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

**Volume I: Chapters 1-5**

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

2018



## 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."<sup>1</sup> 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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<sup>1</sup> "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.

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Needless to say, all errors found in this dissertation are mine, and mine alone.

The author,  
Mecklenburgh Square, London,  
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## Abbreviations

A	-agent of transitive clause	Poss	-possessive determiner
Abl	-ablative	Prep	-preposition
Amp	-ampliative	Pres	-present tense
Ana	-anaphoric pronoun	Prf	-perfect aspect
Atten	-attenuative	Pro	-pronoun
Aux	-auxiliary	Prohib	-prohibitive mood
Back	-background 'tense'	Pst	-past tense
Comp	-comparative	Q	-question
Consec	-consecutive 'tense'	Reason	-reason
Dem1	-demonstrative, first degree deixis	Rec	-reciprocal
Dem2	-demonstrative, second degree deixis	Red	-reduplication
Dem3	-demonstrative, third degree deixis	Res	-resumptive
Dem4	-demonstrative, fourth degree deixis	RPA	-rising pitch accent
Emph	-emphasis	S	-sole argument of intransitive clause
Expect	-expectative aspect	Sg	-singular number
F	-feminine gender	Subj	-subjunctive mood
Fr	-feminine r-type subgender	Temp	-temporal
Ft	-feminine t-type subgender	Top	-topic
Imp	-imperative mood	Vent	-ventive
Imprf	-imperfective aspect	1	-1 <sup>st</sup> person
Indef	-indefinite determiner	2	-2 <sup>nd</sup> person
Instr	-instrumental	3	-3 <sup>rd</sup> person
L	-linker	♀	-female sex
Lat	-lative	♂	-male sex
LPA	-level pitch accent	ˊ	-rising pitch accent
M	-masculine gender	ˋ	-falling pitch accent
Mk	-masculine k-type subgender	ˆ	-rising-falling pitch accent
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		



## 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 *sleerí* ‘this cow’), but is also present in other constructions which are clearly not modificational in nature (e.g. *aní a sleér díif* ‘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 *-í*) 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 *-í*) 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 key 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)

<b>Dimension</b>	<b>Functional Approach</b>	<b>Formal Approach</b>
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

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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

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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

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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

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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<sup>1</sup>, 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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<sup>1</sup> 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



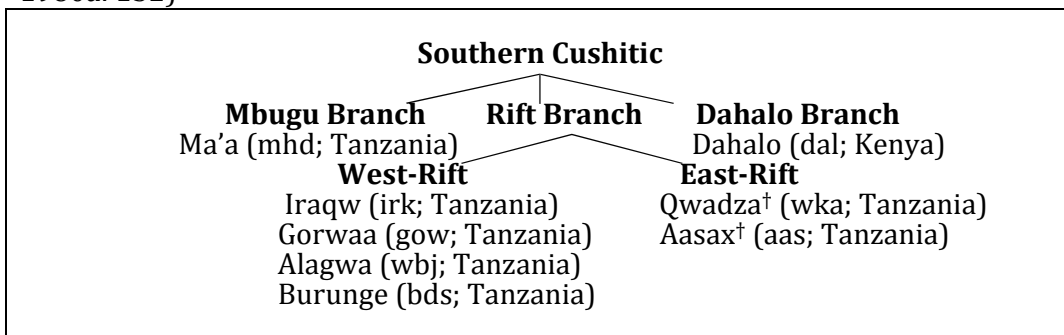
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the national majority. Time will tell how the Gorwaa people will respond to these recent titanic shifts.

### 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)

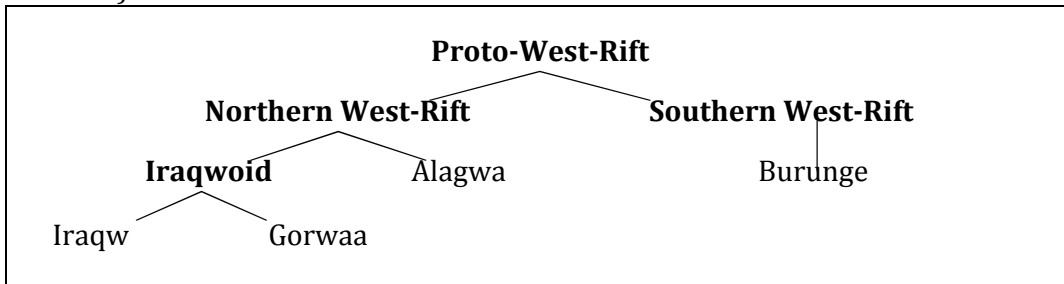


Kießling and Mous (2003: 2-3) note that classification of Southern Cushitic is a challenge for several reasons. Firstly, of the East-Rift branch, both languages are now assumed to be extinct, with only small amounts of lexical data remaining (see Ehret (1980a+b) for Qwadza, and Ehret (1980a), Fleming (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<sub>z</sub>ee*, and *-aC<sub>z</sub>u* 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 buuxayén* with the Gorwaa *muukú buuxáx* ('grey people'). The marker for third person agent is also different: compare the Iraqw *guna diif* with the Gorwaa *nguna 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 **buff** 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

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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
<b>Total:</b>			<b>132,748</b>

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

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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<sup>2</sup>. 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

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<sup>2</sup> 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.

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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



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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

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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

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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.

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### 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. Inter-marriage 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 led 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), inter-marriage 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.

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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



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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.

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### **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-

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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 spirits, 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

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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/eeeri*) 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/eeeri* 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

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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

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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 Bower 2008 (220-221), which were recorded and are available as part of the larger deposit of recorded materials<sup>3</sup>.

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<sup>3</sup> 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.

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### (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



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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.<sup>4</sup> 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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<sup>4</sup> 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).

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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 20<sup>th</sup> 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

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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 Bower 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 28<sup>th</sup> 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).

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Figure 1.3: Basic Data Collection Workflow

<b>BEFORE SESSION</b>	<p>PLAN SESSION</p> <ul style="list-style-type: none"><li>-Check equipment (batteries full, memory cards empty)</li><li>-Compile goals (questions, prompts, etc.)</li></ul>
<b>DURING SESSION</b>	<p>CONDUCT SESSION</p> <ul style="list-style-type: none"><li>-Monitor recording</li><li>-Take notes (interesting items, questions for immediate or later follow up)</li><li>-Ask questions, listen to answers</li></ul>
<b>AFTER SESSION</b>	<p>FILE DATA</p> <ul style="list-style-type: none"><li>-transfer audio/video from equipment to a new folder (bundle)</li><li>-assign all items of new bundle a unique identifying number</li><li>-add bundle description to database</li></ul> <p>SEND ALL NEW BUNDLES TO ARCHIVE</p> <p>TRANSCRIBE/TRANSLATE DATA</p> <ul style="list-style-type: none"><li>-set up ELAN project for bundle</li><li>-transcribe material in Gorwaa working orthography</li></ul> <p>GLOSS DATA</p> <ul style="list-style-type: none"><li>-export ELAN project to FLEx</li><li>-gloss line-by-line</li><li>-add notes where necessary</li><li>-re-export project from FLEx to ELAN</li></ul> <p>SEND ALL GLOSSED ELAN FILES TO ARCHIVE</p> <p>BEGIN AGAIN</p>

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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

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'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

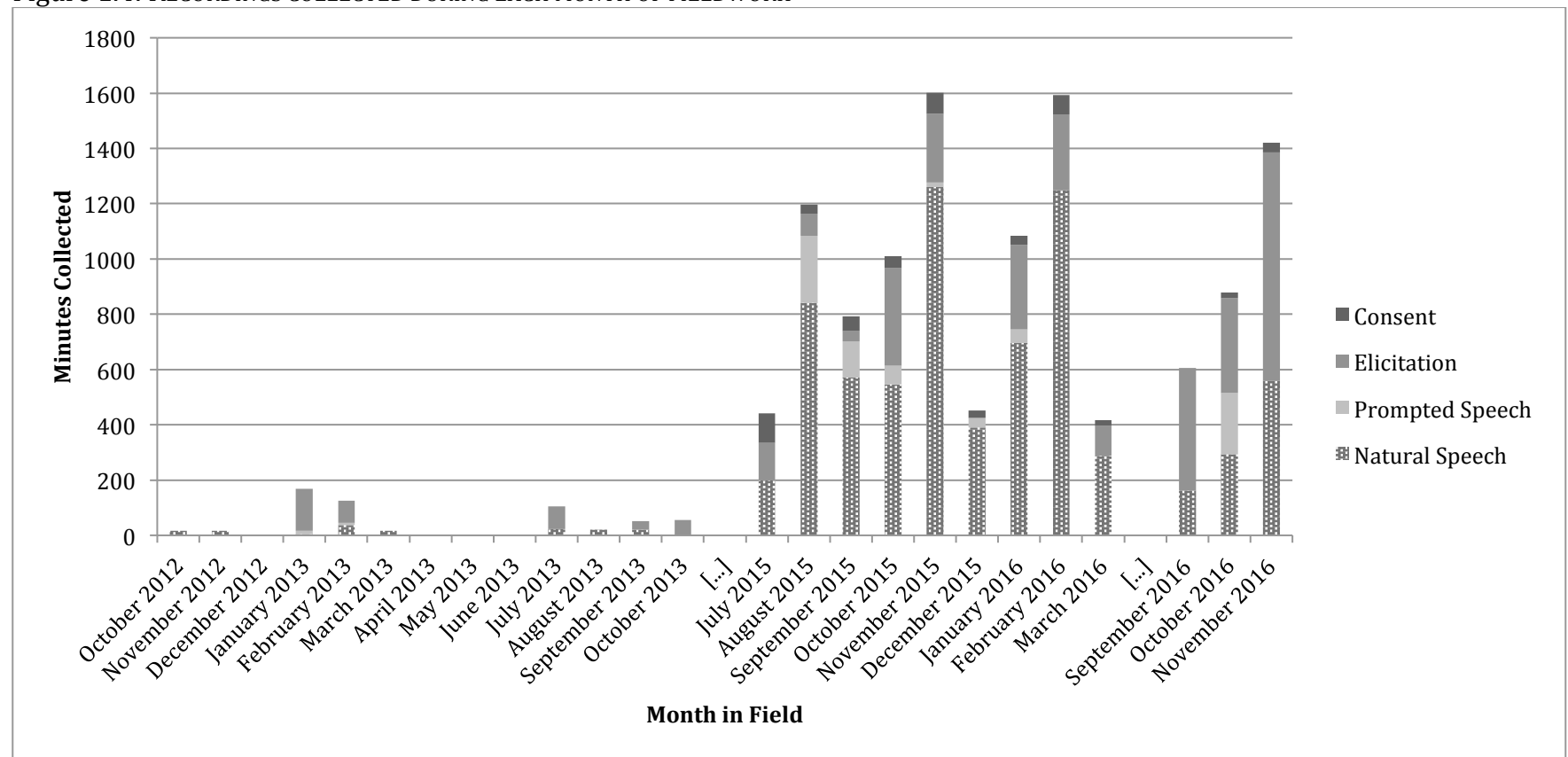
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translation or back-translation, or asks for a grammaticality judgment. Consent refers to the recordings of the scripted consent dialogue, as given in (1.1) above.



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Figure 1.4: RECORDINGS COLLECTED DURING EACH MONTH OF FIELDWORK



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### 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!*

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### 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,

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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

The screenshot shows a web browser window with the URL [elar.soas.ac.uk](http://elar.soas.ac.uk). The page is titled "The Gorwaa Noun Phrase: Toward a Description of the Gorwaa Language".

**Search this deposit**

Reset keywords Search

**Access protocol**

O	(2)
U	(381)
S	(548)

**Type**

Audio	(787)
Video	(351)
Image	(139)
ELAN	(50)
Settings	(50)
Document	(1)

**Genre**

Monological Text	(2)
Unspecified	(2)
Historical Narrative	(1)

**Participants**

Bu'ú Saqwaré	(159)
Paschal Bu'ú	(115)
Rachel Lawi	(97)
Hezekiah Kodi	(93)
Darbo Hheke	(62)
Maria Hheke	(62)

**The Gorwaa Noun Phrase: Toward a Description of the Gorwaa Language**

**Language:** Gorwaa

**Depositor:** Andrew Harvey

**Location:** Tanzania

**Deposit Id:** 0404

**ELDP Id:** IGS0285

**Level:** Deposit

**Summary of deposit**

This deposit contains audiovisual material collected during Andrew Harvey's work with the Gorwaa language. Beginning in 2012 and extending to present, this deposit will be regularly expanded with new recordings, transcriptions/translations, and other content.

The focus of research has been on Gorwaa morphosyntax – specifically of the noun, and features a considerable number of recordings dealing with the makeup of nouns and the structure of the larger noun phrase. A second priority has been the collection of historical and cultural material deemed important to the Gorwaa people. As such, traditional songs, stories, and common history also form a significant part of the deposit.

The collector, Andrew Harvey, conducted much of the recording from 2012-2013 during Masters-level research at the University of Dar es Salaam, Tanzania, and again from 2015-2016 during PhD-level research at SOAS, University of London. Much audiovisual material has been transcribed using the Gorwaa working writing system, and then translated into Swahili. Much of this work was conducted by Stephano Edward, Paschal Bu'ú, and Festo Massani. Translated work was then translated into English and linguistically annotated by Andrew Harvey.

The photo above is of Aakó Lagweén Goti, a local elder, at Dó' Gwaandú, a special site known for being the past home of a powerful doctor.

**Status**

✓ Curated  
Resources online and curated

**Depositor**

Andrew Harvey

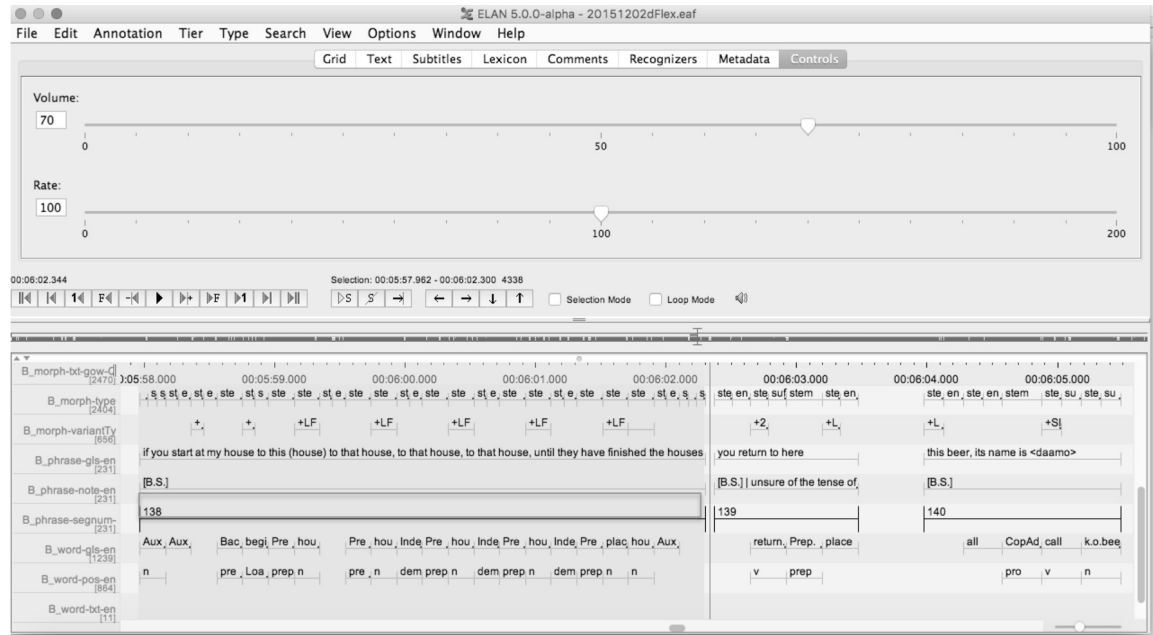
**Affiliation:** SOAS  
University of London

Map showing location in Tanzania (Gorwaa area).

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.

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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 functional 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, [tʃʰ].

Table 2.1: PHONEMIC INVENTORY OF GORWAA CONSONANTS

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



## 2. A grammatical sketch of Gorwaa

Consonant phonemes in brackets represent non-native phonemes, present exclusively in loanwords.

### (2.1) NON-NATIVE PHONEMES OCCUR EXCLUSIVELY IN LOANWORDS

- a. [tʃupa] *chupa* 'bottle' from Sw. *chupa* 'bottle'
- b. [ɲana] *nyanya* 'tomato' from Sw. *nyanya* 'tomato'
- c. [dʒe:la] *jeela* 'private room' from Sw. *jela* 'prison'
- d. [bijaʃara] *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	[qʰ]
sh	[ʃ]
x	[χ]
hh	[h]
/	[ʕ]
y	[j]
sl	[ʈ]
ch	[tʃ]
j	[dʒ]
ts	[tsʰ]
tl	[tʈʰ]
kw	[kʷ]
gw	[gʷ]
ngw	[ŋʷ]
qw	[qʷ]
xw	[χʷ]

### 2.2.2 Vowels

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

## 2. A grammatical sketch of Gorwaa

Figure 2.1: THE GORWAA VOWELS

<i>i ii</i>	<i>u uu</i>
<i>e ee</i>	<i>o oo</i>
<i>a aa</i>	

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'aχara:]    *tsax**araa***    'blood-drawing arrow'  
 vs.  
 [ts'aχa:ra]    *tsax**aara***    'shooting (with arrow)'

(2.3) GRAMMATICAL VOWEL-LENGTH DISTINCTION

a.    [ʔa dó:ʔ]    *a doósl*    'I farm'  
 vs.  
       [ʔa dót]    *a dót*    'you farm'

b.    [he: tʰá:kʷ]    *heé tlaákw*    'a bad person'  
 vs.  
       [mu:kú tʰá:kʷ]    *muukú tlaákw*    '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.

## 2. A grammatical sketch of Gorwaa

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<sup>1</sup>.

### (2.4) TWO ‘GRAMMATICAL’ CONTOURS

- a. LEVEL PITCH ACCENT (LPA)
- |                |               |             |
|----------------|---------------|-------------|
| i) [desi]      | <i>desi</i>   | ‘girl’      |
| ii) [hara]     | <i>hhara</i>  | ‘stick’     |
| iii) [ʔi gu:ʔ] | <i>i guu’</i> | ‘he sleeps’ |
- b. RISING PITCH ACCENT (RPA)
- |                   |                     |                      |
|-------------------|---------------------|----------------------|
| i) [desír ʔa:ko]  | <i>desír aako</i>   | ‘grandfather’s girl’ |
| ii) [hartá tle:r] | <i>hhartá tleer</i> | ‘a long stick’       |
| iii) [ʔaga gú:ʔ]  | <i>aga guú’</i>     | ‘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<sup>2</sup>. 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

---

<sup>1</sup> 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.

<sup>2</sup> 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.

## 2. A grammatical sketch of Gorwaa

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) [harta tlè:r] *hharta tleèr* 'a long stick' (as opposed to a short one)
  - ii) [ʔaga gù:ʔ] *aga guù'* 'he slept' (finally, or as opposed to ate)
- c. RISING-FALLING PITCH ACCENT (RFPA)
  - i) [gár bô:ʔ] *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)	[ʔa:lusumo]	/a <u>a</u> lusumo	‘heir’	
ii)	[kaliʔi]	<u>k</u> aliʔi	‘colour’	
iii)	[lawala:]	<u>l</u> awalaa	‘spear’	
b.	STRESSED PENULTIMATE SYLLABLE			
i)	[ʔare:ma]	/are <u>e</u> ma	reduction	
ii)	[ʔafaʔho:wa]	afah <u>h</u> oowa	eloquence	
iii)	[qʔantsare:ma]	qantsare <u>e</u> ma	greenness	
c.	STRESSED FINAL SYLLABLE			
i)	[ʔorruʔumó]	/orruʔ <u>u</u> mó	sp. of tree	
ii)	[karkarí]	karkar <u>í</u>	sp. of grub	
iii)	[ne:armó]	nee/arm <u>ó</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.

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### (2.7) CANONICAL SYLLABLES

a. CV	i) [di]	<i>di</i>	'place' (n)
	ii) [ga]	<i>ga</i>	'thing' (n)
	iii) [ja]	<i>ya</i>	'thus' (adv)
b. CVC	i) [dáh]	<i>dáh</i>	'come in' (v)
	ii) [dóʔ]	<i>dó'</i>	'house' (n)
	iii) [tám]	<i>tám</i>	'three' (n)
c. CVNC	i) [ʔónd]	<i>/ónd</i>	'dry.up.F' (v)
	ii) [tʰánqʷ]	<i>tlánqw</i>	'spotted.F' (adj)
	iii) [húnʔ]	<i>hhúnsɩ</i>	'wash.F' (v)
d. CV:	i) [matʰe:]	<i>matlee</i>	'morning' (n)
	ii) [firo:]	<i>firoo</i>	'prayer' (n)
	iii) [mu:]	<i>muu</i>	'people' (n)
e. CV:C	i) [q'óm]	<i>qoóm</i>	'be.good.1Sg' (v)
	ii) [hó:t]	<i>hoót</i>	'live.1Sg' (v)
	iii) [ba:q']	<i>baaq</i>	'house.partition' (n)
f. CV:NC	i) [fa:nqʷ]	<i>faanqw</i>	'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. [m̩ʔongoma]	<i>mchongoma</i>	'shrub sp.' from Sw. <i>mchongoma</i>
'shrub		
b. [ɲdowa]	<i>ndowa</i>	sp. 'wedding' from Sw. <i>ndoa</i> '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. [matahar#á]	<i>matahhar-</i>	<i>-á</i>	'insect sp. (pl.)'
b. [ʔaraʔant#i]	<i>/ara/ant-</i>	<i>-i</i>	'fire-ball lilies'
c. [ʔindaʒax#áʔ]	<i>indaxax-</i>	<i>-á'</i>	'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

## 2. A grammatical sketch of Gorwaa

NC cluster (see (2.10))<sup>3</sup>. 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]   | <b>baambár</b>     | 'finger millet'       |
| b. [da:ngaf#i] | <b>daangaf-</b> -i | 'millet-filled gourd' |

### (2.11) OTHER CASES OF CVV SYLLABLES

- |                           |                   |                  |
|---------------------------|-------------------|------------------|
| a. [ne:ʕár]               | <b>nee/ár</b>     | 'heavy clouds'   |
| b. [se:sék <sup>w</sup> ] | <b>seesékw</b>    | 'bustard'        |
| c. [ʔi:rimb#i]            | <b>iirimb-</b> -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]     | <b>bariy-</b> -a     | 'k.o. disease' (underscored i is epenthetic)          |
| b. [gases#mó]    | <b>gases-</b> -mó    | 'reptile sp.'   |
| c. [fuʔun#i]     | <b>fu'un-</b> -i     | 'meat (i.e. one piece)' (underscored u is epenthetic) |
| d. [kitange:r#i] | <b>kitangeer-</b> -i | 'drying rack'   |
| e. [gise:r#i]    | <b>giseer-</b> -í    | 'pot for special beer'                                |

### (2.13) ALL VS ARE IDENTICAL

- |                              |                     |                             |
|------------------------------|---------------------|-----------------------------|
| a. [baʔa:r#i]                | <b>ba'aar-</b> -i   | 'bees'                      |
| b. [pulul#ú]                 | <b>pulul-</b> -ú    | 'kingfisher (i.e. a group)' |
| c. [toqor#i]                 | <b>toqor-</b> -i    | 'crippled person'           |
| d. [biʕin#i]                 | <b>bi/in-</b> -i    | 'silky blesmol'             |
| e. [k <sup>w</sup> eʕeʕen#i] | <b>kwe/e/en-</b> -i | 'black-necked rock hyrax'   |

<sup>3</sup> 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.

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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. [ne:ʕár]  | <i>nee/ár</i>  | ‘heavy clouds’ |
| b. [se:sékʷ] | <i>seesékw</i> | ‘bustard’      |
| c. [po:hám]  | <i>poohám</i>  | ‘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]   | /a/            | -(a)mó | ‘bird sp.’                          |
| b. [ts’ifir#i] | <i>tsifir</i>  | -i     | ‘language’                          |
| c. [q’aduwee]  | <i>qaduweé</i> |        | ‘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. [tʰangás]   | <i>tlangás</i>  | ‘quivers (for arrows)’ |
| b. [me:mé:h]   | <i>meemeéhh</i> | ‘woven backpacks’      |
| c. [siro:r#a:] | <i>siroor-</i>  | -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



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(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. [ʔaq'amaje]    | <i>slaqamaye</i>       |     | 'fatigue'      |
| b. [ʔafurtʰum#áy] | <i>afurtl<u>u</u>m</i> | -áy | 'simple knots' |
| c. [fe:him#i]     | <i>feehh<u>i</u>m</i>  | -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] | <i>dam<u>i</u>t</i> | -o | 'waiting' |
|-----------|---------------------|----|-----------|

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

### (2.19) EPENTHETIC VOWEL BEFORE A SYLLABLE WITH A HIGH TONE

- |               |                        |                    |
|---------------|------------------------|--------------------|
| a. [ħurahúr]  | <i>hhur<u>a</u>húr</i> | 'bulbul, greenbul' |
| b. [χundurúf] | <i>xund<u>u</u>rúf</i> | '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. [ts'araʔas#i]  | <i>tsar<u>a</u>'as</i>  | -i           | 'flame'      |
| But: | b. [furʔa]        | <i>fur'a</i>            |              | 'wind'       |
|      | c. [tʰat#ete:]    | <i>tlat</i>             | - <u>ete</u> | 'debts'      |
| But: | d. [ʕat#te:]      | <i>/at</i>              | - <u>tee</u> | 'curds'      |
|      | e. [maraʕants'#i] | <i>mar<u>a</u>/ants</i> | -i           | 'insect sp.' |
| But: | f. [ts'irʕ#i]     | <i>tsir/</i>            | -i           | 'bird'       |

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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:]	<i>dan</i>	<i>-nee</i>	'honies'
b. [ʔatʔ#tʔe:]	<i>/aatl</i>	<i>-tlee</i>	'jaws'
c. [sim#me:]	<i>sim</i>	<i>-mee</i>	'phones' (from Sw. <i>simu</i>
'phone')			
d. [kun#nu]	<i>kun</i>	<i>-nu</i>	'mortars'
e. [gʷarʔ#i]	<i>gwar/</i>	<i>-i</i>	'wildebeest'
f. [marʔaf#i]	<i>mar'af-</i>	<i>-i</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. <i>hhawata</i>	+ -ó	→	[ħawató]	<i>hhawató</i>	<i>tleér</i>	'a tall
man'						
b. <i>slaqankay</i>	+ -ó	→	[slaq'ankáy]	<i>slaqankáy</i>	<i>tleér</i>	'a long
						chameleo
c. <i>tsoyo</i>	+ -ó	→	[tsoyó]	<i>tsoyó</i>	<i>tleér</i>	n' '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 → [aɬtí] *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 ↔						
Preceding 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. *ku -a tsawaár* → *kwa tsawaár* 'he was chosen'

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

- b. *ngu -a hhe'és* → *ngwa 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].

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(2.25)  $V_1 \rightarrow V_2 / \_\_ ?V_2$  WHERE  $V_1$  IS AN EPENTHETIC VOWEL  
 $af\text{-}a'i \rightarrow [ʔaf\#iʔi] \quad af'i \quad \text{'mouths'}$

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)  $V_1 \rightarrow V_2 / V_2 C \_\_$  WHERE:  $V_2$  IS [-MID]  
 $C$  IS VELAR, UVULAR, PHARYNGEAL, OR  
 GLOTTAL  
 a.  $duux\text{-}iim \rightarrow [dux\#\acute{u}:m] \quad duxu\acute{u}m \quad \text{'take out; marry'}$   
 b.  $wah\text{-}iim \rightarrow [wah\#\acute{a}:m] \quad waha\acute{a}m \quad \text{'drink'}$

### 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)  $C_1 C_2 \rightarrow C_2$  WHERE:  $C$  [+ORAL]  
 [ALVEOLAR]  
 a.  $gár\text{-}dá' \rightarrow [ga\#dáʔ] \quad gadá' \quad \text{'that thing'}$   
 b.  $bombót\text{-}du \rightarrow [bombo\#dú] \quad bombodú \quad \text{'old beers'}$   
 c.  $qwar\text{-}t \rightarrow [q^w\acute{a}t] \quad qwát \quad \text{'get lost-2Sg'}$

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

(2.28)  $C_1 C_2 \rightarrow C_2$  WHERE:  $C_1$  [GLOTTAL]  
 $C_2$  [ORAL]  
 a.  $bara/'\text{-}í \rightarrow [bara\#w\#í] \quad bara/wí \quad \text{'this dance'}$   
 b.  $oh\text{-}t \rightarrow [ʔót] \quad ót \quad \text{'catch.2Sg'}$

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. A grammatical sketch of Gorwaa

(2.29) C[+LABIAL] → C[-LABIAL] / \_\_\_ V[+ROUND]<sup>4</sup>

- |                            |       |   |                           |                          |           |
|----------------------------|-------|---|---------------------------|--------------------------|-----------|
| a. <i>dee<b>q</b>w</i>     | -u(!) | → | [deq'#u]                  | <i>de<b>q</b>u</i>       | 'razors'  |
| b. <i>kwa/aang<b>w</b></i> | -oô   | → | [k <sup>w</sup> aŋa:ng#ô] | <i>kwa/aang<b>o</b>ô</i> | 'a hare?' |

Word-final consonant reduction operations are optional.

(2.30) [nd] → [n] / \_\_\_ #

- |                   |   |                   |                         |                       |
|-------------------|---|-------------------|-------------------------|-----------------------|
| a. <i>siigand</i> | → | [si:gan]          | <i>siigan</i>           | 'grasshopper'         |
|                   |   | or [si:gand]      | <i>siigand</i>          | 'grasshopper'         |
|                   |   | But: [si:dand#ê:] | <i>siigand<b>eê</b></i> | 'a grasshopper?'      |
| b. <i>Hoshand</i> | → | [hoʃan]           | <i>Hoshan</i>           | 'Hoshan (place name)' |
|                   |   | [hoʃand]          | <i>Hoshand</i>          | 'Hoshan (place name)' |
|                   |   | But: [hoʃand#ê:]  | <i>Hoshand<b>eê</b></i> | '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]           |                                    |
| <i>qaáb</i> | → | [q'á:b] <i>qaáb</i> | or [q'á:p] <i>qaáp</i> 'to stanch' |

### 2.3 Lexical Categories

The lexical categories – those semantically-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-

<sup>4</sup> 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])).

## 2. A grammatical sketch of Gorwaa

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.LMo** hyaena.LFR 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.LMo** 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.LMo** 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.LMo** S.3- AUX in field.LFR  
“The boy is in the field.”

## 2. A grammatical sketch of Gorwaa

### 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

#### Direct Object

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 [201609271222-228.26]  
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.”

## 2. A grammatical sketch of Gorwaa

### Predicate of Copular Construction

#### *Nominal Predicate*

(2.40) DAAWAA IS PREDICATE OF COPULAR CONSTRUCTION

*xaa'í sla/a a daawaa* [20131108b\_20150725j.7]

<i>xaa'í</i>	<i>sla/atá</i>	<i>i-</i>	$\emptyset$	<i>-(g)a</i>	<b>daawaár</b>
trees.LNØ	forest.LFT	S.3	AUX	-PRF	<b>medicine.LFR</b>

"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]

<i>inós</i>	<i>ta-</i>	$\emptyset$	<i>-wa</i>	<b>askofú</b>	<b>mkowár</b>	<b>Arushár</b>
PRO.3SG	TEMP-	AUX	-BACK	<b>bishop.LMo</b>	<b>region.LFR</b>	

**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]

<i>mwalimú</i>	<i>kitaabú</i>	<i>ng-</i>	<i>u-</i>	$\emptyset$	<i>-(g)a</i>	<i>hariís</i>
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]

<i>mwalimú</i>	<b>desír</b>	<i>ng-</i>	<i>a-</i>	$\emptyset$	<i>-na</i>	<i>kitaabú</i>	<b>-i</b>
teacher.LMo	<b>girl.LFR</b>	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. A grammatical sketch of Gorwaa

### (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 possessum *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. A grammatical sketch of Gorwaa

- (2.48) POSSESSOR *SEEHAA* 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 =DEM2  
 leehh ar **seehhaár**  
 look.for.3.SUBJ ANA.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 PRECEDES POSSESSOR *GURA'*  
*a daawaár gura'* [20150808a.92]  
 i- Ø -(g)a **daawaár** gurá'  
 S.3- AUX -PRF **medicine.LFR** stomach.LMo  
 “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. A grammatical sketch of Gorwaa

### (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).<sup>5</sup>

### (2.52) (M) FORMS REFER TO PLANT, (F) FORMS REFER TO FRUIT

- |                             |  |                            |
|-----------------------------|--|----------------------------|
| a. <i>maangware'umó</i> (M) |  | <i>maangware'ito'o</i> (F) |
| 'sorghum sp. (one plant)'   |  | 'sorghum sp. (one head)'   |
| b. <i>baranqumó</i> (M)     |  | <i>barangeto'o</i> (F)     |
| 'tree sp. (one tree)'       |  | 'tree sp. (one fruit)'     |
| c. <i>xoowáy</i> (M)        |  | <i>xoowí</i> (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.

---

<sup>5</sup> 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").

## 2. A grammatical sketch of Gorwaa

### (2.53) SINGULAR VS. PLURAL

a. <i>tsukurumó</i>	'a ladle'		<i>tsukuruma'</i>	'ladles'
b. <i>tlaptumó</i>	'a falcon'		<i>tlapteema'</i>	'falcons'
c. <i>ga/atini</i>	'a high fever'		<i>ga/atanáy</i>	'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

<i>bami'to'o</i>	'okra' (one fruit or flower)		<i>bamiya</i>	'okra' (as food or as a crop'
------------------	------------------------------	--	---------------	-------------------------------

### (2.55) COLLECTIVE VS. PLURAL

<i>sandaa</i>	'cloth pouch' (a kind of pouch or group of pouches)		<i>sandadu</i>	'cloth pouches'
---------------	---	--	----------------	-----------------

Three-way distinctions also exist.

### (2.56) SINGULAR VS. COLLECTIVE VS. PLURAL

<i>fuqumó</i>	'an acacia'		<i>fuqaa</i>	'acacia' (as a kind or species)		<i>fuqi</i>	'acacias'
---------------	-------------	--	--------------	---------------------------------	--	-------------	-----------

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

<i>tsunqaa</i>	'saliva'		<i>tsunqu'u</i>	'saliva' (scattered in different places)
----------------	----------	--	-----------------	--

### (2.58) MASS NOUN *MAA'AY* MAY NOT BE PLURALIZED

<i>maa'ay</i>	'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, 1<sup>st</sup> 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 <sup>A</sup>	M <sup>B</sup>	Example	F	Example	N	Example
<b>Anaphor</b>	ProPoss	ko- + Poss	<i>awu a kw'eé'</i> 'the bull is mine'	to- + Poss	<i>slee a te'eé'</i> 'the cow is mine'	ko- + Poss	<i>hhaysa a kw'eé'</i> 'the tail is mine'
	ProDem	ko- + Dem	<i>awu a koqá'</i> 'the bull is that one there'	to- + Dem	<i>slee a toqá'</i> 'the cow is that one there'	ko- + Dem	<i>hhaysa a koqá'</i> 'the tail is that one there'
	Ana	oo	<i>awuwí oo tleér</i> 'this tall bull'	ar	<i>sleerí ar tleer</i> 'this tall cow'	oo	<i>hhaysowí oo tleer</i> 'this long tail'
<b>Subject</b>	V (1)	-V:C	<i>garma ni tliiq</i> 'the boy is late'	-VC ~RPA~	<i>desi ni tliq</i> 'the girl is late'	-V:C -iyá' -iyí'	<i>tlataa ni tliiqiyá'</i> 'the vision is late'
	V (2)	-V:n ~RPA~	<i>garma i qoón</i> 'the boy is good'	-Vnd ~RPA~	<i>desi i qónd</i> 'the girl is good'	-V:n -iyá' -iyí'	<i>tlataa i qooniyí'</i> 'the vision is good'
	V (3)	-ay ~RPA~	<i>garma ni xáy</i> 'the boy comes'	-eer ~RPA~	<i>desi ni xeér</i> 'the girl comes'	-ay -iyí' -iyí'	<i>tlataa ni xayiyá'</i> 'the vision comes'
	V (4)	-ar ~RPA~	<i>naanú ni hamár</i> 'the side-dish is cooked'	-an ~RPA~ -at	<i>fa/a ni hamát</i> 'the ugali is cooked'	-ar -iyí' -iyá'	<i>tlataa ni hamariyí'</i> 'the vision is realized'
	V (5)	-Vh	<i>garma ni dah</i> 'the boy enters'	-Vt ~RPA~	<i>desi ni dát</i> 'the girl enters'	-Vh -iyá' -iyí'	<i>tlataa ni dahiya'</i> 'the vision enters'
	V (6)	-Vw ~RPA~	<i>garma ngi húw</i> 'the boy brings it'	-Vp ~RPA~	<i>desi ngi húp</i> 'the girl brings it'	-Vw -iyá' -iyí'	<i>tlataa ngi huwiyí'</i> 'the vision brings it'
<b>Object</b>	P	u	<i>garma awu ngu taáhh</i> 'the boy hits the bull'	a	<i>garma slee nga taáhh</i> 'the boy hits the cow'	i	<i>garma hhaysa ngi taáhh</i> 'the boy hits the tail'

## 2. A grammatical sketch of Gorwaa

Agreement Type	Category	M	Example	F	Example	N	Example
Head	Adj (1)	~RPA~	<i>awú úr</i> 'a big bull'	~LPA~	<i>sleér ur</i> 'a big cow'	~LPA~	<i>hhaysó ur</i> 'a big tail'
	Adj (2)	~RPA~	<i>awú tlaákw</i> 'a bad bull'	~LPA~	<i>sleér tlaakw</i> 'a bad cow'	~LPA~	<i>hhaysó tlaakw</i> 'an ugly tail'
	Adj (3)	~RPA~	<i>awú buúx</i> 'a grey bull'	~LPA~	<i>sleér buúx</i> 'a grey cow'	~LPA~	<i>hhaysó buux</i> 'a grey tail'
	=Dem1	=í	<i>awuwí</i> 'this bull'	=í	<i>sleerí</i> 'this cow'	=ká	<i>hhaysoká</i> 'this tail'
	=Indef	=ko	<i>awuko</i> 'some such bull'	=ka	<i>sleerka</i> 'some such cow'	=ko	<i>hhaysoko</i> 'some such tail'
	Linkers	-o	<i>awú baabá</i> 'father's bull'	-r	<i>sleér baabá</i> 'father's cow'	-a	<i>/ewá saw</i> 'the far west'
		-ku -ko	<i>dakó baabá</i> 'father's hand'	-ta	<i>asltá baabá</i> 'father's fire'	-Ø	<i>hhaysó slee</i> 'the cow's tail'

<sup>A</sup>N.B. bracketed numbers refer to pattern-type (e.g. V (1) refers to a Pattern 1 Verb).

<sup>B</sup>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 *-∅* (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. A grammatical sketch of Gorwaa

(2.63) NA LINKER -Á  
 /ew -á saaw → /ewá saaw  
 west -LNA far.N “the far west”

(2.64) NØ LINKER ~'~  
 /ayla -Ø~'~ -dá' → /ayladá'  
 wedding.song-LNØ -DEM4 “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) SINGULAR (SG) NUMBER AGREEMENT  
 [...] hhaysodá' **ur** [20161109b.51]  
 hhaysó -dá' **ur**  
 tail.LNØ -DEM4 **big.N**  
 “[...] that big tail”

(2.66) PLURAL (PL) NUMBER AGREEMENT  
 [...] hhaysusudá' **uren** [20161109b.52]  
 hhaysusú -dá' **uren**  
 tails.LNØ -DEM4 **big.N.Pl**  
 “[...] 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. A grammatical sketch of Gorwaa

(2.67) GENDER POLARITY: *DESI* (F) ‘GIRL’ AND *DESU* (M) ‘GIRLS’

a. ***desír tleer*** *i qwala/amís*

<b>desír</b>	<b>tleér</b>	i-	Ø	qwala/amís
<b>girl.LFR</b>	<b>tall.F</b>	S.3-	AUX	make.happy.F.PRES
‘a tall girl makes one happy’				

b. ***desú tlét*** *i qwala/amiis*

<b>desú</b>	<b>tlét</b>	i-	Ø	qwala/amiis
<b>girls.LMo</b>	<b>tall.M.PL</b>	S.3-	AUX	make.happy.M.PRES
‘tall girls make one happy’				

c. ***garmá tleér*** *i qwala/amiis*

<b>garmá</b>	<b>tleér</b>	i-	Ø	qwala/amiis
<b>boy.LMo</b>	<b>tall.M</b>	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. <i>siyó</i> (M) ‘fish’		<i>siyumó</i> (M) ‘one fish’
b. <i>gufú</i> (M) ‘smouldering stick’		<i>guffee</i> (F) ‘smouldering sticks’
c. <i>dakw</i> (M) ‘procedure’		<i>dakwi’i</i> (N) ‘procedures’
d. <i>/urfi</i> (F) ‘skink’		<i>/urfaa</i> (F) ‘skinks’
e. <i>desi</i> (F) ‘girl’		<i>desu</i> (M) ‘girls’
f. <i>tlafi</i> (F) ‘cloud’		<i>tlafoo</i> (N) ‘clouds’
g. <i>hhaysoo</i> (N) ‘tail’		<i>hhaysusu</i> (N) ‘tails’
e. <i>/aatloo</i> (N) ‘jaw’		<i>/aatltlee</i> (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. A grammatical sketch of Gorwaa

### 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]

<b>aní</b>	asltá	Ø-	a-	Ø	ga/áw
<b>Pro.1Sg</b>	fire.LFt	A.P-	P.F-	AUX	look.at.1.PST

“I look at the fire.”

(2.70) ***te’eé’*** *a faák ee* [DSC\_5354\_20150705b.34]

<b>te’eé’</b>	Ø-	a-	Ø	faák	ee
<b>PROPOSS.F.1Sg</b>	A.P	P.F-	AUX	finish.1.PST	yes

“I finish mine, yes.”

## 2. A grammatical sketch of Gorwaa

(2.71) *moro'ó na axamamiís dír baaborén a kwí [...]* [DSC\_5354\_20150725b.73]

moro'ó	ni-	Ø	-(g)a		
things.LM0	MP.A.1-	AUX	-PRF		
~Red~	axaás	-íim	-iis	dír baabó	=rén
~PLUR~	hear.1	-DUR.1	-CAUS.1.SUBJ	at fathers.LM0	=Poss.1Pl
i-	Ø	-(g)a	<b>kwí</b>		
S.3	AUX	-PRF	<b>ProDEM1.M</b>		

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

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

hareér	-í	i-	Ø	-(g)a	<b>ma'â</b>
woman.LFR	-DEM1	S.3	AUX	-PRF	<b>who</b>

"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<sup>6</sup> (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.<sup>7</sup>

(2.73) PERSONAL NAMES: ZERO DERIVATION

a. <i>yamee</i> 'lands'	→	Yamee ♂
b. <i>na/aa</i> 'children'	→	Na/aa ♂
c. <i>mabiwá</i> 'sorghum sp.'	→	Mabiwá ♂/♀
d. <i>heelo</i> 'kind of song'	→	Heelo ♂
e. <i>bee/i</i> 'ewe'	→	Bee/i ♂

<sup>6</sup> Coates (2016) mentions simplification as a particularly common change undergone diachronically by proper names.

<sup>7</sup> ♂ 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. A grammatical sketch of Gorwaa

### (2.74) PERSONAL NAMES: DERIVATION BY INSERTION OF A HIGH TONE

- |                                |   |             |
|--------------------------------|---|-------------|
| a. <i>ba/ata</i> ‘fatigue’     | → | Ba/atá ♀    |
| b. <i>dahayee</i> ‘visitors’   | → | Dahayéé ♂/♀ |
| c. <i>mani/i</i> ‘unripe corn’ | → | Mani/í ♂    |
| d. <i>oona</i> ‘kind of gourd’ | → | Ooná ♂/♀    |
| e. <i>siigan</i> ‘grasshopper’ | → | Siigán ♂/♀  |

### (2.75) PERSONAL NAMES: DERIVATION BY SIMPLIFICATION

- |                                    |   |             |
|------------------------------------|---|-------------|
| a. <i>galaxandí</i> ‘small thing’  | → | Galaxoo ♀   |
| b. <i>hhayuma</i> ‘travelling’     | → | Hhayma ♂/♀  |
| c. <i>matlatlee</i> ‘morning’      | → | Matlee ♂/♀  |
| d. <i>tahhahhaní</i> ‘biting ants’ | → | Tahhaní ♂/♀ |
| e. <i>xeerangw</i> ‘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. <i>Daka’umó</i> | (from <i>daka’umó</i> ‘baobab sp.) |
| b. <i>Hhaala</i>   | (from <i>hhaala</i> ‘well’)        |
| c. <i>Tsamasi</i>  | (from <i>tsamasi</i> ‘giraffe’)    |

### (2.77) PLACE NAMES BASED ON A PERSONAL NAME

- |                     |   |
|---------------------|---|
| a. <i>Ayaxoxo</i>   | (from <i>aya</i> ‘land’ and <i>Xoxo</i> , a personal name)    |
| b. <i>Ayasanda</i>  | (from <i>aya</i> ‘land’, and <i>Sanda</i> , a personal name)  |
| c. <i>Ayamaango</i> | (from <i>aya</i> ‘land’, and <i>Maango</i> , a personal name) |

## 2. A grammatical sketch of Gorwaa

### (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

<i>Ayá Tla/aa</i>	<i>Daanda/áy</i>	<i>Maisák</i>	<i>Qásh</i>
<i>Baambáy</i>	<i>Dawár</i>	<i>Manaxa</i>	<i>Qatadiyángw</i>
<i>Bubu</i>	<i>Kaandák</i>	<i>Muumbalá</i>	<i>Sigín</i>
<i>Chemchem</i>	<i>Komotó</i>	<i>Negamsí</i>	<i>Tururú</i>

### **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)

## 2. A grammatical sketch of Gorwaa

### ***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.

## 2. A grammatical sketch of Gorwaa

Table 2.5: LOCATIONAL NOUNS AND THEIR COMBINATIONS

Noun 1 (source noun)	Noun 2 (source noun)	Example
<i>amór</i> 'at' ( <i>amo</i> 'place')	<i>guro'ó</i> 'inside' ( <i>gura</i> 'stomach')	<i>amór guro'o mar'i</i> 'inside the cave'
	<i>bihhi</i> 'beside' ( <i>bihhi</i> 'side')	<i>amór bihhi sokodá</i> 'beside that market'
	<i>bartá</i> 'side' ( <i>bara</i> 'side')	<i>amór bartá muukuqá</i> 'on the side of those people'
	<i>geerá</i> 'in front' ( <i>geera</i> 'front')	<i>amór geerá tsir/i</i> 'in front of the bird'
<i>dír</i> 'at' ( <i>di</i> 'place')	<i>geerá</i> 'in front' ( <i>geera</i> 'front')	<i>dír geerá do</i> 'in front of the house'
	<i>afeé</i> 'to the side' ( <i>afeetloo</i> 'waist')	<i>dír afee uruwa</i> 'at the side of the road'
	<i>bihhi</i> 'at the side' ( <i>bihhi</i> 'side')	<i>dír bihhi ya'awoo</i> 'beside its legs'
<i>bará</i> 'in' ( <i>bara</i> 'side')	<i>tla/aángw</i> 'among' ( <i>tla/aangw</i> 'middle')	<i>bará tla/aángw</i> <i>yiikwa'in</i> 'among their cattle'
	<i>daandó</i> 'on' ( <i>daanda</i> 'back')	<i>bará daandó yaamu</i> 'on the earth'
	<i>guro'ó</i> 'underneath' ( <i>gura</i> 'stomach')	<i>bará guro'ó meesa</i> 'underneath the table'
<i>gawá</i> 'on' ( <i>gawa</i> 'top')	<i>daandó</i> 'on top' (fig. 'about') ( <i>daanda</i> 'back')	<i>gawá daandó xa'ano</i> 'on top of the tree'
<i>alú</i> 'behind' ( <i>alu</i> 'rear')		<i>alú do</i> 'behind the house'
<i>afkó</i> 'edge' ( <i>afa</i> 'mouth')		<i>afkó wa/aangw</i> '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 preceded by the anaphoric pronoun (2.81).

## 2. A grammatical sketch of Gorwaa

### (2.80) CARDINAL NUMBER *wák* 'ONE'

*fuqunó wák ku tleér wa ló* [20151021c.327]

fuqunó	<b>wák</b>	t-	ng-	u-	Ø	tleér	wa.ló
claw.LMo	<b>one</b>	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	<b>oo</b>
MP-	A.3-	P.F-	AUX	-IMPRF	kill.PST	by	hitting.LFT	<b>ANA.M</b>

**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

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

## 2. A grammatical sketch of Gorwaa

(2.82) HIGHEST NUMBER RECORDED IN THE GORWAA CORPUS: 1,947

*aní ta laqwaál kurkú kumó wák tsireé gwaleél nee mibeerí tsiyéhh nee faanqw  
bará kijjír Rirod wa alé* [20131027\_20150725c.2]

aní	t-	Ø-	i-	Ø	-(g)a	laqwaál
PRO.1SG	MP-	A.1-	P.1SG	AUX	-PRF	give.birth.PST
kurkú	<b>kumó</b>		<b>wák</b>	<b>tsireér</b>		<b>gwaleél nee</b>
year.LMK	<b>thousand.LMo</b>		<b>one</b>	<b>hundreds.LFR</b>		<b>nine and</b>
<b>mibeerí</b>	<b>tsiyéhh</b>	<b>nee</b>	<b>faanqw</b>	bará kijjír		Rirod
<b>tens.LNØ</b>	<b>four</b>	<b>and</b>	<b>seven</b>	in	village.LFR	Riroda
wa.alé						
PRORES						

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

(2.83) SWAHILI NUMERALS BEING USED INSTEAD OF GORWAA

*xoroór boo/, xooroo bar a muukú [...] mia, bar a tsireé ko’án*

[20151202d.104]

xoroór	boo/	xoroór	bar	i-	Ø	-(g)a
crowd.LFR	black.F	crowd	if	S.3	AUX	-PRF
muukú	<b>mia</b>	bar	i-	Ø	-(g)a	tsireé
people	<b>one.hundred</b>	if	S.3-	AUX	-PRF	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 order 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. A grammatical sketch of Gorwaa

### (2.84) POSSIBLE COMPOUNDS IN AMA-

<i>fa/a</i> 'ugali'	→	<i>amafa/a</i> 'sp. of fruit-bearing tree'
<i>fuqunó</i> 'claw'	→	<i>amafuqunó</i> 'sp. of thorny tree'
<i>maa'o</i> 'cat'	→	<i>amamaa'o</i> 'fork-tailed drongo <i>Dicrurus adsimilis</i> '
<i>geenda</i> 'plant sp.'	→	<i>amageenda</i> 'sp. of tree'
<i>/anta</i> 'termite mound'	→	<i>ama/anta</i> '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. <i>fiís</i> 'steal' →	<i>fiisusumo</i>	'thief ♂'
	<i>fiisuso'o</i>	'thief ♀'
	<i>fiisusee</i>	'thieves'
b. <i>aál</i> 'inherit' →	<i>aalutumo</i>	'heir ♂'
	<i>aaluto'o</i>	'heir ♀'
	<i>aalutee</i>	'heirs'
c. <i>wák</i> 'hate' →	<i>wakusumo</i>	'enemy ♂'
	<i>wakuso'o</i>	'enemy ♀'
	<i>wakusee</i>	'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).

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### (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

*qatowós 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.”

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

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

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

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the form: [2Sg Base] + -á' (2Pl). Third person plurals are of the form: [3Sg Base] + either -iyá' (3Pl) or -iyí' (3Pl). Both 3<sup>rd</sup> person plural suffixes are used interchangeably, with no difference in meaning.

Table 2.7: PLURAL INFLECTIONAL PARADIGM

Verb	1 <sup>st</sup> Person Plural Subject [1Sg Base] + -aán	2 <sup>nd</sup> Person Plural Subject [2Sg Base] + -á'	3 <sup>rd</sup> Person Plural Subject [3Sg Base] + -iyá' -iyí'
<b>xuu' 'know'</b>	xuú' + -aán <i>xuu'aán</i> (know.1Pl)	xú' + -á' <i>xu'á'</i> (know.2Pl)	xuu' + -iyá' + -iyí' <i>xuu'iyá'</i> or <i>xuu'iyí'</i> (know.3Pl)
<b>ya/án 'agree'</b>	ya/aám + -aán <i>ya/aamaán</i> (agree.1Pl)	ya/ánd + -á' <i>ya/andá'</i> (agree.2Pl)	ya/án + -iyá' + -iyí' <i>ya/aniyá'</i> or <i>ya/aniyí'</i> (agree.3Pl)
<b>sláy 'get'</b>	sláw + -aán <i>slawaán</i> (get.1Pl)	sleér + -á' <i>sleerá'</i> (agree.2Pl)	sláy + -iyá' + -iyí' <i>slayiyá'</i> or <i>slayiyí'</i> (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    **waátl**            **-aán**  
PRO1PL        VENT   -PRF   return.1        -1PL.PST

"[...] we have returned"

### Nominal subjects

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 3<sup>rd</sup> person singular pronouns (2.91). Feminine nouns trigger the same agreement on a verb as

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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
<i>xuu'</i> 'know'	<i>xuu'</i> (know.M)	<i>xú'</i> (know.F)	<i>xuu'iyá'</i> or <i>xuu'iyí'</i> (know.N)
<i>ya/án</i> 'agree'	<i>ya/án</i> (agree.M)	<i>ya/ánd</i> (agree.F)	<i>ya/aniyá'</i> or <i>ya/aniyí'</i> (agree.N)
<i>sláy</i> 'get'	<i>sláy</i> (get.M)	<i>sleér</i> (get.F)	<i>sláiyáy'</i> or <i>slayiyí'</i> (get.N)

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

- a. *inós baahaa ngina taáhh* [20160921i.10]  
inós baahaár ng- a- Ø -na taáhh  
PRO3SG hyaena.LFR A.3- P.F AUX -IMPRF hit.3.PST  
“He hit the hyaena.”
- b. *garma baahaa ngina taáhh* [20160921i.1]  
garmá baahaár ng- a- Ø -na taáhh  
boy.LMO 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 gogóp* [20160119f.28]  
kuúng a- Ø ~Red~ góp  
PRO2SG.M A.P- AUX ~PLUR~ flee.2.PRES  
“You(M) flee.”
- b. *haree i gogóp* [20160119f.30]  
hareér i- Ø ~Red~ góp  
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 diifiyí'* [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'í [...] bahaa ngina diifiyí'* [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.”

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### **Tense**

Verbs inflect for tense, namely past and present<sup>8</sup>. 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 3<sup>rd</sup> 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
<i>xuu</i> ‘know’	xuú’	xú’	xuu’iyá’ or xuu’iyí’
<i>ya/án</i> ‘agree’	ya/án	ya/ánd	ya/aniyá’ or ya/aniyí’
<i>sláy</i> ‘get’	sláy	sleér	sláiyáy’ or slaiyí’

(2.94) PRESENT AND PAST TENSE ARE DISTINGUISHED ONLY FOR A M NOUN OR A 3<sup>RD</sup> PERSON SINGULAR PRONOUN

- a. *na/i’i ngi diif* [20161004b.49]  
na/i’í      ng-    i-      Ø      diif  
children.LNØ A.3-    P.N-    AUX    hit.M.PRES  
“He hits the children.”
- b. *na/i’i ngina diif* [20161004b.60]  
na/i’í      ng-    i-      Ø      -na    diif  
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 3<sup>rd</sup> person singular or masculine subject (2.97). Interrogative is

<sup>8</sup> 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.



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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-      Ø      -(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 haslît [20150810d.33]  
ni-      Ø      hardah              i-      Ø      haslît  
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 3<sup>RD</sup> PERSON SG PRONOMINAL OR M NOMINAL SUBJECT)

[...] Muungú ngu tsuunqi [20131027\_20150725c.22]  
Muungú              ng-      u-                      Ø      tsuunqi  
God.LM0              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-      Ø      -(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.PI) triggers the same agreement pattern as *garma* (M.Sg)), meaning that

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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 doósl baahaa ana taáhh* [201609271110-124.4]  
 aní -í doósl 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 doósl baahaa ana taáhh* [201609271110-124.5]  
 kuúng kwisíng doósl 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 doósl baahaa ngina taáhh* [201609271110-124.6]  
 inós oo doósl 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 doósl bahaa ngina taáhh* [201609271110-124.1]  
 garmá doósl 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.”

### (2.100) ADNOMINALS AGREEING WITH A F NOMINAL SUBJECT SHOW LEVEL PITCH ACCENT

*desír doosl baahaa ngina táhh* [201609271110-124.2]  
 desír doosl 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.”

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### (2.101) ADNOMINALS AGREEING WITH A PLURAL PRONOMINAL OR N NOMINAL SUBJECT

SHOW THE SUFFIX -Á'

- a. *ateká dooslá' baahaa ana diifaán* [20160927|1110-124.7]  
 atén -ká doosl -á' baahaár  
 PRO1PL -DEM1 farm -ADN.PRO1PL hyaena.LFR  
 Ø- a- Ø -na diif -aán  
 A.P- P.F- AUX -IMPRF hit.1 -1PL.PST  
 "We, farming, hit the hyaena."
- b. *kuungá' koká' dooslá' baahaa ana difé'* [20160927|1110-124.8]  
 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'* [20160927|1110-.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'* [20160927|1110-124.3]  
 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 diif* [20160927|1110-124.10]  
 muukú doósl baahaár ng- a- Ø -na  
 people.LMK farm.ADN.M hyaena.LFR A.3- P.F- AUX -IMPRF  
 diif  
 hit.M.PST  
 "The farming people hit the hyaena."
- b. *garmá doósl baahaa ngina taáhh* [20160927|1110-124.1]  
 garmá doósl 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."

### 2.3.2.4 Derivational operations

A series of morphemes are used to derive new verbs, either from existing verbs or from nouns or adjectives. These operations are considered derivational because they are restricted in their application (i.e. verb-to-verb derivational morphemes cannot apply to all verbs, and the same with noun-to-verb and adjective-to-verb morphemes). This section will examine each, first treating verb-to-verb derivation, then noun-to-verb derivation, followed by adjective-to-verb derivation.

#### **Verb to Verb**

Several morphemes are used to derive a verb from another verb. The causative suffix *-iis*, the durative suffix *-iim* and infix *<ar>*, the middle voice suffix *-iit*, and pluractional reduplication *~Red~* will be examined below.

Phonologically, a long vowel [i:], [a:], and [u:] of verb stems is shortened if a derivational suffix follows (c.f. Mous 1993: 173).

(2.103) A LONG VOWEL [i:], [a:], AND [u:] OF V STEMS IS SHORTENED IF A DERIVATIONAL SUFFIX FOLLOWS

- |    |                    |   |                       |                |
|----|--------------------|---|-----------------------|----------------|
| a. | <b>qaás-</b> -iís  | → | <b>qasiís</b>         | ‘cause to put’ |
| b. | <b>qwaár-</b> -iím | → | <b>qwa<i>di</i>ím</b> | ‘be losing’    |
| c. | <b>xaásl-</b> -iít | → | <b>xa<i>sli</i>ít</b> | ‘be quiet’     |

Progressive assimilation may occur from the consonant of the verb root, across the final consonant, and to the vowel of the derivational suffix.

(2.104) PROGRESSIVE VOWEL ASSIMILATION FROM THE V STEM TO THE V OF THE DERIVATIONAL SUFFIX

- |    |                    |   |                        |                  |
|----|--------------------|---|------------------------|------------------|
| a. | <b>dáh-</b> -iís   | → | <b>daha<i>a</i>ás</b>  | ‘cause to go in’ |
| b. | <b>sluúk-</b> -iím | → | <b>sluku<i>u</i>úm</b> | ‘be bribing’     |
| c. | <b>duóx-</b> -iít  | → | <b>duxu<i>u</i>út</b>  | ‘be married’     |

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### Causative

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) *OHÍÍS*, CAUSATIVE FORM OF *ÓH*  
*óh* ‘ignite’ (i.e. fire) → *ohíís* ‘light’ (i.e. fire)

- (2.106) *OHÍÍS* IS TRANSITIVE  
*asloó tsár oo dirèn ngina ohíís* [20150729b.17]  
 asloó            tsár oo            diren    ~`~  
 fires.LNØ       two ANA.N    big.N    ~EMPH~  
 ng-    i-        Ø        -na    **ohíís**  
 A.3-   P.N-    AUX    -IMPRF **light.M.PST**  
 “He lit two *great* fires.”

### Durative

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) *HUBÍÍM*, DURATIVE FORM OF *HÚW*  
*húw* ‘bring’ → *hubíím* ‘bringing’

- (2.108) *HUBÍÍM*: CONTINUOUS BRINGING  
*kan hubin bará pakani* [20151202e.6]  
 t-        ng-        a-        Ø        -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’ → *daráh* ‘entering’

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

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### 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' → ***tlatláw*** '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."

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- (2.116) *XAXÁY: PLURACTIONAL CONTRIBUTES A CONTINUOUS MEANING*  
*muukuqá' a xaxáy, koqá' bili ina hardahiyí', koqá' motloo, koqá' bologá' [...]* [20151202d.19]  
 muukú -qá' i- Ø -(g)a ~Red~ xáy  
 people.LMK -DEM3 S.3- AUX -PRF ~PLUR~ come.M.PST  
 koqá' bili i- Ø -na hardah -iyí'  
 PRODEM3.M today S.3- AUX -IMPRF arrive -N.PST  
 koqá' motloo koqá' bologá'  
 PRODEM3.M tomorrow PRODEM3.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.

### Factitive

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) FACTITIVE SUFFIX *-uus*  
 a. *tlatu* 'debt' → *tlatuús* 'be indebted'  
 b. *ilatlēeri* 'greed' → *ilatlēeruús* 'to covet, to want badly'

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- (2.118) *ILATLEERUÚS* ‘WANT BADLY’  
*a ilatleeruús* mwalimu garma ngwa kitaabuwi hariisi  
 [201609271102-107.25]  
 Ø- a- Ø -a **ilatleeruús** mwalimú garmá  
 A.P- P.F- AUX -PRF want.badly.1.PSTteacher.LMo boy.LMo  
 ng- u- Ø -wa kitaabú -i hariisi  
 DEP.A.3- P.M- AUX -BACK book.LMo -LAT bring.M.SUBJ  
 “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) FACTITIVE -UUS USED TO NATIVIZE LOANS FROM SWAHILI  
 a. *fyeka* Sw. ‘clear ground’ → *fekuús* ‘clear ground’  
 b. *tafsiri* Sw. ‘translate’ → *tafsiruús* ‘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) MIDDLE SUFFIX -UUT  
 a. *da’aye* ‘fear’ → *da’ayuút* ‘fear’  
 b. *kwasleema* ‘bring forth a complaint’ → *kwasleemuút* ‘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) ICHOATIVE SUFFIX -ÚW  
 a. */awaákw* ‘white’ → */awakúw* ‘become white’  
 b. *boó/* ‘black’ → *bo/áw* ‘become black, become dark’



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### 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)      FACTITIVE SUFFIX *-EES*
- |    |                 |   |                    |
|----|-----------------|---|--------------------|
| a. | /awaákw ‘white’ | → | /awaakeés ‘whiten’ |
| b. | niinaw ‘small’  | → | niinaweés ‘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.LMo tall.M  
"The tall boy."

- (2.124) PREDICATIVE ADJECTIVAL CONSTRUCTION  
*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."

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.LMo one ANA.M long.M  
"One long word."

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(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 ADJECTIVES<sup>A</sup>

Pattern	M Sg.	M Pl.	F Sg	F Pl	N Sg	N Pl
<b>1</b> E.g. <i>úr</i> ‘big’	~RPA~ úr	-en!~RPA~ urén	~LPA~ ur	-en!~LPA~ uren	~LPA~ ur	-en!~LPA~ uren
<b>2</b> E.g. <i>tlaákw</i> ‘bad’	~RPA~ tlaákw	-!~RPA~ tlákw	~LPA~ tlaakw	-!~LPA~ tlakw	~LPA~ tlaakw	-!~LPA~ tlakw
<b>3</b> E.g. <i>buúx</i> ‘grey’	~RPA~ buúx	-aC <sub>z</sub> !~RPA~ buxáx	~LPA~ buux	-aC <sub>z</sub> !~LPA~ buxax	~LPA~ buux	-aC <sub>z</sub> !~LPA~ buxax

N.B.<sup>A</sup> 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.’).

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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.	<i>tsá’</i> ‘cold’	→	<i>tsatsa’aár</i> ‘very cold’	
b.	<i>tleér</i> ‘tall, long’	→	<i>tlarantleér</i> ‘very tall, very long’	
c.	<i>úr</i> ‘big’	→	<i>uraúr</i> ‘somewhat big, biggish’	
d.	<i>buúx</i> ‘grey’	→	<i>buuxabuúx</i> ‘somewhat grey, greyish’	

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As may be gathered from the examples above, even the type of reduplication is inconsistent. Many forms show reduplication of the form (CVC)<sub>z</sub>a-, where (CVC)<sub>z</sub> 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.

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- (2.128) NOUN-ADJECTIVE COMPOUNDS
- |    |  |   |                                    |
|----|--|---|------------------------------------|
| a. | <i>slaqwa</i> ‘body’ + <i>tlaákw</i> ‘bad’ | → | <i>slaqwatlaákw</i> ‘thin, sickly’ |
| b. | <i>ila</i> ‘eye’ + <i>kahaár</i> ‘dry’     | → | <i>ilakahaár</i> ‘watchful, brave’ |
| c. | <i>gura</i> ‘stomach’ + <i>hhoó</i> ‘good’ | → | <i>gur’hhoó</i> ‘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. | <i>umó</i> ‘every’ + <i>di</i> ‘place’     | → | <i>umó diroo</i> ‘everywhere’      |
| b. | <i>umó</i> ‘every’ + <i>/awtú</i> ‘monkey’ | → | <i>umó /awtuhee</i> ‘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

Temporal/Spatial	Manner		<i>hhoo'</i>	'well, good'
	Temporal			
		Absolute Time	<i>hindí</i>	'now'
			<i>hamí</i>	'now'
			<i>alkwí</i>	'now'
			<i>bilí</i>	'today'
			<i>isá'</i>	'yesterday'
			<i>motloo</i>	'tomorrow'
		Relative Time	<i>daqane</i>	'then'
			<i>daxta</i>	'then'
			<i>aluwo</i>	'then'
			<i>motloo</i>	'in the morning'
			<i>tseewa</i>	'early'
			<i>aáng</i>	'in the past'
			<i>geera</i>	'after'
		Aspectual	<i>qaro</i>	'already'
			<i>imir</i>	'from'
			<i>tangu</i>	'from'
	Degree			
		Amplifying	<i>tlami</i>	'moreover'
			<i>tsíl</i>	'pure, deep' (only used for the adjective <i>da/aát</i> 'red')
			<i>tíng</i>	'pure, deep' (only used for the adjective <i>boó/</i> 'black')
			<i>shángw</i>	'pure, bright' (only used for the adjective <i>/awaákw</i> 'white')
		Attenuating	<i>alo</i>	'somewhat'
			<i>alge</i>	'somewhat'
			<i>mak</i>	'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.")

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- (2.131) ABSOLUTE TIME ADVERB *HINDÍ*  
*Nada hindí a slaqaát simú diftaroo* [20151021c.137]  
 Nadá **hindí** i- Ø -(g)a slaqaát simú  
 Nada.LMo **now** S.3- AUX -PRF tire.M.PST phone.LMo  
 diftar =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/a’ 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



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‘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’ →

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*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’, *kííhh* ‘bite’, *dííhh* ‘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 *QATSQANTSÁÁR* AGREES WITH ITS HEAD NOUN *GARMA* AS NON-IDEOPHONE *QANTSÁÁR*  
 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. A grammatical sketch of Gorwaa

### 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'  
*heeqa' a mulqumo'eé' [...]* [20131108b\_20150725j.37]  
heé                -qá'    Ø        mulqumó        -'eé'  
person.LMo   -DEM3 AUX   friend.LMo    -Poss1Sg  
“That person is my friend [...]”

Table 2.11: POSSESSIVE DETERMINERS

	<i>Singular</i>	<i>Plural</i>
<b>1<sup>st</sup> Person</b>	-'eé' <i>balaangw'eé' 'my millet'</i>	-rén <i>balaangwrén 'our millet'</i>
<b>2<sup>nd</sup> Person</b>	-ók <i>balaangók 'your millet'</i>	-hung <i>balaangwhúng 'your(pl.) millet'</i>
<b>3<sup>rd</sup> Person</b>	-ós <i>balaangós 'his/her millet'</i>	-ín <i>balaangw'ín 'their millet'</i>

#### 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 -sín (often reduced to -sî), 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.

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(2.139)

### THE DEMONSTRATIVE DETERMINERS

- a. *tsir/irí 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 *il/arimo*.” (uttered while holding a picture of the bird)
- b. *amór bartók amosí 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 qaatyi’ gawá tlo mi’iqá’* [20150813.75]  
 ni -na qaat -iyí’ gawá  
 VENT -IMPRF sleep.3-3PL.PRES on  
 tlo mi’í -qá’  
 hills.LNØ -DEM3  
 “They are sleeping in those hills.” (uttered when the mountains in question are visible from the house)
- d. *[...] didá’ ka bá y Itebula* [20131027\_20150725c.146]  
 dí r -dá’ t- ng- a- Ø bá y  
 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.

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### (2.140) DEMONSTRATIVE DETERMINERS METAPHORICALLY EXTENDED FOR TEMPORAL REFERENCE

- a. [...] *bara/owí i galây* [...] [20131108b\_20150725j.55]  
 bara/ó -í i- Ø galây  
 dance.LMo -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 begun 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 Gorwaa  
 things.LMo -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, booloo geera a mulqee* [20131108b\_20150725j.16-17]  
 daaqáy -ko tsár booloór.geera Ø mulqeér  
 boys.LMo -INDEFM two long.ago AUX friends.LFR  
 “Two boys, once were friends.”

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- b. *aamar**ka** i deer nee aakowós* [20131108b\_20150725j.118]  
 aamár -**ka** i- Ø deer nee  
 grandmother.LFR -**INDEF** S.3- AUX be.present.F.PRES and  
 aakó -ós  
 grandfather.LMø -Poss3Sg  
 “(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- AUX -PRF arrive.M.PST at children.LNØ -**INDEFN**  
 uren  
 big.N.PL  
 “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)<sup>9</sup>. 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.

<sup>9</sup> In South Cushitic, the term typically used is ‘selector’. For Somali, the term is ‘indicator particle’. For Oromo, the term is ‘focus marker’.

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- (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* [20160927|222-228.28]  
 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.



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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   P	∅	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. 1<sup>st</sup> or 2<sup>nd</sup> 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 3<sup>RD</sup> PERSON ARGUMENTS
- a. *GARMA* AS (S) ARGUMENT: REALIZED AS *I-garma ina maamaá/* [20160921i.33]
- garmá            i-            ∅            -na            maamaá/  
 boy.LM0        S.3-        AUX        -IMPRF be.ill.M.PST  
 “The boy was ill.”

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- b. *GARMA AS (A) ARGUMENT: REALIZED AS NG-*  
*garma baahaa 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.”
- c. *GARMA AS (P) ARGUMENT: REALIZED AS U-*  
*hhawata garma nguna 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.”

For arguments which are speech act participants (i.e. 1<sup>st</sup> or 2<sup>nd</sup> 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 realized differently. This can be seen in the examples in (2.147), where the 1<sup>st</sup> 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. 1<sup>ST</sup> OR 2<sup>ND</sup> 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.”

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- 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 (1<sup>st</sup> and 2<sup>nd</sup> person) (2.148)a) versus non-speech act participant (3<sup>rd</sup> person) (2.148)b).

Table 2.12: (S) argument

(S) PERSON	FORM
1 <sup>st</sup> or 2 <sup>nd</sup>	Ø-
3 <sup>rd</sup>	i-

(2.148) MARKING OF SPEECH ACT PARTICIPANT (P) VERSUS NON-SPEECH ACT PARTICIPANT  
 (3)

- a. *aní ana maamaá/* [20160921i.38]  
 aní Ø- Ø -na maamaá/  
 PRO.1SG **S.P-** AUX -IMPRF be.ill.1.PST  
 “I was ill.”
- b. *garma ina 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 (1<sup>st</sup> and 2<sup>nd</sup> person) on the one hand (2.149)a), and non-

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speech act participants (3<sup>rd</sup> person) on the other (2.149)b). The paradigm is shown in Table 2.13 below.

Table 2.13: (A) argument

(A) person	Form
1 <sup>st</sup> or 2 <sup>nd</sup>	Ø-
3 <sup>rd</sup>	ng-

### (2.149) MARKING OF SPEECH ACT PARTICIPANT (P) VERSUS NON-SPEECH ACT PARTICIPANT (3)

- a. *aní baahaa ana taáhh* [20160921i.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 **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."

### *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).

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Table 2.14: (P) argument, pronominal paradigm

Person	Number	Gender	Pronoun	Base Form
1	Singular		<i>aní</i>	i
	Plural		<i>atén</i>	tindi
2	Singular	M	<i>kuúng</i>	u
		F	<i>kiíng</i>	i
	Plural		<i>kuungá'</i>	tundu or nu
3	Singular	M	<i>inós</i>	u
		F	<i>inós</i>	a
	Plural		<i>ino'ín</i>	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* [20160927|168-171.1]  
 garmá aní i- Ø -na taáhh  
 boy.LM0 PRO.1SG P.1SG- AUX -IMPRF hit.M.PST  
 "The boy hit me."
- b. *garma atén tindina diíf* [20160927|168-171.12]  
 garmá atén tindi- Ø -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- Ø -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* [20160927|168-171.6]  
 garmá hhawató ng- u- Ø -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 1<sup>st</sup> person plural form *tindi*, and the 2<sup>nd</sup> 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

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original forms *ti* and *nu*, respectively. In Iraqw, the forms *ti* and *nu* are still used as the forms for the P argument for 1<sup>st</sup> and 2<sup>nd</sup> 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). Mikkelsen (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, Mikkelsen 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*.

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- (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

## 2. A grammatical sketch of Gorwaa

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*-)<sup>10</sup>. 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 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.      *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

<sup>10</sup> Note that, elsewhere, the form *t* is also recognizable in the suffix *-VVt*, which marks the middle on the lexical verb (see §2.3.2.4).



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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 3<sup>rd</sup> person such as (2.158)d)), the subject is marked as the (A)gent argument as well. The verb takes default 3<sup>rd</sup> person singular agreement for an impersonal subject.<sup>11</sup>

### (2.158) IMPERSONAL PASSIVE CONSTRUCTION

- a. *aní **ti** /aay* [20160119f.38]  
     aní           **t-**     **i-**     ∅     /aay  
     PRO.1SG     **MP-**   **P.1SG-** **AUX**   eat.3SG.PRES  
     ‘‘I am being eaten.’’
- b. *kuúng **tu** /aay* [20160119f.39]  
     kuúng         **t-**     **u-**           ∅     /aay  
     PRO.2MSG    **MP-**   **P.2MSG-**     **AUX**   eat.3SG.PRES  
     ‘‘You are being eaten.’’
- c. *kuungá’ **tundu** /aay* [20160119f.43]  
     kuungá’       **t-**     **nu-**     ∅     /aay  
     PRO.2PL     **MP-**   **P.2PL-** **AUX**   eat.3SGPRES  
     ‘‘You (Pl.) are being eaten.’’
- d. *hhawata **ku** /aay* [20160119f.41]  
     hhawató       **t-**     **ng-**     **u-**     ∅     /aay  
     man.LMO     **MP-**   **A.3-**   **P.M-**   **AUX**   eat.3SG.PRES  
     ‘‘The man is being eaten.’’

<sup>11</sup> The 2<sup>nd</sup> person plural (P)atient marker *nu-* is realized as [nu] word-initially, and as *ndu-* elsewhere (Mous 1993: 128). The mediopassive *t-* and the 3<sup>rd</sup> 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-**      Ø      tleér  
 PRO.1SG      **MP-**   **P.1-**   **Aux**   tall.1SG  
 "I am tall."
- b. *kuúng **tu** tleér* [20160927l128-137.2]  
 kuúng        **t-**      **u-**      Ø      tleér  
 PRO.2MSG   **MP-**   **P.2-**   **Aux**   tall.2SGM  
 "You (M) are tall."
- c. *kuungá' **tundu** tlét* [20160119f.33]  
 kuungá'      **t-**      **nu-**      Ø      tlét  
 PRO.2PL      **MP-**   **P.2PL-** **Aux**   tall.2PL  
 "You (Pl.) are tall."
- d. *hhawata **ku** hhoó'* [20160118d.59]  
 hhawató      **t-**      **ng-**      **u-**      Ø      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-**      Ø      ~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. A grammatical sketch of Gorwaa

- (2.161) TEMPORAL MARKER *TA*  
*inós tawa askofú mkoár Arusha* [20131027.27]  
inós            **ta**     $\emptyset$     **-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 diifyá’* [20161109a.36]  
na/i’i            **ti**        diif    -iyá’  
children.LN $\emptyset$  **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 una harís dír garma* [20161003.9]  
kuúng            kitaabú             $\emptyset$ -    **u-**     $\emptyset$     -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 ngwa harís dír garma]* [20161003.8]  
kuúng            oo                    kitaabú  
PRO.2SGM        ANA.2SG            book.LMo  
**ng-**    **u-**     $\emptyset$     -(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-**     $\emptyset$ -     $\emptyset$     -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.’’

## 2. A grammatical sketch of Gorwaa

### **Dependent clauses lacking an internal A(gent) argument**

Clauses which lack an internal (A)gent argument take the 3<sup>rd</sup> 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  $\emptyset$ -. 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 una harís dírgarma* [20161003.9]  
 kuúng kitaabú  $\emptyset$ - u-  $\emptyset$  -na  
 PRO.2SGM book.LMo A.P- P.M- AUX -IMPRF  
 harís dírgarmá  
 bring.2.PST to boy.LMo  
 “You(M) brought a book to the boy.”
- b. *kuúng oo [kitaabu ngwa harís dírgarma]* [20161003.8]  
 kuúng oo kitaabú  
 PRO.2SGM ANA.2SGM book.LMo  
 ng- u-  $\emptyset$  -(g)a harís dírgarmá  
 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 1<sup>st</sup> or 2<sup>nd</sup> 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. *mwálimu hhara ngina húw [garma iwa taahhi]*  
 [20160927|150-158.16]  
 mwálimú hhartá ng- a-  $\emptyset$  -na  
 teacher.LMo stick.LFt A.3- P.F- AUX -IMPRF  
 húw garmá i-  $\emptyset$  -wa taahhi  
 bring.PST boy.LMo P.1SG- AUX -BACK hit.M.SUBJ  
 “The teacher brought a stick such that the boy hit me.”

## 2. A grammatical sketch of Gorwaa

- b. *garma ina taáhh* [201609271150-158.1]  
 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 una harís dírgarma* [20161003.9]  
 kuúng kitaabú Ø- u- Ø -na  
 PRO.2SGM book.LM0 **A.P-** **P.M-** AUX -IMPRF  
 harís dírgarmá  
 bring.2.PST to boy.LM0  
 “You(M) brought a book to the boy.”
- b. *kitaabú [kuúng ta harís dírgarma]* [20161003.61]  
 kitaabú kuúng t- Ø- Ø -g(a)  
 book.LM0 PRO.2SGM **M.P-** **S.P-** AUX -PRF  
 harís dírgarmá  
 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
<b>1<sup>st</sup></b>	ni	ta
<b>2<sup>nd</sup></b>	ta	ta
<b>3<sup>rd</sup></b>	i	i

## 2. A grammatical sketch of Gorwaa

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- Ø -a lawe'ees -iyí'  
neighbours.LFR =Poss.2SG S.3- AUX -PRF say.hello.3 -3PL.PST  
**ni** Ø **-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- Ø -n amór =qá' iwit  
PRO.2MSG S.2- AUX -EXPECT place.LFR =DEM3 sit2.SUBJ  
**t-** **a-** Ø **-re** dirí =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]  
uchagúsir **ni** hi'ít slehheéngw miibaángw =oo  
election.LFR **VENT** come.F.PRES month.LM0 ten.LM0 =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. A grammatical sketch of Gorwaa

### 2.4.2.5 Aspect

Aspect refers to the “internal temporal constituency 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 3<sup>rd</sup> 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 | → | <i>aga</i> | (E.g. <i>aga faák</i> ‘I have finished it.’) |
|    | S.P- | AUX | -PRF  |   |            |  |
- 
- |    |      |      |     |       |   |            |   |
|----|------|------|-----|-------|---|------------|---|
| b. | ng-  | a-   | Ø   | -(g)a | → | <i>nga</i> | (E.g. <i>baha nga gaás</i> ‘He killed the hyaena.’) |
|    | A.3- | P.F- | AUX | -PRF  |   |            |   |
- 
- (2.172) IRREGULARLY, PERFECTIVE SUFFIX *-GA* REALIZED AS *-A* IS STEM IS S.3 *i-*
- |      |     |       |   |          |  |
|------|-----|-------|---|----------|--|
| i-   | Ø   | -(g)a | → | <i>a</i> | (E.g. <i>afkú slee a gweeriít</i> ‘The cow’s mouth opened.’) |
| S.3- | AUX | -PRF  |   |          |  |

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. <i>na amodá’ tlayiyé’</i> ‘They left there. (to come to me)’.) |
| VENT | -PRF  |   |    |  |

Optionally, the consonant [g] of the stem is labialized if its preceding vowel is [u].

- (2.174) OPTIONAL LABIALIZATION OF [g] TO [g<sup>w</sup>]
- |      |      |     |       |   |            |  |
|------|------|-----|-------|---|------------|--|
| Ø-   | u-   | Ø   | -(g)a | → | <i>uga</i> | (E.g. <i>uga sláw</i> or <i>ugwa sláw</i> ‘I got it.’) |
| A.P- | P.M- | AUX | -PRF  |   |            |  |

## 2. A grammatical sketch of Gorwaa

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. *anaga 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 nga 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    | → | <i>ngina</i> | (E.g. <i>hinhhiní ngina</i> |
| A.3- | P.F- | AUX | -IMPRF |   |              | <i>húp</i> . '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)
- ina 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."



## 2. A grammatical sketch of Gorwaa

- (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.LMo 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.LMo 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. A grammatical sketch of Gorwaa

- (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.

## 2. A grammatical sketch of Gorwaa

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 tiwa haragaasaán, inós a intsahhatimiís* [20131027\_20150725c.12]  
 imir ti -wa haragaás -aán  
 since REC -BACK join.together.1 -1PL.PST  
 inós i- Ø -(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<sup>12</sup> (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** tlaqoor Ø- u- Ø sla’ -akáng awú  
**if** cutting.LFR A.P- P.M- AUX like.2 -NEG.PRES bull.LMO  
 Ø- u- Ø -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.”

<sup>12</sup> In addition to analogues 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. A grammatical sketch of Gorwaa

- (2.187) ADVERB *BAR* OCCURRING DIRECTLY BEFORE THE SELECTOR  
*firimbi bar ka taáhh* [20151202d.50]  
 firimbír      **bar**    t-      ng-    a-      Ø      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-      Ø      → bir      (E.g. *dawa bir dáh diriye...* ‘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  
*burta óh, tun diif* [20151202d.152]  
**bar**=    t-      u-      Ø      -(g)a    óh  
**if**=      MP-    P.2SG.M    AUX    -PRF    catch.PST  
 t-      u-      Ø      -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 2<sup>nd</sup> (which are covered by the imperative forms) (2.191).

- (2.190) PROHIBITIVE MOOD EMPLOYED WITH THE NEGATIVE IMPERATIVE  
 a. [...] *tisí ta o’ ma inki/aar* [20151021c.171]  
 tisí              t-      Ø-      a-      Ø      -(g)a    o’  
 PRODEM2.F MP-    A.P-    P.F-    AUX    -PRF    say.2.SUBJ  
**m-**      Ø-    a-      Ø      inkí/    -aar  
**PROHIB-** A.P-    P.F-    AUX    repeat.2 -IMP.NEG  
 “[...] this which you have said, don’t repeat it.”

## 2. A grammatical sketch of Gorwaa

- b. *kuungá' ma kwatiitara'* [20150808a.155]  
 kuungá' **m-** Ø- a- Ø 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  
*mwali mu hha nga huwika as gidaba garma muwa taáhh*  
 [201609271150-158.25]  
 mwali mu hha nga huwika as gidaba garma muwa taáhh  
 teacher.LMo stick.LFr A.3- P.F- AUX -(g)a  
 bring =NEG.PST such.that boy.LMo  
**m-** u- Ø -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<sup>13</sup>.

- (2.192) QUESTIONING MOOD: FORMING A 'WHY' QUESTION  
*fu'unay misa bo/eemis* [20160116.59]  
 fu'unay **m-** s- Ø- i Ø -(g)a  
 meat.LNØ **Q-** REASON- A.P- P.N- AUX -PRF  
 bo/eemis  
 blacken.2.PST  
 "Why did you blacken the meat?"

- (2.193) QUESTIONING MOOD: FORMING A 'WHY' QUESTION  
*baahaa maska taáhh* [201609271172-175.14]  
 baahaa **m-** s- t- ng- a- Ø -(g)a  
 hyaena.LFr **Q-** REASON- MP- A.3- P.F- AUX -PRF  
 taáhh  
 hit.PST.Q.PST  
 "Why was the hyaena hit?"

<sup>13</sup> 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'.

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### 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 tas daawa a tí* [20131108b\_20150725j.6]  
 gár t- i- Ø -(g)a **-s** daawaár  
 thing.LFR MP- S.3- AUX -PRF **-REASON** medicine.LFR  
 i- Ø -(g)a tí  
 S.3- AUX -PRF 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.LMk  
 ng- u- Ø -n  
 A.3- P.M- AUX -EXPECT  
**sleér -r** slaaxw  
 cow.LFR -INSTR buy.M.SUBJ  
 “[...] some hungry person would buy it (i.e. millet) with a cow.”

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- (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...'.  
 Note that the encapsulated noun does not need to be the location to which the

- (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]  
 seehhá 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...'.  
 Note that the encapsulated noun does not need to be the location from which the

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- (2.199) ABLATIVE SUFFIX: MOTION FROM  
*birkwa **baraqawa** sláy [...]* [20151202d.78]  
bar= t- ng- u- Ø -(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- Ø -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



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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)).<sup>14</sup>

- (2.201) *ANÍ* IS SUBJECT OF NOMINAL COPULA  
**aní** *a uumtuuso'oo* [20131027\_20150725c.194]  
**aní**             $\emptyset$         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-             $\emptyset$         tsawdiit  
**PRO1SG**        path.LFR        DEP.1SG-        AUX    choose.1.SUBJ  
**a-**         $\emptyset$         -(g)a    **tí**  
**COPN**    **AUX**    -PRF    **ProDEM1.F**  
 "Me, the path I choose is *this*."
- (2.203) *INÓS* IS SUBJECT OF ADJECTIVAL COPULA  
**inós** *ku tleér* [20160119f.36]  
**inós**        t-        ng-        u-         $\emptyset$         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**                             $\emptyset$ -        a-         $\emptyset$         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* [20160927|181-182.14]  
**atén**            oo        hhawató  
**PRO1PL**        ANA.M    men.LMo  
 "we men"

<sup>14</sup> 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.

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### 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

<i>Person</i>	<i>Singular</i>	<i>Plural</i>
1	<i>aní</i> (Formal Pron. <i>aníng</i> ) (Reduced Form <i>án</i> )	<i>atén</i> (Relaxed Pron. <i>át</i> )
2M	<i>kuúng</i> (Relaxed Pron. <i>kuú</i> ) (Reduced Form <i>ku</i> )	<i>kuungá'</i>
2F	<i>kiíng</i> (Relaxed Pron. <i>kií</i> )	
3	<i>inós</i> (Reduced Form <i>ino</i> )	<i>ino'ín</i> (Relaxed Pron. <i>inín</i> )

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* [201609271168-171.1]  
 garmá **aní** ng- i- Ø -na taáhh  
 boy.LMO **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)

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### 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
<b>1Sg.</b>	<i>kwe'eé'</i>	<i>te'eé'</i>
<b>2Sg.</b>	<i>kók</i>	<i>tók</i>
<b>3Sg.</b>	<i>kós</i>	<i>tós</i>
<b>1Pl.</b>	<i>korén</i>	<i>torén</i>
<b>2Pl.</b>	<i>kohúng</i>	<i>tohúng</i>
<b>3Pl.</b>	<i>ko'ín</i>	<i>to'ín</i>

- (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	<i>kwí</i>	<i>tí</i>	<i>koká'</i>
2	<i>kwísíng</i>	<i>tísíng</i>	<i>kusíng</i>
3	<i>koqá'</i>	<i>toqá'</i>	<i>koqá'</i>
4	<i>kodá'</i>	<i>tidá' / todá' / tadá'</i>	<i>kodá'</i>

- (2.210) DEMONSTRATIVE PRONOUN *KODÁ'*  
*/Orundiyeeká sleeme, kodá' gitlay tleèr, /Orundí daqa niinà* [20150726d.59]  
*/Orundí =ee =ká sleemekodá' 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/uwók kwísíng oo umó siwaroo a milâ* [20150727.49]  
*qwala/ú -ók kwísíng 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

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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 Ø **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.LMo -DEM3 **ANA.M** house.LMo so-and-so.LMo  
 “[...] that boy of the house of so-and-so [...]

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- (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.”

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- (2.219) NON-TONIC PRONOUN: (S)OLE ARGUMENT MARKER A- (DIRECT OBJECT INTERVENES BETWEEN PRONOUN AND VERB)

*aní a sleér diif* [20150724.4]  
aní Ø- Ø sleér diif  
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,

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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* [20160927|74-101.22]  
garmá i- Ø -na tláy **ay** alú  
boy.LMo S.3- AUX -IMPRF go.M.PST **to** rear.LMo  
/aslaángw  
hut  
“The boy went to the back of the hut.”
- (2.223) ABLATIVE PREPOSITION *WA*  
*garma ina tláy wa alú /aslaangw* [20160927|74-101.23]  
garmá i- Ø -na tláy **wa** alú  
boy.LMo S.3- AUX -IMPRF go.M.PST **from** rear.LMo  
/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- Ø =EXPECT cut.SUBJ **to**  
deeloór mibeerí tám  
days.LFr tens.LMo 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 preposition of Gorwaa occurs in constructions in which the agent has been suppressed from the argument structure of the verb, and serves to re-



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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.LM0 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.LM0 A.3- P.M- AUX very have.M.PRES  
 gár -í tunáy *nee* naanagitá  
 thing.LFR -DEM1 dried.honey.LM0 *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

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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*<sub>SUBJ</sub> *baahaa*<sub>OBJ</sub> *ngina*<sub>SEL</sub> *taáhh*<sub>V</sub> [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.

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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** díf* [201609271222-228.26]  
 aní a- Ø **sleér** díf  
 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.”

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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 Ø- u- Ø 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 Ø- Ø -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

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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.

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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  
*mwaliṃu kitaabu ngwa hariís dír desi* [20160928c.44]  
 mwaliṃú 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  
*mwaliṃu desi ngina kitaabuwi hariís* [20160927l23-29.3]  
 mwaliṃú 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.

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### 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					[20160927m.1]			
	<i>inós ka tleer ta garmawoo</i>								
	<i>inós</i>	<i>t-</i>	<i>ng-</i>	<i>a-</i>	<i>Ø</i>	<i>tleer</i>	<i>ta</i>	<i>garmá</i>	= <i>oo</i>
	<i>she</i>	<i>MP-</i>	<i>A.3-</i>	<i>P.F-</i>	<i>AUX</i>	<i>tall.F</i>	<i>COMP</i>	<i>boy.LMo</i>	= <i>TOP</i>
	“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 ku tleér* ‘she is taller than the boy is tall’).

## 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 gofaangwdá’ 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 be 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.



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- (2.243) INDEFINITE SUFFIX *-ko*  
*tana hardáh dír xa'anóko yariir* [20131108b\_20150725j.53]  
 t- Ø -na hardáh dír xa'anó **-ko**  
 MP- AUX -IMPRF arrive.PST at tree.LMo **-INDEF.M**  
*yariir*  
*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.LMo  
 “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).

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- (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.LMo =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/ooweeeká 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 ~^~  
 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.”

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- (2.250) RIGHT-DISLOCATION  
*a da'ayumiit da'aangoo* [20150727.21]  
 Ø- Ø da'ayumiit **da'aángw** =oo  
 S.P- AUX fear.1.PRES **singing.LMo** =TOP  
 "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) REPETITION OF NP *dowí*  
*aní dowí oo dír afeé uruwa u slaa'aká dowí* [20131108b\_20150725j.123]  
 aní **dó'** -í oo dír afeé uruwár  
 PRO1SG **house.LMo** -DEM1 PROMOD.M at beside road.LFR  
 Ø- u- Ø slaá' =aká **dó'** -í  
 A.P- P.M- AUX like.1 =NEG.PRES **house.LMo** -DEM1  
 "This house beside the road I do not want – this house."

- (2.252) REPETITION OF PP *DANÚ NEE*  
*danú nee an al/a/ayaan danú nee* [20131108b\_20150725j.38]  
**danú** **nee** Ø- a- Ø -n  
**honey.LMo** **with** A.P- P.F- AUX -EXPECT  
 al/a/áy -aan **danú** **nee**  
 eat.together.1-1PL.SUBJ **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.

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- (2.253) IT-CLEFT CONSTRUCTION  
*hindí a /ayto'oo an dooslaan* [DSC\_5354\_20150705b.69.6]  
 hindí Ø /ayto'oor 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* [201609271159-158.39]  
 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)

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- (2.256) VERBAL NEGATION IN THE PAST TENSE  
*inós tunáy ngu xu'iká'* [20150808a.147]  
 inós tunáy ng- u- Ø  
 PRO3SG dried.honey.LMo 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/irooká 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 diriheeká* [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/eeeká [...]* [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 Dawareeká* [20150727.64]  
 Babatír saweemá -ós Ø idór  
 Babati.LFR distance.LNØ -POSS3SG AUX manner.LFR  
 oo Dawár =ee =ká  
 ANA.M Dawár.LMo =TOP =NEG  
 "The distance of Babati isn't like the distance of Dawár."

### 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'umisoaká* [20150726d.35]  
 gár -dá' Ø 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]  
 Ø **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' Ø- u- Ø  
 POLARQ house.LMo A.P- P.M- AUX  
 tleéhh -aán -â  
 make.1-1PL -Q.PRES  
 "Are we making a house?"

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- b. *xáy, sukaari aga qasî bará chayiroô* [20160120q.7]  

<b>xáy</b>	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	<b>ma’â</b>
woman.LFR	-DEM1	AUX	<b>who</b>

*“Who is this woman?”*
- b. *tsir/ír hatlá’ a milâ* [20151021c.147]  

tsir/ír	hatlá’	Ø	<b>milâ</b>
bird.LFR	other	AUX	<b>what</b>

*“What is the other bird?”*
- c. *hhayumarók a daqalâ* [20150727.31]  

hhayumár	-ók	Ø	<b>daqalâ</b>
journey.LFR	-POSS2SG	AUX	<b>when</b>

*“When is your journey?”*
- d. *dirí a dilâ* [20160111h.25]  

dir	-í	Ø	<b>dilâ</b>
place.LFR	-DEM1	AUX	<b>where</b>

*“Where is this place?”*

(2.265) ‘WHY’ QUESTIONS: QUESTION MORPHOLOGY IS PREFIXED TO THE SELECTOR

*fu’unáy misa bo/eemís*

fu’unáy	<b>m-</b>	s-	Ø-	i-	Ø	-(g)a
meat.LNØ	<b>Q-</b>	REASON-	A.P-	P.N-	AUX	-PRF

*bo/eemís*  
 blacken.2.PST  
*“Why did you blacken the meat?”*

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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.LMO -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

<i>Meaning</i>	<i>Suffix Example</i>	
	<b>Sg</b>	<b>Pl</b>
<b>Imperative</b>	-Ø <i>oo’</i> ‘speak!’	-e’ <i>oo’e’</i> ‘speak!’ (many addressees)
<b>Imperative with object</b>	-ee(k) <i>oo’ee</i> ‘say it!’	-aak <i>oo’aak</i> ‘say it!’ (many addressees)
<b>Imperative towards the speaker (ventive)</b>	-áng <i>oo’áng</i> ‘speak to me!’	-aré’ <i>oo’aré’</i> ‘speak to me!’ (many addressees)
<b>Imperative towards the speaker (ventive) with object</b>	-ang <i>oo’ang</i> ‘say it to me!’	-are’ <i>oo’are’</i> ‘say it to me’ (many addressees)
<b>Negative imperative</b>	<b>ma -aar</b> <i>ma oo’aar</i> ‘don’t speak!’	<b>ma -ara’</b> <i>ma oo’ara’</i> ‘don’t speak!’ (many addressees)



## 2. A grammatical sketch of Gorwaa

So-called ‘first person imperatives’, or hortatives, occur as verb forms marked with 1<sup>st</sup> person plural morphology, and no selector.

- (2.267) HORTATIVES: 1<sup>ST</sup> PERSON PL MORPHOLOGY ON THE V, NO SELECTOR  
*tlawaán*  
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.’

## 2. A grammatical sketch of Gorwaa

- 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.LMØ A.3- P.M- AUX -PRF  
 hariis dír garmá  
 bring.1.SUBJ to boy.LMØ  
 '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.LMØ A.3- P.M- AUX -PRF  
 haris dír garmá  
 bring.2.SUBJ to boy.LMØ  
 'You(M) who brought the book to the boy.'
- f. *garmá a maaaa/* [20160928c.26]  
 garmá i- Ø -(g)a maaaa/  
 boy.LMØ 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.LMØ hyaena.LFR A.3- P.F- AUX -IMPRF  
 taáhh  
 hit.M.PST  
 'The boy hit the hyaena.'

## 2. A grammatical sketch of Gorwaa

- b. *garmá baahaa nga taahh* [20160928c.32]  
 garmá baahaár ng- a- Ø -(g)a  
 boy.LMo 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. *mwali mu na/i'í ngina kitaabuwi hariís* [20160927l23-29.5]  
 mwali mu na/i'í ng- i- Ø -na  
 teacher.Mo 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. *kitaabú mwali mu a hariís dí r na/i'í* [20160928c.49]  
 kitaabú mwali mu i- Ø -(g)a  
 book.LMo teacher.LMo MP.S.3- AUX -PRF  
 hariís dí r 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. *mwali mu na/i'í ngina kitaabuwi hariís* [20160927l23-29.5]  
 mwali mu 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 mwali mu a kitaabuwi hariís [...]* [20160928c.47]  
 na/i'í mwali mu i- Ø -(g)a  
 children.LNØ teacher.LMo MP.S3-AUX -PRF  
 kitaabú -i hariís  
 book.LMo -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.LMo stone.LMo A.3- P.M- AUX -IMPRF  
 kwaáhh bará qaymoór  
 throw.M.PST in field.LFR  
 'The boy threw the stone into the field.'

## 2. A grammatical sketch of Gorwaa

- 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. *mwálimu na/i'í ngina kitaabuwi hariís* [20160927l23-29.5]  
 mwálimú 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 [mwálimu Ø a kitaabuwi hariís] [...]* [20160928c.47]  
 na/i'í [mwálimú 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  
 [...] *yikwa ka húw dó' Dodoód, koqá' Dodó sleerós ngire húw*  
 [20151202e.161-163]  
 yikwá 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

3. *The theoretical framework*

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	<div><div>Charles</div><div>young</div><div>finch</div><div>examine</div><div>Galapagos</div><div>write</div><div>T<sub>PRESENT</sub></div><div>...</div></div>	Operations	<div><div>Merge</div><div>Adjoin</div><div>Agree</div><div>Move</div></div>
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Each of these sets will be further examined in the subsections below.

### 3. The theoretical framework

#### 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<sup>1</sup>.

(3.2) INITIAL NUMERATION FOR: *Charles examines finches on the Galapagos*

Lexical Elements	$\left\{ \begin{array}{l} \text{examine} \\ T_{\text{PRESENT}} \\ \text{Charles} \\ V_{\text{TRANS}} \\ \text{finches} \end{array} \right.$	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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<sup>1</sup> 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.



### 3. The theoretical framework

#### (3.3) FEATURE STRUCTURES FOR THE LEXICAL ELEMENTS IN (3.2)

$$\begin{array}{l}
 \text{examine} \left\{ \begin{array}{l} \text{cat} [V, -\text{aux}] \\ \text{infl} [ \ ] \\ \text{sel} [N] \end{array} \right. \\
 \\
 T_{\text{PRESENT}} \left\{ \begin{array}{l} \text{cat} [T, +\text{fin}, \text{Tns: } \textit{pres}] \\ \text{infl} \left[ \begin{array}{l} \phi: [ \ ] \\ N^* \\ \text{Case: NOM} \end{array} \right] \\ \text{sel} [v] \end{array} \right. \\
 \\
 \text{Charles} \left\{ \begin{array}{l} \text{cat} [N, \phi: 3\text{SgM}] \\ \text{infl} [\text{Case: } [ \ ]] \\ \text{sel} [ \ ] \end{array} \right. \\
 \\
 v_{\text{TRANS}} \left\{ \begin{array}{l} \text{cat} [v, -\text{aux}] \\ \text{infl} \left[ \begin{array}{l} \phi: [ \ ] \\ V^* \\ \text{Infl: } [ \ ] \\ \text{Case: ACC} \end{array} \right] \\ \text{sel} [N, V] \end{array} \right. \\
 \\
 \text{finches} \left\{ \begin{array}{l} \text{cat} [N, \phi: 3\text{PlM}] \\ \text{infl} [\text{Case: } [ \ ]] \\ \text{sel} [ \ ] \end{array} \right.
 \end{array}$$

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<sup>2</sup>, 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.

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<sup>2</sup> But see §7.4.2 and §7.5.1 below for more on gender and interpretability.

### 3. The theoretical framework

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 categorial feature  $F'$ .  $F$  is checked (checked features will be written as  $\langle F \rangle$ ), 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  $\alpha$ ) bears an unchecked selectional feature N, and *finches* (syntactic object  $\beta$ ) bears a matching categorial feature N

<i>examine</i>	<i>finches</i>
$\begin{bmatrix} \text{cat} [\text{V}, -\text{aux}] \\ \text{infl} [ ] \\ \text{sel} [\text{N}] \end{bmatrix}$	$\begin{bmatrix} \text{cat} [\text{N}, \phi: 3\text{PlM}] \\ \text{infl} [\text{Case}: [ ]] \\ \text{sel} [ ] \end{bmatrix}$

b. Step 2: Merge joins the two syntactic objects together, and the unchecked selectional feature of *examine* is checked

<i>examine</i>	<i>finches</i>
$\begin{bmatrix} \text{cat} [\text{V}, -\text{aux}] \\ \text{infl} [ ] \\ \text{sel} < [\text{N}] > \end{bmatrix}$	$\begin{bmatrix} \text{cat} [\text{N}, \phi: 3\text{PlM}] \\ \text{infl} [\text{Case}: [ ]] \\ \text{sel} [ ] \end{bmatrix}$

c. 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 inherits all categorial and unchecked selectional features of the head, *examine*.

VP	
<b><i>examine finches</i></b>	
$\begin{bmatrix} \text{cat} [\text{V}, -\text{aux}] \\ \text{infl} [ ] \end{bmatrix}$	
<i>examine</i>	<i>finches</i>
$\begin{bmatrix} \text{cat} [\text{V}, -\text{aux}] \\ \text{infl} [ ] \\ \text{sel} < [\text{N}] > \end{bmatrix}$	$\begin{bmatrix} \text{cat} [\text{N}, \phi: 3\text{PlM}] \\ \text{infl} [\text{Case}: [ ]] \\ \text{sel} [ ] \end{bmatrix}$

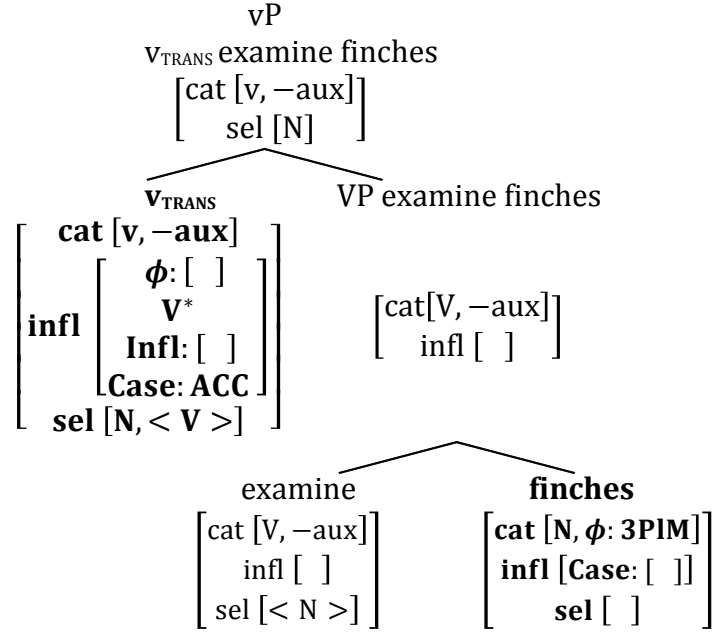
#### 3.2.2.2 Agree

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<sub>TRANS</sub>* 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<sub>TRANS</sub>* and *finches*: *v<sub>TRANS</sub>* c-commands *finches*, and *finches* is c-commanded by *v<sub>TRANS</sub>*.

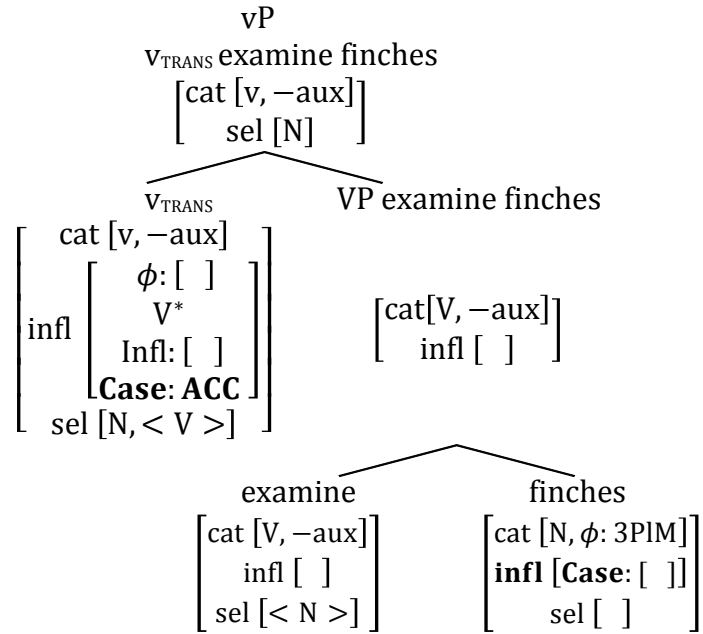
### 3. The theoretical framework

#### (3.5) AGREE BETWEEN $v_{TRANS}$ AND *FINCHES*

a. Step 1:  $v_{TRANS}$  c-commands *finches*

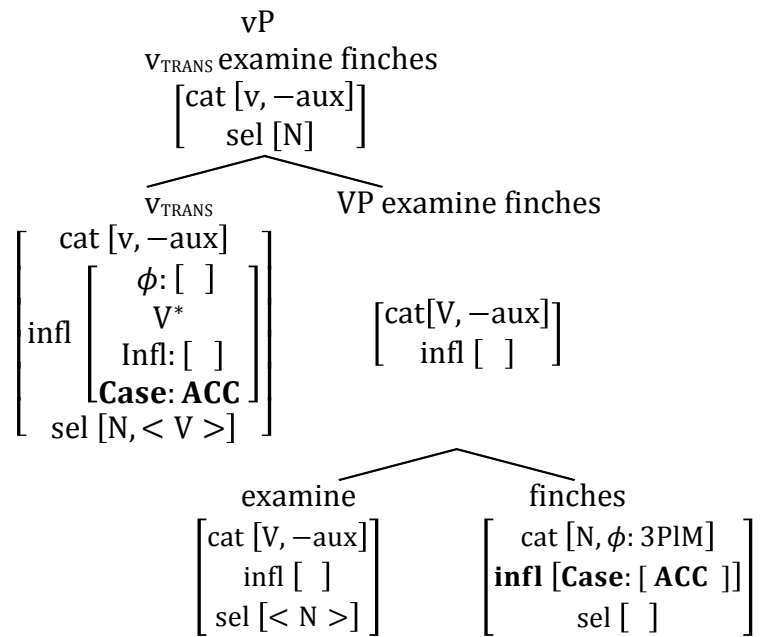


b. Step 2:  $v_{TRANS}$  has a valued case feature, and *finches* has an unvalued case feature



### 3. The theoretical framework

c. Step 3:  $v_{TRANS}$ , which c-commands *finches*, agrees in case with *finches*, valuing the unvalued case feature on *finches* as ACC.



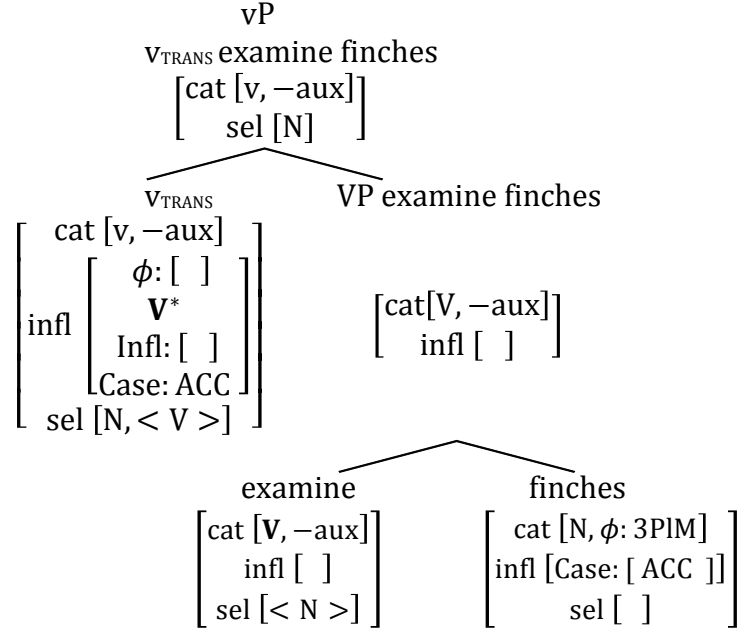
#### 3.2.2.3 Move

Move moves a syntactic object to a higher projection. This is exemplified in (3.6).

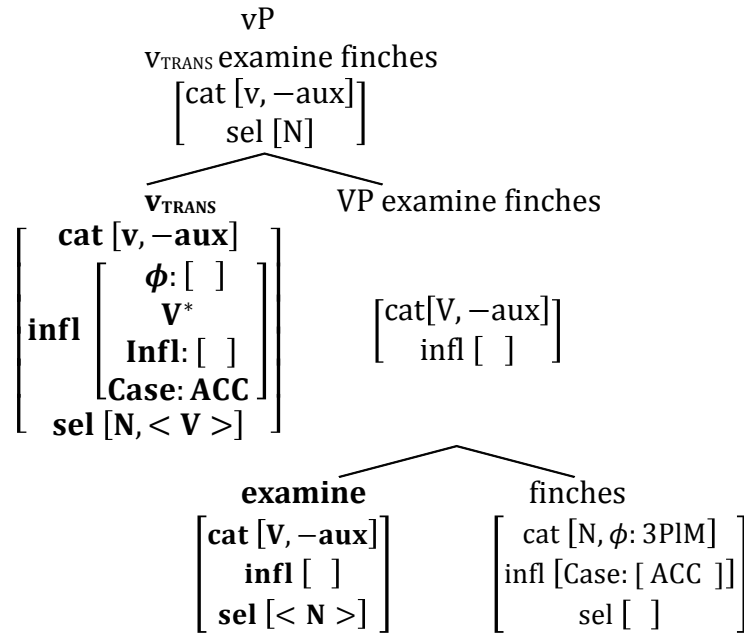
### 3. The theoretical framework

(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  $V$ .

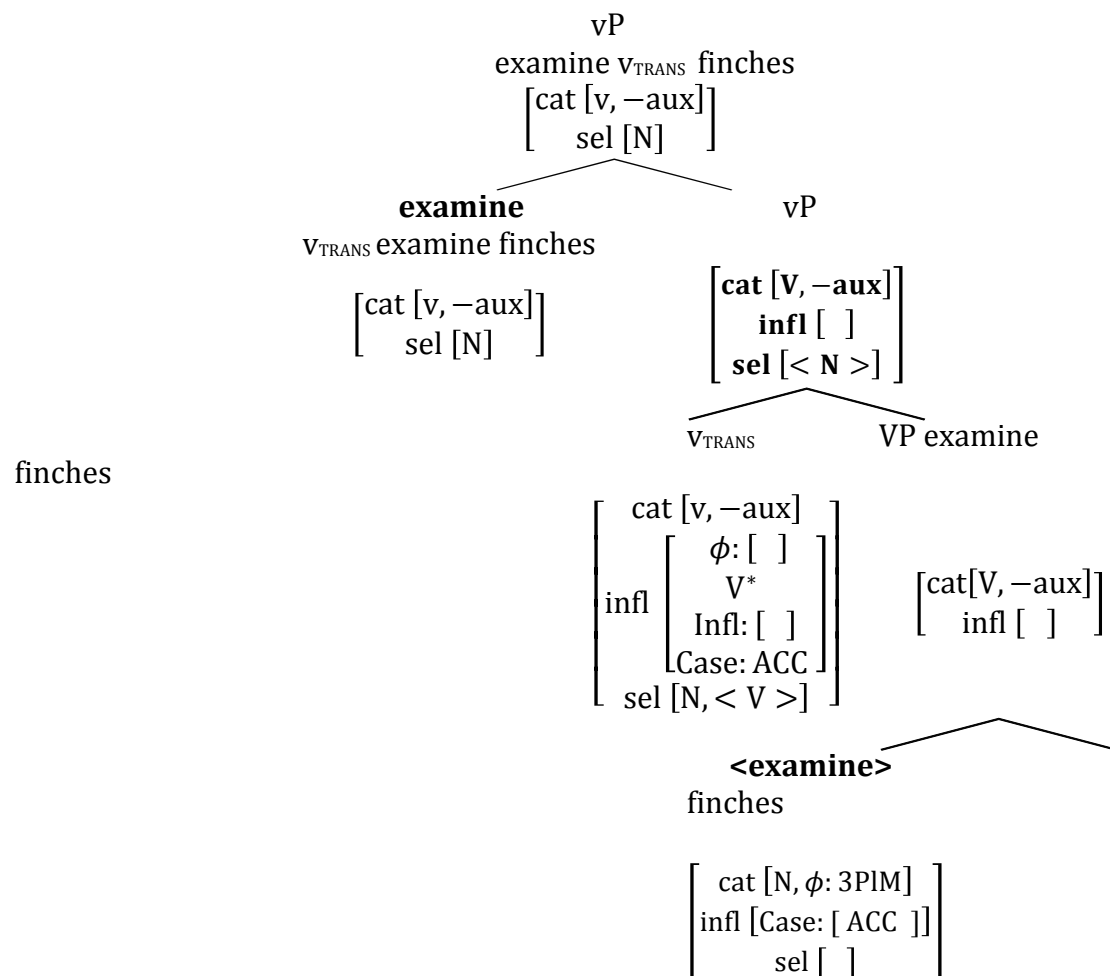


b. Step 2:  $v_{TRANS}$  c-commands *examine*



### 3. The theoretical framework

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.



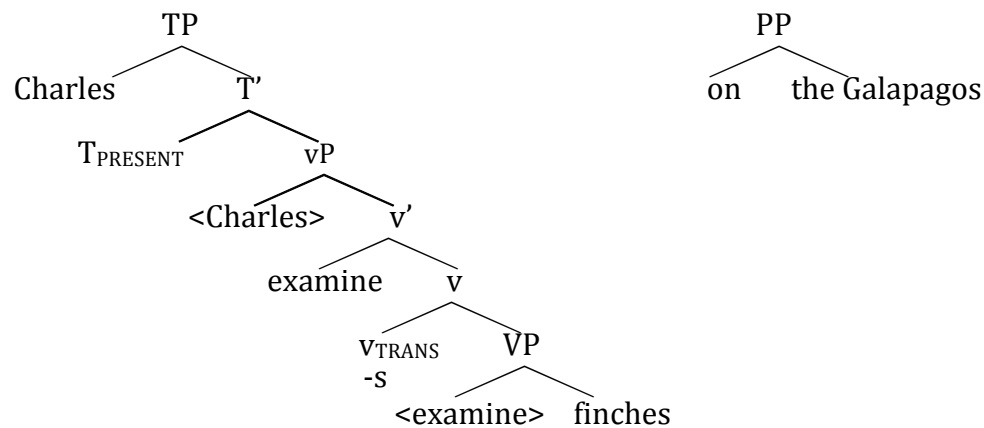
#### 3.2.2.4 Adjoin

Adjoin attaches two syntactic objects, where neither has any unchecked selectional features remaining. This final operation is demonstrated in (3.7).

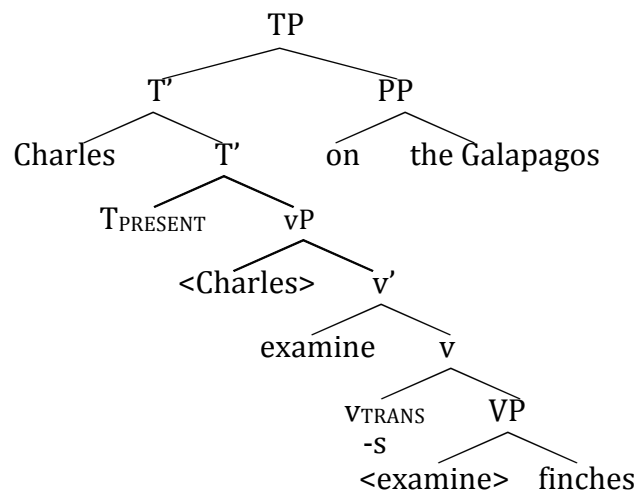
### 3. The theoretical framework

(3.7) ADJOIN IN *CHARLES EXAMINES FINCHES ON THE GALAPAGOS*

a. Step 1: The TP *Charles*  $T_{\text{PRESENT}}$  *examine*  $v_{\text{TRANS}}\text{-s}$  *finches* (syntactic object  $\alpha$ ) bears no unchecked selectional features, and the PP *on the Galapagos* (syntactic object  $\beta$ ) also bears no unchecked selectional features.



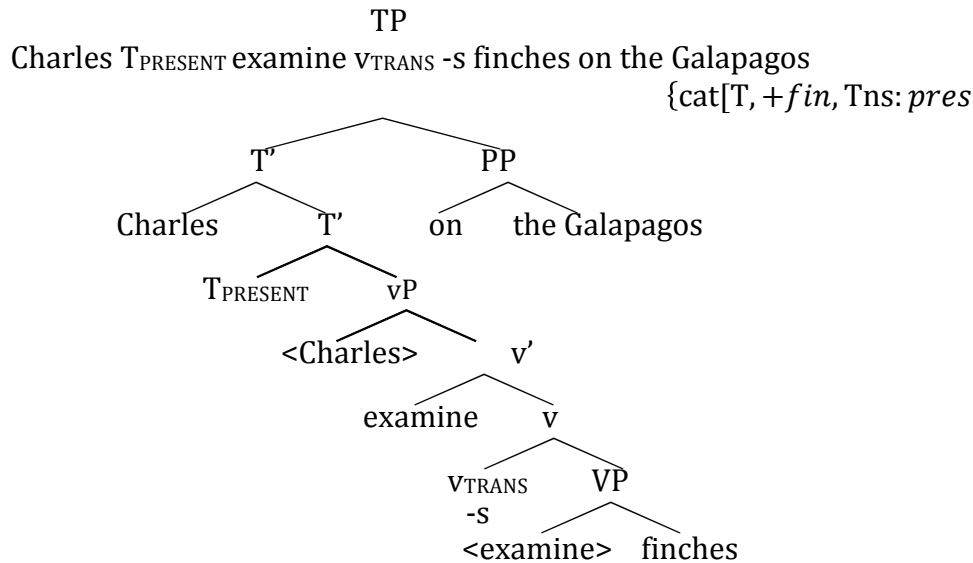
b. Step 2: Adjoin joins the two syntactic objects together, with the TP as the host.





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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 head) 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*.



### 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  $\alpha$ ) bears an unchecked selectional feature N, and *finches* (syntactic object  $\beta$ ) bears a matching categorial feature N. Step 2: Merge joins

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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 categorial 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.

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*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  $\alpha$ ) bears an unchecked selectional feature N, and *Charles* (syntactic object  $\beta$ ) 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  $\gamma$ ) of which vP *examine*  $v_{TRANS}$  *finches* (by virtue of it being syntactic object  $\alpha$ ) 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  $\alpha$ ) bears an unchecked selectional feature v, and vP *Charles*  $v_{TRANS}$  *examines* *finches* (syntactic object  $\beta$ ) bears a matching categorial feature v. Step 2: Merge joins the two syntactic

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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  $\alpha$ ) 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.

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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  $\alpha$ ) bears no unchecked selectional features, and the PP *on the Galapagos* (syntactic object  $\beta$ ) 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

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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<sup>3</sup>:

#### (3.8) INITIAL NUMERATION FOR: *finches*

Lexical Elements $\begin{cases} -s \\ finch \end{cases}$	
--	--

#### (3.9) FEATURE STRUCTURES FOR THE LEXICAL ELEMENTS IN (3.8)

$$-s \begin{cases} \text{cat } [F, \phi: \text{Pl}] \\ \text{infl } [ \quad ] \\ \text{sel } [N] \end{cases}$$

$$finch \begin{cases} \text{cat } \begin{bmatrix} N \\ \phi \begin{bmatrix} 3 \\ M \end{bmatrix} \end{bmatrix} \\ \text{infl } [\text{Case } [ \quad ] ] \\ \text{sel } [ \quad ] \end{cases}$$

Derivation of *finches* would proceed thus.<sup>4</sup>

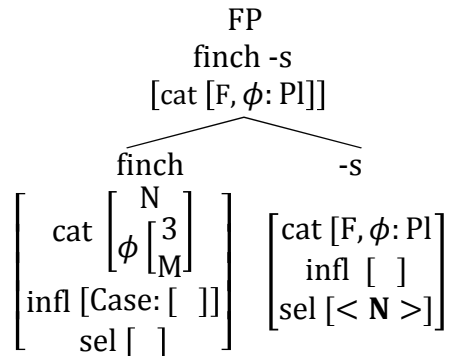
<sup>3</sup> Note that the category of the lexical element *-s* is simply labeled F (for ‘functional’). This is an indication that the identity of this element is unknown, and not of central importance to the current explanation.

<sup>4</sup> Note that, for this derivation, the morpheme *-s* (syntactic object  $\alpha$ ) has merged as the rightmost element, and the morpheme *finch* (syntactic object  $\beta$ ) has merged as the

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#### (3.10) FINCHES UNDER DISTRIBUTED MORPHOLOGY

a. Operation 1: Merge of -s (syntactic object  $\alpha$ ) and N *finch* (syntactic object  $\beta$ ).



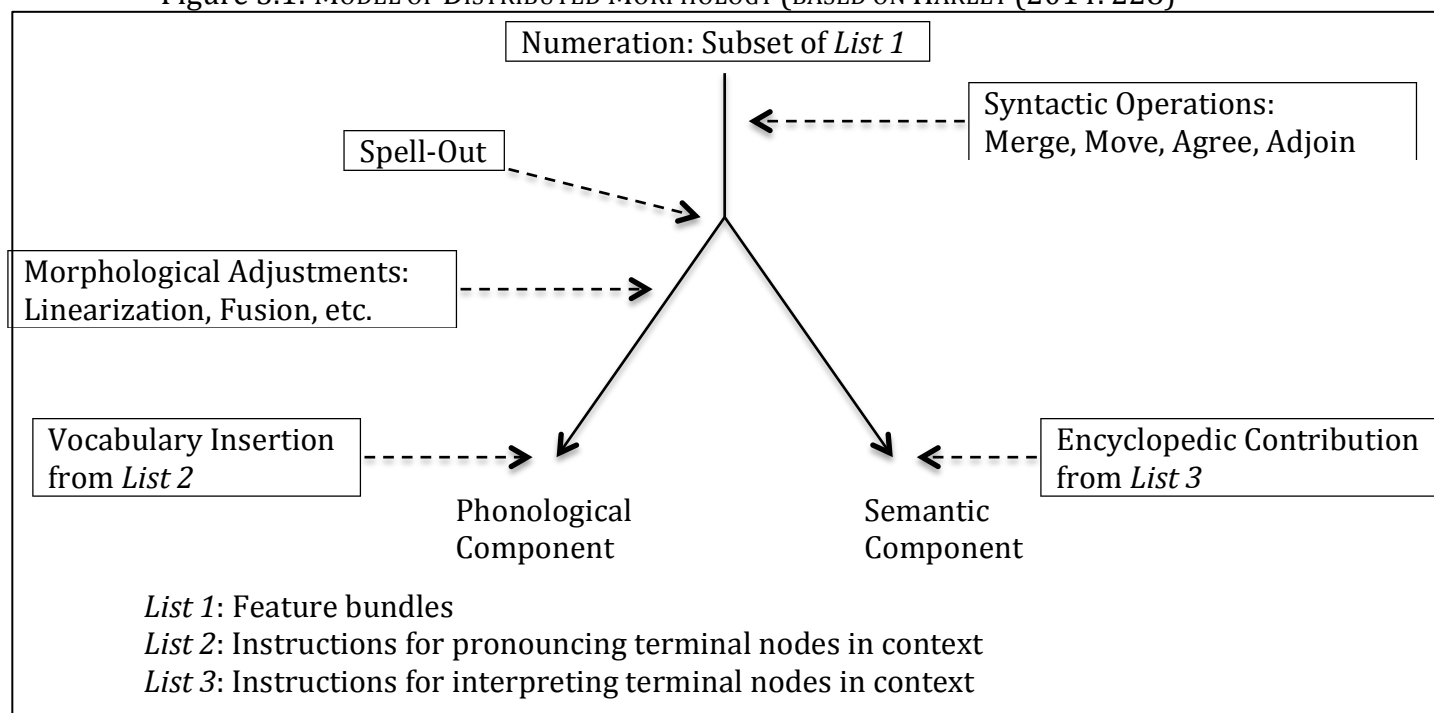
Within the larger architecture, this syntactic derivation represents one step in the larger process. Following derivation, syntactic items are ‘spelled-out’, and simultaneously transferred to the phonological component, where they receive pronunciation (*List 2*), and to the semantic component, where they receive meaning (*List 3*). Harley’s (2014) model, based Halle and Marantz (1993), is a classic representation.

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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.

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Figure 3.1: MODEL OF DISTRIBUTED MORPHOLOGY (BASED ON HARLEY (2014: 228))



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 in 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))<sup>1</sup>.

- (4.1) a.     ***garma*** *ina* /*akuút*                   [20160921i.23]  
              **garmái-**     Ø       -na     /*akuút*  
              **boy**   S.3-   Aux   -Imprf jump.M.Pst  
              "The boy jumped."
- b.     ***slee*** *aga gaás*                   [20161102b.51]  
              **sleér** Ø-     a-     Ø     -(g)a   gaás  
              **cow**   A.P-   P.F-   Aux   -Prf   kill.1Sg.Pst  
              "I killed the cow."

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<sup>1</sup> The unbolded forms in ((4.1)c) *xaa'í* and *sla/aa* are also nouns.

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- 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).<sup>2</sup>

(4.3)	a.	<i>daawaa</i>	'medicine'	=	<i>daaw-</i>	+	<i>-aa</i>
					medicine		Sg.
	b.	<i>daawudu</i>	'medicines'	=	<i>daaw-</i>	+	<i>-udu</i>
					medicine	+	-Pl.

Further occurrences of both suffixes *-aa* and *-udu* may be observed on other noun pairs, including *buraa* 'beer' and *burdu* 'beers', *layaa* 'branding iron' and *laydu* 'branding irons', and *naadaa* 'cattle market' and *naadadu* 'cattle markets'. In other cases, *-aa* enters into pairs with other suffixes: *baahaa* 'hyaena' and *bahu* '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 *gwar/* 'wildebeests'. As with the suffixes, the stems may also occur in different combinations as well. Consider the pairs *yaa'ee* 'river' and *ya'eemi* 'stream', and *tsifiraangw* 'tongue' and *tsifiri* 'language'. Stems will be examined in §4.4 below.

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<sup>2</sup> 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) <sup>3</sup>.

- (4.4) a. *aní a sleér diíf* [20160927|222-228.26]  
 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

<sup>3</sup> 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.

#### 4. Fundamentals: nominal structure and noun stems

marked with the same morphology, making this gender value explicit on the noun<sup>4</sup>.

- (4.5) a. *desi ka hhoo'*  
 des- -i -r~'~ t- ng- a- Ø **hhoo'**  
 STM- -SFX -L 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'**  
 STM- -SFX -L MP- A.3- P.F- Aux good.F  
 day  
 'the day is good'
- c. *desír hhoo'*  
 des- -i -r~'~ hhoo'  
 STM- -SFX -L good.F  
 girl  
 'a good girl'
- d. *booloór hhoo'*  
 bool- -oo -r~'~ hhoo'  
 STM- -SFX -L 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.<sup>5</sup>

- (4.6) a. *tlafítá /awaakw*  
 tlaf- -i -tá /awaakw  
 STM- -Sfx -L white.F  
 cloud  
 'a white cloud'

<sup>4</sup> When further data is considered, the picture is slightly less straightforward than this. More detailed discussion will take place in §6.3.5.

<sup>5</sup> 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.

#### 4. Fundamentals: nominal structure and noun stems

- b. *tlafoʔ* /*awakw*  
 tlaf- **-oo** ~'~ /*awakw*  
 STM- **-Sfx** -L white.N.PI  
 cloud  
 'white clouds'

This section established the noun as morphologically complex, and identified the three major elements into which every noun can be subdivided<sup>6</sup>. 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- Ø -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~'** Ø- a- Ø -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- Ø -(g)a **daaw-** **-aa** **-r~'**  
 trees forest S.3- Aux -Prf **Stm-** **-Sfx** **-L**  
medicine  
 “The trees of the forest are medicine.”

<sup>6</sup> 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. *garma**qá'** 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 ~*^*~) 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

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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 HUW [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** KONA [20151127h]  
*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, HHIYAWOS** 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. **AMASI BIRA-HARDAT DOOWOSE** [20151127h]  
*aamasí bira hardát dowosee*  
 aamár -sín̄g 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

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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.

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- (4.12) a. *desi* (0.5) *baahaa* **(0.0)** *ngina táhh* [20160921.2]  
*desi* (0.5) *baahaa* **(0.0)** *ng-* *a-*  $\emptyset$  *-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-*  $\emptyset-$   $\emptyset$  */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.

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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. *hhur**ah**úr* '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. *garmad**á'** una taáhh* [20160927|159-168.21]  
garmá **-dá'** Ø- u- Ø -na taáhh  
boy.LF **-Dem4** A.P- P.M- Aux -Imprf hit.1.Pst  
"I hit that boy."

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- b. [...] *garmasí - kudá' oo da/alusumo* [...] [20131108b\_20150725j.30-31]  
garmá -sí kudá' oo da/alusumo  
boy.LF -Dem2 ProDem2.M ProMod.M sorcerer  
"[...] this boy - that one of the sorcerer [...]"
- (4.17) a. *daawudu*  
daawudu  
medicines  
"medicines"
- b. \**daawasí todu 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.

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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'

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- d.     **wa/aangw**  
      **wa/-**   -aangw        -ó  
      **Stm-**   -SFX        -L  
                                arroyo  
      ‘an arroyo’
- e.     **do’**  
      **do’**     -Ø        -ó  
      **Stm-**   -SFX     -L  
                                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 ( $\sqrt{\text{ }}$ ) 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.



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(4.19) *daangafi*

<b>daangaf-</b>	-i	-tá
STM-	-SFX	-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*

<b>kitangeer-</b>	-i	-r ~'~
STM-	-SFX	-L
drying.rack		
“a drying rack”		

(4.21) *kwe/e/eni*

<b>kwe/e/en-</b>	-i	-tá
STM-	-SFX	-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) *nee/ár*

<b>nee/ár-</b>	-Ø	-ó
STM-	-SFX	-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-** -SFX -L  
bird  
 'a bird'
- b. ***tsir/oo***  
**tsir/-** -oo -r~'~  
**Stm-** -SFX -L  
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-** -SFX -L  
medicine  
 'medicine'
- b. ***daawudu***  
**daaw-** -(a)du ~'~  
**Stm-** -SFX -L  
medicines  
 'medicine'
- (4.25) a. ***awu***  
**aw-** -u -ó  
**Stm-** -SFX -L  
bull  
 'a bull'

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- b. **awee**  
**aw-** -ee -r~'~  
**Stm-** -SFX -L  
bulls  
 'bulls'
- (4.26) a. **qafi**  
**qaf-** -i -tá  
**Stm-** -SFX -L  
bark  
 'bark, shells'
- b. **qafoo**  
**qaf-** -oo ~'~  
**Stm-** -SFX -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. **tsifiri**  
**tsifir-** -i -r~'~  
**Stm-** -SFX -L  
language  
 'a language'
- b. **tsifireeri**  
**tsifir-** -eeri -r~'~  
**Stm-** -SFX -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. **tsifiraangw**  
**tsifir-** -aangw -ó  
**Stm-** -SFX -L  
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<sup>7</sup>. Further examples are provided below.

- (4.29) a. **niinga**  
**niing-** -a -ó  
**Stm-** -SFX -L  
drum  
 'a drum'

- b. **niingá**  
**niing-** -á -ó  
**Stm-** -SFX -L  
green.pigeon  
 'a green pigeon'

- (4.30) a. **se'eengw**  
**see'-** -aangw -ó  
**Stm-** -SFX -L  
hair  
 'hair'

- b. **soo'ay**  
**see'-** -ay -ó  
**Stm-** -SFX -L  
dog  
 'a dog'

- (4.31) a. **bee/i**  
**bee/-** -i -r~'~  
**Stm-** -SFX -L  
sheep  
 'a sheep'

<sup>7</sup> 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).

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- b. **bee/amó**  
**bee/-** -(a)mó-ó  
**Stm-** -SFX -L  
bird.sp.  
 'a sp. of bird'
- c. **Bee/á**  
**bee/** -á -ó  
**Stm-** -SFX -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)<sup>8</sup>:

- (4.32) a. **slee**  
**sl-** -ee -r~'~  
**Stm-** -SFX -L  
cow  
 'a cow'
- b. **yiikwa**  
**yiikw-** -a'i ~'~  
**Stm-** -SFX -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<sup>9</sup>:

- (4.33) a. **garma**  
**garm-** -a -ó  
**Stm-** -SFX -L  
boy  
 'a boy'
- b. **daaqay**  
**daaq-** -ay -ó  
**Stm-** -SFX -L  
boys  
 'boys'

<sup>8</sup> 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.

<sup>9</sup> With an additional case of the apocope described in fn.7 in(4.35).

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(4.34) a. **haree**  
**har-** -ee -r~'~  
**Stm-** -SFX -L  
woman  
 'a woman'

b. **tiyay**  
**tiy-** -ay ~'~  
**Stm-** -SFX -L  
women  
 'women'

(4.35) a. **lee'i**  
**lee'-** -i -r~'~  
**Stm-** -SFX -L  
goat  
 'a goat'

b. **aara**  
**aar-** -a'i ~'~  
**Stm-** -SFX -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:

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- (4.36) a. **wa/aangw**  
**wa/-** -aangw -ó  
**Stm-** -SFX -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-** -SFX -L  
song  
 'a song'
- b. *aga* **daá'**  
 a -ga **daá'**  
 ProSubjI.P -Prf sing.1.Pst  
 'I sang'
- (4.38) a. **diraangw**  
**dir-** -aangw -ó  
**Stm-** -SFX -L  
lion  
 'a lion'
- b. *ku* **dirén**  
 ku **dirén**  
 CopAdj.M big.M.Pl  
 'they are big'

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- (4.39) a. **na/ay**  
**na/-** -ay -ó  
**Stm-** -SFX -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<sup>10</sup>.

- (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

<sup>10</sup> 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](https://archive.org/stream/foreignbirdsforc01butl/foreignbirdsforc01butl_djvu.txt) (accessed 22.10.2017)

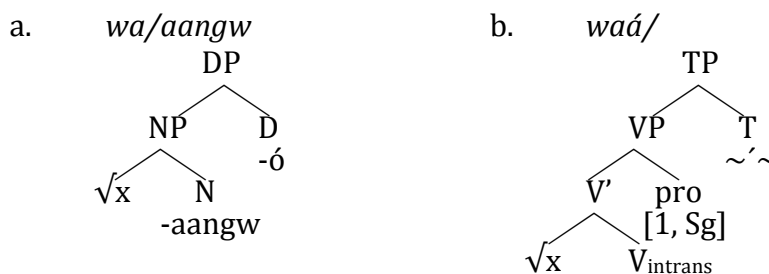


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for a synchronic account of how these forms are represented in the grammar of a given speaker, none of whom would be expected to know or feel that most of these pairs are in any way linked, either historically or conceptually.

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  $\sqrt{x}$  refers to the categoriless base (i.e. root) common to both *wa/aangw* and *waá/*.<sup>11</sup>

#### (4.42) CATEGORILESS BASE $\sqrt{x}$ REALIZED AS DIFFERENT LEXICAL CATEGORIES BASED ON DIFFERENT SYNTACTIC CONTEXTS



<sup>11</sup> 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.

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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  $\sqrt{\quad}$ , 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/*]

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$$\sqrt{_{364}} \{ \text{cat } [\sqrt{ }] \}$$

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 ( <i>List 2</i> )			Semantic Component ( <i>List 3</i> )		
Root Input	Syntactic Context	Value	Root	Syntactic Context	Value
$\sqrt{_{364}}$	/ N, D	[waʔ]	$\sqrt{_{364}}$	/ N, D	‘arroyo’
	/V <sub>intrans</sub> , T pro [1, Sg]			/V <sub>intrans</sub> , T pro [1, Sg]	‘vomit’

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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 ( <i>List 2</i> )			Semantic Component ( <i>List 3</i> )		
Root Input	Syntactic Context	Value	Root	Syntactic Context	Value
$\sqrt{709}$	/ N, D	[ts'ifir]	$\sqrt{709}$	/ N <sub>1428</sub> , D pro [Sg]	‘language’
				/ N <sub>2528</sub> , D pro [Sg]	‘tongue’

Table 4.3: Valuation of the root of the set *garma* and *daaqay* ( $\sqrt{765}$ )

Phonological Component ( <i>List 2</i> )			Semantic Component ( <i>List 3</i> )		
Root Input	Syntactic Context	Value	Root	Syntactic Context	Value
$\sqrt{765}$	/ N <sub>1218</sub> , D [Sg]	[garm]	$\sqrt{765}$	/ N <sub>1218</sub> , D	‘boy’
	/ N <sub>1218</sub> , 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

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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'-** -Ø -ó  
**Stm-** -SFX -L  
house  
 'a house'
- b. **maráy**  
**mar-** -ay ~'~  
**Stm-** -SFX -L  
houses  
 'houses'
- c. **mar'i** 'cave'  
**mar'-** -i -r~'~  
**Stm-** -SFX -L  
cave  
 'a cave'
- d. **mar'oo**  
**mar'-** -oo -r~'~  
**Stm-** -SFX -L  
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 <sub>1510</sub> , D [Pl]	[mar]	$\sqrt{201}$	/ N <sub>1413</sub> , D	'cave'
	/ N <sub>1510</sub> , D [Sg]	[do?]		/ N <sub>1510</sub> , D	'house'
	/ N <sub>1413</sub> , D	[mar?]			

#### 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

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providing a morphosyntactic analysis of the leftmost of these parts, the stem.

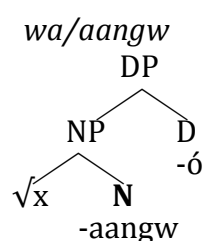
Subsection 4.5.1 offers some further discussion of *syntactic context*, and subsection 4.5.2 summarizes.

##### 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)  $\sqrt{x}$  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,

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but from a more complex nominal structure, often involving heads lower than D which mediate functions such as division 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 ( $\sqrt{\text{ }}$ ) 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



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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 ( $\sqrt{\text{ }}$ ) 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.  $wa/a\acute{a}ngw$  wák  
 wa/- **-aangw** -ó wák  
 STM- **-Sfx** -L one  
 arroyo  
 “one arroyo”
- b.  $we/eer\acute{i}$  tsár  
 wa/- **-eeri** ~'~ tsár  
 STM- **-Sfx** -L two  
 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:
- 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.*
  - 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.*
  - 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.)*

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### 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.

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§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<sup>1</sup>.

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<sup>1</sup> 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/imitá 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. *kookumó*  
 kook- **-(a)m** -ó -ó  
 STM- **-Sfx1 -Sfx2** -L  
 rooster  
 ‘a rooster’

## 5. The suffix 1: the regular phenomena

- b. *xarmó*  
 xarm- **-(a)m -ó** -ó  
 STM- **-Sfx1 -Sfx2** -L  
horn  
 'a horn'

- c. *tlaptumó*  
 tlapt- **-(a)m -ó** -ó  
 STM- **-Sfx1 -Sfx2** -L  
falcon  
 'a falcon'

### (5.9) THE SUFFIX *-(A)MA'* IS PL IN NUMBER

- a. *kookuma'*  
 kook- **-(a)m -a'(!)** ~'~  
 STM- **-Sfx1 -Sfx2** -L  
roosters  
 'roosters'

- b. *irindima'*  
 irind- **-(a)m -a'(!)** ~'~  
 STM- **-Sfx1 -Sfx2** -L  
biceps  
 'biceps, calves'

- c. *slahhama'*  
 slahh- **-(a)m -a'(!)** ~'~  
 STM- **-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) THE NOUN *KOOKUMÓ* CANNOT OCCUR WITH EXTERNAL ELEMENTS INCONSISTENT WITH SG NUMBER

- a. *\*kookumó tlét*  
 kook- **-(a)m -ó** -ó tlét  
 STM- **-Sfx1 -Sfx2** -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  
 STM- -SFX1 -SFX2 -L two  
rooster  
 (intended meaning) ‘two roosters’, ‘two (groups of) roosters’

(5.11) THE NOUN *KOOKUMA*’ CANNOT OCCUR WITH EXTERNAL ELEMENTS INCONSISTENT WITH PL NUMBER

- a. *\*kookumá’ tleer*  
 kook- -(a)m -a’(!) ~’~ tleer  
 STM- -SFX1 -SFX2 -L tall.M.PI  
roosters  
 (intended meaning) ‘a tall rooster’, ‘tall roosters’
- b. *\*kookumá’ wák*  
 kook- -(a)m -a’(!) ~’~ wák  
 STM- -SFX1 -SFX2 -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) SINGULAR VS. PLURAL

‘ROOSTER’	
SINGULAR	PLURAL
<i>kookumó</i>	<i>kookuma’</i>
<i>kookumó úr</i>	<i>kookumá’ uren</i>
kook--(a)m -ó -ó úr	kook- -(a)m -a’ ~’~ uren
STM- -SFX1 -SFX2 -L <b>big.M</b>	STM- -SFX1 -SFX2 -L <b>big.N.PI</b>
<span style="margin-left: 100px;">rooster</span>	<span style="margin-left: 100px;">roosters</span>
‘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. The suffix 1: the regular phenomena

### 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*  

$$\begin{array}{ccc} \text{tsir/-} & \text{-oo} & \text{-r} \sim \sim \\ \text{STM-} & \text{-SFX2} & \text{-L} \end{array}$$

birds

 'a species, kind of, or flock of birds', 'birds'
- b. *daka'oo*  

$$\begin{array}{ccc} \text{daka'-} & \text{-oo} & \text{-r} \sim \sim \\ \text{STM-} & \text{-SFX2} & \text{-L} \end{array}$$

baobabs

 'a species, kind of, or stand of baobabs', 'baobabs'
- c. *xooroo*  

$$\begin{array}{ccc} \text{xoor-} & \text{-oo} & \text{-r} \sim \sim \\ \text{STM-} & \text{-SFX2} & \text{-L} \end{array}$$

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*  

$$\begin{array}{ccc} \text{tsir/-} & \text{-oo} & \text{-r} \sim \sim \text{ tleer} \\ \text{STM-} & \text{-SFX2} & \text{-L} \end{array} \text{ tall.F}$$

birds

 "a tall species of bird"
- b. *tsir/oór wák*  

$$\begin{array}{ccc} \text{tsir/-} & \text{-oo} & \text{-r} \sim \sim \text{ wák} \\ \text{STM-} & \text{-SFX2} & \text{-L} \end{array} \text{ one}$$

birds

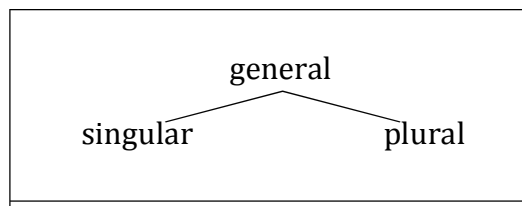
 "one species of bird"

## 5. The suffix 1: the regular phenomena

- c. *tsir/oór tlet*  
 tsir/- -oo -r ~'~ **tlet**  
 STM- -SFX2 -L **tall.F.PI**  
 birds  
 "tall species of birds", "tall birds"
- d. *tsir/oór tsár*  
 tsir/- -oo -r ~'~ **tsár**  
 STM- -SFX2 -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-      -Ø      -ó  
 STM-            -SFX2    -L  
crowned.crane  
**‘a flock of crowned crane’, or ‘a species of crowned crane’, or ‘crowned crane’**
- b. *malmáy*  
 malmaw-      -Ø      -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--Ø      -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	
<u>loo/i</u> <i>loo/ír ur</i> loo/- -i -r ~'~ ur STM- -SFX2 -L <b>big.F</b> <u>leaf</u> 'a big leaf'	<u>loo/oór</u> <i>ur</i> loo/- -oo -r ~'~ ur STM- -SFX2 -L <b>big.F</b> <u>leaves</u> 'many leaves (foliage)'	<u>loo/oo</u> <i>loo/oór uren</i> loo/- -oo -r ~'~ uren STM- -SFX2 -L <u>bird</u> <b>big.F.Pl</b> '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	
<u>piiró</u> <i>piiró úr</i> piir- -ó -ó úr STM- -SFX2 -L <b>big.M</b> <u>dragonfly</u> "a big dragonfly"	<u>piiró urén</u> <i>piiró urén</i> piir- -ó -ó urén STM- -SFX2 -L <b>big.M.Pl</b> <u>dragonfly</u> "a big (group of) dragonflies"	<u>piireema'</u> <i>piireemá' uren</i> piir- -eem-a'(!) ~'~ uren STM- -SFX1-SFX2-L <b>big.N.Pl</b> <u>dragonflies</u> "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

## 5. The suffix 1: the regular phenomena

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
<u>qoonqalumó</u> <i>qoonqalumó uúr</i> qoonqál- -(a)m -ó -ó úr STM- -SFX1 -SFX2 -L big.M crowned.cranes "a big crane"	<u>qoonqál</u> <i>qoonqaló uúr</i> qoonqál- -Ø -ó uúr STM- -SFX2 -L big.M crowned.cranes "a big (flock of) cranes"	<u>qoonqalima'</u> <i>qoonqalima' uren</i> qoonqál- -(a)m -a'(!) ~'~ uren STM- -SFX1 -SFX2 -L big.M.Pl crowned.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
<u>ma'ay</u> <i>ma'áy yaariir</i> ma'- -ay ~'~ yaariir STM- -SFX2 -L much.N water "much water"

### (5.20) SINGULARIA TANTUM

'SKY'	
SINGULAR	PLURAL
<u>dawri</u> <i>dawrír ur</i> dawr- -i -r~'~ ur STM- -SFX2 -L big.F sky "the great sky"	

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### (5.21) GENERAL

'EARTHQUAKE'	
GENERAL	
<i>kuunseeli</i>	
<i>kuunseelír ur</i>	<i>kuunseelír uren</i>
kuunseel- -i    -r ~ ~ ur	kuunseel- -i    -r ~ ~ uren
STM-        -SFX2 -L    big.F	STM-        -SFX2 -L    big.F.Pl
earthquake	earthquake
"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'áy chupadú tám* [...] [20150810d.10]  
ma'- -ay    ~'~ **chupadú** tám  
STM- -SFX2 -L    **bottles.LNØ** 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 *yaariir*, 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
<i>tseeree</i>	<i>tseerdu</i>
<i>tseereér yaariir</i>	<i>tseerdú uren</i>
tseer- -ee -r~'~ yaariir	tseer- -(a)d -u(!) -r~'~ uren
STM- -SFX2 -L much.F	STM- -SFX1-SFX2 -L big.N.Pl
<u>                    </u> blood	<u>                    </u> 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)

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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)	<i>gasesmó</i> 'a black snake'
	-ito'o	Fr	it	o'o(F)	<i>makito'o</i> 'an animal'
	-imo	Mo	iim	o(M)	<i>nanahhumo</i> 'a skull'
	-iimi	Fr	iim	i(Fr)	<i>se'eemi</i> 'a strand of hair'
	-aaC <sub>z</sub> i	Fr	aaC <sub>z</sub>	i(Fr)	<i>balaali</i> 'a grain of millet'
GENERAL (SG-LEANING)	-o	Mo			<i>aako</i> 'a grandfather'
	-í	Fr			<i>fuufi</i> 'a weasel'
	-í	Ft			<i>hinhhini</i> 'pumpkins'
	-ó	Mo			<i>boohoontó</i> 'a hole'
GENERAL	-a	Mk			<i>dawa</i> 'a hand'
	-a	Mo			<i>niinga</i> 'a drum'
	-i	Ft			<i>luki</i> 'a reed mat'
	-i	Fr			<i>ba'aari</i> 'bees'
	-∅	Mo			<i>gumbayaya</i> 'a kidney'
	-ay	N∅			<i>fu'unay</i> 'meat'
	-ú	Mo			<i>/aamú</i> 'fruit'
	-oo	Fr			<i>tsir/oo</i> 'birds'
	-a	Ft			<i>asla</i> 'fire'
	-aa	Fr			<i>/ameenaa</i> 'women'
	-ee	Fr			<i>yaa'ee</i> 'a river'
	-á	Mo			<i>niingá</i> 'green pigeons'
	-ay	Mo			<i>na/ay</i> 'a child'
	-u	Mo			<i>daawu</i> 'an elephant'
	-aangw	Mo			<i>kwu/uungw</i> 'a wall'
	-oo	N∅			<i>daqoo</i> 'herds'
GENERAL (PL-LEANING)	-áy	Mo			<i>fiitsáy</i> 'brooms'
	-u!	N∅			<i>gamu</i> 'an underside'
	-a'(!)	N∅			<i>gongoxa</i> 'elbows'
	-a'i	N∅			<i>tsati'i</i> 'knives'
PL	-náy	Mo	(a)m	áy(M)	<i>ga/atanáy</i> 'fevers'
	-iya'	N∅	iy	a'i(N)	<i>tsi/iya'</i> 'shins'
	-(a)ma'	N∅	(a)m	a'(!)(N)	<i>tla/ama'</i> 'ditches'
	-iyoo	N∅	iy	oo(N)	<i>kuriyoo</i> 'anuses'
	-aC <sub>z</sub> i'i	N∅	(a)C <sub>z</sub>	a'i(N)	<i>aamaami'i</i> 'grandmothers'
	-<ee>-aC <sub>z</sub> u	N∅	ee(t,m,r)+aC <sub>z</sub>	u!(N)	<i>tla/eefufu</i> 'living quarters'
	-eemoo or -<ee>-oo	N∅	eem ee(t,m,r)	oo(N) oo(N)	<i>hhafeetoo</i> 'large reed mats'
	-aawee	Fr	aw	ee(F)	<i>himtaawee</i> 'owls'
	-eeri	N∅	eer	(a)'i(N)	<i>kwa/eeri</i> 'hares'
	-eema'	N∅	eem	a'(!)(N)	<i>murungeema'</i> 'bellybuttons'
	-(a)du	N∅	(a)d	u!(N)	<i>laydu</i> 'branding irons'
	-aC <sub>z</sub> ee	Fr	(a)C <sub>z</sub>	ee(F)	<i>himtete</i> 'metal necklace'
	-aC <sub>z</sub> u	N∅	(a)C <sub>z</sub>	u!(N)	<i>/ampupu</i> 'platforms'

## 5. The suffix 1: the regular phenomena

### 5.3.1 Sg

As the label implies, this group of suffixes form nouns which only occur with<sup>2</sup> 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**  
 STM- -SFX1 -SFX2 -L **long.M**  
 black.snake  
 'a long black snake'
- b. \**gasesmó tlét*  
 gases- -(a)m -ó -ó **tlét**  
 STM- -SFX1 -SFX2 -L **long.M.Pl**  
 black.snake  
 (intended meaning) 'long black snakes'
- c. *gasesima' tlet*  
 gases- -(a)m -a'(!) ~'~ **tlet**  
 STM- -SFX1 -SFX2 -L **long.N.Pl**  
 black.snakes  
 'long black snakes'

(5.27) GEN SUFFIX -Ú MAY OCCUR WITH OTHER FORMS SHOWING EITHER SG OR PL AGREEMENT

- a. *slanú tleér*  
 slan- -ú -ó **tleér**  
 STM- -SFX2 -L **long.M**  
 python  
 'a long python'
- b. *slanú tlét*  
 slan- -ú -ó **tlét**  
 STM- -SFX2 -L **long.M.Pl**  
 python  
 'long python' (i.e. as a species, versus short kinds of python)

<sup>2</sup> 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.

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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.

### 5. The suffix 1: the regular phenomena

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 *-(l)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'Ó* (FR) USED TO DENOTE A FLOWER OR FRUIT

a. *maangwaré'*  
 maangware' -  $\emptyset$   $\sim' \sim$   
 STM-                     -Sfx2 -L  
                     k.o.sorghum  
 'sorghum'

## 5. The suffix 1: the regular phenomena

- b. *maangware'umó*  
 maangware'- **-(a)m** **-ó** **-ó**  
 STM- **-SFX1** **-SFX2** **-L**  
 k.o.sorghum.plant  
 'a sorghum plant'
- c. *maangware'ito'o*  
 maangware'- **-it** **-o'o** **-r~'~**  
 STM- **-SFX1** **-SFX2** **-L**  
 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) THE SUFFIX *-IMO* (Mo)

- a. *bambarimo*  
 bambar- **-iim** **-o** **-ó**  
 STM- **-SFX1** **-SFX2** **-L**  
 millet.grain  
 'a grain of bulrush millet'
- b. *nanahhumo*  
 nanahh- **-iim** **-o** **-ó**  
 STM- **-SFX1** **-SFX2** **-L**  
 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.

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### 5.3.1.5 -aaC<sub>z</sub>i (Fr)

The suffix -aaC<sub>z</sub>i (where the C<sub>z</sub> is a consonant reduplicated from the last in the stem) occurs on a single noun in the sample.

(5.33) THE SUFFIX -AAC<sub>z</sub>I (FR)

*balaali*  
 bal-    -aaC<sub>z</sub>    -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 -aaC<sub>z</sub> for SFX1, and -i for SFX2. -aaC<sub>z</sub> 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<sub>SG</sub>)

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.    *fuufīr tleer*  
       fuuf-    -ī    -r~'~    tleer  
       STM-    -SFX2    -L    long.F  
              └──────────┘  
              weasel  
       'a long weasel'

## 5. The suffix 1: the regular phenomena

- b. *\*fuufĩr tlet*  
 fuuf- **-í** -r~'~ tlet  
 STM- **-Sfx2 -L** long.F.Pl  
weasel  
 (intended meaning) 'long weasels'
- c. *fuufeemoó tlet*  
 fuuf- **-eem -oo** ~'~ tlet  
 STM- **-Sfx1 -Sfx2 -L** long.N.Pl  
weasels  
 'long weasels'

### (5.35) SG AND GEN<sub>SG</sub>

'FISH'		
<i>siyumó</i> <i>siyumó úr</i> siy- -(a)m -ó -ó úr STM- <b>-Sfx1 -Sfx2 -L</b> big.M <span style="margin-left: 100px;">fish</span> 'a big fish'	<i>siyó</i> <i>siyó úr</i> siy- -ó -ó úr STM- <b>-Sfx2 -L</b> big.M <span style="margin-left: 100px;">fish</span> 'a big (species of) fish'	<i>siyó</i> <i>siyó urén</i> siy- -ó -ó uren STM- <b>-Sfx2 -L</b> big.M.Pl <span style="margin-left: 100px;">fish</span> 'big fishes'

### (5.36) GEN<sub>SG</sub> AND PL

'DRAGONFLY'		
<i>piiró</i> <i>piiró úr</i> piir- -ó -ó úr STM- <b>-Sfx2 -L</b> big.M <span style="margin-left: 100px;">dragonfly</span> 'a big dragonfly'	<i>piiró</i> <i>piiró urén</i> piir- -ó -ó uren STM- <b>-Sfx2 -L</b> big.M.Pl <span style="margin-left: 100px;">dragonfly</span> 'a big (group of) dragonflies'	<i>piireema'</i> <i>piireemá' uren</i> piir- -eem -a'(!) ~'~ uren STM- <b>-Sfx1 -Sfx2 -L</b> big.M.Pl <span style="margin-left: 100px;">dragonfly</span> '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.



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### (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'

## 5. The suffix 1: the regular phenomena

- 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. *loosíren*  
 loos- -í -r~'~ uren  
 STM- -SFX2 -L big.F.Pl  
 beans  
 'big beans'
- b. *babitáren*  
 bab- -í -tá uren  
 STM- -SFX2 -L big.F.Pl  
 k.o.insect  
 'big insects'

The suffix -í (Fr) and -i (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.

(5.40) THE SUFFIX *-í* (FR) VS. THE SUFFIX *-i* (FR)

- 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

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c. -ó (Mo) *mootó*  
 moot- -ó -ó  
 STM- -Sfx2 -L  
 Swahili.sparrow  
 'Swahili sparrow'

d. -ú (Mo) *puundú*  
 puund- -ú -ó  
 STM- -Sfx2 -L  
 plant.sp.  
 'a plant'

e. -áy (Mo) /*aráy*  
 /ar- -áy -ó  
 STM- -Sfx2 -L  
 white-galled.acacia  
 'white-galled acacias'

### (5.42) a. HIGH-TONED SUFFIXES FOR NON- PLANTS AND ANIMALS

i. /*eetlí*  
 /eetl- -í -r~'~  
 STM- -Sfx2 -L  
 pimple  
 'a pimple'

ii. *duutsú*  
 duuts- -ú -ó  
 STM- -Sfx2 -L  
 soup  
 'soup'

iii. *naqáy*  
 naq- -áy -ó  
 STM- -Sfx2 -L  
 canoe  
 'canoe'

### b. LEVEL PITCH ACCENT SUFFIXES FOR PLANTS AND ANIMALS

i. *tsoyo*  
 tsoy- -o -ó  
 STM- -Sfx2 -L  
 dikdik  
 'a dikdik'

## 5. The suffix 1: the regular phenomena

- ii. *tsarma'i*  
 tsarma'- -i -r~'~  
 STM- -Sfx2 -L  
 plant.sp.  
 'plants'
- iii. *daawu*  
 daaw- -u -ó  
 STM- -Sfx2 -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: *awki* (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) THE SUFFIX -í (FT)

- a. *naanagí*  
 naanag- -í -tá  
 STM- -Sfx2 -L  
 larvae  
 'larvae'
- b. *ma/a/ayí*  
 ma/a/ay- -í -tá  
 STM- -Sfx2 -L  
 insect.sp.  
 'insects'
- c. *hhinhhiní*  
 hinhhin- -í -tá  
 STM- -Sfx2 -L  
 pumpkin  
 'pumpkin'

## 5. The suffix 1: the regular phenomena

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.

## 5. The suffix 1: the regular phenomena

-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/oór hatlee*  
          *tsir/- -oo -r~'~ hatlee*  
          STM- *-Sfx2 -L*      **other.F.Pl**  
               birds  
          'other birds'
- b.      *tsir/oór 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.      *puundú*  
          *puund- -ú -ó*  
          STM- *-Sfx2 -L*  
               plant.sp  
          'a plant'
- ii.      *puundaa*  
          *puund- -aa -r~'~*  
          STM- *-Sfx2 -L*  
               plant.sps  
          'plants'

## 5. The suffix 1: the regular phenomena

### 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'



## 5. The suffix 1: the regular phenomena

- e. *siigan(d)*  
 siigand- -Ø -ó  
 STM- -Sfx2 -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) THE SUFFIX -A (MK)

- a. *dawa*  
 daw- -a -kú  
 STM- -Sfx2 -L  
 └──────────┘  
 hand  
 'a hand'
- b. *qara*  
 qar- -a -kú  
 STM- -Sfx2 -L  
 └──────────┘  
 gall  
 'gall, bile'
- c. *afa*  
 af- -a -kú  
 STM- -Sfx2 -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

## 5. The suffix 1: the regular phenomena

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. *tsu'ú* '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. *afkú úr*  
 af- -a -kú úr  
 STM- -SFX2 -L big.M  
 mouth  
 'a big mouth'
- b. *niingó úr*  
 niing- -a -ó úr  
 STM- -SFX2 -L big.M  
 drum  
 'a big drum'
- c. *asltá 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

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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'

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### b. THE GENERAL SUFFIXES -I (Ft) AND -AA (Fr) AS A PAIR

i. *kuti*  
 kut- -i -tá  
 STM- -SFX2 -L  
 mole  
 'a mole' (i.e. the rodent)

ii. *kutaa*  
 kut- -aa -r~'~  
 STM- -SFX2 -L  
 moles  
 'moles' (i.e. the rodents)

As mentioned above, the suffix -i (Ft) differs from the suffix -í (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. *fiitsi*  
 fiits- -i -r~'~  
 STM- -SFX2 -L  
 broom  
 'a broom'

b. *ba'aari*  
 ba'aar- -i -r~'~  
 STM- -SFX2 -L  
 bees  
 'bees'

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- c. *wa'amī*  
 wa'am- -i -r~'~  
 STM- -Sfx2 -L  
 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  
 ostrich  
 'an ostrich'

- ii. *sakwél*  
 sakweel- -Ø -ó  
 STM- -Sfx2 -L  
 ostrich  
 'ostriches'

### b. THE GENERAL SUFFIXES -I (FR) AND -AA (FR) AS A PAIR

- i. */urfī*  
 /urf- -i -r~'~  
 STM- -Sfx2 -L  
 skink  
 'a skink'

- ii. */urfāa*  
 /urf- -aa -r~'~  
 STM- -Sfx2 -L  
 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<sub>2</sub>i.

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### 5.3.3.5 -Ø (Mo)

The suffix -Ø (Mo) occurs on 71 nouns in the sample.

#### (5.57) THE SUFFIX -Ø (Mo)

- a. *magá'*  
 maga'--Ø -ó  
 STM- -SFX2 -L  
 leech  
 'leech'
- b. *tlangás*  
 tlangas- -Ø -ó  
 STM- -SFX2 -L  
 quivers  
 'quivers'
- c. *poohám*  
 pooham- -Ø -ó  
 STM- -SFX2 -L  
 baboon  
 'baboon'

Together with a zero suffix -Ø, 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 -Ø (Mo) which is adding these effects.

#### (5.58) LONG VOWEL, LEVEL PITCH ACCENT IN THE MATE OF -Ø (Mo)

- a. *sakweeli*  
 sakweel- -i -r~'~  
 STM- -SFX2 -L  
 ostrich  
 'an ostrich'
- b. *sakwél*  
 sakweel- -Ø -ó  
 STM- -SFX2 -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) TONE SPREADING AND APOCOPE RESULTING IN -Ø (Mo)

PROTO WEST RIFT	PROTO-IRAQWOID		GORWAA
	HIGH TONE SPREAD	APOCOPE	
* <i>masladú</i> 'fruit trees'	* <i>maslárú</i>	* <i>maslár</i>	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) THE SUFFIX -AY (NØ)

- a. *fu'unay*  
fu'un- -ay ~'~  
STM- -Sfx2 -L  
meat  
'meat'
- b. *makay*  
mak- -ay ~'~  
STM- -Sfx2 -L  
animals  
'animals'
- c. *maa'ay*  
maa'- -ay ~'~  
STM- -Sfx2 -L  
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'

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- b.  $\text{/awt}\acute{\text{u}}$   
 $\text{/awt- } \text{-}\acute{\text{u}} \quad \text{-}\acute{\text{o}}$   
 $\text{STM- } \text{-}\text{Sfx2} \quad \text{-L}$   
butterfly  
 'butterfly'
- c.  $\text{du/}\acute{\text{u}}$   
 $\text{du/- } \text{-}\acute{\text{u}} \quad \text{-}\acute{\text{o}}$   
 $\text{STM- } \text{-}\text{Sfx2} \quad \text{-L}$   
fat  
 'fat'

As mentioned above, the suffix  $\text{-}\acute{\text{u}}$  (Mo) can be differentiated from the suffix  $\text{-u}$  (Mo) on the basis of pitch accent. What is less certain is that the suffix  $\text{-}\acute{\text{u}}$  (Mo) and the suffix  $\text{-}\acute{\text{o}}$  (Mo) are different.

The Iraqw dictionary (Mous, Qorro, Kießling 2002) records several forms with this ending, including  $\text{/awt}\acute{\text{u}}$  (p.17),  $\text{dan}\acute{\text{u}}$  (p.27), and  $\text{tsam}\acute{\text{u}}$  (p.107), all of whose suffixes are cognate with the one at hand.

### 5.3.3.8 -oo (Fr)

The suffix  $\text{-oo}$  (Fr) occurs on 51 nouns in the sample.

#### (5.62) THE SUFFIX $\text{-oo}$ (Fr)

- a.  $\text{tsir/oo}$   
 $\text{tsir/- } \text{-}\text{oo} \quad \text{-r}\sim\sim$   
 $\text{STM- } \text{-}\text{Sfx2} \quad \text{-L}$   
birds  
 'birds'
- b.  $\text{daka'oo}$   
 $\text{daka'- } \text{-}\text{oo} \quad \text{-r}\sim\sim$   
 $\text{STM- } \text{-}\text{Sfx2} \quad \text{-L}$   
baobab.trees  
 'baobab trees'

## 5. The suffix 1: the regular phenomena

- c. *hho'oo*  
 hho'- **-oo** -r~'~  
 STM- **-Sfx2** -L  
sister  
 'sister'

This suffix can be differentiated from the suffix *-oo* (NØ) based on the gender agreement it triggers.

### (5.63) THE SUFFIX *-oo* (Fr) VS. THE SUFFIX *-oo* (NØ)

- a. *tsir/oór tsár*  
 tsir/- **-oo** -r~'~ tsár  
 STM- **-Sfx2** -L two  
birds  
 'two birds'
- b. *dageenoó tsár*  
 dageen- **-oo** ~'~ tsár  
 STM- **-Sfx2** -L two  
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) THE SUFFIX *-A* (Ft)

- a. *asla*  
 asl- **-a** -tá  
 STM- **-Sfx2** -L  
fire  
 'fire'
- b. *hhafa*  
 hhaf- **-a** -tá  
 STM- **-Sfx2** -L  
ceiling.poles  
 'ceiling poles'

## 5. The suffix 1: the regular phenomena

- c. *fara*  
 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. *ara* (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. *kwahha* (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. The suffix 1: the regular phenomena

### 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'

## 5. The suffix 1: the regular phenomena

- b. *tseeree*  
 tseer- **-ee** -r~'~  
 STM- **-Sfx2** -L  
 blood  
 'blood'
- c. *iimpee*  
 iimp- **-ee** -r~'~  
 STM- **-Sfx2** -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) THE SUFFIX -Á (MO)

- a. *niingá*  
 niing- **-á** -ó  
 STM- **-Sfx2** -L  
 green.pigeons  
 'green pigeons'
- b. *filá*  
 fil- **-á** -ó  
 STM- **-Sfx2** -L  
 anteater  
 'anteater'
- c. *kuumbá*  
 kuumb- **-á** -ó  
 STM- **-Sfx2** -L  
 brother-in-law  
 'brother-in-law'

## 5. The suffix 1: the regular phenomena

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. *tsaxway*  
tsaxw- **-ay** -ó  
STM- **-Sfx2** -L  
grasshopper  
'a grasshopper'
- c. *tsuhay*  
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. The suffix 1: the regular phenomena

### (5.70) THE SUFFIX -*u* (Mo)

- a. *daawu*  
 daaw- -**u** -ó  
 STM- -**Sfx2** -L  
 elephant  
 'elephant'
- b. *desu*  
 des- -**u** -ó  
 STM- -**Sfx2** -L  
 girls  
 'girls'
- c. *musu*  
 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. *diraangw*  
 dir- -**aangw** -ó  
 STM- -**Sfx2** -L  
 lion  
 'a lion'



## 5. The suffix 1: the regular phenomena

- c. *kwu/uungw*  
 kwu/- **-uungw** -ó  
 STM- **-Sfx2** -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 (NØ)

The suffix *-oo* (NØ) occurs on 23 nouns in the sample.

#### (5.72) THE SUFFIX -oo (NØ)

- a. *dageenoo*  
 dageen- **-oo** ~'~  
 STM- **-Sfx2** -L  
young.women  
 'young women'
- b. *daqoo*  
 daq- **-oo** ~'~  
 STM- **-Sfx2** -L  
herds  
 'herds'
- c. *gwe'edoo*  
 gwe'ed- **-oo** ~'~  
 STM- **-Sfx2** -L  
buttock  
 'a buttock'

The suffix *-oo* (NØ) is identified as *-o* in Iraqw (Mous 1993: 57), and as *-oo* in Alagwa (p.87).

The suffix *-oo* (NØ) is present as SFX2 in the Pl composed suffixes *-iyoo* and *-eemoo* or *-<ee>-oo*.

## 5. The suffix 1: the regular phenomena

### 5.3.4 General (Pl-leaning) (Gen<sub>PL</sub>)

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<sub>PL</sub> SUFFIX -AY MAY ONLY OCCUR WITH OTHER FORMS SHOWING PL AGREEMENT

- a. *purusáy tlét*  
 purus- -ay -ó **tlét**  
 STM- -Sfx2 -L **long.M.Pl**  
insect.sp  
 'long insects'
- b. \**purusáy tleér*  
 purus- -ay -ó **tleér**  
 STM- -Sfx2 -L **long.M**  
insect.sp  
 (intended meaning) 'a long insect'
- c. *puruseér tleer*  
 purus- -ee -r~'~ **tleer**  
 STM- -Sfx2 -L **long.F**  
insect.sp  
 'a long insect'

#### (5.74) SG AND GEN<sub>PL</sub>

'ORPHAN'		
<i>panimó</i> <i>panimó úr</i> pan- -(a)m -ó -ó úr STM- -Sfx1 -Sfx2 -L big.M <u>orphan</u> 'a big orphan'	<i>panáy úr</i> pan- -áy -ó úr STM- -Sfx2 -L big.M <u>orphan</u> 'a big (group of) orphans'	<i>panáy</i> <i>panáy urén</i> pan- -áy -ó urén STM- -Sfx2 -L big.M.Pl <u>orphans</u> 'big orphans'

## 5. The suffix 1: the regular phenomena

### (5.75) GEN<sub>PL</sub> AND PL

'EVENING' <sup>3</sup>		
<i>xweera</i>	<i>xweera</i>	<i>xweerdū</i>
<i>xweerá tleer</i>	<i>xweerá tlet</i>	<i>xweerdū tlet</i>
xweer- -a'(!) ~'~ tleer	xweer- -a'(!) ~'~ tlet	xweer- -(a)d -u! ~'~ tlet
STM- -SFX2 -L long.N	STM- -SFX2 -L long.N.Pl	STM- -SFX1 -SFX2 -L long.N.Pl
<u>evening</u>	<u>evening</u>	<u>evening</u>
'a long evening'	'a long (series of) evenings'	'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'

<sup>3</sup> 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.

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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 *-Ø* 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)

	-u	<i>xuuntlú</i>	‘unusual protuberance’
<i>xuúntl-</i>	+	=	
	-ay	<i>xuuntláy</i>	‘unusual protuberances’

### (5.79) HIGH-TONED SUFFIX PAIRED WITH SUFFIX *-Ø* (Mo), CREATING THE IMPRESSION OF A HIGH-TONED STEM (MOUS 1993: 49)

	-i	<i>tsaxweelí</i>	‘spring trap’
<i>tsaxweél-</i>	+	=	
	-Ø	<i>tsaxwél</i>	‘spring traps’

## 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	<i>bi/iní</i>	<b>(RPA)</b>	‘silky blesmol’
<i>bi/in-</i>	+	=		
	-aa	<i>bi/in<sup>aa</sup></i>	<b>(LPA)</b>	‘silky blesmols’

### (5.81) ONE SUFFIX, TWO TONAL REALIZATIONS

#### a. -I OF *fiitsi*: LEVEL PITCH ACCENT

	-i	<i>fiitsi</i>	<b>(LPA)</b>	‘spring trap’
<i>fiits-</i>	+	=		
	-ay	<i>fiitsáy</i>	<b>(RPA)</b>	‘spring traps’

#### b. -I OF *do/í*: RISING PITCH ACCENT

	-i	<i>do/í</i>	<b>(RPA)</b>	‘cane rat’
<i>dó/-</i>	+	=		
	-ay	<i>do/áy</i>	<b>(RPA)</b>	‘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

## 5. The suffix 1: the regular phenomena

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! (NØ)

The suffix *-u!* (NØ) occurs on 34 nouns in the sample.

#### (5.82) THE SUFFIX *-u!* (NØ)

a.	<i>gamu</i>		
	gam-	<b>-u!</b>	~~
	STM-	-SFX2	-L
	<u>underside</u>		
	‘underside’		

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b. *bolu*  
 bool- -u! ~'~  
 STM- -Sfx2 -L  
 days  
 'days'

c. *manu*  
 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. *booloo*  
 bool--oo -r~'~  
 STM- -Sfx2 -L  
 day  
 'a day'

ii. *bolu*  
 bool- -u! ~'~  
 STM- -Sfx2 -L  
 days  
 'days'

b. i. *yaa'ee*  
 yaa'-ee -r~'~  
 STM- -Sfx2 -L  
 river  
 'a river'

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ii. *ya'u*  
**yaa-** -u!    ~'~  
 STM- **-Sfx2** -L  
 rivers  
 'rivers'

(5.84) GLIDE-ELIMINATION EFFECT OF -u! (NØ)

a. *qaymoo*  
**qaym-** -oo    -r~'~  
 STM- **-Sfx2** -L  
 field  
 'field'

b. *qamu*  
**qaym-** -u!    ~'~  
 STM- **-Sfx2** -L  
 fields  
 'fields'

(5.85) FORTITION EFFECT OF -u! (NØ)

a. i. *siiwaa*  
**siiw--**aa    -r~'~  
 STM- **-Sfx2** -L  
 protocol  
 'protocol'

ii. *sibu*  
**siiw-**    -u!    ~'~  
 STM-    **-Sfx2** -L  
 protocols  
 'protocols'

b. i. *fara*  
**far-** -a    -tá  
 STM- **-Sfx2** -L  
 bone  
 'a bone'

ii. *fadu*  
**far--**u!    ~'~  
 STM- **-Sfx2** -L  
 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 *-aC<sub>zu</sub>*, *-(a)du*, and *-<ee>-aC<sub>zu</sub>*.

### 5.3.4.3 -a'(!) (NØ)

The suffix *-a'(!)* (NØ) occurs on 37 nouns in the sample.

#### (5.86) THE SUFFIX -A'(!) (NØ)

- a. *laqeel***a'**  
*laqeel--a'(!)* ~'~  
 STM- -SFX2 -L  
 thorns  
 'thorns'
- b. *gongox***a'**  
*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) SUPRASEGMENTAL EFFECTS OF -A'(!) (NØ)

#### a. EFFECTS OBSERVED

i. *gongooxi*  
 gongoox- -i -r~'~  
 STM- -SFX2 -L  
 ───────────  
 elbow  
 'an elbow'

ii. *gongoxa'*  
 gongoox- -a'(!) ~'~  
 STM- -SFX2 -L  
 ───────────  
 elbows  
 'elbows'

#### b. EFFECTS UNOBSERVED

i. *akeesi*  
 akees- -i -r~'~  
 STM- -SFX2 -L  
 ───────────  
 cooking.stone  
 'a cooking stone'

ii. *akeesa'*  
 akees- -a'(!) ~'~  
 STM- -SFX2 -L  
 ───────────  
 cooking.stones  
 'cooking stones'

Sometimes, the final glottal stop is not present. This is due to word-final apocope.

### (5.88) WORD-FINAL APOCOPE OF GLOTTAL STOP

a. */ayla*  
 /ayl- -a'(!) ~'~  
 STM- -SFX2 -L  
 ───────────  
 wedding.song  
 'wedding song'

b. *xweera*  
 xweer- -a'(!) ~'~  
 STM- -SFX2 -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*  
STM- -SFX2 -L big.N  
nose  
'a big nose'
- b. *afkú ur* (suffix: *-a* (Mk))  
af- *-a* -kú ur  
STM- -SFX2 -L big.M  
mouth  
'a big mouth'
- c. *niingó ur* (suffix: *-a* (Mo))  
niing- *-a* -ó ur  
STM- -SFX2 -L big.M  
drum  
'a big drum'
- d. *asltá ur* (suffix: *-a* (Ft))  
asl- *-a* -tá ur  
STM- -SFX2 -L 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'*.

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### 5.3.4.4 -a'i (NØ)

The suffix -a'i (NØ) occurs on 33 nouns in the sample.

#### (5.90) THE SUFFIX -A'I (NØ)

- 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 *-aCzi'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).

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(5.93) PL. SUFFIX -EEMA' (NØ) MAY OCCUR ONLY WITH OTHER FORMS SHOWING PL AGREEMENT

- a. *tlapteemá' tlet*  
 tlapt- -eem -a'(!) ~'~ **tlet**  
 STM- -SFX1 -SFX2 -L **long.N.Pl**  
                    falcons  
 'tall falcons'
- b. *\*tlapteemá' tleer*  
 tlapt- -eem -a'(!) ~'~ **tleer**  
 STM- -SFX1 -SFX2 -L **long.N**  
                    falcons  
 (intended meanings) 'tall falcons', 'a group of tall falcons'
- c. *tlaptumó tleér*  
 tlapt- -(a)m -ó -ó **tleér**  
 STM- -SFX1 -SFX2 -L **long.M**  
                    falcon  
 'a tall falcon'

(5.94) GENERAL SUFFIX -AA (FR) MAY OCCUR ONLY WITH OTHER FORMS SHOWING EITHER SG OR PL AGREEMENT

- a. *sirooraár tleer*  
 siroor--aa -r~'~ **tleer**  
 STM- -SFX2 -L **tall.F**  
                    canaries  
 'tall canary' (i.e. as a species, versus short kinds of canary)
- b. *sirooraár tlet*  
 siroor--aa -r~'~ **tlet**  
 STM- -SFX2 -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.

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### (5.95) SUBDIVISION OF ‘COMPOSED SUFFIXES’ INTO SFX1 AND SFX2

<i>murungeema'</i>				
<i>murung-</i>	<b>-eem</b>	<b>-a'(!)</b>	<b>~'~</b>	
STM-	<b>-SFX1</b>	<b>-SFX2</b>	<b>-L</b>	
<u>bellybuttons</u>				
‘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) THE SUFFIX -NÁY (MO)

- a. *ga/atanáy*  
*ga/at-* **-(a)m** **-áy** **-ó**  
 STM- **-SFX1** **-SFX2** **-L**  
fevers  
 ‘fevers’
- b. *tsetse/imáy*  
*tsetse/-* **-(a)m** **-áy** **-ó**  
 STM- **-SFX1** **-SFX2** **-L**  
open.places  
 ‘open places’
- c. *afurtlumáy*  
*afurtl-* **-(a)m** **-áy** **-ó**  
 STM- **-Sfx1** **-Sfx2** **-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 Gen<sub>PL</sub> suffix -áy (Mo).

## 5. The suffix 1: the regular phenomena

### 5.3.5.2 -iya' (NØ)

The suffix -iya' (NØ) occurs on four nouns in the sample.

#### (5.97) THE SUFFIX -IYA' (NØ)

- a. *slufiya'*  
 sluf- -iy -a'(!) ~'~  
 STM- -SFX1 -SFX2 -L  
 lips  
 'lips'
- b. *tsi/iyā'*  
 tsi/- -iy -a'(!) ~'~  
 STM- -SFX1 -SFX2 -L  
 shins  
 'shins'
- c. *tsiniya'*  
 tsin- -iy -a'(!) ~'~  
 STM- -SFX1 -SFX2 -L  
 ends  
 'ends'

The fourth occurrence of the suffix -iya' (NØ) involves word-final apocope of the glottal stop.

#### (5.98) WORD-FINAL APOCOPE OF THE GLOTTAL STOP OF THE SUFFIX -IYA' (NØ)

- laqayiya*  
 laqay- -iy -a'(!) ~'~  
 STM- -SFX1 -SFX2 -L  
 thorns  
 'thorns'

The equivalent of the suffix -iya' (NØ) 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



### 5. The suffix 1: the regular phenomena

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. *kitangeerima'*  
 kitangeer- **-(a)m -a'(!)** ~'~  
 STM- **-Sfx1 -Sfx2** -L  
 \_\_\_\_\_  
 drying racks  
 'drying racks'
- c. *kiintima'*  
 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.

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- (5.100) THE SUFFIX *-iyoo* (NØ)
- a. *kuriyoo*  
 kur- **-iy** **-oo** ~'~  
 STM- **-SFX1** **-SFX2** -L  
 anuses  
 'anuses'
- b. *tsariyoo*  
 tsar- **-iy** **-oo** ~'~  
 STM- **-SFX1** **-SFX2** -L  
 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<sub>z</sub>i'i (NØ)

The suffix *-aC<sub>z</sub>i'i* (NØ) (where the C<sub>z</sub> is a consonant reduplicated from the last in the stem) occurs on two nouns in the sample.

- (5.101) THE SUFFIX *-aC<sub>z</sub>i'i* (NØ)
- a. *akoki'i*  
 ako- **-aC<sub>z</sub>** **-a'i** ~'~  
 STM- **-SFX1** **-SFX2** -L  
 grandfathers  
 'grandfathers'
- b. *aamami'i*  
 aama- **-aC<sub>z</sub>** **-a'i** ~'~  
 STM- **-SFX1** **-SFX2** -L  
 grandmothers  
 'grandmothers'

No similar form is identified in Iraqw or Alagwa.

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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<sub>PL</sub> suffix, described above.

### 5.3.5.6 -<ee>- $aC_zu$ (NØ)

The suffix -<ee>- $aC_zu$  (NØ) (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>- $aC_zu$  (NØ)
- 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. *tse/eetutu*  
 tsa/at--**eet** - $aC_z$  -u! ~'~  
 STM- -SFX1 -SFX1 -SFX2 -L  
 yolks  
 'yolks'

The -<ee> part of the suffix refers to an infix *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

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(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>-aC<sub>zu</sub>* (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 *aC<sub>z</sub>*. 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 *-aC<sub>z</sub>*, 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 <i>-EEMOO</i> (NØ)				
a.	<i>uuneemoo</i>				
	uun-	<b>-eem</b>	<b>-oo</b>	~'	~
	STM-	<b>-Sfx1</b>	<b>-Sfx2</b>	<b>-L</b>	
		<div style="border-top: 1px solid black; width: 100%;"></div> <div style="text-align: center;">laws</div>			
	'laws'				

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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.

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- (5.105) *[t]* OF /AANTEEMOO IS NOT REANALYSED  
 /aanteemoo  
 /aant- -eem -oo ~'~  
 STM- -SFX1 -SFX2 -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) TWO DIFFERENT SUBGENDERS FOR *-EEMOO* OR *-<EE>-OO*  
 a. NØ SUBGENDER  
*fuufeemoó uren*  
 fuuf- -eem -oo ~'~ uren  
 STM- -SFX1 -SFX2 -L big.N.Pl  
weasels  
 'big weasels'

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### b. NA SUBGENDER

<i>ayeemá uren</i>				
ay-	-eem	-oo	-á	uren
STM-	-SFX1	-SFX2	-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) THE SUFFIX -AAWEE (FR)

- a. *himtaawee*  
 hint- -aw -ee -r~'~  
 STM- -SFX1 -SFX2 -L  
 owls  
 'owls'
- b. *tsuhaawee*  
 tsuh- -aw -ee -r~'~  
 STM- -SFX1 -SFX2 -L  
 lower.backs  
 'lower backs'
- c. *xeeraawee*  
 xeer- -aw -ee -r~'~  
 STM- -SFX1 -SFX2 -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 (NØ)

The suffix -eeri (NØ) occurs on 25 nouns in the sample.

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- (5.108) THE SUFFIX *-EERI* (NØ)
- a. */areeri*  
 /ar- **-eer** **-(a)'i** ~'~  
 STM- **-Sfx1** **-Sfx2** -L  
 tobacco.balls  
 'tobacco balls'
- b. *kwa/eeri*  
 kwa/- **-eer** **-(a)'i** ~'~  
 STM- **-Sfx1** **-Sfx2** -L  
 hares  
 'hares'
- c. *tsifireeri*  
 tsifir- **-eer** **-(a)'i** ~'~  
 STM- **-Sfx1** **-Sfx2** -L  
 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<sub>PL</sub> 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'*  
 murung- **-eem** **-a'(!)** ~'~  
 STM- **-Sfx1** **-Sfx2** -L  
 bellybuttons  
 'bellybuttons'



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- 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'

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- c. *ga/aledu*  
ga/al- **-(a)d** **-u!** ~'~  
STM- **-Sfx1** **-Sfx2** **-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<sub>z</sub>* (Kießling and Mous 2003: 11), which is recognizable as a durative suffix for verbs (see §2.3.2.4), and *u* is the *-u!* Gen<sub>PL</sub> suffix, described above.

### 5.3.5.12 *-aC<sub>zee</sub>* (Fr)

The suffix *-aC<sub>zee</sub>* (Fr) occurs on 23 nouns in the sample, where C<sub>z</sub> represents a reduplication of the final consonant of the stem.

- (5.111) THE SUFFIX *-aC<sub>zee</sub>* (FR)
- a. *himtete*  
himt- **-aC<sub>z</sub>** **-ee** -r~'~  
STM- **-Sfx1** **-Sfx2** **-L**  
metal.necklaces  
'metal necklaces'
- b. *tluwe/e/ee*  
tluwa/- **-aC<sub>z</sub>** **-ee** -r~'~  
STM- **-Sfx1** **-Sfx2** **-L**  
upper.arms  
'upper arms'

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- c. *tuumbabee*  
 tuumb- -aC<sub>z</sub> -ee -r~'~  
 STM- -SFX1 -SFX2 -L  
 pools  
 'pools'

A process of vowel assimilation of the [a] of the suffix allows a process of haplological syncope to take place ( $V \rightarrow \emptyset / C_i \_ C_i$ ). This results in many of these reduplicated forms reducing to feature geminate consonants.

### (5.112) GEMINATE CONSONANTS FORMED FROM THE SUFFIX -aC<sub>z</sub>EE (FR)

- a. *\*fureree*  
 fur- -aC<sub>z</sub> -ee -r~'~  
 STM- -SFX1 -SFX2 -L  
 \*fureree  
 \*fureree → furree  
 'twigs'
- b. *\*ufefee*  
 uf- -aC<sub>z</sub> -ee -r~'~  
 STM- -SFX1 -SFX2 -L  
 \*ufefee  
 \*ufefee → uffee  
 'piles'
- c. *\*kanenee*  
 kan- -aC<sub>z</sub> -ee -r~'~  
 STM- -SFX1 -SFX2 -L  
 \*kanenee  
 \*kanenee → 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.

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- (5.113) REDUPLICATED FORMS IN HEEPE (1930), GEMINATE FORMS IN CURRENT GORWAA
- a. *muunane[e]* → *muunnee* ‘anger’
- b. ‘*alalee* → *allee* ‘house posts’

The suffix *-aC<sub>zee</sub>* (Fr) has an identical form in Alagwa (Mous 2016: 79). No such form exists in Iraqw.

The suffix *-aC<sub>zee</sub>* (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>zu</sub>* (NØ)

The suffix *-aC<sub>zu</sub>* (NØ) occurs on 22 nouns in the sample.

- (5.114) THE SUFFIX *-aC<sub>zu</sub>* (NØ)
- a. */aampupu*  
*/aamp-* *-aC<sub>z</sub>* *-u!* ~'~  
 STM- *-SFX1* *-SFX2* *-L*  
 bird–watching.platforms  
 ‘bird-watching platforms’
- b. *yandudu*  
*yand-* *-aC<sub>z</sub>* *-u!* ~'~  
 STM- *-SFX1* *-SFX2* *-L*  
 hammers  
 ‘hammers’
- c. *afeetlatlu*  
*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 ( $V \rightarrow \emptyset / C_i \_ C_i$ ). 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! ~'~  
 STM-  $-SFX1$   $-SFX2$  -L  
 kinunu  
 kinunu → kinnu  
 'small clay water pots'
- b. *kunnu*  
 kun-  $-aC_z$  -u! ~'~  
 STM-  $-SFX1$   $-SFX2$  -L  
 kununu  
 kununu → 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<sub>PL</sub> 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. The suffix 1: the regular phenomena

- (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
- |                 |            |                |                |             |
|-----------------|------------|----------------|----------------|-------------|
|                 |            | <i>daawa</i>   | suffix: -aa    | ‘medicine’  |
| Sw. <i>dawa</i> | ‘medicine’ | → <i>daaw-</i> |                |             |
|                 |            | <i>daawudu</i> | suffix: -(a)du | ‘medicines’ |
- b. BAMIIYA
- |                  |        |                    |                   |              |
|------------------|--------|--------------------|-------------------|--------------|
|                  |        | <i>bamiyito’oo</i> | suffix: -(i)to’oo | ‘okra fruit’ |
| Sw. <i>bamia</i> | ‘okra’ | → <i>bamiy-</i>    |                   |              |
|                  |        | <i>bamiya</i>      | suffix: -aa       | ‘okra’       |
- (5.118) UNNATIVIZED LOANS
- a. SULEE
- |                  |          |                |   |           |
|------------------|----------|----------------|---|-----------|
|                  |          | <i>sule</i>    | suffix: -ee   | ‘school’  |
| Sw. <i>shule</i> | ‘school’ | → <i>sule-</i> |   |           |
|                  |          | <i>suledu</i>  | suffix: -(a)du<br><b>BUT: [e] still<br/>present on stem</b> | ‘schools’ |
- b. KATAANI
- |                   |         |                   |   |               |
|-------------------|---------|-------------------|---|---------------|
|                   |         | <i>kataanimó</i>  | <b>BUT: [i] still<br/>present on stem</b><br>suffix: -(a)mó | ‘sisal plant’ |
| Sw. <i>katani</i> | ‘sisal’ | → <i>kataani-</i> |   |               |
|                   |         | <i>kataani</i>    | 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

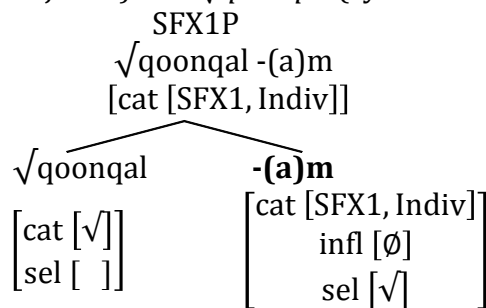
Returning to the morphology of the Gorwaa noun, if nouns which consistently occur with Sg agreement and nouns which consistently occur with Pl agreement (e.g. *qoonqalumó* ‘a crowned crane’ and *qoonqalama* ‘crowned cranes’) are always marked by a composed suffix, and if composed suffixes are different 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 ( $\sqrt{\text{ }}$ ) (5.120).

(5.119) FEATURE STRUCTURE FOR THE LEXICAL ELEMENT SFX1 (VERSION 1)

$$\text{SFX1} \begin{cases} \text{categorical} [\text{SFX1, Indiv}] \\ \text{inflectional} [\emptyset] \\ \text{selectional} [\sqrt{\text{ }}] \end{cases}$$

(5.120) *QOONQALUM*- (VERSION 1)

Merge of SFX1 (syntactic object  $\alpha$ ) and  $\sqrt{\text{qoonqal}}$  (syntactic object  $\beta$ ).



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)
- a.
- qoonqalumó wák*
- |               |       |               |    |     |
|---------------|-------|---------------|----|-----|
| qoonqál-      | -(a)m | - <b>ó</b>    | -ó | wák |
| STM-          | -SFX1 | - <b>Sfx2</b> | -L | one |
| crowned.crane |       |               |    |     |
- "one crowned crane"
- b.
- siyó wák*
- |      |               |    |     |
|------|---------------|----|-----|
| siy- | - <b>ó</b>    | -ó | wák |
| STM- | - <b>Sfx2</b> | -L | one |
| fish |               |    |     |
- "one type of fish"
- c.
- siyó tsár*
- |      |               |    |      |
|------|---------------|----|------|
| siy- | - <b>ó</b>    | -ó | tsár |
| STM- | - <b>Sfx2</b> | -L | two  |
| 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.

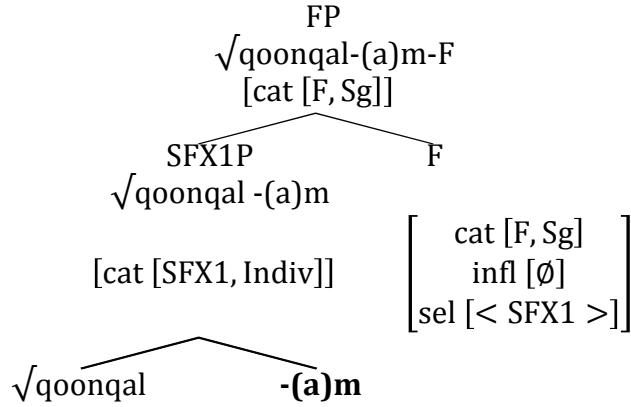
## 5. The suffix 1: the regular phenomena

(5.122) FEATURE STRUCTURE FOR THE LEXICAL ELEMENT F (VERSION 1)

$$F \begin{cases} \text{categorial [F, Sg]} \\ \text{inflectional } [\emptyset] \\ \text{selectional [SFX1]} \end{cases}$$

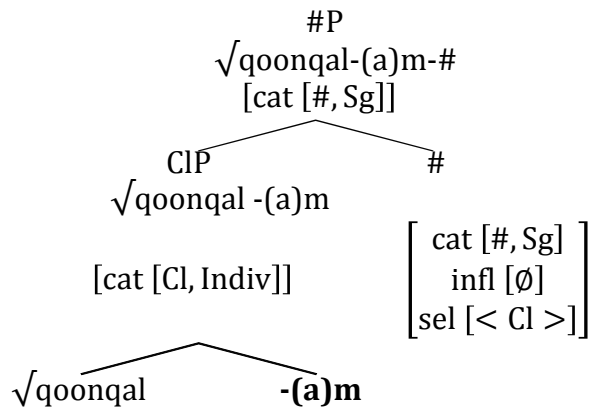
(5.123) *QOONQALUM-* (SG.) (VERSION 1)

Merge of F (syntactic object  $\alpha$ ) and SFX1  $\sqrt{\text{qoonqal-(a)m}}$  (syntactic object  $\beta$ ).



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)



### 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<sup>4</sup>. 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)
- a. STM *TSIFIR* - ATTAINS FULL LEXICAL MEANING WHEN MERGED WITH A SFX2
- tsifiraangw*
- tsifir-** -aangw -ó
- Stm-** -SFX2 -L
- └──────────────────┘
- tongue
- ‘a tongue’
- b. *tsifiri*
- tsifir-** -i -r~’~
- Stm-** -SFX2 -L
- └──────────────────┘
- 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.

<sup>4</sup> For details on how definiteness/indefiniteness is expressed in Gorwaa, see §2.4.1.2, §2.4.1.3, and §2.4.3.

## 5. The suffix 1: the regular phenomena

(5.126) NOUN INCORPORATION CONSTRUCTIONS: LINKER IS ABSENT, BUT SFX2 IS PRESENT

- a. *uga slee-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 saga-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<sup>5</sup>.

(5.127) FEATURE STRUCTURE FOR THE LEXICAL ELEMENT N (VERSION 1)

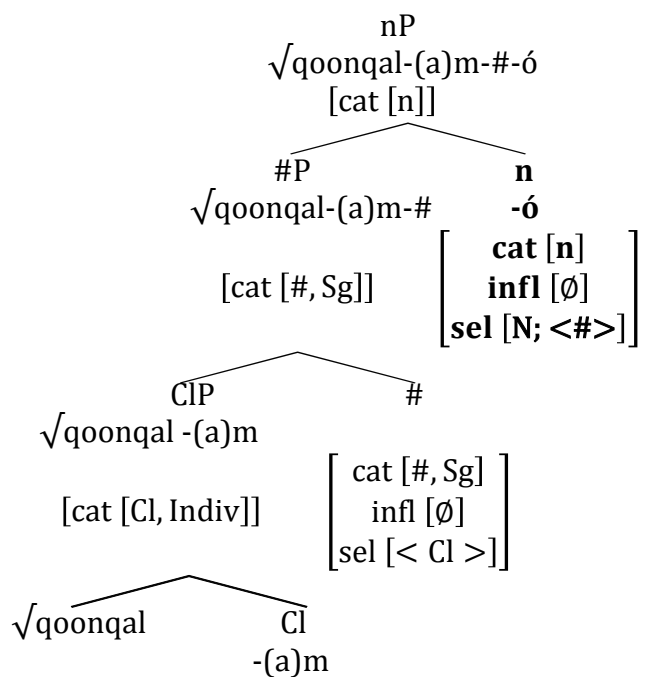
$$n \begin{cases} \text{categorial [n]} \\ \text{inflectional [\emptyset]} \\ \text{selectional [N; \#]} \end{cases}$$

<sup>5</sup> The choice of label for this projection is a conscious one. For more on the motivation behind this, see §6.6.1.

### 5. The suffix 1: the regular phenomena

(5.128) *QOONQALUMÓ* (VERSION 1)

Merge of  $n$  (syntactic object  $\alpha$ ) and  $\sqrt{\text{qoonqal-(a)m-}\#}$  (syntactic object  $\beta$ ).



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  $n_{\text{gen}}$  (n of general number) must select for  $\sqrt{\quad}$ , whereas a  $n_{\text{num}}$  (n of number) selects for #<sup>6</sup>.

(5.129) FEATURE STRUCTURE FOR THE LEXICAL ELEMENT  $N_{GEN}$  VERSUS THAT OF  $N_{NUM}$

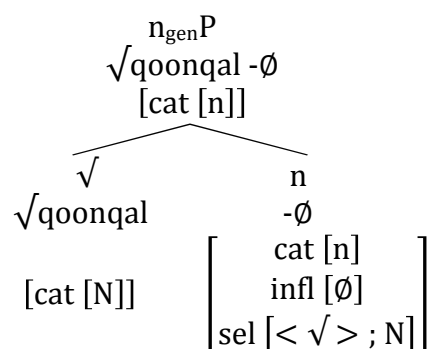
$$n_{\text{gen}} \begin{cases} \text{categorical [n]} \\ \text{inflectional } [\emptyset] \\ \text{selectional } [\sqrt{\cdot}; N] \end{cases} \quad n_{\text{num}} \begin{cases} \text{categorical [n]} \\ \text{inflectional } [\emptyset] \\ \text{selectional } [\#; N] \end{cases}$$

<sup>6</sup> Note that the feature structure for both lexical elements  $n_{\text{gen}}$  and  $n_{\text{num}}$  also posit a category  $N$  in their selectional features. This will be important in Chapter 7, but may be left aside for now.

## 5. The suffix 1: the regular phenomena

(5.130) THE GENERAL NUMBER FORM *QOONQÁL* (VERSION 1)

Merge of  $n_{\text{gen}}$  (syntactic object  $\alpha$ ) and  $\sqrt{\text{qoonqal}}$  (syntactic object  $\beta$ ).



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.*

## 5. The suffix 1: the regular phenomena

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.

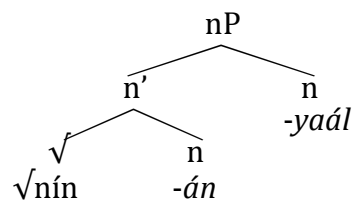
Described in Lecarme (2002: 121-122) for Somali (som: e.g. Somalia) as *plural of plural*, and in Kramer (2014: 12) for Amharic (amh: Ethiopia) as *double plural*, multiple suffixing sees a second suffix attaching to a form which already contains a suffix. This first form is capable of functioning as 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’ → *niman-yaál* ‘(groups of) men’  
 b. IN AMHARIC (FROM KRAMER 2014:  
*näfs* ‘soul’ → *näfs-at* ‘souls’ → *näfsat-ottf* ‘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)



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).

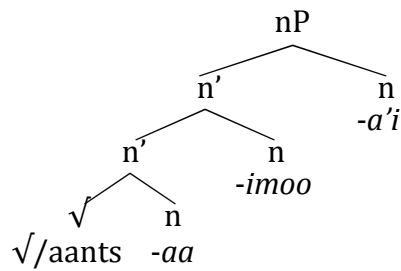
- (5.134) MULTIPLE SUFFIXING IN ALAGWA (FROM MOUS 2016: 70-72)  
*/aantsáa* ‘(a group of) figs’ → */aantsimoo* ‘a fig’ → */aantsima’i* ‘figs’  
 [aants-áa] [aantsaa-**imoo**] [aantsaa**imoo -a’i**]

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.



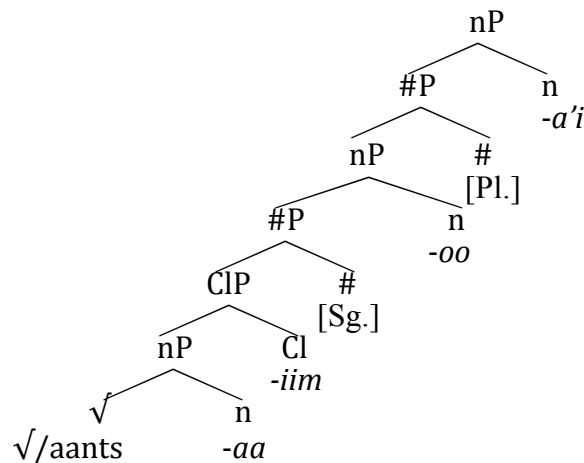
## 5. The suffix 1: the regular phenomena

(5.135) THE MULTIPLE SUFFIX FORM /AANTSIMA'I 'FIGS' IN ALAGWA (VERSION 1)



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)

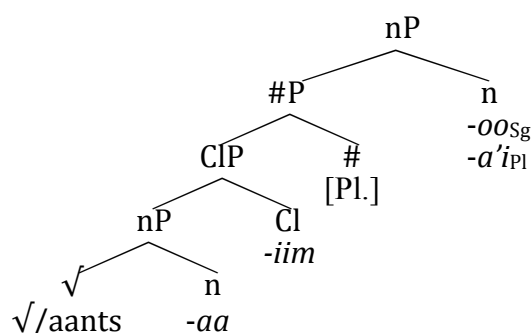


## 5. The suffix 1: the regular phenomena

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.<sup>7</sup>

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)



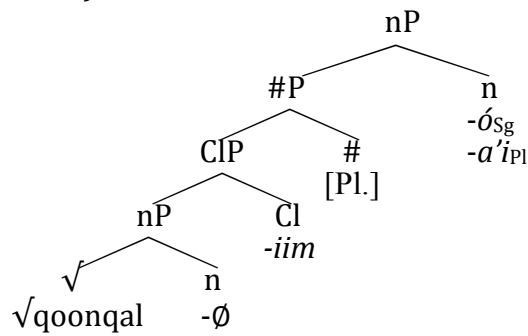
The structure is, in itself, licit: because the lower *n* is of general number, no number value is imposed on the root until that of the higher Cl-# projections.

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).

<sup>7</sup> 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)



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<sup>8</sup>.

(5.139) ‘BROKEN’ PATTERNS: PL FORMS SHOW MORPHOLOGY FROM A SG FORM THAT DOES NOT EXIST (GORWAA)

- |    |                                  |  |                                       |
|----|----------------------------------|--|---------------------------------------|
| a. | <i>kalambeetú</i> ‘honey badger’ |  | <i>kalambeetama</i> ’ ‘honey badgers’ |
| b. | /aanta ‘termite mound’           |  | /aanteemo ‘termite mounds’            |
| c. | <i>iitsaangw</i> ‘jackal’        |  | <i>iitseema</i> ’ ‘jackals’           |

<sup>8</sup> ‘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 unindividuated 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.