression of singular or plural number, it cannot be associated with a head bearing a [singular] or [plural] feature. However, forms such as *qoonqalumó* and *qoonqalama' are* valued for singular and plural number, respectively. As such, it is posited that a head which possesses these features [singular] or [plural] must exist, but that the head of this projection (labeled F for now) is phonologically null. This head immediately dominates the head hosting the [individuation] feature.

(5.122)        FEATURE STRUCTURE FOR THE LEXICAL ELEMENT F (VERSION 1)

$$F \begin{cases} \text{categorial } [\text{F}, \text{Sg}] \\ \text{inflectional } [\emptyset] \\ \text{selectional } [\text{SFX1}] \end{cases}$$

(5.123)        *QOONQALUM-* (SG.) (VERSION 1)
Merge of F (syntactic object α) and SFX1 √*qoonqal-(a)m* (syntactic object β).

FP
√qoonqal-(a)m-F
[cat [F, Sg]]

SFX1P                    F
√qoonqal -(a)m

[cat [SFX1, Indiv]]          $\begin{bmatrix} \text{cat } [\text{F}, \text{Sg}] \\ \text{infl } [\emptyset] \\ \text{sel } [< \text{SFX1} >] \end{bmatrix}$

√qoonqal          **-(a)m**
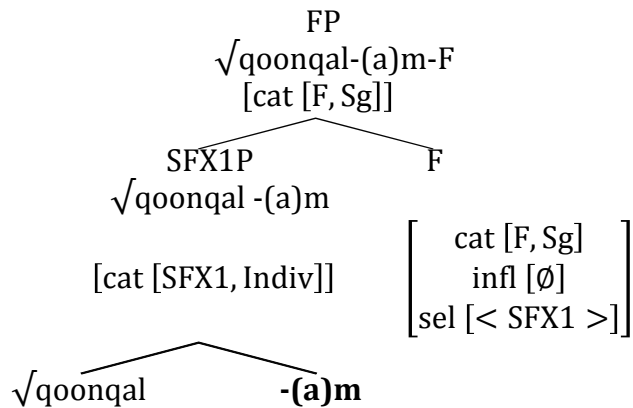
Up to this point, the structure and mechanics of the analysis largely match that of

Borer (2005a), as such, the labels applied therein may be adopted.  SFX1 becomes a

classifier head (Cl), whose feature is responsible for dividing stuff.  F becomes a

quantity head (#), whose feature is responsible for assigning quantity to stuff or to

divisions of it (p.96).  As such, the structure in (5.123) can be rewritten as follows.

(5.124)        *QOONQALUM-* (SG.) (VERSION 2)

#P
√qoonqal-(a)m-#
[cat [#, Sg]]

ClP                    #
√qoonqal -(a)m

[cat [Cl, Indiv]]          $\begin{bmatrix} \text{cat } [\#, \text{Sg}] \\ \text{infl } [\emptyset] \\ \text{sel } [< \text{Cl} >] \end{bmatrix}$

√qoonqal          **-(a)m**
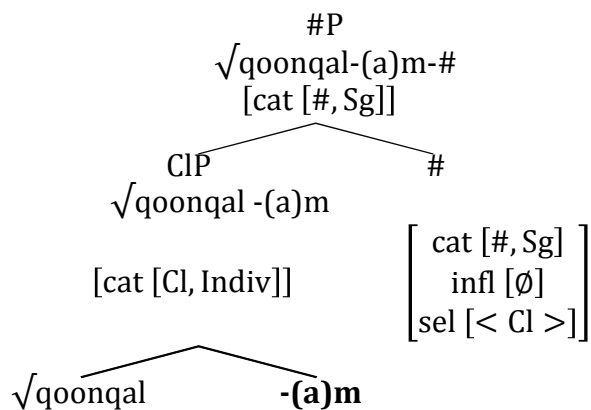
*5. The suffix 1: the regular phenomena*

Under Borer's (2005a) model, the projection immediately dominating #P is the determiner D. Perhaps, then, SFX2 morphology is the instantiation of the syntactic head D. This, however, seems unlikely: SFX2 has nothing to do with definiteness, indefiniteness, or reference, features held by Borer to be intrinsic to the head D[4]. Rather than markers of definiteness and/or indefiniteness, SFX2 has the same role as Harris' (1991:30) word-markers, which "mark[ ] a derivationally and inflectionally complete word". Indeed, a noun only attains its full lexical meaning when merged with a SFX2.

(5.125)     STM *TSIFIR-* ATTAINS FULL LEXICAL MEANING WHEN MERGED WITH A SFX2
   a.   ***tsifiraangw***
        **tsifir-** -aangw       -ó
        **Stm-**    **-SFX2**          -L
        $\underbrace{\phantom{tsifir- -aangw -ó}}_{\text{tongue}}$
        'a tongue'

   b.   ***tsifiri***
        **tsifir-** -i       -r~´~
        **Stm-**    **-SFX2**  **-L**
        $\underbrace{\phantom{tsifir- -i -r}}_{\text{language}}$
        'a language'

Additionally, a noun may be inserted into larger units of discourse *only* once it is merged with an SFX2. Most nouns also contain a linker morpheme, but this is not essential to the syntactic identity of the noun. As will be argued in Chapter 7, linkers are not present in incorporation constructions, making them, to some degree, non-essential to the categorial identity of the noun. SFX2, however, must be present in order for a noun to be a noun.

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[4] For details on how definiteness/indefiniteness is expressed in Gorwaa, see §2.4.1.2, §2.4.1.3, and §2.4.3.

(5.126)    Noun incorporation constructions: linker is absent, but SFX2 is present

    a.    *uga sl**ee**-gás*    [20161119f.34]

| Ø- | u- | Ø | -(g)a | sl- | **-ee** | gás |
|---|---|---|---|---|---|---|
| A.2- | P.M- | Aux | -Prf | Stm- | **-Sfx2** | kill.2Sg.Pst |

cow

"You(M) killed a cow on him." (lit. 'You cow-killed him.')

    b.    *nguna sag**a**-taáhh [...]*    [20131108b_20150725j.89]

| ng- | u- | Ø | -na | sag- | **-a** | taáhh |
|---|---|---|---|---|---|---|
| A.3- | P.M- | Aux | -Imprf | Stm- | **-Sfx2** | hit.M.Pst |

head

"[...] he smashed him on the head [...]" (lit. 'he head-hit him')

In light of this evidence, SFX2 may be posited as the instantiation of some

projection, dominating #, and, in turn, dominated by D.  Let us call this projection n[5].

(5.127)    Feature structure for the lexical element n (version 1)

$$n \begin{cases} \text{categorial [n]} \\ \text{inflectional [Ø]} \\ \text{selectional [N; #]} \end{cases}$$

---

[5] The choice of label for this projection is a conscious one.  For more on the motivation behind this, see §6.6.1.

(5.128)       *QOONQALUMÓ* (VERSION 1)
     Merge of n (syntactic object α) and √qoonqal-(a)m-#  (syntactic object β).

nP
√qoonqal-(a)m-#-ó
[cat [n]]

#P                                    **n**
√qoonqal-(a)m-#                     **-ó**

[cat [#, Sg]]            $\begin{bmatrix} \textbf{cat [n]} \\ \textbf{infl} [\emptyset] \\ \textbf{sel [N; <\#>]} \end{bmatrix}$

ClP                         #
√qoonqal -(a)m

[cat [Cl, Indiv]]        $\begin{bmatrix} \text{cat [\#, Sg]} \\ \text{infl} [\emptyset] \\ \text{sel} [< \text{Cl} >] \end{bmatrix}$

√qoonqal            Cl
                    -(a)m
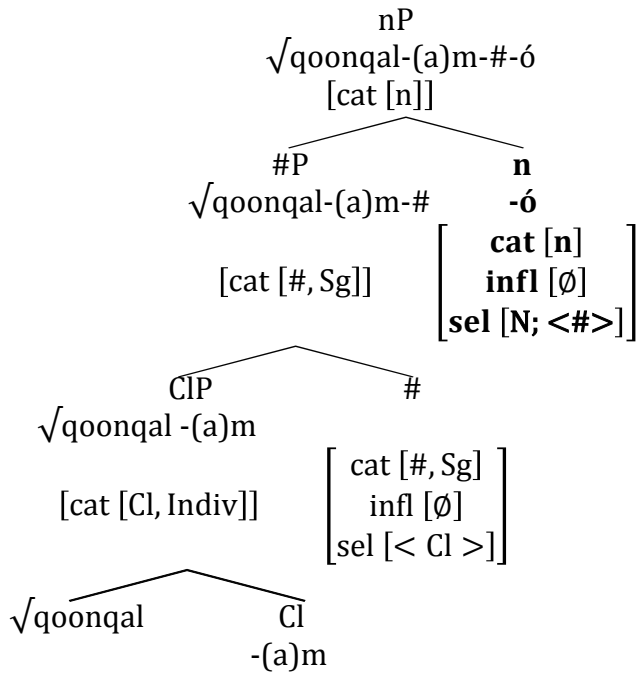
As described above, forms expressing general number are neither classified nor quantified.  As such, in these structures the Cl and # heads are absent.  In addition to this, there must be a slight difference in the selectional features of the n head: a $n_{gen}$ (n of general number) must select for √, whereas a $n_{num}$ (n of number) selects for #[6].

(5.129)        FEATURE STRUCTURE FOR THE LEXICAL ELEMENT $N_{GEN}$ VERSUS THAT OF $N_{NUM}$

$n_{gen} \begin{cases} \text{categorial [n]} \\ \text{inflectional } [\emptyset] \\ \text{selectional } [\sqrt{}; N] \end{cases}$          $n_{num} \begin{cases} \text{categorial [n]} \\ \text{inflectional } [\emptyset] \\ \text{selectional } [\#; N] \end{cases}$

---

[6] Note that the feature structure for both lexical elements $n_{gen}$ and $n_{num}$ also posit a category N in their selectional features.  This will be important in Chapter 7, but may be left aside for now.

(5.130)        THE GENERAL NUMBER FORM *QOONQÁL* (VERSION 1)

Merge of n$_{gen}$ (syntactic object α) and √qoonqal (syntactic object β).

$$
\begin{array}{c}
\text{n}_{gen}\text{P}\\
\sqrt{}\text{qoonqal -}\emptyset\\
[\text{cat }[\text{n}]]
\end{array}
$$

$$
\begin{array}{cc}
\sqrt{} & \text{n}\\
\sqrt{}\text{qoonqal} & \text{-}\emptyset\\
 & \begin{bmatrix} \text{cat }[\text{n}] \\ \text{infl }[\emptyset] \\ \text{sel }[<\sqrt{}>;\text{N}] \end{bmatrix}\\
[\text{cat }[\text{N}]] &
\end{array}
$$
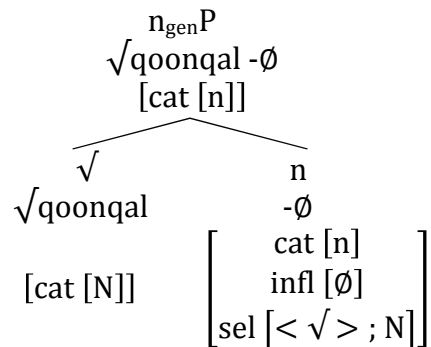
Thus far, this proposal is promising in that it manages to account for the ordering and distribution of the morphemes. That is, Sg and Pl forms always feature a SFX1 because this morpheme is involved in classification and quantification. General forms are not classified or quantified, and therefore lack the heads Cl and #, and thus SFX1. Their underspecification for number allows a number value to be introduced from elsewhere, a process which is discussed in (§7.4.3).

## 5.5 Remarks and summary

The central aim of this chapter was to provide a description and explanation of the so-called 'regular' characteristics of the Gorwaa suffix. Repeated from (5.3) above, they are given in (5.131) here.

(5.131)        THE REGULAR MORPHOSYNTACTIC CHARACTERISTICS OF THE GORWAA SUFFIX

        a.        *Many suffixes (identified thus far as SFX) may be divided into separate morphemes: SFX1 and SFX2. All suffixes feature the SFX2 morpheme, not all suffixes feature the SFX1 morpheme.*
        b.        *Suffixes with a SFX1 morpheme are* either *Sg* or *Pl in number, and can therefore occur with external elements (e.g. adjectives)* only *if they show matching agreement.*

c.　　*Suffixes without a SFX1 morpheme are unvalued for number, and can therefore occur with external elements (e.g. adjectives) which show* both *Sg* or *Pl agreement. (though see II.d. for exceptions.)*

As mentioned above, these characteristics were interpreted as regular in that they represent stable correspondences which can largely be explained as products of feature bundles (i.e. material from *List 1*) being manipulated in the syntax (i.e. the syntactic operations).

Subsection 5.5.1 examines the possibility of multiple suffixing, and subsection 5.5.2 summarizes.

**5.5.1 Remarks on multiple suffixing**

The account above conceptualizes suffixing as the merger of the root with a series of heads -- Cl, #, and n -- each of which occurs maximally once during the course of the derivation.  The phenomenon of multiple suffixing, in which a kind of head (specifically n) may merge more than once during the course of the derivation, conceptualizes suffixing in a slightly different way, and will be examined for Gorwaa below.

Described in Lecarme (2002: 121-122) for Somali (som: e.g. Somalia) as *plural of plural*, and in Kramer (2014: 12) for Amharic (amh: Ethiopia) as *double plural*, multiple suffixing sees a second suffix attaching to a form which already contains a suffix.  This first form is capable of functioning as a full noun on its own, and the second suffix may or may not result in a change in meaning.

*5. The suffix 1: the regular phenomena*

(5.132)　　　MULTIPLE SUFFIXING
　　　　　　　a. IN SOMALI (FROM LECARME 2002: 121)
　　　　　　　*nín* 'man' → *nim-**án*** 'men' → *nim**an-yaál*** '(groups of) men'

　　　　　　　b. IN AMHARIC (FROM KRAMER 2014:
　　　　　　　*näfs* 'soul' → *näfs-**at*** 'souls' → *näfs**at-ott∫*** 'souls'

Though not executed in exactly the same fashion in the above works, the resulting

structure would resemble something like that of **Error! Reference source not**

**found.**.

(5.133)　　　　THE MULTIPLE SUFFIX FORM *NIMANYAÁL* '(GROUPS OF) MEN' (SOMALI)

```
                    nP
              ┌──────┴──────┐
             n'             n
          ┌───┴───┐       -yaál
          √       n
        √nín     -án
```
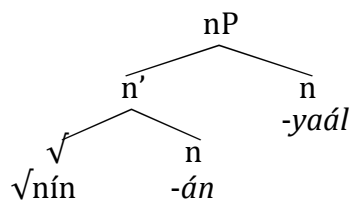
In addition to Somali and Amharic, Mous, in identifying forms described as *a plural*

*derived from a singular derived from a base* (2016: 70-72), evokes a similar

mechanism in Alagwa.  As such, a general number 'base' form receives a singular

suffix, which then receives a plural suffix.  The phenomenon is exemplified in

(5.134).

(5.134)　　　MULTIPLE SUFFIXING IN ALAGWA (FROM MOUS 2016: 70-72)
　　　　　　　*/aantsáa* '(a group of) figs' → */aantsimoo* 'a fig' → */aantsima'i* 'figs'
　　　　　　　[/aants-áa]　　　　　　　　[/aantsaa-**imoo**]　　[/aantsaa**imoo -a'i**]

Immediately, the argument is less transparent in Alagwa than in either Somali or

Amharic, in that vowel-deletion eliminates evidence for the presence of may

suffixes.  But assuming an underlying form (given in square brackets in (5.134)), the

structure in (5.135) may be posited.

*5. The suffix 1: the regular phenomena*

(5.135)    THE MULTIPLE SUFFIX FORM */AANTSIMA'I* 'FIGS' IN ALAGWA (VERSION 1)

```
                    nP
                  /    \
                n'      n
              /   \    -a'i
            n'     n
           /  \   -imoo
          √    n
    √/aants  -aa
```
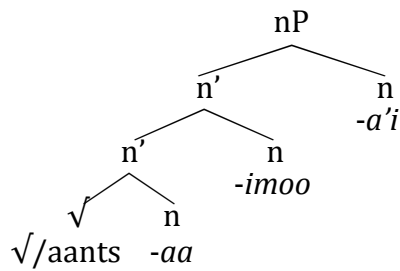
A second difference between the multiple suffix form in Alagwa and the multiple

suffix forms in Somali and Amharic is that forms in Alagwa are built of suffixes with

*differing* number values.  Whereas the forms in Somali and Amharic are built of a

root and two *plural* suffixes, the form in Alagwa is built of a root, a *general number*

suffix, a *singular* suffix, and a *plural* suffix.  Given what has been established in this

chapter, the structure would occur as something akin to (5.136).

(5.136)    THE MULTIPLE SUFFIX FORM */AANTSIMA'I* 'FIGS' IN ALAGWA (VERSION 2)

```
                        nP
                      /    \
                    #P      n
                  /    \   -a'i
                nP      #
              /    \   [Pl.]
            #P      n
          /   \    -oo
        ClP    #
       /   \  [Sg.]
     nP     Cl
    /  \   -iim
   √    n
√/aants  -aa
```

331
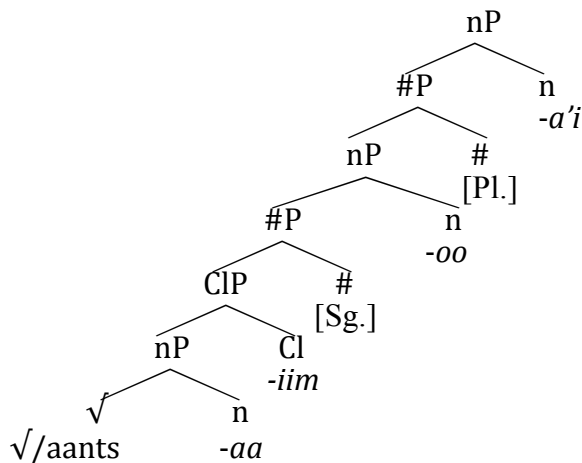
*5. The suffix 1: the regular phenomena*

The most immediately objectionable characteristic of a structure such as this is that it has been quantified twice, with two different values, Sg, and Pl. Because number is always an interpretable feature, this will cause the derivation to crash.[7]

The proposal could, however, be saved by adopting a slightly different approach to the final n (an approach which will be established in Chapter 6), in which the final suffix is not two separate heads, but one, realized as *-oo* in the presence of a Sg feature, and as *-a'i* in the presence of a Pl feature. The structure would therefore occur as in (5.137).

(5.137)     THE MULTIPLE SUFFIX FORM */AANTSIMA'I* 'FIGS' IN ALAGWA (REVISED)

```
                          nP
                         /  \
                       #P    n
                      /  \   -oo_Sg
                   ClP    #  -a'i_Pl
                  /  \   [Pl.]
                nP    Cl
               /  \   -iim
              √    n
           √/aants -aa
```
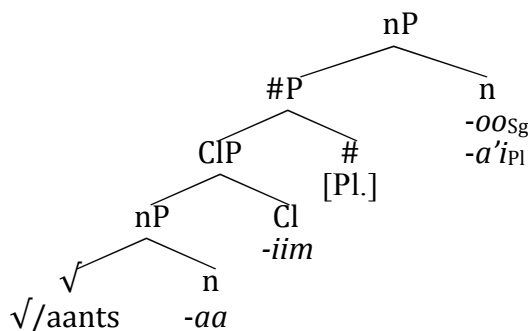
The structure is, in itself, licit: because the lower n is of general number, no number value is imposed on the root until that of the higher Cl-# projections.

This is significant in that Gorwaa may be argued to possess the same kind of patterns. As such, the form *qoonqalama'* 'crowned cranes', under the multiple suffix proposal, would appear as in (5.138).

---

[7] It will be proposed in §7.4.2 that DPs may contain more than one gender feature, with only the highest able to affect agreement operations. Number, however, is *always* an interpretable feature, whereas gender is only interpretable when reflecting the biological gender of the referent (i.e. its sex). It is due to this difference in interpretability that a DP may contain more than one gender feature, but only ever one number feature.

*5. The suffix 1: the regular phenomena*

(5.138)      *Qoonqalama'* 'crowned cranes' in Gorwaa (under the multiple suffix
       proposal)

```
                      nP
                   /      \
                #P          n
              /    \        -óSg
           ClP      #       -a'iPl
          /   \    [Pl.]
        nP     Cl
       /  \   -iim
      √    n
   √qoonqal  -∅
```

Ultimately, it is the synchronic data which complicate this proposal for South

Cushitic.  As mentioned above, because of extensive vowel-deletion, it is often

impossible to determine if a suffix is present in a form or not.  As such, under a

multiple suffix analysis, the Alagwa noun */aantsima'i* could be decomposed as

*/aants -aa -iim -a'i*, it may just as satisfactorily be decomposed under a non-multiple

suffix analysis as */aants -iim -a'i*.  Indeed, for the Gorwaa noun *qoonqalama'*, the

positing of a null suffix n of general number between the root and the classifier head

seems difficult to justify, as it is not syntactically necessary.


More serious, however, are Gorwaa cases in which the pattern is somehow 'broken',

that is, where plural forms show morphology from a singular form that doesn't

exist[8].

(5.139)      'Broken' patterns: Pl forms show morphology from a sg form that does
       not exist (Gorwaa)
       a.      *kalambeetú* 'honey badger'  | *kalambeetama'* 'honey badgers'
       b.      */aanta* 'termite mound'       | */aanteemo* 'termite mounds'
       c.      *iitsaangw* 'jackal'           | *iitseema'* 'jackals'

---

[8] 'Broken' patterns appear much less common in Alagwa, the only example I could find
outside of the examples given being *tsuuruu* 'nest (i.e. for birds)' | *tsuruma'i* 'nests'.

*5. The suffix 1: the regular phenomena*

The obvious argument here is that, historically, the forms *kalambeetamó*, */aantamó*, and *iitsamó* all once existed and that, for whatever reason, are no longer in use. This is, in fact, Mous' argument in Alagwa for pairs of number-valued forms which lack a base form, such as */antl -imoo* 'molar tooth' | */antilim -ay* 'molar teeth'. The problem is, however, that for a synchronic description to account for these phenomena in a comprehensive way, a great deal of underlying structure would need to be assumed - very little of which could be gleaned from surface structure. Therefore, while multiple suffixing is a regular, productive process in both Somali and Amharic, and while, at one point, this appears to have been the case in South Cushitic, the current data (for both Alagwa and Gorwaa) point to a system that is no longer productive, and whose remnants have been re-analysed into a system in which the only syntactically permissible structures are those involving unique suffixation. This suffix system will be further examined in the next chapter.

**5.5.2 Summary**

This chapter took pains to establish a detailed description of the suffixes before attempting a more abstract level of analysis. As such, 42 different suffixes were identified and divided into two broad groups: those which are individuated and therefore impose a number value (Sg or Pl), and those which are unidividuated and may therefore occur with either Sg or Pl agreement (general number). The choice of the term 'occur with' rather than 'trigger' is used advisedly, as it seems as if number agreement (seen on the adjective) comes from an element other than the noun. This will be further discussed in Chapter 7**.**

*5. The suffix 1: the regular phenomena*

Theoretically, the suffix was deconstructed into three morphosyntactic subcomponents: the classifier head (Cl), the quantity head (#), and the 'little-n' head (n). Suffixes valued for number (i.e. those which may only occur with Sg agreement and those which may only occur with Pl agreement) feature both a Cl and a #. Suffixes unvalued for number (i.e. those which may occur with Sg or Pl agreement), do not feature a Cl or a #. SFX2 was shown not to be instantiated on either # or a higher D projection, but on 'little n', a projection intermediate between # and D. Subsection 5.5.1 examined an alternate analysis provoked by some more complicated data, and decided to reject multiple suffixing in favour of a simple suffixing model.

As such, the regular characteristics of the Gorwaa suffix have been dealt with using the tools for description of regular phenomena: that is, the manipulation of feature bundles in the syntax. The next chapter addresses the listed characteristics, and will therefore see greater appeal to post-Spellout operations.

# 6. The suffix 2: the listed phenomena

## 6.1 Introduction

Once again, the current chapter is concerned with the suffix, the constituent

morphemes of which are bolded in (6.1) below.

(6.1)   THE SUFFIX (SFX): COMPOSED OF SUBPARTS SFX1 AND SFX2
   a.   *wa/**aángw** wák*

   | wa/- | **-aangw** | -ó | wák |
   |------|-----------|-----|-----|
   | STM- | **-Sfx2** | -L | one |

   arroyo

   "one arroyo"

   b.   *we/**eerí** tsár*

   | wa/- | **-eer** | **-(a)'i** | ~´~ | tsár |
   |------|----------|-----------|-----|------|
   | STM- | **-Sfx1** | **-SFX2** | -L | two |

   arroyos

   "two arroyos"

To review, the most relevant patterns of Gorwaa suffixes are as follows in (6.2).

(6.2)   MORPHOSYNTACTIC CHARACTERISTICS OF THE GORWAA SUFFIX
   I.   Regular Phenomena:
      a.   *Many suffixes (identified thus far as SFX)  may be divided into separate morphemes: SFX1 and SFX2.  All suffixes feature the SFX2 morpheme, not all suffixes feature the SFX1 morpheme.*
      b.   *Suffixes with a SFX1 morpheme are* either *Sg* or *Pl in number, and can therefore occur with external elements (e.g. adjectives)* only *if they show matching agreement.*
      c.   *Suffixes without a SFX1 morpheme are unvalued for number, and can therefore occur with external elements (e.g. adjectives) which show* both *Sg* or *Pl agreement. (though see II.d. for exceptions.)*
   II.   Listed Phenomena
      a.   *A given noun stem takes a set of suffixes, known as a paradigm.  Paradigms may be monads, pairs, or triads.*
      b.   *The paradigm taken by any given noun is unpredictable.*
      c.   *A given noun stem may have more than one paradigm. Selection of paradigm may or may not affect the semantic interpretation of the resultant noun.*
      d.   *Suffixes unvalued for number may have the kinds of agreement with which they may occur restricted by the composition of their paradigm.*
      e.   *The grammatical gender (i.e. M, F, or N) of a noun is determined by the SFX2 morpheme, which has a stable*

> *association with gender.  If a noun is changed for number, its gender may also change.*

The previous chapter accounted for those phenomena listed as regular: stable correspondences which can largely be explained as products of feature bundles (i.e. material from *List 1*) being manipulated in the syntax (i.e. the syntactic operations).  Each of the 42 SFXs of Gorwaa were presented and subdivided into two types: those which are not specified for number, and only consist of a SFX2, and those which are specified for number, and consist of a SFX1 and a SFX2.  SFX1 was described syntactically as a classifier head (Cl), whose role it is to individuate, (i.e. divide stuff).  Having been classified, nouns may then be quantified.  This is accomplished in Gorwaa through a null quantity head (#), which dominates the classifier head.  It was argued that this quantification head cannot be the locus of the SFX2 morpheme, which must be located at a higher point in the structure.  It was also noted that the SFX2 morpheme could also not be located at D.  Instead, it was posited that SFX2 was an instantiation of the syntactic head 'little n', directly dominating #, and itself dominated by D.  The structures arrived at thus far is given in (6.3) below, (6.3)a for a number-valued (in this case Sg) form, and (6.3)b for a general number form.

*6. The suffix 2: the listed phenomena*

(6.3)   a.        THE NUMBER-VALUED FORM *QOONQALUMÓ* (VERSION 1)

nP
√qoonqal-(a)m-#-ó
[cat [n]]

#P                                          **n**
√qoonqal-(a)m-#                    **-ó**

[cat [#, Sg]]                    $\begin{bmatrix} \textbf{cat [n]} \\ \textbf{infl [Ø]} \\ \textbf{sel [N; <\#>]} \end{bmatrix}$

ClP                                      #
√qoonqal -(a)m

[cat [Cl, Indiv]]              $\begin{bmatrix} \text{cat [\#, Sg]} \\ \text{infl [Ø]} \\ \text{sel [< Cl >]} \end{bmatrix}$

√qoonqal                    Cl
                                      -(a)m

b.        THE GENERAL NUMBER FORM *QOONQÁL* (VERSION 1)

n$_{gen}$P
√qoonqal -Ø
[cat [n]]

√                                  n$_{gen}$
√qoonqal                        -Ø

[cat [N]]              $\begin{bmatrix} \text{cat [n]} \\ \text{infl [Ø]} \\ \text{sel [< √ > ; N]} \end{bmatrix}$
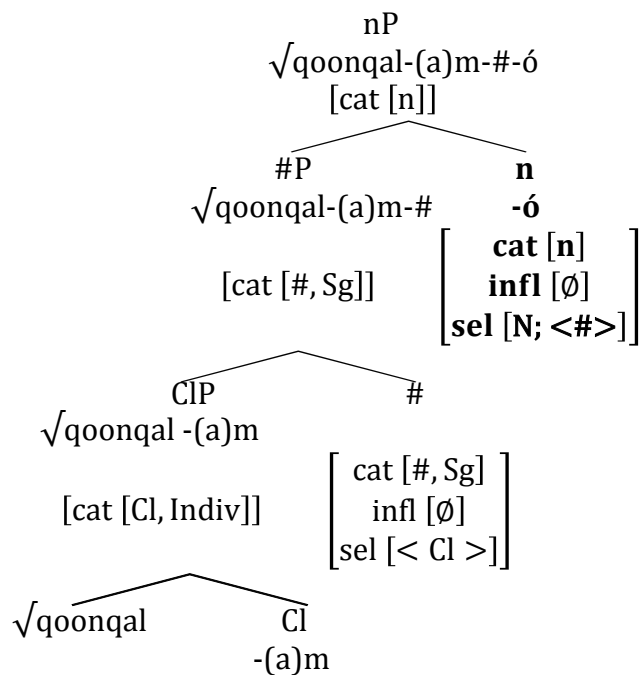
This chapter addresses those patterns of Gorwaa suffixes which are 'listed':

requiring recourse to more detailed explanations of realization rules post-

Spellout (i.e. material from *List 2* and *List 3*).  Embick (2003) notes that "[a]ll

approaches to grammar must assume that some information is simply listed"

(144).  Essentially, in English, the difference in grammaticality between *two men*

and *two man* can be explained by recourse to the same sort of syntactic

structures as discussed in Chapter 5.  However, the difference in grammaticality

between *men* and **mans* is of a different nature.  That is, it is not the expression

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of number value [plural] on the noun which is illicit (as *men* is a valid plural form), but rather the manner in which it is expressed for this particular noun. Whereas singular-plural pairs such as *ban | bans*, *can | cans*, *fan | fans* are licit, *man | mans* is not. The *man | mans* error is not one of feature bundles being manipulated by syntactic operations (*ban | bans* illustrates that such a configuration is syntactically licit), rather, it is an error of how that structured set of feature bundles comes to be realized for that particular form. In order to recognize the ungrammaticality of *man | *mans*, and the grammaticality of *man | men*, one must simply know that this is the way this particular word works. Knowledge is not of the syntax, but of the particular lexical item: it is *listed*. Embick goes on to state that "[h]ow this information is listed, and whether or not listedness correlates with grammatical phenomena in a systematic fashion, is a significant research question" (2003: 144).

Gorwaa noun suffixes are an appropriate subject in this regard, both in that listedness is extensive, and in that listed material has significant morphosyntactic ramifications. Following this introduction, §6.2 provides an introduction to concept of the paradigm: a tool central to much of the following discussion. §6.3 gives an overview of each of the listed phenomena included in (6.2). §6.4 is a detailed presentation and description of the empirical basis of this chapter: the paradigm. §6.5 provides an analysis in the Distributed Morphology architecture to account for listed phenomena. §6.6 gives a final remark, and summarizes.

*6. The suffix 2: the listed phenomena*

## 6.2. The paradigm

As may be observed in (6.2) the majority of the listed phenomena associated

with the Gorwaa suffix make reference to the concept of the paradigm.  Given the

high degree of unpredictability associated with the paradigms -- how much

relating to their identity must 'simply be learned' and how much is therefore

post-syntactic -- wondering if they are worth any sort of analysis at all does not

seem an entirely flippant proposition.


However, even if paradigms are predominantly post-syntactic in their content,

they are not external to the grammar.  Asking questions of how the paradigms

come to realize the information they encode is important for understanding

grammar post-Spellout.  More intriguingly, it will be seen that a proper

understanding of paradigms allows for novel approaches to nominal structure,

as well as common phenomena such as gender and agreement.


Firstly, in this work, 'paradigm' will be used to mean the instructions for suffix

realization taken by a given noun stem.  For example, the form for 'rooster' in

Gorwaa is *kookumó*, and the form for 'roosters' is *kookuma'*.  Put crudely, the

noun stem *kook-* is given the instructions: *for singular, realize the suffix as* -(a)mó

(*Mo); for plural, realize the suffix as* -(a)ma' *(NØ).*  This specific set of instructions

is referred to in this work as the paradigm *-(a)mó* (Mo) | *-(a)ma'* (NØ).

Paradigms are abstract: the noun *kookumó* 'rooster', on its own, gives no overt

indication that it is of the paradigm *-(a)mó* (Mo) | *-(a)ma'* (NØ).  It is only by

observing the plural form *kookuma'* 'roosters' (as well as by learning that a form

*6. The suffix 2: the listed phenomena*

in general number is non existent) that the paradigm *-(a)mó* (Mo) | *-(a)ma'* (NØ)

may finally be discerned.

Furthermore, this particular paradigm is not very enlightening: as a suffix of the

Sg type, *-(a)mó* (Mo) could never mean something like 'roosters' or 'group of

roosters', and, as a suffix of the Pl type, *-(a)ma'* (NØ) could never mean

something like 'a rooster' or 'group of roosters'.  All the information necessary is

present in the suffixes.

However, the relationship between *-(a)mó* (Mo) to *-(a)má* (NØ) is not one-to-

one.  The noun */itsimó* 'intestinal worm' has the plural form */itseemi* 'intestinal

worms', and the noun *mahhatimó* 'shadow' has the plural form *mahheetitu*

'shadows'.  It is, therefore necessary to stipulate that, while the noun stem *kook-*

pluralizes in *-(a)ma'* (NØ), the noun stem */its-* pluralizes in *-<ee>-i* (NØ), and the

noun stem *mahhat-* pluralizes in *-<ee>-aC$_z$u* (NØ).

The lack of one-to-one relationships between singular and plural suffixes

operates in the other direction as well.  While the noun *kookuma'* 'roosters' has

the singular form *kookumó* 'rooster', the noun *ya'eema'* 'streams' has the singular

form *ya'eemi* 'stream'.  It is therefore equally necessary to stipulate that, while

the noun stem *kook-* singularizes in *-(a)mó* (Mo), the noun stem *ya'-* singularizes

in *-iimi* (Fr).

The fact that more than one suffix may participate in marking the Sg and the Pl,

and that there is no principled way of predicting when each suffix may or may

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not apply (see §6.3.2) means that every noun stem must come with instructions

for what suffix it will be realized with, in both Sg and Pl.  The paradigm is

therefore grammatically indispensible.

Furthermore, a given suffix may encode different number values.  For example,

when the suffix *-í* (Fr) occurs on the noun stem *fuuf-*, the resultant noun *fuufí* can

mean 'a weasel'.  When the same suffix *-í* (Fr) occurs on the noun stem *loos-*, the

resultant noun *loosí* can mean 'beans'.  On its own, the suffix *-í* (Fr) has no

inherent valuation for number: only in paradigmatic combination with other

suffixes can it come to semantically convey either singular or plural.  In the case

of *fuufí* 'a weasel', *-í* (Fr) is in a paradigm with a Pl type suffix: *-í* (Fr) | *-eemoo*

(NØ).  In the case of *loosí* 'beans', *-í* (Fr) is in a paradigm with a Sg type suffix: *-*

*(a)mó* (Mo) | *-í* (Fr).

One response to patterns such as this is the paradigm approach.  Articulated in

works such as Cobbinah 2013 and Watson 2015, and usefully applied to several

West African languages, the paradigm approach proposes that the noun suffixes

of Gorwaa are not independent formatives per se, but achieve their function

compositionally as part of paradigms.  The suffixes are therefore morphological

primitives, entering into any number of structured patterns and expressing

features based not entirely on their form, but on the position they occupy within

a paradigmatic structure.  In his discussion of the noun class prefixes of

Baïnounk Gubëeher (mis; Senegal), (similar to the suffixes herein) Cobbinah

provides a useful metaphor for this concept.

*6. The suffix 2: the listed phenomena*

> "Just as atoms are the building blocks of matter, bonding in various fashions to form complex molecules, the noun class prefixes combine to form paradigms. Stretching the metaphor a little further, it is of little explanatory value if one tries to explain the properties of matter, to know that a substance contains for example hydrogen and carbon atoms – an information [sic] that pertains to thousands of substances with widely differing properties – without knowing which kind of bonds and molecules are formed by these atoms."
>
> p.111

## 6.3 Overview of the listed phenomena

This section expands on each of the listed phenomena associated with the

Gorwaa suffix. These are repeated in (6.4) below.

(6.4)    THE LISTED MORPHOSYNTACTIC CHARACTERISTICS OF THE GORWAA SUFFIX

      a.      *A given noun stem takes a set of suffixes, known as a paradigm. Paradigms may occur in three different shapes: monads, pairs, or triads. Paradigms may be composed of different types of suffixes.*
      b.      *The paradigm taken by any given noun stem is unpredictable.*
      c.      *A given noun stem may have more than one paradigm. Selection of paradigm may or may not affect the semantic interpretation of the resultant noun.*
      d.      *Suffixes unvalued for number may have the kinds of agreement with which they may occur restricted by the shape and composition of their paradigm.*
      e.      *The grammatical gender (i.e. M, F, or N) of a noun is determined by the SFX2 morpheme, which has a stable association with gender. If a noun is changed for number, its gender may also change.*
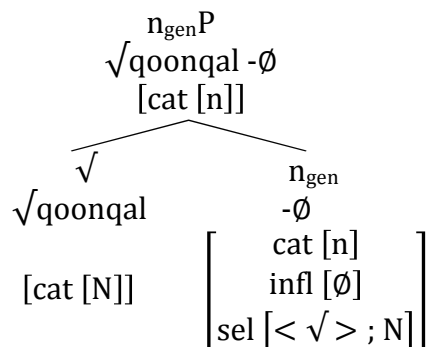
Each characteristic will be discussed in its own subsection below. Subsection

6.2.1 treats characteristic (a): the paradigm: content, shape, and texture.

Subsection 6.2.2 treats characteristic (b): the unpredictability of the paradigm.

Subsection 6.2.3 treats characteristic (c): multiple paradigms for a given stem.

Subsection 6.2.4 treats characteristic (d): paradigmatic effects on number value.

Subsection 6.2.5 treats characteristic (e): gender 'polarity'.

*6. The suffix 2: the listed phenomena*

## 6.3.1 Characteristic (a): the paradigm: content, shape, and texture

As mentioned above, a paradigm is the set of instructions for suffix realization taken by a given noun stem. Paradigms may be identified according to their shape, content, and texture. For example, the stem *kook-* takes the suffixes *-(a)mó* (Mo) and *-(a)ma'* (NØ), forming *kookumó* 'rooster' and *kookuma'* 'roosters', respectively. The shape of the paradigm discussed above is a pair, its content is *-(a)mó* (Mo); *-(a)ma'* (NØ), and its texture is Sg. | Pl.

The specific suffixes featured in a given paradigm will be referred to as its content. As mentioned above, the content of the paradigm into which the noun stem *kook-* enters is *-(a)mó* (Mo) and *-ama'* (NØ). Among the three criteria of content, shape, and texture, the criterion of content is most salient to the identity of the paradigm. For example, the noun stem *ga/at-* takes the suffixes *-imi* (Fr) and *-náy* (Mo), forming *ga/atimi* 'high fever' and *ga/atanáy* 'high fevers', respectively. This paradigm *-imi* (Fr) | *-náy* (Mo) has both the same shape (i.e. a pair) and the same texture (i.e. Sg. | Pl.) as the paradigm into which *kook-* enters above, but is different because of its *content*.

A given noun stem may take a paradigm of one (a monad), two (a pair), or three (a triad). These are referred to the 'shape' of the paradigm. As mentioned above, the stem *kook-* takes the suffixes *-(a)mó* (Mo) and *-ama'* (NØ), forming *kookumó* 'rooster', and *kookuma'* 'roosters', respectively. The paradigm for the noun stem *kook-* is therefore *-(a)mó* (Mo) | *-eema'* (NØ): a paradigmatic pair. The stem *qoonqaal-* takes the suffixes *-(a)mó* (Mo), *-Ø* (Mo), and *-(a)ma'* (NØ), forming *qoonqalumó* 'a crowned crane', *qoonqál* 'crowned crane (as a group or species)',

and *qoonqalima'* 'crowned cranes', respectively.  The paradigm for the noun stem

*qoonqaal-* is therefore *-(a)mó* (Mo) | -Ø (Mo) | *-(a)ma'* (NØ): a paradigmatic triad.

The stem *maa'-* takes the suffix *-ay* (NØ), forming *maa'ay* 'water'.  The paradigm

for the noun stem *maa'-* is therefore *-ay* (NØ): a paradigmatic monad.


Paradigm texture refers to the *type* of suffixes with which a given paradigm is

composed.  In §5.3, the 42 nominal suffixes of Gorwaa were divided into 5 types:

singular, general (Sg-leaning), general, general (Pl-leaning), and plural.

Therefore, the paradigm *-(a)mó* (Mo) | *-(a)ma'* (NØ) -- composed of the singular

suffix *-(a)mó* (Mo) and the plural suffix *-(a)ma'* (NØ) -- is of the texture Sg. | Pl.

The paradigm *-í* (Fr) | *-aa* (Fr) (of the noun stem *bi/in-*, forming *bi/iní* 'silky

blesmol' and *bi/inaa* 'silky blesmols') is composed of the general (Sg-leaning)

suffix  *-í* (Fr) and the general suffix *-aa* (Fr), and is therefore of the texture

general-Sg. | general.


## 6.3.2 Characteristic (b): the unpredictability of the paradigm

The paradigm taken by any given noun is largely unpredictable.  This refers

equally to the identity criteria of paradigm content, paradigm shape, and

paradigm texture.


## 6.3.2.1 Paradigm content is unpredictable

Firstly, it is impossible to determine the suffixes a noun stem will take (i.e.

paradigm content).

Paradigm content is unpredictable based the phonological shape of its stem

(6.5).

*6. The suffix 2: the listed phenomena*

(6.5)    SHAPE OF THE STEM DOES NOT PREDICT THE PARADIGM CONTENT
              a. CV:C (WHERE V: IS A MID-VOWEL)
                      see/    see/**i** 'plant sp.' (one of a group)
                              see/**aa** 'plant sp.'
                              vs.
                      gee/    gee/**áy** 'slope'
                              gee/**aawee** 'slopes'

              b. CVCVC (WHERE THE V IS THE SAME)
                      ma/al  ma/al**i** 'a sheep's dewlap'
                             ma/al**áy** 'sheep's dewlaps'
                             vs.
                      pa/al   pa/al**imó** 'wickerwork' (one piece)
                             pa/al**i** 'wickerwork'
                             pa/al**aa** 'wickerworks'

Second, though weak patterns exist, the suffix a noun takes for any one number

value is not predictive of the suffix that noun will take for any other number

value (6.6).

(6.6)    ONE NUMBER SUFFIX DOES NOT PREDICT ANOTHER NUMBER SUFFIX
              a. -AANGW DOES NOT PREDICT -EERI (OR VICE-VERSA)
                      *dir**aangw*** 'lion'        |    *dir**eeri*** 'lions'
                      *mah**aangw*** 'hare'    |    *meh**eeri*** 'hares'
                      *slehh**eengw*** 'month' |    *slehh**eeri*** 'months'
                              But:
                      *xooy**aangw*** 'francolin' |    *xooy**aawee*** 'francolins'
                      *kwu/**uungw*** 'wall'    |    *kwu/**u/ee*** 'walls'
                      *boh**oongw*** 'hole'      |    *boh**i'i*** 'holes'
                              And vice-versa:
                      */ar**umó*** 'a tobacco ball' |    */ar**eeri*** 'tobacco balls'
                      *afqur**mó*** 'a warthog' |    *afqur**eeri*** 'warthogs'
                      *tsifir**i*** 'a language'      |    *tsifir**eeri*** 'languages'

*6. The suffix 2: the listed phenomena*

    b. -AA DOES NOT PREDICT -U! (OR VICE VERSA)[1]

| | | | |
|---|---|---|---|
| *doofaa* 'rhinoceros' | \| | *dofu* 'rhinoceroses' |
| */oonaa* 'darkness' | \| | */onu* 'darknesses' |
| *fa/aa* 'ugali' | \| | *fa/o* 'ugali' (in different places) |

              But:

| | | | |
|---|---|---|---|
| *gixsaa* 'town, city' | \| | *gixsadu* 'towns, cities' |
| *tloomaa* 'hill' | \| | *tloomi'i* 'hills' |
| *slinxaa* 'bridge of nose' | \| | *slinxuxu* 'bridges of noses' |

            And vice-versa:

| | | | |
|---|---|---|---|
| *xooslumó* 'vessel, tool' | \| | *xoslu* 'vessels, tools' |
| *waqaasi* 'a ceiling beam' | \| | *waqasu* 'ceiling beams' |
| *qweetsoo* 'wrinkle' | \| | *qwetsu* 'wrinkles' |

## 6.3.2.2 Paradigm shape is unpredictable

Second, it is impossible to determine how many suffixes the noun stem will take

(i.e. paradigm shape).

For example, many nouns referring to plants and animals are part of

paradigmatic triads.  The noun stem *qoonqaal-* enters into the paradigm

*-(a)mó* (Mo) | *-Ø* (Mo) | *-(a)ma'* (NØ), yielding the resultant nouns *qoonqalumó* 'a

crowned crane', *qoonqál* '(a group, species, or kind of) crowned cranes', and

*qoonqalima'* 'crowned cranes'.  However, many other nouns referring to plants

and animals may be part of paradigmatic pairs.  As mentioned above, the noun

stem *kook-* enters into the paradigm *-(a)mó* (Mo) | *-(a)ma'* (NØ), yielding the

resultant nouns *kookumó* 'rooster', and *kookuma'* 'roosters'.  Furthermore, nouns

which do not refer to plants and animals may also participate in paradigmatic

triads.  The noun stem *qutur-* enters into the paradigm *-(a)mó* (Mo) | *-Ø* (Mo) | *-

(a)ma'* (NØ), yielding the resultant nouns *quturmó* 'a wedding bracelet', *qutúr* '(a

group or kind of) wedding bracelets', and *quturma'* 'wedding bracelets'.

---

[1] The ! of the -u! suffix represents a phonological operation which accompanies the suffix, one effect of which is vowel shortening.  This is explained in §5.3.4.2.

**6.3.2.3 Paradigm texture is unpredictable**

In addition to paradigm content and shape, the type of suffixes a noun stem will

take is also unpredictable.

Repeating a well-worn example, the noun stem *kook-* enters into the paradigm

*-(a)mó* (Mo) | *-(a)ma'* (NØ), yielding the resultant nouns *kookumó* 'rooster', and

*kookuma'* 'roosters'.  The texture of the paradigm is Sg | Pl.  The noun stem *sakar-*

enters into the paradigm *-i* (Fr) | *-oo* (Fr), yielding the resultant nouns *sakari*

'guineafowl', and *sakaroo* 'group of guineafowl', 'guineafowls'.  The texture of the

paradigm is $Gen_{SG}$ | Gen.  As such, two stems which produce what are

semantically very similar nouns, are formed of paradigms with entirely different

textures.

**6.3.3 Characteristic (c): multiple paradigms for a given stem**

Associated with the last characteristic is characteristic (c):  a given noun stem

may have more than one paradigm.

In cases, such as those given in (6.7) below, the choice of paradigm has no effect

on the semantic interpretation of the resultant noun.  In fact, one speaker may

use these different paradigms of a given stem interchangeably, with no seeming

difference in meaning, register, etc.

*6. The suffix 2: the listed phenomena*

(6.7)   NOUN STEMS WITH MORE THAN ONE PARADIGM: NO OBSERVED SEMANTIC EFFECTS

| STEM | PARADIGM | RESULTANT NOUNS |
|---|---|---|
| */iliw-* | *-i* (Fr) \| *-oo* (Fr) | */iliwi* 'a leopard' |
| | | */iliwoo* 'leopards' |
| | *-i* (Fr) \| *-áy* (Mo) | */iliwi* 'a leopard' |
| | | */iliwáy* 'leopards' |
| *goof-* | *-aangw* (Mo) \| *-eeri* (NØ) | *goofaangw* 'an antelope' |
| | | *goofeeri* 'antelopes' |
| | *-aangw* (Mo) \| *-aawee* (Fr) | *goofaangw* 'an antelope' |
| | | *goofaawee* 'antelopes' |
| *hhalhhal-* | *-i* (Ft) \| *-a'(!)* (NØ) \| *-ima'* (NØ) | *hhalhhali* 'an extra finger' |
| | | *hhalhhala'* 'a kind of extra finger' |
| | | *hhalhhalima'* 'extra fingers' |
| | *-i* (Ft) \| *-áy* (Mo) \| *-ima'* (NØ) | *hhalhhali* 'an extra finger' |
| | | *hhalhhaláy* 'a kind of extra finger' |
| | | *hhalhhalima'* 'extra fingers' |

Conversely, in cases such as those given in (6.8) below, the choice of paradigm does affect the semantic interpretation of the resultant noun.

(6.8)   NOUN STEMS WITH MORE THAN ONE PARADIGM: OBSERVED SEMANTIC EFFECTS

| STEM | PARADIGM | RESULTANT NOUNS |
|---|---|---|
| *see'-* | *-iimi* (Fr) \| *-aangw* (Mo) | *se'eemi* 'hair (one strand)' |
| | | *se'eengw* 'hair' |
| | *-ay* (Mo) \| *-aawee* (Fr) | *soo'ay* 'a dog' |
| | | *soo'aawee* 'dogs' |
| *yaa'-* | *-ee* (Fr) \| *-u!* (NØ) | *yaa'ee* 'a river' |
| | | *ya'u* 'rivers' |
| | *-eemi* (Fr) \| *-eema'* (NØ) | *ya'eemi* 'a stream' |
| | | *ya'eema'* 'streams' |
| *tsifir-* | *-aangw* (Mo) \| *-eeri* (NØ) | *tsifiraangw* 'a tongue' |
| | | *tsifireeri* 'tongues' |
| | *-i* (Fr) \| *-eeri* (NØ) | *tsifiri* 'a language' |
| | | *tsifireeri* 'languages' |

### 6.3.4 Characteristic (d): paradigmatic effects on number value

Suffixes unvalued for number (i.e. general) may have the kinds of agreement with which they may occur restricted by the shape and texture of their paradigm. This restriction may be characterized as a kind of collapse which may occur in one of two ways i) the general and singular distinction collapses, leaving a two-

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way opposition of general/singular - plural (as in Figure 5.2), or ii) the general

and plural distinction collapses, leaving a two-way opposition of singular -

general/plural (as in Figure 5.3).[2]  Each will be discussed below in detail.

Figure 6.1: 'General/singular' versus plural (from Corbett 2000: 13)



This pattern of collapse is present in paradigms such as *-í* (Fr) | *-aa* (Fr), a

paradigmatic pair of the texture general-Sg. | general.

The first detail to note is that the suffix *-í* (Fr) is general (Sg-leaning), and may

usually occur with external elements showing both Sg or Pl agreement.

(6.9)   THE SUFFIX *-í* (FR) MAY TYPICALLY OCCUR WITH EXTERNAL ELEMENTS SHOWING BOTH
    SG OR PL AGREEMENT
        a.      NOUN *FUUFÍ*  (PARADIGM *-í* (FR) | *-EEMOO* (NØ)) MAY OCCUR WITH BOTH SG
OR PL AGREEMENT
                i. *fuufír ur*
                  fuuf- -í        -r~´~  ur
                  $\underbrace{\text{STM- -SFX2  -L}}_{\text{weasel}}$       big.F
                  'a big weasel', 'a big kind of weasel'
                ii. *fuufír uren*
                  fuuf--í          -r~´~ uren
                  $\underbrace{\text{STM- -SFX2  -L}}_{\text{weasel}}$       big.F.Pl
                  'big kinds of weasels'

---

[2] This phenomenon of 'general number collapse' is described in Corbett (2000) for two
Cushitic languages, Arbore (arv; Ethiopia), and Borana Oromo (gax; Ethiopia, Kenya).

## 6. The suffix 2: the listed phenomena

b. NOUN *LOOSÍ* (PARADIGM *-(A)MÓ* (MO) | *-Í* (FR)) MAY OCCUR WITH BOTH PL OR SG AGREEMENT

i. *loosír uren*

| loos- | -í | -r~´~ | uren |
|-------|-----|-------|------|
| STM- | -SFX2 | -L | big.F.Pl |

$\underbrace{\text{loos- -í -r~´~}}_{\text{beans}}$

'big beans', 'big kinds of beans'

ii. *loosír ur*

| loos- | -í | -r~´~ | ur |
|-------|-----|-------|------|
| STM- | -SFX2 | -L | big.F |

$\underbrace{\text{loos- -í -r~´~}}_{\text{beans}}$

'a big kind of bean'

However, when the suffix *-í* (Fr) is in a paradigmatic pair with the general suffix *-aa* (Fr), it may no longer occur with elements showing Pl agreement.  Its function as a suffix of general number has been restricted, and it is now capable of only expressing singular number.

(6.10)  NOUN *BI/INÍ* (PARADIGM *-Í* (FR) | *-AA* (FR)) MAY OCCUR WITH EXTERNAL ELEMENTS

SHOWING SG AGREEMENT *ONLY*

a.  *bi/inír tleer*

| bi/in- | -í | -r~´~ | tleer |
|--------|-----|-------|-------|
| STM- | -SFX2 | -L | tall.F |

$\underbrace{\text{bi/in- -í -r~´~}}_{\text{mole}}$

"a long silky blesmol"

b.  **bi/inír tlet*

| bi/in- | -í | -r~´~ | tlet |
|--------|-----|-------|------|
| STM- | -SFX2 | -L | tall.F.Pl |

$\underbrace{\text{bi/in- -í -r~´~}}_{\text{mole}}$

(intended meaning) "a long (kind of) silky blesmol"

c.  *bi/inaár tlet*

| bi/in- | -aa | -r~´~ | tlet |
|--------|-----|-------|------|
| STM- | -SFX2 | -L | tall.F.Pl |

$\underbrace{\text{bi/in- -aa -r~´~}}_{\text{mole}}$

"long silky blesmols", "long kinds of silky blesmols"

*6. The suffix 2: the listed phenomena*

Figure 6.2: singular versus 'general/plural' (from Corbett 2000: 16)



This pattern of collapse is present in paradigms such as *-aa* (Fr) | *-a'i* (NØ), a

paradigmatic pair of the texture general | general-Pl.


Note that the suffix *-a'i* (NØ) is general (Pl-leaning), and may usually occur with

external elements showing both Sg or Pl agreement.

(6.11)  NOUN *BIHHI* (PARADIGM *-A'I* (NØ) | *-ACₖEE* (FR)) MAY OCCUR EXTERNAL ELEMENTS

    SHOWING BOTH SG OR PL AGREEMENT

        a.    *bihhí tleer*
             bihh-  -a'i    ~´~    tleer
             STM-   -SFX2  -L       tall.N
                     side
             "a long flank", "a long kind of flank"

        b.    *bihhí tlet*
             bihh-  -a'i    ~´~    tlet
             STM-   -SFX2  -L       tall.N.Pl
                     side
             "long kinds of flanks"

However, when the suffix *-a'i* (NØ) is in a paradigmatic pair with the suffix *-aa*

(Fr), it may no longer occur with elements showing Sg agreement.  Its function as

a suffix of general number has been restricted, and it is now capable of only

expressing plural number.

(6.12)  NOUN *TLOOMI'I* (PARADIGM *-AA* (FR) | *-A'I* (NØ)) MAY OCCUR EXTERNAL ELEMENTS
    SHOWING PL AGREEMENT *ONLY*
        a.    *tloomi'í tlet*
             tloom- -a'i    ~´~    tlet
             STM-   -SFX2  -L      tall.N.Pl
                   mountain
             "tall mountains"

b.    *\*tloomi'í tleer*
      tloom-  -a'i      ~´~     tleer
      S<small>TM</small>-   -S<small>FX2</small>  -L          tall.N
      $\underbrace{\phantom{S_{TM}- -S_{FX2} -L}}_{\text{mountain}}$
      (intended meaning) "tall kinds of mountains"

c.    *tloomaár tleer*
      tloom-  -aa       -r~´~  tleer
      S<small>TM</small>-   -S<small>FX2</small>  -L          tall.F
      $\underbrace{\phantom{S_{TM}- -S_{FX2} -L}}_{\text{mountain}}$
      "a tall mountain", "a tall kind of mountain"

Note that both of these restriction patterns occur only in paradigmatic pairs either of the texture general-Sg | general or of the texture general | general-Pl. The paradigm *-í* (Fr) | *-aa* (Fr) of (6.10) above and the paradigm *-aa* (Fr) | *-a'i* (NØ) of (6.12) are examples of each texture, respectively. Note further that the suffix which loses its general value and collapses either into Sg or Pl is always the less prototypically general suffix. Of the paradigm *-í* (Fr) | *-aa* (Fr), it is the suffix *-í* (Fr) which loses the general value. Similarly, of the paradigm *-aa* (Fr) | *-a'i* (NØ), it is the suffix *-a'i* (NØ) which loses the general value.

## 6.3.5 Characteristic (e): gender 'polarity'

The grammatical gender of a noun (M, F, or N)[3] is determined by the SFX2 component of the suffix. Each SFX2 has a fixed gender value. As can be seen below, the SFX2 *-i* consistently triggers F agreement (6.13), the SFX2 *-ó* consistently triggers M agreement (6.14), and the SFX2 *-a'i* consistently triggers N agreement (6.15).

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[3] It will be remembered that gender refers to a property of the noun which determines the form of elements beyond the noun itself. This is examined in detail in §7.2.

*6. The suffix 2: the listed phenomena*

(6.13) SFX2: -*I* TRIGGERS F AGREEMENT

    a.    *sakweelír tleer*

| sakweel- | **-i** | -r~´~ | tleer |
|---|---|---|---|
| Stm- | **-Sfx2** -L | | long.**F** |

<u>                        </u>
       ostrich
"a tall ostrich"

    b.    *se'eemír tleer*

| see'- | **-i** | -r~´~ | tleer |
|---|---|---|---|
| Stm- | **-Sfx2** -L | | long.**F** |

       ostrich
"a long hair"

    c.    *balaalír ur*

| bal- | -aaC$_z$ | **-i** | -r~´~ | ur |
|---|---|---|---|---|
| Stm- | -Sfx1 | **-Sfx2** -L | | long.**F** |

        sorghum.grain
"a big grain of sorghum"

(6.14) SFX2: -*Ó* TRIGGERS M AGREEMENT

    a.    *loomó tleér*

| loom- | **-ó** | -ó | tleér |
|---|---|---|---|
| Stm- | -Sfx2 -L | | long.**M** |

       tree.sp
'a tall tree' (*Trema orientalis*)

    b.    *siyumó tleér*

| siyo- | -(a)m | **-ó** | -ó | tleér |
|---|---|---|---|---|
| Stm- | -Sfx1 | **-Sfx2** | -L | long.**M** |

       fish
'a long fish'

    c.    *sandukumó tleér*

| sanduku- | -(a)m | **-ó** | -ó | tleér |
|---|---|---|---|---|
| Stm- | -Sfx1 | **-Sfx2** | -L | long.**M** |

       box
'a long box'

(6.15) SFX2: -*A'I* TRIGGERS N AGREEMENT

    a.    *bihhí tleer*

| bihh- | **-a'i** | ~´~ | tleer |
|---|---|---|---|
| Stm- | **-Sfx2** -L | | tall.**N** |

       side
"a long flank"

    b.    *tsi/iyá' tlet*

| tsi/- | -iy | **-a'i** | ~´~ | tlet |
|---|---|---|---|---|
| Stm- | -Sfx1 | **-Sfx2** -L | | tall.**N**.Pl |

       shins

"long shins"

c.    *kwa/eerí tlet*
      kwa/-  -eer   **-a'i**    ~´~    tlet
      S{TM}-   -S{FX1}   **-Sfx2**  -L     tall.**N**.Pl
      ⎵_____⎵
              hares
      "tall hares"

As such, when a noun is changed for *number* (necessarily resulting in a change of

suffix), the *gender* of the noun may change, depending on the identity of the new

suffix (specifically, SFX2).

(6.16)  S{AKWEELI} 'OSTRICH' IS (F) GENDER, S{AKWÉL} 'OSTRICHES' IS (M) GENDER
        i.     *sakweelír tleer*
               sakweel-        **-i**     -r ~´~ tleer
               S{TM}-              **-Sfx2**  -L      long.**F**
               ⎵_____⎵
                           ostrich
               'a tall ostrich'

        ii.    *sakweeló tlét*
               sakweel-        -Ø      -ó      tlét
               S{TM}-              **-Sfx2**  -L     long.**M**.Pl
               ⎵_____⎵
                           ostriches
               'tall ostriches'

   b. D{IGIRMÓ} 'FOOTPRINT' IS (M) GENDER, D{IGIRMA'} 'FOOTPRINTS' IS (N) GENDER
        i.     *digirmó tleér*
               digir-  -(a)m  **-ó**      -ó      tleér
               S{TM}-   -S{FX1} **-S{FX2}**    -L      long.**M**
               ⎵_____⎵
                       footprint
               'a long footprint'

        ii.    *digirmá' tlet*
               digir-  -(a)m  **-a'(!)**  ~´~    tlet
               S{TM}-   -S{FX1} **-S{FX2}**    -L      long.**N**.Pl
               ⎵_____⎵
                       footprint
               'a long footprint'

   c. D{UUKAA} 'SHOP' IS (F) GENDER, D{UUKANÁY} 'SHOPS' IS (M) GENDER
        i.     *duukaár tleer*
               duuk-  **-aa**     -r ~´~ tleer
               S{TM}-   **-Sfx2**   -L      long.**F**
               ⎵_____⎵
                       shop
               'a long (or tall) shop'

*6. The suffix 2: the listed phenomena*

ii.    *duukanáy tlét*
       duuk-  -a(m)  **-áy**    -ó     tlét
       Sᴛᴍ-    -Sꜰx1  **-Sꜰx2**  -L    long.**M.**Pl
                     shops
       'long (or tall) shops'

This section discussed each of the listed phenomena associated with the Gorwaa suffix, providing some discussion and examples.

## 6.4 The Paradigms

The most numerous and best-attested paradigm shape -- the pair -- will be examined first, followed by the triad.  The monad will be examined last. All paradigms are presented in Tables 3.2 and 3.3.  When reading Table 3.2 the following should be kept in mind.

First, the vertical plane has been labeled "Sg" and the horizontal plane has been labeled "Pl".  This is a simplification because of space and the restrictions of two-dimensional diagrams.  As seen above, in many cases, either member of a pair could appear with either Sg or Pl agreement.  What the notation is meant to signify is that, in a configuration whereby a member of a pair *only* occur with Sg, it will be from the column labeled Sg; in a configuration whereby a member of a pair *only* occur with Pl, it will be from the row labeled Pl.  Therefore, taking the -*ay* (M) | -*a'(!)* paradigm, though members of this group suffixed in -*ay* (M) can occur with *either* Sg or Pl agreement, members of this group suffixed in -*a'(!)* can *only* occur with Pl agreement.  As such, the suffix -*a'(!)* is located in the horizontal plane.  It is a convention throughout this work to list paradigm pairs beginning with the suffix they take from the vertical plane, followed by the suffix they take

from the horizontal plane.  Thus, the noun *na/ay | na/a'* is a member of the *-ay*
(Mo) | *-a'(!)* paradigm.

Second, Pl suffixes have been left off of the vertical plane because they never
enter into a paradigmatic relationship in which they can occur with Sg
agreement.  Sg suffixes have been left off the horizontal plane because they never
enter into a paradigmatic relationship in which they can occur with Pl
agreement.

Lines have been drawn which group the suffixes into their groups as discussed
above: Sg, general (usually Sg), general, general (usually Pl), and Pl.
Numbers in the intersect boxes represent the number of nouns identified in the
sample which were found to enter into that paradigm.  For example, for the
paradigm pair *-ay* (M) | *-a'(!)*, N=3.  Intersect boxes are shaded increasingly
darker as N increases.

Intersect boxes whose vertical and horizontal values are different represent pair
paradigms.  Once again, the intersect box of *-ay* (M) | *-a'(!)* represents what was
given in (5.120.b) above as 'the pattern *-ay* (M) | *-a'(!)*', repeated here as the
*paradigm -ay* (M) | *-a'(!)*.

## Table 6.1 The pairs and the monads

| Sg \ Pl | o(M) | í(Fr) | i(Ft) | ó(M) | a(Mk) | a(M) | i(Ft) | i(Fr) | 0 | ay(N) | ú | oo(F) | a(Ft) | aa | ee | á(M) | ay(M) | u | aangw | oo(N) | áy(M) | u! | a'(!) | a'i | náy | iya' | (a)ma' | iyoo | Ci'i | <ee>aCu | <ee>oo; eemoo | aawee | eeri | eema' | (a)du | aCee | aCu |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (a)mó | 11 | 4 | 7 | | 1 | 4 | 15 | 32 | | 3 | 9 | 1 | 10 | 1 | | 4 | | 2 | 1 | | 20 | 1 | 4 | | | | 52 | | | | 1 | | | 2 | 6 | 3 | |
| (i)to'o | | | | 1 | | 1 | | 2 | 1 | | | | | | | 1 | | | 1 | | | | | | | | | | | | | | | | | | |
| imo | | | | | | | | | | | | | | | 1 | | | | | | | | | | | | | 1 | | | | | | | | | |
| iimi | | | | | | | | | | | | 1 | | | | | | | 2 | | | | | | | 6 | 1 | | | | | | | | | | |
| aaCi | | | | | | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | |
| o(M) | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | 1 | | | | | | |
| í(Fr) | | | | | | | | | | 1 | 1 | | | | | 4 | | | | | 4 | | | | | | | | | | 1 | | | | | | |
| i(Ft) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ó(M) | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | | | | | | | | | 2 | |
| a(Mk) | | | | | 1 | | | | | | | | | | | | | | | | | 1 | 1 | | | | | | | | | | | | | | |
| a(M) | | | | | | 3 | | | | | | | | | | 1 | | | | | | 2 | | | | 1 | | | | | | | | 2 | 4 | 3 | |
| i(Ft) | | | 2 | | | | | | | 1 | | 5 | | 7 | | | | 1 | 2 | | 25 | | 2 | | 3 | 1 | | 1 | | | | | | 3 | 1 | | |
| i(Fr) | | | 7 | | | | | 19 | 1 | 4 | 18 | | | 37 | | 2 | 1 | | | | 64 | 2 | 6 | | | 1 | 4 | | | | | | 3 | 5 | 1 | 2 | 1 |
| 0 | | | | | | | | | | 2 | | | | | 1 | | | | | | | | 3 | | | | | | | | | | | | 4 | 5 | |
| ay(N) | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ú | | | | | | | | | | 6 | | | | 1 | | | | | | | 1 | | | | | 1 | | | | | | | | 13 | 1 | 2 | 1 |
| oo(F) | | | | | | | | | | | | 3 | | | | | | | | | | 8 | | | | | | | | | | | | | | 4 | 3 |
| a(Ft) | | | | | | | | | | | | | 1 | | | | | | 9 | | | 2 | | | | | | 1 | | | | | | | | 1 | |
| aa | | | | | | | | | | | | | | 7 | | | | 1 | | | | 16 | 2 | 4 | | | | 1 | | | | | 1 | 1 | | 34 | 6 |
| ee | | | | | | | | | | | | | | | 1 | | | 1 | | | | 1 | 1 | | | | | | | | | | | 1 | | 8 | 2 |
| á(M) | | | | | | | | | | | | | | | | 1 | | | | | | 2 | | | | | | | | | | | | 1 | | 2 | |
| ay(M) | | | | | | | | 1 | | | | | | | | | 3 | | | | | 3 | 21 | | | | | | | | 1 | 4 | | | | 1 | |
| u | | | | | | | | | | | | | | | | | | 1 | | | | 1 | 1 | | | | | | | | 4 | 6 | | 1 | | | 6 |
| aangw | | | | | | | | | | | | | | | | | | | | 3 | | 1 | | | | | | | | | | 6 | 18 | 1 | | 1 | |
| oo(N) | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | | | | | | | 1 | 1 | 2 | 5 |
| áy(M) | | | | | | | | | | | | | | | | | | | | | 2 | | | | | | | | | | | | | | 1 | 1 | |
| u! | | | | | | | | | | | | | | | | | | | | | | 1 | 1 | 1 | | | | | | | | | | | | 1 | |
| a'(!) | | | | | | | | | | | | | | | | | | | | | | | 3 | | | | | | | | | | | | | 2 | 4 |
| a'i | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | | | | | 1 | 1 |

## Table 6.2 The triads

| SG | SG/PL | PL | N | SG | SG/PL | PL | N |
|---|---|---|---|---|---|---|---|
| -(a)mó (Mo) | -oo (F) | -(a)du (N) | 1 | -(a)mó (Mo) | -Ø (Mo) | -áy (Mo) | 4 |
| -(a)mó (Mo) | -i (Fr) | -áy (Mo) | 4 | -(a)mó (Mo) | -Ø (Mo) | -eema' (N) | 6 |
| -(a)mó (Mo) | -Ø (Mo) | -(a)ma' (N) | 8 | -(a)mó (Mo) | -áy (Mo) | -eema' (N) | 1 |
| -i (Fr) | -Ø (Mo) | -áy (Mo) | 3 | | | | |

*6. The suffix 2: the listed phenomena*

(6.17)  THE PARADIGM -*AY* (MO) | -*A'(!)* (NØ)

| -*AY* (MO) | -*A'(!)* (NØ) | | |
|---|---|---|---|
| Stems (N=3) | -*AY* (MO) | | -*A'(!)* (NØ) |
| *tsaxw-* | *tsaxwáy úr* 'a big grasshopper' | *tsaxwáy urén* 'a big group of grasshoppers' | *tsaxwa' uren* 'big grasshoppers' |
| *na/-* | *na/áy úr* 'a big child' | *na/áy urén* 'a big group of children' | *na/a' uren* 'big children' |
| *daqw-* | *daqwáy úr* 'a big donkey' | *daqwáy urén* 'a big group of donkeys' | *daqwá' uren* 'big donkeys' |

Intersect boxes whose vertical and horizontal values are the same represent monad paradigms.  For example, the intersect box of -*oo* (F) | -*oo* (F) represents the paradigm below.

(6.18)  THE PARADIGM -*OO* (F)

| -*OO* (F) | | |
|---|---|---|
| Stems (N=3) | -*OO* (F) | |
| *am-* | *amoór ur* 'a big place' | *amoór uren* 'big places' |
| *heel-* | *heeloór ur* 'a big farming song' | *heeloór uren* 'big farming songs' |
| *kil-* | *kiloór ur* 'a big weight' | *kiloór uren* 'big weights' |

Unlike Table 3.7, the columns of Table 3.8 *do* correspond to the agreement with which a given suffix may appear.  Thus, in the triad -*(a)mó* (MO) | -*oo* (F) | -*(a)du* (N), the form suffixed with -*(a)mó* can occur with Sg agreement only, the form suffixed in -*(a)du* can occur with Pl agreement only, and the form suffixed in -*oo* can occur with both.

*6. The suffix 2: the listed phenomena*

## 6.4.1 Paradigms of two: the pair

In general, pairs may be characterized by 3 basic configurations. 1) One form which
can only occur with Sg agreement, and the other form which can only occur with Pl
agreement (this was named *singular* and *plural* above, and the paradigm is given in
(6.19)). 2) One form which can occur with both Sg and Pl agreement, and the other
form which can only occur with Pl agreement (this was named *general* and *plural*
above, and the paradigm is given in (6.20)). 3) One form which can only occur with
Sg agreement, and the other form which can occur with both Sg and Pl agreement
(this was named *singular* and *general* above, and the paradigm is given in (6.21)).

(6.19)   THE PARADIGM *-(A)MÓ* (MO) | *-(A)MA'* (NØ)

| -(A)MÓ (MO) \| -(A)MA' (NØ) | | |
|---|---|---|
| Stems (N=52) | -(A)MÓ (MO) | -(A)MA' (NØ) |
| *kook-* | *kookumó úr* 'a big rooster' | *kookumá' uren* 'big roosters' |
| *gwehh-* | *gwehhimó úr* 'a big rib' | *gwehhimá' uren* 'big ribs' |
| *sweet-* | *sweetumó úr* 'a big sweater' | *sweetimá' uren* 'big sweaters' |

Note that the shape of the pair above is always the result of a Sg suffix pairing with a
Pl suffix.

(6.20)   THE PARADIGM *-ó* (MO) | *-EEMA'* (NØ)

| -ó (MO) \| -EEMA' (NØ) | | | |
|---|---|---|---|
| Stems (N=2) | -ó (MO) | | -EEMA' (NØ) |
| *piir-* | *piiró úr* 'a big dragonfly' | *piiró urén* 'a big (group of) dragonflies' | *piireemá' uren* 'big dragonflies' |
| *boohont-* | *boohontó úr* 'a big hole' | *boohontó urén* 'a big group of holes' | *boohoonteemá' uren* 'big holes' |

*6. The suffix 2: the listed phenomena*

(6.21) THE PARADIGM *-I* (FR) | *-OO* (F)

| | *-I* (FR) | *-OO* (F) | |
|---|---|---|---|
| Stems (N=18) | *-I* (FR) | *-OO* (F) | |
| *loo-* | *loo/ír ur*<br>'a big leaf' | *loo/oór ur*<br>'a big group of<br>leaves' | *loo/oór uren*<br>'big leaves' |
| *qan'-* | *qan'ír ur*<br>'a big egg' | *qan'oór ur*<br>'a big group of<br>eggs' | *qan'oór uren*<br>'big eggs' |
| *foor-* | *foorír ur*<br>'a big flute' | *fooroór ur*<br>'a big group of<br>flutes' | *fooroór uren*<br>'big flutes' |

A less common configuration for a pair is that of the mass noun being made count by
the addition of a Pl suffix, such as the mass *tseeree* 'blood' becoming *tseerdu* 'spots or
pools of blood'. The operation occurring in the 'opposite direction' (i.e. a mass noun
becoming count by the addition of a Sg suffix) doesn't occur in the sample, but there
does not seem to be any reason why it should not exist.

A handful of suppletive pairs exist. Their distribution is unsurprising: all are
concepts of high frequency in everyday life.

(6.22) SUPPLETIVE PAIRS
|   |   |   |   |   |   |
|---|---|---|---|---|---|
| a. | *hee* | 'person' | \| | *muu* | 'people' |
| b. | *haree* | 'woman' | \| | *tiyay* | 'women' |
| c. | *garma* | 'boy' | \| | *daaqay* | 'boys' |
| d. | *slee* | 'cow' | \| | *yiikwa* | 'cows' (cattle) |
| e. | *lee'i* | 'goat' | \| | *aara* | 'goats' |
| f. | *do'* | 'house' | \| | *maray* | 'houses' |
| g. | *gaa* | 'thing' | \| | *moro'* | 'things' |

151 different pairs were identified from the sample, with all 42 suffixes entering
into paradigms of this shape.

## 6.4.2 Paradigms of three: the triad

Unlike pairs, triads have a consistent 'shape', always made up of one form which can only occur with Sg agreement, one form which can occur with Sg and Pl agreement, and one form which can only (or can usually only) occur with Pl agreement (this was named *singular, general, plural* above, and a paradigm is given in (6.23) below.

(6.23)   THE PARADIGM -*(A)MÓ* (MO) | -Ø (MO) | -*(A)MA'* (NØ)

| -*(A)MÓ* (MO) | -Ø (MO) | -*(A)MA'* (NØ) | | |
|---|---|---|---|---|
| Stems (N=8) | -*(A)MÓ* (MO) | -Ø (MO) | | -*(A)MA'* (NØ) |
| *qoonqal-* | *qoonqalumó úr* 'a big crowned crane' | *qoonqaló úr* 'a big flock of crowned cranes' | *qoonqaló urén* 'many flocks of crowned cranes' | *qoonqalamá' uren* 'big crowned cranes' |
| *malmaw-* | *malmawmó úr* 'a big lime tree' | *malmáw úr* 'a big stand of lime trees' | *malmáw urén* 'many stands of lime trees' | *malmawmá' uren* 'big lime trees' |
| *nee'ar-* | *nee'armó úr* 'a big thrush' | *nee'ár úr* 'a big flock of thrushes' | *nee'ár urén* 'many flocks of thrushes' | *nee'armá' uren* 'big thrushes' |

Seven different triads were identified from the sample, with a total number of 27 stems entering into this sort of paradigm.  Because of the way in which much of the data was collected (i.e. eliciting with Swahili as the contact language), it is expected that many more triad paradigms exist than were recorded, and that many nouns (especially those referring to plants and animals) may be members of this sort of paradigm.

## 6.4.3 Paradigms of one: the monad

Monads are always made up of a form which can occur with Sg or Pl agreement (this was named *mass* above, and a paradigm is given in (6.24) below.

*6. The suffix 2: the listed phenomena*

(6.24)   THE PARADIGM -*AY* (MO)

| -*AY* (MO) | | |
|---|---|---|
| Stems (N=4) | -*AY* (MO) | |
| *maa'-* | *maa'áy yaariir*<br>'much water | |
| *bo/-* | *bo/áy úr*<br>'a big crowd' | *bo/áy urén*<br>'big crowds' |
| *tluw-* | *tluwáy yaariir*<br>'much rain' | |

It should be noted here that the stems which fall under this monad have two different structures: that of *maa'ay* and *tluway* (mass nouns which cannot be individuated), and that of *bo/ay* (a noun which is countable but takes no other suffix).

In fact, a third shape for monads also exists: for unique nouns (also known as singularia tantum) for which there is only one real world referent. This third shape is given in (6.25) for the stem *dawr-*.

(6.25)   THE PARADIGM -*I* (FR)

| -*I* (FR) | | |
|---|---|---|
| Stems (N=8) | -*I* (FR) | |
| *ba/-* | *ba/ír yaariir*<br>'much mud' | |
| *dawr-* | *dawrír ur*<br>'the great sky' |  |
| *kuunseel-* | *kuunseelír ur*<br>'a big earthquake' | *kuunseelír uren*<br>'big eathquakes' |

Once again, stems which fall under this monad show three different shapes. This multiplicity of shapes internal to one paradigm is undesireable: a more detailed treatment would separate each of these shapes into their own monad (i.e. there would be one monad -*i* (Fr) for masses, one monad -*i* (Fr) for count nouns which take no other suffixes, and one monad -*i* (Fr) for singulare tantum). Because it has

yet to be fully determined which nouns in monads are mass, which are count, and

which are singulare tantum, this division has not been fully implemented here.

Twenty different monads were identified from the sample, with a total number of 50

stems entering into this sort of paradigm. Interestingly, *all* suffixes classed as

general and general (Pl-leaning) have a monad (resulting in the distinctive

'staircase' pattern in Table 3.7).


**6.5 Analysis**

Following the data presentation above, Gorwaa nominal suffixes can be described as

entering into at least 178 different paradigms: 151 pairs, 20 monads, and 7 triads.

The paradigm taken by any given noun stem is unpredictable. A given noun stem

may have more than one paradigm: choice between which paradigm the stem takes

may or may not affect semantic interpretation of the resultant noun. Suffixes of

general number may have the kinds of agreement with which they may occur

restricted based on the shape and texture of their paradigm. Finally, the

grammatical gender of a noun is determined by the SFX2 morpheme. As such, if a

noun is changed for number value, its gender may also change.


This section provides an analysis in the Distributed Morphology architecture to

account for listed phenomena. Firstly, if roots are to be considered truly acategorial,

this must be accomplished without resorting to root diacritics indicating

declensional class (Acquaviva 2008: 1-3). The initial challenge, therefore, is to

ensure that the nominal paradigm (aka declension class) is somehow available post-

spellout, but not as part of the lexical root.  This is addressed in subsection 6.4.1.

Subsection 6.4.2 proposes that the 178 paradigms of Gorwaa are encoded as 178

different version of n, provides a revised tree structure which consolidates the

Gorwaa suffix paradigm into the syntax, and gives an initial description of how

paradigmatic material is realized post-Spellout.  Subsection 6.4.3 returns to the Cl

head and accounts for its post-Spellout realization.  Subsection 6.4.4 addresses the

final listed phenomenon: characteristic (e): gender 'polarity', specifically, how

gender is realized post-Spellout, and how Agree must therefore be a kind of

postsyntactic operation.


## 6.5.1 The place of the paradigm

The paradigm was described in §6.2 above as the instructions for suffix realization

taken by a given noun stem.  To be clear, it is important to highlight that the

paradigm refers to the *instructions* for the realization of suffixes, and not to the

suffixes themselves.  In DM terms, the grammar does not make reference to the

explicit contents of paradigms, but instead makes reference to its constituent pieces

(i.e. features and vocabulary items) (Bobaljik 2002).  The difference between the

'paradigm as forms' vs. 'paradigm as instructions' views is given in (6.26) below.

(6.26)  Distributed morphology does not reference explicit forms within a paradigm, but references the constituent pieces of its structure (Adapted from Bobaljik 2002: 2)

| PARADIGM AS FORMS | | | | | PARADIGM AS INSTRUCTIONS | | |
|---|---|---|---|---|---|---|---|
| | Present | | Past | | [past] | ↔ | -d |
| Pers | Sg. | Pl. | Sg. | Pl. | | | |
| 1 | play-Ø | play-Ø | play-d | play-d | $[\phi[3, \text{Sg}]]$ | ↔ | -z |
| 2 | play-Ø | play-Ø | play-d | play-d | default/elsewhere | ↔ | -Ø |
| 3 | play-[z] | play-Ø | play-d | play-d | | | |

*6. The suffix 2: the listed phenomena*

What may be observed above is that, rather than the entire table of forms, what DM makes reference to is the features relevant to the instructions. Under 'paradigm as instructions' the ordered list in (6.26) makes explicit that the paradigm is one in which the feature [past] is a relevant factor contributing to its shape, and that, for example, part of its content is the vocabulary item *-d*.

The configurations of the Gorwaa paradigms examined in this work are actually somewhat simpler than the English example above, in that they deal with less features. An example is given in (6.27) below[4].

(6.27) 'PARADIGM AS FORMS' VS. DM 'PARADIGM AS INSTRUCTIONS': *KOOKUMÓ | KOOKUMA'*

| PARADIGM AS FORMS | | PARADIGM AS INSTRUCTIONS | | |
|---|---|---|---|---|
| Sg | Pl | [Pl] | ↔ | *-a'i* |
| kook-(a)m -ó | kook-(a)m -a' | default/elsewhere | ↔ | *-ó* |

To conclude this introductory clarification, what is being referred to as a nominal suffix paradigm in this work would translate to other DM accounts as a declensional class: that is, a pattern which dictates how a feature or set of features will be realized by the grammar post-Spellout. Returning to the English example in (6.26), the feature [past] is not realized on all verbs by the vocabulary item *-d*. The verb *sing*, for example, is realized not as *sing-d*, but as *sang*. Because the verb *sing* realizes its features in a different way from *play*, the two verbs must belong to different declensional classes. In this work, one would say that they belong to

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[4] The vocabulary item generated by a [plural] feature is obviously not generated here in its final form. The adaptation of *-a'i* to *-a'* would have to be accomplished in this model through a readjustment rule.

*6. The suffix 2: the listed phenomena*

different paradigms.  An example of 5 different Gorwaa paradigms is provided in

(6.28) below.

(6.28)  5 DIFFERENT GORWAA PARADIGMS (AKA DECLENSIONAL CLASSES)

| FORMS (EXAMPLE) | | | PARADIGM |
|---|---|---|---|
| *-(a)mó* (Mo) \| *-(a)ma'* (NØ) | | | [Pl]                           ↔  *-a'i* |
| *kookumó* | kook- | -(a)m -ó    'a rooster' | default/elsewhere ↔    *-ó* |
| *kookuma'* | kook- | -(a)m -a'i   'roosters' | |
| *-(a)mó* (Mo) \| *-áy* (Mo) | | | [Sg]                           ↔ *-ó* |
| *daambumó* | daamb- -(a)m -ó | 'a weaver bird' | default/elsewhere ↔ *-áy* |
| *daambáy* | daamb- -áy | 'a (kind of) weaver bird' 'weaver birds' | |
| *-(a)mó* (Mo) \| *-Ø* (Mo) \| *-(a)ma'* (NØ) | | | [Sg]                           ↔  *-ó* |
| *qoonqalumó* | qoonqal- -(a)m -ó | 'a crowned crane' | [Pl]                           ↔  *-a'i* |
| *qoonqál* | qoonqal- -Ø | 'a (kind of) crowned crane' | default/elsewhere ↔    *-Ø* |
| *qoonqalima'* | qoonqal- -(a)m -a'i | 'crowned cranes' | |
| *-í* (Fr) \| *-aa* (Fr) | | | [Sg]                           ↔ *-í* |
| *bi/iní* | bi/in- -í | 'a silky blesmol' | default/elsewhere ↔ *-aa* |
| *bi/inaa* | bi/in- -aa | 'a (kind of) silky blesmol' 'silky blesmols' | |
| *-ay* (NØ) | | | default   ↔  *-ay* |
| *maa'ay* | maa'- -ay | 'water' | |

Previous Distributed Morphology analyses (e.g. Oltra Massuet (1999)) would

encode a noun's paradigm membership (i.e. declension class) as a diacritic on the

root.  Diacritics are a kind of feature "relevant for morphological spell out, but

[which] do not have any semantic interpretation" (Embick and Noyer 2007:16).  The

root would therefore be predetermined as to what conjugation class it would enter.

As a rudimentary implementation of this concept, the root of the noun stem *kook-*

(described above as forming the nouns *kookumó* 'a rooster' and *kookuma'*

'roosters'), would be marked with the diacritic feature [*-ó* | *-a'i*].  Following Spellout,

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this feature would then instruct the morphology to realize the feature [Pl] by the

morpheme *-a'i*, and in all other cases, produce the morpheme *-ó*.

This is problematic for both empirical and conceptual reasons (Acquaviva 2008: 1-

3), the most salient of which will be discussed below.

In Gorwaa, the greatest empirical issue for the roots-with-diacritics view exists in

listed characteristic (c): a given noun stem may have more than one paradigm.  For

example, (and as shown above in (6.7)), the noun stem *goof-* may, using the

paradigm *-aangw* (Mo) | *-a'i* (NØ), form the nouns *goofaangw* 'an antelope' and

*goofeeri* 'antelopes'.  Likewise, the noun stem *goof-* may, using the paradigm

*-aangw* (Mo) | *-ee* (Fr), form the nouns *goofaangw* 'an antelope' and *goofaawee*

'antelopes'.  As the translations show, the resultant nouns of both paradigms have

the same meaning.  Furthermore, such alternate forms are regularly employed

interchangeably by the same speaker, with no observed semantic effects.  If the

paradigm exists as a diacritic inherent to the root, then every situation in which a

given noun stem uses more than one paradigm to form a noun must therefore be

ascribed to a separate root with the specific paradigm encoded as an inherent

diacritic.  Procedurally then, under the roots-with-diacritics view, the root which

forms the pair *goofaangw* | *goofeeri* is different from the root which forms the pair

*goofaangw* | *goofaawee*.  Semantic and formal overlap between these forms has no

explanation in this system other than being accidental.

Regarding the most serious conceptual issue with the roots-with-diacritics view,

Acquaviva argues succinctly that "[…] if a root has a feature that presupposes a

category, then it is not really category-free" (2). In other words, if a Gorwaa root is

posited as existing with a diacritic dictating the paradigm of its noun suffixes, then it

has already been, to some degree, conceived of as a noun: exactly what the concept

of roots discussed in Chapter 4 was designed to rule out.


Both Acquaviva (2008) and Harley (2014) argue convincingly that such root

diacritics do not exist, but in so doing, provide no alternate explanation for how

paradigms are associated with given noun stems. This is acknowledged in

Acquaviva (2008), which concludes that:


> "The approach I have outlined [...] does not provide a formal
> expression of the stable association of most roots with gender, class,
> or other diacritics. This seems to be a weakness, in so far as a noun's
> idiosyncratic marking should have a formal grammatical encoding."
>
> p.16

This section has adopted the argument that paradigms cannot be encoded as

diacritics on the lexical root, and has accepted this argument's associated cost: that

no good alternative to encoding paradigms has so far been offered. The following

subsection proposes a solution consistent with the Gorwaa data, and details how

this is borne out both pre- and post-Spellout.


## 6.5.2 Paradigms as versions of n

In the last section, the argument that paradigms were encoded as special diacritic

features on the root was jettisoned in favour of preserving the acategorial nature of

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the root.  However, though the implementation of the roots-with-diacritics view is

problematic, its intent is insightful.  Paradigms are instructions for suffix realization,

relevant to the phonological and semantic component of the grammar, but entirely

irrelevant to the syntax (c.f. Harris 1991, and Alexiadou 2004).  Compare the

valuation of the following two Gorwaa paradigms taken by the noun stem *tsifir-* in

(6.29) below.  The product of differing paradigms has both phonological and

(sometimes) semantic ramifications, but has no difference whatsoever in the syntax.

(6.29)  VALUATION OF THE PARADIGM *-I* (FR) | *-A'I* (NØ) VS VALUATION OF THE PARADIGM
      *-AANGW* (MO) | *-A'I* (NØ)

| Phonological Component (*List 2*) | | | Semantic Component (*List 3*) | | |
|---|---|---|---|---|---|
| Paradigm Input | Syntactic Context | Value | Paradigm Input | Syntactic Context | Value |
| *-i* (Fr) \| *-a'i* (NØ) | / *tsifir-* + [Sg] | [i] | *-aangw* (Mo) \| *-a'i* (NØ) | / *tsifir-* + [Sg] | 'a language' |
| | / *tsifir-* + [Pl] | [i] | | / *tsifir-* + [Pl] | 'languages' |
| *-aangw* (Mo) \| *-a'i* (NØ) | / *tsifir-* + [Sg] | [a:ŋʷ] | *-aangw* (Mo) \| *-a'i* (NØ) | / *tsifir-* + [Sg] | 'a tongue' |
| | / *tsifir-* + [Pl] | [e:] | | / *tsifir-* + [Pl] | 'tongues' |

Again, the paradigm *-i* (Fr) | *-a'i* (NØ) realizes a set of sounds and a set of meaning

different from those realized by the paradigm *-aangw* (Mo) | *-a'i* (NØ).  Syntactically,

however, the products of both valuations are nouns: singular if the syntactic context

supplies the feature [Sg], and plural if the syntactic context supplies the feature [Pl].

Paradigms are therefore inert to the syntax, and active to the phonology and

semantics.

In the previous chapter, the SFX2 was described as the instantiation of some

projection (identified in this work as n), dominating # and, in turn, dominated by D.

In order to account for the listed phenomena, this characterization will be revised.

Rather than SFX2 itself, it is the SFX2 *paradigm* which exists at n.  178 SFX2

paradigms have thus far been identified for Gorwaa, and, as such, there are 178

different versions of n.  The SFX2 itself is instantiated via a process of realization

post-Spellout.  The revised structure is presented in (6.30), and the valuation

process is presented in Table 5.4, where -n$_{135}$ corresponds to the paradigm *-ó* (Mo) |

*-∅* (Mo) | *(a)'i* (N∅).

(6.30)  *QOONQALUMÓ* (VERSION 2)
    Merge of n$_{135}$ (syntactic object α) and √qoonqal-(a)m-#  (syntactic object β).



Table 6.3: Valuation of n$_{135}$ (Version 1)

| Phonological Component | | | Semantic Component | | |
|---|---|---|---|---|---|
| Input | Syntactic Context | Value | Input | Syntactic Context | Value |
| n$_{135}$ | /Sg | [ó] | n$_{135}$ | /Sg | singular |
| | /Pl | [aʔ] | | /Pl | plural |
| | elsewhere | ∅ ~´~ | | elsewhere | general |

Having arrived at this characterization for the SFX2 morpheme, discussion will

briefly return to SFX1 in order to provide a similar account.

## 6.5.3 Realization of the morpheme Cl (i.e. SFX1)

It will be noted that throughout this section (i.e. §6.4), analysis of the paradigm has focused on the content of SFX2, whereas, prior to this (i.e. §6.2-6.3), the notion of paradigm has also included the SFX1.  Though syntactically distinct (SFX1 was identified as being the instantiation of the head Cl, and SFX2 as the instantiation of one element of the paradigm, itself an instantiation of the head n), the two are clearly interrelated in their realizations: the SFX1 *-(a)m* and the SFX2 *-ó* (Mo) may be realized together, such as in *qoonqal**umó***, but the same SFX1 *-(a)m* and the SFX2 *-ee* (Fr) are *never* realized together -- hence the absence of the form *-amee*. A further characteristic of SFX1 morphemes is also worth restating.  It was identified in the data presentation above (see §5.3) that all Cl suffixes (i.e. SFX1) could be identified as derivational suffixes which occur in a verbal context.  For example, when realized as part of a noun, *-(a)m* is a classifier; when realized as part of a verb, *-(a)m* is durative aspect: therefore *qoonqal**um**ó* 'a crowned crane', and *aga hub**iím*** 'I was bringing it'.

The first characteristic, that of certain forms of SFX1 combining with only certain forms of SFX2, is the result of final realization of the Cl morpheme being dependent on the variety of n present in the syntactic structure.  As such, if the variety of n present is *-n$_{135}$* (i.e. the paradigm of *qoonqalumó*, *qoonqál*, *qoonqalama'*), then the Cl morpheme will be realized as *-(a)m*; if the variety of n present is  *-n$_{150}$* (the paradigm of, say, *tsifiraangw*, *tsifireeri*), then the Cl morpheme will be realized as *-eer*.  The instructions for post-Spellout realization in this case are given in Table 5.4, where

-$n_{135}$ corresponds to the paradigm *-ó* (Mo) | *-Ø* (Mo) | *(a)'i* (NØ), and -$n_{150}$

corresponds to the paradigm *-aangw* (Mo) | *-(a)'i* (NØ).

Table 6.4: Valuation of Cl

| Phonological Component | | | Semantic Component | | |
|---|---|---|---|---|---|
| Input | Syntactic Context | Value | Input | Syntactic Context | Value |
| Cl | /$n_{135}$ | [am] | Cl | /$n_{135}$ | [individuation] |
| | /$n_{150}$ | [e:r] | | /$n_{150}$ | |

The second characteristic, that of the SFX1 playing double-duty as either nominal

classifier morphology or verbal aspectual morphology, requires recourse to the

concept that these forms may be the same, but, in different syntactic contexts, are

functioning in slightly different ways (i.e. the 'allosemy' of Marantz 2013, and Wood

& Marantz, 2017). Thus, in a nominal syntactic environment, SFX1 is realized as

individuation, and in a verbal syntactic environment, SFX1 is realized as durative,

causative, etc. Table 5.5 below presents an example valuation of SFX1.

Table 6.5: Valuation of SFX1

| Phonological Component | | | Semantic Component | | |
|---|---|---|---|---|---|
| Input | Syntactic Context | Value | Root | Syntactic Context | Value |
| SFX1 | elsewhere | [am] | SFX1 | /n | indivduation |
| | | | | /v | durative |

## 6.5.4 A summary

A revised version of the derivation thus far is presented in (6.31): where √735 is the

root which realizes *qoonqal-*, Cl is the head which realizes the SFX1 *-(a)m*, and $n_{135}$ is

the paradigm which realizes the SFX2 *-ó*.

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(6.31) QOONQALUMÓ (VERSION 3)

```
                              nP
                    √qoonqal-(a)m-#-n₁₃₅
                           [cat [n]]
                          /         \
                       #P            n₁₃₅
                √qoonqal-(a)m-#       (-ó)
                                   ⎡ cat [n]      ⎤
                  [cat [#, Sg]]    ⎢ infl [Ø]     ⎥
                                   ⎣ sel [N; <#>] ⎦
                      /        \
                   ClP          #
              √qoonqal -(a)m
                                ⎡ cat [#, Sg] ⎤
               [cat [Cl, Indiv]] ⎢ infl [Ø]    ⎥
                                ⎣ sel [< Cl >] ⎦
                   /      \
               √735        Cl
            (qoonqal)    (-(a)m)
```

Given this syntactic configuration, the post-syntactic valuation of √735 will result in

*qoonqal*, the post-syntactic valuation of Cl will result in *-(a)m* [individuation], and

the post-syntactic valuation of n₁₃₅ will result in *-ó* (Mo).

This more detailed level of representation now allows an update to be made to the

description of how a root such as √735 is valued. Recall that, in the discussion in

§4.4.3, it was assumed that the roots posited therein were conditioned in the

syntactic context of individual suffixes (see Tables 4.1, 4.2, 4.3, and 4.4). The group

*qoonqalumó | qoonqál | qoonqalima'* is a rather simplistic case to pursue, as the root

only takes one paradigm, instead, a more complex form will be chosen. Consider the

following:

(6.32)  a. *soo'ay | soo'aawee*          'dog, dogs'
       b. *se'eemi | se'eengw*         'hair (one strand), hair'

According to the conclusions drawn in Chapter 4, the valuation of the common root

which realizes all of these forms (let it be $\sqrt{561}$), would proceed as in Table 6.6

below.

Table 6.6: Valuation of $\sqrt{561}$ (version 1)

| Phonological Component | | | Semantic Component | | |
|---|---|---|---|---|---|
| Root Input | Syntactic Context | Value | Root | Syntactic Context | Value |
| $\sqrt{561}$ | */-ay* | [so:ʔ] | $\sqrt{561}$ | */-ay* | 'dog' |
| | */-aawee* | | | */-aawee* | |
| | */-iimi* | [seʔ] | | */-iimi* | 'hair' |
| | */-aangw* | | | */-aangw* | |

This arrangement is obviously problematic. The first problem is that the table fails

to take into account that none of the syntactic contexts would, at this point, be

valued phonologically. This interpretation could perhaps be saved by abstracting

away from the suffixes, and assigning each of them an abstract index, to be valued at

a later point (this would be the equivalent of positing the *suffixes* as syntactic heads,

rather than the *paradigms*).


However, this analysis eventually runs into trouble as well. Consider the following:

(6.33)  a. *tsifiraangw | **tsifireeri***       'tongue, tongues'
      b. *tsifiri | **tsifireeri***           'language, languages'

The forms of the plural in each case is *the same*. As such, the semantic component of

the valuation would have no way to distinguish the two.


What this approach fails to identify is that the suffixes themselves do not contribute

to the overall meaning but the paradigms in which they exist do. As such, the

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elements to be considered as the syntactic context within the valuation are the

paradigms. Valuation of $\sqrt{561}$ would proceed thus (let the paradigm

*-ay* (Mo) | *-aawee* (F) be $n_{118}$, and the paradigm *-iimi* (F) | *-aangw* (M) be $n_{197}$)

Table 6.7: Valuation of $\sqrt{561}$ (version 2)

| Phonological Component | | | Semantic Component | | |
|---|---|---|---|---|---|
| Root Input | Syntactic Context | Value | Root | Syntactic Context | Value |
| $\sqrt{561}$ | $n_{118}$ | [so:ʔ] | $\sqrt{561}$ | $n_{118}$ | 'dog' |
| | $n_{197}$ | [seʔ] | | $n_{197}$ | 'hair' |

The above represents a case in which the choice of paradigm effects the semantic

interpretation of the result. In many cases, however, such semantic effect does not

occur. Consider the following:

(6.34)  a. *goofaangw | goofeeri*      'antelope, antelopes'
        b. *goofaangw | goofaawee*    'antelope, antelopes'

The kind of valuation proposed above handles this kind of case equally well. Let the

root common to all these forms be $\sqrt{238}$. Let the paradigm *-aangw* (Mo) | *-eeri* (NØ)

be $n_{279}$, and let the paradigm *-aangw* (Mo) | *-aawee* (F) be $n_{683}$[5].

Table 6.8: Valuation of $\sqrt{238}$

| Phonological Component | | | Semantic Component | | |
|---|---|---|---|---|---|
| Root Input | Syntactic Context | Value | Root | Syntactic Context | Value |
| $\sqrt{238}$ | $n_{279}$ | [go:f] | $\sqrt{238}$ | $n_{279}$ | 'antelope' |
| | $n_{683}$ | | | $n_{683}$ | |

To conclude this subsection, what this analysis proposes is a mechanism by which

paradigms may be treated under a Distributed Morphology framework. By

---

[5] Note that, in this work, the indexical value given to little ns (in this case, 683) are arbitrary numbers, often considerably higher than the total number of paradigms identified (178). This is done simply to ensure that numerical values of n and numerical values of roots ($\sqrt{}$) do not coincide (itself not a theoretical problem, given that the indices are being used for entirely different elements), mainly for easier reading.

identifying each paradigm as its own version of n, subject to valuation conditioned by the syntactic context, it allows the regularities which hold within them to function as a part of the grammar, and not as an exception.

What must remain 'exceptional' (at least for Gorwaa), is the manner in which a given root comes to be associated with a given paradigm. It seems to me that the selection of roots by paradigms is lexical, both in the sense that the paradigm and the root both contribute to the meaning of a noun (e.g. *soo'ay* 'dog' vs. *se'eengw* 'hair'), as well as in the sense that, like matching an appropriate noun with an appropriate verb to construct a coherent sentence, so too must a speaker match an appropriate root with an appropriate paradigm.

The following subsection treats the relation of the suffix to gender.

### 6.5.5 The realization of gender

Another characteristic which adds to the 'lexicality' of the paradigms represented in the SFX2 morpheme is the fact that each individual suffix has (to borrow Acquaviva's phrase) a 'stable association' with gender. For example, the suffix *-ee* always triggers F agreement, and the suffix *-u!* always triggers N agreement. This is so consistent that such suffixes can be listed with their attendant gender.

If it is the SFX2 morpheme which determines gender, and if the realization of SFX2 is a process of valuation of a paradigm in the syntactic context of number features, then gender is necessarily a feature generated post-syntactically: specifically in the phonological component (i.e. List 2). A revised version of the valuation of $n_{135}$ (i.e.

the paradigm which features in the suffixes *-(a)mó* (Mo) | *-Ø* (Mo) | *-(a)ma'* (NØ)) is

given in Table 6.9 below.

Table 6.9: Valuation of $n_{135}$ (revised)

| Phonological Component | | | Semantic Component | | |
|---|---|---|---|---|---|
| Input | Syntactic Context | Value | Input | Syntactic Context | Value |
| $n_{135}$ | /Sg | [ó]**[Mo]** | $n_{135}$ | /Sg | singular |
| | /Pl | [aʔ]**[NØ]** | | /Pl | plural |
| | elsewhere | Ø ~´~**[Mo]** | | elsewhere | general |

Note that the gender features are realized in the phonological component, and are

therefore inaccessible to the semantic component.  This is desirable in that these

gender values have no bearing on the semantic interpretation of the noun.  Indeed,

there is nothing inherently masculine about *qantsá* 'green chyme', nor is there

anything feminine about *saankaa* 'chyme' -- both refer to a somewhat similar real

world entity, but have different gender.  The dikdik, even if female, is referred to by

the masculine noun *tsoyo*, whereas the hippopotamus, even if male, is referred to by

the feminine noun *hawweé(d)*.


Perhaps the most significant consequence of the analysis above is that, if gender

features are realized only post-syntactically, and if these features are the input for

agreement, then agreement must also occur post-syntactically, following the

valuation of these roots in List 2.  At the same time, however, the Agree operation

has been proven to rely on relationships that are *syntactic* in nature, such as c-

command.  If this is the case, then a new version of Agree must operate post-

syntactically, but still be capable of accessing the syntactic structure.

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In fact, it is exactly this type of Agree that has been proposed in Bobaljik (2008).

The data used in the paper is at once quite different from Gorwaa, but also quite

similar.  As such, a moment will be taken to consider the empirical basis on which

the argument is built.


In Icelandic (isl; Iceland), there exist a series of constructions in which the

morphological case assigned to the subject is not nominative.  This is known in the

literature as *quirky* case.  One such construction occurs with experiencer predicates,

in which the subject is assigned *dative* case.

(6.35)  QUIRKY CASE IN ICELANDIC (FROM BOBALJIK (2008: 298)
    a. Jóni      líkuðu þessir sokkar
       Jon.**DAT**  like.Pl these   socks.NOM
       "Jon likes these socks."
                                              (from Jónsson 1996: 143)
    b. Það    líkuðu  einhverjum    þessir sokkar
       EXPL  liked.Pl someone.**DAT**  these  socks.NOM
       "Someone liked these socks."
                                              (from Jónsson 1996: 153)

It is shown that, though morphologically marked for dative case, these quirky

subjects are, by all criteria, grammatical subjects.  Because of this, it is concluded

that the system responsible for assigning structural case (i.e. case according to

grammatical function), and that responsible for assigning morphological case are

different.  In languages such as German and Russian, the system of morphological

case "tracks [case based on grammatical function] fairly neatly" (303).  In the case of

Icelandic, the two systems do not coincide so neatly, hence the occurrence of quirky

case.

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Furthermore, because the assignment of morphological case makes reference to the

syntactic structure (i.e. in assigning dative to the subject, and nominative to the

remaining caseless NP), it must occur after the syntax, but be sensitive to it.  It is

argued that this post-syntactic stage is the morphology, which "takes a syntactic

structure as its input and incrementally alters that structure in order to produce a

phonological form" (296).  Thus, quirky case and those phenomena similar to it are

called m-Case (m for morphological).  Based on the argument that,

crosslinguistically, it is m-Case (and not any syntactic relation such as grammatical

function) which determines the accessibility of a given NP for controlling agreement

on the predicate, agreement must be a postsyntactic operation.

Even though the data in Gorwaa are not related to case, the same argument applies.

As quirky case in Icelandic is assigned lexically, so too is suffixal gender in Gorwaa

assigned lexically (i.e. by the paradigm).  As quirky case in Icelandic has no effect on

the (semantic) interpretation of the grammatical relations, so too does suffixal

gender in Gorwaa have no effect on the semantic interpretation of the noun.  Finally,

as quirky case dictates agreement operations, so too does suffixal gender in Gorwaa

control agreement operations.  Gorwaa suffixal gender is m-gender, m-gender is

postsyntactic, and agreement must be postsyntactic as a result.

The result of a system such as the one proposed is nouns for which gender has no

semantic function showing gender regardless, assigned lexically based on the form

of the suffix (6.36), as well as entities which have a biological gender sometimes

showing agreement for a mismatching gender (6.37).

(6.36)  SEMANTICALLY GENDERLESS NOUNS TRIGGERING GENDER AGREEMENT

    a.    *qantsá **ku** yaariir*

| qants- | -á | -ó | t- | ng- | u- | Ø | yaariir |
|--------|-----|-----|-----|-----|-----|-----|---------|
| STM- | -SFX2 | -L | MP- | A.3- | P.M | Aux | much |

        green.chyme

      'There is much green chyme.'

    b.    *saankaa **ka** yaariir*

| saank- | -aa | -r~´~ | t- | ng- | a- | Ø | yaariirur |
|--------|-----|-------|-----|-----|-----|-----|-----------|
| STM- | | -SFX2 | -L | MP- | A.3- | P.F- | Aux much |

        chyme

      'There is much chyme.'

(6.37)  NOUNS WITH BIOLOGICAL GENDER TRIGGERING MISMATCHING AGREEMENT

    a.    *tsoyó **úr***

| tsoy- | -ó | -ó | **úr** |
|-------|-----|-----|--------|
| STM- | -SFX2 | -L | big.**M** |

        dikdik

      'a big dikdik' (possibly a female dikdik)

    b.    *hawweér **ur***

| haww- | -ee | -r~´~ | **ur** |
|-------|-----|-------|--------|
| STM- | -SFX2 | -L | big.**F** |

        hippopotamus

      'a big hippopotamus' (possibly a male hippopotamus)

## 6.6 Remarks and summary

This chapter, as well as the one before it, has treated the nominal suffix, an element

which is morphologically highly complex, and theoretically very interesting.  §5.5.1

provides some further comment on the nature of n, and §5.5.2 summarizes.


### 6.6.1 Remarks on the nature of n

It was noted in Chapter 5 (fn.5) that the labeling of SFX2 as n was a conscious

choice.  At this, point, some remarks may be given on why, exactly, this is so.

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First, the letter label 'n' is a recognition that the SFX2 functions as the categorizing head, equivalent, more or less, to the various Ns proposed in the literature (Marantz (2001), Arad (2003, 2005), and Merchant (2018)). As established in Chapter 4 and Chapter 5, the majority of nominal material may also appear in the verbal domain. Noun stems are commonly isomorphic with verb stems (see §4.4.3), SFX1 morphology is virtually always isomorphic with durative, middle voice, and pluractional verbal derivational suffixes (see §2.3.2.4, and §5.3). The first element that does clearly not belong to the verbal domain is the SFX2 morphology. It is therefore this morphology that is identified as nominalizing the structure. (6.38) below yields a rough comparison of a structure containing a nominal categorizing head n, versus one containing a verbal categorizing head v. Strikingly, in (6.38)a the nominal morphology involved in classifying and quantifying -- structuring the concept of the root in *space* -- is the same morphology involved in the projections X and Y in (6.38)b structuring the concept of the root in *time*. This dissertation does not discuss verbal morphology and therefore the identity of these projections will remain vague, but compare a similar universal proposal made in Borer (2005a, b).

(6.38) THE NOUN *XOOSLUMÓ* 'VESSEL, TOOL' VS. THE VERB *XOOSLIÍM* 'TO GRIND': SOLE DIFFERENCE
IS THE CATEGORIZING HEAD



a.     *xooslumó*            b.     *xoosliím*
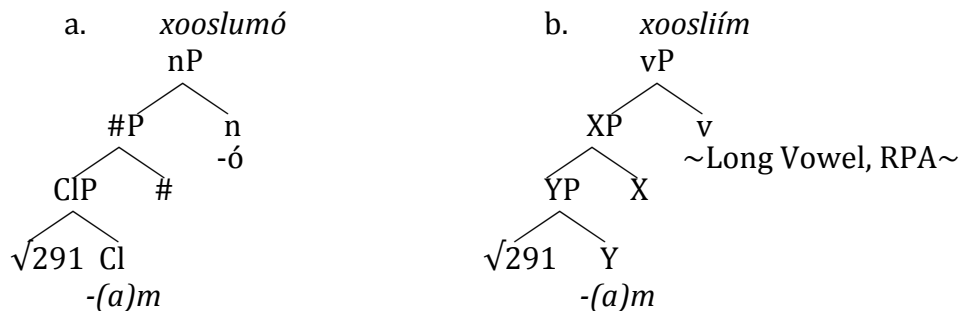
The fact that the n is little here represents a further nod to verb phrase structure, and was chosen specifically because 'little v' is often described as introducing an external argument.  To be discussed in §7.4.2, as little v introduces an external argument to the verb phrase in the form of the subject argument, it is little n that introduces an external argument to the noun phrase in the form of the argument R.

As a separate remark, it is worth noting that n and the root function autonomously in some respects (e.g. the √-n combination may be separated by Cl and # morphology, as in (6.39)b)), but that they also have the linguistic properties of a single domain (e.g. √-n combinations have idiomatic meanings, as outlined in §6.2.3 above).

(6.39)  N AND THE ROOT FUNCTION AUTONOMOUSLY IN SOME RESPECTS
      a.     */aráy*          'white-galled acacias'
             [√ -n]
      b.     */armó*         'white-galled acacia'
             [√ -Cl -# -n]

(6.40)  N AND THE ROOT HAVE THE LINGUISTIC PROPERTIES OF A SINGLE DOMAIN
      a.     *soo -ay*        'a dog'
             [√ -n]
      b.     *se' -eengw*    'hair'
             [√ -n]

These behaviors are also characteristic of verb-particle constructions in Germanic (e.g. Ramchand & Svenonius 2002), and preverb constructions in Old Irish (sga: Ireland†) (e.g. Adger 2006).  Examples (from Ramchand and Svenonius (2002: 101) are provided in (6.41) and (6.42) below.

(6.41)  THE VERB AND THE PARTICLE FUNCTION AUTONOMOUSLY IN SOME RESPECTS
      a.      They marched off the hangover
      b.      They marched the hangover off.

(6.42) THE VERB AND THE PARTICLE HAVE THE LINGUISTIC PROPERTIES OF A SINGLE DOMAIN
   a.       They let up the pressure.
   b.       They let the pressure up.

At this point, no further insight will be given into the parallels in syntactic behavior

for the √-n relationship and the V-particle relationships mentioned above.  With that

said, it is worth noting the similarities at this point, in hope of further insight in the

future.


**6.6.2 Summary**

This subsection concludes two chapters which focus on the suffix.  Where chapter

five treated the regular characteristics of the suffix, the current chapter treated the

listed characteristics.   Based on a detailed analysis of the paradigmatic patterns of

Gorwaa, this work espouses the view that it is the paradigm itself which acts as a

grammatical formative, within which suffixes (grammatical primitives lacking in

syntactic features) are arranged.  It is the structure of the paradigm itself which

dictates what meanings these suffixes will be realized with.  Post-syntactically,

suffixes are realized with a diacritic gender feature -- in order for this gender feature

to affect morphosyntactic agreement operations, Agree must be a post-syntactic

operation.


Section 6.2 introduced the concept of the paradigm, and provided some motivation

for the paradigm as a grammatical formative.  Section 6.3 discussed the listed

phenomena of the Gorwaa suffix, providing examples for each.  Section 6.4 was a

detailed presentation and description of the paradigms of Gorwaa.  Section 6.5

*6. The suffix 2: the listed phenomena*

furnished a DM analysis: n is the locus of the paradigm in Gorwaa, which are realized post-Spellout as combinations of suffixes, each of which bearing its own diacritic gender feature. Crucially, this approach is valid only if Agree is a post-syntactic operation. Section 6.6 offered a brief remark on the nature of n, and summarized.

Empirically, this chapter has identified 42 different suffixes, which may be divided into three broad groups: those that may occur with only Sg agreement, those that may occur with only Pl agreement, and those that may occur with either Sg or Pl agreement. The choice of the term 'occur with' rather than 'trigger' is used advisedly, as it seems as if number agreement (seen on the adjective) comes from an element other than the noun. This will be further discussed in the following chapter. Each suffix has a stable association with a gender value -- that is, it is the nominal suffix which usually triggers the agreement on forms beyond the noun (again, exceptions will be discussed in the following chapter). These 42 suffixes enter into at least 178 groups, termed paradigms. Paradigms may be made up of two suffixes (a pair), three suffixes (a triad), or one suffix (a monad). The paradigm taken by any given stem is largely unpredictable.

Theoretically, the suffix was deconstructed into three morphosyntactic subcomponents: the classifier head (Cl), the quantity head (#), and the 'little n' (n). Suffixes valued for number (i.e. those which may only occur with Sg agreement and those which may only occur with Pl agreement) feature both a Cl and a #. Suffixes

unvalued for number (i.e. those which may occur with Sg or Pl agreement), do not

feature a Cl or a #.  n is the locus of the paradigm -- that is, it is realized post-

syntactically as the appropriate suffix based on a combination of its indexical value,

as well as its syntactic context.  Cl, which can also be described as afunctional head

whose syntactic environment determines both its phonological, as well as semantic

(i.e. individuation vs. aspect) identity.  Crucially, the paradigms which merge at n are

all realized as individual suffixes at List 2 with gender features.  These suffixal

gender features are morphological in nature, and do not contribute to the semantic

interpretation of the noun.  In order to account for agreement phenomena, Agree

must therefore be a post-syntactic operation.

# 7. The linker

## 7.1 Introduction

This chapter is concerned with the form known in the literature (e.g. Mous 1993)

as the linker, and is exemplified in (7.1).

(7.1)  a.  *slufi**tá** wák*
           sluf-  -i   **-tá**   wák
           S<small>TM</small>-  -S<small>FX</small>2  **-L**    one
           $\underbrace{\hspace{4cm}}_{\text{lip}}$
           'one lip'

   b.  *desir'eé'*
           des-  -i   **-r~´~**  ='eé'
           S<small>TM</small>-  -S<small>FX</small>2  **-L**   =P<small>OSS</small>.1S<small>G</small>
           $\underbrace{\hspace{4cm}}_{\text{girl}}$
           'my girl'

   c.  *hhawat**ó** baabá*
           hhawat-   -a   **-ó**    baaba
           S<small>TM</small>-   -S<small>FX</small>2  **-L**    father
           $\underbrace{\hspace{4cm}}_{\text{man}}$
           'father's man'

   d.  *kur**k**í*
           kur-  -u   **-kú**   =í
           S<small>TM</small>-  **-S<small>FX</small>2**  **-L**   =D<small>EM</small>1
           $\underbrace{\hspace{4cm}}_{\text{year}}$
           'this year'

   e.  *ayeem**á** uren*
           ay-   -eem  -oo  **-á**   uren
           S<small>TM</small>-   -S<small>FX</small>1  -S<small>FX</small>2  **-L**   big.N.P<small>L</small>
           $\underbrace{\hspace{4cm}}_{\text{lands}}$
           'big lands'

   f.  */ayl**á** tleer*
           /ayl-  -a'(!)  **~´~**   tleer
           S<small>TM</small>-  -S<small>FX</small>2  **-L**   long.N
           $\underbrace{\hspace{4cm}}_{\text{wedding.song}}$
           'a long wedding song"

The first step in treating this suffix is a discussion of gender, building on the

introduction given in §2.3.1.2.  Presentation of the data follows, focusing on the

contexts in which the linker occurs and those in which it does not. The

remainder of the chapter draws on this data, as well as some more challenging

cases in order to motivate a syntactic analysis of the linker as a determiner

obligatory on all nouns with reference, whose pronunciation is

morphophonologically conditioned.

## 7.2 Characterizing the linker: gender revisited

One of the first assertions made in the initial description of gender in Gorwaa

was that the system is composed of three values: (M)asculine, (F)eminine, and

(N)euter (see §2.3.1.2). This is consistent with Mous' analysis for Iraqw (1993,

2007, 2008), but differs from others, including Corbett (e.g. 2005: 126-129), and

Di Garbo (2014: 119) for whom gender in these languages has two components:

M and F. N gender is subsumed under Pl number marking.

Under a two-gender analysis, agreement morphology on the verb becomes a

division between M and F gender, and Pl number. As such, a verb form such as

*qwala/am**iis*** 'make happy' (level pitch accent, long vowel) is M, the form

*qwala/am**ís*** (rising pitch accent, short vowel) is F, and the form *qwala/amis**iyá'***

(suffix *-iyá'*) is Pl. This analysis breaks down, however, when adjectives are

introduced, which show agreement for both gender *and* number. Consider the

following, in which *hhaysoo* in (7.2)a is N gender, and the adjective *tleer* shows

N gender and Sg number, and *hhaysusu* in (7.2)b is N gender and the adjective

*tlet* shows N gender and Pl number. Under a two-gender analysis, both nouns

are plural (as shown by the *-iyá'* agreement on the verb), and so there is no

principled way to justify the two different adjectival forms. In (7.2)b), it could be

argued that the adjective is somehow double-marked for Pl number, but in

(7.2)a), the adjective would have to be simultaneously marked for both Sg *and* Pl

number -- a highly curious state of affairs indeed.


(7.2)   a.   *hhaysoó **tleer** i qwala/amis**iyá'***
            hhays--oo    ~´~    **tleer**   i-    Ø       qwala/amiis   **-iyá'**
            STM-    -SFX2 -L    **long.N**  S.3-  AUX     make.happy.3  **-N**.PRES
            $\underbrace{\qquad\qquad}_{\text{tail}}$
            "A long tail makes one happy."
       b.   *Hhaysusú **tlet** i qwala/amis**iyá'***
            hhays--aC$_z$    -u!    ~´~    **tlet**       i-       Ø
            STM-    **-SFX1** -SFX2 -L    **long.N.PL**  S.3-     AUX
            $\underbrace{\qquad\qquad}_{\text{tail}}$
            qwala/amiis   **-iyá'**
            make.happy.3  **-N**.PRES
            "Long tails make one happy."

Furthermore, recent psycholinguistic work on the Cushitic language Konso (kxc:

Ethiopia) investigated how native speakers process grammatical gender and

number (Tsegaye 2017). Using picture-word interference and simple picture

naming tasks to determine whether the equivalent of Gorwaa N gender in this

language was processed as a gender value or a number value, it is argued that:

> *"[if N] is a value of gender in Konso, naming utterances with [N]*
> *gender should produce similar congruency effects as masculine and*
> *feminine genders. Conversely, if such effects were absent in naming*
> *utterances with [N] gender but present only in masculine and*
> *feminine gender, [N] would not be treated as a value of gender.*
> *Combined, compared to the gender-congruent condition, gender-*
> *incongruent distractor words slowed down the latencies of the*
> *target pictures significantly. Crucially, the results of the two*
> *experiments displayed that [N] gender nouns show gender*
> *congruency effects like masculine and feminine nouns. This indicates*
> *that [N] is processed in the same way as masculine and feminine*
> *genders, which supports the analysis that [... N gender] is indeed*
> *part of the system of gender features in Konso."* (22)

It is important here to note that evidence for Konso cannot be generalized to all

Cushitic languages (Somali and Oromo, for example, are systems with

straightforwardly M vs. F genders). However, within Cushitic, Mous (2008)

identifies what is essentially the same pattern of Konso in Bayso (bsw: Ethiopia), Dirayta (gdl: Ethiopia), Ts'amakko (tsb: Ethiopia), Rendille (rel: Kenya), Boni (bob: Kenya), as well as Iraqw, Alagwa, and Burunge. It is on the back of this experimental evidence, as well as on the basis that positing N as a gender value makes for an overall simpler analysis for Gorwaa, that this three-gender analysis will be adopted.

In addition to three gender values M, F, and N, each of these genders exhibit two internal subgenders: a second agreement pattern within the larger pattern that functions with a subset of nouns, and in a subset of environments (Corbett 1991: 163). Relevant to the current discussion, the one environment in which subgender functions is the linker itself, as displayed in (7.1). In all other environments, this distinction collapses (6.3). Mo-type subgender is instantiated by the morpheme –*ó* (6.1.c). Mk-type subgender is instantiated by the morpheme –*kú* (6.1.d). Fr-type subgender is instantiated by the morpheme –*r*, plus rising pitch accent (6.1.b). Ft-type subgender is instantiated by the morpheme –*tá* (6.1.a). Na-type subgender is instantiated by the morpheme –*á* (6.1.e). NØ-type subgender is instantiated by the morpheme -Ø, plus rising pitch accent (6.1.f). Subgender is discussed above in.

(7.3)  SUBGENDER DISTINCTION COLLAPSES IN VERB AGREEMENT
    a. FT AND FR DISTINCTION COLLAPSES
        i. *slufitá wák i qwala/amís*

| sluf- | -i | -tá | wák | i- | Ø | qwala/am**ís** |
|-------|-----|-----|-----|-----|-----|-----|
| STM- | -SFX2 | -L | one | S.3- | AUX | make.happy.**F**.PRES |

                lip
        'one lip makes one happy'

     ii. *desír wák i qwala/am**ís***

| des- | -i | -r~´~ | | wák | i- | Ø | qwala/am**ís** |
|------|-----|------|---|-----|-----|-----|-------|
| Stm- | -Sfx2 | -L | | one | S.3- | Aux | make.happy.**F**.Pres |

    girl

'one girl makes one happy'

b. Mo and Mk distinction collapses

    i. *hhawató wák i qwala/am**iis***

| hhawat- | -a | -ó | wák | i- | Ø |
|---------|-----|-----|-----|-----|-----|
| Stm- | | -Sfx2 -L | one | S.3- | Aux |

    man

qwala/am**iis**
make.happy.**M**.Pres
'one man makes one happy'

    ii. *kurkú wák i qwala/am**iis***

| kurk- | -u | -kú | wák | i- | Ø |
|-------|-----|-----|-----|-----|-----|
| Stm- | | -Sfx2 -L | one | S.3- | Aux |

    year

qwala/am**iis**
make.happy.**M**.Pres
'one year makes one happy'

c. Na and NØ distinction collapses

    i. *ayeemá tsár i qwala/amisiyá'*

| ay | -eem | -oo | -á | tsár | i- | Ø |
|----|------|-----|-----|------|-----|-----|
| Stm- | -Sfx1 | -Sfx2 | -L | two | S.3- | Aux |

    lands

qwala/amiis     -iyá'
make.happy.     -NPres
'two lamds make one happy'

    ii. */aylá tsár i qwala/amisiyá'*

| /ayl--a'(!) | ~´~ | tsár | i- | Ø | qwala/amiis | -iyá' |
|-------------|-----|------|-----|-----|-------------|-------|
| Stm- | -Sfx2 -L | two | S.3 | Aux | make.happy. | -NPres |

    wedding.songs

'two wedding songs make one happy'

Having established the gender system in Gorwaa as featuring 3 values (M, F, and N), each of which exhibit two minor values (Mo, Mk, Fr, Ft, Na, and NØ), attention may now turn fully to the linker.

## 7.3 Characterizing the linker: data presentation

This section establishes the linker on a (largely) pretheoretic basis, though some assumptions as to the structure of several larger syntactic environments are made. It will be argued that the linker is an obligatory, integral part of nouns with reference, but which goes unpronounced in certain well-defined environments. The first subsection will discuss the distribution of the linker, and the second subsection will examine some of the past analyses and the problems inherent therein. The third subsection will present a new analysis of the linker: that it is a suffix which undergoes elision when it occurs at the end of a phonological phrase.

### 7.3.1 Distribution of the linker

Nouns *do not* show the linker in the following environments:

 1) unmodified subjects:

(7.4)   Linker unpronounced on unmodified subjects
  a.   ***garma*** *ina /akuút*   [20160921i.23]
        garm-  -a    -ó    i-    Ø     -na    /akuút
        Stm-   -Sfx2 -L    S.3-  Aux   -Imprf jump.M.Pst
        ⎵ *boy*
         'The boy jumped.'

  b.   ***desi*** *baahaa ngina táhh*   [20160921i.2]
        des-   -i    -r~´~ baahaár    ng-   a-    Ø     -na
        Stm-   -Sfx2 -L    hyaena.LFr A.3-  P.F-  Aux   -
        ⎵ *girl*
    Imprf
        táhh
        hit.F.Pst
        'The girl hit the hyaena.'

  c.   ***na/i'i*** *a Gorwaa*
        na/-  -a'i   ~´~    Ø     Gorwaá
        Stm-  -Sfx2  -L     Aux   Gorwaa.people.LNØ
        ⎵ *children*

'The children are Gorwaa.'

2) unmodified direct objects in 'second position' (i.e. before the selector)

(7.5)   Linker unpronounced on unmodified direct objects in 'second position'
  a.   *desi **baahaa** ngina táhh*     [20160921i.2]

| des- | -i | -r~´~ | baahaár | ng- | a- | Ø | -na |
|------|-----|-------|---------|-----|-----|---|-----|
| Stm- | -Sfx2 | -L | hyaena.LFr | A.3- | P.F- | Aux | -Imprf |

  (girl)

  táhh
  hit.F.Pst
  'The girl hit the hyaena.'

  b.   ***slee** a koóm*    [20150818a.1]

| sl- | -ee | -r~´~ | Ø- | a- | Ø | koóm |
|-----|-----|-------|-----|-----|---|------|
| Stm- | -Sfx2 | -L | A.1- | P.F- | Aux | have.1.Pres |

  (cow)

  'I have a cow.'

  c.   *garma **na/i'i** ngina diíf* [20160927l168-171.10]

| garmá | na/ | -(a)'i | ~´~ | ng- | i- | Ø | -na |
|-------|-----|--------|-----|-----|-----|---|-----|
| boy.LMo | Stm- | -Sfx2 | -L | | A.3- | P.N- | Aux | -Imprf |

  (children)

  diíf
  hit.M.Pst
  'The boy hit the children.'

3) incorporated objects

(7.6)   Linker not present on incorporated nouns
  a.   *ngwa **slee**-gaás* [20161102b.52]

| ng- | u- | Ø | -a | sl- | -ee | gaás |
|-----|-----|---|-----|-----|-----|------|
| A.3- | O.M- | Aux | -Prf | Stm- | -Sfx2 | kill.M.Pst |

  (cow)

  'He killed a cow on him.' (lit. "he cow-killed him")

  b.   *[...] nguna **saga**-taáhh neer na/áy deti*
                       [20131108b_20150725j.89]

| ng- | u- | Ø | -na | sag- | -a | taáhh |
|-----|-----|---|-----|------|-----|-------|
| A.3- | O.M- | Aux | -Imprf | Stm- | -Sfx2 | hit.M.Pst |

  (head)

  neer   na/áy        deti
  with   child.LNØ    <deti>.tree
  '[...] he smashed him on the head with the seed pod of the
  <deti> tree.' (lit. "he head-smashed him")

c.      *[…] asma ta ar a **hee**-gás* [20151202d.116]

| asma | t- | Ø | ar | Ø | hee | -Ø |
|------|-----|-----|-----|-----|-----|-----|
| because | MP- | AUX | see | AUX | STM- | -SFX2 |

(STM- -SFX2 underbraced: person)

gás
kill.2Sg.PRES
 'because they saw you kill a man' (lit. "man-kill")

Nouns *do* show the linker everywhere else, some illustrative examples include:

1) modified subjects:

(7.7)    LINKER PRONOUNCED ON MODIFIED SUBJECTS[1]

     a.     ***garmá** úr ina /akuút*      [20160921i.27]

| garm- | -a | -ó | úr | i- | Ø | -na | /akuút |
|-------|-----|-----|------|------|-----|--------|--------|
| STM- | -SFX2 | -L | big.M | S.3- | AUX | -IMPRF | |

(STM- -SFX2 -L underbraced: boy)

jump.M.PST
'The big boy jumped.'

     b.     ***desír** doosl baahaa ngina táhh*      [20160927l110-124.2]

| des- | -i | -r~´~ | doosl | baahaár |
|------|-----|-------|-------|---------|
| STM- | -SFX2 | -L | farm.ADN.F | hyaena.LFr |

(STM- -SFX2 -L underbraced: girl)

| ng- | a- | Ø | -na | táhh |
|-----|-----|-----|------|------|
| A.3- | P.F- | AUX | -IMPRF | hit.F.PST |

'The farming girl hit the hyaena.'

     c.     ***na/i'í** baahaa nga diifiyí'*      [20160928c.36]

| na/- | -(a)'i | ~´~ | baahaár | ng- | a- | Ø | -a |
|------|--------|-----|---------|-----|-----|-----|-----|
| STM- | -SFX2 | -L | hyaena.LFr | A.3 | P.F- | AUX | -PRF |

(STM- -SFX2 -L underbraced: child)

| diif | -iyí' |
|------|-------|
| hit.3 | -3Pl.SUBJ |

'The children who hit the hyaena.'

2) modified direct objects:

(7.8)    LINKER PRONOUNCED ON MODIFIED DIRECT OBJECTS

     *hhawata **garmá** wák nguna taáhh*   [20160119f.45]

| hhawató | garm- | -a | -ó | wák | ng- | u- | Ø | -na |
|---------|-------|-----|-----|-----|-----|-----|-----|-----|
| man.LMo | STM- | -SFX2 | -L | one | A.3- | P.M- | AUX | -IMPRF |

(STM- -SFX2 -L underbraced: boy)

taáhh
hit.M.PST
'The man hit one boy.'

---

[1] In (7.7)a), the noun *garma* 'boy' is irregular in that the form does not show the final *-o* of the linker, but only the high tone. In every other respect, however, *garma* is a regular, (Mo) noun.

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3) direct objects in 'encapsulated position' (i.e. between the selector and the

lexical verb)

(7.9)  LINKER PRONOUNCED ON ENCAPSULATED OBJECTS
        a.    *moro'osíng i **harimaár** kón*
[20131027_20150725c.81]

| moro'ó | -síng | i- | Ø | harim- | -aa | -r~´~ |
|---|---|---|---|---|---|---|
| things.LMo | -DEM2 | S.3- | AUX | STM- | -SFX2 | -L |

                                                  justice

kón
have.M.PRES
'These things are just.'

        b.    *[...] bar **/aaymaár** sla'*    [20150808a.117]

| bar- | Ø- | a- | Ø | /ayim- | -aa | -r~´~ | sla' |
|---|---|---|---|---|---|---|---|
| if- | A.P- | P.F- | AUX | STM- | -SFX2 | -L | want.2.SUBJ |

                                            food

'[...] if you want food.'

        c.    *[...] tare **yiikwá** huw* [20151202e.124]

| t- | Ø | -re | yiikw- | -a | ~´~ | huw |
|---|---|---|---|---|---|---|
| MP- | AUX | -CONSEC | STM- | -SFX2 | -L | bring.SUBJ |

                                        cows

'[...] and they brought cows.'

4) nouns which occur with topic and question morphology

(7.10)  a. LINKER PRONOUNCED ON TOPIC-MARKED NOUNS
        i. *[...] umó **dir**oo [...]* [20131027_20150725c.195]

| umó | d- | -i | -r~´~ | -oo |
|---|---|---|---|---|
| every | STM- | -SFX2 | -L | -TOP |

                        place

'[...] every place [...]"

        ii. *[...] umoqó **/ayit**oo [...]* [20131108b_20150725j.9]

| umó | =qo | /ay- | -i | -tá | -oo |
|---|---|---|---|---|---|
| every | =EMPH | STM- | -SFX2 | -L | -TOP |

                                    flower

'[...] every flower [...]'

    b. LINKER PRONOUNCED ON QUESTIONED NOUNS
        i. *wa **gawt**oô*           [20150817d.225]

| wa | gaw- | -a | -tá | -oo | ~ˆ~ |
|---|---|---|---|---|---|
| PREP.ABL. | STM- | -SFX2 | -L | -TOP | ~Q~ |

                        top

'from the top?'

ii. ***basok**oô* [20161109b.15]

| bas- | | -a | -kú | -oo | ~ˆ~ |
|------|--|----|-----|-----|-----|
| STM- | | -SFX2 | -L | -TOP | ~Q~ |

<u>south</u>

'south?'

## 7.3.2 Past analyses

The most common way to describe the linker is as construct state morphology (e.g. Mous 1993: 94). This refers to a special morphological form taken by nouns when possessed, and is characteristic of many Afro-Asiatic languages. This label handles perhaps the most frequent construction in which the linker occurs.

(7.11) LINKER PRONOUNCED IN POSSESSION CONSTRUCTIONS

a. *[…] **garmá** Bura*     [20160927m.36]

| garm- | -a | -ó | Burá |
|-------|----|----|------|
| STM- | -SFX2 | -L | Bura.LMo |

<u>boy</u>

'Bura's boy'

b. *[…] **balaángw** hee […]*     [20150727.52]

| bal- | -aangw | -ó | heé |
|------|--------|----|-----|
| STM- | -SFX2 | -L | person.LMo |

<u>sorghum</u>

'[…] a person's sorghum […]'

c. ***asltá** baabá* [20150807.17]

| asl- | -a | -tá | baabó |
|------|----|-----|-------|
| STM- | -SFX2 | -L | father.LMo |

<u>fire</u>

'father's fire'

Other modification constructions also seem to be comfortably covered by extending the idea of possession. Even in English, one can use the genitive to convey such concepts as noun-numeral "an army of one", noun-pronoun "a friend of mine", and noun-adjective "a cape of red".

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However, the construct state analysis handles the remaining data less well. After all, it is hard to see how the object noun *slee* in (7.12)b) below could be interpreted as somehow possessed.

(7.12)　　a.　*aní **slee**  ana taáhh*　　　　[201609271222-228.25]

| aní | **sl-** | **-ee** | **-r~´~** | Ø- | a- | Ø | -na |
|------|------|------|------|------|------|------|------|
| Pro1Sg | STM- | -SFX2 | -L | A.1- | P.F- | AUX | -IMPRF |

<u>cow</u> (under sl- -ee -r~´~)

taáhh
beat.1.PST
'I beat the cow.'

　　b.　*aní a **sleér** diíf*　　　　[20160927l222-228.26]

| aní | | Ø- | Ø | **sl-** | **-ee** | **-r~´~** | diíf |
|------|------|------|------|------|------|------|------|
| PRO1Sg | | S.P- | AUX | STM- | -SFX2 | -L | beat.1.PST |

<u>cow</u> (under sl- -ee -r~´~)

'I beat the cow.'

Similarly, nouns in topicalizations or questions are equally hard to characterize as possessed.


This evidence seems adequate motivation for an attempt to characterize the linker according to a broader criterion. This will be the approach followed in the following subsection.


### 7.3.3 Linkers are morphophonologically conditioned

Following presentation of the data above, I propose that the linker is a morpheme which obligatorily occurs on any noun with reference, but goes unpronounced when it occurs at the right edge of a phonological phrase. Essentially, the phenomenon is one of sandhi, analogous to *raddoppiamento sintattico* in Italian (ita: e.g. Italy) (Nespor & Vogel 1986: 165-184), *rendaku* in Japanese (jpn: Japan) (Kubozono 2005), and intonation in Bengali (ben: e.g.

Bangladesh) (Truckenbrodt 2003). The phonological phrases important to this particular work are those equivalent to the syntactic phrases DP and TP[2]. Because of this appeal to higher-level structure, examination of this claim therefore requires some comment on the clausal syntax of Gorwaa. This will be undertaken briefly below. With the shape of the Gorwaa clause properly motivated, discussion will return to the specific environments of linkers presented above.

### 7.3.3.1 Clausal syntax

Any in-depth description of the clausal syntax of Gorwaa lies outside the scope of this work. As such, this subsection can only establish the facts relevant to the discussion at hand. Therefore, if the argument being presented above sees linkers as going unpronounced only when at the right edge of phonological phrases (DP and/or TP), then it must be established that the noun *slee* in (7.12)a) is at the right edge of a phonological phrase, and that the noun *sleér* in (7.12)b) is within a phonological phrase. The case of *sleér* (7.12)b) will be addressed first, followed by *slee* (7.12)a).

That *sleér* is within a phonological phrase in (7.12)b) seems a simple assertion to make: as the direct object *finches* in §3.3 was merged as the internal argument of the verb *examine* in the English example, so too is *sleér* merged as the internal argument of the verb *diíf*. Unlike the English, however, the noun *sleér* moves to a

---

[2] Note that DP is commonly identified as a syntactic phase (e.g. Adger 2002), and, TP, while not a syntactic phase, is identified by Chomsky (2001) as a Core Functional Category. For some comment on Core Functional Categories and phasal properties, see Richards 2007.

position between the selector *a* and the verb. Looking at the functions of

selectors (they may mark clause type, deixis, subject, object, aspect, mood, and

adverbial case), it may be assumed that they are a form of highly inflected

auxiliary (cf. Anderson, 2011). Indeed, Mous (2005: 308) identifies the selector

as marking "the left hand edge of a syntactic unit", a syntactic unit which I will

interpret as TP. As such, anything between the selector and the lexical V is

therefore within the TP and, furthermore, if located between the selector and the

lexical V, *within* a phonological phrase, hence the pronunciation of the linker on

nouns in this position.

A similar line of argument may be used to establish that *slee* in (7.12)a) is *not*

within TP. Given that this noun occurs to the *left* of the selector, it is therefore

outside of the syntactic unit. This raises a more fundamental question: if nouns

such as *slee* in (7.12)a) are not part of the TP, then where, exactly, are they? I

argue that, with the exception of nouns such as those in (7.12)b) described

above, all overt nominal expressions in Gorwaa are base-generated *outside* of the

TP as adjuncts. Evidence for this claim will be provided in examining free word

order, syntactically discontinuous expressions, and pervasive NP-drop: all key

characteristics of non-configurationality (Jelinek 1984).

***Free Word Order***
The first piece of evidence that most nouns are base-generated outside of the TP

is that they are not sensitive to the ordering restrictions imposed by the

Uniformity of Theta Assignment Hypothesis (Baker 1988), which states that like

thematic relations between items are represented by like structural

relationships.  For example, in §3.3 *finches*, as patient of the verb *examine*, will always be generated as the internal argument of the verb, whereas *Charles*, the agent of the verb *examine*, will always be generated as the external argument of the verb.  This results in a strict SVO word order in English.  In Gorwaa, though SOV word order is common enough to be considered canonical, Gorwaa nouns may appear in any order relative to each other, and relative to the verb.

(7.13)  SOV WORD ORDER (CANONICAL)
  *aní slee  ana taáhh*    [201609271222-228.25]

| aní | sl- | -ee | -r~´~ | Ø- | a- | Ø | -na | taáhh |
|-----|-----|-----|-------|----|----|----|-----|-------|
| PRO1SG | STM- | -SFX2 | -L | A.P- | P.F- | AUX | -IMPRF | beat.1.PST |

      (STM- -SFX2 -L = cow)
  'I beat the cow.'

(7.14)  OSV WORD ORDER
  *desirqá' kuúng an sla'*      [20131108b_20150725j.84]

| des- | -i | -r~´~ | -qá' | kuúng |
|------|----|-------|------|-------|
| STM- | -SFX2 | -L | -DEM3 | PRO.2SG.M |

      (STM- -SFX2 -L = girl)

| Ø- | a- | Ø | -n | sla' |
|----|----|----|----|------|
| A.P- | P.F- | AUX | -EXPECT | want.2.SUBJ |

  'You love that girl.'

(7.15)  VS WORD ORDER
  *ina tláy gofaangw* [20131108b_20150725j.152]

| i- | Ø | -na | tláy | goof- | -aangw | -ó |
|----|----|-----|------|-------|--------|----|
| S.3- | AUX | -IMPR | go.M.PST | STM- | -SFX2 | -L |

      (STM- -SFX2 -L = buck)
  "The buck went."

(7.16)  VO WORD ORDER
  *gwéh a ansiimaán ya'eér hatlá'* [20150817d.106]

| gwéh | Ø- | a- | Ø | ansiim | -aán | ya'- | -ee | -r~´~ |
|------|----|----|----|--------|------|------|-----|-------|
| let's.go | A.P- | P.F- | AUX | begin.1- | 1PL.PRES | STM- | -SFX2 | -L |

      (STM- -SFX2 -L = leg)

  hatlá'
  other
  "Let's go -- we are starting another leg."

### Syntactically Discontinuous Expressions

The second piece of evidence that most nouns are base-generated outside of the

TP is that they are not sensitive to the theta criterion (Chomsky 1981), which

states that all arguments must receive one and only one thematic role, and that

each thematic role must be assigned to one and only one argument.  Since most

nouns in Gorwaa exist external to the argument structure, more than one noun

phrase may be associated with a given thematic role.  These are interpreted as

discontinuous expressions.

(7.17)  DISCONTINUOUS SUBJECT

    a. *[...] **balaangwdá' ninaákw** i deer **oo /awaàkw***
                            [DSC_5354_20150705b.69.4]

| balaángw | -dá' | ninaákw | i- | Ø | deer |
|----------|------|---------|-----|-----|------|
| millet.LMo | -DEM4 | small.M | S.3- | AUX | be.present.M.PRES |

| oo | /awaákw ~`~ |
|-----|-----|
| ANA.M | white.M ~EMPH~ |

"[...] that small white millet is there."

    b. *bará ayawoo Endabeg **gadiyeé** i káhh qomasí **ar Muungú***
                            [20131027_20150725c. 19]

| bará | ayá | -oo | Endabég | gadiyeér | i- | Ø |
|------|-----|-----|---------|----------|-----|-----|
| in | land.LMo | -TOP | Endabeg.LMo | work.LFr | S.3- | AUX |

| káhh | qomár | -sí | ar | Muungú |
|------|-------|-----|-----|--------|
| be.absent.F.PRES | time.LFr | -DEM2 | ANA.F | God.LMo |

"In Endabeg the work of God isn't here at that time."

(7.18)  DISCONTINUOUS OBJECT

    a. ***daawaa** ngin amosí leehh **ar seehhaa** [...]* [20151202d.171]

| daawaár | ng- | a- | Ø | -n | amór | -sí |
|---------|-----|-----|-----|-----|------|-----|
| medicine.LFr | A.3- | P.F- | AUX | -EXPECT | place.LFr | -DEM2 |
| leehh | ar | | | seehhaár | | |
| fetch.M.SUBJ | ANA.F | | | tsetse.flies.LFr | | |

"He would fetch tsetse fly medicine."

b. ***dinku'umarí*** *a tleehhaán* ***ar /ameenaa***
[20131027_20150725c.56]

| dinku'umár -í | Ø- | a- | Ø | -a |
|---|---|---|---|---|
| meeting.LFr -DEM1 | A.P- | P.F- | AUX | -PRF |
| tleéhh -aán | | ar | /ameenaár | |
| make.1 -1PL.PST | | ANA.F | women.LFr | |

"We made this women's union."

### *Pervasive NP-dropping*

The third, and perhaps most compelling piece of evidence that most NPs are

generated outside the TP is the fact that virtually all of them are optional. As

adjuncts, most overt NPs may be omitted from a phrase in Gorwaa, with no effect

on the grammaticality of the utterance.

(7.19)   PERVASIVE NP-DROPPING

a. NO NPS DROPPED
*hhawata garma nguna taáhh*         [20160119f.39]

| hhawató | garmá | ng- | u- | Ø | -na | taáhh |
|---|---|---|---|---|---|---|
| man.LMo | boy.LMo | A.3- | P.M- | Aux | -Imprf | hit.Pst |

"The man hit the boy."

b. PATIENT NP *GARMA* DROPPED
*hhawata nguna taáhh*               [20160119f.52]

| hhawató | ng- | u- | Ø | -na | taáhh |
|---|---|---|---|---|---|
| man.LMo | A.3- | P.M- | Aux | -Imprf | hit.Pst |

"The man hit him."  (May also be interpreted as "He hit the man.")

c. AGENT NP *HHAWATA* DROPPED
*garma nguna taáhh*                 [20160119f.57]

| garmá | ng- | u- | Ø | -na | taáhh |
|---|---|---|---|---|---|
| boy.LMo | A.3- | P.M- | Aux | -Imprf | hit.Pst |

"He hit the boy."  (May also be interpreted as "The boy hit him.")

d. BOTH ARGUMENT NPS DROPPED
*nguna taáhh*           [20150813.55]

| ng- | u- | Ø | -na | taáhh |
|---|---|---|---|---|
| A.3- | P.M- | Aux | -Imprf | hit.Pst |

"He hit him."

What is emphatically rejected by speakers is the omission of the argument-marking in the selector. Such utterances are ungrammatical even if both overt argument NPs are present.

(7.20) ARGUMENT MARKING IN THE SELECTOR IS OBLIGATORY

*\*hhawata garma ana taáhh*

| hhawató | garmá | Ø | -na | taáhh |
|---------|-------|---|-----|-------|
| man.LMo | boy.L.Mo | Aux | -Imprf | hit.Pst |

"The man hit the boy." [Intended meaning]  (Also ungrammatical with "The boy hit the man as the intended meaning.)

In light of the data presented above, nouns which occur to the left of the selector can be interpreted as adjunct DPs, and therefore outside of restrictions associated with argument structure[3].  If these DPs are unmodified, then the linker and the right-edge of the phonological phrase align, resulting in the non-pronunciation of the linker.

### Summary: clausal syntax

The data presented above may be represented as follows, where the phonological phrases map onto the (simplified) syntactic structures, defining the environments in which the linker is pronounced and those in which it is unpronounced.  The identity of the highest phrase will be left vague and labeled XP.  Bracketed elements marked with the subscript Φ in the phonology line are phonological phrases.

---

[3] Note that, though these adjunct DPs are not arguments per se, they must be associated with the (assumedly pronominal) arguments generated within the TP, via some sort of A-bar dependency.

*7. The linker*

(7.21)  SECOND POSITION UNMODIFIED DIRECT OBJECT: LINKER UNPRONOUNCED

       *aní **slee** ana taáhh*

| aní | sl | ee | r~´~ | Ø- | a- | Ø | -na | taáhh |
|-----|----|----|------|-----|-----|-----|------|-------|
| | STM | SFX | L | | | | | |
| Pro1Sg **cow** | | | | A.P. | P.F | Aux | -Imprf | beat.1.Pst |

       "I beat the cow."
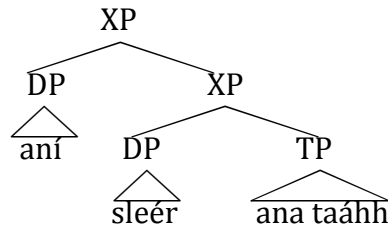


Syntax:     [DP aní] [DP sleér]  [TP ana taáhh]
Phonology:  [Φ aní]  [Φ sle**ér**]  [Φ ana taáhh]
                   r~´~ → Ø

(7.22)  ENCAPSULATED DIRECT OBJECT: LINKER PRONOUNCED
      *aní a **sleér** diíf*

| aní | Ø- | Ø | sl | ee | r~´~ | diíf |
|-----|-----|-----|----|----|------|------|
| | | | STM | SFX | L | |
| Pro1Sg | A.P- | Aux | **cow** | | | beat.1Sg.Pst |

       'I beat the cow.'
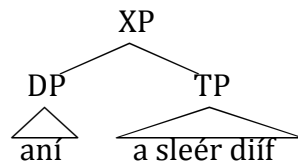


Syntax:     [DP aní] [TP a sleér diíf]
Phonology:  [Φ aní]  [Φ a sle**ér** diíf]

The other clausal environment, shown above (7.6) but not yet discussed, is the

incorporated object construction. This will be treated in the analysis §7.4.1.1.


### 7.3.3.2 Summary: linkers as morphophonologically conditioned
The remainder of environments can be handled on the level of the DP, the

mechanism being essentially the same. When the linker occurs at the right edge

of the phonological phrase, it is unpronounced. Elsewhere, the linker is

pronounced.

## 7. The linker

(7.23) UNMODIFIED NOUN: LINKER UNPRONOUNCED

**na/i'i**
na/ (a)'i ~´~
STM  SFX  L
children
"children"

            DP
           /‾‾\
        na/i'í
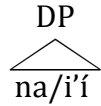
Syntax: [_DP na/i'í]
Phonology: [_Φ na/i'**í**]
                ~´~ → ∅

(7.24) MODIFIED NOUN: LINKER PRONOUNCED

**na/i'í** baahaa nga diifiyí'
na/ (a)'i ~´~ baahaa    ng-   a-   ∅      diif  -iyí'
STM  SFX  L
children      hyaena    A.3-  P.F  Aux    hit.3 -3Pl.Subj
"The children who hit the hyaena."

              DP
            /     \
          D'       CP
         /‾\      /‾‾‾\
      na/i'í  baahaa nga diifiyí'
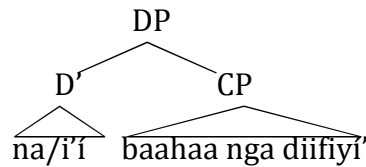
Syntax: [_DP na/i'í   [_CP baahaa nga diifiyí']
Phonology: [_Φ na/i'**í**  baahaa nga diifiyí']

(7.25) TOPIC AND QUESTION MORPHOLOGY: LINKER PRONOUNCED

*basokoô*
bas  a  kú -oo   ~^~
STM SFX  L
south       -Top ~Q~
"south?"

              DP
            /     \
          D'       FP
         /‾\      /‾\
      basakú     -oô
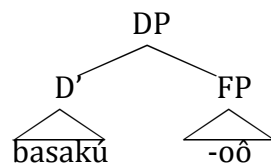
Syntax: [_DP basakú   [_FP -oô]
Phonology: [_Φ basokoô]

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The syntactic structures rendered above are rudimentary, but give a basic idea of how the mechanism of realizing the linker works. What follows is a closer examination of the DP -- more specifically, the syntactic identity of the linker.

**7.4 Syntactic identity of the linker: the analysis**

The presentation above establishes linkers as obligatory suffixes for nouns with reference which occur in 6 different forms, depending on the subgender of the noun. The pronunciation of linkers is morphophonologically conditioned: they are not pronounced when their occurrence coincides with the right edge of a phonological phrase, and they are pronounced elsewhere.

This subsection establishes the syntactic identity of the linker, and is divided into three subsections. The first subsection establishes the linker as agreement morphology on D. This allows a satisfactory description of incorporated objects. The second subsection treats cases of mismatch between the m-gender of the nominal suffix and the form of the linker. The third subsection extends this treatment to explain number valuation of general number nouns.

**7.4.1 The linker as D**

Determiners in Gorwaa are considerably different from determiners in English. Possessives, demonstratives, and indefinites aside -- all of which could be analyzed in other ways, such as the category Adj or N (c.f. Leu 2008) -- the only element which could be taken as a determiner is possibly the quantifier *umó*. Otherwise, semantically significant determiners such as *the* and *a* do not exist. Following the assertion that all grammars mediate reference through the

functional projection D (Borer 2005a: 68), I argue that the linker is the instantiation of D in Gorwaa. Specifically, linkers are agreement morphology, which agree with the gender value of the specific SFX2 realized post-Spellout at n. Assuming that Agree takes place post-syntactically (see §6.5.5), the (abridged) derivation of *slufitá* 'lip' proceeds as in (7.26). Let $\sqrt{119}$ represent the root common to the forms *slufi* 'lip' and *sluúf* 'to praise'. Let $n_{150}$ represent the paradigm *-i*(Ft) | *-iya'* (NØ), represented in the pair *slufi* 'lip' | *slufiya'* 'lips'.

(7.26) DERIVATION OF *SLUFITÁ* (VERSION 1)

      a.     Step 1: Merge of D (syntactic object α) and nP

$$
\begin{array}{c}
\text{DP} \\
\sqrt{119}\text{-}n_{150}\text{-D} \\
[\text{cat } [\text{D}]]
\end{array}
$$

nP — D

$\sqrt{119}$-$n_{150}$

$[\text{cat } [\text{n}]]$

$$
\left[ \text{infl} \begin{bmatrix} \text{cat } [\text{D}] \\ \varphi \ [\ ] \\ \text{Case } [\text{GEN}] \end{bmatrix} \\ \text{sel } [< n >] \right]
$$

$\sqrt{119}$      $n_{150}$

$[\text{cat } [\sqrt{}]]$

$$
\begin{bmatrix} \text{cat } [\text{n}] \\ \text{infl } [\varnothing] \\ \text{sel } [< \sqrt{} >] \end{bmatrix}
$$

      b.     Step 2: (Postsyntactic) valuation of forms in List 2 and List 3

A: Valuation of $\sqrt{119}$

| Phonological Component | | | Semantic Component | | |
|---|---|---|---|---|---|
| Root Input | Syntactic Context | Value | Root Input | Syntactic Context | Value |
| $\sqrt{119}$ | **/n_{150}** | **[sluf]** | $\sqrt{119}$ | **/n_{150}** | **'lip'** |
| | /V | [slu:f] | | /V | 'praise' |

B: Valuation of $n_{150}$

| Phonological Component | | | Semantic Component | | |
|---|---|---|---|---|---|
| Root Input | Syntactic Context | Value | Root Input | Syntactic Context | Value |
| | /Pl | [a?][NØ] | | /Pl | plural |
| $n_{150}$ | **/elsewhere** | **[i][Ft]** | $n_{150}$ | **/elsewhere** | **general** |

    c.       Step 3: Realisation of diacritic feature [Ft] in the agreement domain

    (i.e. the current syntactic structure)

$$
\begin{array}{c}
\text{DP}\\
\sqrt{119}\text{-}n_{150}\text{-D}\\
[\text{cat }[\text{D}]]
\end{array}
$$

nP
$\sqrt{119}\text{-}n_{150}$

[cat [n]]

$$
\text{D} \quad \left[\; \text{infl} \begin{bmatrix} \text{cat }[\text{D}] \\ \varphi\,[\,\mathbf{Ft}\,] \\ \text{Case }[\text{GEN}] \end{bmatrix} \text{sel }[< n >] \;\right]
$$

$\sqrt{119}$      $n_{150}$

$[\text{cat }[\sqrt{}]]$

$$
\left[\; \text{infl} \begin{array}{c} \text{cat }[\text{n}] \\ [\varnothing] \end{array} \; \text{sel }[< \sqrt{} >] \;\right]
$$
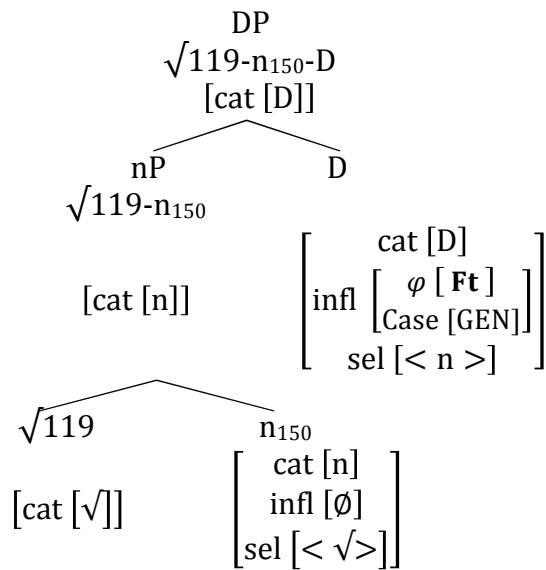
    d.       Step 4: Agree

    D c-commands $n_{150}$, valued with the diacritic gender feature [Ft], and D has an unvalued gender feature. D agrees with $n_{150}$, and obtains the gender feature [Ft].

$$
\text{D} \left\{\; \text{infl} \begin{bmatrix} \text{cat }[\text{D}] \\ \varphi\,[\,\mathbf{Ft}\,] \\ \text{Case }[\text{GEN}] \end{bmatrix} \text{sel }[< n >] \;\right.
$$
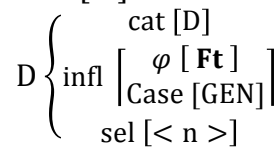
    e.       Step 5: Valuation of D

| Phonological Component | | | Semantic Component | | |
|---|---|---|---|---|---|
| Input | Syntactic Context | Value | Input | Syntactic Context | Value |
| D | /[Mo] | ó | D | elsewhere | referring expression |
| | /[Mk] | kú | | | |
| | /[Fr] | r~´~ | | | |
| | **/[Ft]** | **tá** | | | |
| | /[NØ] | ~´~ | | | |
| | /[Na] | á | | | |

This analysis now allows the incorporation construction left undescribed above

to be properly addressed.

## 7.4.1.1 Incorporation construction

Incorporation constructions were exemplified in (7.6), and feature a noun

between the selector and the lexical verb with no linker morphology.

(7.27) *uga **tsir/i**-gaás* [20161102b.83]

| Ø- | u- | Ø | -ga | tsir/- | -i | gaás |
|---|---|---|---|---|---|---|
| A.P- | P.M- | Aux | -Prf | Sᴛᴍ- | -Sꜰx2 | kill.1.Pst |

bird

"I killed a bird on him." (lit. "I bird-killed him")

Note that these constructions are essentially different from those in which the

direct object is 'encapsulated' (i.e. is located between the selector and the lexical

verb, but does occur with linker morphology). An example is given below.

(7.28) *aní a **sleér** diíf* [20160927l222-228.26]

| aní | Ø- | a- | Ø | -(g)a | sl- | -ee | -r~´~ | diíf |
|---|---|---|---|---|---|---|---|---|
| Pro1Sg | A.P- | P.F- | Aux | -Prf | Sᴛᴍ- | -Sꜰx2 | -L | beat.1Sg.Pst |

cow

'I beat the cow.'

Semantically, the noun *tsir/i* of the incorporation construction does not function

as an argument of the verb. If the gender of the object in the selector is switched

to match that of the bird (thus /u/ P.M to /a/ P.F), the bird will still not be the

grammatical object of the verb *kill*.

(7.29) *aga tsir/i-gaás* [20161102b.83]

| Ø- | a- | Ø | -ga | tsir/- | -i | gaás |
|---|---|---|---|---|---|---|
| A.P- | P.F- | Aux | -Prf | Sᴛᴍ- | -Sꜰx2 | kill.1.Pst |

bird

"I killed a bird on her." (lit. "I bird-killed her")

This type of noun incorporation is best characterized as Mithun's "Type II Noun

Incorporation" (1984: 856).


Crucially, if the incorporated noun here can never be interpreted as an argument,

and if nouns can only be arguments when headed by a D (Borer 2005a: 67), then

it may be assumed that nouns in these constructions lack D altogether, and will

therefore lack linker morphology.

**7.4.1.2 Summary: the linker as D**

This subsection establishes the linker as the instantiation of D in Gorwaa. It was

argued that linkers are agreement morphology, agreeing with the (postsyntactic

and diacritic) m-gender generated on the suffixes after their valuation in List 2.

However, this generalization does not hold in all cases, and must therefore be

revised. This will be undertaken in the next subsection.

**7.4.2 The R argument**

In the last chapter, it was established that postsyntactic m-gender serves as a

trigger for gender agreement on forms beyond the noun. Because m-gender is

generated in List 2, nouns that are semantically genderless (i.e. not inherently

male or female) trigger gender agreement (7.30), and nouns that might have

biological gender (e.g. animals) may trigger agreement contrary to this biological

gender (7.31).

(7.30)   SEMANTICALLY GENDERLESS NOUNS TRIGGERING GENDER AGREEMENT
   *saankaa **ka** yaariir*
   saank- -aa  -r~´~ yaariir
   S\tiny TM-   -S\tiny FX2 -L  much
   $\underbrace{\phantom{S\text{TM- -S\text{FX2 -L}}}}_{\text{chyme}}$
   'There is much chyme.'

(7.31)   NOUNS WITH BIOLOGICAL GENDER TRIGGERING MISMATCHING AGREEMENT
   *tsoyó **ku** úr*
   tsoy- -ó  -ó  **ku**    úr
   S\tiny TM-  -S\tiny FX2 -L  CopAdj.M  big.M
   $\underbrace{\phantom{S\text{TM- -S\text{FX2 -L}}}}_{\text{dikdik}}$
   'the dikdik is big' (possibly a female dikdik)

*7. The linker*

However, the concept of m-gender as the sole trigger for gender agreement is complicated by patterns present in a subset of nouns. Compare the personal name forms in (7.32) with the common nouns in (7.30) and (7.31).

(7.32)    a.    *Saankaa **ku úr***

| saank- | -aa | -ó | **ku** | **úr** |
|--------|-----|-----|--------|--------|
| STM- | -SFX2 | -L | **CopAdj.M** | **big.M** |

Saankaa

'Saankaa is big.' (where Saanka is a man)

b.    *Saankaa **ka ur***

| saank- | -aa | -r~´~ | **ka** | **ur** |
|--------|-----|-------|--------|--------|
| STM- | -SFX2 | -L | **CopAdj.F** | **big.F** |

Saankaa

'Saankaa is big.' (where Saanka is a woman)

c.    *Tsoyo **ku úr***

| tsoy- | -ó | -ó | **ku** | **úr** |
|-------|-----|-----|--------|--------|
| STM- | -SFX2 | -L | **CopAdj.M** | **big.M** |

Tsoyo

'Tsoyo is big' (where Tsoyo is a man)

d.    *Tsoyo **ka ur***

| tsoy- | -ó | -r~´~ | **ka** | **ur** |
|-------|-----|-------|--------|--------|
| STM- | -SFX2 | -L | **CopAdj.F** | **big.F** |

Tsoyo

'Tsoyo is big' (where Tsoyo is a woman)

Agreement patterns for personal names will be used as support for the existence of a referential pronoun (R) as the external argument of nP. Before this, however, a more detailed examination of Gorwaa personal names is required.

**7.4.2.1 Personal names**

Personal names in Gorwaa (discussed briefly in §2.3.1.3) may be divided into two broad groups: forms of Gorwaa origin, and forms with no clear Gorwaa origin (of this second group, many borrowings from Datooga, Rangi, and Swahili have been identified). This discussion will focus on the former group, arguing

that these proper names are not stored as lexical entries in List 1, but are formed

from underspecified roots in exactly the same manner as common nouns.

As established above, many names in Gorwaa can be used for both women and

men, triggering different agreement patterns depending on the biological gender

of the referent.  Therefore, the common noun *awee* 'bulls' triggers feminine

agreement, hence *aweér Yaya* 'Yaya's bulls'.  The proper name may take the form

*Aweér Yaya* 'Awee, daughter of Yaya', or *Aweé Yaya* 'Awee, son of Yaya'.

One way to account for the agreement patterns in (7.32), versus those in (7.30)

and  (7.31), is to assume that proper names are stored in List 1, predetermined

for gender.  As such, while *saankaa* in (7.30) is stored in List 1 as one unspecified

root (for the portion realized as *saank-*) only valued for gender following merge

with the nominal paradigm *-aa* (Fr) | *-u!* (NØ) at n and postsyntactic valuation (in

this case as *-aa* (Fr)), *Saankaa* in (7.32)a) is stored as *Saankaa* (Mo) in List 1, and

*Saankaa* in (7.32)b) is stored as *Saankaa* (Fr).

This is undesirable for several reasons.  First of all, it results in a large number

lexical proper name entries that are otherwise identical to their common noun

counterparts.  In the case of *saank- -aa* (Fr) | *Saankaa* ♂ | *Saankaa* ♀ above, the

number of entries in List 1 have been multiplied by three.

Second, *all* proper names can be deconstructed in a manner that is regular,

principled, and largely consistent with the system developed for common nouns.

This is illustrated in (7.33).

*7. The linker*

(7.33)    a. PROPER NAME *GEENÁY*

      i. *geenaangw*

        geen-     -aangw     -ó

        STM-      -SFX2     -L

                      falcon

        'falcon'

      ii. *geenaawee*

        geen-     -aw   -ee   -r~´~

        STM-      -SFX2 -SFX1  -L

                     falcons

        'falcons'

      iii. *Geenáy*

        geen-     -áy   -ó

        STM-      -SFX2  -L

                 Geenáy

        "Geenáy" (name given to a boy, perhaps after a falcon is seen)

      iv. Valuation (let: $\sqrt{176}$ = the root common to (i-iii), $n_{224}$ = the paradigm -*aangw* | -*aawee*, and $n_{570}$ = the paradigm -*ay*)

| Phonological Component | | | Semantic Component | | |
|---|---|---|---|---|---|
| Root Input | Syntactic Context | Value | Root | Syntactic Context | Value |
| $\sqrt{176}$ | elsewhere | [ge:n] | $\sqrt{176}$ | $n_{224}$ | 'falcon' |
| | | | | $n_{570}$ | 'person born when falcon seen' |

    b. PROPER NAME *AMSÍ*

      i. *amsi*

        ams- -(a)'i   ~´~

        STM- -SFX2  -L

               night

        'night'

      ii. *Amsí*

        ams--(a)'i  -r~´~

        STM- -SFX2  -L

               Amsí

        'Amsí' (name given to a boy or girl, usually born at night)

iii. Valuation (let: √039 = the root common to (i-ii), $n_{964}$ =
the paradigm *-(a)'i*, and $n_{221}$ = the paradigm *-í* (Fr))

| Phonological Component | | | Semantic Component | | |
|---|---|---|---|---|---|
| Root Input | Syntactic Context | Value | Root | Syntactic Context | Value |
| $\sqrt{039}$ | elsewhere | [ams] | $\sqrt{039}$ | $n_{964}$ | 'night' |
| | | | | $n_{221}$ | 'person born at night' |

Third, this stipulation fails to recognize the basic pattern present in gender
agreement mismatch with proper names: when a name refers to a female, it
always triggers feminine agreement; when a name refers to a male, it always
triggers masculine agreement.  If it is accepted that proper names make
agreement with a real world entity, then stipulation of gender in List 1 is
unnecessary.

**7.4.2.2 Gender mismatch and R**

Cases of mismatch between suffixal m-gender and semantic gender of the
referent can be described in terms of override: when semantic gender and m-
gender have different values, it is semantic gender that triggers agreement.  M-
gender triggers agreement elsewhere.  All possible configurations are given in
Table 7.1.

Table 7.1: Gender mismatch

| M-GENDER | SEMANTIC GENDER | GENDER FOR AGREEMENT | EXAMPLE | DESCRIPTION |
|---|---|---|---|---|
| X | X | X | *haree ka ur* woman CopAdj.F big.F "The woman is big" | A noun with m-gender F is semantically female |
| X | Y | Y | *Saankaa ku úr* Saankaa CopAdj.M big.M "Saanka is big." | A noun with m-gender F is semantically male |
| X | 0 | X | *qariyandi ka ur* k.o.gourd CopAdj.F big.F "The gourd is big." | A noun with m-gender F has no semantic gender |

This mismatch dynamic can be accounted for by positing a null referential pronoun (R) as the external argument of nP, as proposed by Williams (1981), Higginbotham (1985), and Grimshaw (1990). Generated in the specifier of nP, this pronoun is a bundle of interpretable features only, and represents the referent of the noun. Beginning with arguably the most straightforward configuration -- a case in which the noun has m-gender but no semantic gender -- the derivation of the noun *slufi* can be revised as follows. Once again, let $\sqrt{119}$ represent the root common to the forms *slufi* 'lip' and *sluúf* 'to praise'. Let $n_{150}$ represent the paradigm *slufi* 'lip' | *slufiya'* 'lips'.

(7.34)      DERIVATION OF *SLUFITÁ* (REVISED FROM (7.26))

a)      Step 1: Merge of nP (syntactic object α) and pro R

$$
\begin{array}{c}
\text{nP} \\
\sqrt{119}\text{-n}_{150}\text{-pro} \\
[\text{cat } [\text{n}]]
\end{array}
$$

```
                        nP
                 √119-n₁₅₀-pro
                    [cat [n]]
              n'                pro
          √119-n₁₅₀
                            ⎡cat [N]⎤
              [cat [n]]     ⎢infl [Ø]⎥
                            ⎣sel [Ø] ⎦
          √119            n₁₅₀
                            ⎡ cat [n]    ⎤
          [cat [√]]         ⎢ infl [Ø]   ⎥
                            ⎣sel [< √ >] ⎦
```
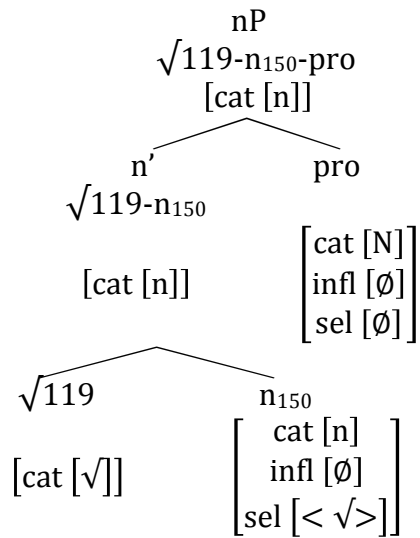
b)      Step 2: Merge of D (syntactic object α) and nP

```
                        DP
                 √119-n₁₅₀-pro-D
                    [cat [D]]
              nP               D
          √119-n₁₅₀-pro
                                  ⎡    cat [D]         ⎤
                                  ⎢      ⎡ φ [ ]      ⎤⎥
              [cat [n]]           ⎢ infl ⎣Case [GEN]  ⎦⎥
                                  ⎣   sel [< n >]      ⎦
              n'               pro
          √119-n₁₅₀
                            ⎡cat [N]⎤
              [cat [n]]     ⎢infl [Ø]⎥
                            ⎣sel [Ø] ⎦
          √119            n₁₅₀
                            ⎡ cat [n]    ⎤
          [cat [√]]         ⎢ infl [Ø]   ⎥
                            ⎣sel [< √ >] ⎦
```
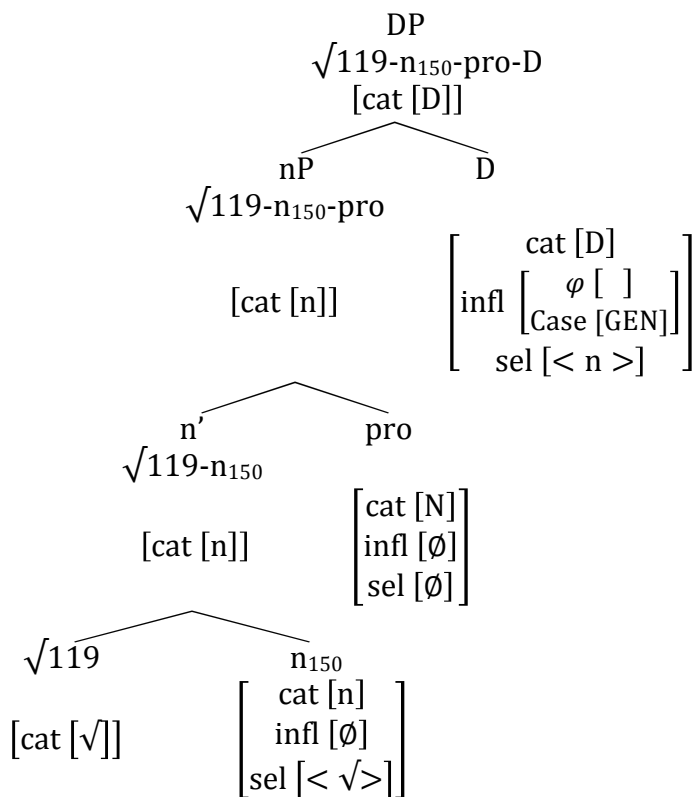
c)      Step 3: (Postsyntactic) valuation of forms in List 2 and List 3

A: Valuation of $\sqrt{119}$

| Phonological Component | | | Semantic Component | | |
|---|---|---|---|---|---|
| Root Input | Syntactic Context | Value | Root Input | Syntactic Context | Value |
| $\sqrt{119}$ | **/n$_{150}$** | **[sluf]** | $\sqrt{119}$ | **/n$_{150}$** | **'lip'** |
| | /V | [slu:f] | | /V | 'praise' |

B: Valuation of n$_{150}$

| Phonological Component | | | Semantic Component | | |
|---|---|---|---|---|---|
| Root Input | Syntactic Context | Value | Root Input | Syntactic Context | Value |
| | /Pl | [aʔ]$^{[NØ]}$ | | /Pl | plural |
| n$_{150}$ | **/elsewhere** | **[i]$^{[Ft]}$** | n$_{150}$ | **/elsewhere** | **general** |

d)      Step 4: Realisation of diacritic feature [Ft] in the agreement
domain
       (i.e. the current syntactic structure)

DP
$\sqrt{119}$-n$_{150}$-pro-D
[cat [D]]

nP          D
$\sqrt{119}$-n$_{150}$-pro

[cat [n]]      $\begin{bmatrix} \text{cat [D]} \\ \text{infl} \begin{bmatrix} \varphi\ [\ ] \\ \text{Case [GEN]} \end{bmatrix} \\ \text{sel } [< n >] \end{bmatrix}$

n'          pro
$\sqrt{119}$-n$_{150}$

[cat [n]]      $\begin{bmatrix} \text{cat [N]} \\ \text{infl } [Ø] \\ \text{sel } [Ø] \end{bmatrix}$

$\sqrt{119}$          n$_{150}$

[cat [√]]      $\begin{bmatrix} \text{cat [n]} \\ \text{infl } [\textbf{Ft}] \\ \text{sel } [< \sqrt{} >] \end{bmatrix}$
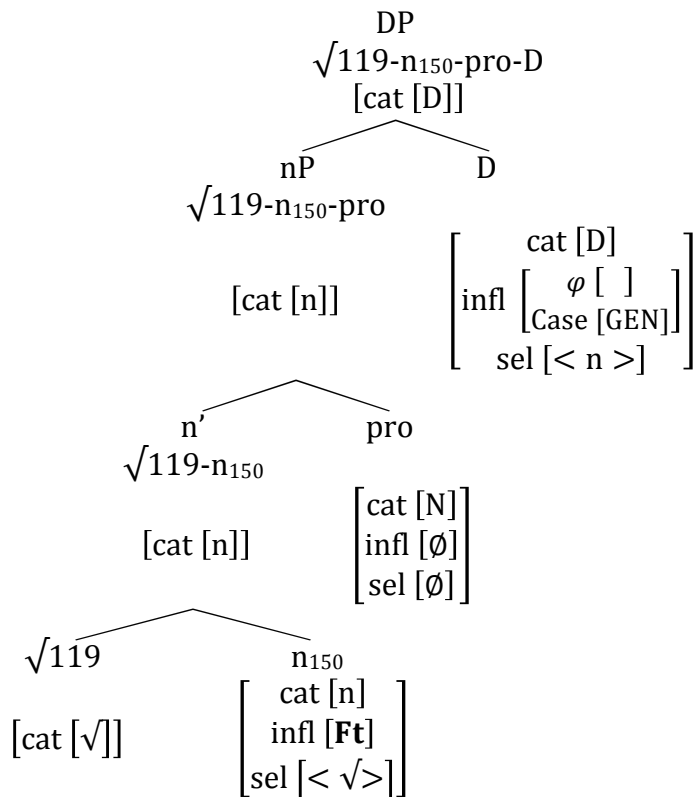
e)  Step 5: Agree
i) D c-commands both pro and $n_{150}$. The referent of pro has no semantic gender, so pro is not valued for gender. $n_{150}$ is valued with the diacritic gender feature [Ft], and D has an unvalued number feature. D agrees with $n_{150}$, and obtains the gender feature [Ft].

$$D \begin{cases} \text{cat [D]} \\ \text{infl} \begin{bmatrix} \varphi\,[\,\textbf{Ft}\,] \\ \text{Case [GEN]} \end{bmatrix} \\ \text{sel } [< n >] \end{cases}$$

f)  Step 6: Valuation of D

| Phonological Component | | | Semantic Component | | |
|---|---|---|---|---|---|
| Input | Syntactic Context | Value | Input | Syntactic Context | Value |
| D | /[Mo] | ó | D | **elsewhere** | **referring expression** |
| | /[Mk] | kú | | | |
| | /[Fr] | r~´~ | | | |
| | **/[Ft]** | **tá** | | | |
| | /[NØ] | ~´~ | | | |
| | /[Na] | á | | | |

The derivation of (7.34) provides an introduction to the mechanism, but given that pro was not valued for gender, no mismatch occurred. The role of the syntactic structure becomes sharper in a case such as *Tsoyór*, when the m-gender of the noun has a value X, and the semantic gender of the referent has a different value Y. It is in these cases when there are two possible goals (pro and the paradigm n) from which the probe (D) may obtain its features. In this case, pro must be able to serve as an intervener, effectively blocking agreement between D and n from taking place. The relevant generalization for structures capable of being interveners stipulates that the specifier of a given head does not intervene in probe-goal relations targeting the complement of the same head. This is stated in another way as the Equidistance Condition.

Equidistance Condition (Chomsky 1995, 2000; Collins 1997)
*If α and β are in the minimal search domain of the same head, then α and β never intervene in relations targeting one another.*

*7. The linker*

Reexamining the relationship of pro and the paradigm n in relation to the search domain of D (see Figure 7.1), it is clear that pro is the specifier of n, but that the probe-goal relation in question (i.e. agree between D and n) does not involve the complement of n (which is $\sqrt{\ }$), but involves n itself.  As such, the Equidistance Condition does not apply, and pro may serve as an intervener to agreement operations of D targeting the paradigm n.

FIGURE 7.1: FULL STRUCTURE OF A GENERAL NUMBER NOUN
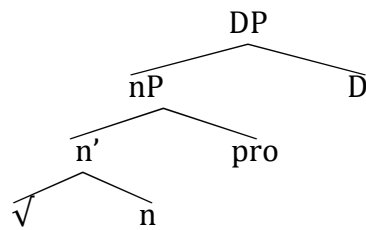


Derivation of *Tsoyór* will therefore proceed as in (7.35) (where, for concision, the derivation picks up from the equivalent of Step 4, in (7.34)).  Let $\sqrt{834}$ represent the root common to the forms *Tsoyo* 'personal name' | *tsoyo* (Mo) 'dikdik' | *tsoyeema'* (NØ) 'dikdiks', and $n_{178}$ represent the paradigm of the SFX2 pair *-o* (Mo) | *-eema'* (NØ).

(7.35)  Derivation of *Tsoyór*

      a)     Step 4: Realisation of diacritic feature [Mo] in the agreement domain

          (i.e. the current syntactic structure).  Note also the F feature on pro.

DP
$\sqrt{834}$-$n_{178}$-pro-D
[cat [D]]

nP           D
$\sqrt{834}$-$n_{178}$-pro

[cat [n]]       $\begin{bmatrix} \text{cat [D]} \\ \text{infl} \begin{bmatrix} \varphi\,[\,\mathbf{F}\,] \\ \text{Case [GEN]} \end{bmatrix} \\ \text{sel } [<\text{n}>] \end{bmatrix}$

n'          pro
$\sqrt{834}$-$n_{178}$

[cat [n]]       $\begin{bmatrix} \text{cat [N]} \\ \text{infl } [\emptyset] \\ \text{sel } [\emptyset] \end{bmatrix}$

$\sqrt{834}$        $n_{178}$

[cat $[\sqrt{}]$]     $\begin{bmatrix} \text{cat [n]} \\ \text{infl } [\mathbf{Mo}] \\ \text{sel } [<\sqrt{}>] \end{bmatrix}$
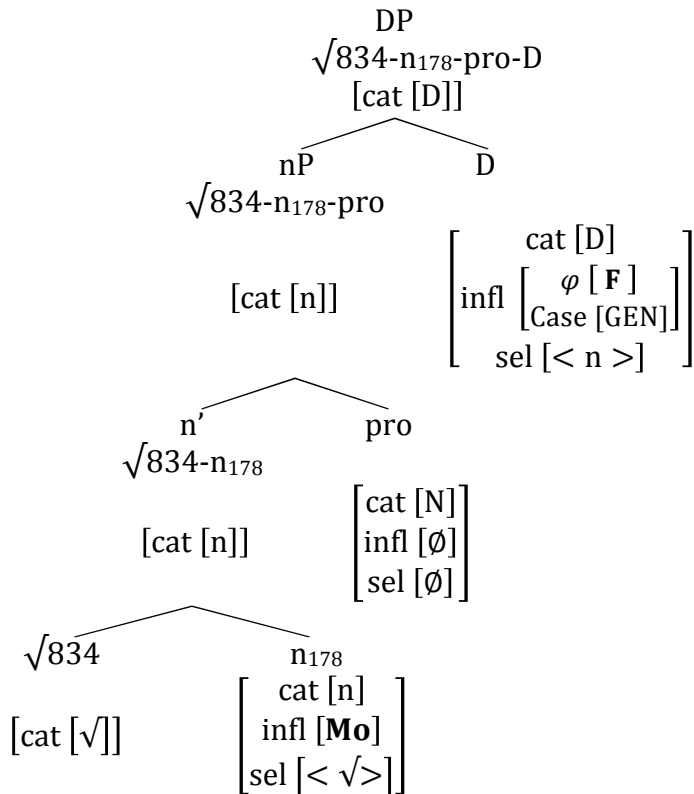
      b)     Step 5: Agree

     i) D c-commands both pro and $n_{178}$.  The referent of pro has semantic gender F, so pro is valued for gender.  $n_{178}$ is valued with the diacritic gender feature [Mo].  D has an unvalued number feature.  D probes for a gender feature and is valued by pro first.  As such D agrees with pro, and obtains the gender feature [Fr].  pro is an intervener between D and $n_{178}$, so D cannot be valued as [Mo].

D $\left\{ \text{infl} \begin{bmatrix} \text{cat [D]} \\ \varphi\,[\,\mathbf{Fr}\,] \\ \text{Case [GEN]} \\ \text{sel } [<\text{n}>] \end{bmatrix} \right.$

c)      Step 6: Valuation of D

| Phonological Component | | | Semantic Component | | |
|---|---|---|---|---|---|
| Input | Syntactic Context | Value | Input | Syntactic Context | Value |
| D | /[Mo] | ó | D | **elsewhere** | **referring expression** |
| | /[Mk] | kú | | | |
| | **/[Fr]** | **r~´~** | | | |
| | /[Ft] | tá | | | |
| | /[NØ] | ~´~ | | | |
| | /[Na] | á | | | |

## 7.4.2.3 Summary: the R argument

This subsection has addressed cases of mismatch between m-gender, a property of the suffix, and sematic gender, a property of the null referential pronoun.  pro is structurally an intervener, and blocks agreement between D and n.  pro may only act as an intervener for gender agreement when it bears a semantic gender feature and, as such, when a referent does not have semantic gender, agreement with m-gender results.

When, exactly, a given noun will bear a semantic gender feature seems largely down to how salient a given referent is in Gorwaa.  As such, most humans are assigned gender in R, as well as common domestic animals, such as sheep (ram vs. ewe), cattle (bull vs. cow), and chickens (rooster vs. hen).  Humans considered somehow deficient are not assigned gender in R (hence *daktani* 'fool', always shows agreement for Fr (m-gender)).

## 7.4.3 Extending R to number

Following the establishment of the null referential pronoun pro as an important trigger of gender agreement, its function may be extended to also account for number: specifically, cases of number agreement on nouns of general number.

*7. The linker*

As posited above, the referential pronoun may only bear features that are interpretable, i.e. relevant to the semantic interpretation of the noun. This was why nouns lacking semantic gender (such as 'chyme' in (5.139), 'gourd' in Table 6.1, and 'lip' in (7.34)) show agreement for suffixal m-gender. Essentially, gender is only sometimes interpretable (i.e. when it is a salient biological feature of a noun). Number, on the other hand, is always interpretable, and is therefore always valued on pro. This results in general number forms (unvalued for number) showing agreement on adjectives for either Sg or Pl number. Returning to the form *qoonqál* 'crowned crane', a revised derivation would appear as in (7.36).

(7.36) THE GENERAL NUMBER *QOONQÁL* (REVISED FOR Sg NUMBER AGREEMENT)

  a)  Step 4: Realisation of diacritic feature [Mo] in the agreement domain
    (i.e. the current syntactic structure). Note also the Sg feature on
  pro.

$$
\begin{array}{c}
\text{DP} \\
\sqrt{735}\text{-}n_{135}\text{-pro-D} \\
[\text{cat }[\text{D}]]
\end{array}
$$

nP    D

$\sqrt{735}$-$n_{135}$-pro

$[\text{cat }[n]]$   $\left[ \text{infl} \begin{array}{l} \text{cat }[\text{D}] \\ \begin{bmatrix} \varphi\,[\,\mathbf{Sg}\,] \\ \text{Case }[\text{GEN}] \end{bmatrix} \\ \text{sel }[<\text{n}>] \end{array} \right]$

n'    pro

$\sqrt{735}$-$n_{135}$

$[\text{cat }[n]]$   $\begin{bmatrix} \text{cat }[\text{N}] \\ \text{infl }[\varnothing] \\ \text{sel }[\varnothing] \end{bmatrix}$

$\sqrt{735}$    $n_{135}$

$[\text{cat }[\sqrt{}]]$   $\begin{bmatrix} \text{cat }[n] \\ \text{infl }[\mathbf{Mo}] \\ \text{sel }[<\sqrt{}>] \end{bmatrix}$

b)      Step 5: Agree
i) D c-commands both pro and Ø[Mo] in the trace of nP (<nP>), the referent of pro has no semantic gender, so pro is unvalued for gender, and can therefore not act as an intervener in gender agreement.  Ø[Mo] has a suffixal gender feature [Mo].  D probes for a gender feature and is valued by Ø[Mo]  As such D agrees with Ø[Mo], and obtains the gender feature [Mo].

$$
D \begin{cases} \text{cat [D]} \\ \text{infl} \begin{bmatrix} \varphi\ [\,\mathbf{Mo}] \\ \text{Case [GEN]} \end{bmatrix} \\ \text{sel} [< \text{n} >] \end{cases}
$$

ii) D c-commands pro, the referent of pro has semantic number Sg, so pro is valued for number.  nP is configured for a general number noun, and therefore does not bear a number feature.  D probes for a number feature and is valued by pro.  As such D agrees with pro, and obtains the number feature Sg.

$$
D \begin{cases} \text{cat [D]} \\ \text{infl} \begin{bmatrix} \varphi\ [\,3, \text{Mo}, \mathbf{Sg}\,] \\ \text{Case [GEN]} \end{bmatrix} \\ \text{sel} [< \text{n} >] \end{cases}
$$

iii) D has an unvalued person feature, and probes all possible goals in the structure for person features.  No possible goals contain a person feature.  *Agree* fails, but the structure is licit because *probe* has succeeded (Preminger 2010). Lack of person features on D will be interpreted as 3rd Person (see Harley & Ritter 2002).

c)      Step 6: Valuation of D

| Phonological Component | | | Semantic Component | | |
|---|---|---|---|---|---|
| Input | Syntactic Context | Value | Input | Syntactic Context | Value |
| D | **/[Mo]** | **ó** | D | **elsewhere** | **referring expression** |
| | /[Mk] | kú | | | |
| | /[Fr] | r~´~ | | | |
| | /[Ft] | tá | | | |
| | /[NØ] | ~´~ | | | |
| | /[Na] | á | | | |

Note that, in this example, the noun *qoonqál* refers to 'a (kind of) crowned crane', hence the Sg feature on pro..  If *qoonqál* were instead to refer to '(kinds of)

crowned crane', the feature on pro would be Pl.  The operation would proceed in exactly the same way.

Critically, number features (Sg or Pl) play no role in the 'syntactic context' column for the valuation of D.  As such, though D bears number features, they are not instantiated phonologically on D.  Because of this, if no adjective is present (to explicitly show either Sg or Pl agreement), then the number value of the noun must either be determined by the wider context of the utterance, or simply interpreted as unimportant.

## 7.5 Remarks and summary

This chapter treated the final element of the Gorwaa noun: the linker.  Subsection 7.5.1 turns to a slightly different treatment of gender, developed in Kramer (2014), and evaluates this approach in comparison to the one proposed herein. Section 7.5.2 summarizes.

### 7.5.1 Remarks on Kramer (2014)

Kramer (2014) takes a similar approach to the current work, in that her proposed analysis attempts to represent biological sex syntactically.  Lexical approaches (e.g. Harris 1991 for Spanish, Ferrari-Bridgers 2007 for Italian, and Alexiadou 2004 for Spanish, Italian, Hebrew, and Greek) see all nouns as listed in the lexicon, and either specified for gender or unspecified.  Unspecified nouns receive gender via a lexical rule which depends on the biological sex of their discourse referent.  For reasons mentioned above (c.f. Acquaviva 2009), and given that "nearly half of the languages with gender surveyed by Corbett (2011)

have 'semantic' gender assignment systems based primarily or predominantly on biological sex […]" (6), Kramer argues that gender must be added to roots syntactically, and instantiated as a feature of a head or some syntactic projection. The proposal is that *both* biological sex and grammatical gender features are located on the same nominalizing head (equivalent to what has been established in this work as the categorizing head n). For Amharic -- which possesses two gender values: M and F -- this results in four types of n: two of which bear interpretable gender features (n *i*[F] and n *i*[M]), and two whose gender features are uninterpretable (n *u*[F] and n *u*[M]).[4] Interpretable gender features refer to the biological sex of the noun's referent, and uninterpretable gender features refer to grammatical gender. As such, the Amharic noun *wänbär* 'chair' (M), is represented as an acategorial root, dominated by the categorizing head n of the kind *u*[M]. Kramer's proposed structure is given in (7.37) below, along with an additional projection, meant to show D, which agrees with n in gender (-*u* if M, and -*wa* if F). The stepwise process, not given in Kramer (2014) is given here to be consistent with the rest of the current work.

(7.37) AMHARIC NOUN *WÄNBÄR* 'CHAIR' (M), AS PER KRAMER (2014)

    a.    Merge of D (syntactic object α) and nP
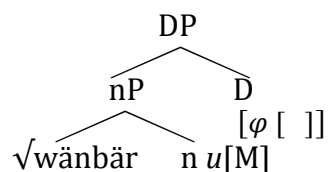


    b.    Agree
    i) D c-commands n. n has a gender feature *u*[M]. D probes for a gender feature and is valued by n *u*[M]. As such D agrees with *u*[M], and obtains the gender feature [M].

---

[4] Actually, Kramer's system sees the gender values as privative. Therefore, [M] is represented as [-F], or as a default. This will not affect the examination at hand.

$$D \left\{ \begin{array}{l} \text{cat [D]} \\ \text{infl} \begin{bmatrix} \varphi \ [\mathbf{M}] \\ \text{Case [GEN]} \end{bmatrix} \\ \text{sel} [< \text{n} >] \end{array} \right.$$

    c.      Valuation of D

| Phonological Component | | | Semantic Component | | |
|---|---|---|---|---|---|
| Input | Syntactic Context | Value | Input | Syntactic Context | Value |
| D | **/[M]** | **-u** | D | **elsewhere** | **referring expression** |
| | /[F] | -wa | | | |

In a more complex example, the Amharic noun *ayt'* 'mouse' is F in gender when its biological sex is unknown (or unimportant), and therefore is a root dominated by the head n *u*[F]. If biologically female, the noun *ayt'* 'female mouse' is F in gender: a root dominated by the head n *i*[F]. If biologically male, the noun *ayt'* 'male mouse' is M in gender: a root dominated by the head n *i*[M]. Kramer's proposed structures are given in (7.38) below.

(7.38)  THREE FORMS OF THE AMHARIC NOUN *AYT'*, AS PER KRAMER (2014)

    a. *AYT'* 'MOUSE' (F)

        i)        Merge of D (syntactic object α) and nP
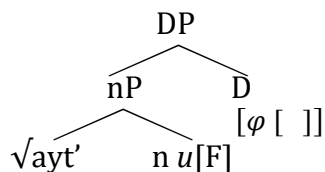


        ii)    Agree
        i) D c-commands n. n has a gender feature *u*[F]. D probes for a gender feature and is valued by n *u*[F]. As such D agrees with *u*[F], and obtains the gender feature [F].

$$D \left\{ \begin{array}{l} \text{cat [D]} \\ \text{infl} \begin{bmatrix} \varphi \ [\mathbf{F}] \\ \text{Case [GEN]} \end{bmatrix} \\ \text{sel} [< \text{n} >] \end{array} \right.$$

iii)     Valuation of D

| Phonological Component | | | Semantic Component | | |
|---|---|---|---|---|---|
| Input | Syntactic Context | Value | Input | Syntactic Context | Value |
| D | /[M] | *-u* | D | **elsewhere** | **referring expression** |
| | **/[F]** | ***-wa*** | | | |

b. *AYT'* 'FEMALE MOUSE' (F)

i)     Merge of D (syntactic object α) and nP

```
              DP
           /      \
         nP        D
        /  \      [φ [  ]]
    √ayt'   n i[F]
```
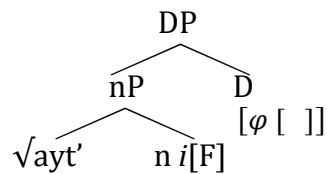
ii)     Agree
i) D c-commands n.  n has a gender feature *i*[F].  D probes for a gender feature and is valued by n *i*[F].  As such D agrees with *i*[F], and obtains the gender feature [F].
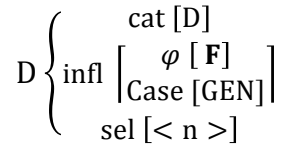
$$D \left\{ \begin{array}{l} \text{cat [D]} \\ \text{infl} \begin{bmatrix} \varphi\ [\textbf{F}] \\ \text{Case [GEN]} \end{bmatrix} \\ \text{sel } [< n >] \end{array} \right.$$

iii)     Valuation of D

| Phonological Component | | | Semantic Component | | |
|---|---|---|---|---|---|
| Input | Syntactic Context | Value | Input | Syntactic Context | Value |
| D | /[M] | *-u* | D | **elsewhere** | **referring expression** |
| | **/[F]** | ***-wa*** | | | |

c. *AYT'* 'MALE MOUSE' (M)

i)     Merge of D (syntactic object α) and nP

```
              DP
           /      \
         nP        D
        /  \      [φ [  ]]
    √ayt'   n i[M]
```
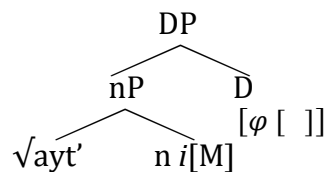
ii)     Agree
        i) D c-commands n.  n has a gender feature *i*[M].  D probes for a gender feature and is valued by n *i*[M].  As such D agrees with *i*[M], and obtains the gender feature [M].


$$D \left\{ \begin{array}{l} \text{cat [D]} \\ \text{infl} \begin{bmatrix} \varphi \; [\; \mathbf{M}\; ] \\ \text{Case [GEN]} \end{bmatrix} \\ \text{sel} \; [< n >] \end{array} \right.$$


iii)     Valuation of D

| Phonological Component | | | Semantic Component | | |
|---|---|---|---|---|---|
| Input | Syntactic Context | Value | Input | Syntactic Context | Value |
| D | **/[M]** | ***-u*** | D | **elsewhere** | **referring expression** |
| | /[F] | *-wa* | | | |


The biggest challenge for applying Kramer's approach to Gorwaa is represented

by morphosyntactic characteristic IIe of the Gorwaa suffix, repeated below:

(7.39)  Morphosyntactic characteristic IIe of the Gorwaa suffix

*The grammatical gender (i.e. M, F, or N) of a noun is determined by the SFX2 morpheme, which has a stable association with gender.  If a noun is changed for number, its gender may also change.*

Addressed in detail in §6.3.5, it suffices to remind readers of the consistently

stable association of specific suffixes with specific gender values, to the point of

which any given Gorwaa SFX2 may be listed with its attendant gender.  As such,

the SFX2 *-i* triggers F agreement, the SFX2 *-ó* triggers M agreement, and the SFX2

*-a'i* triggers N agreement.  Resultantly, if a noun is changed for number

(necessarily resulting in a change of suffix), the gender of the noun may change,

depending on the identity of the new suffix (specifically SFX2).  *Sakweeli* 'ostrich'

is F gender, and *sakwél* 'ostriches' is M gender; *digirmó* 'footprint' is M gender,

and *digirma'* 'footprints' is N gender; *duukaa* 'shop' is F gender, and *duukanáy*

'shops' is M gender.

*7. The linker*

It is difficult to see how Kramer's proposal would work here (even by increasing Kramer's n heads to five in order to accommodate uninterpretable N gender). The first step would be, inevitably, replacing individual gendered suffixes at n with paradigms, within which the five gender values (n *i*[F] and n *i*[M], and n *u*[F], n *u*[M], and n *u*[N]) would be realized post-Spellout.  But even having adopted this mechanism, the approach fails to capture the precise nature of how semantic gender 'overrides' grammatical gender.  As may be seen in (7.38), semantic override is accomplished in Kramer's analysis as a process by which an entirely different suffix is merged with the root (one with interpretable gender, rather than uninterpretable).  In fact, the process is not one of 'override' at all, as the structures involve entirely different formatives.  The motivation for this analysis is understandable: the majority of the proposed n morphemes in Amharic are formally identical (-Ø in most cases, no matter the feature values). In a language like Gorwaa, where a noun can retain its suffix's (phonetic) identity, but assume the biological sex of the referent (as in cases discussed in §7.4.2.2), the argument that the head at n has been changed becomes, empirically speaking, less sound.

Conversely, the proposal developed in the present work seems to deal with most of the Amharic data in Kramer (2014) quite well.  Specifically, by positing an R argument which bears the semantic (interpretable) gender features, and leaving grammatical (uninterpretable) gender features (i.e. m-gender) to be exponed post-Spellout at the n head, the data represented in (7.38) can be revised thus, (where, for concision, each derivation picks up from the equivalent of Step 4, in (7.34)):

(7.40) THREE FORMS OF THE AMHARIC NOUN *AYT'* (REVISED AS PER THE THE CURRENT

WORK)

a. *AYT'* 'MOUSE' (F)

a)   Step 4: Realisation of diacritic feature [F] in the agreement domain
     (i.e. the current syntactic structure).  Note also that, because gender is
          either unknown or unimportant in this case, there is no gender
          feature on pro.
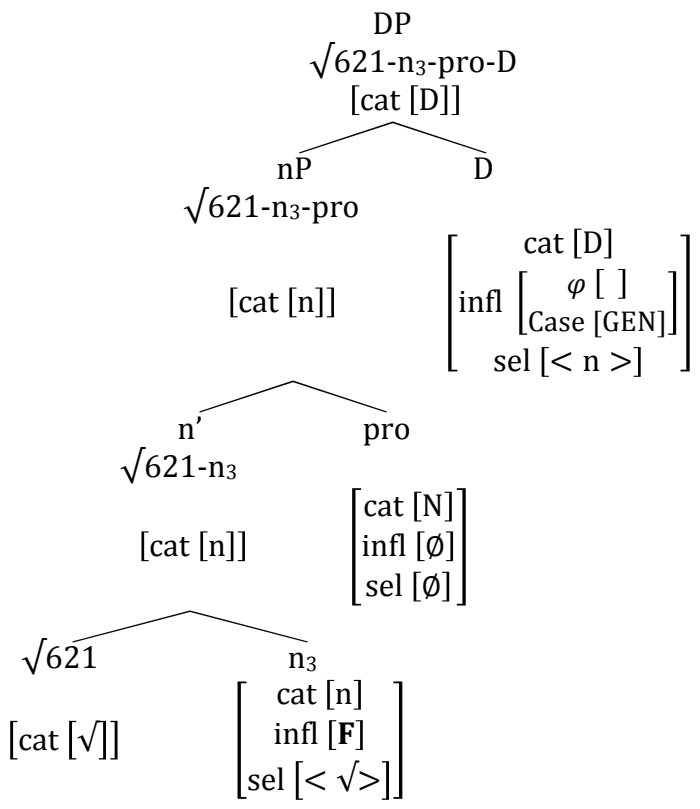
$$
\begin{array}{c}
\text{DP} \\
\sqrt{621}\text{-}n_3\text{-pro-D} \\
[\text{cat }[\text{D}]]
\end{array}
$$

$$
\begin{array}{c}
\text{nP} \\
\sqrt{621}\text{-}n_3\text{-pro}
\end{array}
\qquad
\begin{array}{c}
\text{D} \\
\left[
\begin{array}{c}
\text{cat }[\text{D}] \\
\text{infl} \begin{bmatrix} \varphi\ [\ ] \\ \text{Case }[\text{GEN}] \end{bmatrix} \\
\text{sel }[< n >]
\end{array}
\right]
\end{array}
$$

$$
[\text{cat }[\text{n}]]
$$

$$
\begin{array}{c}
\text{n}' \\
\sqrt{621}\text{-}n_3
\end{array}
\qquad
\begin{array}{c}
\text{pro} \\
\left[
\begin{array}{c}
\text{cat }[\text{N}] \\
\text{infl }[\emptyset] \\
\text{sel }[\emptyset]
\end{array}
\right]
\end{array}
$$

$$
[\text{cat }[\text{n}]]
$$

$$
\begin{array}{c}
\sqrt{621} \\
[\text{cat }[\sqrt{\ }]]
\end{array}
\qquad
\begin{array}{c}
n_3 \\
\left[
\begin{array}{c}
\text{cat }[\text{n}] \\
\text{infl }[\mathbf{F}] \\
\text{sel }[< \sqrt{\ }>]
\end{array}
\right]
\end{array}
$$

b)   Step 5: Agree
     i) D c-commands both pro and n[F].  The referent of pro has no
semantic gender, so pro is unvalued for gender, and can therefore not act
as an intervener in gender agreement.  n[F has a suffixal gender feature
[F].  D probes for a gender feature and is valued by n[F]. As such D agrees
with n[F], and obtains the gender feature [F].

$$
\text{D} \left\{
\begin{array}{c}
\text{cat }[\text{D}] \\
\text{infl} \begin{bmatrix} \varphi\ [\ \mathbf{F}] \\ \text{Case }[\text{GEN}] \end{bmatrix} \\
\text{sel }[< n >]
\end{array}
\right.
$$

c)      Step 6: Valuation of D

| Phonological Component | | | Semantic Component | | |
|---|---|---|---|---|---|
| Input | Syntactic Context | Value | Input | Syntactic Context | Value |
| D | /[M] | *-u* | D | **elsewhere** | **referring expression** |
| | /**[F]** | ***-wa*** | | | |

b. *AYT'* 'FEMALE MOUSE' (F)

a)      Step 4: Realisation of diacritic feature [F] in the agreement domain (i.e. the current syntactic structure). Note also that, because the mouse's biological sex is female, there is a gender feature F on pro.

$$
\text{DP} \\
\sqrt{621}\text{-}n_3\text{-pro-D} \\
[\text{cat }[\text{D}]]
$$

nP      D

$$
\sqrt{621}\text{-}n_3\text{-pro}
$$

$$
\begin{bmatrix} \text{cat }[\text{D}] \\ \text{infl}\begin{bmatrix}\varphi\,[\ ] \\ \text{Case }[\text{GEN}]\end{bmatrix} \\ \text{sel }[<\text{n}>] \end{bmatrix}
$$

[cat [n]]

n'      pro

$$
\sqrt{621}\text{-}n_3
$$

[cat [n]]

$$
\begin{bmatrix} \text{cat }[\text{N}] \\ \text{infl }[\textbf{F}] \\ \text{sel }[\varnothing] \end{bmatrix}
$$

$$
\sqrt{621} \qquad n_3
$$

$[\text{cat }[\sqrt{\ }]]$

$$
\begin{bmatrix} \text{cat }[\text{n}] \\ \text{infl }[\textbf{F}] \\ \text{sel }[<\sqrt{\ }>] \end{bmatrix}
$$
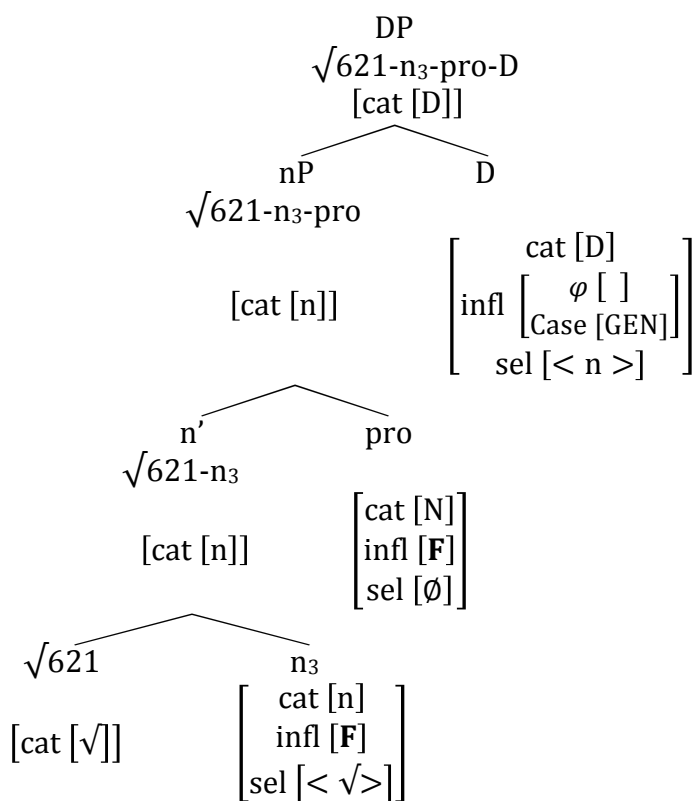
b)      Step 5: Agree
      i) D c-commands both pro and n[F]. The referent of pro is biologically female, so pro has gender feature F, and can therefore act as an intervener in gender agreement. n[F] has a suffixal gender feature [F]. D probes for a gender feature and is valued by pro. As such D agrees with pro, and obtains the gender feature [F].

$$
\text{D}\begin{Bmatrix} \text{cat }[\text{D}] \\ \text{infl}\begin{bmatrix}\varphi\,[\textbf{F}] \\ \text{Case }[\text{GEN}]\end{bmatrix} \\ \text{sel }[<\text{n}>] \end{Bmatrix}
$$

c)  Step 6: Valuation of D

| Phonological Component | | | Semantic Component | | |
|---|---|---|---|---|---|
| Input | Syntactic Context | Value | Input | Syntactic Context | Value |
| D | /[M] | *-u* | D | **elsewhere** | **referring expression** |
| | **/[F]** | ***-wa*** | | | |

c. *AYT'* 'MALE MOUSE' (M)

nP
√ayt'    n *i*[M]

a)  Step 4: Realization of diacritic feature [F] in the agreement domain (i.e. the current syntactic structure).  Note also that, because the mouse's biological sex is male, there is a gender feature M on pro.

DP
√621-n₃-pro-D
[cat [D]]

nP    D
√621-n₃-pro

[cat [n]]

$$\left[ \begin{array}{l} \text{cat [D]} \\ \text{infl} \left[ \begin{array}{l} \varphi\ [\ ] \\ \text{Case [GEN]} \end{array} \right] \\ \text{sel } [< n >] \end{array} \right]$$

n'    pro
√621-n₃

[cat [n]]    $\left[ \begin{array}{l} \text{cat [N]} \\ \text{infl } [\mathbf{M}] \\ \text{sel } [\emptyset] \end{array} \right]$

√621    n₃

[cat [√]]    $\left[ \begin{array}{l} \text{cat [n]} \\ \text{infl } [\mathbf{F}] \\ \text{sel } [< \surd >] \end{array} \right]$
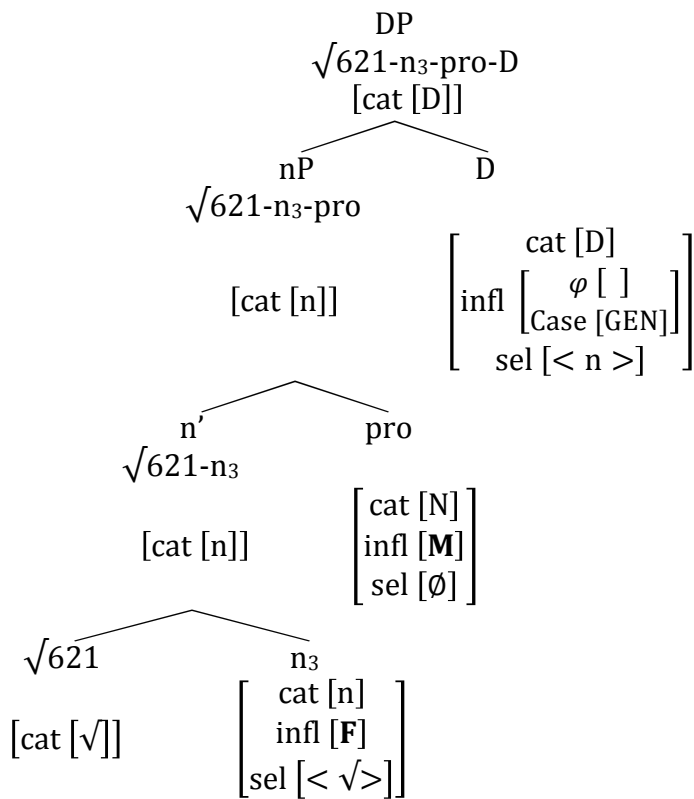
b)	Step 5: Agree
	i) D c-commands both pro and n[F].  The referent of pro is biologically male, so pro has gender feature M, and can therefore act as an intervener in gender agreement.  n[F] has a suffixal gender feature [F].  D probes for a gender feature and is valued by pro. As such D agrees with pro, and obtains the gender feature [M].

$$D \begin{cases} \text{cat [D]} \\ \text{infl} \begin{bmatrix} \varphi \ [\textbf{M}] \\ \text{Case [GEN]} \end{bmatrix} \\ \text{sel} \ [<n>] \end{cases}$$

c)	Step 6: Valuation of D

| Phonological Component | | | Semantic Component | | |
|---|---|---|---|---|---|
| Input | Syntactic Context | Value | Input | Syntactic Context | Value |
| D | **/[M]** | **-u** | D | **elsewhere** | **referring expression** |
| | /[F] | *-wa* | | | |

Taking Kramer's 'additional evidence' (2014: 12-15) into account, the analysis presented in the current work handles nominalizations equally as well as Kramer's proposal.  However, I provide no explanation for the phenomena of 'interaction of gender and number', as well as 'distribution of the feminine suffix *-it*'.  I expect that this is more a shortcoming of my familiarity with the facts of Amharic, than a shortcoming of the analysis proposed in the current work.


**7.5.2 Summary**

Using both empirical data from Gorwaa, as well as results from psycholinguistic experiments in the related language Konso, §6.2 established the Gorwaa gender system as featuring the values M, F, and N, each of which display two subgenders.  §6.3 proposed the linker as obligatorily present on all nouns with reference, but unpronounced when it aligns with the right edge of a phonological phrase.  §6.4 proposes a syntactic analysis of the linker as agreement morphology present at

the head D.  Through examination of Gorwaa proper name morphology,

agreement phenomena could be explained as the interaction of semantic gender

features present on the external argument of n - R, and suffixal gender (m-

gender) features on n.  The null referential pronoun (R) analysis was extended to

account for number agreement occurring with otherwise numberless (general)

noun forms.

# 8. Conclusion

## 8.1 Summary of the thesis

Product of several years of Gorwaa language documentation, this thesis had two primary goals. The first of these goals was to provide a first description of the Gorwaa language, with particular attention given to the noun. This was motivated by the notable complexity of the Gorwaa noun, and aimed to detail the uncommon patterns present in this hitherto undocumented language. This work has included extensive presentations of data pertaining to the noun and, through this, increases the empirical data available to the field of Cushitic studies specifically, and linguistics in general.

The second goal of this work was to provide an analysis of noun morphosyntax. In contrast with functional accounts in South Cushitic, this thesis attempted a formal analysis, adopting the Distributed Morphology architecture, and Minimalism. By adopting this framework, it was shown that the Gorwaa noun is itself a complex of several subparts, the structure of which is dictated by the same rules applied to larger phrases. The resultant structure, and the relations which hold within its subparts, provides a ready account of many of the peculiarities of the Gorwaa noun described in the data presentations.

The thesis structure reflects the twofold nature of its goals: Chapter 2 is an (entirely descriptive) introduction to the language, and Chapter 3 is an (entirely formal

theoretical) introduction to the method of analysis.  The remaining four chapters

each feature descriptive sections, followed by sections of analysis.

Chapter 2 offers a grammatical sketch of Gorwaa.  As a language with no previous

description, this is meant as an empirical contribution to understanding the

language in general.  Second, the sketch ought to ground the reader in a basic

understanding of the noun phrase and associated phenomena such as agreement –

the theoretical and analytical focus of the thesis.

Chapter 3 introduced the reader to Minimalism and Distributed Morphology: the

framework upon which much of the formal analysis in the thesis is based.

Chapter 4 established the Gorwaa noun as a complex of subparts, and considers

some of the empirical criteria by which these subparts may be considered a unit: i.e.

the noun.  The remainder of the chapter is concerned with the first of these

subparts: the stem.  Specifically, an analysis is proposed which acknowledges both

the phonetic similarities between nouns such as *tsifiri* 'language' and *tsifiraangw*

'tongue', as well as the semantic similarities between nouns such as *garma* 'boy' and

*daaqay* 'boys'.  Syntactically, the stem is formed of an unspecified element (a root),

many of whose characteristics (including phonetic and semantic) are determined by

the larger syntactic structure in which they are found.  It is also mentioned that

lexical category is determined by syntactic context, accounting for similarities

between forms such as the noun *wa/aangw* 'an arroyo' and the verb *waá/* 'vomit'.

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The specific syntactic context in which nouns are realized forms the main content of the following chapters.

The following two chapters treated the second subpart of the Gorwaa noun: the stem.  Distinguished by two broad groups of morphosyntactic characteristics, Chapter 5 addressed those characteristics identified as 'regular' (i.e. stable correspondences which can largely be explained as feature bundles being manipulated in the syntax), and Chapter 6 addressed those characteristics identified as 'listed' (i.e. irregular patterns which require recourse to more detailed explanations of realization rules post-Spellout).

Chapter 5 began with two detailed presentations of data: the first outlining and exemplifying the regular characteristics of the Gorwaa suffix, and the second organizing and (where applicable) decomposing each of the 42 suffixes.  The analysis which followed proposed that the suffix is formed of (maximally) three syntactic heads: Cl (classifier), # (quantifier), and n ('little n').  In order to bear a number value, nouns must be classified and quantified.  As such, nouns of Sg or Pl number also bear classifier morphology (quantifier morphology was determined to be null).  Nouns unvalued for number ('general' number nouns) are neither classified nor quantified, and therefore lack these syntactic heads in their structure. The little n head is the site of SFX2 morphology, which contributes to the lexical meaning of the noun.

*8. Conclusion*

First, Chapter 6 established the concept of the paradigm: a tool central to much of the following discussion. Following this were two detailed presentations of data: the first outlined and exemplified the listed characteristics of the Gorwaa suffix, and the second describing the paradigms of Gorwaa. In the following analysis, the paradigm was established as a grammatical formative, instantiated on the little n head, and realized as a specific suffix through instructions post-Spellout. The realization of the morpheme Cl was also described as a valuation process post-Spellout. Grammatical gender was described as a diacritic feature, also realized post-Spellout, making Agree a necessarily post-Spellout operation (as argued in Bobaljik 2008).

Chapter 7 treats the third and final subpart of the Gorwaa noun: the linker. Following a short section revisiting Gorwaa gender and reasserting that there are three gender values in Gorwaa, each of which exhibit two subgenders, Chapter 7 presents data on the distribution of the linker. Using evidence from larger clausal syntax, it is argued that the linker is obligatory for all nouns of reference, but goes unpronounced at the end of a phonological phrase. In the analysis that follows, the linker is established as agreement morphology on the syntactic head D. In order to account for cases of mismatch between the form taken by the linker and the gender value of n, the R argument is introduced. External argument of the noun and merged as the specifier of n, R represents the interpretable (semantic) features of the referent of the noun, and may serve as a syntactic intervener in agreement

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relations between D and n.  This mechanism is extended to account for adjectival number agreement on nouns of general number (i.e. nouns unvalued for number).

**8.2 Descriptive insights, and implications for South Cushitic**

Given that, to this point, Gorwaa had been without a dedicated linguistic description, it may be argued that all of the material herein represents, to an extent, *descriptive insight*.  The specific observations that bear particular attention are discussed below, along with their possible ramifications.

The element treated with the most descriptive detail was doubtless the suffix. Gorwaa suffixes number 42 in total, and may combine in at least 178 patterns (or paradigms): 151 pairs, 20 monads, and 7 triads.  Observed first in Mous (1993: 47), and given a full examination here, some suffixes are formed of one morpheme (identified here as SFX2), whereas others are formed of two morphemes (identified here as SFX1 and SFX2).  SFX1 morphology is formally analogous to aspectual morphology in the verbal domain.  For the first time, this work identified an important correlation: nouns with SFX1 morphology are always valued for number (Sg or Pl), and can therefore occur with external elements (e.g. adjectives) *only* if they show matching agreement; conversely, nouns without SFX1 morphology are unvalued for number, and can therefore occur with external elements (e.g. adjectives) which show *either* Sg *or* Pl agreement.  Sometimes, these latter nouns of general number may have their agreement restricted by the paradigm in which they occur.

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From a wider perspective, this pattern can be extended to Iraqw, Alagwa, and (probably) Burunge.  This is significant, and will necessitate (and perhaps aid) a more nuanced approach to number in its every manifestation.  For example, the Iraqw-English Dictionary (Mous, Qorro & Kießling 2002) makes consistent use of 'singular' versus 'plural', whereas the grammatical reality is much more complex.  The noun *afee* 'mouths' is listed as Pl (9), whereas it is shown to occur with either Sg or Pl adjectival agreement in Mous (1993:204).  A revised treatment sees *afee* as a general number noun and labels it as such in the dictionary.  In this way, the user expects to encounter the form *afee* with either Sg or Pl adjectives, in the case of the former, interpreting it as 'kind of mouths' or 'group of mouths', and in the case of the latter, interpreting it as 'mouths'.

Equally important was the identification of the linker as an obligatory element of all nouns with reference, but which is morphosyntactically conditioned to be unpronounced when the right-edge of the noun phrase corresponds to the right-edge of a phonological phrase.  This is a novel analysis and is empirically preferable to those previously proposed for analogous morphology in Iraqw.

Linker morphology in Alagwa is somewhat different, and I do not know the situation in Burunge, but, for Iraqw, this new analysis of linkers may be applied with no modifications.  Most immediately, this will necessitate a reassessment of the construct state in South Cushitic (perhaps along the lines of Borer (1999)), as well as the syntax of noun phrases more generally.

## 8.3 Formal structure, and implications for formal syntax

The syntactic structures developed for the nouns examined in this work are as follows:

(8.1)  NUMBER-VALUED NOUN

```
                    DP
                   /  \
                 nP    D
                /  \
              n'    pro
             /  \
           #P    n
          /  \
       ClP    #
       /  \
      √    Cl
```
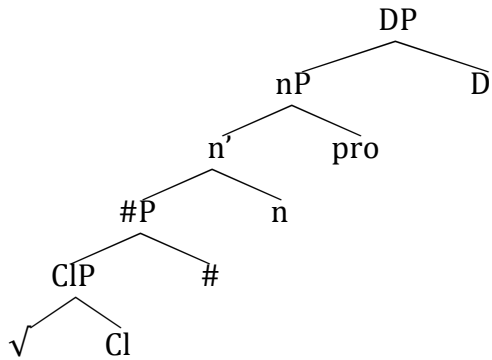
(8.2)  GENERAL-NUMBER NOUN

```
                 DP
                /  \
              nP    D
             /  \
           n'    pro
          /  \
         √    n
```
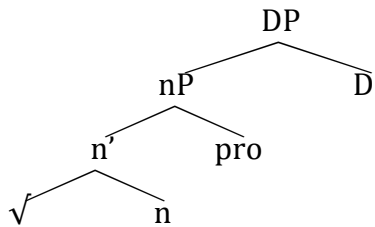
Nouns that do not bear reference (i.e. incorporated nouns), do not have either D or R (pro).

(8.3)  NUMBER-VALUED NOUN (NON-REFERRING)

```
              nP
             /  \
           #P    n
          /  \
       ClP    #
       /  \
      √    Cl
```
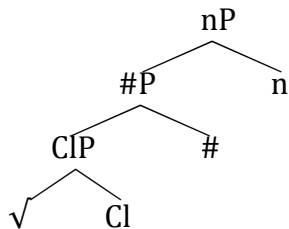
(8.4)  GENERAL-NUMBER NOUN (NON-REFERRING)

```
          nP
         /  \
        √    n
```

441
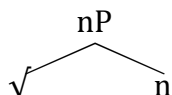
*8. Conclusion*

The building of these structures is incremental, relying on the feature structures of the lexical elements present in the numeration. A sample derivation for the singular (i.e. number-valued) noun *qooqalumó* 'crowned crane' is provided below. For this derivation, it is also assumed that *qoonqalumó* in this case bears reference.

(8.5)    NUMERATION FOR *QOONQALUMÓ* 'CROWNED CRANE'

| | |
|---|---|
| Lexical Elements $\left\{ \begin{array}{c} \sqrt{735} \\ \text{Cl} \\ \# \\ n_{135} \\ \text{pro} \\ \text{D} \end{array} \right.$ | Where:<br><br>$\sqrt{735}$ = the root common to the forms ***qoonqal**umó* 'crowned crane' \| ***qoonqál*** '(a group of) crowned cranes' \| ***qoonqal**ama'* 'crowned cranes'<br><br>Cl = the suffix common to the forms *qoonqal**umó*** 'crowned crane', and *aga hub**iím*** 'I was bringing it'<br><br>$n_{135}$ = the paradigm realizing the suffixes *-(a)mó* (Mo) \| *-Ø* (Mo) \| *-ama'* (NØ) |

(8.6)   FEATURES STRUCTURES FOR THE LEXICAL ELEMENTS IN (8.5)

$$\sqrt{735} \left\{ \text{cat} \left[ \sqrt{} \right] \right.$$

$$\text{Cl} \left\{ \begin{array}{l} \text{cat [Cl]} \\ \text{infl [Ø]} \\ \text{sel} \left[ \sqrt{} \right] \end{array} \right.$$

$$\# \left\{ \begin{array}{l} \text{cat [\#]} \\ \text{infl [Sg]} \\ \text{sel [Cl]} \end{array} \right.$$

$$n_{135} \left\{ \begin{array}{l} \text{cat [n]} \\ \text{infl } [\varphi \ [ \ ]] \\ \text{sel [N; \#]} \end{array} \right.$$

$$\text{pro} \left\{ \begin{array}{l} \text{cat [N]} \\ \text{infl } \left[ \begin{array}{cc} \varphi & \text{Ø} \\ & \text{Sg} \end{array} \right] \\ \text{sel [Ø]} \end{array} \right.$$

$$\text{D} \left\{ \begin{array}{l} \text{cat [D]} \\ \text{infl } \left[ \begin{array}{c} \varphi \ [ \ ] \\ \text{Case [GEN]} \end{array} \right] \\ \text{sel [n]} \end{array} \right.$$

Note that the R argument here (i.e. pro) is unvalued for gender. This is because, in

Gorwaa, this particular entity (i.e. the crowned crane) does not receive a biological

sex feature. Typically, such features are reserved for humans, as well as some

domestic animals.

Having established the lexical elements involved and the features therein, the

derivation may now proceed.

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(8.7)   DERIVATION OF *QOONQALUMÓ*
   a)     Step 1: Merge of Cl (syntactic object α) and √735 (syntactic object β)

$$
\begin{array}{c}
\text{ClP} \\
\text{√735-Cl} \\
\text{[cat [Cl]]}
\end{array}
$$

√735                    Cl

[cat [√]]        $\begin{bmatrix} \text{cat [Cl]} \\ \text{infl [Ø]} \\ \text{sel} \left[ < √ > \right] \end{bmatrix}$
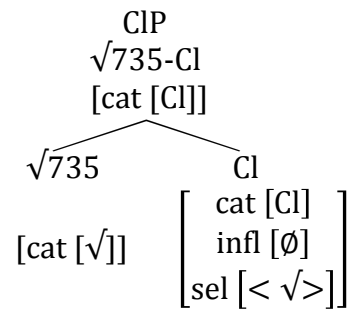
   b)     Step 2: Merge of # (syntactic object α) and ClP (syntactic object β)

$$
\begin{array}{c}
\text{\#P} \\
\text{√735-Cl-\#} \\
\text{[cat [\#]]}
\end{array}
$$

ClP                         #
√735-Cl

[cat [Cl]]        $\begin{bmatrix} \text{cat [\#]} \\ \text{infl [Sg]} \\ \text{sel} \left[ < \text{Cl} > \right] \end{bmatrix}$

√735                    Cl

[cat [√]]        $\begin{bmatrix} \text{cat [Cl]} \\ \text{infl [Ø]} \\ \text{sel} \left[ < √ > \right] \end{bmatrix}$
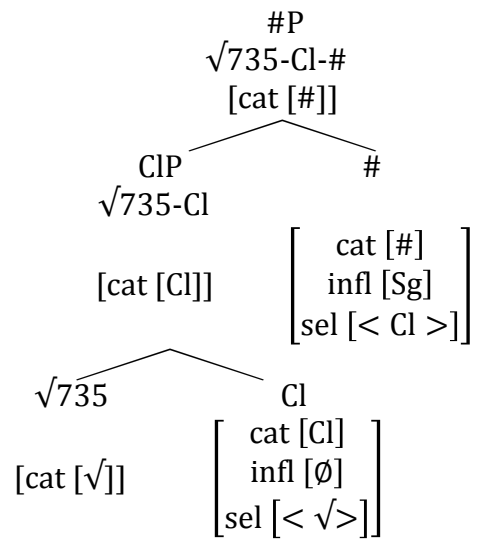
c)	Step 3: Merge of $n_{135}$ (syntactic object α) and #P (syntactic object β)

$$
\begin{array}{c}
\text{nP} \\
\sqrt{735}\text{-Cl-\#-}n_{135} \\
\begin{bmatrix} \text{cat [n]} \\ \text{sel [N]} \end{bmatrix}
\end{array}
$$

#P          $n_{135}$
$\sqrt{735}$-Cl-#

[cat [#]]     $\begin{bmatrix} \text{cat [n]} \\ \text{infl } [\varphi\ [\ ]] \\ \text{sel } [N;\ <\#> ] \end{bmatrix}$

ClP        #
$\sqrt{735}$-Cl

[cat [Cl]]     $\begin{bmatrix} \text{cat [\#]} \\ \text{infl [Sg]} \\ \text{sel } [<\text{Cl}> ] \end{bmatrix}$

$\sqrt{735}$       Cl

[cat [$\sqrt{}$]]     $\begin{bmatrix} \text{cat [Cl]} \\ \text{infl } [\text{\O}] \\ \text{sel } [<\sqrt{}> ] \end{bmatrix}$
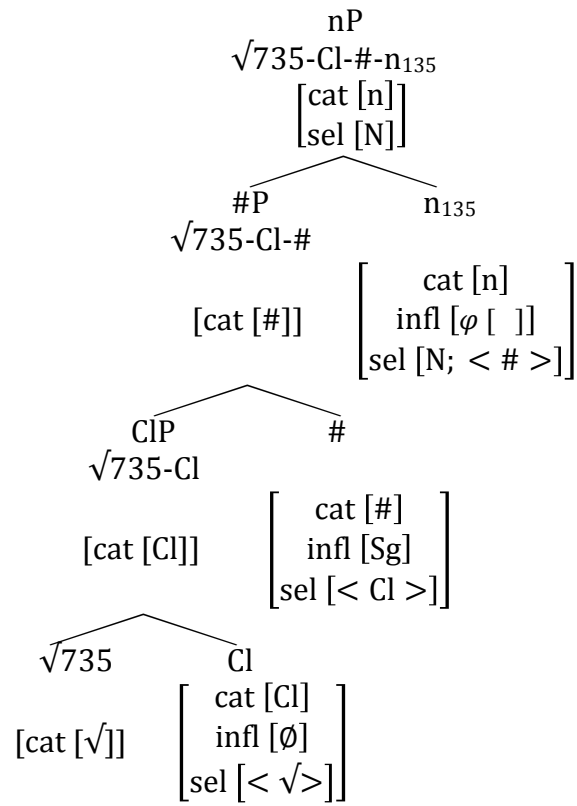
d)  Step 4: Merge of n$_{135}$ (syntactic object α) and pro R (syntactic object β)

nP
√735-Cl-#-n$_{135}$-pro
[cat [n]]

n'
√735-Cl-#-n$_{135}$

pro

$$\begin{bmatrix} cat\ [n] \\ sel\ [<N>] \end{bmatrix}$$

$$\begin{bmatrix} cat\ [N] \\ infl\ \begin{bmatrix} \varphi\ \varnothing \\ \quad Sg \end{bmatrix} \\ sel\ [\varnothing] \end{bmatrix}$$

#P
√735-Cl-#

n$_{135}$

[cat [#]]

$$\begin{bmatrix} cat\ [n] \\ infl\ [\varphi\ [\ ]] \\ sel\ [<N>\ ;\ <\#>] \end{bmatrix}$$

ClP
√735-Cl

#

[cat [Cl]]

$$\begin{bmatrix} cat\ [\#] \\ infl\ [Sg] \\ sel\ [<Cl>] \end{bmatrix}$$

√735

Cl

[cat [√]]

$$\begin{bmatrix} cat\ [Cl] \\ infl\ [\varnothing] \\ sel\ [<√>] \end{bmatrix}$$
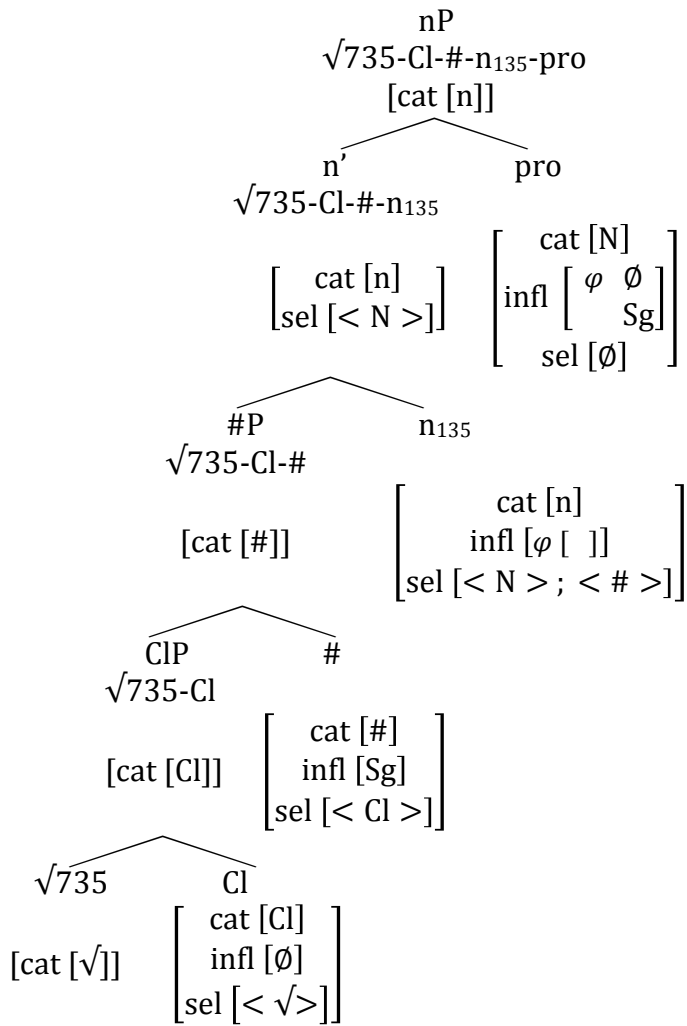
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e)    Step 5: Merge of D (syntactic object α) and nP (syntactic object β)

DP
[cat [D]]
√735-Cl-#-n₁₃₅-pro-D

nP
√735-Cl-#-n₁₃₅-pro

[cat [n]]

$$\begin{bmatrix} \text{cat } [D] \\ \text{infl} \begin{bmatrix} \varphi \ [\ ] \\ \text{Case } [GEN] \end{bmatrix} \\ \text{sel } [< n >] \end{bmatrix}$$

D

n'
√735-Cl-#-n₁₃₅

pro

$$\begin{bmatrix} \text{cat } [n] \\ \text{sel } [< N >] \end{bmatrix}$$

$$\begin{bmatrix} \text{cat } [N] \\ \text{infl} \begin{bmatrix} \varphi \ \varnothing \\ \ \ Sg \end{bmatrix} \\ \text{sel } [\varnothing] \end{bmatrix}$$

#P
√735-Cl-#

n₁₃₅

$$[\text{cat } [\#]]$$

$$\begin{bmatrix} \text{cat } [n] \\ \text{infl } [\varphi \ [\ ]] \\ \text{sel } [< N >\ ;\ < \# >] \end{bmatrix}$$

ClP
√735-Cl

#

$$[\text{cat } [Cl]]$$

$$\begin{bmatrix} \text{cat } [\#] \\ \text{infl } [Sg] \\ \text{sel } [< Cl >] \end{bmatrix}$$

√735

Cl

$$[\text{cat } [\sqrt{}]]$$

$$\begin{bmatrix} \text{cat } [Cl] \\ \text{infl } [\varnothing] \\ \text{sel } [< \sqrt{}>] \end{bmatrix}$$
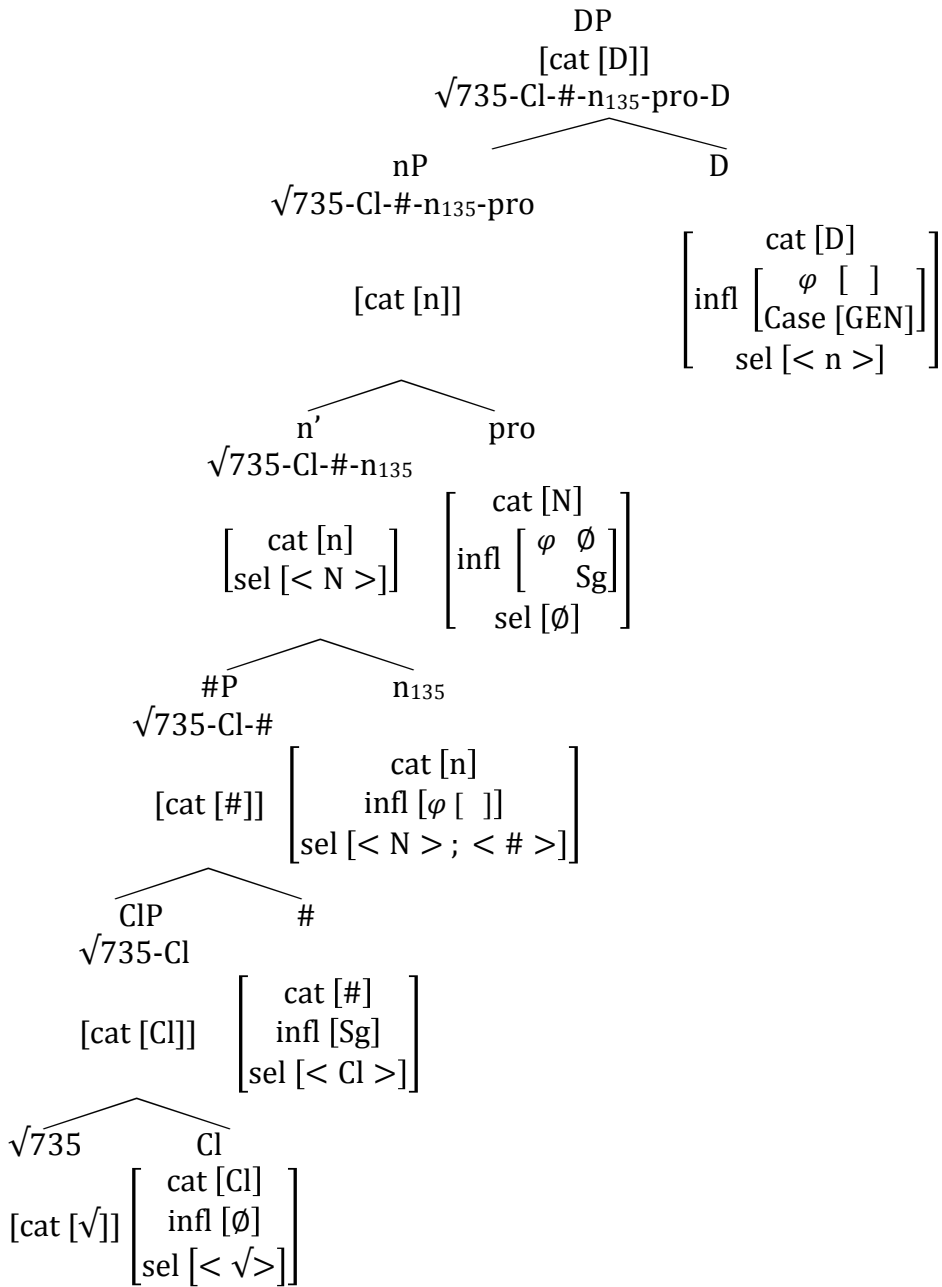
f)    Step 6: (Postsyntactic) valuation of √735 in List 2 and List 3

Valuation of √735

| Phonological Component | | | Semantic Component | | |
|---|---|---|---|---|---|
| Root Input | Syntactic Context | Value | Root Input | Syntactic Context | Value |
| √735 | **elsewhere** | **[q'o:nqal]** | √735 | **elsewhere** | **'crowned crane'** |

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g)       Step 7: (Postsyntactic) valuation of Cl in List 2 and List 3

Valuation of Cl

| Phonological Component | | | Semantic Component | | |
|---|---|---|---|---|---|
| Input | Syntactic Context | Value | Root | Syntactic Context | Value |
| SFX1 | **/n$_{135}$** | **[am]** | SFX1 | **/n** | **indivduation** |
| | /n$_{150}$ | [e:r] | | /v | durative |

h)       Step 8: Agree between probe n$_{135}$ and goal #

n$_{135}$ c-commands #.  # is valued with the number feature [Sg], and n$_{135}$ has an unvalued number feature.  n$_{135}$ agrees with #, and obtains the number feature [Sg].

$$n_{135} \begin{cases} \text{cat } [n] \\ \text{infl } [\varphi \; [\; \textbf{Sg} \;]] \\ \text{sel } [< N > ; < \# >] \end{cases}$$

i)       Step 9: (Postsyntactic) valuation of n$_{135}$ in List 2 and List 3

Valuation of n$_{135}$

| Phonological Component | | | Semantic Component | | |
|---|---|---|---|---|---|
| Input | Syntactic Context | Value | Input | Syntactic Context | Value |
| n$_{135}$ | **/Sg** | **[ó][Mo]** | n$_{135}$ | **/Sg** | **singular** |
| | /Pl | [aʔ][N∅] | | /Pl | plural |
| | elsewhere | ∅ ∼´∼[Mo] | | elsewhere | general |

j)  Step 10: Realization of diacritic feature [Mo] in the agreement domain (i.e. the current syntactic structure)

DP
[cat [D]]
√735-Cl-#-n₁₃₅-pro-D

nP                    D
√735-Cl-#-n₁₃₅-pro

$$\begin{bmatrix} \text{cat [D]} \\ \text{infl} \begin{bmatrix} \varphi\ [\ ] \\ \text{Case [GEN]} \end{bmatrix} \\ \text{sel } [< n >] \end{bmatrix}$$

[cat [n]]

n′                    pro
√735-Cl-#-n₁₃₅

$$\begin{bmatrix} \text{cat [n]} \\ \text{sel } [< N >] \end{bmatrix}$$
$$\begin{bmatrix} \text{cat [N]} \\ \text{infl} \begin{bmatrix} \varphi\ \emptyset \\ \text{Sg} \end{bmatrix} \\ \text{sel } [\emptyset] \end{bmatrix}$$

#P                    n₁₃₅
√735-Cl-#

[cat [#]]
$$\begin{bmatrix} \text{cat [n]} \\ \text{infl} \begin{bmatrix} \varphi\ \mathbf{Mo} \\ \text{Sg} \end{bmatrix} \\ \text{sel } [< N > ;\ < \# >] \end{bmatrix}$$

ClP                    #
√735-Cl

[cat [Cl]]
$$\begin{bmatrix} \text{cat [#]} \\ \text{infl [Sg]} \\ \text{sel } [< Cl >] \end{bmatrix}$$

√735                    Cl

[cat [√]]
$$\begin{bmatrix} \text{cat [Cl]} \\ \text{infl } [\emptyset] \\ \text{sel } [< √ >] \end{bmatrix}$$
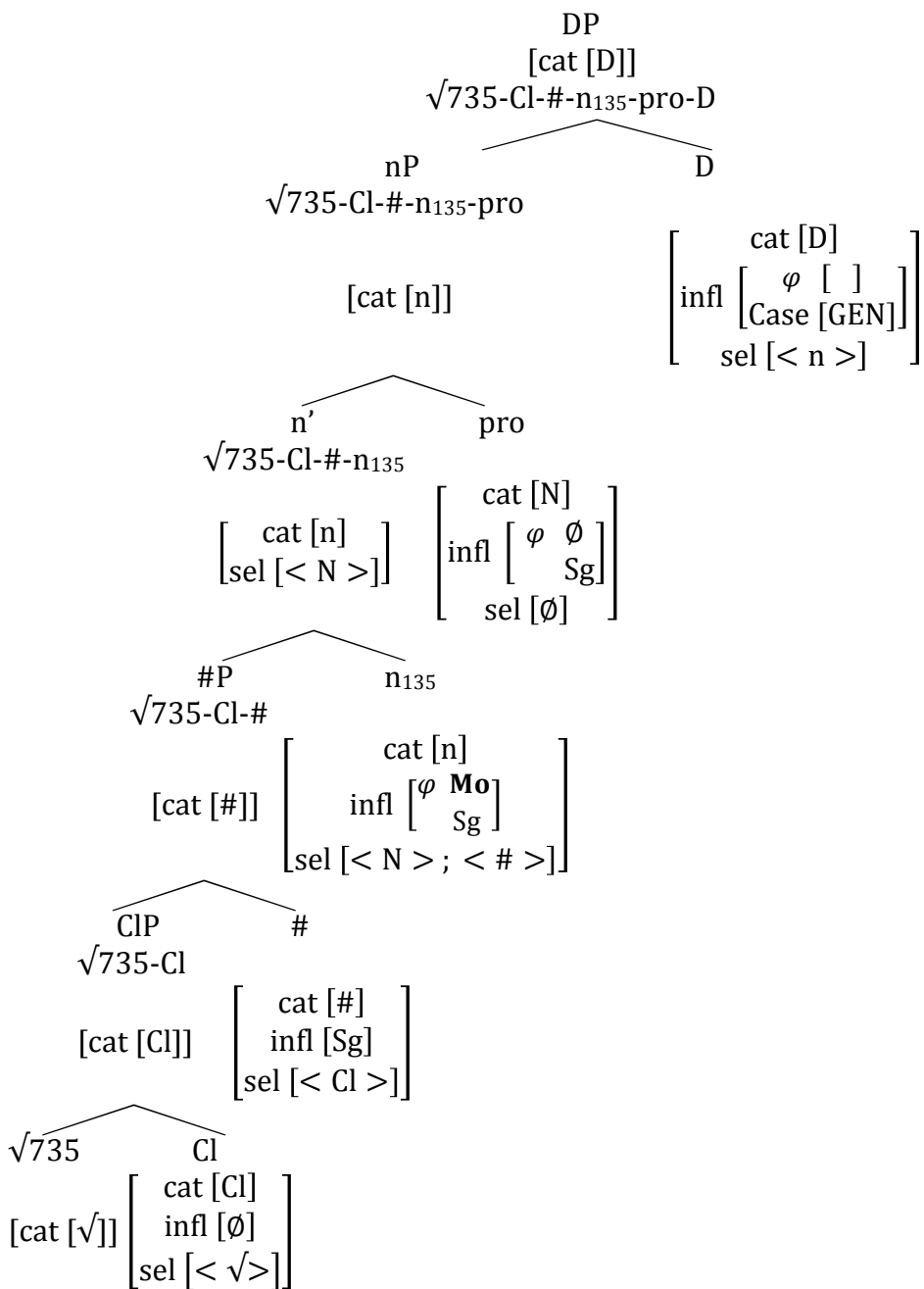
k)  Step 11: Agree for D
    i) D c-commands both pro and nP, the referent of pro has no semantic gender, so pro is unvalued for gender, and can therefore not act as an intervener in gender agreement. Ø[Mo] has a suffixal gender feature [Mo]. D probes for a gender feature and is valued by Ø[Mo]  As such D agrees with Ø[Mo], and obtains the gender feature [Mo].

$$D \left\{ \begin{array}{l} \text{cat [D]} \\ \text{infl} \begin{bmatrix} \varphi\ [\ \mathbf{Mo}] \\ \text{Case [GEN]} \end{bmatrix} \\ \text{sel } [<\text{n}>] \end{array} \right.$$

ii) D c-commands pro, the referent of pro has semantic number Sg, so pro is valued for number.  nP is configured for a number-valued noun, and therefore bears a number feature [Sg].  D probes for a number feature and is valued by pro.  As such D agrees with pro, and obtains the number feature Sg.

$$D \left\{ \begin{array}{l} \text{cat [D]} \\ \text{infl} \begin{bmatrix} \varphi\ [\ \text{Mo, } \mathbf{Sg}\ ] \\ \text{Case [GEN]} \end{bmatrix} \\ \text{sel } [<\text{n}>] \end{array} \right.$$

iii) D has an unvalued person feature, and probes all possible goals in the structure for person features.  No possible goals contain a person feature. *Agree* fails, but the structure is licit because *probe* has succeeded (Preminger 2010). Lack of person features on D will be interpreted as 3rd Person (see Harley & Ritter 2002).

$$D \left\{ \begin{array}{l} \text{cat [D]} \\ \text{infl} \begin{bmatrix} \varphi\ [\ 3, \text{Mo, } \mathbf{Sg}\ ] \\ \text{Case [GEN]} \end{bmatrix} \\ \text{sel } [<\text{n}>] \end{array} \right.$$

l)      Step 12: (Postsyntactic) valuation of D in List 2 and List 3

Valuation of D

| Phonological Component | | | Semantic Component | | |
|---|---|---|---|---|---|
| Input | Syntactic Context | Value | Input | Syntactic Context | Value |
| D | **/[Mo]** | **ó** | D | **elsewhere** | **referring expression** |
| | /[Mk] | kú | | | |
| | /[Fr] | r~´~ | | | |
| | /[Ft] | tá | | | |
| | /[NØ] | ~´~ | | | |
| | /[Na] | á | | | |

At its most general, the formal analysis undertaken in this work is significant in that

it has shown that the nominal morphosyntax of Gorwaa may be represented under

Distributed Morphology and Minimalism by roughly the same methods commonly

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used for a wide array of other languages. Throughout the course of the analyses

offered, many of the explanations have an established precedent in past work.

Perhaps most immediately striking is way in which SFX1 morphology in the nominal

domain resembles aspectual morphology in the verbal domain. Analyzed as the

instantiation of Cl, Borer (2005a, b) identifies Cl and # morphology of a nominal

structure as the direct equivalent of Asp in a verbal structure. The empirical

similarity of forms in Gorwaa must lend some further support to this insight.

With that said, this work differs from Borer (2005a, b) in that it could not dispense

with 'little n'. In this way, this work supports the existence of a nominal categorizing

head, as employed in Marantz (2001), Arad (2003, 2005), and Merchant (2017).

Elaborating further, and subsuming the insight of Cobbinah (2013), and Watson

(2015), this work established little n as the locus of the nominal paradigm, the

suffixes of which are realized post-Spellout. Grammatical gender (m-gender),

established as a diacritic feature realized on individual suffixes, is available for

agreement by applying Bobaljik's (2008) version of Agree as a post-Spellout

operation.

To handle cases of where biological sex affects morphological agreement, appeal

was made to the null referential pronoun R (Williams (1981), Higginbotham (1985),

and Grimshaw (1990)). Merged as external argument to nP, R may serve as an

intervener in agreement between D and (m-)gender features on n. As an

afterthought, it was briefly explained that, for Gorwaa, this approach seemed

preferable to that of Kramer (2014), but in order to decide whether an analysis like

this one could, in fact, handle Kramer's Amharic data equally as well as Gorwaa,

more detailed examination of Amharic is necessary.


## 8.4 Prospects

The most immediate step following from this thesis is further descriptive work.

Detailed examination of nominal morphosyntax has uncovered a plethora of

fascinating patterns, relevant for the writing of a Gorwaa grammar, as well as

lexicographic work.  Doubtless, the same sort of attention to the morphosyntax of

the verb, or indeed larger phrasal domains will be equally fruitful and relevant.

It has been established in this work that nouns are typically not arguments to the

verb.  In §7.3.3.1, free word order, syntactically discontinuous expressions, and

pervasive NP-dropping were shown to exist in Gorwaa -- each key characteristics of

a pronominal argument language (Jelinek 1984, Hale 2003).

(8.8)   FREE WORD ORDER
    a.      SOV WORD ORDER (CANONICAL)
            *aní slee  ana taáhh*    [201609271222-228.25]
            aní     sl-    -ee     -r~´~   ∅-   a-    ∅       -na    taáhh
            PRO1SG STM-   -SFX2  -L       A.P-  P.F-   AUX    -IMPRF beat.1.PST
                                  \underbrace{\phantom{STM- -SFX2 -L}}_{\text{cow}}
            'I beat the cow.'

    b.      OSV WORD ORDER
            *desirqá' kuúng an sla'*        [20131108b_20150725j.84]
            des-    -i      -r~´~  -qá'    kuúng
            STM-    -SFX2   -L     -DEM3   PRO.2SG.M
                            \underbrace{\phantom{STM- -SFX2 -L}}_{\text{girl}}
            ∅-      a-      ∅       -n              sla'
            A.P-    P.F-    AUX     -EXPECT         want.2.SUBJ
            'You love that girl.'

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ii. ***dinku'umarí*** *a tleehhaán* ***ar /ameenaa*** [20131027_20150725c.56]

| dinku'umár -í | Ø- | a- | Ø | -a |
| meeting.LFr -DEM1 | A.P- | P.F- | AUX | -PRF |

| tleéhh -aán | ar | /ameenaár |
| make.1 -1PL.PST | ANA.F | women.LFr |

"We made this women's union."

(8.10) PERVASIVE NP-DROPPING

 a. NO NPS DROPPED

*hhawata garma nguna taáhh*        [20160119f.39]

| hhawató | garmá | ng- | u- | Ø | -na | taáhh |
| man.LMo | boy.LMo | A.3- | P.M- | Aux | -Imprf | hit.Pst |

"The man hit the boy."

 b. PATIENT NP *GARMA* DROPPED

*hhawata nguna taáhh*          [20160119f.52]

| hhawató | ng- | u- | Ø | -na | taáhh |
| man.LMo | A.3- | P.M- | Aux | -Imprf | hit.Pst |

"The man hit him."  (May also be interpreted as "He hit the man.")

 c. AGENT NP *HHAWATA* DROPPED

*garma nguna taáhh*            [20160119f.57]

| garmá | ng- | u- | Ø | -na | taáhh |
| boy.LMo | A.3- | P.M- | Aux | -Imprf | hit.Pst |

"He hit the boy."  (May also be interpreted as "The boy hit him.")

 d. BOTH ARGUMENT NPS DROPPED

*nguna taáhh*        [20150813.55]

| ng- | u- | Ø | -na | taáhh |
| A.3- | P.M- | Aux | -Imprf | hit.Pst |

"He hit him."

Full understanding of the argument structure of Gorwaa therefore rests in a fuller understanding of the pronominal arguments of Gorwaa.  In this work, these were described as the argument marking present in the selector.  The selector, so-named by W.H. Whiteley (1958), is a morphological complex which, as stated in §2.4.2, can formally mark: clause-type (independent vs. dependent), voice (active vs. mediopassive), deixis (movement toward vs. movement away from the *origo*), argument structure (sole argument versus agent and patient), person, gender, and

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number of arguments, aspect (perfect vs. imperfective vs. expectational vs.

consecutive vs. background), mood (indicative vs. conditional vs. prohibitive vs.

questioning), and adverbial case (reason vs. lative vs. ablative vs. instrumental).

Focusing on argument structure, the behavior of selectors is interesting in several

respects. Firstly, the morphosyntactic alignment is split, depending on whether the

argument is third person, or a speech act participant (i.e. 1ˢᵗ or 2ⁿᵈ person). For

third person arguments, alignment is tripartite: that is, the (S)ole argument of an

intransitive clause, the (A)gent of a transitive clause, and the (P)atient of a transitive

clause are all realized differently. This can be seen in (8.11) (repeated from

§2.4.2.1), where the noun *garma* 'boy' is realized in three different ways, depending

on whether it is S (a), A (b), or P (c).

(8.11)  TRIPARTITE ALIGNMENT FOR 3ᴿᴰ PERSON ARGUMENTS
    a.   *GARMA* AS (S) ARGUMENT: REALIZED AS *I-*
        *garma **i**na maamaá/* [20160921i.33]

| garmá | **i-** | Ø | -na | maamaá/ |
|---|---|---|---|---|
| boy.LM0 | **S.3-** | AUX | -IMPRF | be.ill.M.PST |

        "The boy was ill."

    b.   *GARMA* AS (A) ARGUMENT: REALIZED AS *NG-*
        *garma baahaa **ng**ina taáhh* [20160921i.1]

| garmá | baahaár | **ng-** | a- | Ø | -na |
|---|---|---|---|---|---|
| boy.LM0 | hyaena.LFR | **A.3-** | P.F- | AUX | -IMPRF |

        taáhh
        hit.M.PST
        "The boy hit the hyaena."

    c.   *GARMA* AS (P) ARGUMENT: REALIZED AS *U-*
        *hhawata garma ng**u**na taáhh* [20160119f.39]

| hhawató | garmá | ng- | **u-** | Ø | -na |
|---|---|---|---|---|---|
| man.LM0 | boy.LM0 | A.3- | **P.M-** | AUX | -IMPRF |

        taáhh
        hit.M.PST
        "The man hit the boy."

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For arguments which are speech act participants (i.e. 1st or 2nd person), alignment is accusative: the (S)ole argument of an intransitive clause and the (A)gent of a transitive clause are marked in one way, and the (P)atient of a transitive clause are is realized differently. This can be seen in the examples in (8.12) (repeated from §2.4.2.1, where the 1st person pronoun *aní* is realized in two different ways, depending on whether it is S (a), A (b), or P (c).

(8.12)  ACCUSATIVE ALIGNMENT FOR ARGUMENTS WHICH ARE SPEECH ACT PARTICIPANTS (I.E. 1ST OR 2ND PERSON)

a.  *Aní* AS (S) ARGUMENT: REALIZED AS Ø-
    *aní ana mamaá/*     [20160921i.38]
    aní          Ø-    Ø      -na    mamaá/
    PRO1SG       S.P-  AUX    -IMPRF be.ill.1SG.PST
    "I was ill."

b.  *Aní* as (A) argument: Realised as Ø-
    *aní baahaa ana taáhh*
    aní          baahaár     Ø-    a-     Ø      -na
    PRO1SG       hyaena.LFR  A.P-  P.F-   AUX    -IMPRF
    taáhh
    hit.1SG.PST
    "I hit the hyaena."

c.  *Aní* as (P) argument: Realised as *i-*
    *hhawata aní ina taáhh*
    hhawató      aní         i-    Ø      -na    taáhh
    man.LMO      PRO1SG      P.1SG- AUX    -IMPRF hit.M.PST
    "The man hit me."

Cross-linguistically speaking, tripartite alignment of this sort is incredibly rare and, as such, requires further exploration, both from a synchronic and historical point of view.

Second, when the object argument is located between the selector and the verb (a configuration known as 'encapsulation'), it is *not marked* on the selector. That is to

say, a selector which otherwise would have marked an A and a P for a transitive

verb (8.13)a), will now only mark one argument. This argument will be marked as if

it were S, and therefore as if the clause were intransitive (8.13)b). (Example is

repeated from §2.4.2.1.

(8.13) ENCAPSULATION OF DIRECT OBJECT *BALAANGW* REDUCES V VALENCY
     a.    *garma balaangw **ngu** doosl*  [20161109c.29]

| garmá | balaángw | **ng-** | **u-** | Ø | doosl |
|---|---|---|---|---|---|
| boy.LM0 | millet.LM0 | **A.3-** | **P.M-** | AUX | farm.M.PRES |

         "The boy is farming millet."

     b.    *garma **i** balaángw doosl*  [20160927l222-228.1]

| garmá | **i-** | Ø | balaángw | doosl |
|---|---|---|---|---|
| boy.LM0 | **S.3** | AUX | millet.LM0 | farm.M.PRES |

         "The boy is farming millet."

Encapsulation seems best characterized as Mithun's "Type III Noun Incorporation"

(1984: 859), in which incorporated nouns are used to background information.

What makes encapsulation different is that material larger than a single noun may

be encapsulated.

(8.14) ENCAPSULATON OF MATERIAL LARGER THAN A NOUN
     a.    *bara **gadiyeér Muungú** káw*  [20131027_20150725c.158]

| bar- | Ø- | Ø | -(g)a | **gadiyeér** | **Muungú** | káw |
|---|---|---|---|---|---|---|
| if- | A.P- | Aux | -Prf | **work.LFr** | **God.LMo** | go.to.1.Pst |

         "If I went on the work of God."

     b.    *[...] in'ín daqane i **/uurú /abén** koná'*  [20131027_20150725c.188]

| in'ín | daqane | i- | Ø | **/uurú** | **/abén** | koná' |
|---|---|---|---|---|---|---|
| Pro.3Pl | then | A.3- | Aux | **strength.LF** | **new.M** | have.3.Pres |

         "[...] then they have new strength."

Put simply, as central as pronominal argument marking is to understanding Gorwaa

syntax, so too are the patterns complex and novel. Further insight may only be

gained through examination of similar phenomena in related (Svolacchia & Puglielli

1999) as well as unrelated languages (Baker 1996, Barrie & Mathieu 2016, Adger,

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Harbour, & Watkins 2009), as well as detailed work in Gorwaa, further analyzing the

recorded texts, and conducting targeted elicitation.

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# Appendix A: Participant Information

| Family Name | Given Name(s) | Traditional Name | Other Name(s) | Born | Where Born | Where Raised | Sex | Language | Language | Language | Language | Language | Father's Languages | Mother's Languages |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Male | Hhape | (as given) | N/A | 1912 (reported) | Eendagwe | Eendagwe | M | Gorwaa | 0 | 0 | 0 | 0 | Gorwaa | Gorwaa |
| Niina | Iingwagwi | (as given) | N/A | 1922 (reported) | Hoshan | Hoshan | M | Gorwaa | 0 | 0 | 0 | 0 | Gorwaa | Gorwaa |
| Meeta | Jacobo Gwai | (as given) | N/A | 1996 | Endabeg | Endabeg | M | Gorwaa | Swahili | 0 | 0 | 0 | Gorwaa, Swahili | Gorwaa, Swahili |
| Sumaye | Joel | Hhewasi | Tsankwali | 1939 | Endabeg | Endabeg | M | Gorwaa | Swahili | Iraqw | 0 | 0 | Gorwaa | Gorwaa |
| Welewele | Mariamu | 0 | N/A | 1913 (estimated) | Dabíl (Munmunáng) | Dabíl | F | Gorwaa | 0 | 0 | 0 | 0 | (unknown) | (unknown) |
| Lawi | Rachel | /atlari | Mama Josiah, Mama Mchungaji | 1944 (estimated) | Gidas | Endabeg | F | Gorwaa | Swahili | 0 | 0 | 0 | Gorwaa | Gorwaa |
| Layda | Rashid | 0 | N/A | 1938 (estimated) | Gidas | Gidas | M | Gorwaa | Swahili | 0 | 0 | 0 | Iraqw | Alagwa |
| Sillo | Samwel | Barán | N/A | 1938 (estimated) | Gidas | Gidas | M | Gorwaa | Swahili | 0 | 0 | 0 | (unknown) | (unknown) |
| Hhaymanda | Amsi | (as given) | N/A | 1935 (estimated) | Bagara | Riroda | F | Gorwaa | 0 | 0 | 0 | 0 | Gorwaa | Gorwaa |
| Jonas | Hezekiah | Manaakwi | N/A | 1993 | Endabeg | Endabeg | M | Gorwaa | Swahili | 0 | 0 | 0 | Gorwaa, Swahili | Gorwaa, Swahili |
| Jonas | Shadrak | 0 | N/A | 1996 | Endabeg | Endabeg | M | Gorwaa | Swahili | 0 | 0 | 0 | Gorwaa, Swahili | Gorwaa, Swahili |
| Gawdai | Mariamu | Enda | N/A | 1942 (estimated) | Bunga | Hoshan | F | Gorwaa | 0 | 0 | 0 | 0 | Gorwaa | Gorwaa |
| Karani | Odelia | Taahar | Mama Deo | 1967 | Mrara | Magugu | F | Gorwaa | Swahili | 0 | 0 | 0 | Gorwaa, Swahili | Gorwaa, Swahili |
| John | Safari ya Dini | 0 | Nehemia (middle name) | 2003 | Endabeg | Endabeg, Mamiire | M | Gorwaa | Swahili | 0 | 0 | 0 | Gorwaa, Swahili | Gorwaa, Swahili |
| Du'umá | Tluway | (as given) | N/A | 1998 | Endabeg | Endabeg | M | Gorwaa | Swahili | 0 | 0 | 0 | Gorwaa, Swahili | Gorwaa |
| Tluway | Andrea Tsino | Qwendo | N/A | 1967 | Ayásanda | Ayásanda | M | Gorwaa | Swahili | 0 | 0 | 0 | Gorwaa, Swahili | Gorwaa |
| Gituru | Kiristina | /atlari | Mama Neema | 1970 (estimated) | Gaqata | Sabilu | F | Gorwaa | Swahili | 0 | 0 | 0 | Iraqw | Iraqw |
| Qwari | Samweli | Baha | Baba Neema | 1958 | Dareda | Endabeg | M | Gorwaa | Swahili | 0 | 0 | 0 | Gorwaa, Swahili | Gorwaa, Swahili |
| Sumaye | Isaka | 0 | 0 | 1992 | Endabeg | Endabeg | M | Gorwaa | Swahili | 0 | 0 | 0 | Gorwaa, Swahili | Gorwaa, Swahili |
| Danieli | Ide | (as given) | 0 | 1942 (reported) | Kikilo | Hoshan | M | Gorwaa | Swahili | 0 | 0 | 0 | Gorwaa | Gorwaa |
| Luka | Katarina | Si'ima Slamhaandí | 0 | 1967 | Hoshan | Hoshan | F | Gorwaa | Swahili | 0 | 0 | 0 | Gorwaa | Gorwaa |
| Du'umá | Giro | (as given) | Hilu Hhayuma Misuri | 1955 | Endabeg | Endabeg | F | Gorwaa | Swahili | 0 | 0 | 0 | Gorwaa | Gorwaa |
| Joel | Tabita | 0 | N/A | 2001 | Endabeg | Endabeg, Riroda | F | Gorwaa | Swahili | 0 | 0 | 0 | Gorwaa, Swahili | Gorwaa, Swahili |
| Meeta | Du'umá | (as given) | Aako Du'umá | 1948 | Mareja | Gidas | M | Gorwaa | Swahili | 0 | 0 | 0 | Gorwaa | Gorwaa |
| Du'umá | Burá | (as given) | Ibrahimu | 1981 | Endabeg | Endabeg | M | Gorwaa | Swahili | Iraqw | 0 | 0 | Gorwaa, Swahili | Gorwaa, Swahili |
| Kea | Joshua | Saqwaré | N/A | 1972 | Endabeg | Endabeg | M | Gorwaa | Swahili | 0 | 0 | 0 | Gorwaa, Swahili | Gorwaa, Swahili |
| Oro'ondí | Ramadhani | Burá | 0 | 1967 | Geeta | Geeta | M | Gorwaa | Swahili | 0 | 0 | 0 | Gorwaa | Gorwaa |
| Danieli | Emanuel | 0 | 0 | 1976 | Duuru | Duuru | M | Iraqw | Swahili | 0 | 0 | 0 | Iraqw, Swahili | Iraqw, Swahili |
| Qwaráy | William | Burá | 0 | 1960 | Mbulu | Geeta | M | Gorwaa | Swahili | 0 | 0 | 0 | Iraqw | Iraqw |
| Amtsí | Emanuel | 0 | 0 | 1994 | Duuru | Duuru | M | Mbulu | Swahili | 0 | 0 | 0 | Iraqw, Swahili | Barbaig, Mbulu, Swahili |
| Basuka | Daudi | 0 | 0 | 1994 | Endabeg | Endabeg | M | Gorwaa | Swahili | English | 0 | 0 | Gorwaa, Swahili | Gorwaa, Swahili |
| Simon | Gasper | 0 | 0 | 1995 | Endabeg | Endabeg | M | Gorwaa | Swahili | 0 | 0 | 0 | Gorwaa, Swahili | Gorwaa, Swahili |
| Saqwaré | Bu'ú | (as given) | 0 | 1954 | Endarqadat | Endamaaqay (Duur... | M | Gorwaa | Swahili | 0 | 0 | 0 | Gorwaa, Swahili | Gorwaa |
| Bu'ú | Paschal | Yaya | 0 | 1992 | Yerotonik | Yerotonik | M | Gorwaa | Swahili | English | Nyaturu | 0 | Gorwaa, Swahili | Gorwaa, Swahili |
| Qwendó | Magire | (as given) | 0 | 1968 | Nakwa | Nakwa | M | Gorwaa | Swahili | 0 | 0 | 0 | Gorwaa, Swahili | Gorwaa, Swahili |
| Thomas | James | Tlaqasí | Ramadhani | 1974 | Babati | Sawe (Endabeg) | M | Gorwaa | Swahili | 0 | 0 | 0 | Gorwaa, Swahili | Gorwaa |
| Kodi | Hezekiah | Hi'ití | 0 | 1949 | Eendagwe | Eendagwe, Riroda, I | M | Gorwaa | Swahili | English | 0 | 0 | Gorwaa | Gorwaa |
| Qamsilo | Manangu | (as given) | 0 | 1958 | Dareda | Maxara | M | Gorwaa | Swahili | 0 | 0 | 0 | Gorwaa | Iraqw |
| Manakwí | Daniel | Qaduwe | 0 | 1959 | Babati | Hoshan, Nakwa, En( | M | Gorwaa | Swahili | English | 0 | 0 | Gorwaa | Gorwaa |
| Nada | Jackson John | Sla/a | 0 | 1987 | Riroda | Endabeg | M | Gorwaa | Swahili | 0 | 0 | 0 | Gorwaa, Swahili | Gorwaa, Swahili |
| Sillo | Gabriel | Manamba | 0 | 1948 | Riroda | Riroda | M | Gorwaa | Swahili | English | 0 | 0 | Gorwaa | Gorwaa |
| Shauri | Khaday | (as given) | 0 | 1996 | Babati | Nakwa | M | Gorwaa | Swahili | 0 | 0 | 0 | Gorwaa, Swahili, English | Gorwaa, Swahili |

| Name 1 | Name 2 | Name 3 | | Name 4 | | Year | Birthplace | Residence | Sex | L1 | L2 | L3 | L4 | L5 | | Languages Spoken | Languages Understood |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Muhindi | John | | 0 | | 0 | 1998 | Endabeg | Endabeg | M | Gorwaa | Swahili | 0 | 0 | | 0 | Gorwaa, Barbaig, Swahili | Gorwaa, Barbaig, Swahili |
| Zakaria | Yohana | Magire | | | 0 | 1980 | Gitoori (Sigín) | Gitoori | M | Gorwaa | Swahili | 0 | 0 | | 0 | Gorwaa, Swahili | Gorwaa, Swahili |
| Hheke | Selina | Kadogó | | | 0 | 1985 | Endabeg | Endabeg | F | Gorwaa | Swahili | 0 | 0 | | 0 | Gorwaa, Swahili | Gorwaa, Swahili |
| Suley | Kristina | Hosé | | | 0 | 1989 | Endabeg | Endabeg | F | Gorwaa | Swahili | 0 | 0 | | 0 | Gorwaa, Swahili | Gorwaa, Swahili |
| Yohani | Stephano | Seefú | | | 0 | 2000 | Endabeg Gawa | Endabeg Gawa | M | Gorwaa | Swahili | 0 | 0 | | 0 | Gorwaa, Swahili | Gorwaa, Swahili |
| Bungé | Maanday | (as given) | | | 0 | 1950 | Endasago | Endasago | F | Gorwaa | Swahili | 0 | 0 | | 0 | Mbulu | Mbulu |
| John | Yusufu | | 0 | | 0 | 1996 | Endabeg Gawa | Endabeg Gawa | M | Gorwaa | Swahili | 0 | 0 | | 0 | Gorwaa | Gorwaa |
| Massani | Festo | Buu | | | 0 | 1979 | Riroda | Riroda | M | Gorwaa | Swahili | English | Mandarin Ch | | 0 | Gorwaa, Swahili | Gorwaa, Swahili |
| Sumaye | Dina | Dali | | | 0 | 1958 | Gidas | Gidas | F | Gorwaa | Swahili | 0 | 0 | | 0 | Gorwaa | Gorwaa |
| Ama | Hawa | Baruwa | | | 0 | 1964 | Hoshan | Hoshan | F | Gorwaa | Swahili | 0 | 0 | | 0 | Gorwaa | Gorwaa |
| Ama | Mariamu | So'o | | | 0 | 1967 | Hoshan | Hoshan | F | Gorwaa | Swahili | 0 | 0 | | 0 | Gorwaa, Swahili | Gorwaa |
| Tlaghasi | Clara | Hheke | | | 0 | 1969 | Sendo'o | Endagile | F | Gorwaa | Swahili | 0 | 0 | | 0 | Gorwaa | Gorwaa |
| Ramadhani | Hamisi | Gora | | Ustadhi | | 1966 | Kondoa | Bonga | M | Gorwaa | Swahili | Rangi | Alagwa | Arabic | 0 | Gorwaa, Alagwa, Rangi | Gorwaa, Alagwa, Rangi |
| Sumaye | Josiah | Nada | | Mchungaji | | 1965 | Bonga | Endabeg | M | Gorwaa | Swahili | English | 0 | | 0 | Gorwaa, Swahili | Gorwaa, Swahili |
| Konqi | Yohana | Kalanga | | Mchungaji | | 1943 | Ayásanda | Ayásanda | M | Gorwaa | Swahili | 0 | 0 | | 0 | Gorwaa, Swahili | Gorwaa |
| Khafi | Dominick | Kasi | | Mwinjilisti | | 1967 | Singe | Mamiire | M | Gorwaa | Swahili | 0 | 0 | | 0 | Gorwaa, Swahili | Gorwaa |
| Bura | Tiophil | Tlaghasi | | | 0 | 1963 | Tsamasi | Mamiire | M | Gorwaa | Swahili | 0 | 0 | | 0 | (unknown) | (unknown) |
| Humay | Lucas | Sisawi | | Hhayma | | 1979 | Endanachan | Endanachan | M | Gorwaa | Swahili | English | 0 | | 0 | Gorwaa | Gorwaa |
| Edward | Stephano | Kwathema | | | 0 | 1974 | Babati | Riroda | M | Gorwaa | Swahili | English | 0 | | 0 | Gorwaa, Swahili | Gorwaa, Swahili |
| Muhindi | Bunye | (as given) | | Christiani | | 1970 | Bagari | Gedamara | M | Gorwaa | Swahili | 0 | 0 | | 0 | Gorwaa, Swahili | Gorwaa, Swahili |
| Gitso | Tlaqasi | (as given) | | | 0 | 1964 | Tsamasi | Tsamasi | M | Gorwaa | Swahili | 0 | 0 | | 0 | Gorwaa, Swahili | Gorwaa, Swahili |
| Qambesh | Sefu | Ndege | | | 0 | 1943 | Bonga | Bonga | M | Gorwaa | Swahili | 0 | 0 | | 0 | Gorwaa | Gorwaa |
| Nahhato | Amos | | 0 | Zakaria | | 1974 | Ayásanda | Ayásanda | M | Gorwaa | Swahili | English | 0 | | 0 | Gorwaa, Swahili | Gorwaa, Swahili |
| Harvey | Andrew | | 0 | David Thomas | | 1988 | St. John's | Mount Pearl | M | English | French | Swahili | Gorwaa | | 0 | English | English |
| Samwel | Yohana | | 0 | Noni | | 1997 | Endabeg | Endabeg | M | Gorwaa | Swahili | 0 | 0 | | 0 | Gorwaa, Swahili | Gorwaa, Swahili |
| Sal-lá | Tluway Hhayma | (as given) | | Yohana Pascali | | 2003 | Endabeg | Endabeg | M | Gorwaa | Swahili | 0 | 0 | | 0 | Gorwaa, Swahili | Gorwaa, Swahili |
| Qambada | Hhayma | (as given) | | Samson | | 1995 | Endagile | Endagile | M | Gorwaa | Swahili | 0 | 0 | | 0 | Gorwaa, Swahili | Gorwaa, Swahili |
| Qwasleema | Fadhili | | 0 | | 0 | 1996 | Mamiire | Mamiire | M | Gorwaa | Swahili | Iraqw | 0 | | 0 | Alagwa, Iraqw, Gorwaa, Swahili | Alagwa, Iraqw, Gorwaa, Swahili |
| Thomas | Angelina | | 0 | | 0 | 1990 | Endagile | Endagile | F | Gorwaa | Swahili | Alagwa | 0 | | 0 | Gorwaa, Swahili | Gorwaa, Swahili |
| Ramadhani | Taabu | /awaakí | | | 0 | 1945 (estimated) | Kondoa | Bonga | F | Gorwaa | Swahili | Rangi | 0 | | 0 | Rangi, Swahili | Rangi, Swahili |
| Tseere | Sara | Hilú | | | 0 | 1940 (estimated) | Riroda | Riroda | F | Gorwaa | 0 | 0 | 0 | | 0 | Gorwaa | Gorwaa |
| Bariye | Evalina | Dahaymo | | | 0 | 1964 | Gendi | Mamiire | F | Gorwaa | Swahili | 0 | 0 | | 0 | Gorwaa | Gorwaa |
| Qweetso | Behero | Kuntseeli Tsino | | | 0 | 1920 | Bonga | Hiyangw, Yerotoni | M | Gorwaa | Swahili | 0 | 0 | | 0 | Gorwaa, Swahili | (unknown) |
| Simon | Rose | Hosé | | | 0 | 1989 | Endabeg | Endabeg | F | Gorwaa | Swahili | 0 | 0 | | 0 | Gorwaa, Barbaig, Swahili | Gorwaa, Swahili |
| Awe | Elia | Iingwagwí | | | 0 | 1949 | Gidas | Masawi | M | Gorwaa | Swahili | Rangi | 0 | | 0 | Gorwaa, Barbaig | Iraqw |
| Aweda | Simon | Axwarí | | | 0 | 1970 | Mbulu | Eendagwe | M | Gorwaa | Swahili | 0 | 0 | | 0 | Kimbulu | Kimbulu |
| Elia | Hhape | Na/as | | | 0 | 1972 | Eendagwe | Eendagwe | M | Gorwaa | Swahili | 0 | 0 | | 0 | Gorwaa | Gorwaa |
| Lawe'i | Ibrahimu | Bu'u | | | 0 | 1960 | Endohobriyé | Endohobriyé | M | Gorwaa | Swahili | 0 | 0 | | 0 | Gorwaa | Gorwaa |
| Safari | Ernest | Ngaida | | | 0 | 1973 | Sharimo | Sharimo | M | Gorwaa | Swahili | 0 | 0 | | 0 | Gorwaa | Gorwaa |
| Laurenti | Paulina | Tato'o | | | 0 | 1945 | Tsufé /aantsí | Tsufé /aantsí | F | Gorwaa | Swahili | Rangi | 0 | | 0 | Gorwaa, Swahili | Gorwaa, Swahili |
| Kea | Daniel | Sanka | | | 0 | 1968 | Endanachan | Endanachan | M | Gorwaa | Swahili | 0 | 0 | | 0 | Gorwaa, Barbaig, Swahili | Gorwaa, Swahili |
| Karani | Joshua | Marandí | | | 0 | 1979 | Hoshan | Hoshan | M | Gorwaa | Swahili | 0 | 0 | | 0 | Gorwaa | Gorwaa |
| Harweerí | John | /oo'e | | Saidi | | 1949 | Bonga | Bonga | M | Gorwaa | Swahili | 0 | 0 | | 0 | Gorwaa, Swahili | Gorwaa, Swahili |
| Hheke | Maria | Gari | | Fi'itá (Marriage name) | | 1960 | Eendagwe | Eendagwe | F | Gorwaa | Swahili | 0 | 0 | | 0 | Gorwaa, Swahili | Gorwaa |

# Appendix A: Participant Information

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hheke | Darbo | (as given) | | Marta (Church); Hilú (Marriage name) | | 1955 | Eendagwe | Eendagwe | F | Gorwaa | Swahili | | | | 0 | 0 | 0 | Gorwaa, Swahili | Gorwaa |
| Emmanuel | Kelly | Qanjolo | | Joshua | | 1997 | Endabeg | Endabeg | M | Gorwaa | Swahili | | | | 0 | 0 | 0 | Gorwaa, Swahili | Gorwaa, Swahili |
| Yohana | Lameck | | 0 | | 0 | 1999 | Endanachan | Endanachan | M | Gorwaa | Swahili | | | | 0 | 0 | 0 | Gorwaa, Swahili | Gorwaa, Swahili |
| Suhhuláy | Bara/e | (as given) | | Daniel | | 1969 | Aroi | Eendagwe | M | Gorwaa | Swahili | | | | 0 | 0 | 0 | Gorwaa | Gorwaa |
| Shauri | Chama | | 0 | Charles | | 1959 | Eendagwe | Amaqafa | M | Gorwaa | Swahili | Rangi | | | | 0 | 0 | Gorwaa | Gorwaa, Rangi |
| Ngaida | Thomas | Samo | | | 0 | 1937 | Bonga | Gidas | M | Gorwaa | Swahili | | | | 0 | 0 | 0 | Gorwaa, Barbaig, Swahili | Gorwaa |
| Samo | John | Qwasleemá | | | 0 | 1922 | Ayásanda | Bonga, Gidas | M | Gorwaa | Swahili | | | | 0 | 0 | 0 | Gorwaa, Barbaig, Swahili | Gorwaa |
| Paul | Daniel | Tluway | | | 0 | 1994 | Riroda | Riroda | M | Gorwaa | Swahili | | | | 0 | 0 | 0 | Gorwaa, Swahili | Gorwaa, Swahili |
| Qwaray | Lohay | (as given) | | | 0 | 1996 | Riroda | Riroda | M | Gorwaa | Swahili | | | | 0 | 0 | 0 | Gorwaa, Swahili | Gorwaa, Swahili |
| Iingwagwí | Hhayma | (as given) | | Joseph | | 1989 | Ayá Tla/a | Ayá Tla/a | M | Gorwaa | Swahili | | | | 0 | 0 | 0 | Gorwaa, Swahili | Gorwaa, Swahili |
| Margweé | Tikín | (as given) | | | 0 | 1989 | Mwanga | Mwanga | M | Gorwaa | Swahili | | | | 0 | 0 | 0 | Gorwaa | Gorwaa |
| Ma'o | John | Sla'a | | | 0 | 1988 | Sorá (Babati) | Sorá | M | Gorwaa | Swahili | English | | | | 0 | 0 | Gorwaa, Swahili | Gorwaa, Swahili |
| Fu'unáy | Theresia | Kasi | | | 0 | 1953 | Singe (Babati) | Singe (Babati) | F | Gorwaa | Swahili | | | | 0 | 0 | 0 | Gorwaa | Gorwaa |
| Saytoti | Rose | | 0 | Fatuma | | 1977 | Sirop | Babati | F | Gorwaa | Swahili | | | | 0 | 0 | 0 | Swahili, Ilarusa | Mbulu, Swahili |
| Elisha | Monika | Hhayma | | | 0 | 1982 | Seendó | Seendó | F | Gorwaa | Swahili | | | | 0 | 0 | 0 | Gorwaa, Swahili | Gorwaa, Swahili |
| Tahhaní | Bariyé | | 0 | | 0 | 1929 (estimated) | Endabeg | Endabeg | M | Gorwaa | Swahili | | | | 0 | 0 | 0 | Gorwaa, Swahili | Iraqw |
| Gidongo | /aankwáy | | 0 | | 0 | 1931 | Endashangwe | Riroda | M | Gorwaa | Swahili | | | | 0 | 0 | 0 | Gorwaa | Gorwaa |
| Fee'o | Boombó | | 0 | Paulo | | 1929 (estimated) | Sharimo | Sharimo | M | Gorwaa | 0 | | | | 0 | 0 | 0 | Gorwaa | Gorwaa |
| Gurtí | Tato'o | Qarayií | | | 0 | 1964 | Hoshan | Eendagwe | F | Gorwaa | Swahili | | | | 0 | 0 | 0 | Gorwaa | Gorwaa |
| Boombó | Sharó | Gwu'umá | | | 0 | 1962 | Eendagwe | Eendagwe | M | Gorwaa | Swahili | | | | 0 | 0 | 0 | Gorwaa | Gorwaa |
| Bu'ú | Rahabu | Hhaybe'i | | | 0 | 1964 | Eendagwe | Eendagwe | F | Gorwaa | Swahili | | | | 0 | 0 | 0 | Gorwaa | Gorwaa |
| Hi'ití | Nada | Tsinó | | | 0 | 1964 | Duuru | Duuru | F | Gorwaa | Swahili | | | | 0 | 0 | 0 | Gorwaa | Gorwaa |
| Daaslo | Hhitá | Shangwe | | | 0 | 1941 | Eendagwe | Eendagwe | F | Gorwaa | 0 | | | | 0 | 0 | 0 | Gorwaa | Gorwaa |
| Boombó | Si'imá | Homa | | | 0 | 1960 | Eendagwe | Eendagwe | F | Gorwaa | Swahili | | | | 0 | 0 | 0 | Gorwaa | Gorwaa |
| Saidi | Monika | Gwu/ulo | | | 0 | 1961 | Endabeg | Endabeg | F | Gorwaa | Swahili | English | | | | 0 | 0 | Gorwaa | Gorwaa |
| Basoorí | Humay | (as given) | | | 0 | 1944 (estimated) | Bonga | Gidas | M | Gorwaa | Swahili | | | | 0 | 0 | 0 | Gorwaa, Swahili | Gorwaa |
| Sharo | Harweeri | (as given) | | | 0 | 1943 | Endanachan | Endanachan | M | Gorwaa | Swahili | | | | 0 | 0 | 0 | Gorwaa | Gorwaa |
| Oru/undí | Hherá | (as given) | | Martini (Church) | 0 | 1944 | Gidas | Gidas | M | Gorwaa | Swahili | | | | 0 | 0 | 0 | Gorwaa | Gorwaa |
| Kombé | Bongani | | 0 | | 0 | 1968 | Endanachan | Endanachan | M | Gorwaa | Swahili | | | | 0 | 0 | 0 | Gorwaa, Swahili | Gorwaa |
| Hhewasí | Salome | | 0 | | 0 | 1950 | Eendagwe | Eendagwe | F | Gorwaa | Swahili | | | | 0 | 0 | 0 | Swahili, Barbaig | Gorwaa, Swahili |
| Manamba | Kristina | Taabu | | | 0 | 1968 | Gidas | Endagile | F | Gorwaa | Swahili | | | | 0 | 0 | 0 | Gorwaa, Swahili | Gorwaa, Swahili |
| Kwa/angw | Marta | (unknown) | | | 0 | (unknown) | (unknown) | (unknown) | F | Gorwaa | Swahili | | | | 0 | 0 | 0 | (unknown) | (unknown) |
| Goti | Lagweén | (as given) | | | 0 | 1916 (estimated) | Bagara | Endabeg Ayá Xade | M | Gorwaa | Iraqw | | | | 0 | 0 | 0 | Gorwaa | Gorwaa, Mbugwe |
| Shaban | Idi | | 0 | | 0 | 1977 | Disoma | Disoma | M | Gorwaa | Swahili | Rangi | | | | 0 | 0 | Gorwaa, Swahili | Rangi |
| Petro | Joshua | (unknown) | | | 0 | (unknown) | (unknown) | (unknown) | M | Gorwaa | Swahili | | | | 0 | 0 | 0 | (unknown) | (unknown) |
| Biyeda | Salimu | Hantha | | | 0 | 1953 | Kikilo | Kikilo, Duuru | M | Gorwaa | Swahili | Rangi | Iraqw | Alagwa | | | | Gorwaa, Kimbulu | Gorwaa, Swahili, Rangi, Iraqw, Alagwa |
| Silo | Maando'o | (as given) | | Nooni (given name previous to marriage) | | 1926 | Taangór Gayuw | Taangór Gayuw | F | Gorwaa | Swahili | | | | 0 | 0 | 0 | Barbaig, Iraqw, Gorwaa, English, Swahili | Gorwaa |
| Kuumba | Fiita | (as given) | | Saqware (birth name) | | 1961 | Bonga | Bonga | F | Gorwaa | Swahili | Rangi | Barbaig | Somali | | | | Gorwaa, Barbaig, Iraqw | Gorwaa, Swahili |
| De'emáy | Tluway | (as given) | | Bilasi | | 1966 | Endarbo | Endarbo | M | Gorwaa | Swahili | | | | 0 | 0 | 0 | Gorwaa, Iraqw, Kiswahili | Gorwaa |
| Gihandu | De'emáy | | 0 | | 0 | 1925 | Mbulu | Endarbo | M | Gorwaa | Iraqw | Swahili | | | | 0 | 0 | Iraqw | Iraqw |
| Hi'ití | Daudi | Slaqwees | | | 0 | 1961 | Singe | Endamaaqay (Duuru) | M | Gorwaa | Swahili | | | | 0 | 0 | 0 | Gorwaa | Gorwaa |
| Qamala | Boombó | (as given) | | | 0 | 1942 | Hoshan | Hoshan | M | Gorwaa | Swahili | | | | 0 | 0 | 0 | Gorwaa | Gorwaa |
| Furji | Heelo | (as given) | | | 0 | 1932 | Riroda | Gidas | M | Gorwaa | Swahili | | | | 0 | 0 | 0 | Gorwaa | Gorwaa |

## Appendix B: Swahili version of consent dialogue

*Kabla kuanza kazi, nataka tuogee kuhusu vitu kadhaa, ili tukubaliane kwa kila kitu, na tuelewe kazi yetu vizuri. Iko sawa?*

*Kwanza, unaweza kuacha kufanya kazi nami muda yoyote, na sio lazima kuniambia sababu unataka kuacha.*

*Iko sawa kama kazi yetu inarekodiwa kwa njia ya kinyasa sauti au kamera? Natumia kinyasa sauti na kamera ili naweza kuhakikisha kwamba nimeandika maneno vizuri, na ili watu wanaweza kusikiliza maneno na hadithi baadaye.*

*Kama husikii vizuri kurekodiwa, kwa sababu yoyote, unaweza kuniambia hivyo, na nitazima kinyasa sauti na kamera.*

*Utalipwa* [hourly rate] *au bidhaa zenye thamani hii wakati tunapofanya kazi. Iko sawa?*

*Iko sawa kama watu wanasikiliza au wanaangalia kazi hii ambapo imerekodiwa? (Kwa mfano, familia yako? watu wengine kutoka eneo hili? mtu yoyote?)*

*Iko sawa nikiwaambia watu wengine kwamba wewe unafanya kazi nami kwa lugha ya Kigorowa? Kwa mfano, iko sawa nikiweka jina lako kwenye orodha ya watu ambao wamechangia kwenye kazi hii?*

*Iko sawa nikiweka kazi yetu kwenye benki ya lugha? Yaani, benki ya lugha ni mahali unapoweka sauti na video ili ikae, hata kama kopi zangu zinaharibiwa.*

*Iko sawa nikiandika vitabu kuhusu lugha ya Kigorowa?*

*Iko sawa nikitumia kazi hi kwa mashauri mengine? Kwa mfano, labda leo, lengo langu ndo kutengeneza kamusi. Iko sawa nikirudi kwa hii kazi siku nyingine kuitumia kujifunza kuhusu sauti za Kigorowa pia?*

*Mi nimemaliza maswali yangu. Sijui kama wewe una maswali kuniuliza mimi kabla tuanze kazi yetu?*

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| **Singular** | **General** | **Plural** | | |
| /Aambalakú (Mo) | | | /Aambalakú | Place Name |
| /aamí (Fr) | /aamú (Mo) | | fruit; glandular swelling on cattle | |
| /aampaa (Fr) | | /aampupu (NØ) | bird-watching platform | |
| /Aamú | | | /Aamú | Personal Name (♂/♀) |
| /Aando | | | /Aando | Personal Name (♂) |
| /Aanguwa | | | /Aanguwa | Personal Name (♂) |
| /aantaa (Fr) | | /aanteemo (NØ) /aantadu (NØ) | termite mound | |
| /aantlinó (Mo) | | /aantlina' (NØ) | molar tooth | |
| /aarú (Mo) | | /aareema' (NØ) | chunk of food | |
| /aatloo (NØ) | | /aatltlee (Fr) | jaw | |
| /aawi (Fr) | /aawáy (Mo) | /aaweedima' (NØ) | mammal sp. | Spotted-necked otter (Hydrictis maculicollis) |
| /aayma (Fr) | | | eating | Mass Deverbal (source verb, </aayiím>) |
| /afumó (Mo) | /afó (M) | /afeema' (NØ) | bird sp. | any sp. of Bush Barbet |
| /Aláy | | | /Aláy | Personal Name (♂); c.f. /aláy |
| /alumó (Mo) /aláy (Mo) | | /aláy (Mo) | bird sp. | oxpeckers (white bodies, red beaks); also a teasing name for a person with a red mouth |
| /amaangw (Mo) | | | heat | Mass |
| /aambalaki (Fr) | /aambalakú (Mo) | | k.o. tuber | |
| /ambalmó (Mo) | /ambalaángw (Mo) | | plant sp. | Rhus longipes |
| /ambalumó (Mo) | /ambál (Mo) /ambalú (Mo) | /ambaleema' (NØ) | reptile sp. | any sp. of monitor lizard |
| /ameeni (Fr) | /ameenaa (Fr) | | woman | |
| /Ankwáy | | | /Ankwáy | Personal Name (♂); c.f. /ankwáy |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| **Singular** | **General** | **Plural** | | |
| /ankwi (Fr) | /ankwáy (Mo) | | plant sp. | either a small plant with a vertical habit, or a large forest tree; the first type of </ankwí> is used to make the shafts of arrows; the second type is used for building |
| /Ankwí | | | /Ankwí | Personal Name (♀); c.f. /ankwi |
| /antsumo (Mo) | /antsí (Fr) | /antsaa (Fr) | plant sp. | Sycamore Fig (Ficus sycomorus) |
| /api (Ft) | | | spent coarse millet flour | Mass |
| /Ara'i | | | /Ara'i | Personal Name (♂/♀) |
| /ara/antumó (Mo) | /ara/anti (Fr) | /ara/antaa (Fr) | plant sp. | Fire-Ball Lily (Scadoxus multiflorus) |
| /aráy desumó (Mo) | /aráy desu (Mo) | | plant sp. | Terminalia (Terminalia brownii) |
| /Ari (Ft) | | | /Ari | Place Name |
| /Arí | | | /Arí | Personal Name |
| /armó (Mo) | /aráy (Mo) | | plant sp. | White-Galled Acacia, Whitethorn (Acacia seyal) |
| /arumó (Mo) | /areeri (NØ) /arrima' (NØ) | | tobacco ball | |
| /Asla | | | /Asla | Personal Name; c.f. /aslaangw |
| /aslaangw (Mo) | /asleeri (NØ) | | hut; plant sp.; comb (i.e. of chicken) | Candelabra Tree, Tree Euphorbia (Eurphorbia sp.); a piece of the </asla> plant may be cut and placed in the earth on top of the roof of the traditional tembe house, where it will continue to grow.  This is often done to provide ritual protection to the household |
| /aslaángw kuma (Mo) | /asleerí kuma (NØ) | | plant sp. | prickly pear cactus |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| Singular | General | Plural | | |
| /atso (Fr) | | | playing; game | Mass<br>Deverbal (source verb, </aáts>) |
| /atú (Mo) | | /attee (Fr)<br>/atetee (Fr)<br>/atelee (Fr) | milk (curdled) | </atetee> and </atelee> 'crumbs',<br>'scattered curds' |
| /awaakeema' (NØ) | | | whiteness | |
| /Awaakí | | | /Awaakí | Personal Name (♀); (even a dark woman may be named </Awaakí>) |
| /Awtu | | | | Personal Name (♂); c.f. /awtú |
| /awtú (Mo) | | /awteema' (NØ) | monkey; butterfly | |
| /awú (Mo) | | /aweema' (NØ) | bird sp. | any large raptor, esp. bearing a hooked-beak and crest (eagles, etc.) |
| /ayi (Ft) | /ayoo (Fr) | | flower | |
| /Ayi | | | /Ayi | Personal Name (♂) |
| /ayla (NØ) | | | wedding song | |
| /Ayla | | | /Ayla | Personal Name (♂); c.f. /ayla |
| /aymu (Mo) | | /aymeeri (NØ) | word | |
| /Ayti'i | | | Personal Name (♂/♀) | Possibly derived from /ayti'imó |
| /ayti'imó (Mo) | /ayto'oo (Fr) | | corn (one kernel or one plant) | |
| /Ayto'oo | | | /Ayto'oo | Personal Name (♂/♀); c.f. /ayto'oo |
| /Eendú | | | /Eendú | Personal Name (♂) |
| /eetlimó (Mo) | /eetlí (Fr) | | pimple | |
| /eetloo (Fr) | | | difficulty in finding food | Mass |
| /éw (Na) | | | west | |
| /Iinkáy | | | /Iinkáy | Personal Name (♂); c.f. v. </iinkí>: to come at a slow pace (perhaps because of tiredness or being distracted by other things) |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| **Singular** | **General** | **Plural** | | |
| /ilintimó (Mo) | | /ilintima' (NØ) | mammal sp. | Bohor reedbuck (Redunca redunca) |
| /iliwi (Fr) | /iliwoó (Fr) /iliwaa (Fr) | /iliwáy (Mo) | leopard | |
| /itsi (Ft) | /itsaa (Fr) | /itseemi (NØ) | insect sp. | |
| /itsimó (Mo) | | /itseemi (NØ) | intestinal worm | |
| | /o/oo (Fr) | /o/oodu (NØ) | excrement | |
| /Oo/ím | | | /Oo/ím | Personal Name (♂) |
| | /oonaa (Fr) | /onu (NØ) | darkness | |
| /Oru'oo | | | /Oru'oo | Personal Name (♀); c.f. /oruru'umó |
| /oruru'umó (Mo) | | /oruru'uma' (NØ) | plant sp. | Vitex doniana; alternate pronunciation </orru'umó>, </orru'uma'> |
| | /oyee (Fr) | /oyeedu (NØ) | advertisment of a coming dance | |
| /Oyee | | | /Oyee | Personal Name (♂); c.f. /oyee |
| /Oyi | | | /Oyi | Personal Name (♂/♀); c.f. /oyee |
| /umi (Ft) | /umáy (Mo) | | hump (e.g. of a cow) | |
| | /untla (Mo) | /untleema' (NØ) | cheek | |
| /urfi (Fr) | /urfaa (Fr) | | reptile sp. | any sp. of skink |
| | /uu/umoo (Fr) | | lowing of cattle in distress | Mass |
| /Uukú | | | | Personal Name (♂) |
| | /uuru (Mo) | /uureema' (NØ) | strength | |
| /uyá (Mk) | | | north | Singularia Tantum |
| | /uyáy (Mo) | /uyeema' (NØ) | right (side) | </uyeema'> is uncommon |
| | aahhamoo (Fr) | | lowing (of cattle) | Mass |
| | aako (Mo) | akoki'i (NØ) | grandfather | |
| Aakó | | | Aakó | Personal Name (♂); c.f. aako |
| | aali (Fr) | | inheritance | |
| Aalitó | | | Aalitó | Personal Name (♂); c.f. v. aal |

| Nouns | | | Gloss | Nota |
| Singular | General | Plural | | |
|---|---|---|---|---|
| Aaloo | | | Aaloo | Personal Name (♂); c.f. aali |
| aalutumo (Mo) aaluto'o (Fr) | aalutee (Fr) | | inheritor (♂,♀ respectively) | also <aalusumo> or <aaluso'o> |
| aama (Fr) | | aamami'i (NØ) | grandmother | |
| Aamí | | | Aamí | Personal Name |
| aari (Fr) | | | prophecy | Mass |
| aaxisa (Fr) | | axama (Mk) | satisfaction, fulfilment | Deverbal (source verb, <aáx>) |
| Abayí | | | Abayí | Personal Name (♀) |
| Abo'oo | | | Abo'oo | Personal Name (♀); c.f. abo'oo |
| abo'oo (Fr) | | abu'u (Fr) | newlywed (♀) | |
| afa (Mk) | | afi'i (NØ) | mouth | |
| afá da/aát | | ? | bird sp. | |
| afa oha (Fr) | | afi ohiingw (Mo) | smothering | |
| afa'uray (Mo) | | | annoyance | Mass |
| afa/ay (Mo) | | afa/i'i (NØ) | thigh | |
| Afa/ay | | | Afa/ay | Personal Name (♂); c.f. afa/ay |
| afada/aatumó (Mo) | afada/aát (Mo) | | bird sp. | any sp. of Oriole or Oxpecker |
| afahho'aa (Fr) | | | eloquence | Mass |
| afawa/i (Ft) | | afawa/áy (Mo) | windfall | |
| afeeni (Fr) | afeenaa (NØ) afeenáy (Mo) | afeenadu (NØ) | outside | |
| afeetloo (NØ) | afeetloo (NØ) afeetla' (NØ) | afeetlatlu (NØ) afeetlutlu (NØ) afeetludu (NØ) | waist | |
| afoo (Fr) | | | voice, sound | |
| afqurmó (Mo) | | afqurma' (NØ) afqureema' (NØ) *afqureeri* (NØ) | warthog | |
| afurtlimi (Ft) | | afurtlumáy (Mo) | simple knot | |

| Nouns | | | | |
|---|---|---|---|---|
| **Singular** | **General** | **Plural** | **Gloss** | **Nota** |
| afusa (Fr) | | afuumis (Mo) | curse | |
| | ageengw (Mo) | | dry season | |
| ahaarimó (Mo) | | ahaarima' (NØ) | k.o. gourd | |
| Ahhamá | | | | Personal Name (♂); c.f. ahhamo |
| akeesi (Fr) | | akeesa' (NØ) | cooking stone | |
| Alawaa | | | Alawaa | Personal Name (♂); c.f. Alawaa |
| Alawumo (Mo) Alawito'o (Fr) | Alawaa | | person of Alagwa ethnicity (♂,♀ respectively) | |
| | ale/isay (Mo) | | help | |
| | alesleemu (Mo) | | ability | Mass |
| alhhe'esáy (Mo) | | alhhe'esusu (NØ) | end | |
| | alki/it (Mo) | | story | |
| Allee | | | Allee | Personal Name (♂); c.f. allee |
| allimó (Mo) | allee (Fr) | | house post | |
| Alót | | | Alót | Personal Name (♂); this was reported to be a very rare name, of a semi-mythical ancestor |
| alqadoo (Fr) | | alqadidiingw (Mo) | agreeing | Deverbal (source verb ? <alqaát>) |
| | alu (NØ) | | behind | Mass |
| Aluto'o | | | | Personal Name (♀); c.f. aluto'o |
| alutumo (Mo) aluto'o (Fr) | alutee (Fr) | | last-born child (♂,♀ respectively) | [t] may be pronounced as [s]; c.f. alu |
| ama'ari (Fr) | ama'aráy (Mo) | | reptile sp. | any slender, non-venomous, green snake |
| amafa/umó (Mo) | amafa/á (Fr) | | plant sp. | (Parinaria curatellifolia) |
| amageenda'i (Fr) | amageendá' (Mo) | | plant sp. | (Combretum zeyheri) |
| amama'umó (Mo) | amama'ó (Fr) | amama'odu (NØ) | bird sp. | Fork-tailed Drongo (Dicrurus adsimilis) |
| amanaani (Fr) | amanaanáy (Mo) | | reptile sp. | any slender, venomous, green snake (esp. Boomslang (Dispholidus typus)) |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| **Singular** | **General** | **Plural** | | |
| Amaslukú (Fr) | | | Amaslukú | Place Name |
| amato/i (Fr) | amato/áy (Mo) | | snake | |
| amaxingi (Fr) | amaxingaa (Fr) | amaxingáy (Mo) | crab | |
| Amay | | | Amay | Personal Name (♂) |
| amayimó (Mo) | amayó (Fr) | | plant sp. | (Gynandropsis gynandra) |
| Amayo | | | Amayo | Personal Name; c.f. amayó |
| amayto'o (Fr) | amayó (Mo) | | plant sp. | (Gynandropsis Gynandra) |
| ambaraki (Fr) | ambarakáy (Mo) | | bird sp. | any sp. of dove |
| amoo (Fr) | | | place | |
| Amowa | | | Amowa | Personal Name (♀) |
| amsi (NØ) | | | night | |
| Amsí | | | Amsí | Personal Name (♂/♀); c.f. amsi |
| anxari (Ft) | | anxeroo (NØ) | phlegm | |
| ara (Ft) | | ara'ar (Mo) | seeing | Deverbal (source verb, <ár>) |
| Aroyá (Fr) | | | Aroyá | Place Name |
| asfoolusumo (Mo) asfooluso'o (Fr) | asfoolusee (Fr) | | shit disturber (♂,♀ respectively) | |
| askaarimó (Mo) | askár (Mo) | askaaráy (Mo) | soldier | |
| askoofumó (Mo) | askóf (Mo) | askoofáy (Mo) | bishop | |
| asla (Ft) | asloo (NØ) | | fire | Questioned form <aslatoô> |
| Aweé | | | | Personal Name (♂); c.f. awee |
| Awish | | | Awish | Personal Name (♂); this was reported to be a very rare name, of a semi-mythical ancestor |
| awu (Mo) | awee (Fr) | | bull | |
| Axisa | | | Axisa | Personal Name (♀) |
| axweesani (Ft) | | axweesanáy (Mo) | conversation | |
| aya (Mo) | | ayeemo (Na) | land | |
| Ayá /Abén (Mo) | | | Ayá /Abén | Place Name |
| Ayá /Awaákw (Mo) | | | Ayá /Awaákw | Place Name |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| **Singular** | **General** | **Plural** | | |
| Ayá Hayshi(d) (Mo) | | | Ayá Hayshi | Place Name |
| Ayá Tla/aa (Mo/Fr) | | | Ayá Tla/aa | Place Name |
| Ayamaango (M) | | | Ayamaango | Place Name |
| Ayasanda (Mo) | | | Ayasanda | Place Name |
| Ayaslakí (Fr) | | | Ayaslakí | Place Name |
| Ayaxoxo(ngw) (Mo) | | | Ayaxoxo | Place Name |
| ayí (Fr) | | amu (NØ) | mother (one's own) | |
| ayishagá (Fr) | | ayishagadu (NØ) | father's sister | |
| ayoo (Fr) | | amu (NØ) | mother (general) | |
| ba'aa (Fr) | | ba'u (NØ) | grave | |
| ba'aarimó (Mo) | ba'aari (Fr) | | bee | |
| ba'aarimó (Mo) | ba'ár (Mo) | | fly | |
| ba'animó (Mo) | ba'aní (Fr) | ba'anaa (Fr) | reptile sp. | any sp. of gecko |
| ba'at (Mo) | | ba'ateema' (NØ) | mammal sp. | Greater kudu (Tragelaphus strepsiceros) |
| Ba/a | | | Ba/a | Personal Name (♂) |
| | ba/aata (NØ) | | fatigue | Mass |
| Ba/aatá | | | Personal Name (♀) | Personal Name (♀); c.f. ba/aata |
| | ba/i (Fr) | | mud | Mass |
| Ba/i | | | Ba/i | Personal Name (♂/♀); c.f. ba/i |
| baabá (Mo) | | baabi'i (NØ) | father | |
| baahaa (Fr) | | bahu (NØ) | hyaena | |
| Baahaa | | | Baahaa | Personal Name (♂, less commonly ♀); c.f. baahaa |
| | baahaár Maandaa (Fr) | | Maandaa's horn | |
| | baahhi (Fr) | | excessive noise | Mass |
| baalusmo (Mo) baaluso'o (Fr) | baalusee (Fr) | | master (♂,♀ respectively) | |
| baambari (Fr) | baambár (Mo) | | bell | |
| Baambay (Mo/Fr) | | | Baambay | Place Name |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| **Singular** | **General** | **Plural** | | |
| Babati (Fr) | | | Babati | Place Name |
| babi/i (Fr) | baba/aa (Fr) | | insect sp. | |
| babumó (Mo) | babi (Ft) | | insect sp. | |
| Bacho | | | Bacho | Personal Name (♂) |
| Badináy | | | Badináy | Personal Name (♂) |
| Badó | | | Badó | Personal Name |
| bafú (Mo) | | | drizzle | Mass |
| Bagara (Fr) | | | Bagara | Place Name |
| Bagari (Fr) | | | Bagari | Place Name |
| Bagayí | | | Bagayí | Personal Name (♂) |
| bahhaymó (Mo) | bahháy (Mo) | | plant sp. | (Syzigium cordatum) |
| Baahhi | | | Baahhi | Personal Name (♂); c.f. baahhi |
| balaali (Fr) | balaangw (Mo) | | millet | balaali refers to 'one grain' or 'one plant' of millet |
| Balaalí | | | Balaalí | Personal Name (♂/♀); c.f. balaali |
| Balaangw | | | Balaangw | Personal Name (♂); c.f. balaangw |
| Balabalá | | | | Personal Name (♂/♀); c.f. balbalá |
| balasumó (Mo) | balasi (Fr) | | pigeon pea | balasumó refers to 'one pea' or 'one plant' |
| Balawá | | | | Personal Name (♂); c.f. Swahili 'barua': 'letter' |
| balbalá (Ft) | | balbaldu (NØ) | road | |
| Balisaa | | | Balisaa | Personal Name (♂/♀) |
| Balowá (Fr) | | | Balowá | Place Name |
| Bambaray | | | Bambaray | Personal Name (♂); c.f. bambaray |
| bambarimo (Mo) | bambaree (Fr) | | bulrush millet (one grain or one plant) | |
| bami'ito'o (Fr) | bamiya (Fr) | | okra fruit | |
| bamiyumó (Mo) | bamiya (Fr) | | okra plant | |

| Nouns | | | Gloss | Nota |
| Singular | General | Plural | | |
|---|---|---|---|---|
| bangilito'o (Fr) | bangili (Fr) bangiláy (Mo) | | k.o. bracelet | |
| bangimó (Mo) | bangi (Fr) | | plant sp. | (Tagetes minuta) |
| Bani | | | Bani | Personal Name (♂) |
| Banka | | | Banka | Personal Name (♂) |
| Baqayoo | | | Baqayoo | Personal Name (♂/♀); c.f. baqayoo |
| baqayoo (Fr) | | baqaydu (NØ) | court, chamber | |
| baqumó (Mo) | baq (Mo) | | house partition | |
| bara (Ft) | | badu (NØ) | side | Questioned form <baratoô> |
| bara/' (Mo) | | | k.o. dance | |
| Bara/ee | | | | Personal Name (♂/♀); c.f. bara/' or bara/i |
| bara/umó (Mo) | bara/i (Fr) bará/' (Mo) | | plant sp. | |
| bara/usumo (Mo) bara/uso'o (Fr) | bara/usee (Fr) | | dancer (♂,♀ respectively) | |
| barakaa (Fr) | | badu (NØ) | piece | |
| Barán | | | Barán | Personal Name (♂) |
| Barandí | | | Barandí | Personal Name (♂/♀) |
| baranqumó (Mo) | baranqú (Mo) | baranquma' (NØ) | plant sp. | <baranqú> collective |
| Bardáy | | | Bardáy | Personal Name (♂) |
| Bardee | | | Bardee | Personal Name (♂/♀) |
| barisumo (Mo) bariso'o (Fr) | barisee (Fr) | | elder (♂,♀ respectively) | |
| bariyaa (Fr) | | bariyadu (NØ) | k.o. disease | |
| Bariyeé | | | Bariyeé | Personal Name (♂) |
| bariyomodi (Fr) | bariyomodaa (Fr) | | plant sp. | |
| basa (Mk) | | | south | |
| basáy (Mo) | | | left | |
| Bashaqee | | | Bashaqee | Personal Name (♂) |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| **Singular** | **General** | **Plural** | | |
| Basoo | | | Basoo | Personal Name (♂); c.f. Gidabasoo |
| Basori | | | Basori | Personal Name (♀) |
| Basoroo | | | Basoroo | Personal Name (♂/♀); c.f.derived from basoroo |
| basorumó (Mo) | basoroo (Fr) | | sorghum (one grain or plant) | |
| Basosideé(d) | | | Basosideé | Place Name |
| bata (Fr) | | bata (Fr) | duck | |
| Bata | | | Bata | Personal Name; c.f. bata |
| batlitimo (Mo) batlito'o (Fr) | batli (Ft) batláy (Mo) | batlitima' (NØ) | young animal, young person (♂,♀ respectively) | |
| Bay | | | Bay | Personal Name (♂) |
| Bayjók | | | Bayjók | Personal Name (♂) |
| baynimó (Mo) | baynoo (Fr) | | pig | |
| Bayo | | | Bayo | Personal Name (♂); this was reported to be a very rare name, of a semi-mythical ancestor |
| Bee/á | | | Bee/á | Personal Name; possibly derived from bee/aangw |
| bee/amó (Mo) | bee/aángw (Mo) | | bird sp. | White-eyed Slaty Flycatcher (Melaenornis fischeri) |
| bee/i (Fr) | bee/aangw (Mo) | | sheep | |
| Bee/i | | | Bee/i | Personal Name (♂); c.f. bee/i |
| Beekoo | | | Beekoo | Personal Name (♂/♀) |
| beerá (Mo) | | | milk (fresh) | Mass |
| Beerimi (Ft) | | | Beerimi | Place Name |
| beerumó (Mo) | beerimi (Fr) | beerimáy (M) | plant sp. (Dodonea viscosa) | |
| Bereqo (Fr) | | | Bereqo | Place Name |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| Singular | General | Plural | | |
| bi/iní (Fr) | bi/inaa (Fr)<br>bi/ináy (Mo) | | mammal sp. Silky blesmol (Heliophobius argenteocinereus) | |
| bibilia (Fr) | | bibiliadu (NØ) | bible | |
| Bichá | | | Bichá | Personal Name (♂) |
| bihhi (NØ) | | bihhihhee (Fr) | side (of the body) | |
| biintlaa (Fr) | | | wave | Mass |
| bila (Mo) | | | mud deposited by water | Mass |
| Bilaari | | | Bilaari | Personal Name; c.f. the Swahili 'bilauri': 'drinking glass' |
| Bilo | | | Bilo | Personal Name (♂) |
| Binday | | | Binday | Personal Name (♂) |
| biriri/imó (Mo) | birirí/ (Mo) | | bird sp. | Red-faced Crimsonwing (Cryptospiza reichenovii) |
| Bisiye | | | Bisiye | Personal Name (♂) |
| biyashara (Mo) | | | commerce | |
| Biyay | | | Biyay | Personal Name (♂) |
| Biyedá | | | Biyedá | Personal Name (♂/♀) |
| bo/ay (Mo) | | | multitude (of people) | Mass |
| Bo/ay (Mo) | | | Bo/ay | Place Name |
| Bo/oo | | | Bo/oo | Personal Name (♂); c.f. boo/ |
| Bo/umo | | | Bo/umo | Personal Name (♂); c.f. boo/ |
| boksi (Mo) | boksáy (Mo) | bokseema' (NØ) | box | |
| Bolos | | | Bolos | Personal Name (♂) |
| bomba (Fr) | | bombadu (NØ) | pipe | |
| bombó(t) (Fr) | | bombodu (NØ) | old beer | |
| Bombó(t) | | | Bombó(t) | Personal Name; c.f.bombó(t) |
| Bonga (Fr) | | | Bonga | Place Name |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| Singular | General | Plural | | |
| Bonga | | | Bonga | Personal Name (♂); c.f. the place name <Bonga> |
| Bongani | | | Bongani | Personal Name (♂) |
| Boo/í | | | Boo/í | Personal Name (♂/♀); c.f.bo/áy |
| Booga | | | Booga | Personal Name (♂); c.f. the Swahili 'boga': 'pumpkin' |
| boohhaa (Fr) | | | bundle of firewood | Mass |
| Boohhá | | | | Personal Name (♂); c.f. boohhaa |
| boohoongw (Mo) | | boohi'i (NØ) | hole; crater | |
| boohontó (Mo) | | boohonte'eeri (NØ) boohontima' (NØ) | small hole | |
| Bookí | | | Bookí | Personal Name (♂) |
| booloo (Fr) | | bolu (NØ) | day | |
| Bootá | | | Bootá | Personal Name (♂) |
| boyimó (Mo) | boyáy (Mo) | | colonial-era subvillage leader | |
| bu'i (Ft) | bu'áy (Mo) | | cosmetic burn mark | |
| Bu'í | | | Bu'í | Personal Name (♂); c.f. bu'i or bu'uungw |
| Bu'u | | | Bu'u | Personal Name (♂/♀); c.f. bu'uungw |
| bu'uungw (M) | | bu'uungw (Mo) | harvest (harvesting?) | |
| Bubu (Mo/Fr) | | | Bubu | Place Name |
| bubuka (Mo) | | | insect sp. | Mass |
| buhha (NØ) | | | quarrel | Mass |
| Buhha | | | | Personal Name (♂); c.f. buhha |
| Bunga (Mo) | | | Bunga | Place Name |
| buraa (Fr) | | burdu (NØ) | beer | |
| Buraá | | | Buraá | Personal Name (♂/♀); c.f. buraa |
| buri (Ft) | buráy (Mo) | | forehead | |

| Singular | General | Plural | Gloss | Nota |
|---|---|---|---|---|
| | **Nouns** | | **Gloss** | **Nota** |
| **Singular** | **General** | **Plural** | | |
| Burí | | | Burí | Personal Name (♀); c.f. buraa or Buraá |
| bursli (Fr) | burslaa (Fr) | | plant sp. | |
| busla (Mo) | | | white clay | Mass |
| Buslá | | | | Personal Name (♂); c.f. busla |
| buunqaa (Fr) | | | marsh | Mass |
| Buuta | | | | Personal Name (♂) |
| chaabú (Mo) | | ichaabú (Mo) chaabú (Mo) | louse | |
| Chakala | | | Chakala | Personal Name (♂) |
| Chalo | | | Chalo | Personal Name (♂) |
| chayi (Fr) | | | tea | |
| Cheempoó | | | Cheempoó | Personal Name (♀) |
| Chemchem (Mo/Fr) | | | Chem-Chem | Place Name |
| Chepa | | | Chepa | Personal Name (♂) |
| chirimo (Mo) | | chirima' | bird sp. | any sp. of blue and rufous kingfisher |
| chupaa (Fr) | | chupadu (NØ) | bottle | |
| chupi (Fr) | | chupáy (Mo) | underwear | |
| da'aangw (Mo) | | | song; singing | |
| da'ayee (Fr) | | | fear | |
| da'ayee (Fr) | | da'ayeedu (NØ) | liver | |
| da'ayusumo (Mo) da'ayuso'o (Fr) | da'aysee (Fr) | | coward (♂,♀ respectively) | |
| da/a (Ft) | | da/a/aangw (Mo) | burning | Deverbal (source verb, <daá/>) |
| da/alusumó (Mo) | | da/alusuma' (NØ) | insect sp. | |
| da/alusumó (Mo) | da/alusáy (Mo) | | plant sp. | (Osyris compressa) |
| da/alusumo (Mo) da/aluso'o (Fr) | da/alusee (Fr) | | sorcerer (♂,♀ respectively) | |
| Da/araa | | | Da/araa | Personal Name (♂); c.f. da/araa |
| da/araa (Fr) | | | ashes | Mass |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| **Singular** | **General** | **Plural** | | |
| da/ari (NØ) | | | witchcraft | |
| Da/atá | | | Da/atá | Personal Name (♂); c.f. da/ata |
| Da/atí | | | Da/atí | Personal Name (♀); c.f. da/ata |
| da/áw (Fr) | | | east | |
| da/eboo (NØ) | da/awi (NØ) | da/ebubu (NØ) | chest | |
| daa'i (Fr) | daa'aa (Fr) | | plant sp. | Bamboo (Bambusa vulgaris) |
| Daadú | | | | Personal Name (♂); it was noted that this may be a borrowing from Rangi word 'duudu' (meaning unknown) |
| daafi (Fr) | | dafifiingw (Mo) | bringing the cows home | Deverbal (source verb, <daáf>) |
| Daafí | | | Daafí | Personal Name (♂/♀); c.f. daafi |
| Daahhí | | | Personal Name (♂) | Personal Name (♂); c.f. daahhi |
| daahhumó (Mo) | daahhí (Fr) | daahháy (Mo) | bird sp. any sp. of starling | |
| daama'umo (Mo) | daamá (Mo) | | mammal sp. | Common eland (Taurotragus oryx) |
| Daambáy | | | Daambáy | Personal Name (♂); c.f. daambáy |
| daambumó (Mo) | daambáy (Mo) | | bird sp. | any sp. of weaver |
| daamó(g) (Fr) | daamó(g) (Fr) | daamogadu (NØ) | beard | |
| daanda (Mo) | | daandeemo (Na) | back | |
| Daanda/áy (Mo/Fr) | | | Daanda/áy | Place Name |
| daangafi (Ft) | | daangafáy (Mo) | k.o. gourd | |
| Daasham | | | Daasham | Personal Name (♂) |
| daasloo (Fr) | | daslisliingw (Mo) | grinding millet (roughly, for beer) | Deverbal (source verb, <daásl>) |
| Daasloó | | | Daasloó | Personal Name; c.f. daasloo |
| Daatá | | | Daatá | Personal Name (♂) |
| daawaa (Fr) | | daawudu (NØ) | medicine | |
| Daawee | | | Daawee | Personal Name (♀); c.f. daawu |

| Nouns | | | Gloss | Nota |
| Singular | General | Plural | | |
|---|---|---|---|---|
| daawu (Mo) | daawee (Fr) | | elephant (Loxodonta sp.) | |
| daaxoo (Fr) | | daaxuxuungw (Mo) | drawing blood | Deverbal (source verb <daáxw>) |
| dageenito'o (Fr) | dageenoo (NØ) | | young woman | |
| Dago | | | Dago | Personal Name (♂) |
| dahamu (Mo) | | darah (Mo) | entering | Deverbal (source verb, <dáh>) |
| dahasiingw (Mo) | | | seeds | |
| Dahayeé | | | | Personal Name (♂/♀); c.f. dahayee |
| dahaymo (Mo) dahayto'o (Fr) | dahayee (Fr) | | visitor (♂,♀ respectively) | |
| dahhaangw (Mo) | | dehheeri (NØ) | k.o. gourd | |
| dahhami (Ft) | | dahhamáy (Mo) | gully | |
| daka'umó (Mo) | daka'oo (Fr) | | plant sp. | Baobab (Adansonia digitata) |
| Daka'umó (Mo) | | | Daka'umó | Place Name |
| dakeeti (Fr) | | dakeetima' (NØ) | mammal sp. | any zebra sp. |
| daktani (Ft) | daktanaa (Fr) | | fool (both ♂ and ♀) | |
| daktu'uma (Fr) | | | stupidity | Mass |
| dakw (Mo) | | dakwi'i (NØ) | procedure | |
| dalgaasi (Ft) | dalgás (Mo) | dalgaasáy (Mo) | bird sp. | |
| Dalo | | | Dalo | Personal Name (♂) |
| dama (Fr) | damay (NØ) | | calf | c.f. the Swahili 'ndama': 'calf' |
| Damá | | | Damá | Personal Name (♂); c.f. dama |
| Dama'í | | | Dama'í | Personal Name (♂) |
| damito (Fr) | | damaraangw (Mo) | waiting | Deverbal (source verb, <damaraám>) |
| Damsi | | | Damsi | Personal Name (♂) |
| danú (Mo) | | dannee (Fr) | honey | |
| Danú | | | Danú | Personal Name (♂); c.f. danú |
| daqa (Ft) | daqoo (NØ) | | herd | |
| Daqanoó | | | Daqanoó | Personal Name (♂) |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| **Singular** | **General** | **Plural** | | |
| daqarmo (Mo) daqarito'o (Fr) | daqaree (Fr) | | rich person (♂,♀ respectively) | |
| daqaro (Fr) | | daqaangw (Mo) | skinning | Deverbal (source verb, <daáq>) |
| Daqaro | | | Daqaro | Personal Name (♂); c.f. daqaro |
| daqeemu (Mo) | | daqaqaangw (Mo) | going | Deverbal (source verb, <daqáy>) |
| daqway (Mo) | | daqwa' (NØ) daqwi'i (NØ) daqwayee (Fr) | donkey; 15-gallon measure | |
| Daqway | | | Daqway | Personal Name (♂); c.f. daqway |
| daqwáy sla/aa (Mo) | | daqwá sla/aa (NØ) | mammal sp. any zebra sp. | |
| Darabe | | | Darabe | Personal Name (♂); possibly from Datooga |
| daráy (Mo) | | | mane | Mass |
| Darbaidú | | | Darbaidú | Personal Name |
| dari (Ft) | | daráy (Mo) | comb (of rooster) | |
| darma (Mo) | | | grassland | Mass |
| Datí | | | Datí | Personal Name (♂); c.f. dati |
| datumó (Mo) | dati (Ft) | dataa (Mo) | plant sp. | Sausage Tree (Kigelia africana) |
| dawa (Mk) | dabee (Fr) | daba' (NØ) | hand | |
| Dawár (Mo/Fr) | | | Dawár | Place Name |
| daweelimó (Mo) | dawél (Mo) | | insect sp. | |
| Dawí | | | Dawí | Personal Name |
| dawri (Fr) | | | sky, heavens | Singularia Tantum |
| dawutimee (Fr) | | | fatigue | |
| Dayo | | | Dayo | Personal Name (♂) |
| De'emáy | | | De'emáy | Personal Name (♂); c.f. de'eengw |
| de'emisi (Ft) | | de'emisáy (Mo) | bird sp. | any sp. of Wagtail (esp. African Pied Wagtail (Motacilla aguimp)) |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| **Singular** | **General** | **Plural** | | |
| de/arumó (Mo) | de/ár (Mo) | | vein, root | |
| de/eeboo (NØ) | | de/eebubu (NØ) | chest | |
| deede/i (Fr) | deedé/ (Mo) | | bird sp. | any sp. of lark and (esp.) cisticola |
| deelimó (Mo) | deeláy (Mo) | | kid (i.e. baby goat) | |
| deeloo (Fr) | | delu (NØ) | day | |
| deemu (Mo) | | | being present | c.f. v. deer 'be present' |
| deeqwaa (Fr) | | dequ (NØ) | razor | |
| Deerimó (Mo) | | | Deerimó | Place Name |
| Deleku | | | Deleku | Personal Name (♂) |
| deli (Ft) | delaa (Fr) | | mushroom | |
| Delí | | | Delí | Personal Name (♂/♀); c.f. deli |
| desi (Fr) | desu (Mo) | | girl | |
| di (Fr) | yaamu (NØ) | | place | |
| di/i (Ft) | | di/áy (Mo) | oil | |
| Di/í | | | Di/í | Personal Name (♀); c.f. di/i |
| difta (Fr) | | difiifiingw (Mo) | hitting | Deverbal (source verb, <diíf>) |
| Difta | | | Difta | Personal Name (♂); c.f. difta |
| digirmó (Mo) | digír (Mo) | digirma' (NØ) | footprint | |
| diimarusmo (Mo) diimaruso'o (Fr) | diimarusee (Fr) | | senile person (♂,♀ respectively) | |
| diingi (Fr) | diingoo (Fr) | | bird sp. | |
| diinku'uma (Fr) | | diinku'umadu (NØ) | meeting | |
| diinqi (Fr) | | diinqáy (Mo) | slipknot, noose | |
| Diinyá | | | Diinyá | Personal Name (♂) |
| diitsaa (Fr) | | diitsa' (NØ) | finger | |
| diqitá dawa (Fr) | | diqiyá daba (NØ) | forearm | |
| diraangw (Mo) | | direeri (NØ) | lion | |
| Diraangw | | | Diraangw | Personal Name (♂); c.f. diraangw |
| ditoo (Fr) | | ditoodu (NØ) | enclosure | |
| Ditoo | | | Ditoo | Personal Name (♀); c.f. ditoo |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| **Singular** | **General** | **Plural** | | |
| diwi (Ft) | | diwáy (Mo) | salt | |
| do' (Mo) | | maray (NØ) <br> mar'i (NØ) | house | |
| do/í (Fr) | | do/áy (Mo) | cane rat | |
| do/ita (Fr) | | do/imit (Mo) | scurrying away | Deverbal (source verb, <do/iít>) |
| Do/ita | | | | Personal Name (♂/♀); c.f. do/ita |
| dohhisa (Fr) | | dohhimis (Mo) | fining | Deverbal (source verb, <dohhiís>) |
| Dohom (Mo) | | | Dohom | Place Name |
| doloodumó (Mo) | doloó(d) (Mo) | doloodima' (NØ) | bird sp. | Southern Ground-hornbill (Bucorvus leadbeateri) |
| Doofaa | | | Doofaa | Personal Name (♂); c.f. doofaa |
| doofaa (Fr) | | dofu (NØ) | rhinoceros | |
| Doohhoo | | | Doohhoo | Personal Name (♂/♀); c.f. doohhoo |
| doohhoo (Fr) | | dohhu (NØ) | fine | |
| Doloó | | | Doloó | Personal Name (♂); c.f. doloó(d) |
| doomu (Mo) | | doomi'i (NØ) | rainy season | |
| Doongo | | | Doongo | Personal Name |
| doosla (Fr) | | doslit (Mo) | farming | Deverbal (source verb, <doósl>) |
| Dooslá | | | Dooslá | Personal Name (♂); c.f. doosla |
| Dorobo | | | Dorobo | Personal Name (♂/♀); c.f. durboo |
| dorowumó (Mo) | dorowáy (Mo) | | bastard | |
| du'uma (Mo) | | du'eemi (NØ) | leopard, cheetah | |
| Du'uma | | | Du'uma | Personal Name (♂); c.f. du'uma |
| du/ú (Mo) | | | fat | Mass |
| du/uma'ú (Mo) | | | plant sp. | |
| dugunó (Mo) | | dugeeni (NØ) | thumb, big toe | |
| Dulay | | | Dulay | Personal Name (♂) |
| dunga (NØ) | | dungugu (NØ) | nose | |
| duqusa (Fr) | | duqumis (Mo) | throwing | Deverbal (source verb <duúq>) |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| Singular | General | Plural | | |
| durboo (Fr) | | durbodu (NØ) | colonial-era forest clearing | c.f. the Swahili 'mdarobo' (?): 'tsetse fly'; also pronounced <darbo> |
| duukaa (Fr) | | duukadu (NØ) duukanáy (Mo) | shop | |
| Duuqay | | | Duuqay | Place Name |
| duura'i (Fr) | | duura'áy (Mo) | flame | |
| Duuru (Mo) | | | Duuru | Place Name |
| Duuru | | | Duuru | Personal Name (♂/♀); c.f. either Duuru, or duura'i |
| duutsú (Mo) | | | soup | Mass |
| duuxa (Fr) | | duxut (Mo) | taking out | Deverbal (source verb, <duúx>) |
| duwa (NØ) | | | sap | Mass |
| duwa/i (Fr) | duwa/aa (Fr) | duwa/áy (Mo) | mammal sp. any sp. of long-snouted mouse-like rodent (sengi, etc.) | |
| Duwanqeedimo (Mo) Duwanqeedito'o (Fr) | Duwanqeé(t) | | person of Maasai ethnicity (♂,♀ respectively) | |
| duxoo (Fr) | | duxuxuungw (Mo) duxut (Mo) | marriage | <duxuxuungw> (Men) <duxut> (Women): act of marrying or being married many times, or many marriages |
| Duxoo | | | Duxoo | Personal Name (♂/♀); c.f. duxoo |
| Eero | | | Eero | Personal Name |
| Enda | | | Enda | Personal Name (♂/♀) |
| Endabég (Fr) | | | Endabég | Place Name |
| Endadimeé(d) (Fr) | | | Endadimeé | Place Name |
| Endadoósh (Fr) | | | Endadoósh | Place Name |
| Endadu (Fr) | | | Endadu | Place Name |
| Endagidingee (Fr) | | | Endagidingee | Place Name |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| Singular | General | Plural | | |
| Endagile (Fr) | | | Endagile | Place Name |
| Endagwee (Fr) | | | Endagwee | Place Name |
| Endahobariye(d) (Fr) | | | Endahobariye | Place Name |
| Endakiso (Fr) | | | Endakiso | Place Name |
| Endamaqee (Fr) | | | Endamaqee | Place Name |
| Endamutungay (Fr) | | | Endamutungay | Place Name |
| Endanachán(d) (Fr) | | | Endanachán | Place Name |
| Endarbo (Fr) | | | Endarbo | Place Name |
| Endare (Fr) | | | Endare | Place Name |
| Endarqadát (Fr) | | | Endarqadát | Place Name |
| fa/aa (Fr) | | fa/oo (NØ) | ugali | |
| faanfe' (Mo) | | faanfe'eeri (NØ) | reptile sp. | any large, striped, venomous, brown snake |
| Faante | | | Faante | Personal Name (♂) |
| faara (Ft) | | fadu (NØ) | bone | |
| faari (Fr) | | faaroo (Fr) | counting | c.f. faara |
| Faheli (Fr) | | | Faheli | Place Name |
| fala (Ft) | | faloo (NØ) | cow hide (rope) | |
| faltá daqway (Fr) | | faloó daqwa' (NØ) | saddlebag | |
| farasmó (Mo) | farás (Mo) | | horse | |
| Farayo | | | Farayo | Personal Name (♂) |
| fe'o (Fr) | | fe'i'iingw (Mo) | harvesting lightly for household food | |
| Fe'o | | | Fe'o | Personal Name (♂); c.f. fe'o |
| feehhimi (Ft) | | feehhimáy (Mo) | crevice | |
| fi'it (Mo) | | | heeding the alarm call (<oyee>) | Deverbal (source verb <fi'iít>) |
| Fi'itá | | | | Personal Name (♀); c.f. fi'it |
| fiisoo (Fr) | | fisiisiingw (Mo) | stealing | Deverbal (source verb, <fiís>) |

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| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| **Singular** | **General** | **Plural** | | |
| fiisusumo (Mo) fiisuso'o (Fr) | | fiisusee (Fr) | thief (♂,♀ respectively) | |
| fiitsi (Ft) | | fiitsáy (Mo) | broom | |
| filá (Mo) | | fileemo (NØ) *fileema'* (NØ) | anteater (Orycteropus afer) | |
| Filalí | | | Filalí | Personal Name (♀) |
| Firimeni | | | Firimeni | Personal Name (♂) |
| firimo (Fr) | | fiririingw (Mo) firoo (Fr) | asking, praying, prayer | Deverbal (source verb, <firiím>) |
| fitsimó (Mo) | fitsi (Fr) | fitsaa (Fr) | plant sp. (Acacia hockii) | |
| foola (Fr) | | folit (Mo) | burying | Deverbal (source verb, <foól>) |
| foolusumo (Mo) fooluso'o (Fr) | | foolusee (Fr) | burier (♂,♀ respectively) | |
| foori (Fr) | fooroo (Fr) | | flute | |
| fooxaa (Fr) | | foxu (NØ) fooxanáy (Mo) | hole (small) | |
| Fooyá | | | Fooyá | Personal Name (♂) |
| Fu'unáy | | | | Personal Name (♂); c.f. fu'unay |
| fu'uni (Fr) | fu'unay (NØ) | | meat (one piece) | |
| Fula | | | Fula | Personal Name |
| fulanamó (Mo) | fulana (Mo) fulanáy (Mo) | fulanama' (NØ) | shirt | |
| fuqi (Ft) | | | adultery | Mass |
| fuqumó (Mo) | fuqi (Ft) | fuqaa (Fr) | plant sp. | Whistling Thorn or Black-Galled Acacia (Acacia drepanolobium) |
| fuquná daqwáy (Mo) | | | plant sp. | |
| fuqunó (Mo) | | fuqeeni (NØ) | nail (i.e. finger-, toe-), claw | |
| fur'a (Fr) | | | wind | Mass |
| Furijí | | | Furijí | Personal Name (♂) |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| Singular | General | Plural | | |
| furu (Mo) | | furree (Fr) | twig, toothbrush | |
| furú iitsaangw (Mo) | | furú iitsaawe (Mo) | plant sp. | (Tragia brevipes) |
| furutlutlu'a (Ft) | | furreetlutlu'uungw (Mo) | brushing one's teeth | |
| fuufí (Fr) | | fuufeemo (NØ) | mammal sp. | |
| ga (Fr) | | moro' (Mo) | thing | |
| ga/alee (Fr) | | ga/aledu (NØ) | shield | |
| ga/atini (Ft) | | ga/atanáy (Mo) | fever (high) | |
| ga/awngw (Mo) | | | looking (i.e. for a long time) | Mass<br>Deverbal (source verb <ga/áw>) |
| ga/awusmo (Mo)<br>ga/awuso'o (Fr) | ga/awusee (Fr) | | colonial overseer (♂,♀ respectively) | |
| gaanslay (Mo) | | | speed, pace | Mass |
| gaari (Fr) | | gaaridu (NØ) | car, motor vehicle | |
| gaasa (Fr) | | gaamis (Mo) | killing, extinguishing, breaking | Deverbal (source verb, <gaás>) |
| Gaché | | | Gaché | Personal Name (♂) |
| Gadi | | | Gadi | Personal Name (♂); c.f. the English 'God' |
| Gadiyee | | | Gadiyee | Personal Name; c.f. gadiyeé(d) |
| gadiyeé(d) (Fr) | | gadiyeedu (NØ) | work, labour | |
| galapi (Fr) | galapoo (Fr) | | plant sp. | (Piliostigma thonningii) |
| Galapoo (Fr) | | | Galapoo | Place Name |
| galaxandimó (Mo)<br>galaxandito'o (Fr) | galaxandáy (Mo) | galaxandima' (NØ) | person with a small body (esp. a child) (♂,♀ respectively) | |
| Galaxoo | | | Galaxoo | Personal Name (♀); c.f. galaxandí |
| Gamahha | | | Gamahha | Personal Name (♂); possibly from Alagwa (etymon unknown) |
| gamiaa (Fr) | | gamiadu (NØ) | camel | |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| Singular | General | Plural | | |
| gamu (NØ) | | gammee (Fr) | underneath (n.), foot (e.g. of a tree, mountain, etc.) | |
| gangalhhimó (Mo) | | gangalhhima' (NØ) | wedding bracelet | |
| garaangw (Mo) | | gareeri (NØ) | mouse, rat | |
| Garaangw | | | Garaangw | Personal Name; c.f. garaangw |
| garma (Mo) | daaqay (Mo) | | boy, young man | |
| Garo | | | Garo | Personal Name (♂) |
| gasesmó (Mo) | gasesáy (Mo) | gasesima' (NØ) | reptile sp. | |
| gawá (Ft) | | | up (n.) | Questioned form <gawatoô> |
| Gawday | | | | Personal Name (♂); c.f. gawdi |
| gawdi (Fr) | gawdaa (Fr) | | plant sp. | (Acacia nilotica) |
| Gayuw (Mo) | | | Gayuw | Place Name |
| Gedabósh (Fr) | | | Gedabósh | Place Name |
| Gedamár (Fr) | | | Gedamár | Place Name |
| gee/ay (Mo) | | gee/aawee (Fr) | slope, shelf in a traditional house | |
| Gee/ay | | | Gee/ay | Personal Name (♀); c.f. gee/ay |
| gee/umó (Mo) | gee/ó (Mo) | | bird sp. | any sp. of Rock-thrush |
| Geejay | | | Geejay | Personal Name (♂) |
| Jeela | | | Jeela | Personal Name (♂/♀); c.f. jeela |
| geenaangw (Mo) | | geenaawee (Fr) | bird sp. | any medium-sized raptor which hunts primarily by rapidly snatching its prey (goshawks, etc.) |
| Geenáy | | | Geenáy | Personal Name (♂); c.f. geenaangw |
| geenda'i (Fr) | geendá' (Mo) | | plant sp. | |
| Geendí (Fr) | | | Geendí | Place Name |
| Geeni/i (Ft) | | | Geeni/i | Place Name |
| geera (NØ) | | | front (n.) | Mass |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| Singular | General | Plural | | |
| geeraharusumo (Mo) geeraharuso'o (Fr) | geeraharusee (Fr) | | leader, guide (♂,♀ respectively) | |
| Geeso | | | Geeso | Personal Name (♂); c.f. the Datooga <geeso>: a type of traditional beer |
| Geeta'í | | | Geeta'í | Personal Name (♂) |
| Geetalongoó(d) (Fr) | | | Geetalongoó | Place Name |
| Geetará (Fr) | | | Geetará | Place Name |
| Geewee | | | Geewee | Personal Name (♂) |
| Gesbeé(d) (Fr) | | | Gesbee | Place Name |
| | gewoó(d) (Fr) | | disease | Mass |
| Giahalo | | | Giahalo | Personal Name (♂) |
| Gichame | | | Gichame | Personal Name (♂); perhaps derived from Datooga (etymon unknown) |
| Gidabaqár (Fr) | | | Gidabaqár | Place Name |
| Gidabaso | | | Gidabaso | Personal Name (♂); c.f. Baso |
| Gidahababiyeé(d) (Fr) | | | Gidahababiyeé | Place Name |
| Gidahoonda | | | Gidahoonda | Personal Name (♂); perhaps derived from Datooga (etymon unknown) |
| Gidahuta | | | Gidahuta | Personal Name (♂); perhaps derived from Datooga (etymon unknown) |
| Gidale | | | Gidale | Personal Name (♂); perhaps derived from Datooga (etymon unknown) |
| Gidamondo (Fr) | | | Gidamondo | Place Name |
| Gidangoo | | | Gidangoo | Personal Name (♂); perhaps derived from Datooga (etymon unknown) |
| Gidaqalle (Fr) | | | Gidaqalle | Place Name |
| Gidaqarbu (Mo) | | | Gidaqarbu | Place Name |
| Gidás (Fr) | | | Gidás | Place Name |
| Gideeme | | | Gideeme | Personal Name (♂) |
| Gideeráy | | | Gideeráy | Personal Name (♂) |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| **Singular** | **General** | **Plural** | | |
| Gideshaán(d) (Fr) | | | Gideshaan | Place Name |
| Gidira | | | Gidira | Personal Name (♂); perhaps derived from Datooga (etymon unknown) |
| Gidisoo | | | Gidisoo | Personal Name (♂) |
| gidondoori (Fr) | gidondór (Mo) | gidondoráy (Mo) | gidondoori | |
| Gidonga | | | Gidonga | Personal Name (♂) |
| giheerií(d) (Fr) | | giheeridima' (NØ) | mammal sp. | Striped hyaena (Hyaena hyaena) |
| Giicharo | | | Giicharo | Personal Name (♂) |
| Giilago | | | Giilago | Personal Name (♂) |
| Giinawe | | | Giinawe | Personal Name (♂) |
| giiroo (Fr) | | gigidiingw (Mo) | ambushing | Deverbal (source verb, <giír>) |
| giirwaangw (Mo) | | giirweeri (NØ) | plant sp. | (Catunaregan spinosa) |
| Giirwawee | | | Giirwawee | Personal Name (♂); c.f. giirwaangw |
| Giisá | | | Giisá | Personal Name (♀) |
| Giisana | | | Giisana | Personal Name (♂) |
| Giisini | | | Giisini | Personal Name (♂) |
| Giitiyá | | | Giitiyá | Personal Name (♂) |
| giitsee/a' (NØ) | | giitsee/u/u (NØ) | face, forehead | |
| gila (NØ) | | | quarrel | Mass |
| gilá' (Mo) | | gil'eeri (NØ) | hide (undried) | |
| Gilacha | | | Gilacha | Personal Name; perhaps derived from Datooga (etymon unknown) |
| Gilangoy | | | Gilangoy | Personal Name (♂) |
| Gilika | | | Gilika | Personal Name (♂) |
| Gilooyá | | | Gilooyá | Personal Name |
| Ginaná | | | Ginaná | Personal Name (♂); perhaps derived from Datooga (etymon unknown) |
| Ginyaba | | | Ginyaba | Personal Name (♂); perhaps derived from Datooga (etymon unknown) |
| Giroo | | | | Personal Name (♂/♀); c.f. giroo |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| Singular | General | Plural | | |
| Giroyí (Fr) | | | Giroyí | Place Name |
| gisaangi (Fr) | | gisaangá' (NØ) | k.o. gourd | |
| Gisboy | | | Gisboy | Personal Name (♂) |
| Giseemboo | | | Giseemboo | Personal Name (♂); perhaps derived from Datooga (etymon unknown) |
| Giseerí | | | | Personal Name (♂); c.f. giseerí(d) |
| giseerimó (Mo) | giseerí(d) (Mo) | giseeridu (NØ) giseerima' (NØ) giseeridima' (NØ) | pot for special beer | |
| Gishingde | | | Gishingde | Personal Name (♂); perhaps derived from Datooga (etymon unknown) |
| Gitariyo | | | Gitariyo | Personal Name (♂); perhaps derived from Datooga (etymon unknown) |
| gitlahharimó (Mo) | | gitlahheeri (Fr) gitlahharima' (NØ) | entrance posts | |
| Gitorí (Fr) | | | Gitorí | Place Name |
| Gitsiimi (Fr) | | | Gitsiimi | Place Name |
| gitsimi (Fr) | gitsoo (Fr) | | leaf, blade of grass | |
| Gitsoo | | | Gitsoo | Personal Name (♂); c.f. gitsoo |
| Giturú | | | Giturú | Personal Name (♂); perhaps derived from Datooga (etymon unknown) |
| giwti (Fr) | | | darkness | Mass |
| gixsaa (Fr) | | gixsadu (NØ) gixseema' (NØ) | town, city | |
| Giyambay | | | Giyambay | Personal Name (♂) |
| Giyee | | | Giyee | Personal Name (♂); c.f. giyeé(d) |
| giyeé(d) (Fr) | | | famine | |
| Gobaré | | | Gobaré | Personal Name (♂) |
| Godawn (Fr) | | | Godawn | Place Name |
| Gongá | | | Gongá | Personal Name (♂) |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| Singular | General | Plural | | |
| gongooxi (Fr) | | gongoxa' (NØ) | elbow | |
| gonoxumó (Mo) | | gonoxuma' (NØ) | ankle | |
| Goodí | | | | Personal Name (♂); c.f.the Swahili 'kodi': 'tax" |
| goofaangw (Mo) | | goofaawee (Fr) goofeeri (NØ) | antelope sp. | |
| gooli (Fr) | | gooláy (Mo) | goal (in football) | |
| Goombáy | | | Goombáy | Personal Name (♂) |
| Gootí | | | Gootí | Personal Name (♂) |
| gootlumó (Mo) | gootló (Mo) | | bird sp. | any sp. of Robin-Chats |
| Gora | | | Gora | Personal Name; c.f. goranga |
| Goranga (Mo) | | | Goranga | Place Name |
| goranga (Mo) | | | song for hero | |
| Gormo (Mo) Gorto'o (Fr) | Gorwaa (NØ) | | person of Gorwaa ethnicity (♂,♀ respectively) | <Gorwaa> may be reduced to <Goraa> |
| gotla (Mo) | | gootlitiingw (Mo) gotlit (Mo) | insulting | Deverbal (source verb ? <goótl>) |
| Goyandí | | | Goyandí | Personal Name; perhaps derived from Datooga (etymon unknown) |
| gu'ute (Fr) | | gu'usa (Fr) guugu'usa (Fr) gugu'umis (Mo) | sleeping | Deverbal (source verb, <guú'>); <gugu'umis> repeatedly laying (someone) down to sleep |
| Gu/uloo | | | Gu/uloo | Personal Name (♂); c.f. gu/a |
| Gu/umá | | | Gu/umá | Personal Name (♂); c.f. gu/umá |
| gudoo (NØ) | | guddee (Fr) | testicle | |
| gufu (Mo) | | guffee (Fr) | smouldering stick | |
| guhhulay (Mo) | | guhhuli'i (NØ) | club (i.e. a weapon) | |
| Gujonjó | | | Gujonjó | Personal Name (♂) |
| Guldáy | | | Guldáy | Personal Name (♂) |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| Singular | General | Plural | | |
| gulguchaandi (Fr) | gulguchandaa (Fr) | | plant sp. | (Zanha africana) |
| gulungulita | | gulungulimit (Mo) | making (sth.) into a sphere | Deverbal ? |
| gumbayayá' (Mo) | | gumbayaya'ee (Fr) | kidney | |
| Gunakí | | | Gunakí | Personal Name; perhaps derived from Datooga (etymon unknown) |
| gura' (Mo) | | gur'i (NØ) | stomach | |
| gureendi (Fr) | | gureendáy (Mo) | donkey colt | |
| gurhami (Fr) | | | misgiving | Mass |
| gurhhoo'a (Fr) | | | good (n.) | Mass |
| gurkwa/ama (NØ) | | | encouragement | Mass |
| guro'ó slee (Mo) | | guri'í yiikwa (NØ) | unborn calf | |
| Guronjó | | | Guronjó | Personal Name (♂) |
| gurtlakwee (Fr) | | | malevolence | Mass |
| gurtleemu (Mo) | | | pity, mercy | Mass |
| gurtu (Mo) | | gurtaawee (Fr) | male goat | |
| Gurtu | | | Gurtu | Personal Name (♂); c.f. gurtu |
| gurungura' (Mo) | | gurungure'i (NØ) gurungureeri (NØ) | knee | |
| guta/ati (Fr) | guta/atoo (Fr) | | plant sp. | (Dombeya sp.) |
| gutlá' (Mo) | | | mucilagenous side-dish | |
| guundurufi (Fr) | guundurufaa (Fr) | | reptile sp. | Royal Python (?) (Python regius) |
| gwa'ara (Fr) | | gwa'ardu (NØ) | death | Deverbal (source verb <gwaá'>) |
| gwa'ara (Fr) | | gwagwa'aangw (Mo) | dying, breaking | Deverbal (source verb <gwaá'>) |
| Gwa'i | | | Personal Name (♂/♀) | Personal Name (♂/♀); c.f. gwa'ara |
| gwa/ateema (NØ) | | | light | |
| gwaambumó (Mo) | gwaambú (Mo) gwambáy (Mo) | gwambeemoo (NØ) | bird sp. | White-browed Coucal (Centropus superciliosus) |
| Gwaande/i | | | Gwaande/i | Personal Name (♂); c.f. gwaande/imó |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| Singular | General | Plural | | |
| gwaande/imó (Mo) | gwaandé/ (Mo) | gwaande/ima' (NØ) | tomcat | |
| gwalay (Mo) | | gwali'i (NØ) | vagina | |
| gwaloo (Fr) | | | hunting honey | Mass<br>Deverbal (source verb \<gwaluús>) |
| Gwalo | | | | Personal Name (♂); c.f. gwaloo |
| gwambú (Mo) | | gwambeemo (NØ) | animal trap (made of netting) | |
| Gwambú | | | Gwambú | Personal Name (♂); c.f. gwambú |
| Gwanadí | | | Gwanadí | Personal Name (♀); perhaps derived from Datooga (etymon unknown) |
| Gwandí | | | Gwandí | Personal Name (♂) |
| gwandu (Mo) | | gwandaawee (Fr) | male sheep | |
| gwandu (Mo) | | gwanda (?) | plant sp. Milkweed | (Gomphocarpus fruticosus) |
| Gwandú | | | Gwandú | Personal Name (♂); c.f. gwandu |
| gwantsumó (Mo) | gwantsáy (Mo) | gwantseema' (NØ) | bird sp. | any sp. of Paradise-Whydah, Whydah, or Indigobird |
| gwar/i (Fr) | gwár/ (Mo) | gwar/ay (Mo) | mammal sp. | Brindled gnu, Common wildebeest (Connochaetes taurinus) |
| gwareesi (Fr) | gwarés (Mo) | | bird sp. | any vulture sp. |
| gwe'edoo (NØ) | | gwe'edudu (NØ) | buttock | |
| gweelo (Fr) | | | protesting (specifically by women) | Mass<br>Deverbal (source verb \<gweeluús>) |
| Gweelo | | | Gweelo | Personal Name (♂); c.f. gweeloo |
| gweerusumo (Mo)<br>gweeruso'o (Fr) | gweerusee (Fr) | | saviour (♂,♀ respectively) | |
| gwehhimó (Mo) | | gwehhima' (NØ) | rib | |
| gwerehhi (Fr) | gweréhh (Mo) | | dikdik (large) | |
| Gwerehhí | | | Gwerehhí | Personal Name (♂/♀); c.f. gwerehhi |
| gwu/a (Ft) | | gwu/uungw (Mo) | swallowing | Deverbal (source verb, \<guú/>) |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| Singular | General | Plural | | |
| gwu/uma (Mo) | | gwu/eemi (NØ) | carcass, badly burned person, stogie | |
| Haangáy | | | Haangáy | Personal Name (♂) |
| habahambi (Fr) | habahamboo (Fr) habahambáy (Mo) | | spider | |
| Habiyé | | | Habiyé | Personal Name (♂); c.f. the Barbaig 'habiye': 'hyena' |
| Hajanja | | | Hajanja | Personal Name; c.f. the Swahili 'mjanja', 'a clever, crafty person' |
| Hamani | | | Hamani | Personal Name (♂); c.f. the Swahili 'amani'; also N.B. 'Hamani Diori' was the first president of Niger |
| Hamdi | | | Hamdi | Personal Name (♀) |
| hampú (Mo) | | hampe'eeri (NØ) | wing | |
| hamslitoo (Fr) | | | bathing | Mass Deverbal (source verb <hamsliím>) |
| Hanarumó (Mo) | | | Hanarumó | Place Name |
| Hangoni (Fr) | | | Hangoni | Place Name |
| hapeelimó (Mo) | hapél (Mo) | hapeelima' (NØ) | bird sp.; mammal sp. | any sp. of nightjar; any sp. of bat |
| Haqweé | | | Haqweé | Personal Name (♂) |
| Hara/a (Fr) | | | Hara/a | Place Name |
| harafari (Fr) | harafaroo (Fr) | | hope | |
| Harár | | | Harár | Place Name (Semi-Mythical Place) |
| harariyoodaa (Fr) | harariyoodáy (Mo) | harariyoodudu (NØ) | semi-mythical creature | |
| hardahamu (Mo) | | hardarah (Mo) | arriving | Deverbal (source verb <hardáh>) |
| haree (Fr) | | tiyay (NØ) | wife | |
| hareé kuráy | | hárr kuráy | bird sp. | hammerkop |
| hareér loolií(d) (Mo) | | hareér loolií(d) (Mo) | bird sp. | |
| harimaa (Fr) | | harimadu (NØ) | justice, right | |

| Nouns | | | Gloss | Nota |
| Singular | General | Plural | | |
|---|---|---|---|---|
| haritlakwee (Fr) | | | accident, disaster | Mass |
| Hariyá | | | Hariyá | Personal Name (♂) |
| harma'i (Fr) | harma'oo (Fr) | | shoot (i.e. of plant) | |
| harmagahhitoo (Fr) | | | vigilance | Mass |
| Harmo | | | Harmo | Personal Name (♂) |
| harweera (Fr) | | harwedit (Mo) harweririingw (Mo) | surrounding | Deverbal (source verb <harweér>) <harwedit> 'surrounding' (action only takes a short period of time), 'returning again and again' <harweririingw> 'surrounding' (action takes or lasts a long time) |
| Harweeri | | | Harweeri | Personal Name (♂); c.f. harweera |
| hasloo (Fr) hasliroo (Fr) | | | idea(s) | Mass |
| hatliroo (Fr) | | hatliingw (Mo) hatlitliingw (Mo) | trapping with birdlime | Deverbal (source verb ? <haátl>) |
| hatloo (Fr) hatliroo (Fr) | | | difference(s) | Mass |
| hawweé(d) (Fr) | haweedu (NØ) | *hawweedima' (NØ)* | hippopotamus | |
| Haydee | | | Haydee | Personal Name (♂) |
| hayi (Ft) | hayaa (NØ) | | feather | |
| Hayshí | | | Hayshí | Personal Name (♂) |
| Haytemba (Mo/Fr) | | | Haytemba | Place Name |
| hee (Mo) | | muu (Mk) | person | |
| Heegaru | | | Heegaru | Personal Name (♂) |
| heele/i (Fr) | heelé/ (Mo) | | bird sp. | any heron or egret-like waterbird |
| Heeloo | | | | Personal Name; c.f. heeloo |
| heeloo (Fr) | | | k.o. song | Mass |
| heeyuma (Fr) | | | character, humanity | Mass |
| Hemét (Fr) | | | Hemét | Place Name |

| Nouns | | | Gloss | Nota |
| Singular | General | Plural | | |
| --- | --- | --- | --- | --- |
| Hhaalaa (Fr) | | | Hhaala | Place Name |
| hhaalaa (Fr) | | hhalu (NØ) | well | |
| Hhaaloo | | | Personal Name (♀) | Hhaaloo; c.f. hhaalaa |
| hhaami (Fr) | | | destruction | Mass |
| hhaamú (Mo) | | hhameema' (NØ) | trap (bird snare) | |
| hhay (Mo) | | hha'i (NØ) | line, stripe | |
| hhafti (Fr) | hhaftáy (Mo) | hhafeeto  (NØ) hhafeetutu (NØ) | reed mat (large) | |
| hhafumó (Mo) | hhafa (Ft) | | ceiling pole | |
| Hhalahhaláy | | | Hhalahhaláy | Personal Name (♂); c.f. hhalahhali |
| hhalahhali (Ft) | hhalahhaláy (Mo) | hhalahhala' (NØ) hhalahhalima' (NØ) | extra finger | |
| Hhalu (Mo) | | | Hhalu | Place Name |
| Hhamandá | | | Hhamandá | Personal Name (♂) |
| hhamhhamó (Mo) | | hhamhhama' (NØ) | eyebrow | |
| Hhandoo | | | | Personal Name (♂); c.f. the Iraqw <hhandoo>: 'the cry of a donkey' |
| Hhangalí | | | Hhangalí | Personal Name (♂/♀); c.f. hhangalimó |
| hhangalimó (Mo) | hhangál (Mo) hhangalí (Mo) | | Sodom Apple | |
| Hhangú | | | Hhangú | Personal Name (♂); c.f. hhangwí |
| Hhanguwa | | | Hhanguwa | Personal Name (♂); c.f. hhangwí |
| hhangwí (Fr) | hhaangwaa (Fr) | | plant sp. | (Ormocarpum trichocarpum) |
| Hhanslá | | | Hhanslá | Personal Name (♂); c.f. hhansli |
| hhansli (Fr) | hhanslaa (NØ) | | cornstalk | |
| Hhanslí | | | Hhanslí | Personal Name (♀); c.f. hhansli |
| hhantimó (Mo) | | hhantima' (NØ) | shadow | |
| hhapee (Fr) | | | soil | |
| Hhapee | | | Hhapee | Personal Name (♂); c.f. hhapee |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| Singular | General | Plural | | |
| hhar'imó (Mo) | hhar'í (Fr) | hhar'aa (Fr) | plant sp. | Wild Mango (Tabernaemontana ventricosa) |
| hhara (Ft) | | hhadoo (NØ) | stick, staff | |
| hharahharumó (Mo) | hharahhará (Mo) | | insect sp. | |
| Hharí | | | Hharí | Personal Name (♂); c.f. hharí |
| hhartsi (Fr) | | | air | Mass |
| hharusumó (Mo) | hharí (Fr) | | weeds | |
| hhasaangw (Mo) | | | sand | Mass |
| hhaseerimó (Mo) | | hhaseerima' (NØ) | sandy place | |
| hhawata (Mo) | | hhawate (NØ) | man | |
| hhawumó (Mo) | hhawáy (Mo) | | plant sp. | Desert Date, Simple-Thorned Torchwood (Balanites aegyptiaca) |
| Hhayma | | | | Personal Name (♂/♀); c.f. hhayuma |
| hhaysoo (NØ) | | hhaysusu (NØ) hhayseema' (NØ) | tail | |
| hhayuma (Fr) | | hhayumadu (NØ) | journey | |
| Hheehhá | | | Hheehhá | Personal Name; derived from hheehhaa. Given to a child following the deaths of previous children. |
| hheehhaa (Fr) | | | gluttony | Mass |
| hheehhaa (Fr) | | hhehhu (NØ) | gullet | |
| hheera (Mo) | | | discontent | Mass |
| Hheerá | | | Hheerá | Personal Name (♂/♀); c.f. hheera;  if twins are born, the larger of the two will be named <Salahoo>, and the smaller of the two will be named <Hheerá>. |
| Hheewaasi | | | Hheewaasi | Place Name |
| Hheewaasí | | | Hheewaasí | Personal Name (♂); c.f. hheewaasi |
| hheewaasumó (Mo) | hheewaasi (Fr) hheewás (Mo) | | plant sp. (Brachystegia | |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| **Singular** | **General** | **Plural** | | |
| | | | boehmii) | |
| Hhekee | | | Hhekee | Personal Name (♂/♀); c.f. hhekw |
| hhekw (Mo) | | iihhekit (Mo) hhekit (Mo) iihheekikiingw (Mo) hheekikiingw (Mo) | drawing water | Deverbal (source verb <hheék>) |
| Hhili | | | Hhili | Personal Name (♂) |
| Hhilo | | | Hhilo | Personal Name (♂) |
| hhima'i (Fr) | | hhimami (Fr) | sorrow | Deverbal (source verb ?) |
| hhimindi (Fr) | hhimindaa (NØ) hhimindáy (Mo) | | plant sp. | |
| Hhimindí | | | Hhimindí | Personal Name (♂/♀); c.f. hhimindi |
| hhinhhinimó (Mo) | hhinhhiní (Ft) | | pumpkin | |
| hhintitiingw (Mo) | | | exertion | Mass |
| hhirhheerimó (Mo) | hhirhheeri (NØ) | hhirhheerima' (NØ) | tear | |
| hhiya' (Mo) | | hhi'i (NØ) | brother | |
| hho'oo (Fr) | | hho'odu (NØ) | sister | |
| hhooki (Fr) | | hhookáy (Mo) | bird sp. | any sp. of white-collared pigeon |
| Hhookí | | | Hhookí | Personal Name; c.f. hhookí |
| hhumpú (Mo) | | hhumpe'eeri (NØ) hhumpupu (NØ) hhumpepee (Fr) | lung | |
| hhuntsitoo (Fr) | | hhuuntsitsiingw (Mo) | washing clothes | Deverbal (source verb <hhuúnts>) |
| hhuruhurumó (Mo) | hhurahúr (Mo) | hhurahuruma' (NØ) | bird sp. | any sp. of Bulbul and Greenbul, or Turdus Thrush |
| Hhurumpí | | | Hhurumpí | Personal Name (♂) |
| hhutlumó (Mo) | | hhutleemi (NØ) | rope | |
| Hi'ití | | | | Personal Name (♂/♀); c.f. v. hi'iít |
| hi'itinoo (Fr) hi'intini (Ft) | | hi'imit (Ft) | going | Deverbal (source verb <hi'iít>) |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| Singular | General | Plural | | |
| Hiindi | | | Hiindi | Personal Name (♂); c.f. the Swahili 'Mhindi':' person of Indian origin' |
| hiinsla (Mo) | | hiinsleema' (NØ) | breath | |
| Hiintáy | | | Hiintáy | Personal Name |
| hiitsi (Fr) | | | dew | Mass |
| Hiiyaángw (Fr) | | | Hiiyaángw | Place Name |
| Hilú | | | Hilú | Personal Name (♀) |
| hima (Mo) | | himi'i (NØ) himmee (Fr) | rope | |
| himtu (Mo) | | himtaawee (Fr) | bird sp. | any sp. of owl |
| himtu (Mo) | | himtetee (NØ) | necklace (metal) | |
| hirit (Mo) | | | sewing | Mass Deverbal (source verb <hiriít>) |
| Hoolo | | | Hoolo | Personal Name (♂) |
| Hoomaa | | | Hoomaa | Personal Name (♂); c.f. hoomaa |
| Hoomam (Mo) | | | Hoomam | Place Name |
| hoomo (Mo) | | | full moon | Singularia Tantum |
| hoomo (Mo) hoomito'o (Fr) | hoomaa (Fr) | | outsider (♂,♀ respectively) | |
| Hoonda | | | Hoonda | Personal Name (♂/♀) |
| hoota (NØ) | | | life | Mass Deverbal (source verb <hoót>) |
| hootari (Fr) | | | life, living | Mass Deverbal (source verb <hoót>) |
| Hosé | | | Hosé | Personal Name (♂/♀); c.f. the English 'horse'(perhaps during encounters with white people during the World Wars) |
| Hoshán(d) (Fr) | | | Hoshán | Place Name |
| Huché | | | Huché | Personal Name (♂) |

| Singular | General | Plural | Gloss | Nota |
|---|---|---|---|---|
| | **Nouns** | | **Gloss** | **Nota** |
| **Singular** | **General** | **Plural** | | |
| Hulán | | | Hulán | Personal Name (♂); c.f. the Datooga <hulan>: a small hut located near the house reserved for special meetings of men only |
| humay (Mo) | | | earth dug from the floor of the house and placed on the roof | Mass |
| Humay | | | Humay | Personal Name (♂/♀); c.f. humay |
| Humba/áy | | | Personal Name (♀) | Personal Name (♀); c.f. humba/aya |
| humba/aya (Fr) | | | white colouration around the ribs and hind legs of cattle | Mass |
| humri (Fr) | | | millet mash (stage in making beer) | Mass |
| Humuri | | | | Personal Name (♂/♀); c.f. humuri |
| hurusumo (Mo) huruso'o (Fr) | hurusee (Fr) | | cook (♂,♀ respectively) | |
| hutlay (Mo) | | hutli'i (NØ) | earthen cooking pot | |
| huuriingw (Mo) | | | cooking | Deverbal (source verb <huriím>) |
| huwa (NØ) | | | burden | Mass |
| ido (Fr) | | | manner | |
| ii'aa (Fr) | | ii'a' (NØ) | ear | |
| iidí(g) (Mo) | | | news | |
| iikwu/a (Ft) kwu/a (Ft) | | iikwu/uungw (Mo) | making rope, asking questions to get answers | Deverbal (source verb <kwuú/'>) |
| iimbilií(d) (Mo) | iimbililí (NØ) | iimbililima' (NØ) | bird sp. | |
| Iimboo | | | Iimboo | Personal Name (♀) |
| iimi (Fr) | | | people, mores | Mass <eemeé(d)> is a related equivalent |

| Nouns | | | Gloss | Nota |
| Singular | General | Plural | | |
|---|---|---|---|---|
| iimpee (Fr) | | iimpepu (NØ) | trough | |
| Iingamú | | | Iingamú | Personal Name (♂) |
| Iingigí | | | Iingigí | Personal Name; c.f. iingigi |
| iingigimó (Mo) | iingigi (Ft) | | locust | |
| Iingwaagwí | | | Iingwaagwí | Personal Name (♂) |
| Iinja | | | Iinja | Personal Name (♂) |
| iinqwaari (Fr) | iinqwár (Mo) | | clothing | |
| iinslahhumó (Mo) | iinslahhoo (Fr) | | plant sp. | (Steganotaenia araliacea) |
| iinslawumo (Mo) iinslawito'o (Fr) | iinslawáy (Mo) | iinslaweema' (NØ) iinslaweedu (NØ) | neighbour (♂,♀ respectively) | |
| iintsahhatisa (Fr) | | iintsahhatimis (Mo) | teaching | deverbal |
| Iintsahháy | | | Iintsahháy | Personal Name; c.f iintsahhatisa |
| iintsu/i (Fr) | | iintsu/áy (Mo) | supple tree bark, fashioned into cords | |
| iirimbumó (Mo) | iirimbí (Mo) | iirimbáy (Mo) | bird sp. | any sp. of crested cuckoo |
| iitsaangw (Mo) | | iitsaawee (Fr) iitseema' (NØ) | jackal | |
| il/arumó (Mo) | il/aráy (Mo) | | bird sp. | any sp. of Sparrow-Lark |
| ila (Ft) | ilaa (NØ) | ila' (NØ) | eye | |
| ila (Ft) | iloo (NØ) | | spring | |
| ila'/awaákw (Mo) | | ila'/awaakeema' (NØ) | spider | |
| Ila/aantsimó (Mo) | | | Ila/aantsimó | Place Name |
| ilahhoo'a (Fr) | | | gift | |
| Ilanda | | | Ilanda | Personal Name (♂) |
| ilatleeri (Fr) | | | greed | |
| ilimó (Mo) | ila (NØ) | | seed | |
| imbáy (Mo) | | | silk (i.e. of corn) | Mass |
| Imbililí(d) (Ft) | | | Imbililí | Place Name |
| impirimó (Mo) | impira (Mo) | impireema' (NØ) | ball | |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| **Singular** | **General** | **Plural** | | |
| imu/u/uungw (Mo) | | | beginning | Mass Deverbal |
| indaxaxu'umó (Mo) | indaxaxá' (Mo) | | plant sp. | (Phyllanthus engleri) |
| Ineeraa | | | Ineeraa | Personal Name; c.f. ineeraa |
| ineerumó (Mo) | ineeraa (Fr) | | mosquito | |
| inkahhay (Mo) | | inkahhi'i (NØ) | wound | |
| iree/imi (Ft) | ire/imáy (Mo) iree/iingw (Mo) | | cosmetic scars | |
| irimba (Ft) | | irimbadu (NØ) | thumb piano | |
| irindimó (Mo) | | irindima' (NØ) | calf, bicep | |
| iringeé(d) (Fr) | | | sin | |
| iringeedusumo (Mo) iringeduso'o (Fr) | iringedusee (Fr) | | sinner (♂,♀ respectively) | |
| Iroo | | | Iroo | Personal Name (♂) |
| Irqutu (Mo) Irquto'o (Fr) | Iraqw (NØ) | | person of Iraqw ethnicity (♂,♀ respectively) | |
| Iruqutu | | | Iruqutu | Personal Name (♂); c.f. Irqtu |
| isa (Ft) | | isoo (NØ) | neck | |
| isa' | | isa' (Mo) | so-and-so | Singular form takes gender corresponding to the sex of the referent |
| isamó (Mo) | | isama' (NØ) | breast | |
| itinmó (Mo) | itina (Fr) | | insect sp. | |
| iwitinaangw (Mo) | | iwiwit (Mo) | sitting | Deverbal (source verb <iwiwiít>) |
| Jabu | | | Jabu | Personal Name (♂) |
| jangáy (Mo) | | jangeema' (NØ) *jangedu* (NØ) | mammal sp. | Greater galago (Otolemur crassicaudatus), or squirrel sp. |

| Nouns | | | Gloss | Nota |
|-------|---|---|-------|------|
| **Singular** | **General** | **Plural** | | |
| Jangwá | | | Jangwá | Personal Name (♂); there is an intuition from speakers that this does not derive from the Swahili 'jangwa': 'desert' |
| jeela (Fr) | | jeeladu (NØ) | private room | |
| jimbo (Fr) | | jimbodu (NØ) | state | |
| julunjulumó (Mo) | julunjulu (Mo) | | insect sp. | |
| ka'ami (Fr) | | ka'eemo (Mo) | piece of sth. split | |
| Ka'andí | | | Ka'andí | Personal Name (♂); c.f. idiom <ka'>: the sound of hitting (e.g. rain on a roof) |
| Kaají | | | Kaají | Personal Name (♂) |
| kaambi (Fr) | | kaambáy (Mo) | camp | |
| Kaambi (Fr) | | | Kaambi | Place Name |
| Kaandák (Mo/Fr) | | | Kaandák | Place Name |
| Kaangá/ | | | Kaangá/ | Personal Name (♂) |
| Kaangaroo | | | Kaangaroo | Personal Name (♂); c.f. kaangaroo |
| kaangarumó (Mo) | kaangaroo (Fr) | | door plank | |
| kaangumó (Mo) | kaanga (Fr) | kaangadu (NØ) kaangeema' (NØ) | khanga (material) | |
| kaanjoo (Fr) | | kaanjuju (NØ) | skirt | |
| kaankay (Mo) | | kaanki'i (NØ) kaanke'eeri (NØ) | reptile sp. | any sp. of tortoise or terrapin |
| kaankimó (Mo) | kaanki (Fr) | kaankima' (NØ) | edge | |
| kaasi (Fr) | | | work, labour | Mass |
| Kabalee | | | Kabalee | Personal Name (♀) |
| kabeechi (Fr) | | | cabbage (i.e. as a chopped dish) | Mass |
| kabeechimó (Mo) | | kabeechima' (NØ) | cabbage (i.e. as a plant) | |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| **Singular** | **General** | **Plural** | | |
| kala/a (Fr) | | kala/andoo (Fr)<br>kala/aangw (Mo) | kicking, stamping | Deverbal (source verb <kalaá/>)<br><kala/ando> 'stamping'<br><kala/aangw> 'kicking' |
| kala/a (Fr) | | | footprint | Deverbal |
| Kala/i | | | Kala/i | Personal Name (♂); c.f. kala/a |
| kalambeetú (Mo) | | kalambeetima' (NØ) | mammal sp. | |
| kalamu (Mo) | | kalameemo (NØ) | pen (i.e. for writing) | |
| kalay (Mo) | | kali'i (NØ) | spot | |
| kampaarumó (Mo)<br>kampaarto'o (Fr) | kampár (Mo) | | barren woman (exclusively ♀) | |
| kaniki (Fr) | | kanikáy (Mo) | black cloth | |
| Kaniki | | | Kaniki | Personal Name; c.f. kaniki |
| kanisa (Fr) | | kanisadu (NØ) | church | |
| kanu (Mo) | | kannee (Fr) | tendon | |
| kaptula (Mo) | | kaptuleema' (NØ) | short trousers | |
| Karamá | | | Karamá | Personal Name (♂) |
| karanga (Fr) | | | peanut | |
| karerimo (Mo) | karerá (Mo) | | blacksmith | |
| karkari (Ft) | | | grub | |
| Karkarí | | | | Personal Name; c.f. karkari |
| karkarmó (Mo) | karkari (Ft) | karkeero (NØ) | part of the traditional house | |
| Karrá (Fr) | | | Karrá | Place Name |
| Kashomó (Fr) | | | Kashomó | Place Name<br>Questioned form <Kashomoheê> |
| Kasi | | | Kasi | Personal Name; c.f. kasi |
| kataanimó (Mo) | kataani (Fr) | | sisal | |
| Kayó (Fr) | | | Kayó | Place Name |
| keeke (Fr) | | keekedu (NØ) | anklet | |
| keesi (Fr) | | keesáy (Mo) | umbilical cord | |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| Singular | General | Plural | | |
| Keya | | | Keya | Personal Name (♂/♀); c.f. the English 'King's African Rifles' or 'KAR' [kej.aj.a], a fighting division formed during the Second World War |
| Ki/ee | | | Ki/ee | Personal Name (♂); c.f. ki/a |
| ki/ima (NØ) | | kikii/ (Mo) | returning | Deverbal (source verb <kií/>) |
| kideri (Fr) | | | k.o. disease | Mass |
| Kifaru (Mo) | | | Kifaru | Place Name |
| Kiimbé | | | Kiimbé | Personal Name (♂) |
| Kiimbilí | | | Kiimbilí | Personal Name (♂) |
| kiinsororó(q) (Mo) | | kiinsororoquma' (NØ) | snail | |
| kiinta (Mo) | | kiinte'eeri (NØ) kiintima' (NØ) | scrub, brush | |
| kiintla/umó (Mo) | kiintla/i (Mo) | kiintla/áy (Mo) | bird sp. | any sp. of True Shrikes, and Boubous |
| kiirkankumó (Mo) | kiirkanká (Mo) | | reptile sp. | any sp. of agama |
| kijiji (Fr) | kijijáy (Mo) | kijijima' (NØ) | village | |
| kilaabu (Mo) | | kilaabeemo (NØ) | club, drinking establishment | c.f. the Swahili 'kilabu', and the English 'club' |
| Kilaabu | | | | Personal Name (♂/♀); c.f. kilaabu |
| kilo (Fr) | | | kilo, weight | |
| kilqi (Fr) | | kilaliq (Mo) | shame | Deverbal? |
| Kimando | | | Kimando | Personal Name (♂) |
| kimoli (Fr) | kimolaa (Fr) | | cornstalk waste | |
| Kimoli | | | Kimoli | Personal Name (♀); c.f. kimoli |
| Kimoloo | | | Kimoloo | Personal Name (♂); c.f. kimoli |
| kinoo (Fr) | | kinnu (NØ) | small clay water pot | |
| Kiongozi (Fr) | | | Kiongozi | Place Name |
| kipumó (Mo) | kipa (Mo) | kipeema' (NØ) kipadu (NØ) | goalkeeper (in football) | |
| kipay (Mo) | | kipi'i (NØ) | handle | |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| Singular | General | Plural | | |
| kipisi (Fr) | kipisáy (Mo) | kipiseema' (NØ) | piece, scrap | |
| kirasimó (Mo) | kirasi (Fr) | kirasáy (Mo) kiraseema' (NØ) | potato | |
| Kiru (Mo) | | | Kiru | Place Name |
| kisusumó (Mo) | kisusi (Fr) | kisusáy (Mo) kisuseema' (NØ) | roof beam | |
| kita gwa'a (Fr) | | | miscarriage | |
| kitaabu (Mo) | | kitabeemo (NØ) | book | |
| kitaangw (Mo) | | kiteeri (NØ) | chair | |
| kitaángw ya'a' (Mo) | | kiteeri ya'a' (NØ) | stool | |
| kitambaa (Fr) | | kitambaadu (NØ) | fabric, rag | |
| kitangeeri (Fr) | kitangér (Mo) | kitangeerima' (NØ) | drying rack | |
| kitungurmó (Mo) | kitunguru (Mo) | | onion | |
| Kituwáy (Mo) | | | Kituwáy | Place Name |
| kiyo (Fr) | | kiyodu (NØ) | glass, mirror | |
| Kodi | | | Kodi | Personal Name (♂); c.f. the Swahili 'kodi': 'tax' |
| koleeyo (Fr) | | koleeyodu (Mo) | pliers | |
| Komotó (Mo/Fr) | | | Komotó | Place Name |
| Kongolo | | | Kongolo | Personal Name (♂) |
| koodi (Fr) | | | tax | Mass |
| kookoomi (Ft) | | kookoomáy (Mo) | k.o. gourd | |
| kookumó (Mo) | kookumaa (NØ) | | bird sp. | African Hoopoe (Upupa africana) |
| kookumó (Mo) | | kookuma' (NØ) | rooster | |
| Kookumó | | | Kookumó | Personal Name (♂); c.f. kookumó |
| kookumó danú (Mo) | | kookumá danú (NØ) | bird sp. | |
| kookumó sla/a (Mo) | | kookumá sla/aa (NØ) | bird sp. | Questioned forms <kookumó sla/atoô> and <kookumá sla/aatoô> |
| kooloo (Fr) | | kolu (NØ) koll'i (NØ) | heel | |

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| Nouns | | | Gloss | Nota |
|-------|--|--|-------|------|
| Singular | General | Plural | | |
| koomi (Fr) | | koomáy (Mo) | k.o. cow | |
| Koomí | | | Koomí | Personal Name (♀); c.f koomi |
| koona (Fr) | | koonadu (NØ) | corner | |
| koonki (Fr) | koonkoo (Fr) | | chicken | |
| Koonkí | | | Koonkí | Personal Name (♂/♀); c.f. koonki |
| koopaa (Fr) | | | lack of a side-dish | Mass |
| Koopaá | | | Koopaá | Personal Name (♂); c.f. koopaa |
| Korokoni | | | Korokoni | Personal Name (♂/♀); c.f. the Swahili 'korokoni': 'guard-post', 'watch-station', 'camp' |
| Krishanumo (Mo) Krishanito'o (Fr) | Krishanáy (Mo) | | Christian (♂,♀ respectively) | |
| kudihi (Fr) | | kuduháy (Mo) | woven platform | |
| Kudihi | | | Kudihi | Personal Name (♂); c.f. kudihi |
| kududi (Fr) | kudúd | | bird sp. | pelican (Pelecanus onocrolatus) |
| Kukeeno | | | Kukeeno | Personal Name (♂) |
| Kukulo | | | Kukulo | Personal Name (♂) |
| kumalumó (Mo) | | kumaluma' (NØ) | plant sp. | |
| Kumba' | | | Kumba' | Personal Name (♂) |
| kunday (Mo) | | kuundi'i (NØ) | wrist | |
| kunee (Fr) | | kunnu (NØ) kunndu (NØ) | mortar | |
| kura (Ft) | | kuriyoo (NØ) | anus | |
| kuray (Mo) | | kuraawee (Fr) | bird sp. | any (largely wedge-tailed) raptor, including kites and harriers |
| kurmo (Mo) | | kureemi (NØ) | hoe | |
| kuru (Mk) | | kureeri (NØ) | year | |
| kusbi (Fr) | kusbaa (Fr) | | reptile sp. | any sp. of Blind Snake or Worm Snake |
| kuti (Ft) | kutaa (Fr) | | mammal sp. | mole; also pronounced kutí |
| Kuti | | | Kuti | Personal Name (♂); c.f. kuti |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| Singular | General | Plural | | |
| kutubaabi (Fr) | | kutubaaboo (Fr) | insect sp. | |
| kutuutimo (Mo) | kutút (Mo) | kutuutuma' (NØ) | rag | |
| kuumbá' (Mo) | | kuumbi'i (NØ) | brother-in-law, other wife of brother-in-law | |
| kuunseeli (Fr) | | kuunseeláy (Mo) | earthquake | |
| Kuunseelí | | | Kuunseelí | Personal Name (♂/♀); c.f. kuunseeli |
| kuunti (Fr) | kuuntoo (Fr) | | grain container | |
| kwa/aangw (Mo) | | kwa/eeri (NØ) | hare | |
| Kwa/aangw | | | Kwa/aangw | Personal Name (♂); c.f. kwa/aangw |
| kwaansumó (Mo) | kwaansáy (Mo) | | plant sp. | (Achyrathes aspera) |
| kwaasiyumó (Mo) | kwaasiyó (Mo) | | bird sp. | any sp. of cuckoo or long, upright passerine (robin, nightingale, warbler, etc.) |
| kwahha (Ft) | | kwahhkwahh (Mo) | throwing | Deverbal (source verb <kwaáhh>) |
| Kwahha | | | Kwahha | Personal Name (♂); c.f. kwahha |
| Kwahhee | | | Kwahhee | Personal Name (♂/♀); c.f. kwahha |
| Kwaku | | | Kwaku | Personal Name (♂) |
| kwalo'o (Fr) | | kwe'eeli (Fr) | widow | |
| Kwará/ (Fr) | | | Kwará/ | Place Name |
| kwarara/a (Fr) | | | thunder | Mass |
| kwasiyaangw (Mo) | | | insect sp. | Alternate pronunciation <kwasisaangw> |
| kwasleema (Fr) | | kwasleemadu (NØ) | bring forth a complaint | Deverbal? |
| kwe/e/eni (Ft) | kwe/e/enaa (Fr) | | mammal sp. | Black-necked rox hyrax (Procavia johnstoni) |
| Kwere (Fr) | | | Kwere | Place Name |
| Kwu/umbá (Fr) | | | Kwu/umbá | Place Name |
| kwu/uungw (Mo) | | kwu/u/ee (Fr) | wall | |
| La/áy | | | La/áy | Personal Name (♂) |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| **Singular** | **General** | **Plural** | | |
| Laalí | | | Laalí | Personal Name (♂); c.f. laalí(d) |
| laalidumó (Mo) | laalí(d) (Mo) | laalidima' (NØ) | plant sp. | (Hymenodictyon floribundum) |
| Laawáy | | | Laawáy | Personal Name |
| laawi (Fr) | | | farming in the morning | Mass Deverbal (source verb <laáw>) |
| Lacho | | | Lacho | Personal Name (♂) |
| Lago | | | Lago | Personal Name (♂) |
| Lagweén | | | Lagweén | Personal Name (♂) |
| lakwanti (Fr) | | lakwanta' (NØ) lakwantáy (Mo) | woven backpack | |
| Lalá' | | | Lalá' | Personal Name; lalisa |
| lalisa (Fr) | | lalimis (Mo) | searching for food | Deverbal (source verb <laliís>) |
| lama (Ft) | | lamoo (NØ) | lie | |
| Langay | | | Langay | Personal Name (♂) |
| lapitimó (Mo) | lapiya (Fr) | | cash (one piece) | c.f. the Swahili 'rupia': 'coin', 'money' (dated) |
| Lapiya | | | Lapiya | Personal Name (♀); lapiya |
| laqeelimó (Mo) | laqayi (Fr) | laqeela' (NØ) laqayaa (NØ) | thorn | |
| Laqwáy | | | Laqwáy | Personal Name (♂) |
| lawaalimo (Mo) | lawaalee (Fr) | | servant; person who does odd-jobs | |
| lawalaa (Fr) | | lawulu (NØ) | spear | |
| Lawee'i | | | Lawee'i | Personal Name (♂); c.f. lawee'i |
| lawee'i (Fr) | | | k.o. rain | Mass |
| Lawi | | | Lawi | Personal Name (♂/♀); c.f. laawi |
| Layaa | | | Layaa | Personal Name (♂); c.f. layaa |
| layaa (Fr) | | laydu (NØ) | branding iron | |
| layda (Mo) | | | arduous errands | Mass |
| Layda | | | Layda | Personal Name (♂); c.f. layda |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| Singular | General | Plural | | |
| Le/áy | | | Le/áy | Personal Name (♂) |
| lee'i (Fr) | | aara (NØ) | goat | |
| Leeba | | | Leeba | Personal Name (♂); there is an intuition among speakers that this words does not derive from the English word 'labour' |
| Leehhara | | | Leehhara | Personal Name (♂/♀) |
| Leelee | | | Leelee | Personal Name (♂) |
| | leeleehhit (Mo) | | searching | Mass<br>Deverbal (source verb <leeleehiít>) |
| Leesó | | | Leesó | Personal Name (♂) |
| leetlakutumó (Mo) | leetlákw (M) | | bird sp. | any sp. of Woodland Hornbill |
| Li/áy | | | Li/áy | Personal Name (♂) |
| Limida | | | Limida | Personal Name (♀); c.f. limida: the action of sating one's need for beer |
| Limidá | | | Limidá | Personal Name (♂); c.f. limida: the action of sating one's need for beer |
| | lo'aa (Fr) | | sun | Singularia Tantum |
| lo'aa (Fr) | | lalu (NØ) | hour | |
| | lo'eema (NØ) | | truth | |
| | lo'oo (Fr) | lo'oodu (NØ) | curse | |
| loo/i (Fr) | lo/oo (Fr) | | grass (one blade) | |
| Loohay | | | Loohay | Personal Name (♂/♀); c.f. loohay |
| loohay (Mo) | | lolihiingw (Mo) | moving house | Deverbal (source verb <lóh>) |
| Loohí | | | Loohí | Personal Name; c.f. the Iraqw <loohi>: road, path |
| | loohiisoo (Fr) | | carrying | Mass<br>Deverbal (source verb <loohiís>) |
| Loolí | | | Loolí | Personal Name (♂); c.f. loolí(d) |
| loolí(d) (Mo) | | loolidima' (NØ) | bird sp. | any sp. of Dry Bush Hornbill |

| Nouns | | | Gloss | Nota |
| Singular | General | Plural | | |
| --- | --- | --- | --- | --- |
| Loomá | | | Loomá | Personal Name (♂) |
| loomó (Mo) | | loomi'i (NØ) | plant sp. | (Trema orientalis; Grewia similis) |
| loori (Fr) | | looráy (Mo) | truck, lorry | c.f. the Swahili 'lori', and the English 'lorry' |
| Loori | | | Loori | Personal Name (♂); c.f. loori |
| Loosí | | | Loosí | Personal Name (♂/♀); c.f. loosí |
| loosumó (Mo) | loosí (Fr) | | bean (one plant, one bean) | |
| lootoo (Fr) | | lootitiingw (Mo) | milking | Deverbal (source verb <loót>) |
| Lootoo | | | Lootoo | Personal Name (♂); c.f. lootoo |
| Lu/umi | | | Lu/umi | Personal Name; c.f. lu/umi |
| luki (Ft) | | lukáy (Mo) | reed mat | |
| Lulú | | | Lulú | Personal Name (♂/♀) |
| Luukú | | | Luukú | Personal Name (♂) |
| ma'aay (NØ) | | | water | Mass |
| Ma'u | | | Ma'u | Personal Name (♂/♀); c.f. ma'u |
| ma/a/aymó (Mo) | ma/a/ayí (Ft) | | insect sp. | |
| ma/aáy tlakwi (Fr) | | ma/aáy tlakwa (Fr) | plant sp. | (Carissa edulis) |
| Ma/ala | | | Ma/ala | Personal Name (♂); c.f. ma/ali |
| ma/ali (Fr) | | ma/aláy (Mo) | sheep's dewlap | |
| Ma/arí | | | Ma/arí | Personal Name (♂/♀); ma/ár |
| ma/arimó (Mo) | ma/ár (Mo) | | runner bean | |
| ma/arimó (Mo) | ma/ari (Fr) | ma/ár (Mo) | tree sp. | |
| ma/ayaangumó (Mo) | ma/ayaangú (Mo) | | plant sp. | (Ximenia caffra) |
| maa'oo (fr) | | ma'u (NØ) | cat | |
| Maajá | | | Maajá | Personal Name (♂) |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| **Singular** | **General** | **Plural** | | |
| maamaháy (Mo) | | | leftovers from making butter (i.e. watery milk), impurities left in the bottom of liquid butter after adding flour | Mass |
| maamáy (Mo) | | maami'i (NØ) | mother's brother | |
| maamba (Fr) | | maambadu (NØ) | crocodile | c.f. the Swahili 'mamba': 'crocodile' |
| Maamoo | | | Maamoo | Personal Name (♀) |
| maanaa (Fr) | | manu (NØ) | zombie | |
| Maandimo (Mo) Maandito'o (Fr) | Maanda (NØ) | | person of Bantu ethnicity (♂,♀ respectively) | |
| Maando'oo | | | | Personal Name (♂); c.f. Maanda |
| Maangisá | | | | Personal Name (♂) |
| Maangware'i | | | | Personal Name (♂); c.f. maangwaré' |
| maangware'ito'o (Fr) | maangwaré' (Mo) | | millet sp. (i.e. grains or heads of) | |
| maangware'umó (Mo) | maangwaré' (Mo) | | millet sp. (i.e. plants) | |
| Maaniya | | | Maaniya | Personal Name (♂) |
| maankari (Ft) | maankaroo (NØ) | | lightning | |
| maantee (Fr) | | | unmarried girl | Mass |
| Maarí | | | Maarí | Personal Name (♂) |
| Maasay | | | Maasay | Personal Name (♂); c.f. the Iraqw <maasay> 'ritual medicine' |
| maaxaangw (Mo) | | | hiding; period of ritual seclusion | Mass |
| Mabiwá | | | Mabiwá | Personal Name (♂/♀); c.f. mabiwa |
| mabiwito'o (Fr) | mabiwá (Mo) | | millet sp. | |
| Machikwá | | | Machikwá | Personal Name (♂) |
| machungito'o (Fr) | machungwa (Mo) | | orange (i.e. fruit) | c.f. the Swahili 'machungwa': 'orange' |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| **Singular** | **General** | **Plural** | | |
| machungumó (Mo) | machungwa (Mo) | | orange (i.e. plant) | c.f. the Swahili 'machungwa': 'orange' |
| Madege (Fr) | | | Madege | Place Name |
| Maga'í | | | Maga'í | Personal Name (♂) |
| maga'umó (Mo) | maga' (Mo) | | leech | |
| Magariya | | | Magariya | Personal Name (♂) |
| Mageení | | | Mageení | Place Name |
| mahaangw (Mo) | | meheeri (NØ) | arrow | |
| Mahala | | | Mahala | Personal Name (♂) |
| mahhatimó (Mo) | mahheetoo (NØ) | mahheetitu (NØ) | shelter | |
| Mahhí | | | Mahhí | Personal Name (♂) |
| Maidú | | | Maidú | Personal Name (♂) |
| Majengo (Fr) | | | Majengo | Place Name |
| Makambí | | | Makambí | Personal Name (♂); c.f. the Swahili 'makambi': 'camps' |
| Makee | | | Makee | Personal Name (♀); c.f. makay |
| makito'o (Fr) | makay (NØ) | | animal | |
| Makombó | | | Makombó | Personal Name (♂) |
| Malafí | | | Malafí | Personal Name (♂) |
| Malalimó (Mo) | | | Malalimó | Place Name |
| malalimó (Mo) | | malalima' (NØ) | canoe | |
| Malambo | | | Malambo | Personal Name (♂) |
| Malange | | | Malange | Personal Name (♂) |
| Maleé | | | Maleé | Personal Name (♂/♀); c.f. adv. <malé>: 'also' |
| malhhari (Ft) | | malhheero (NØ) | pus | |
| Maliís | | | Maliís | Personal Name (♂) |
| malmawito'o (Fr) | malmaw (Mo) | | lime (i.e. fruit) | c.f. the Swahili 'limau': 'lime' |
| malmawmó (Mo) | malmaw (Mo) | malmawma' (NØ) | lime (i.e. plant) | c.f. the Swahili 'limau': 'lime' |
| Maloombá | | | Maloombá | Personal Name (♂) |
| mama/ari (Ft) | | mama/eero (NØ) | disease | Deverbal (source verb <mamaá/> |

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| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| **Singular** | **General** | **Plural** | | |
| Mamahasumó | | | Mamahasumó | Place Name |
| Mamát | | | Mamát | Personal Name (♂) |
| Mamiire | | | Mamiire | Place Name |
| manaakwumó (Mo) manaakwito'o (Fr) | manákw (Mo) | | green vegetable sp. | |
| Manakwí | | | Manakwí | Personal Name (♂, less commonly ♀); c.f. manákw |
| Manamba | | | Manamba | Personal Name (♂/♀); c.f. the Swahili: 'manamba': 'numbers' |
| Manange | | | Manange | Personal Name (♂) |
| Manangu | | | Manangu | Personal Name (♂); c.f. the Swahili 'mwanagu': 'my son' |
| Manaxa(t) (Mo/Fr) | | | Manaxa | Place Name |
| Maanday | | | Maanday | Personal Name (♂); c.f. Maanda |
| Maandáy | | | Maandáy | Personal Name (♀); c.f. Maanda |
| Maandimo | | | Maandimo | Personal Name (♂); c.f. Maanda |
| Maandito'o | | | Maandito'o | Personal Name (♀); c.f. Maanda |
| Maando'oo | | | Maando'oo | Personal Name (♀); c.f. Maanda |
| mangallu/umó (Mo) | | mangalelé' (Mo) mangalle/ima' (NØ) | insect sp. | |
| Mangula | | | Mangula | Personal Name (♂) |
| Mani/í | | | Mani/í | Personal Name (♂); c.f. mani/i |
| mani/imó (Mo) | mani/i (Fr) | | unripened millet | |
| Maningí | | | Maningí | Personal Name (♂) |
| Maqabu | | | Maqabu | Personal Name (♂) |
| Maqwáy | | | Maqwáy | Personal Name (♂) |
| mar'i (Fr) | mar'oo (Fr) | | cave | |
| mara/antsimó (Mo) mara/antsito'o (Fr) | mara/ants (Mo) mara/antsí (Fr) | mara/antsáy (Mo) mara/antsima' (NØ) | grasshopper | |
| Maraqoo | | | Maraqoo | Personal Name (♂) |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| Singular | General | Plural | | |
| Mareqwa | | | Mareqwa | Personal Name (♂) |
| maringi (Fr) | maringaa (Fr) | | beehive | |
| Markwa | | | Markwa | Personal Name (♂) |
| marmo (Fr) | | | women's initiation ceremony | Mass |
| Marmo | | | Marmo | Personal Name (♂); c.f. marmo |
| marmuso'o (Fr) | marmusee (Fr) | | female initiate | |
| Marós | | | Marós | Personal Name (♂) |
| Marsan | | | Marsan | Personal Name (♂) |
| masasukumó (Mo) | masasikí (Fr) | | insect sp. | |
| maslarumó (Mo) | maslár (Mo) | | plant sp. | (Hoslundia opposita) |
| Masong | | | | Personal Name; c.f. Masóng |
| Masongamo (Mo) Masongito'o (Fr) | Masóng (Mo) | | white person (♂,♀ respectively) | c.f. the Swahili 'mzungu' |
| masoombi'ima (Fr) | | | youth (i.e. stage of life) | Mass |
| masoomo (Mo) | masoombaa (Fr) | | young man | |
| Matahhará | | | Matahhará | Personal Name; c.f. matahhará |
| matahharumó (Mo) | matahharaa (Mo) | | insect sp. | |
| Matí | | | Matí | Personal Name (♂); this was reported to be a very rare name, of a semi-mythical ancestor |
| Matitó (Fr) | | | Matitó | Place Name |
| matla/aangw (Mo) | | matle/eeri (NØ) | indoor cattle pen | |
| matlatlee (NØ) | | | morning | Mass |
| Matlee | | | | Personal Name (♂/♀); c.f. matlatlee |
| matsaf (Mo) | | matsafefee (Fr) | eyelid | |
| Maweni (Fr) | | | Maweni | Place Name |
| Maxa | | | Maxa | Personal Name (♂); c.f. maxaangw |
| Maxoo | | | Maxoo | Personal Name (♂); c.f. maxaangw |

| Nouns | | | Gloss | Nota |
| Singular | General | Plural | | |
|---|---|---|---|---|
| Maya | | | Maya | Personal Name (♂) |
| Maydoo | | | Maydoo | Personal Name (♀) |
| Maydú | | | Maydú | Personal Name (♂) |
| Mayeega | | | Mayeega | Personal Name (♂) |
| Mayeengú | | | Mayeengú | Personal Name (♂) |
| Mayi | | | Mayi | Personal Name (♂/♀) |
| Maynoori | | | Maynoori | Personal Name (♂) |
| Mayo | | | Mayo | Personal Name (♂) |
| Mayombá | | | Mayombá | Personal Name (♂) |
| Mayonga | | | Mayonga | Personal Name (♂) |
| Mayrú | | | Mayrú | Personal Name (♂); c.f. the Swahili place name Meru |
| Maysá | | | Maysá | Personal Name; c.f. Maysák |
| Maysák (Mo/Fr) | | | Maisák | Place Name |
| Mbaalá | | | Mbaalá | Personal Name (♂) |
| Mbuyuni (Fr) | | | Mbuyuni | Place Name |
| mchongomumo (Mo) | mchongoma (Fr) | mchongomadu (NØ) mchongomeema' (NØ) | plant sp. | |
| mchungajimo (Mo) | | wachungajáy (Mo) | pastor | |
| me'e'eeli (Fr) | me'e'eelaa (Fr) | | plant sp. | |
| Meeda | | | Meeda | Personal Name (♂) |
| meehhaya (Fr) | | | speckles | |
| Meehhí | | | Meehhí | Personal Name (♀); c.f. meehhaya |
| meemeehhi (Fr) | meeméhh (Mo) | meemeeháy (Mo) | woven backpack | |
| Meendá | | | Meendá | Personal Name (♂) |
| meesa (Fr) | | meesadu (NØ) | table | c.f. the Swahili 'mesa': 'table' |
| Memera (Fr) | | | Memera | Place Name |
| Memés | | | Memés | Personal Name (♀) |
| Migiree | | | Migiree | Personal Name (♂/♀); c.f. migír |
| migirimó (Mo) | migír (Fr) | | firewood | |

| Nouns | | | Gloss | Nota |
| Singular | General | Plural | | |
|---|---|---|---|---|
| Miirambí | | | Miirambí | Place Name |
| miitimó (Mo) | miiti (Fr) | | tree | c.f. the Swahili 'miti': 'trees' |
| mila (Fr) | | | tradition | Mass; c.f. the Swahili 'mila': 'tradition' |
| Minjo | | | Minjo | Personal Name (♂) |
| Minslay | | | Minslay | Personal Name (♂) |
| Miomboni (Fr) | | | Miomboni | Place Name |
| Miqay | | | Miqay | Personal Name (♂) |
| Mirando | | | Mirando | Personal Name (♂) |
| mishnarimó (Mo) mishnarito'o (Fr) | mishnaráy (Mo) | | missionary (♂,♀ respectively) | |
| mkowa (Fr) | | mikoadu (NØ) | region | Alternate pronunciation <mukowa>; c.f. the Swahili 'mkoa': 'region' |
| Mkuyuni (Fr) | | | Mkuyuni | Place Name |
| Moheé | | | Moheé | Personal Name (♂) |
| mokoki (Fr) | mokokoo (Fr) | | earwax | |
| mootumó (Mo) | mootó (Mo) | | bird sp. | Swahili Sparrow (Passer suahelicus) |
| moro' (Mo) | | | menstrual period | Mass |
| morongi (Fr) | morongaa (Fr) | | plant sp. | (Zanthoxylum chalybeum) |
| Mororo/i (Ft) | | | Mororo/i | Place Name |
| motoka (Fr) | | motkiingw (Mo) motkit (Fr) | scrubbing dirt | Deverbal (source verb ?) |
| Mrár (Fr) | | | Mrár | Place Name |
| Mudeeki | | | Mudeeki | Personal Name (♂); very rare |
| mugugunumó (Mo) | mugugunáy (Mo) | | insect sp. | |
| Muhalé | | | Muhalé | Personal Name (♂) |
| Muhanjá | | | Muhanjá | Personal Name (♂) |
| Muhindi | | | Muhindi | Personal Name (♂); c.f. the Swahili 'muhindi': 'corn', or 'Mhindi': 'person of Indian origin' |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| **Singular** | **General** | **Plural** | | |
| Muhindimó (Mo) Muhindito'o (Fr) | Muhindáy (Mo) | Muhindima' (NØ) | person of Indian origin (♂,♀ respectively) | |
| Mulhháy | | | Mulhháy | Personal Name (♂) |
| mulhhír gwandu (Fr) | | mulhhár gwanda (Fr) | plant sp. | (Pupalia lapacea) |
| Muli | | | Muli | Personal Name (♂) |
| mulki (Fr) | mulkáy (Mo) | mulkekee (Fr) | scar | |
| Muloo | | | Muloo | Personal Name (♂) |
| mulqumo (Mo) mulqito'o (Fr) | mulqusee (Fr) mulqee (Fr) | | friend (♂,♀ respectively) | |
| muluqumó (Mo) | | muluquma' (Fr) | plant sp. | |
| Mumuyee | | | Mumuyee | Personal Name (♂) |
| muna (Mo) | | | refusing something | |
| munenee (Fr) | | | anger | Mass |
| muqsli (Fr) | muqslaa (Fr) | | iron | |
| muqús (Mo) | | muqusesee (Fr) | millet mash (stage in making beer) | |
| Muree | | | Muree | Personal Name (♀); c.f. muruumit |
| Mureemí | | | Mureemí | Personal Name (♂); c.f. muruumit |
| Muruki (Fr) | | | Muruki | Place Name |
| murungú (Mo) | | murungeema' (NØ) | navel | |
| muruumit (Mo) | | murumurumit (Mo) | being shy | Deverbal (source verb <muruút>) |
| Musee | | | Musee | Personal Name (♂); c.f. musu |
| Mushuqú | | | Mushuqú | Personal Name (♂) |
| musu (Mo) | | mussee (Fr) | pestle | |
| Mutuká (Fr) | | | Mutuká | Place Name |
| Muumbalá (Mo/Fr) | | | Muumbalá | Place Name |
| Muuná | | | | Personal Name (♂); c.f. muuná |
| muuná (Mo) | | muuneema' (NØ) | heart | |
| muundari (Ft) | | muundaráy (Mo) | bracelet (spiral) | |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| **Singular** | **General** | **Plural** | | |
| muundáy (Mo) | | | chaff | Mass |
| muungi (Fr) | | muungú (Mo) | gourd (i.e. plant, fruit) | |
| Muungí | | | Muungí | Personal Name (♂/♀); c.f. muungi |
| Muungú | | | Muungú | Personal Name (♂); c.f muungú |
| Muqusí | | | Muqusí | Personal Name (♂/♀); c.f. muqús |
| Na/aa | | | | Personal Name (♂); c.f. na/ay |
| na/aasa (Fr) | | na/amis (Mo) | daubing a hut with mud | Deverbal (source verb <na/aás>) |
| Na/aasi | | | | Personal Name (♂/♀); c.f. na/aasa |
| na/amís (Mo) | | | dish of corn and beans (Sw. 'makande') | Mass |
| Na/amo | | | | Personal Name (♂); na/amó |
| na/amó (Mo) | | na/ameemoo (NØ) | feral cat | |
| na/aní (Fr) | | na/eema' (NØ) | penis | |
| na/arimo (Mo) | na/aroo (Fr) | | green firewood (one piece) | |
| na/armó (Mo) | na/ari (Fr) na/ár (Mo) | | grassy patch, small area where grass grows reliably (often wet) | |
| na/ay (Mo) | | na/i'i (NØ) na/a' (NØ) | child | |
| Na/roo | | | Na/roo | Personal Name (♂); na/roo |
| na/roo (Fr) | | | small burn marks | Mass |
| na/uuma (Fr) | | | childhood | Mass |
| naada (Fr) | | naadadu (NØ) | cattle market | c.f. the Swahili 'mnada': 'cattle market' |
| Naalí | | | Naalí | Personal Name (♀) |
| Naambay | | | Naambay | Personal Name (♂) |
| naana'i (Fr) | naaná' (Mo) | naana'áy (Mo) | k.o. gourd | |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| **Singular** | **General** | **Plural** | | |
| Naanagí | | | Naanagí | Personal Name; c.f. naanagí |
| naanagumó (Mo) | naanagí (Ft) | | larva | |
| naanagumó (Mo) | naanagaa (Fr) | | maggot | |
| Naandí | | | Naandí | Personal Name (♂) |
| Naangay | | | Naangay | Personal Name (♂); c.f. exclam. <naangáy> |
| Naani/oo | | | Naani/oo | Personal Name (♂) |
| naanú (Mo) | | naaneemo (NØ) | side-dish | |
| Nada | | | Nada | Personal Name (♂/♀); c.f. nada |
| nafumó (Mo) | nafaa (Fr) | | plant sp. | (Bracystegia microphylla) |
| Nagayo | | | Nagayo | Personal Name (♂) |
| Nahháy | | | Nahháy | Personal Name (♂); c.f. v. <nahhay>: the act of goading or annoying someone (e.g. to provoke them to fight) |
| Nakwa (Fr) | | | Nakwa | Place Name |
| Nakwá | | | Nakwá | Personal Name (♂); c.f. Nakwa |
| Nambari | | | Nambari | Personal Name (♂/♀); c.f. the Swahili 'nambari': 'number' |
| Nambo/orí | | | Nambo/orí | Personal Name (♂/♀); c.f. nambo/orí |
| nambo/orumó (Mo) | nambo/orí (Fr) | | green vegetable sp. | |
| nanahaangw (Mo) | | | begging, cajoling | Mass Deverbal (source verb <nanaá'>) |
| nanahhumo (Mo) | | nanahhuma' (NØ) | skull | |
| Nangara (Fr) | | | Nangara | Place Name |
| nangarumó (Mo) | | nangareré' (Mo) | bird sp. | any sp. of swift, martin, or swallow |
| Nani | | | Nani | Personal Name (♂); there is an intuition among speakers that this word does not derive from the Swahili 'nani': 'who' |
| Naqalí | | | Naqalí | Personal Name (♂) |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| **Singular** | **General** | **Plural** | | |
| Naqaloo | | | Naqaloo | Personal Name (♂/♀) |
| naqimó (Mo) | naaqáy (Mo) | naqima' (NØ) | canoe | |
| Naqo | | | Naqo | Personal Name (♂) |
| narkusumo (Mo) narkuso'o (Fr) | narkusee (Fr) | | poor person (♂,♀ respectively) | |
| nasmó (Mo) | | nasma' (NØ) | plant sp. | palm |
| Nawdá | | | Nawdá | Personal Name (♂) |
| Nawe | | | Nawe | Personal Name (♂) |
| nawri (Fr) | | | fare (e.g. bus, etc.) | Mass |
| Naxi | | | Naxi | Personal Name (♂) |
| Nayda | | | Nayda | Personal Name (♂) |
| Naytsorí (Fr) | | | Naytsorí | Place Name |
| ndowa (Fr) | | ndowadu (NØ) | marriage, wedding | |
| nee'armó (Mo) | nee'ár (Mo) | nee'arma' (NØ) | bird sp. | |
| Neefurda | | | Neefurda | Personal Name (♂) |
| Neenú | | | Neenú | Personal Name (♂) |
| Neeqwáy | | | Neeqwáy | Personal Name (♂) |
| neetoo (Fr) | | | playing, game (esp. one with rules), sex | Deverbal (source verb <neét>) |
| neewi (Fr) | neewaa (NØ) | | thread | |
| Negamsí (Mo/Fr) | | | Negamsi | Place Name |
| Ngadi | | | Ngadi | Personal Name (♂); perhaps derived from Datooga (meaning unknown) |
| Ngarenaro (Fr) | | | Ngarenaro | Place Name |
| Ngaytó (Mo) | | | Ngaytó | Place Name |
| ni/i/ileema' (NØ) | | | smallness | |
| Ni/iloo | | | Ni/iloo | Personal Name (♀); a small person, pygmy (?), or person exhibiting dwarfism |
| nii/imó (Mo) | nii/imi (NØ) | | plant sp. | Commpihora (Commiphora africana) |

| Nouns | | | Gloss | Nota |
| --- | --- | --- | --- | --- |
| **Singular** | **General** | **Plural** | | |
| Niiná | | | Niiná | Personal Name (♂) |
| niinga (Mo) | | niingeema' (NØ) | drum | |
| Niingá | | | Niingá | Personal Name (♂/♀); c.f. either niingá or niinga |
| niingeesimó (Mo) | niingeesi (Fr) niingés (Mo) | niingeesima' (NØ) | plant sp. | |
| niingimó (Mo) | niingá (Mo) | | bird sp. | African Green-Pigeon (Treron calva) |
| nikikitsa (Fr) | | | slime | Mass |
| Nodék | | | Nodék | Personal Name |
| Noni | | | Noni | Personal Name (♀) |
| Nonoqoo | | | Nonoqoo | Personal Name (♂) |
| Noogá | | | Noogá | Personal Name (♂) |
| Noondí | | | Noondí | Personal Name (♂) |
| nor'oosa (Fr) | | nor'omis (Mo) | injuring | Deverbal (source verb ?) |
| Nunuqá | | | Nunuqá | Personal Name (♀) |
| Nuquya | | | Nuquya | Personal Name (♂) |
| Nuwagi | | | Nuwagi | Personal Name (♂) |
| Nuwasi | | | Nuwasi | Personal Name (♂) |
| nya'ú (Mo) | | nya'u'eema' (Mo) | cat | |
| Nya'ú | | | Nya'ú | Personal Name (♂); c.f. nya'ú |
| Nyaba | | | Nyaba | Personal Name (♂) |
| Nyamahandi | | | Nyamahandi | Personal Name (♂); a very common name |
| Nyamát (Fr) | | | Nyamát | Place Name |
| Nyangula | | | Nyangula | Personal Name (♂) |
| Nyangweelí | | | Nyangweelí | Personal Name (♂) |
| Nyawarí (Fr) | | | Nyawarí | Place Name |
| Nyoohá | | | Nyoohá | Personal Name (♂) |
| Nyusloo | | | Nyusloo | Personal Name (♂) |
| Nyuungú (Fr) | | | Nyuungú | Place Name |

| Nouns | | | Gloss | Nota |
| --- | --- | --- | --- | --- |
| Singular | General | Plural | | |
| Nyuurí | | | Nyuurí | Personal Name (♂) |
| Odabindo (Fr) | | | Odabindo | Place Name |
| Odagát (Fr) | | | Odagát | Place Name |
| oha (Fr) <br> ohiingw (Mo) | | oh'ohiingw (Mo) | catching, seizing | Deverbal (source verb <óh'>) |
| oo'o'iingw (Mo) | | | saying | Deverbal (source verb <oó'>) |
| Oo/ím (Mo) | | | Oo/ím | Place Name |
| oonaa (Fr) | | onu (NØ) | k.o. gourd | |
| Oonaá | | | Oonaá | Personal Name |
| oro'ondi (Fr) | oro'ondaa (Fr) <br> oro'ondáy (Mo) | | plant sp. | |
| Oro'ondí | | | Oro'ondí | Personal Name (♂/♀); c.f. oro'ondi |
| ororompi (Fr) | | ororompáy (Mo) | bird sp. | |
| Orungadi(d) (Fr) | | | Orungadi | Place Name |
| Oysterbey (Fr) | | | Oysterbey | Place Name |
| pa/alimó (Mo) | pa/ali (Ft) | pa/alaa (Fr) | wickerwork | |
| paandaa (Fr) | | paandadu (NØ) | bald spot (i.e. on crown of head) | |
| Paandaá | | | Paandaá | Personal Name; c.f. paandaa |
| paanga (Fr) | | paangadu (NØ) <br> paangagu (NØ) | machete, sword | |
| panimó (Mo) | | panáy (Mo) | orphan | |
| papayimó (Mo) | papáy (Mo) | papaydu (NØ) <br> papayima' (NØ) | papaya (i.e. plant) | |
| papayito'o (Fr) | papayáy (Mo) | | papaya (i.e. fruit) | |
| parqi (Fr) | | | fear | Mass |
| peehhi (Fr) | | peehháy (Mo) | plank (i.e. of wood), wood | |
| Pelehhu | | | Pelehhu | Personal Name (♂) |
| picha (Fr) | | pichadu (NØ) | photo | |

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| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| Singular | General | Plural | | |
| pihha (Ft) | | pihhihhiingw (Mo) | filling | Deverbal (source verb <piíhh>) |
| pihhiroo (Fr) | | pihhihhiingw (Mo) | amount filled, manner of filling | Deverbal (source verb <piíhh>) |
| Pihhiroo | | | | Personal Name (♂); c.f. pihhiroo |
| piindimó (Mo) | piindoo (Fr) | | door plank | |
| piiró (Mo) | | pireema' (NØ) | insect sp. | |
| Piisa | | Piisa | | Personal Name (♂) |
| Pimbo | | Pimbo | | Personal Name (♂) |
| piripirimó (Mo) | piripirí (Ft) | | hot pepper | |
| polooti (Fr) | | polootáy (Mo) | plot (i.e. of land) | |
| Pongáy (Mo) | | Pongáy | | Place Name |
| poo/i (Fr) | | poo/áy (Mo) | Adam's apple | |
| poohám (Mo) | | poohameema' (NØ) | baboon | |
| poora'umó (Mo) | | poora'ama' (NØ) | reptile sp. | alternative pronunciation <poora/umó>; any large brown snake |
| pu'usayi (Fr) | | pu'usayáy (Mo) | ringworm | |
| Puhí | | | | Personal Name (♀); c.f. the Iraqw <puhi>: leafy greens |
| pululumó (Mo) | pululú (Mo) | pululeema' (NØ) | bird sp. | any sp. of kingfisher |
| purusee (Fr) | | purusáy (Mo) | insect sp. | |
| puundú (Mo) | | | dancing music | |
| puundú (Mo) | | puundaa (Fr) | plant sp. | Mass; (Obetia sp.) |
| puurú (Mo) | | puureema' (NØ) | flour | |
| qaalmimó (Mo) | qaalimí (Fr) | qaalimaa (Fr) | plant sp. | (Bidens pilosa) |
| Qaalmí | | | | Personal Name; c.f. qaalmí |
| qaamaa (Fr) | | qaami'i (NØ) | frontier | |
| qaambesmó (Mo) | qaambés (Mo) | qaambeesima' (NØ) | potsherd | |
| qaasa (Fr) | | qamiingw (Mo) | putting | Deverbal (source verb <qaás>) |
| qaatay (Mo) | | qaateemo (NØ) qaatadu (NØ) | bedridden person | |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| **Singular** | **General** | **Plural** | | |
| Qaatay | | | Qaatay | Personal Name (♂); c.f. qaatay |
| qaay (Mo) | | qa'i (NØ) | forest | |
| qaaymoo (Fr) | | qamu (NØ) | field | |
| Qabú | | | Qabú | Personal Name (♂) |
| Qachelí | | | Qachelí | Personal Name (♂) |
| Qaduweé | | | Qaduweé | Personal Name (♀, less commonly ♂); c.f. qaduweé(d) |
| qaduweé(d) (Fr) | | qaduwedudu (NØ) | consulting the traditional doctor | |
| qafi (Ft) | qafoo (NØ) | | bark, shell | |
| Qafi | | | Qafi | Personal Name (♂); c.f. qafi |
| Qafool | | | Qafool | Personal Name (♂) |
| qahaangw (Mo) | | | greed | Mass |
| qahamusumo (Mo) qahamuso'o (Fr) | qahamusee (Fr) | | greedy person | |
| qalalandumó (Mo) | qalalandi (Fr) | qalalandáy (Mo) | plant sp. | (Capparis tomentosa) |
| Qalbég (Fr) | | | Qalbég | Place Name |
| Qallandi (Fr) | | | Qallandi | Place Name |
| Qaloó | | | Qaloó | Personal Name (♂) |
| Qamala | | | Qamala | Personal Name (♂) |
| Qambada | | | Qambada | Personal Name (♂) |
| Qambadú | | | Qambadú | Personal Name (♂); perhaps derived from Datooga (etymon unknown) |
| qambahhaseerá (Mo) | | | bird sp. | |
| Qambalalí | | | Qambalalí | Personal Name (♂) |
| Qambesh | | | Qambesh | Personal Name (♂) |
| Qamda | | | Qamda | Personal Name (♂) |
| Qameená | | | Qameená | Personal Name (♂) |
| qamqami (Ft) | qamqamáy (Mo) | qamqama' (NØ) | bracelet | |
| Qamsinda | | | Qamsinda | Personal Name (♂) |

| Nouns | | | Gloss | Nota |
| --- | --- | --- | --- | --- |
| Singular | General | Plural | | |
| Qamungá | | | Qamungá | Personal Name (♂/♀) |
| qan'i (Fr) | qan'oo (Fr) | | egg | |
| Qanjá | | | Qanjá | Personal Name (♂) |
| Qanjolo | | | Qanjolo | Personal Name (♂) |
| qantsá (Mo) | | | green chyme; unfired pottery | Mass |
| qara (Mk) | | | gall, bile; poison | Mass |
| Qarbu | | | Qarbu | Place Name |
| qareere'i (Fr) | qareera'aa (Fr) | | plant sp. | (Cassia didymobotrya) |
| Qarimboó | | | Qarimboó | Personal Name (♂) |
| qariyandi (Fr) | qariyandáy (Mo) | qariyandima' (NØ) | k.o. gourd | |
| Qásh (Mo/Fr) | | | Qásh | Place Name |
| Qashá | | | Qashá | Personal Name (♂); this was the name of a very prominent traditional doctor |
| qasisa (Fr) | | qasimis (Mo) | dividing | Deverbal (source verb <qasmís>) |
| qata (Mo) | | qaqatiingw (Mo) | lying down | Deverbal (source verb <qaát>) <qaqatiingw> lying down in different places, beginning to lie down |
| qata'i (Fr) | | qata'áy (Mo) | small clay pot | |
| qataangw (Mo) | | qateeri (NØ) | large, broken pot | |
| Qatadiyángw (Mo/Fr) | | | Qatadiyángw | Place Name |
| qatloo (Fr) | | | mass death (esp. of animals) | Mass |
| qaway (Mo) | | qawi'i (NØ) | whip; eyelash | |
| qawri (Fr) | qawráy (Mo) | qawreema' (NØ) | baby | |
| Qedagerere (Fr) | | | Qedagerere | Place Name |
| Qeela | | | Qeela | Personal Name (♂) |
| qeereé(g) (Mo) | | qeereegima' (NØ) | infant | |
| Qeereeká | | | Qeereeká | Personal Name; c.f. qeereé(g) |

| Nouns | | | Gloss | Nota |
| Singular | General | Plural | | |
| --- | --- | --- | --- | --- |
| qeeru (Mo) | | | knowledge | Mass |
| qelqeli (Fr) | qelqél (Mo) | qelqeláy (Mo) | bird sp. | any sp. of small, marginal waders (e.g. jacanas, snipes, etc.) |
| Qerebás | | | Qerebás | Personal Name (♂) |
| Qolí | | | Qolí | Personal Name (♂); c.f. qoloo |
| Qombo | | | Qombo | Personal Name (♂) |
| Qonyán(d) (Fr) | | | Qonyán | Place Name |
| qoolumó (Mo) | qoolí (Fr) | | green vegetable sp. (one plant) | |
| qoomaa (Fr) | | qom'i (NØ) | time | |
| Qoonqál | | | Qoonqál | Personal Name (♂); c.f. qoonqál |
| qoonqalumó (Mo) | qoonqál (Mo) | qoonqalima' (NØ) | crowned crane | (Balearica regulorum) |
| qooqoonaa (Fr) | | qooqoonadu (NØ) | bed | |
| Qoorayi | | | Qoorayi | Personal Name (♂) |
| Qoosayí | | | Qoosayí | Personal Name (♂) |
| Qoriyo | | | Qoriyo | Personal Name (♂) |
| qoro'i (Fr) | | qoro'áy (Mo) | fertile soil | |
| Qoro'i | | | Qoro'i | Personal Name (♂/♀); c.f. qoro'i |
| qu'i (Fr) | | qu'áy (Mo) | smoke | |
| Qu/í | | | Qu/í | Personal Name (♂); c.f. qu/aa |
| qul/i (Fr) | | qul/áy (Mo) | storage space | |
| Qulanqúl (Mo) | | | Qulanqúl | Place Name |
| Qule/i | | | Qule/i | Personal Name (♂); c.f. qul/i |
| qulhhi (Fr) | | qulhháy (Mo) | scabies | |
| qulleesimó (Mo) | qulleesi (Fr) qullés (Mo) | qulleesima' (NØ) | black-and-white maize | |
| Qumá | | | Qumá | Personal Name (♂) |
| Qumbáy | | | Qumbáy | Personal Name (♂) |
| qumqumi (Ft) | | qumqumáy (Mo) | grain container | |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| Singular | General | Plural | | |
| Qunfí | | | Qunfí | Personal Name (♂); cattle may also be given this name |
| qurumpu/i | qurumpu/aa | | bird sp. | any sp. of crake, swamphen, or moorhen |
| qururú/ (Mo) | | qururu/eema' (NØ) | crop (of bird) | |
| Qutadu | | | Qutadu | Personal Name (♂) |
| Qutare | | | Qutare | Personal Name (♂) |
| quturmó (Mo) | qutúr (Mo) | quturma' (NØ) | wedding bracelet | |
| quumpuru/umó (Mo) | quumpurú/ (Mo) | | plant sp. | |
| Quwanga | | | Quwanga | Personal Name (♂) |
| Qwaantsawé | | | Qwaantsawé | Personal Name (♂) |
| qwada'i (Fr) | | qwada'áy (Mo) | area below the navel (hypogastric region) | |
| qwala/' (Mo) | | qwalala/' (Mo) | being happy | Deverbal (source verb <qwalaá/'>) |
| qwala/u (Mo) | | qwala/amayee (Fr) | happiness | Deverbal (source verb <qwalaá/'>) |
| qwambaqwariyoó(d) (Mo) | | qwambaqwariyoodima' (NØ) | parrot | |
| qwanay (Mo) | | | loss | Mass |
| Qwanqwán | | | Qwanqwán | Personal Name (♂) |
| Qwaráy | | | Qwaráy | Personal Name (♂); c.f. qwari |
| qwaree/imó (Mo) | | qwaree/ima' (NØ) | k.o. gourd | |
| qwari (Mk) | | | hunger | Mass |
| Qwarí | | | Qwarí | Personal Name (♀); c.f. qwari |
| Qwarsee | | | Qwarsee | Personal Name (♂) |
| Qwaru | | | Qwaru | Personal Name (♂/♀); c.f. qwaru |
| Qwaryasi (Fr) | | | Qwaryasi | Place Name |
| qwaslarumo (Mo) qwaslarito'o (Fr) | qwaslaree (Fr) | | doctor (often traditional doctor) | |
| Qwasleema | | | Qwasleema | Personal Name (♂); c.f. qwasleema |
| Qwasliiro | | | Qwasliiro | Personal Name (♂); c.f. qwasliiro |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| **Singular** | **General** | **Plural** | | |
| qwasliiro (Fr) | | qwaslisliingw (Mo) | rendering fat, purifying butter | Deverbal (source verb <qwasliím>) |
| Qwatloo | | | Qwatloo | Personal Name (♂/♀); c.f. qwatloo(ngw) |
| qwatloo(ngw) (Mo) | | qwatle'eeri (NØ) | storage space | |
| Qwayeé | | | Qwayeé | Personal Name (♂) |
| qweetsoo (Fr) | | qwetsu (NØ) | wrinkle (on skin) | |
| Qwendoó | | | Qwendoó | Personal Name (♂) |
| Ri/oo | | | Ri/oo | Personal Name (♂) |
| Riroó(d) (Mo/Fr) | | | Riroda | Place Name |
| Sa/am | | | Sa/am | Personal Name; c.f. sa/ám |
| sa/ám (Mo) | | sa/ám (Mo) | plant sp. | |
| Saakó | | | Saakó | Personal Name (♂) |
| saambeehhi (Fr) | saambéhh (Mo) | saambeehhima' (NØ)<br>saambeehháy (Mo) | k.o. gourd | |
| saankaa (Fr) | | saankadu (NØ)<br>saankaku (NØ) | chyme | |
| Saankaá | | | Saankaá | Personal Name (♂/♀); c.f. saankaa |
| saankimó (Mo) | | saankima' (NØ)<br>saankeemo (NØ) | front eave | |
| Saansé | | | Saansé | Personal Name (♂) |
| saaxi (Fr) | | saaxáy (Mo) | gall bladder | |
| sabiibumó (Mo) | sabiibu (Mo) | sabiibuma' (NØ) | grape | |
| Sabilo (Fr) | | | Sabilo | Place Name |
| Saboqay | | | Saboqay | Personal Name (♂); perhaps derived from Datooga (etymon unknown) |
| saburi (Fr) | | saburáy (Mo) | psalm | |
| sabuuni (Fr) | | sabunáy (Mo) | soap | |
| saga (Mk) | | sagii (NØ) | head | |
| sagalo'aa (Fr) | | sagalo'u (Mo) | wisdom | |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| **Singular** | **General** | **Plural** | | |
| sahaani (Fr) | | sahaanáy (Mo) | plate | |
| sakari (Fr) | sakaroo (Fr) | | guineafowl | |
| Sakari | | | Sakari | Personal Name; c.f. sakari |
| Sakaroo | | | Sakaroo | Personal Name; c.f. sakaroo |
| Saktay | | | Saktay | Personal Name (♂); c.f. sookitáy |
| sakweeli (Fr) | sakwél (Mo) | | bird sp. | ostrich (Struthio camelus) |
| Sakweelí | | | Sakweelí | Personal Name (♂); c.f. sakweeli |
| Sala | | | Sala | Personal Name (♂) |
| Salahoo | | | Salahoo | Personal Name (♂/♀); c.f. salangima; if twins are born, the larger of the two will be named <Salahoo>, and the smaller of the two will be named <Hheerá> 'discontent' |
| salangima (Ft) | | salangigiingw (Mo) | doing two things at the same time, the situation of two players in <gange/i> hitting the hoop at the same time | Deverbal (source verb <salangiím>) |
| Sale | | | Sale | Personal Name (♂) |
| Sallá | | | Sallá | Personal Name (♀) |
| Salu | | | Salu | Personal Name (♂) |
| samakumó (Mo) | samaki (Fr) | | fish | c.f. the Swahili 'samaki': 'fish' |
| Sambré (Fr) | | | Sambré | Place Name |
| Samo | | | Samo | Personal Name (♂) |
| samti (Fr) | samtaa (Fr) | | mammal sp. | porcupine |
| Samti | | | Samti | Personal Name (♂/♀); see samti |
| samuyú (Mo) | | samiweema' (N∅) | bird sp. | any sp. of smaller bird with a prominent crest and long tail (prototypical sp. is the Speckled Mousebird (Colius striatus)) |

| Nouns | | | | |
|---|---|---|---|---|
| **Singular** | **General** | **Plural** | **Gloss** | **Nota** |
| Sandaa | | | Sandaa | Personal Name (♂); c.f. sandaa |
| sandaa (Fr) | | sandadu (NØ) | cloth pouch | |
| sandukumó (Mo) | sandukú (Mo) | sandukuma' (NØ) | box, crate, chest | |
| Sanga | | | Sanga | Personal Name (♂) |
| Sangará (Fr) | | | Sangará | Place Name |
| Sangayuw (Mo) | | | Sangayuw | Place Name |
| Sani | | | Sani | Personal Name |
| Sanju | | | Sanju | Personal Name |
| sapoonimó (Mo) | sapoonaa (Fr) sapooní (Fr) | | maggot | |
| saqarám (Mo) | saqar (Mo) | | k.o. seed (especially of the <slahhamó> tree) | |
| saqawaa (Fr) | | saqawadu (NØ) | drying rack | |
| Saqwaré | | | Saqwaré | Personal Name (♂/♀) |
| sarahhamó (Mo) | | sarahhama' (NØ) | k.o. hairstyle | |
| Sarame (Fr) | | | Sarame | Place Name |
| Sarara | | | Sarara | Personal Name (♀) |
| Sarmee | | | Sarmee | Personal Name (♂) |
| Sauriya | | | Sauriya | Personal Name (♂) |
| sawaadi (Fr) | | | gift | c.f. the Swahili 'zawadi': 'gift' |
| Sawé (Fr) | | | Sawé | Place Name |
| saxamareema (NØ) | | | peace | Mass |
| saxumó (Mo) | saxeemi (NØ) | | bracelet | |
| Saxwáy | | | Saxwáy | Personal Name; c.f. saxway |
| Saydo | | | Saydo | Personal Name (♂) |
| Sayni | | | Sayni | Personal Name; c.f. the English 'sign', and the Swahili-English 'saini' |
| se'eemi (Fr) | se'eengw (Mo) | | hair | |
| See/áy (Mo) | | | See/áy | Place Name |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| Singular | General | Plural | | |
| see/i (Fr) | see/aa (Fr) | | plant sp. | |
| Seehhaa | | | Seehhaa | Personal Name; c.f. seehhaa |
| seehhimó (Mo) | seehhaa (Fr) | | tsetse fly | |
| Seeli | | | Seeli | Personal Name (♂) |
| Seendoo | | | Seendoo | Personal Name (♂/♀) |
| Seendoó(d) (Fr) | | | Seendoó | Place Name |
| Seenga | | | Seenga | Personal Name (♂) |
| seensee (Fr) | | seenseedu (NØ) seenseema' (NØ) | fiddle | |
| seentimó (Mo) | seenti (Fr) | seentima' (NØ) | coin | |
| seepáy (Mo) | | seepi'i (NØ) | k.o. gourd | |
| seeseekwi (Fr) | seesékw (Mo) | | bird sp. | any sp. of larger, long-legged fowl (e.g. bustards, thick-knees, etc.) |
| Selanga | | | Selanga | Personal Name (♂) |
| Seree/aa | | | Seree/aa | Personal Name (♂); c.f. seree/aa |
| seree/aa (Fr) | seré/ (Mo) | | cape buffalo | |
| serkaari (Fr) | | | government | Singularia tantum |
| Sha'ushi | | | Sha'ushi | Personal Name (♂) |
| Shagá | | | Shagá | Personal Name (♂); c.f. the ethnonym 'Chaga' |
| Sharmó (Mo) | | | Sharmó | Place Name |
| Shashoo | | | Shashoo | Personal Name (♂); c.f. shashoó(d) |
| shashoodi (Fr) | shashoó(d) (Mo) | shashoodima' (NØ) | antelope sp. | |
| shiida (Fr) | | | problem | Mass; c.f. the Swahili 'shida': 'problem' |
| shiliingimó (Mo) | shiliingi (Fr) | shiliingima' (NØ) | shilling | Alternative pronunciation: <shiliimó>; c.f. the Swahili 'shilingi': shilling (unit of currency) |
| Shilinge | | | Shilinge | Personal Name (♂); c.f. shilingi |
| Si'así | | | Si'así | Personal Name (♂/♀); c.f. sii'a |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| Singular | General | Plural | | |
| Si'imá | | | Si'imá | Personal Name (♂/♀); c.f. sii'a |
| Sibeeri | | | Sibeeri | Personal Name (♂); c.f. the Arabic 'Zubiri', through the Swahili 'Zuberi' |
| Sidamé | | | Sidamé | Personal Name (♂); c.f. sidameé(d) |
| sidameé(d) (Fr) | | sidameedadu (NØ) sidameedu (NØ) | special beer | Questioned form is <sidameedeê> |
| Sigeé(d) | | | Sigeé(d) | Personal Name (♂) |
| Sigín (Mo/Fr) | | | Sigín | Place Name |
| | sihha (Ft) | | house section (left-to-right) | Mass |
| Siigán | | | Siigán | Personal Name; c.f. siigan(d) |
| | siigan(d) (Mo) | | grasshopper | Mass |
| Siikáy | | | Siikáy | Personal Name (♂); c.f. the Iraqw <siikáy>: a tiny bird with a colourful (blue or red) underbelly |
| Siimáy | | | Siimáy | Personal Name (♂) |
| Siingiyeé | | | Siingiyeé | Personal Name (♀) |
| | siiri (Fr) | sido (NØ) | beer pot | |
| | siiwaa (Fr) | sibu (NØ) | time, protocol | |
| | silaha (Fr) | | weapon | Mass |
| Siloo | | | Siloo | Personal Name (♂) |
| Sima/o | | | Sima/o | Personal Name (♂); c.f. <sima/i>: the noise of many people speaking (different things) at once 'hue' |
| Sima/ó | | | Sima/ó | Personal Name (♂); c.f. <sima/i>: the noise of many people speaking (different things) at once 'hue' |
| simu (Mo) | | simmee (Fr) | phone (usu. handheld) | c.f. the Swahili 'simu': 'phone' |
| Sinay | | | Sinay | Personal Name (♂); c.f. Sinayi |
| Sinayi (Fr) | | | Sinayi | Place Name |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| **Singular** | **General** | **Plural** | | |
| Singda | | | Singda | Personal Name (♂); c.f. the place name <Singida> |
| Singe (Fr) | | | Singe | Place Name |
| Singi | | | Singi | Personal Name (♀) |
| Sino | | | Sino | Personal Name (♂) |
| Sinyaw | | | Sinyaw | Personal Name (♂) |
| siroorimó (Mo) | sirooraa (Fr) | | bird sp. | any sp. of Canary or Seedeater (esp. White-bellied Canary (Serinus dorsostriatus) |
| Siróp (Fr) | | | Siróp | Place Name |
| sirrihhimó (Mo) | sirrihima' (NØ) | | insect sp. | |
| Sisayi | | | Sisayi | Personal Name (♂) |
| sisipú (Mo) | | sispeema' (NØ) | insect sp. | |
| sitsawusmo (Mo) sitsawuso'o (Fr) | sitsawusee (Fr) | | searcher, researcher (♂,♀ respectively) | |
| Siwol | | | Siwol | Personal Name (♂) |
| Siyanga | | | Siyanga | Personal Name (♂); c.f. the place name <Shinyanga> |
| siyumó (Mo) | siyó (Mo) | | fish | |
| sla'ati (Fr) sla'ari (Fr) | | sla'asla' (Mo) | love | Deverbal (source verb <slaá'>) |
| sla/a (Ft) | | sla/oo (NØ) | forest | |
| Sla/a | | | Sla/a | Personal Name (♂); c.f. sla/a |
| slaahaa (Fr) | | | sth. useless | Mass |
| Slaahaa | | | Slaahaa | Personal Name (♂/♀); c.f. slaahaa |
| slaakumó (Mo) | slaaki (Fr) | | k.o. grass | |
| slaaqamit (Mo) | | | fatigue (specifically that of a pregnant woman) | Mass Deverbal (source verb <slaqaát>) |
| Slaaqí | | | Slaaqí | Personal Name (♂); c.f. slaaqí |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| **Singular** | **General** | **Plural** | | |
| slafiingw (Mo) | | | life | Mass |
| slahha'amu (Mo) | | slahha'mayee (Fr) | pain | Deverbal (source verb ?) |
| Slahhamó | | | Slahhamó | Place Name |
| slahhamó (Mo) | | slahhama' (NØ) | plant sp. | (Acacia kirkii) |
| slakaka'ay (Mo) | | | rustling | Mass |
| slakat (Mo) | | | hunting | Mass<br>Deverbal (source verb <slakaát>) |
| slakatusmo (Mo) | | slakatusee (Fr) | hunter | |
| slamahhandí (Fr) | | slamahhandú (Mo) | plant sp. | |
| Slamahhandí | | | Slamahhandí | Personal Name (♂/♀); c.f. slamahhandí |
| slamahhandí daqwa (Fr) | | slamahhandú daqwa (Mo) | plant sp. | (Momordica foetia) |
| Slamhí | | | Slamhí | Personal Name (♀); c.f. slamhaso |
| slangarehhimó (Mo) | | slangareréhh (Mo) | reptile sp. | any sp. of small lizard |
| slanú (Mo) | | slaneema' (NØ) | reptile sp. | any sp. of python |
| slaqamaye (Fr) | | | fatigue | Mass<br>Deverbal (source verb <slaqaát>) |
| slaqankumó (Mo) | slaqankay (Mo)<br>slaqanki'i (NØ) | slaqanke'eeri (NØ) | reptile sp. | any sp. of chameleon (esp. Flap-necked Chameleon (Chamaeleo dilepsis)) |
| slaqasay (Mo) | | slaqasi'i (NØ) | example | |
| Slaqoo | | | Slaqoo | Personal Name (♂); c.f. slaqoo |
| slaqwa (Ft) | | slaqoo (NØ) | body | |
| Slaqwaraa | | | Slaqwaraa | Personal Name (♂); c.f. slaqwaraa |
| slaqwaraa (Fr) | | slaqwaradu (NØ) | war | |
| Slaqwee | | | Slaqwee | Personal Name (♂/♀); c.f. slaqwee |
| slaqwee (Fr) | | | communal work | |
| slarahhandi (Fr) | | slarahhandú (Mo) | plant sp. | |
| Slarahhandí | | | Slarahhandí | Personal Name (♂); c.f. slarahhandi |

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| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| **Singular** | **General** | **Plural** | | |
| Slarhhí | | | Slarhhí | Personal Name (♂); c.f. slarhhí |
| slarhhumó (Mo) | slarhhí (Fr) | | sedge | |
| slaru (Mo) | | slareemo (NØ) | armpit | |
| slawa (Ft) | | slaslaangw (Mo) | getting | Deverbal (source verb <sláw>) |
| slee (Fr) | | yiikwa (NØ) | cow | Alternate Pl. pronunciation <hiikwa> |
| sleemu (Mo) | | | availability | Deverbal (source verb <sláw>) |
| sleér /aanta (Fr) | | yiikwá /aanta (NØ) | k.o. cow gift | |
| sleér al/utloo (Fr) | | yiikwá al/utloo (NØ) | k.o. cow gift | |
| sleér duxoo (Fr) | | yiikwá duxoo (NØ) | k.o. cow gift | |
| sleér luki (Fr) | | yiikwá luki (NØ) | k.o. cow gift | |
| sleér sihhina (Fr) sleér sihheeni | | yiikwá sihhina (NØ) | k.o. cow gift | |
| sleesoo (Fr) | | sleemis (Mo) | taking, picking up | Deverbal (source verb <sleés>) |
| Sleesoo | | | | Personal Name (♂); c.f. sleesoo |
| slehheengw (Mo) | | slehheeri (NØ) | moon, month | |
| Slehhi | | | Slehhi | Personal Name (♂); c.f. slehhi |
| slehhimó (Mo) | slehhi (Ft) | | roof insulation | |
| sli'imusumo (Mo) sli'imuso'o (Fr) | sli'imusee (Fr) | | fornicator, adulterer | |
| slihho (NØ) | | | nasal mucus | Mass |
| slinxaa (Fr) | | slinxuxu (NØ) | bridge of nose | |
| sloo/i (Fr) | | sloo/áy (Mo) | husk (i.e. of corn) | |
| slooroo (Fr) sloori (Fr) | | | bubble | Mass |
| slufay (Mo) | | | reputation | Mass Deverbal (source verb <sluúf>) |
| slufay (Mo) | | slufmis (Mo) | praising, blessing | Mass Deverbal (source verb <sluúf>) |
| slufi (Ft) | | slufiya' (NØ) | lip | |
| sluka (Ft) | | slukukuungw (Mo) | bribing | Deverbal (source verb <sluúk>) |

| Nouns | | | | |
|---|---|---|---|---|
| Singular | General | Plural | Gloss | Nota |
| | slukuma (Fr) | | bribery | Mass<br>Deverbal (source verb <sluúk>) |
| | sluma (Ft) | slumoo (NØ) | cattle enclosure | |
| Slumpa | | | Slumpa | Personal Name (♂) |
| | sluqoo (Fr) | | victory | Mass |
| Sluqoo | | | Sluqoo | Personal Name; c.f. sluqoo |
| Sluqumáy | | | Sluqumáy | Personal Name (♂); c.f. sluquum |
| Sluuqí | | | Sluuqí | Personal Name (♂) |
| sogonimó (Mo) | sogonáy (Mo) | | plant sp. | |
| Sohhi | | | Sohhi | Personal Name (♀); c.f. sohhiya |
| soksi (Mo) | sokseema' (NØ)<br>sokseemo (NØ) | | socks | |
| soo'ay (Mo) | | soo'aawee (Fr) | dog | |
| soohhi (Fr) | soohhaa (Fr) | | plant sp. | |
| sookitumó (Mo) | sookitáy (Mo) | | green vegetable sp. | |
| sookoo (Fr) | | sookodu (NØ) | market | |
| Soolá | | | Soolá | Personal Name (♂) |
| Soombe | | | Soombe | Personal Name (♂) |
| Soongí | | | Soongí | Personal Name (♂) |
| Soongo | | | Soongo | Personal Name (♂) |
| sooni (Fr) | | soonáy (Mo) | leg sore | |
| Soorá (Fr) | | | Soorá | Place Name |
| | sooxa (NØ) | | urine | Mass |
| Sooya | | | Sooya | Personal Name; there is an intuition among speakers that this word does not derive from the Swahili 'soya': 'soybean' |
| soronsorohhumó (Mo) | soronsoróhh (Mo) | | insect sp. | |
| soxutumó (Mo) | | soxutuma' (NØ) | bladder | |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| **Singular** | **General** | **Plural** | | |
| su/uma (Mo) | | su/eemi (NØ) | small cow hide, piece of cow hide | |
| Subeda | | | Subeda | Personal Name (♂); c.f. the (typically female) Swahili name 'Zubeda' |
| Subedá | | | Subedá | Personal Name (♂); c.f. the (typically female) Swahili name 'Zubeda' |
| sufuriya (Fr) | | sufuriyadu (NØ) | metal pot | c.f. the Swahili 'sufuria': 'metal pot' |
| Suhhuláy | | | Suhhuláy | Personal Name (♂); c.f. tsuhhulalá |
| sukaari (Fr) | | | sugar | Mass; c.f. the Swahili 'shule': 'school' |
| sulee (Fr) | | suledu (NØ) | school | |
| Sumuhhú | | | Sumuhhú | Personal Name (♂) |
| Surumbu | | | Surumbu | Personal Name (♂) |
| suuma (Fr) | | suumi'i (NØ) | shoulder | |
| suumbi (Fr) | | suumbáy (Mo) | crest (i.e. of bird); k.o. hairstyle (similar to a mohawk) | |
| suuri (Fr) | | suudo (NØ) | clay water jar | |
| sweetumó (Mo) | | sweetima' (NØ) | sweater | c.f. the Swahili 'sweta': 'sweater' |
| Taabu | | | Taabu | Personal Name; c.f. the Swahili 'taabu': 'trouble' |
| taambi (Fr) | | taambáy (Mo) | rope | |
| taandesumó (Mo) | taandés (Mo) | taandesí (Fr) | bird sp. | any sp. of Woodpecker |
| tahha (Ft) | | tahhaangw (Mo) | hitting | Deverbal (source verb <tahhaángw>) |
| Tahhahhaní | | | Tahhahhaní | Personal Name; c.f. tahhahhaní |
| tahhahhanimó (Mo) | tahhahhaní (Fr) | | red ant | |
| tammó (Mo) | | tamma' (NØ) | plant sp. | Ebony (Dahlbergia melanoxylon) |
| tan/ee (Fr) | | tan/eedu (NØ) tan/ee'ee (Fr) | crown of the head | |
| tane/ee (Fr) | | tana/e/edú (NØ) | brain | |
| Tanoó | | | Tanoó | Personal Name (♂/♀) |

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| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| **Singular** | **General** | **Plural** | | |
| Taraa | | | Taraa | Personal Name (♂/♀); c.f. Taraa |
| Tarantú | | | Tarantú | Personal Name (♂); c.f. tarantú |
| tarantumó (Mo) | tarantú (Mo) | | plant sp. | (Ximenia americana) |
| Tarmo (Mo) Tarto'o (Fr) | Taraa (Fr) | | person of Barbaig ethnicity (♂,♀ respectively) | |
| Tarto'o | | | Tarto'o | Personal Name (♀); c.f. Tarto'o |
| tarumbeta (Fr) | | tarumbetadu (NØ) tarumbetáy (Mo) | trumpet | |
| Tatiya | | | Tatiya | Personal Name (♂) |
| Te'esá | | | Te'esá | Personal Name (♂); c.f. te'és |
| te'esumó (Mo) | te'és (Mo) | | plant sp. | |
| teegí (Fr) | | | birdlime | Mass |
| Teengá | | | Teengá | Personal Name (♂) |
| ti'itaa(ngw) (Mo) | | ti'iteeri (NØ) | plant sp. | Strangler Fig (Ficus thonningii) |
| tiqiti (Fr) | | tiqiteemo (NØ) | disease | |
| titiiwumó (Mo) | titiiwi (Fr) titíw (Mo) | titiiwoo (Fr) | plant sp. | (Boscia mossambicensis) |
| Titiiwoo | | | Titiiwoo | Personal Name (♂); titiiwoó |
| tla/aangw (Mo) | | tle/eeri (NØ) | middle | |
| tla/afi (Fr) | | tla/eefufu (NØ) | living quarters | |
| tla/amó (Mo) | | tla/ama' (NØ) | ditch | |
| tla/anó (Mo) | tla/e (NØ) | | stone | |
| Tla/arafáy | | | Tla/arafáy | Personal Name (♂); c.f. v. <tla/aaf>: the action of crawling (for a child) |
| tlaankumó (Mo) | | tlaankima' (NØ) | bridge | |
| tlaanqarmó (Mo) | | tlaanqarma' (NØ) | bridge of nose | |
| tlaaqati (Fr) | tlaaqát (Mo) | tlaaqataa (Fr) | antelope sp. | |
| tlaatlakwaa (Fr) | tlaatláqw (Mo) | tlaatlaqwadu (NØ) | pap, porridge | |
| tlafi (Ft) | tlafoo (NØ) | | cloud | |

| Nouns | | | Gloss | Nota |
|-------|---------|--------|-------|------|
| **Singular** | **General** | **Plural** | | |
| tlahhay (Mo) | | tlahhi'i (NØ) | clan | |
| tlakway (Mo) | | tlakwi'i (NØ) | bag, sack | |
| tlamfi (Fr) | | tlamfáy (Mo) | beeswax | |
| tlamki (Fr) | tlamkaa (Fr) | | bird sp. | any sp. of Red Bishop |
| tlangasi (Fr) | tlangás (Mo) | | quiver | |
| tlanka (Mo) | | tlankatlank (Mo) tlankikiingw (Mo) | arguing | Deverbal (source verb ? <tlaánk>) |
| tlapepe/i (Fr) | tlapepé/ (Mo) | tlapepe/áy (Mo) | reptile sp. | any sp. of Toad or Frog |
| tlaptumó (Mo) | | tlapteema' (NØ) | bird sp. | any small raptor, esp. falcons |
| tlaq (Mo) | | | cutting (i.e. a tree) | Deverbal (source verb <tlaáq>) |
| tlaqasi (Fr) | | tlaqeesusu (NØ) | k.o. millet mash | |
| Tlaqasí | | | Tlaqasí | Personal Name; c.f. tlaqasi |
| tlaqumó (Mo) | tlaqáy (Mo) | | plant sp. | (Azanza garckeana) |
| Tlaramba'a | | | Tlaramba'a | Personal Name (♀) |
| tlataa (NØ) | | | vision (supernatural) | Mass |
| Tlatla'á | | | Tlatla'á | Personal Name (♂); c.f. tlatla'aangw |
| tlatla'aangw (Mo) | | tlatla'eeri (NØ) | afternoon | |
| tlatu (Mo) | | tlatetee (Fr) | debt | |
| tlawi (Ft) | tlawoo (Fr) tlawaa (Fr) | | bird sp. | any sp. of pigeon |
| tlawi (Ft) | | tlawáy (Mo) | lake | |
| tlawu (Mo) | | tlaba' (NØ) tlab'a (Na) | clothing (one piece) | |
| tlaxoo (Fr) | | | price | Deverbal (source verb <tlaáx>) |
| tle'usmo (Mo) tle'uso'o (Fr) | tle'usee (Fr) | | potter | |
| Tleema'í | | | Tleema'í | Personal Name (♂); c.f. tleema |
| tleemu (Mo) | | tlatlaangw (Mo) | leaving | Deverbal (source verb <tláw>) |
| Tleemú | | | Tleemú | Personal Name (♂); c.f. tleemu |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| **Singular** | **General** | **Plural** | | |
| tleesa (Fr) | | tleemis (Mo) | lifting onto the head, to wake up | Deverbal (source verb <tleés>) |
| tleeso | | ? | bird sp. | any sp. of weaver |
| tleharumo | tlehár | | plant sp. | (Acacia polygantha) |
| tlehha (Fr) | | tlehhit (Mo) tlehhima (Mk) | making | Deverbal (source verb <tleéhh>) |
| tlehheemu (Mo) | | tleehhemu (Mo) | way in which sth. is made | Deverbal (source verb <tleéhh>) |
| tli/antli'umó (Mo) | tli/antlí (Fr) | | plant sp. | (Artemisia afra) |
| tli/isimó (Mo) | | tli/isima' (NØ) tli/iseeri (NØ) | log | |
| tliifusmo (Mo) tliifuso'o (Fr) | tliifusee (Fr) | | stupid person (♂,♀ respectively) | |
| Tlo/orí | | | Tlo/orí | Personal Name (♂) |
| tlookoti (Fr) | tlookotaa (Fr) | | reptile sp. | any sp. of Python |
| tloomaa (Fr) | | tloomi'i (NØ) | hill, mountain | |
| tluwá/ (Mo) | | tluwe/e/ee (Fr) | upper arm | |
| tluway (Mo) | | | rain | Mass |
| Tluway | | | Tluway | Personal Name (♂); c.f. tluway |
| To'á | | | To'á | Personal Name (♀) |
| tofalimó (Mo) | tofali (Fr) | matafari (Fr) | brick | c.f. the Swahili 'tofali': 'brick' |
| too/ú (Mo) | | too/eema' (NØ) | reptile sp. | any sp. of large, highly-venomous snake (esp. Cobras and the Black Mamba) |
| Toololí | | | Toololí | Personal Name (♀) |
| toqori (Fr) | | toqoráy (Mo) | crippled person | |
| Torontoray | | | Torontoray | Personal Name (♂); c.f. torontoráy |
| torontoráy (Mo) | | | trials | Mass |
| tsa'a (Fr) | | tsa'amiingw (Mo) | smelling, sensing | Deverbal (source verb <tsaá'>) |
| tsa'asi (Ft) | tsa'asoo (Fr) | | torch | |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| **Singular** | **General** | **Plural** | | |
| tsa/asmó (Mo) | | tsa/asma' (NØ) | ladder | |
| tsa/atay (Mo) | | tsa/eetutu (NØ) tsa/eema' (NØ) | yolk of egg, placenta | |
| tsa/ay (Mo) | | tsa/i'i (NØ) tsa/a/ (NØ) | sole, palm | |
| Tsa/ayo (Fr) | | | Tsa/ayo | Place Name |
| tsaara'asi (Fr) | | tsaara'asáy (Mo) | flame | |
| Tsaaxwá | | | Tsaaxwá | Personal Name (♂/♀); c.f. tsaáxw: 'cold' |
| tsabumó (Mo) | tsabi (Fr) | | plant sp. | Wild Sisal (Sansevieria ehrengergii) |
| tsagaara (Fr) | | tsagadiingw (Mo) tsagadidiingw (Mo) | bewitching | Deverbal (source verb <tsagár>) |
| tsagani (Fr) | tsaganaa (Fr) | | mammal sp. | squirrel, greater galago |
| tsala'ammó (Mo) | | tsala'ammáy (Mo) | insect sp. | |
| tsamasi (Fr) | tsamás (Mo) | | giraffe | |
| Tsamasi (Fr) | | | Tsamasi | Place Name |
| Tsamasí | | | Tsamasí | Personal Name (♂/♀); c.f. either tsamasi or Tsamasi |
| Tsamfú | | | Tsamfú | Personal Name (♀) |
| tsangusa (Fr) | | tsangumis (Mo) | luring, beckoning | Deverbal (source verb <tsanguús>) |
| tsangweli (Ft) | tsangwalaa (Fr) | | plant sp. | |
| Tsangwelí | | | | Personal Name (♂); c.f. tsangweli |
| tsantsafumó (Mo) | tsantsafi (Fr) | tsantsáf (Mo) | plant sp. | Umbrella Thorn (Acacia tortilis) |
| tsapenimó (Mo) | tsapenáy (Mo) | | plant sp. | (Commiphora mollis) |
| tsari (Ft) | | tsariyoo (NØ) | clitoris | |
| tsarma'umó (Mo) | tsarma'i (Fr) | | plant sp. | (Lannea schimperi) |
| tsatay (Mo) | | tsati'i (NØ) | knife | |
| tsawara (Fr) | | tsawdidiingw (Mo) | choosing | Deverbal (source verb <tsawár>) |
| tsawawa (Fr) | | tsabbaangw (Mo) | strangling | Deverbal (source verb ? <tsáw>) |
| tsawdito (Fr) | | tsawdidiingw (Mo) | choosing, election | Deverbal (source verb <tsawár>) |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| **Singular** | **General** | **Plural** | | |
| tsawditoo (Fr) | | tsawditoo (Fr) | choice, election | Mass<br>Deverbal (source verb <tsawár>) |
| tsaxaara (Fr) | | tsaxariingw (Mo) | shooting (with arrow) | Deverbal (source verb <tsaáx>) |
| tsaxaraa (Fr) | | tsaxardu (NØ) | blood-drawing arrow | |
| tsaxway (Mo) | | tsaxwi'i (NØ)<br>tsaxwa' (NØ) | insect sp. | grasshopper |
| tsaxweelí (Fr) | tsaxwél (Mo) | | trap (spring trap) | |
| tse'esimó (Mo) | | tse'esima' (NØ) | leftovers | |
| Tse/imá | | | Tse/imá | Personal Name (♂/♀); c.f. sunshine |
| tsee/a (NØ) | | | faraway place | Mass |
| tseega (Fr) | | tsegit (Mo)<br>tsegigiingw (Mo) | closing, tying up | Deverbal (source verb <tseék>) |
| tseehhaa (Fr) | | tsehhu (NØ) | k.o. manure | |
| Tseeree | | | Tseeree | Personal Name (♂); c.f. tseeree |
| tseeree (Fr) | | tseerdu (NØ) | blood | |
| tseheeyimo (Mo) | | tseheeyaa (Fr) | young man | |
| Tsehhá | | | Tsehhá | Personal Name (♂); c.f. tsehha |
| tsetse/imi (Ft) | | tsetse/imáy (Mo) | open place | |
| tsetsee/i (Fr) | tsetsé/ (Mo) | | star | |
| Tsi'í | | | Tsi'í | Personal Name (♂/♀); c.f. odour |
| tsi/i (Ft) | | tsi/iya' (NØ) | shin | |
| tsifiraangw (Mo) | | tsifiraawee (Fr)<br>tsifireeri (NØ) | tongue | |
| tsifiri (Fr) | | tsifireeri (Fr)<br>tsifiráy (Mo) | language | |
| tsii'imó (Mo) | tsii'oo (Fr) | | chick, pullet | |
| tsiinqaa (Fr) | | tsinqu (NØ) | stream | |
| Tsiitsií' | | | | Personal Name; c.f. tsiistií' |
| tsimahhi (Fr) | | | sound | Mass |
| tsingarumó (Mo) | tsingár (Mo) | tsingaráy (Mo) | short person | |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| Singular | General | Plural | | |
| Tsingáy | | | Tsingáy | Personal Name (♂); c.f. tsingár |
| tsini (Ft) | | tsiniya' (NØ) | end | |
| Tsinoo | | | Tsinoo | Personal Name (♂); c.f. tsinoo |
| tsinoo (Fr) | | | millet chaff | Mass |
| Tsinowa | | | Tsinowa | Personal Name (♀); c.f. tsinoo |
| tsir/i (Fr) | tsir/oo (Fr) | | bird | |
| Tsir/i | | | Tsir/i | Personal Name (♀); c.f. tsir/i |
| Tsir/oo | | | Tsir/oo | Personal Name (♂); c.f. tsir/oo |
| tsisi (Ft) | tsisoo (Fr) | | spark | |
| tsitsihhi (Fr) | tsitsihhaa (Fr) | | gravel | |
| tsitsii'imó (Mo) | tsitsií' (Mo) | | bird sp. | any sp. of small, finch-like bird (esp. if coloured red or blue) |
| Tsixoo | | | Tsixoo | Personal Name (♂) |
| Tsixuu | | | Tsixuu | Personal Name (♂) |
| tsiyoyoo/umó (Mo) | tsiyoyó/ (Mo) | | bird sp. | Green-winged Pytilia (Pytilia melba) |
| Tso'i | | | Tso'i | Personal Name (♀); c.f. tsoyo |
| tsoobú (Mo) | | | liquid honey | Mass |
| Tsoonsí | | | Tsoonsí | Personal Name (♀); c.f. tsoonsoo |
| Tsoonsoó | | | Tsoonsoó | Personal Name (♂); c.f. tsoonsoo |
| tsoowoo (Fr) | | tsabu (NØ) | axe | |
| Tsooxo | | | Tsooxo | Personal Name (♂) |
| Tsoxolí | | | Tsoxolí | Personal Name (♂/♀); c.f. <tsoxoli>: a protuberance |
| tsoyo (Mo) | | tsoyeemo (NØ) *tsoyodima'* (NØ) | dikdik | |
| Tsoyo | | | Tsoyo | Personal Name (♂/♀); c.f. tsoyo |
| tsu'a (Mk) | | | sweetness | Mass Deverbal (source verb <tsuú'>) |
| tsu/a (Mk) tsu/uti (Fr) | | tsu/utó (Mo) | killing | Deverbal (source verb <tsuú/>) |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| Singular | General | Plural | | |
| tsufay (Mo) | | tsufi'i (NØ) | entrance | |
| tsuhay (Mo) | | tsuhaawee (Fr) tsuhi'i (NØ) | lower back | |
| tsuhhulala'umó (Mo) | | tsuhhulalá' (Mo) *tsuhhulaladima'* (NØ) | mongoose | |
| tsukurumó (Mo) | tsukúr (Mo) | tsukuruma' (NØ) | k.o. gourd | |
| tsukurumó (Mo) | | tsukuruma' (NØ) | ladle | |
| tsunqa (NØ) | | tsunqu'u (NØ) | saliva | |
| tsuqumayimó (Mo) | tsuqumayi (Fr) | | insect sp. | |
| tsururú (Mo) | | tsuureema' (NØ) | nest | |
| Tsutsi | | | Tsutsi | Personal Name (♂); reportedly a rare name |
| tsutsunqi (Fr) | tsutsunqaa (Fr) | | bird sp.; plant sp. | any sp. of beeeaters; Lion's Ear (Leonotis nepetifolia) |
| tsuunqa (NØ) | | | saliva, blessing | Mass |
| tu'i (Fr) | | | scavenged meat | Mass |
| Tu'i | | | Tu'i | Personal Name (♂, less commonly ♀); c.f. tu'i |
| tu/a (Ft) | | tuutu/uungw (Mo) | uprooting | Deverbal (source verb <tuú/>) |
| Tu/tu/í | | | Tu/tu/í | Personal Name (♂); c.f. v. <tu/tu/> 'tilling weeds' |
| Tuku/oo | | | Tuku/oo | Personal Name (♂); c.f. v. <tuku/uut>: to have tired joints (arthritis?) to the point of not being able to walk |
| Tulumbú | | | Tulumbú | Personal Name (♂) |
| tunáy (Mo) | | | dried honey | Mass |
| Tururú (Mo/Fr) | | | Tururú | Place Name |
| tuumba (Mo) | | tuumbebee (Fr) | pool | |
| Tuuri | | | Tuuri | Personal Name (♂) |
| tuutukuma (Fr) | | tuutukumadu (NØ) | stopper, plug | |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| Singular | General | Plural | | |
| tuweerimó (Mo) | tuwér (Mo) | tuweerima' (NØ) | mammal sp. | African wild dog (Canis pictus) |
| u'i (Fr) | | u'umo (Mo) | cry for help | Deverbal |
| udamoroó(d) (Mo/Fr) | | udamorooduma' (NØ) | mammal sp. | African striped weasel (Poecilogale albinucha) |
| udanjali (Fr/Ft) | | udanjalidima' (NØ) udanjanáy (Mo) | mammal sp. | Ground pangolin (Smutsia temminckii) |
| ufa (Mo) | | uffee (Fr) | pile (esp. of manure) | |
| Ufa (Mo) | | | Ufa | Place Name |
| Ufaní | | | Ufaní | Personal Name; c.f. ufaní |
| ufanimó (Mo) | ufaní (Fr) | | plant sp. | |
| uhumó (Mo) | | uheemi (NØ) | internal house post | |
| uma (Mo) | | umi'i (NØ) | name | |
| umali (Fr) | | | cry (of pain) | Mass |
| umali (Fr) | umalaa (Fr) | | hedgehog | |
| Umali | | | Umali | Personal Name; c.f. umali |
| Umbá | | | Umbá | Personal Name; c.f. the Swahili 'mbwa': 'dog' |
| Umbóy | | | Umbóy | Personal Name; c.f. the Swahili 'mbwa': 'dog' |
| unkuri (Ft) | | unkuráy (Mo) | fever (periodic) | |
| urru'usa (Fr) | | uru'u'umis (Mo) | ululating | Deverbal (source verb <urruús>) |
| Ursú | | | Ursú | Personal Name; c.f. urús |
| urús (Mo) | | urusesee (Fr) | k.o. millet mash | |
| uruwa (Fr) | | urdu (NØ) | road | |
| Ushigee | | | Ushigee | Personal Name (♂) |
| uumtuso'o (Fr) | | uumtusee (Fr) | nurturer (♀) | |
| uunú (Mo) | | uuneema' (NØ) uunudu (NØ) | k.o. gourd | |
| uunú (Mo) | | uuneemoo (NØ) | law | |
| uwanja (Fr) | | uwanjedu (NØ) | field | |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| **Singular** | **General** | **Plural** | | |
| Uwoo | | | Uwoo | Personal Name (♂); c.f. u'i |
| wa'ami (Fr) | | wa'eemoo (NØ) | bone marrow | |
| wa/aangw (Mo) | | we/eeri (NØ) | arroyo, canyon | |
| wa/ari (NØ) | | | vomit | Mass; Deverbal (source verb <waá/>) |
| Wado | | | Wado | Personal Name (♂) |
| waha (Ft) | | wahaangw (Mo) | drinking | Deverbal (source verb <wáh>) |
| Wahá | | | Wahá | Personal Name; c.f. waha |
| wahasaa (Fr) | | wahasasu (NØ) | soot | |
| wahhahha'amó (Mo) | | wahhahha'ama' (NØ) | mammal sp. | Bush hyrax (heterohyrax brucei) |
| wakaari (Fr) | | wakawak (Mo) | hating | Deverbal (source verb <waák>) |
| wakalelu'uma (Fr) | | yaareema' (NØ) | unity | |
| wakari (Fr) | | wakaráy (M) | chin | Alternative forms <kawri> (Fr); <kawráy> (Mo) |
| wakti (Ft) | | | hate, interdiction | Mass; Deverbal (source verb <waák>) |
| wakusumo (Mo) wakuso'o (Ft) | wakusee (Fr) | | enemy (♂,♀ respectively) | |
| Walangí | | | | Personal Name; c.f. the Swahili 'Warangi': 'people of Rangi origin' |
| walo/i (Fr) | walo/aa (Fr) | | plant sp. | |
| Walo/í | | | Walo/í | Personal Name (♂); c.f. walo/i |
| Wambi | | | Wambi | Personal Name |
| waqaasi (Fr) | waqás (Mo) | waqasu (NØ) | ceiling beam | |
| waqaát (Mo) | | waqaatetee (Fr) | intestines | |
| Wara/eé | | | Wara/eé | Personal Name (♂); c.f. wara/usee |
| wara/usmo (Mo) wara/uso'o (Fr) | wara/usee (Fr) | | escort for bride (♂,♀ respectively) | |
| warahhasmó (Mo) | | warahhasma' (NØ) | ford | |
| warinkakamó (Mo) | warinkaká (Mo) | | bird sp. | any sp. of Ground Barbet |
| Warqasoo | | | Warqasoo | Personal Name (♂); c.f. warqeesa |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| **Singular** | **General** | **Plural** | | |
| warqeemu (Mo) | | | manner of turning around | Mass<br>Deverbal (source verb <warqeés>) |
| warqeesa (Fr) | | warqeemis (Mo) | turning around | Deverbal (source verb <warqeés>) |
| Watlarí | | | Watlarí | Personal Name (♂) |
| waweeri (Fr) | | wawdu (NØ) | house section (front-to-back) | |
| wawi (Fr) | wawoo (Fr) | | insect sp. | |
| wawitumo (Mo)<br>wawito'o (Fr) | wawitá (NØ) | | ruler, chief (♂,♀ respectively) | |
| Wawu | | | Wawu | Personal Name; c.f. wawi |
| Weelee | | | Weelee | Personal Name (♂) |
| Weema | | | Weema | Personal Name (♂); c.f. weemo |
| weemo (Fr) | | weemo (Fr) | wandering | Mass<br>Deverbal (source verb <weém>) |
| weemusumo (Mo)<br>weemuso'o (Fr) | weemusee (Fr) | | wanderer (♂,♀ respectively) | |
| weerusumo (Mo)<br>weeruso'o (Fr) | weerusee (Fr) | | fornicator | |
| Welwel | | | Welwel | Personal Name (♂) |
| Wirasi | | | Wirasi | Personal Name (♂); c.f. the Swahili 'viazi', 'potato' |
| xa'anó (Mo) | xaa'i (NØ) | | tree | |
| xa'anó amatu/imó (Mo) | | xa'anó amatu/i (Fr)<br>xa'anó amatu/áy (Mo) | plant sp. (Datura stramonium) | <xa'anó amatu/i> collective |
| xaafa (Fr) | | xafit (Mo) | brushing hair | Deverbal (source verb <xaáf>) |
| Xaafí | | | Xaafí | Personal Name (♂); c.f. xaafa |
| Xaangi | | | Xaangi | Personal Name (♂) |
| xaanxáy (Mo) | | | desert | Mass |
| xaawi (Fr) | xawoo (Fr) | | charcoal | |
| Xabo | | | | Personal Name (♀); c.f. <xawo>: matrimony |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| Singular | General | Plural | | |
| xadi (Ft) | | xadáy (Mo) | udder | |
| Xafahandí | | | Xafahandí | Personal Name (♀); c.f. xafxafa |
| xafxafa (Ft) | | xafxafiingw (Mo) | being makeshift | Deverbal (source verb <xafxaáf>) |
| Xalili | | | Xalili | Personal Name (♂); c.f. the Arabic 'Xalil', and the Swahili 'Khalili' |
| xam'i'i (Fr) | | xam'áy (Mo) | deaf person | |
| Xambáy | | | Xambáy | Personal Name (♂) |
| xarmó (Mo) | | xareemi (NØ)<br>xarma' (NØ) | horn | |
| xawa (Mo) | | xawe'ee (Fr) | k.o. manure | |
| xawoo (Fr) | | xabibiingw (Mo) | marrying | Deverbal; <xabibiingw> many marriages (many couples, or many marriages over time |
| Xeera | | | Personal Name | Personal Name; c.f. xeeraangw |
| xeeraangw (Mo) | | xeeraawee (Fr) | scorpion | |
| Xeeru | | | Xeeru | Personal Name (♂); c.f. xeeraangw |
| Xifi | | | Xifi | Personal Name (♂) |
| xiingarumó (Mo) | xiingár (Mo) | | insect sp. | |
| Xindáy | | | Xindáy | Personal Name (♀) |
| xirantlumó (Mo) | | xirantluma' (NØ) | mammal sp. | Zorilla (Ictonyx striatus) |
| xirfu (Mo) | | | praise | Mass |
| Xongumó (Mo) | | | Xongumó | Place Name |
| xoo'arumó (Mo) | xoo'ár (Mo) | xoo'aráy (Mo) | bird sp. | any sp. of Crow |
| xooroo (Fr) | | | crowd | Mass |
| xoosla (Fr) | | xoosliingw (Mo) | grinding millet | Deverbal (source verb <xoósl>) |
| xooslumó (Mo) | | xoosla' (NØ)<br>xoslu (NØ) | vessel, tool | |
| Xooxáy | | | Xooxáy | Personal Name; c.f. xooxáy |
| xooxi (Fr) | | xooxáy (Mo) | insect sp. | termite (winged) |
| xooxoo'i (Fr) | xooxoo'aa (Fr) | | plant sp. | |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| **Singular** | **General** | **Plural** | | |
| xooyaangw (Mo) | | xooyaawee (Fr) | bird sp. | any sp. of francolin or spurfowl |
| Xooyaangw | | | | Personal Name (♂); c.f. xooyaangw |
| xooyarimi (Fr/Ft) | xooyár (Mo) | xooyarimáy (Mo) | bird sp. | any sp. of quail |
| xorxormó (Mo) | | xorxorma' (NØ) | mammal sp. | any sp. of large mongoose |
| xotloompi (Fr) | xotloompaa (Fr) | | trap (box trap) | |
| xufoo (Fr) | | xufifiingw (Mo) xufta (Fr) xufto (Fr) | drinking party, drinking (alchohol) | Deverbal (source verb, <xuúf>) |
| Xufoo | | | Xufoo | Personal Name; c.f. xufoo |
| Xumpu'umó | | | Xumpu'umó | Personal Name; c.f. xumpu'umó |
| xundurufumó (Mo) | xundurúf (Mo) | | insect sp. | |
| Xuufí | | | | Personal Name (♂/♀) |
| xuuntlú (Mo) | xuuntláy (Mo) | xuuntlaawee (Fr) | unusual protuberance (usually as a result of an injury) | |
| xuuxeemó (Mo) | xuuxú (Mo) | | insect | |
| xwaaslansli (Fr) | | xwaslansláy (Mo) xwaansláy (Mo) | garbage; rough ground millet flour (reserved from grinding for beer) with honey added; wilderness | |
| Xwantláy | | | Xwantláy | Personal Name (♂/♀); c.f. xwaansláy |
| xwaxumó (Mo) | | xwaxuma' (NØ) | palate | |
| xwaylaa (Fr) | | | progeny | Mass |
| xwaylitumó (Mo) xwaylito'o (Fr) | xwaylitee (Fr) | | parent (♂,♀ respectively) | |
| xweera (NØ) | | xweerdu (NØ) | evening | |
| ya'eemi (Fr) | | ya'eema' (NØ) | stream | |
| Ya'eér Daangi | | | Ya'eér Daangi | Place Name |

| Nouns | | | Gloss | Nota |
|---|---|---|---|---|
| **Singular** | **General** | **Plural** | | |
| ya/abusumó (Mo) ya/abuso'o (Fr) | ya/abusee (Fr) | | messenger, emissary (♂,♀ respectively) | |
| ya/ama (NØ) | | | permission | Mass |
| ya/ati (Fr) | ya/ata' (NØ) | ya/eetoo (NØ) | shoe, footwear | |
| Ya/aw | | | Ya/aw | Personal Name (♂); c.f. v. <ya/awa>: the action of sending (or being sent) on an errand |
| Ya/oo | | | Ya/oo | Personal Name (♂); c.f. ya/ama |
| Yaá | | | Yaá | Personal Name (♂) |
| yaa'ee (Fr) | | yaa'a' (NØ) | leg | |
| yaa'ee (Fr) | | ya'u (NØ) | river | |
| Yaagú | | | Yaagú | Personal Name (♂) |
| yaaháy (Mo) | | | rain (soft) | Mass |
| Yaamee | | | Yaamee | Personal Name (♂); c.f. yaamu |
| yaamu (NØ) | | yaami'i (NØ) | earth, land | |
| Yaahi | | | Yaahi | Personal Name (♂/♀); c.f. yaaháy |
| yandoo (Fr) | | yandudu (NØ) | hammer | |
| yaqamba (Mo) | yaqambee (Fr) | | buck | |
| Yaro | | | Yaro | Personal Name (♂) |
| Yerotoní(k) (Fr) | | | Yerotoní(k) | Place Name |
| Ziwani (Fr) | | | Ziwani | Place Name |