

Gender marking on grammatical nominalizations in Sidaama

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ABSTRACT

This study examines gender marking on grammatical nominalizations that function as the heads of noun phrases and as nominal modifiers in Sidaama, a Highland East Cushitic language of Ethiopia. Sidaama has two types of classifying grammatical nominalization markers that distinguish feminine and masculine gender. One type is an enclitic used to form a singular noun phrase, while the other consists of the nominative, genitive, and dative-locative case suffixes. The enclitic occurs with ordinal numerals, genitive noun phrases, relative clauses, and complement clauses, whereas the case suffixes attach to cardinal numerals and adjectives. Both types of markers are analyzed as being included in demonstratives. The present study explores how Shibatani's (2021, 2023) implicational hierarchy accounts for a language with two types of gender nominalization markers. The Sidaama data support his hypothesis concerning the functional dimension, according to which classifying nominalizers are more likely to occur obligatorily with a given nominalization in noun-phrase use than in modification use. However, they diverge from his prediction along the structural dimension, which posits that classifying nominalizers are more likely to occur obligatorily in the following order: numerals, demonstratives, genitive noun phrases, adjectives, and verb-based nominalizations. This paper also discusses why the Sidaama data deviate from Shibatani's prediction along the structural dimension.

1. INTRODUCTION

The present study examines how gender is marked on the following types of structures to derive grammatical nominalizations in Sidaama, a Highland East Cushitic language of Ethiopia (ISO 639-3: sid). (Other types of structures for example, quantifiers and interrogatives, are not discussed here.)

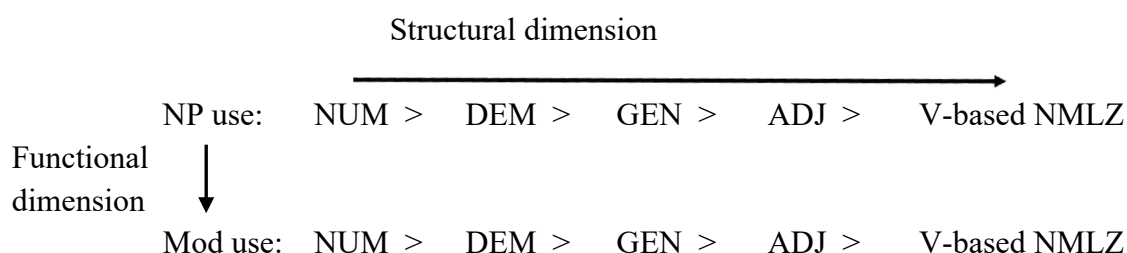
- [1] Numerals ([1a] Cardinal numerals, [1b] Ordinal numerals)
- [2] Demonstratives (demonstrative pronouns/adnominal demonstratives)
- [3] Genitive noun phrases
- [4] Adjectives
- [5] Verb-based nominalizations ([5a] Relative clauses, [5b] Complement clauses)

This language has two types of classifying grammatical nominalization markers: an enclitic used to form a singular noun phrase, and the nominative, the genitive, and the dative-locative case suffixes. The present study examines whether the gender marking pattern of this language conforms to Shibatani's (2021, 2023) hypothesis. Using the implicational hierarchy (Figure 1),

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he hypothesizes that classifying grammatical nominalization markers such as classifiers and gender markers exhibit more marking patterns for the derivation of grammatical nominalizations higher in the hierarchy than those lower down and more for their noun-phrase use (NP use) than for their modification use. He hypothesizes that the use of classifying grammatical nominalization markers develops from numerals downward to other types of structures (along the structural dimension) and from their NP use to their modification use (along the functional dimension).

Figure 1. Hierarchy constraining classifier/gender marking (Shibatani 2023: 35)



The question that the present study addresses is how this hypothesis holds for languages with more than one type of gender nominalization marker.

Of the two types of gender nominalization markers, the noun-phrase enclitic (NPC) attaches to numerals, genitive noun phrases, relative clauses, and complement clauses, and is incorporated into demonstratives (Kawachi 2011). The other type of gender nominalization marker, the nominative, the genitive, and the dative-locative case suffixes, occurs with numerals and adjectives. The Sidaama data support Shibatani's hypothesis in that only numerals can be gender-marked with either type of marker, and gender marking appears to have originated in NP use before extending to modification use. However, unlike other structures—and like nouns—adjectives can take the case suffixes but not the noun-phrase enclitic, similar to nouns. These findings raise further issues for the analysis of gender marking in a language such as Sidaama.

Basic information on Sidaama (Kawachi 2020a, 2023)

Sidaama exhibits a nominative-accusative case-marking system and shows both head-marking and dependent-marking properties. This language is predominantly head-final, with SOV basic word order. When a noun is modified, the noun phrase typically follows the structure {DEM–CARD.NUM–ADJ–REL.CL–GEN–N} or {DEM–ADJ–ORD.NUM–REL.CL–GEN–N}. However, when a relative clause and a genitive noun phrase cooccur within the same noun phrase, the noun-phrase enclitic =*ta* (SG.F)/=*ha* (SG.M)/=*re* (PL) must accompany the relative clause.²

Nouns and adjectives share a few properties. First, both can have up to three types of number forms, morphologically unmarked, singular-suffixed, and plural-suffixed forms.

² Nevertheless, the noun can be followed by cardinal numerals (optionally with the emphatic NPC =*n=ta* (F)/=*n=ka* (M)), demonstratives, and adjectives, and by genitive noun phrases or relative clauses with the NPC. However, ordinal numerals cannot follow the noun.

Second, both can form a noun phrase by themselves. In the case of unmarked forms and singular-suffixed forms, the noun-adjective distinction is most clear-cut for words for inanimates, whose gender is lexically based if they are nouns and depends on the gender of the referent or the lexical item if they are adjectives, is less so for those for animals, whose gender may be lexical or biological, and is blurred for those for humans, whose gender is biologically based. (The genders of plural-suffixed forms for inanimates and many animates are feminine, but those for some animates especially humans depend on the plural suffix, which distinguishes the gender of the referents according to the gender of the allomorph of the case suffix and that of the verb suffix(es).) However, there is one criterion for drawing a line between the noun-adjective continuum: unlike an adjective, whose any grammatical case form can modify a noun, a noun cannot modify another noun except that it can as a possessor when it is in the genitive case. (Nevertheless, there are a small number of words whose unmarked and singular-suffixed forms cannot modify nouns but whose plural forms can.)

Lexical nominalizations are formed through suffixation. Suffixes that nominalize verbs, those that nominalize adjectives, and those that turn nouns into abstract nouns are shown in Table 1, Table 2, and Table 3, respectively, with examples.³

Table 1. Suffixes that nominalize verbs

Suffix	Verb	Noun
-a	giir- 'burn'	giir-a 'flame, burning'
-o	hank- 'become angry'	hank'-o 'anger'
-e	fool- 'breathe'	fool-e 'breath'
-anšo	t'on- 'insult'	t'on-anšo 'insult'
-atto	huučč- 'pray'	huučč'-atto 'prayer'
-ano	mug- 'become sleepy'	mug-ano 'sleepiness'
-ille/-iille	iibb- 'become hot'	iibb-ille 'heat, fever'
-imma	geedđ- 'become old'	geedđ-imma 'old age'
-aančo	ofoll- 'sit'	ofoll-aančo 'seat, chair, someone who sits'
-aasinčo	sut- 'hang'	sut-aasinčo 'hook, swing'
-amaančo	il- 'give birth'	il-amaančo 'new-born baby'

Table 2. Suffixes that nominalize adjectives

Suffix	Adjective	Noun
-imma	gowwa 'foolish'	goww-imma 'foolishness'
-ille	guraččo 'left-handed'	guračč-ille 'left-handedness'
-a	miniweelo 'homeless'	miniweel-a '(instance of) homelessness'

³ The suffix *-a* can attach to almost all verbs to form verbal nouns, which express an abstract action or state change. On the other hand, all the other suffixes that nominalize verbs are each restricted to certain verbs and express more concrete concepts. In this respect, these suffixes could be analyzed as classifying nominalization markers.

Table 3. Suffixes that nominalize nouns to derive abstract nouns

Suffix	Noun	Noun
-imma	k'aakk'o 'baby'	k'aakk'-imma 'babyhood, childlikeness'
-oo'ma	rodoo 'sibling'	rod-oo'ma 'establishing siblinghood'

Nouns derived with these suffixes, which are apparently non-classifying lexical nominalizers, do not appear to form any semantic class. Nevertheless, nouns derived with *-e*, *-anšo*, *-atto*, or *-imma* are all feminine and those derived with *-ille/-iille* or *-oo'ma* are all masculine, though those derived with all the other suffixes can be feminine or masculine. Moreover, the suffixes *-aančo*, *-aasinčo*, and *-amaančo* in Table 1 each contain one of the allomorphs of the singular noun suffix *-čo* and express the singularity of a concrete denotation, unlike the other nominalizing suffixes. (The suffix *-aasinčo* is the causative form of *-aančo* and *-amaančo* is its passive form.)

Sidaama has three non-classifying grammatical nominalization markers, two of which form verb-based nominalizations and the other of which can produce verb-based nominalizations.

First, the infinitive suffix *-a* nominalizes a clause. When the formed noun phrase is in the nominative or the genitive case, it is treated as feminine, as in (1) and (2).⁴

- (1) tumá mur-a hindiidd-i-s-s-u-nke.
onion.ACCOBL cut-INF.NOM.F shed.tears-EP-CAUS-3SG.F-R.PRF.3SG.F-1PL
'Cutting an onion made us shed tears.'
- (2) há'r-a-nke di = danča = te.
leave.and.go-INF.NOM.F-1PL.POSS NEG=good=NP.C.F.PRED
'It is not good that we left/are leaving.' (*lit.*, 'Our leaving is not good.')

Second, one of the complementizers in this language =*gede* (e.g., (3)) nominalizes a complement clause (Kawachi 2020b: 696, 710). This clitic, which is invariant in form, does not make a gender distinction.

- (3) hakkunní gedensaanni, šoól-u = n = ku
that.M.GEN after four-NOM.M=EMPH=NP.C.NOM.M
mitte-é-nni sikk'-uwá mur-t-e
one.F-LV-ABLINS stick-PL.ACCOBL cut-3PL-CVB
abb-i-t-anno = gede haǰaǰ-ø-i-nsa.
bring-EP-3PL-IPFV.3=COMP order-3SG.M-R.PRF.3SG.M-3PL
'After that, he ordered all the four to cut the sticks and bring them at the same time.'
(adapted from Kaarricha et al. 2021: 36)

⁴ The subject of the nominalized verb appears in the nominative case when the verb is transitive (e.g., *áti tumá mur-a* 'Your (SG) cutting an onion' in (1)), and it is either in the nominative case or the genitive case when the verb is intransitive (e.g., *nínke ha'r-a* (1PL.NOM leave.and.go-INF.NOM.F)/*nínke ha'r-a-nke* (1PL.NOM leave.and.go-INF.NOM.F-1PL.POSS), *ninké ha'r-a* (1PL.GEN leave.and.go-INF.NOM.F)) 'our leaving' in (2)).

Third, the locational enclitic = *wa* ‘at/to the (...) location (of/where/that) ...’ (nominative and genitive: = *wɪ*) is used to form a noun phrase referring to a location or a goal of motion.⁵ This enclitic attaches to a numeral (either cardinal or ordinal), an adjective (e.g., (4)), a genitive noun phrase (e.g., (5)), or a relative clause to form a noun phrase without a noun (not to function as a noun modifier).

- (4) ... t’a k’arr-am-i-tt-o-kki-nni
 now cause.problem-PASS-R.PRF.2-2SG-M-NEG-ABLINS
 múlla = wa ka’-ø-e boo’-n-oo-tt-o = na, ...
 empty=place start-3SG.M-CVB brag-MID-brag-D.PRF.2-2SG-M=so
 ‘... now without getting into a problem, in the place where there is no problem (*lit.*, the empty place), you (SG.M) started to talk and bragged yourself, so ...’ (Story: ‘K’arrantukkinni lik’iidde kaffaltukki-nni reitino’)

- (5) ... mánčo weesé hok-k’-i-t-á-nni
 person.NOM.F enset.ACCOBL process.enset-MID-EP-3SG.F-INF-ABLINS
 no-o = té = wa mar-t-ino.
 come.to.exist.D.PRF.3-LV=NPC.F.GEN=place go-3SG.F-D.PRF.3
 ‘... she (the bird) went to a woman’s place where she (the woman) was processing enset.’
 (Story: ‘Waanje dagge’)

Data sources

The present author examined data collected during twenty-five field trips to the Sidaama National Regional State, Ethiopia, each lasting two-and-a-half to five weeks, conducted from 2008 to the present. The data presented in this paper comes from conversations, folk tales, true stories, published written materials, and forms elicited from the author’s consultants, as well as speakers’ descriptions of video clips, specifically those for the Causality across Languages project designed by Jürgen Bohnemeyer and Erika Bellingham (Kawachi et al. 2018, 2020, Bellingham et al. 2020, Kawachi in press a, in press b), those for the NINJAL MEDAL motion project (Matsumoto 2025) designed by Yo Matsumoto (Kawachi 2025), and memory-based descriptions of Chafe’s (1980) Pear Film.

2. OVERVIEW OF GENDER MARKING AND GRAMMATICAL NOMINALIZATIONS IN SIDAAMA

2.1 Gender marking in Sidaama

Sidaama makes a gender distinction between feminine and masculine.⁶ Most nouns are assigned lexical gender. The biological gender distinction appears overtly on gender suffixes on some nouns and adjectives. There are various grammatical categories that make a gender

⁵ The clitic = *wa* could be analyzed as a classifying grammatical nominalization marker in that it attaches to elements that do not denote a location. For nominals that denote a location, the dative-locative suffix is used to express a location or a goal of motion (e.g., *ros-ú min-i-ra* (education-GEN.M house-GEN.M.MOD-DATLOC.MOD) ‘at/to school’). Therefore, this language differentiates two types of nominals.

⁶ When the denotation or the referent is unidentifiable, masculine gender is used as a default gender.

distinction: the numeral ‘one’, pronouns, verb suffixes, the noun-phrase enclitic, and the case suffixes. The most relevant to the present study are the noun-phrase enclitic and the case suffixes, which are classifying grammatical nominalization markers.

Gender suffixes on singular nouns and adjectives

The singular-suffixed forms of some nouns and adjectives have two different gender forms, feminine and masculine forms, as shown in Table 4.⁷ The distinction between these forms is based on the biological gender in the case of a human referent and on the lexical gender of the noun that would refer to an inanimate referent. (Many of such adjectives additionally have singular-suffixed forms with no gender distinction, as in Table 4.) Those words that can modify nouns are analyzed (e.g., the last four items in Table 4) as adjectives, though their genitive case forms (as a possessor noun phrase) can also modify nouns. (In the case of nouns (e.g., the first three items in Table 4), only their genitive case forms can modify other nouns.)

Table 4. Gender suffixes on singular nouns and adjectives

FEM	MASC	gender-unspecified	gloss
jaal-itte	jaal-ičča	jaal-iččo	‘friend’
fiit’-itte	fiit’-ičča	fiit’-iččo	‘relative’
murr-itte	murr-ičča	—	‘leader (of a local organization)’
hojjaam-eette	hojjaam-eessa	hojjaam-eessiččo	‘tall’
dur-eette	dur-eessa	dur-eessiččo	‘rich’
bull-itte	bull-ičča	bull-iččo	‘gray, brown’
airr-aditte	airr-adičča	airr-adiččo (for a human referent only)	‘heavy (for inanimates and animals), respected (for humans)’
hank’-aaleette	hank’-aaleessa	hank’-aaleessiččo	‘becoming angry easily’

Numeral for ‘one’

The cardinal numeral for ‘one’ makes the gender distinction with the two gender forms, *mitte* (F) and *mitto* (M), unlike other cardinal numerals.

Pronouns

Pronouns also make the gender distinction only for the third-person singular, as shown in Table 5.

⁷ Some of such nouns and adjectives have morphologically number-unmarked forms (e.g., *jaala* ‘friend’, *fiit’a* ‘relative’) or verbs from which they derived (e.g., *airr-* ‘become heavy, become respected’, *hank’-* ‘become angry’). Therefore, the gender suffixes and the gender-unspecified singular suffix could be analyzed as classifying grammatical nominalization markers.

Table 5. Pronouns

PERS/NUM(/GENDER)		NOM	ACC	GEN	DAT
1SG		ani	ané	ané	ané-ra
2SG		ati	até	até	até-ra
3SG	F	ise	isé	isé	isé-ra
	M	isi	isó	isí	isí-ra
1PL		ninke	ninké	ninké	ninké-ra
2PL		ki'ne	ki'né	ki'né	ki'né-ra
3PL		insa	insá	insá	insá-ra

Verb suffixes

The gender distinction is made for the first-person subject with the gender suffix on a finite verb and for the third-person singular subject with allomorphs of the recent perfect suffix and with those of the person/number suffix, as in Table 6.⁸

Table 6. Aspect suffixes and subject person/number suffixes, and subject gender suffixes on the verb

PERS/ NUM (/GEND)	V-suffixes	ASPECT			PERS/ NUM	GEND	
		IMPRF	R.PRF	D.PRF		F	M
1SG	V-ASP-PERS/NUM-GEND	-ee	-u	-oo	-mm	-a	-o
2SG	V-ASP-PERS/NUM-GEND	-a	-i	-oo	-tt	-a	-o
3SG.M	V-PERS/NUM/GEND-ASP	-anno	-i	-ino	-ø	—	
3SG.F/ 3PL	V-PERS/NUM(/GEND)- ASP	-anno	-u	-ino	-t	—	
1PL	V-PERS/NUM-AS-PERS	-ee	-u	-oo	-n -mmo	—	
2PL	V-PERS/NUM-ASP	-anni	-i	-oonni (-ooi)	-tin	—	

The third-person subject suffix on non-finite verbs (with the infinitive suffix, the connective-converb suffix, or the instrumental-converb suffix) makes the gender distinction only for a third person (3SG.F/PL: -t, 3SG.M: -ø).

The pronominal object suffix makes the gender distinction only for the third person, as in Table 7.

⁸ The suffixes for the third-person singular feminine and the third-person plural are identical. In the glosses of examples, the present study uses 3SG.F/PL when the subject is in the plural and 3SG.F when the subject is in the singular.

Table 7. Pronominal object person/number(/gender) suffix

PERS/NUM(/GEND)		Pronominal object suffix
1SG		-’e
2SG		-he
3SG	F	-se
	M	-si
1PL		-nke
2PL		-’ne
3PL		-nsa

Noun-phrase enclitic

Sidaama has two types of noun-phrase enclitics (NPCs), (i) the (non-locational or general) NPC =*ta* (SG.F)/=*ha* (SG.M)/=*re* (PL) (in the accusative-oblique case), whose singular forms appear to originate from the proto-Afro-Asiatic demonstratives containing *t* (FEM)/*k* (MASC) (Kawachi 2011, 2020b: 683–684), and (ii) the locational NPC =*wa* ‘at/to the (...) location (of/where/that) ...’ (Section 1). Neither type of NPC attaches to nouns unless they are in the genitive case. This paper focuses on the former type, whose main function is the formation of a noun phrase with certain kinds of structures through nominalization without using a noun.

The NPC takes different forms depending on the grammatical case of a noun phrase constituted with it (Table 8).⁹ The dative-locative and the ablative-instrumental case forms of the NPC are formed with its genitive form with the dative-locative and the ablative-instrumental case suffixes, respectively. The accusative-oblique case forms of the NPC, which show no syncretism with any other case forms, are used as their representative forms, though it is not clear which case form is the most basic. The vowels in the NPC forms right after *t*(F)/*h*(M) can be analyzed as case suffixes that also make the gender distinction: *i* vs. *u* for the nominative, *e* vs. *u* for the genitive, and *e* vs. *o* for the predicative. (The feminine NPC in the genitive case =*te* is identical in form with the genitive and the dative-locative case suffixes for Unmodified feminine noun phrases -*te*.)

Table 8. Different case forms of the NPC =*ta* (F)/=*ha* (M)/=*re* (PL)

	ACCOBL	NOM	GEN	DATLOC	ABLINS	PRED
FEM	= <i>ta</i>	= <i>ti</i>	= <i>te</i>	= <i>te-ra</i>	= <i>te-nni</i>	= <i>te</i>
MASC	= <i>ha</i>	= <i>hu</i>	= <i>hu</i>	= <i>hu-ra</i>	= <i>hu-nni</i>	= <i>ho</i>
“Mod”.N/PROP.N/PRON						= <i>ti</i>
PL	= <i>re</i>	= <i>ri</i>	= <i>ri</i>	= <i>ri-ra</i>	= <i>ri-nni</i>	—

The plural NPC =*re*, which is used for plural referents, forms an argument, but not a predicate.¹⁰

⁹ The NPC also occurs in the cleft and the pseudo-cleft constructions (Kawachi 2020b: 726–731).

¹⁰ When a noun phrase constituted with =*re* is a predicate, it is followed by the predicative NPC =*ti* (e.g., *ané=re-e=ti* (1SG.GEN=NPC.PL.ACC-LV=NPC.PRED) ‘X are mine’).

The NPC *=ta* (F)/*=ha* (M)/*=re* (PL) has both NP and modification uses. In either use, the formed noun phrase is usually definite, though it is not necessarily definite when it is a predicate. Nevertheless, there are cases where the NPC appears out of context, even at the beginning of discourse. In such cases, the noun phrase is interpreted by default as having a generic referent, which the speaker and the hearer have shared knowledge about: a noun phrase formed with *=ta* (F) refers to ‘woman’ or ‘thing (propensity)’, whereas one formed with *=ha* (M) refers to ‘person’, ‘thing (object)’, or ‘thing (event)’.

There are differences between the singular NPC *=ta* (F)/*=ha* (M) and the plural NPC *=re* (PL). The former seems to be more grammaticalized than the latter.¹¹ The singular NPC can occur to form a predicate noun phrase (see Appendix 2 for examples), whereas the plural NPC cannot. The singular NPC makes the gender distinction, but the plural NPC does not. The present study focuses on the singular NPC as a gender-classifying nominalization marker, though the singular NPC and the plural NPC as a whole could be analyzed as a pair of number-classifying nominalization markers.

Case suffixes on nouns and on grammatical nominalizations

The case-marking system of Sidaama is nominative-accusative. The nominative, the genitive, and the dative-locative cases make the gender distinction with different allomorphs, as shown in Table 9. Another distinction between the masculine allomorphs of the nominative, between the allomorphs of the genitive suffixes, and between the allomorphs of the dative-locative suffix is based on the “Modification” distinction (Kawachi and Tekleselassie 2012) (capitalized as MOD and UNMOD for ‘Modified’ and ‘Unmodified’), which concerns whether or not a common noun is accompanied by a grammatical nominalization in its modification use (i.e., a noun modifier) and/or the possessive pronominal suffix.

Table 9. Allomorphs of case suffixes

Case	NOM		GEN		DAT-LOC	
Modification	UNMOD	MOD	UNMOD	MOD	UNMOD	MOD
Gender						
FEM	-∅		-te	-∅	-te	-ra
MASC	-u	-i	-u	-i	-ho	

The accusative case is marked only with a suprafix, which is realized as a high pitch on the ultimate vowel, rather than the penultimate vowel, where a high pitch occurs in citation and nominative noun forms. The location of the suprafix depends on the (syntactic) modification distinction, namely, whether or not a common noun is accompanied by any grammatical

¹¹ The referents of noun phrases formed with the singular NPC *=ta* (F)/*=ha* (M) are neutral as to animacy – they can be either animate or inanimate, regardless of NP vs. modification use. On the other hand, while *=re* as the plural of the NPC in modification use is also neutral as to animacy, the referents of noun phrases formed with the plural NPC *=re* as used in NP use have to be animate (except for demonstratives).

The enclitic *=re* has another function as the plural of the enclitic *=riččo* ‘thing’. (Both forms are bound morphemes, which cannot stand alone.) See Appendix 1 for differences between the plural NPC *=re* and *=re* as the plural of *=riččo*.

nominalization in its modification use. When common nouns are modified, the suprafix occurs on the grammatical nominalizations in their modification use. (However, when a grammatical nominalization with the noun-phrase enclitic modifies a common noun, the noun also takes the suprafix.)

2.2 Grammatical nominalizations in Sidaama

Cardinal numerals with or without the NPC can stand alone to form a noun phrase without a noun and can modify a noun. Demonstratives, which can be analyzed as containing the NPC, can also be an independent noun phrase by themselves and be a modifier of a noun. Adjectives, to which the NPC cannot attach, can stand by themselves to form a noun phrase without a noun and can modify a noun. Without the NPC added to them, ordinal numerals, genitive noun phrases, and relative clauses can each be a noun modifier, but cannot form a noun phrase by themselves. Complement clauses without the NPC can neither form a noun phrase alone nor modify a noun.

Genitive noun phrases, relative clauses, and complement clauses must each take the NPC to form a noun phrase without a noun by themselves. In this case, the NPC makes the gender distinction of the formed noun phrase, though complement clauses take the feminine form =*ta* in most cases (Section 3.1-[5b]).

Like nouns (common nouns and some proper nouns), cardinal numerals (without the NPC) and adjectives both in their NP use and modification use inflect for case. Because the nominative, the genitive, and the dative-locative case suffixes have different gender allomorphs (described in Section 2.1 and summarized in Table 9), like nouns, these types of nominalizations make the gender distinction with the allomorphs of the case suffixes. Demonstratives, which can be analyzed as containing the NPC, are also marked for gender with the allomorphs of the case suffixes included in them.

On the other hand, when not accompanied by the NPC, ordinal numerals, relative clauses, and complement clauses do not change their forms regardless of the grammatical case of the noun phrase. Genitive noun phrases are in the genitive case by definition.

[1] Numerals

Cardinal numerals and corresponding ordinal numerals take forms morphologically related to each other, as exemplified in Table 10. Numerals make the gender distinction for the nominative, the genitive, and the dative-locative cases with different case forms, but not for the accusative-oblique case. Only the cardinal numeral for ‘one’ *mitte* (F)/*mitto* (M) and those containing it make the gender distinction with these two gender forms even when they are in the accusative-oblique case. (The citation form for ‘one’ *mitto* and forms containing it (e.g., ‘11’, ‘21’) are used only when saying the numbers in isolation. The counting form for ‘one’ *mite* and forms containing it are used exclusively in counting.)

Table 10. Examples of cardinal and ordinal numerals in Sidaama

Number	Cardinal numeral	Ordinal numeral
1	mítte (F)/mítto (M) (citation form: mítto, counting form: míte)	mitikkí/umikkí/umí ¹²
2	láme	lainkí
3	sáse	saikkí
4	šoóle	šoolkí
5	ónte	ontikkí
6	lée	leikkí
7	lamála	lamalkí
8	sétte	settikkí
9	hónse	honsikkí
10	tónne	tonnikkí
20	lemóo	lemiikkí
21	lemií = na mítte (F)/lemií = na mítto (M) (citation form: lemiina mítto, counting form: lemiina míte)	lemií = na mitikkí
30	saǰǰoo	saǰǰiikkí
32	saǰǰií = na láme (30=and two)	saǰǰií = na lainkí (30=and second)

[2] Demonstratives

The demonstratives in Sidaama make a four-way distinction between proximal (‘close to the speaker’), medial (‘close to the addressee or somewhat close to but not far from the speaker’), and two distals (‘far from the speaker’ and ‘very far from the speaker’). There are two types of demonstratives, (i) demonstrative pronouns/adnominal demonstratives (Table 11 and Table 12), which locate entities and (ii) place demonstrative pronouns (e.g., *kawiiččo/kowiiččo* ‘this place’), which mainly express locations. The present study deals only with the first type, whose singular forms make the gender distinction. The singular demonstratives, which preserve the proto-Afro-Asiatic demonstrative *t* (F) vs. *k* (M) contrast, seem to be cognate with the NPC *=ta* (F)/*=ha* (M), and the plural ones clearly contain *=re* (PL).¹³ The present study analyzes the singular demonstrative forms as containing part of the NPC *t* (F)/*k* (M) and the vowels after *t* (F)/*k* (M) as making the gender distinction with variants of the case suffixes: *i* vs. *u* for the nominative and *e* vs. *o* for the genitive and the accusative-oblique. Therefore, each singular demonstrative contains the NPC and one of the case suffixes, both of which make the gender distinction.

¹² Of the three ordinal numeral forms meaning ‘first’, *mitikkí* and *umikkí/umí* differ in their use with animate referents. Unlike *umikkí* and *umí*, which are restricted to contexts of ranking (‘first-ranked’) or birth (‘first-born’), *mitikkí* is used in contexts including ranking, but not for birth. When the referent is inanimate, there are no contextual restrictions. All other ordinal numerals have only one form and are used regardless of context.

¹³ Sasse (1984) hypothesizes that the masculine demonstratives in East Cushitic languages developed from **ku* (nominative) and **ka* (accusative) to **hu* (nominative) and **ha* (accusative).

Table 11. Singular demonstratives¹⁴

Category	GEND	NOM	GEN	ACCOBL
‘this (one)’	F	tíni	tenné/te/teé/teyí	teé/tenné/te
	M	kúni	konní/ko/koí	koé/konné/ko
‘that (one)’	F	hátti	hattenné/hatté	hatteé/hattenné
	M	hákku	hakkuí/hakkó/hakkonní	hakkoé/hakkonné/hakkó
‘(the one) over there’	F	tií’i	tee’enné/tee’eé	tee’enné/tee’eé
	M	kuú’u	koo’onní/koo’í/koo’ó/koo’uí	koo’onné/koo’oé
‘(the one) way over there’	F	tí’’i	te’’enné/te’’eé	te’’enné/te’’eé
	M	kú’’u	ko’’onní/ko’’ó/ko’’uí	ko’’onné/ko’’oé

Table 12. Plural demonstratives¹⁵

Category	NOM	GEN	ACCOBL
‘these (ones)’ (F/M)	kúri	kurí	koré
‘those (ones)’ (F/M)	hakkúri	hakkurí	hakkoré
‘(the ones) over there’ (F/M)	kuu’úri	kuu’urí	koo’oré
‘(the ones) way over there’ (F/M)	ku’’úri	ku’’urí	ko’’oré

[3] Genitive noun phrases

Genitive noun phrases themselves do not make a gender distinction for possessums.

Genitive noun phrases that are not pronominal take the form of either (i) nouns in the genitive (or those modified by nominalizations in their modification use) or (ii) nominalizations in their NP use in the genitive (or those modified by nominalizations in their modification use). Genitive noun phrases of the second type lack a noun.

Genitive pronouns, which refer to possessors, have different gender forms only for the third-person singular, as shown in the column for the genitive case of Table 5.

[4] Adjectives

As briefly mentioned in Section 1, the distinction between adjectives and nouns is not clear for words for humans. The present study regards those lexemes whose non-genitive as well as genitive forms can modify nouns as adjectives.

[5] Verb-based nominalizations (specifically, relative clauses and complement clauses)

A relative clause in this language uses no relative pronoun. A relative clause is formed either by means of the gapping strategy or pronominal retention (Kawachi 2020b: 685–688). The verb of the relative clause can be in any of its aspectual forms used as a matrix verb: imperfective, distant perfect, recent perfect, continuous, or progressive aspect.

In addition to the non-classifying nominalizer as one of the complementizers in this language =*gede* (e.g., (3)), the singular NPC =*ta* (SG.F) can form a complement clause as the

¹⁴ The genitive forms *te*, *ko*, *hakkó*, *koo’ó*, and *ko’’ó* and the accusative-oblique forms *te*, *ko*, and *hakkó* each have only modification use, but no NP use.

¹⁵ The plural demonstrative forms each have both NP use and modification use.

complementizer except that only the verb *lab-* ‘appear, seem’ takes *=ha* (SG.M) as its complementizer.

3. DATA

This section presents data on gender marking on grammatical nominalizations with the singular noun-phrase clitic (NPC) (Section 3.1) and with the nominative and the genitive case suffixes (Section 3.2). Figure 2 summarizes the distributions of the gender marking with both the NPC and the case suffixes for grammatical nominalizations at the same time in Shibatani’s (2021, 2023) implicational hierarchy, simplifying complexity of phenomena that are difficult to analyze (discussed shortly).

Figure 2. Gender marking on five types of grammatical nominalizations with the noun-phrase enclitic *=ta* (F)/*=ha* (M) and the nominative, the genitive, and the dative-locative case suffixes (Figure 3 and Figure 5 combined)

NP use:

case	CARD.NUM/ >	both	DEM >	NPC	GEN >	case	ADJ >	NPC	REL.CL/	
	NPC								NPC	COMP.CL
	ORD.NUM									

Mod use:

case	CARD.NUM/ >	both	DEM >	(NPCOPT)	GEN >	case	ADJ >	(NPCOPT)	REL.CL/
	(NPCOPT)								*COMP.CL
	ORD.NUM								

NPC: gender is marked with NPC (the use of NPC is obligatory for the formation of a noun phrase)

(NPCOPT): gender is optionally marked with NPC

both: including NPC and the nominative, genitive, or dative-locative case suffix

case: gender is marked with the nominative, genitive, or dative-locative case suffix

*: impossible

3.1 Gender marking with the noun-phrase enclitic

Figure 3 presents the use of the NPC to mark gender on grammatical nominalizations in Shibatani’s implicational hierarchy.¹⁶

¹⁶ From this section onward in the main text, the NPC refers to the singular NPC *=ta* (F)/*=ha* (M) and excludes the plural NPC, which is described in Appendix 1.

Figure 3. Gender marking on five types of grammatical nominalizations with the noun-phrase enclitic =*ta* (F)/ =*ha* (M)

NP use:

EMPH	CARD.NUM/ >	OBL	DEM >	OBL	GEN >	*ADJ >	OBL	REL.CL/
						(ADJ- <i>iidi</i>)		
OBL	ORD.NUM						OBL	COMP.CL

Mod use:

EMPH	CARD.NUM/ >	OBL	DEM >	OPT	GEN >	*ADJ >	OPT	REL.CL/
						(ADJ- <i>iidi</i>)		
OPT	ORD.NUM						*COMP.CL	

- OBL: obligatorily marked for gender with NPC (the use of NPC is obligatory for the formation of a noun phrase) or analyzed as including NPC
- OPT: optional (The NPC is optionally used, but without it, gender is not marked.)
- EMPH: optional and emphatic (The NPC is optionally used for emphasis, but without it, gender can be marked with the nominative, genitive, or dative-locative case suffix.)
- ADJ-*iidi* can attach to an adjective with the comparative/superlative suffix ADJ-*iidi*
- *: impossible (The NPC cannot attach to the structure.)

Figure 4 shows whether the fact of Modification is indicated with the nominative and the genitive suffixes on a masculine noun that the grammatical nominalization with the NPC modifies: their allomorph for Modified nouns is *-i* and that for Unmodified nouns is *-u*. (There is not sufficient data on the dative-locative suffix.)

Figure 4. Allomorphs of the nominative and the genitive suffixes on a masculine noun modified by the grammatical nominalization

Mod use:

-i	CARD.NUM/ >	-i(-u)	DEM >	-u	GEN >	*ADJ >	-i/-u	REL.CL/
						(-u ADJ- <i>iidi</i>)		
-u	ORD.NUM						*COMP.CL	

- i: The allomorph for Modified nouns must be used.
- u: The allomorph for Unmodified nouns must be used.
- i/-u: Either allomorph can be used.
- i(-u): The allomorph for Modified nouns is usually used, but it is possible to use that for Unmodified nouns.
- ADJ-*iidi* can attach to an adjective with the comparative/superlative suffix ADJ-*iidi*
- *: impossible (The case suffixes cannot attach to the structure.)

NP use

- (10) *sás-u = n = ku* *uw-ø-i.*
 three-NOM.M=EMP=NPC.M.NOM fall-3SG.M-R.PRF.3SG.M
 ‘All the three (M) (DEF) fell down.’
- (11) *sáse = n = ti* *ub-b-u.*
 three.NOM.F=EMP=NPC.F.NOM fall-3SG.F/3PL-R.PRF.3SG.F/3PL
 ‘All the three (F) (DEF) fell down.’

Mod use

- (12) *láme = n = ti* *ooso*
 two.NOM.F=EMP=NPC.F.NOM child.PL.NOM.F(mod)
*ub-b-u/*uw-ø-i.*
 fall-3SG.F/3PL-R.PRF.3SG.F/3PL/fall-3SG.M-R.PRF.3SG.M
 ‘Both children (gender unspecified) (DEF) fell down.’
 (Compare: *láme ooso ub-b-u.* (The) two children (gender unspecified) (DEF/INDEF) fell down.)
- (13) *sás-u = n = ku* *mann-i/*mann-u*
 three-NOM.M=EMP=NPC.M.NOM people-NOM.M.MOD/people-NOM.M
dag-g-u.
 come-3SG.F/3PL-R.PRF.3SG.F/3PL
 ‘All the three people (gender unspecified) (DEF) came.’
 (Compare: *sásu manni dag-g-u.* (The) three people (gender unspecified) (DEF/INDEF) came.)
- (14) *sás-u = n = ku/*sáse = n = ti*
 three-NOM.M=EMP=NPC.M.NOM/three.NOM.F=EMP=NPC.F.NOM
*mann-i/*mann-u* *da-ø-i.*
 people-NOM.M.MOD/people-NOM.M come-3SG.M-R.PRF.3SG.M
 ‘All the three men (DEF) came.’
- (15) *sás-u = n = ku*
 three-NOM.M=EMP=NPC.M.NOM
*manč-i/beett-i/*manč-u/*beett-u*
 person-NOM.M.MOD/child-NOM.M.MOD/person-NOM.M/child-NOM.M
*da-ø-i/*dag-g-u.*
 come-3SG.M-R.PRF.3SG.M/come-3SG.F/3PL-R.PRF.3SG.F/3PL
 ‘All the three men/boys came.’

- (16) *sáse = n = ti* *mančo/beetto*
 three.NOM.F=EMP=NPC.F.NOM person.NOM.F(mod)/child.NOM.F(mod)
*dag-g-u/*da-ø-i.*
 come-3SG.F/3PL-R.PRF.3SG.F/3PL/come-3SG.M-R.PRF.3SG.M
 ‘All the three women/girls came.’

The gender of the referent of the noun phrase with a numeral other than ‘one’ is unspecified unless the numeral modifies a singular noun whose gender depends on the biological gender of the referent (e.g., (15), (16)). (Because the default gender is masculine, the use of the feminine NPC can be used to indicate the feminine gender of the referent, e.g., (18), (20) below.)

The emphatic NPC *=n=ta* (F)/*=n=ka* (M) can occur with the numeral for ‘one’ in a negative sentence to express ‘not even a single ...’ (e.g., (17)–(20)), in which case the formed noun phrase is not definite.

NP use

- (17) *mítt-u = n = ku*
 one-NOM.M=EMP=NPC.M.NOM
*di = da-ø-ino/*di = dag-g-ino.*
 NEG=come-3SG.M-D.PRF.3/NEG=come-3SG.F/3PL-D.PRF.3
 ‘Not even a single man/masculine thing came.’ or ‘Not even a person/thing came.’
- (18) *mítte = n = ti* *di = dag-g-ino.*
 one.NOM.F=EMP=NPC.F.NOM NEG=come-3SG.F-D.PRF.3
 ‘Not even a single woman/feminine thing came.’

Mod use

- (19) *mítt-u = n = ku* *manč-i/*manč-u*
 one-NOM.M=EMP=NPC.M.NOM person-NOM.M.MOD/person-NOM.M
di = da-ø-ino.
 NEG=come-3SG.M-D.PRF.3
 ‘Not even a single man came.’ or ‘Not even a single person came.’
- (20) *mítte = n = ti* *mančo*
 one.NOM.F=EMP=NPC.F.NOM person.NOM.F(mod)
di = dag-g-ino.
 NEG=come-3SG.F-D.PRF.3
 ‘Not even a single woman came.’

[1b] Ordinal numerals

The NPC can attach to an ordinal numeral to form a noun phrase (e.g., (21), (22)). An ordinal numeral with the NPC seems to modify a noun (e.g., (23)), but the fact of Modification cannot be conveyed by the use of the allomorph of the nominative or the genitive suffix on a

Modified masculine noun *-i*. For example, in (23), the allomorph for an Unmodified masculine noun *-u* must be used, but that for a Modified masculine noun *-i* cannot be used.

NP use

- (21) saikkí = hu di = no.
 third=NPC.M.NOM NEG=come.to.exist.D.PRF.3
 ‘The third one (M) is missing.’ (Pear 12-(13)/13-(7))

- (22) (Talking about a marathon race)

GG: etiopp’íy-u meekkíha ful-ø-i?
 Ethiopia-NOM.M which.rank.M.NOM exit/ascend-3SG.M-R.PRF.3SG.M
 ‘Which rank did Ethiopia get?’
 KA: saikkí = ha ful-ø-ino.
 third=NPC.M.ACCOBL exit/ascend-3SG.M-D.PRF.3
 ‘Ethiopia got the third rank.’ (Conversation 2023.8-5: K.A. & G.G.)

Mod use

- (23) saikkí = hu gimbool-u/*gimbool-i
 third=NPC.M.NOM basket-NOM.M/basket-NOM.M.MOD
 di = no.
 NEG=come.to.exist.D.PRF.3
 ‘The third basket is missing.’

[2] Demonstratives

As stated in Section 2.2, the present study analyzes the singular demonstratives as containing the NPC and one of the case suffixes, which both make the gender distinction. (24) and (25) are examples of NP use and (26) and (27) are ones of modification use. In modification use, when the Modified noun is masculine and is in the nominative or the genitive, the fact of Modification is usually indicated by the selection of the allomorph for a Modified noun *-i* (e.g., (27a)), but the allomorph for an Unmodified noun *-u* can occur (e.g., (27b)), though its use is less common and is restricted to informal speech.

NP use

- (24) hakkonné fe-ø-e fe-ø-e ...
 that.M.ACC clean-3SG.M-CVB clean-3SG.M-CVB
 ‘He cleaned that one (M) repeatedly, and ...’ (Pear 21-(1))

- (25) kúni dánča = ho.
 this.M.NOM good=NPC.M.PRED
 ‘This (M) is good.’

Mod use

- (26) hakkonné guma fe-ø-e fe-ø-e ...
 that.M.ACC fruit.ACCOBL(mod) clean-3SG.M-CVB clean-3SG.M-CVB
 ‘He cleaned that fruit repeatedly, and ...’

- (27) a. kúni beett-i dánča = ho.
 this.M.NOM child.NOM.M.MOD good=NPC.M.PRED
 ‘This boy is good.’
- b. kúni beett-u dánča = ho.
 this.M.NOM child.NOM.M good=NPC.M.PRED
 ‘This boy is good.’

The NPC cannot additionally attach to the demonstratives, as in (28) and (29).

NP use

- (28) *hakkonné = ha fe-ø-e fe-ø-e ...
 that.M.ACCOBL=NPC.ACC clean-3SG.M-CVB clean-3SG.M-CVB
 Intended: ‘He cleaned that one (M) repeatedly, and ...’

Mod use

- (29) *hakkonné = ha gimboolá fe-ø-e
 that.M.ACCOBL=NPC.ACC basket.ACCOBL clean-3SG.M-CVB
 fe-ø-e ...
 clean-3SG.M-CVB
 Intended: ‘He cleaned that basket repeatedly, and ..’

[3] Genitive noun phrases

The NPC can attach to genitive noun phrases to form a noun phrase (e.g., (30)–(33)). The NPC with genitive noun phrases seems to modify a noun (e.g., (34)–(37)), but the Modified masculine noun in the nominative or the genitive carries the allomorph of the case suffix for an Unmodified masculine noun *-u* and cannot take that for a Modified masculine noun *-i* (e.g., (35)–(37)), as in the case of the NPC with ordinal numerals in their modification use.¹⁹

¹⁹ Genitive noun phrases to which the NPC = *ta*/= *ha* can attach include genitive demonstrative pronouns. For example, there are noun phrases like *tenné = ta* ‘this one (F)’s (F)’, *konní = ta* ‘this one (M)’s (F)’, *konní = ha* ‘this one (M)’s (M)’, and *tenné = ha* ‘this one (F)’s (M)’, *tenné = re* ‘this one (F)’s (PL)’, *konní = re* ‘this one (M)’s (PL)’, *hakkurí = ha* ‘those ones’ (M)’.

NP use

- (30) mitt-ú gimbool-i = ha add-ø-e
 one-GEN.M basket-GEN.M.MOD=NPC.M.ACC take-3SG.M-CVB
 ha'r-ø-ewo.
 leave-3SG.M-D.PRF.3
 'He took one basket of (M) (*lit.*, one basket's) (e.g., papayas) and left.' (Pear 19-(9))

- (31) ané = hu danča = ho.
 1SG.GEN=NPC.M.NOM good=NPC.M.PRED
 'Mine (M) (DEF) is good.'

- (32) beett-ú-nni = hu ba'-ø-ino.
 child-GEN.M-ABLINS=NPC.M.NOM disappear-3SG.M-D.PRF.3
 'The/*A boy's (M) (DEF) disappeared.'

- (33) ané = hu ba'-ø-ino.
 1SG.POSS=NPC.M.NOM disappear-3SG.M-D.PRF.3
 'Mine (M) (DEF) disappeared.'

Mod use

- (34) mitt-ú gimbool-i = ha/gimbool-i
 one-GEN.M basket-GEN.M.MOD=NPC.M.ACC/basket-GEN.M.MOD
 paappaayyá add-ø-e ha'r-ø-ewo.
 papaya.ACCOBL take-3SG.M-CVB leave-3SG.M-D.PRF.3
 'He took one basket of papayas and left.'²⁰

- (35) hakkuí beett-i = hu
 that.M.GEN child-GEN.M.MOD=NPC.M.NOM
 rod-úu/*rod-ii ba'-ø-ino.
 sibling-NOM.M/sibling-NOM.M.MOD disappear-3SG.M-D.PRF.3
 'That boy's brother disappeared.'

²⁰ Another construction used for a noun phrase in the accusative-oblique case containing a cardinal numeral and a measure word uses the accusative-oblique case for all its components, as in (i).

- (i) mittó gimboola paappaayyá add-ø-e
 one.ACCOBL basket.ACCOBL(mod) papaya.ACCOBL take-3SG.M-CVB
 ha'r-ø-ewo.
 leave-3SG.M-D.PRF.3
 'He took one basket of papayas and left.'

- When the NPC attaches to a genitive noun that is Unmodified (is not accompanied by any nominalization or the possessive pronominal suffix), the suffix *-nni* (or its short form *-i*) has to intervene between the noun and the enclitic: e.g., *gereew-ú-nni=ha/gereew-ú-i=ha* (goat-GEN.M-*nni*=NPC.M.PRED) ‘sheep’s (e.g., meat)’. The function of this suffix is not clear. (It may be epenthetically inserted.)

The NPC generally cannot attach to adjectives regardless of their use, as in (38) and (39).

(38) *busul-u = hu da-ø-ino.
smart-NOM.M=NPC.M.NOM come-3SG.M-D.PRF.3
Intended: ‘The smart one (M) came.’

(39) *busul-u = hu beétt-u/beett-i
smart-NOM.M=NPC.M.NOM child-NOM.M/child-NOM.M.MOD
da-ø-ino.
come-3SG.M-D.PRF.3
Intended: ‘The smart boy came.’

However, there are two subclasses of adjectives that the NPC can attach to. One is those adjectives that are invariant in form: e.g., *lowo* ‘big’, *wona* ‘previous’. Such adjectives with the NPC have both NP use and modification use (e.g., (40), (41)).

two conditions, first, when a relative clause follows a noun (e.g., (46)), and second, when there is a pause between the relative clause and the noun with both exhibiting high pitch at their ends (e.g., (47), (48)). A relative clause in modification use formed with the NPC is non-restrictive and a formed noun phrase has a definite referent. A masculine noun in the nominative or genitive case modified only by this type of relative clause takes the allomorph for Unmodified nouns (e.g., (46), (47)).²¹

NP use

- (44) wo-dǫ-ø-e no-o = ha
 put-MID-3SG.M-CVB come.to.exist.D.PRF.3-LV=NPC.M.ACC
 haw-ø-e ha'r-ø-ino.
 forget-3SG.M-CVB leave-3SG.M-D.PRF.3
 'He forgot about the one (M) that he was wearing, and left.'

Mod use

- (45) wo-dǫ-ø-e no-o = ha kooffiyyá
 put-MID-3SG.M-CVB come.to.exist.D.PRF.3-LV=NPC.M.ACC hat.ACCOBL
 haw-ø-e ha'r-ø-ino.
 forget-3SG.M-CVB leave-3SG.M-D.PRF.3
 'He forgot about the hat, which he was wearing, and left.' (Pear 19-(14))
 (Compare: (76) 'He forgot about the/a hat that he was wearing, and left.')

- (46) beett-ú, [pause] ané la'-ø-a-nni
 child-NOM.M 1SG.ACC look-3SG.M-INF-ABLINS
 no-o = hú, [pause] agur-ø-e
 come.to.exist.3.D.PRF-LV=NPC.M.NOM leave-3SG.M-CVB
 ka'eentinni dod-ø-a-nni ha'r-ø-i.
 then run-3SG.M-INF-ABLINS go-3SG.M-R.PRF.3
 'The boy, who was looking at me, left me, and then went running.' (NINJAL A-14, SUBJ #2)

- (47) utaám-u wóna it-ø-ino = hú
 hedgehog-NOM.M previously eat-3SG.M-D.PRF.3=NPC.M.NOM
 mataat'eéss-u/*mataat'eéss-i basé
 sugar.potatoes-NOM.M/sugar.potatoes-NOM.M.MOD space.ACCOBL
 amad-ø-ino-si = daafira, ...
 occupy-3SG.M-D.PRF.3-3SG.M=because
 'Because the hedgehog became full with sugar potatoes, the one (M) that it (the hedgehog) previously ate, ...' (Story: 'Muddamino gotiiči saate buuda ga'mino')

²¹ In (48), the allomorph of the nominative case suffix for Modified nouns is used in *manč-i* (person-NOM.M.MOD) because of *durreéss-u* (rich-NOM.M). If *mančo* 'person' were not accompanied by *durreéss-u* (rich-NOM.M), it would take the form *manč-u* (person-NOM.M), which carries the allomorph of the nominative case suffix for Unmodified nouns, rather than *manč-i*.

- (48) kúri lám-u = n = ku wosin-i
 these.NOM two-NOM.M=EMP=NPC.M.NOM guest-NOM.M.MOD
 woná = n = ku-nni hasaaw-ø-annó = re
 previous=EMPH=NPC.M.GEN-ABLINS talk-3SG.M-IPFV.3=NPC.PL.ACCOBL
 mačč'iišš-ø-á-nni no-o = hú
 listen-3SG.M-INF-ABLINS come.to.exist.D.PRF.3-LV=NPC.M.NOM
 durreéss-u manč-i mul-í-nsa-ra
 rich-NOM.M person-NOM.M.MOD nearness-GEN-3PL-ALL
 gámba y-e-e ...
gámba say-CVB-LV
 'The rich man, who was listening to the things that these two guests had been talking about since then, approached them ...' (Story: 'Durreesssu duučanta assanno')

[5b] Complement clauses

The NPC =*ta* (SG.F) as the complementizer has only NP use in which it forms a complement clause (e.g., (49)). The NPC =*ha* (SG.M), which can be used with the verb *lab* 'appear, seem' as the main verb also has only NP use (e.g., (50)). A complement clause with the NPC cannot modify a noun.

- (49) loos-ú-i=wa ha'r-oo-tt-o=ta
 work-GEN.M-ABLINS=place go-D.PRF.2-2SG-M=NPC.F.ACCOBL
 di=af-oo-mm-o=nka.
 NEG=get.to.know-D.PRF.1-1SG-M=EMP
 'I (M) never knew that you (SG.M) went to work.' (Conversation 2023.8-5)
- (50) alb-í-ra akk'ad-ø-e
 face-GEN.M.MOD-DATLOC.MOD plan(AMH)-1SG-CVB
 assaaw-oo-mm-á = ri
 think(AMH)-D.PRF.2-2SG-F=NPC.PL.NOM
 nó-o = ha di = law-ø-anno-'e.
 come.to.exist.D.PRF.3-LV=NPC.M.ACCOBL NEG=appear-3SG.M-IPFV.3-1SG
 'It does not appear to me that there are things I am planning to do and thinking of doing in the future.' (Conversation 2019.3-4: A.T. & A.K.)

3.2 Gender marking with the nominative, the genitive, and the dative-locative case suffixes

Figure 5 shows how the nominative, the genitive, and the dative-locative case suffixes are used with the five types of grammatical nominalizations to mark gender in Shibatani's implicational hierarchy.

Figure 5. Gender marking on five types of grammatical nominalizations with the nominative, the genitive, and the dative-locative case suffixes

NP-use:

OBL	CARD.NUM/	>	OBL	DEM	>	*GEN	>	OBL	ADJ	>	*REL.CL/
	*ORD.NUM										*COMP.CL

Mod-use:

OBL	CARD.NUM/	>	OBL	DEM	>	#GEN	>	OBL	ADJ	>	#REL.CL/
	#ORD.NUM										*COMP.CL

- OBL: obligatorily marked for gender with one of the case suffixes (its use is obligatory when the noun phrase is in the case) or analyzed as including the case marker
- #: modifiable but does not take the case suffixes, so no gender distinction is made
- *: impossible

[1] Numerals

[1a] Cardinal numerals

The referent of the noun phrase formed with a cardinal numeral can be definite or indefinite. The NP use of a cardinal numeral is exemplified in (51)–(53). When the plural form of a noun or grammatical nominalization that does not have intrinsic gender is the subject, its masculine form is used with a verb in its feminine form for gender-unspecified referents (e.g., (51)) and with a verb in its masculine form for exclusively male referents or referents for which masculine plural nouns (e.g., *k'aakk'uulle* 'babies, children', *geerra* 'elderly', *meento* 'women', *seenne* 'girls') would be used (e.g., (52)); on the other hand, its feminine form is used with a verb in its feminine form for exclusively female referents or referents for which feminine plural nouns would be used (e.g., (53)).

NP use

- (51) *sás-u* *ub-b-u*.
 three-NOM.M fall-3SG.F/3PL-R.PRF.3SG.F/3PL
 '(The) three (gender unspecified) fell down.'

- (52) *sás-u* *uw-ø-i*.
 three-NOM.M fall-3SG.M-R.PRF.3SG.M
 '(The) three (M) fell down.'

- (53) *sáse* *ub-b-u*.
 three.NOM.F fall-3SG.F/3PL-R.PRF.3SG.F/3PL
 '(The) three (F) fell down.'

A cardinal numeral can modify unmarked, singular, or plural forms of countable nouns (see Section 1, e.g., ‘sibling’, unmarked: *rodoo* (F/M), singular: *rod-iiččo* (F/M), plural: *rod-uuwa* (F(M))/*rod-uubba* (F)) (e.g., (54)–(62)).

Mod use

- (54) *sás-u* *rod-ii* *ub-b-u.*
 three-NOM.M sibling-NOM.M.MOD fall-3SG.F/3PL-R.PRF.3SG.F/3PL
 ‘(The) three siblings fell down.’
- (55) *sás-u* *rod-ii* *uw-ø-i.*
 three-NOM.M sibling-NOM.M.MOD fall-3SG.M-R.PRF.3SG.M
 ‘(The) three brothers fell down.’
- (56) *sáse* *rodoo* *ub-b-u.*
 three.NOM.F sibling-NOM.F(mod) fall-3SG.F/3PL-R.PRF.3SG.F/3PL
 ‘(The) three sisters fell down.’
- (57) *sás-u* *rod-iičč-i* *ub-b-u.*
 three-NOM.M sibling-SG-NOM.M.MOD fall-3SG.F/3PL-R.PRF.3SG.F/3PL
 ‘(The) three siblings fell down.’
- (58) *sás-u* *rod-iičč-i* *uw-ø-i.*
 three-NOM.M sibling-SG-NOM.M.MOD fall-3SG.M-R.PRF.3SG.M
 ‘(The) three brothers fell down.’
- (59) *sáse* *rod-iiččo* *ub-b-u.*
 three.NOM.F sibling-SG-NOM.F(mod) fall-3SG.F/3PL-R.PRF.3SG.F/3PL
 ‘(The) three sisters fell down.’
- (60) *sás-u* *rod-uuw-i* *ub-b-u.*
 three-NOM.M sibling-PL-NOM.M.MOD fall-3SG.F/3PL-R.PRF.3SG.F/3PL
 ‘(The) three siblings fell down.’
- (61) *sás-u* *rod-uuw-i* *uw-ø-i.*
 three-NOM.M sibling-PL-NOM.M.MOD fall-3SG.M-R.PRF.3SG.M
 ‘(The) three brothers fell down.’
- (62) *sáse* *rod-uuwa* *ub-b-u.*
 three.NOM.F sibling-PL-NOM.F(mod) fall-3SG.F/3PL-R.PRF.3SG.F/3PL
 ‘(The) three sisters fell down.’

[1b] Ordinal numerals

Ordinal numerals cannot form a noun phrase by themselves. Although they can modify nouns, they are invariant in form irrespective of case and do not mark gender.

NP use

- (63) *saikkí ba'-ø-ino.
 third disappear-3SG.M-D.PRF.3
 Intended: 'The third one disappeared.'
- (64) *saikkí wonš-i-ø-'r-a-ra ...
 third fill-EP-3SG-MID-INF-DATLOC.MOD
 Intended: 'in order to fill the third one for himself, ...'

Mod use

- (65) saikkí gimboola wonš-i-ø-'r-a-ra ...
 third basket.ACCOBL(mod) fill-EP-3SG-MID-INF-DATLOC.MOD
 'In order to fill the third basket for himself, ...'
- (66) saikkí gimbool-i/*gimbool-u di=no.
 third basket-NOM.M.MOD/basket-NOM.M NEG=come.to.exist.D.PRF.3
 'The third basket was missing.'
- (67) saikkí beett-i/*beett-u ba'-ø-ino.
 third child-NOM.M.MOD/child-NOM.M disappear-3SG.M-D.PRF.3
 'The third boy disappeared.'
- (68) saikkí beetto ba'-'-ino.
 third child.NOM.F(mod) disappear-3SG.F-D.PRF.3
 'The third girl disappeared.'

[2] Demonstratives

As mentioned in Section 2.2, the present study analyzes the singular demonstratives as containing the NPC and one of the case suffixes, which both make the gender distinction. See Section 3.1 for examples.

[3] Genitive noun phrases

Genitive noun phrases cannot stand alone to form a noun phrase. They can modify a noun, but they are in the genitive case and the genitive case suffix makes the distinction of the gender of the possessor, not that of the possesum.

NP use

- (69) *mitt-ú gimbool-i add-ø-e ha'r-ø-ewo.
 one-GEN.M basket-GEN.M.MOD take-3SG.M-CVB leave-3SG.M-D.PRF.3
 Intended: 'He took one basket of something (*lit.*, one basket's) and left.'

Mod use

- (70) mitt-ú gimbool-i paappaayya add-ø-e
 one-GEN.M basket-GEN.M.MOD papaya(ACCOBL) take-3SG.M-CVB
 ha'r-ø-ewo.
 leave-3SG.M-D.PRF.3
 'He took one basket of papayas and left.'

[4] Adjectives

Almost all adjectives (See Section 3.1), which cannot take the NPC, can form a noun phrase by themselves and can modify nouns. When they take the nominative, the genitive, or the dative-locative case suffix, the suffix makes the gender distinction with its allomorphs.

NP use

- (71) busúl-u da-ø-ino.
 smart-NOM.M come-3SG.M-D.PRF.3
 'The smart one (M) came.'

- (72) busúle dag-g-ino.
 smart.NOM.F come-3SG.F-D.PRF.3
 'The smart one (F) came.'

Mod use

- (73) busúl-u beett-i da-ø-ino.
 smart-NOM.M child-NOM.M.MOD come-3SG.M-D.PRF.3
 'The smart boy came.'

- (74) busúle beetto dag-g-ino.
 smart.NOM.F child.NOM.F(mod) come-3SG.F-D.PRF.3
 'The smart girl came.'

[5] Verb-based nominalizations (relative clauses)**[5a] Relative clauses**

Without the NPC, relative clauses cannot form a noun phrase by themselves. They can modify nouns, but no gender marking occurs, because they do not carry any case marker.

NP use

- (75) *wo-dǝ-ø-e no-o haw-ø-e
 put-MID-3SG.M-CVB come.to.exist.D.PRF.3-LV forget-3SG.M-CVB
 ha'r-ø-ino.
 leave-3SG.M-D.PRF.3
 Intended: 'He forgot about the one that he was wearing, and left.'

Mod use

- (76) wo-dǝ-ø-e no-o kooffiyya
 put-MID-3SG.M-CVB come.to.exist.D.PRF.3-LV hat(ACCOBL)
 haw-ø-e ha'r-ø-ino.
 forget-3SG.M-CVB leave-3SG.M-D.PRF.3
 'He forgot about the/a hat that he was wearing, and left.'

[5b] Complement clauses

Without the NPC, complement clauses cannot form a noun phrase alone. They cannot modify nouns.

4. ANALYSIS AND DISCUSSION

The gender marking in Sidaama—both for each type of gender marker individually and for both types collectively—supports Shibatani's hypothesis about the distribution of classifying grammatical nominalizers along the functional dimension. All the five types of grammatical nominalizations in this language in NP use can be marked for gender with one of the gender markers. Moreover, the gender markers are more likely to obligatorily occur with grammatical nominalizations in NP use than those in modification use. There are types of grammatical nominalizations whose NP use takes the NPC obligatorily but modification use takes the NPC only optionally (ordinal numerals, genitive noun phrases, and relative clauses).²² These indicate that the gender marking begins with NP use and spreads to modification use. On the other hand, the gender marking in this language does not seem to coincide with Shibatani's hypothesis about the use of classifying grammatical nominalizers along the structural dimension. There are gaps in cardinal numerals and adjectives in the hierarchy pair for the NPC and there is a gap in genitive noun phrases in the hierarchy pair for the case suffixes. It is not clear how gender marking developed along the structural dimension. It might be possible that gender marking originated from demonstratives (with the proto-Afro-Asiatic demonstrative *t*(F) vs. *k*(M) contrast) and spread to cardinal numerals and adjectives and then to other types of structures.

However, there are remaining issues to be examined. A major issue is whether the case suffixes developed from the NPC. The case marking pattern in Kambaata (Treis 2008) suggests a positive answer for this issue. The nominative case suffix forms for many feminine nouns contain *-t* and the accusative case suffix forms for them includes *-ta*, but there are feminine nouns that take nominative and accusative case suffix forms consisting only of a vowel (Treis

²² These three types of grammatical nominalizations cannot form a noun phrase alone but can modify a noun without them taking any marker themselves.

2008: 102–108). The accusative and the nominative case suffix forms for masculine nouns are vowels, but masculine nouns with a long final vowel can additionally carry *-hu* (nominative) and *-ha* (accusative) (Treis 2008: 126–127, 410), which Treis calls the secondary case/gender markers.

Assuming that the case suffixes developed from the NPC in Sidaama, there are several issues to address. First, there is a question of why the different types of grammatical nominalizations receive different kinds of gender marking. As compared to these three types of grammatical nominalizations and complement clauses, which are still at early stages of the development of gender marking from that with the NPC to that with the case suffixes, cardinal numerals and adjectives seem to have developed innovative gender marking with the case suffixes. Cardinal numerals take the NPC only for an emphasis on the notion of ‘the whole number of’ the referent of a definite noun phrase, whereas adjectives cannot take the NPC. Unlike the other types of grammatical nominalizations, which often form definite noun phrases, cardinal numerals and adjectives are neutral to definiteness, like most common nouns. Therefore, the NPC functions not only as a classifying grammatical nominalizer but also as a definiteness marker.

Second, there is a question of whether structures in the singular and those in the plural can be placed in the same hierarchy. The NPC =*ta* (SG.F)/=*ha* (SG.M) is used for singular referents. Noun phrases formed with a cardinal numeral for ‘two’ or above either in NP use or in modification use have plural referents. Therefore, they are, first of all, incompatible with the singular NPC. It may be that numerals higher than ‘one’ should not be placed in the hierarchy for the singular NPC, though they still cannot be accompanied by the plural NPC =*re* (PL).²³

Third, it is not clear what the selection of the allomorphs of the case suffixes for Modified vs. Unmodified nouns means when grammatical nominalizations with the NPC modify a noun. The allomorph for Modified nouns must be used for cardinal numerals and is usually used for demonstratives. On the other hand, the allomorph for Unmodified nouns must be used for ordinal numerals and genitive noun phrases (and adjectives with *-iidi*) and either the allomorph for Modified nouns or that for Unmodified nouns can be used for relative clauses. These are grammatical nominalizations that form noun phrases usually interpreted as definite.

A related issue is whether different types of grammatical nominalizations exhibit varying degrees of tightness in their modification of nouns. When a grammatical nominalization modifies a noun without using the NPC, the fact of Modification can be indicated by the selection of specific allomorphs of the case suffixes. This applies to all grammatical nominalizations that can modify a noun, except that a noun modified by demonstratives can take the allomorphs of the case suffixes for Unmodified nouns in informal speech, though it

²³ The enclitic =*re* as the plural form of =*riččo* ‘thing’ (see Footnote 10) can be used with numerals. An example is given in (i), which is the plural counterpart of (ii). Noun phrases formed with a cardinal numeral and this enclitic are restricted to inanimate referents and cannot modify a noun.

- (i) lámu=r-i uw-ø-ino/*ub-b-ino.
two=things-NOM.M.MOD fall-3SG.M-R.PRF.3SG.M/fall-3SG.F/3PL-R.PRF.3SG.F/3PL
‘(The) two things fell down.’
- (ii) mít-t-u=ričč-i uw-ø-ino/*ub-b-ino.
one-NOM.M=thing-NOM.M fall-3SG.M-R.PRF.3SG.M/fall-3SG.F-R.PRF.3SG.F
‘(The) one thing fell down.’

usually takes the allomorphs of the case suffixes for Modified nouns. The use of the allomorphs of the case suffixes for Unmodified nouns is found with more types of grammatical nominalizations when the NPC attaches to them. The selection of these allomorphs seems to suggest the independent status of grammatical nominalizations with the NPC modifying a noun from the noun (e.g., (23), (27b)). There are also cases where grammatical nominalizations appear to be more independent to the extent that they are juxtaposed with other noun phrases.

5. CONCLUSION

The present study explored how gender is marked on grammatical nominalizations in their NP and modification uses in Sidaama. The data on the NPC and the case suffixes, both individually and collectively, support Shibatani's hypothesis regarding the synchronic distribution of classifying grammatical nominalization markers along the functional dimension, but not along the structural dimension. This, along with several other phenomena, requires further investigation. To better understand the diachronic development of gender marking in Sidaama, data from neighboring languages should be examined in detail. This remains a topic for future research.

ABBREVIATIONS

1	first person
2	second person
3	third person
ABLINS	ablative-instrumental
ACC	accusative
ACCOBL	accusative-oblique
ADJ	adjective(s)
ASP	aspect
CARD.NUM	cardinal numeral(s)
COMP.CL	complement clause(s)
CVB	connective converb
D.PRF	distant perfect
DAT	dative
DATLOC	dative-locative
DEM	demonstrative
EMP	emphatic
EP	epenthesis
F, FEM	feminine
GEN	genitive noun phrase(s)
GEND	gender
HUM	human
IMPRF	imperfective
LV	lengthened vowel
M, MASC	masculine
MID	middle

mod	(syntactically) modified
Mod	modification
MOD	“Modified”: accompanied by a modifier and/or the possessive pronominal suffix
NEG	negative
NMLZ	nominalization(s)
NOM	nominative
NONHUM	non-human
NPC	noun-phrase clitic
NUM	number, numeral(s)
ORD.NUM	ordinal numeral(s)
PERS	person
PL	plural
PRED	predicate
PROP.N	proper noun
PRON	pronoun
R.PRF	recent perfect
REL.CL	relative clause(s)
SG	singular
V	verb

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APPENDIX 1: Use of the noun-phrase enclitic *=re* as the plural of *=ta* (F)/*=ha* (M) and the enclitic *=re* as the plural of *=riččo*

The enclitic *=re* as the plural NPC has both NP and modification uses. Unlike noun phrases formed with the singular NPC *=ta* (F)/*=ha* (M) in NP and modification uses and the plural NPC *=re* in modification use, whose referents can be either animate or inanimate, those formed with *=re* in NP use are used for animate referents (except that demonstratives in the plural, which contain it, can be used for either animate or inanimate referents). The referents of noun phrases formed with the plural NPC *=re* are normally definite.

The enclitic *=re* as the plural of the enclitic *=riččo* ‘thing’ has only NP use and does not have modification use. The referents of noun phrases formed with *=re* as the plural of *=riččo* are inanimate and can be either definite or indefinite. In these respects, *=riččo* and *=re* function the same way as each other and almost as inanimate common nouns except that they are bound.

Both *=riččo* and its plural *=re* are treated as masculine (e.g., *ikk-ø-ino =riččo* (become-3SG.M-D.PRF.3=thing) ‘a certain thing’, *ikk-ø-ino =re* (become-3SG.M-D.PRF.3=thing.PL) ‘certain things’), and when *=re* as the plural of *=riččo* occurs at the end of a subject noun phrase, the verb takes the third-person singular masculine suffix. On the other hand, a noun phrase formed with the plural NPC *=re* functions as plural (e.g., *ikk-i-t-ino =re* (become-EP-3PL-D.PRF.3=NPC.PL) ‘certain people/animals’), and when it is the subject of a sentence, the verb takes the third-person plural (also, the third-person singular feminine) suffix. Nevertheless, *=re* in either function has the same set of case forms in Table 8.

Both *=re* as the plural NPC and *=re* as the plural of *=riččo* are morphologically masculine and take the form of *=r-i* when the noun phrase is in the nominative or the genitive case and the form of *=r-i-ra* when the noun phrase is in the dative-locative case.

Figures 6 and 7 summarize the distributions of the use (the masculine gender marking) of the two types of *=re* for grammatical nominalizations. Figure 6 is very similar to Figure 2

(gender marking with the noun-phrase enclitic *=ta* (F)/*=ha* (M)), but differs from it in two respects. First, unlike the singular NPC *=ta* (F)/*=ha* (M), the plural NPC *=re* cannot attach to a cardinal numeral with the emphatic enclitic *=n*. Second, *=re* cannot be used with a complement clause.

Figure 6. Use of *=re* as the plural noun phrase clitic on five types of grammatical nominalizations

NP use:

*CARD.NUM/ > OBLORD.NUM	OBLDEM > OBLGEN >	*ADJ > (ADJ-iidi)	OBLREL.CL/ *COMP.CL
----------------------------	-------------------	----------------------	------------------------

Mod use:

*CARD.NUM/ > OPTORD.NUM	OBLDEM > OPTGEN >	*ADJ > (ADJ-iidi)	OPTREL.CL/ *COMP.CL
----------------------------	-------------------	----------------------	------------------------

OBL: obligatory (The plural NPC obligatorily marks a plural referent.)

OPT: optional (The plural NPC is optionally used.)

ADJ-iidi can attach to an adjective with the comparative/superlative suffix ADJ-iidi

*: impossible (The plural NPC cannot attach to the structure.)

Figure 7. Use of *=re* as the plural of *=riččo* on five types of grammatical nominalizations

NP use:

OBLCARD.NUM/ > OBLORD.NUM	*DEM >	OBLGEN >	OBLADJ >	OBLREL.CL/ *COMP.CL
------------------------------	--------	----------	----------	------------------------

Mod use:

*CARD.NUM/ > *ORD.NUM	*DEM >	*GEN >	*ADJ >	*REL.CL/ *COMP.CL
--------------------------	--------	--------	--------	----------------------

OBL: obligatory (*=re* as the plural of *=riččo* obligatorily marks a plural referent.)

: impossible (=re* as the plural of *=riččo* cannot attach to the structure.)

The following descriptions deal with the two types of *=re* in parallel.

[1] Numerals

[1a] Cardinal numerals

The plural NPC *=re* cannot attach to cardinal numerals. (As mentioned above, it cannot attach to a cardinal numeral with the emphatic enclitic *=n*.) On the other hand, the enclitic *=re* (in NP use) as the plural of *=riččo* can. When it attaches to a cardinal numeral (e.g., (77)),

the referents of the resultant noun phrase have to be inanimate and are interpreted either as definite or as indefinite.

NP use

- (77) *sás-u=r-i* *uw-ø-i.*
 three-NOM.M=things-NOM.M-NOM.M.MOD fall-3SG.M-R.PRF.3SG.M
 ‘(The) three things fell down.’

[1b] Ordinal numerals

The plural NPC =*re* both in NP use and in modification use can attach to ordinal numerals. Like the use of the singular NPC =*ta* (F)/=*ha* (M), that of the plural NPC =*re* is optional in modification use (e.g., *saikki manni dag-g-ino*. ‘The third (group of) people came’; *saikki t’arapp’eeyye hiikk’-an-t-ino*. ‘The third (set of) tables became broken’), though it is obligatory in NP use (e.g., **saikki dag-g-ino*. Intended: ‘The third one(s) came’).

NP use

- (78) *saikkí=r-i* *di=no.*
 third=NPC.PL-NOM.M.MOD NEG=come.to.exist.D.PRF.3
 ‘The third ones (animate/inanimate, definite) were missing.’
- (79) *saikkí=r-i* *dag-g-ino/*da-ø-ino.*
 third=NPC.PL-NOM.M.MOD come-3SG.F/3PL-D.PRF.3/come-3SG.M-D.PRF.3
 ‘The third ones (usually animate, definite) were missing.’
- (80) *saikkí=r-i* *ba’-’-ino.*
 third=NPC.PL-NOM.M.MOD disappear-3SG.F/3PL-D.PRF.3
 ‘The third ones (animate/inanimate, definite) disappeared.’

Mod use

- (81) *saikkí=r-i* *mann-u/*mann-i*
 third=NPC.PL-NOM.M.MOD people-NOM.M/people-NOM.M.MOD
*dag-g-ino/*da-ø-ino.*
come-3SG.F/3PL-D.PRF.3/come-3SG.M-D.PRF.3
 ‘The third (group of) people (definite) came.’
- (82) *saikkí=r-i* *t’arapp’eeyye*
 third=NPC.PL-NOM.M.MOD table.PL.NOM.F(mod)
hiikk’-an-t-ino.
become.broken-PASS-3SG.F/3PL-D.PERF.3
 ‘The third (set of) tables (definite) became broken.’

The enclitic =*re* as the plural of =*riččo* (in NP use) can attach to ordinal numerals.

- (88) ané = r-i danč-uúlle = ho.
 1SG.GEN=NPCL-PL-NOM.M.MOD good-PL=NPCL.M.PRED
 ‘Mine (animate/inanimate, definite) are good.’

- (89) hakkuí manč-i = r-i/beett-i = r-i
 that.M.GEN person-GEN.M.MOD=NPC.PL-NOM.M.MOD/
 child-GEN.M.MOD=NPC.PL-NOM.M.MOD
 ba'-'-ino/ba'-ø-ino.
 disappear-3SG.F/3PL-D.PRF.3/disappear-3SG.M-D.PRF.3
 'That man's/boy's (animate/inanimate, definite) disappeared.' (*ba'-'-ino*: gender unspecified, *ba'-ø-ino*: all masculine)

Mod use

- (90) hakkuí manč-i = r-i
 that.M.GEN person-GEN.M.MOD=NPC.PL-NOM.M.MOD
 k'aakk'-uull-u/*k'aakk'-uull-i
 baby-PL-NOM.M/baby-PL-NOM.M.MOD
 ba'-'-ino/ba'-ø-ino.
 disappear-3SG.F/3PL-D.PRF.3/disappear-3SG.M-D.PRF.3
 'That man's babies disappeared.' (*ba'-'-ino*: gender unspecified, *ba'-ø-ino*: all male)

- (91) hakkuí beett-i = r-i
 that.M.GEN child-GEN.M.MOD=NPC.PL-NOM.M.MOD
 rod-uuw-u/*rod-uuw-i
 sibling-PL-NOM.M/sibling-PL-NOM.M.MOD
 ba'-'-ino/ba'-ø-ino.
 disappear-3SG.F/3PL-D.PRF.3/disappear-3SG.M-D.PRF.3
 'That boy's siblings (definite) disappeared.' (*ba'-'-ino*: gender unspecified, *ba'-ø-ino*: all male)

The enclitic =*re* as the plural of =*riččo* (in NP use) can also attach to genitive noun phrases.

NP use

- (92) hakkuí manč-i = r-i
 that.M.GEN person-GEN.M.MOD=things-NOM.M.MOD
 ba'-ø-ino/*ba'-'-ino.
 disappear-3SG.M-D.PRF.3/disappear-3SG.F/3PL-D.PRF.3
 'That boy's things (definite/indefinite) disappeared.'

- (93) isí = r-i
 3SG.M.GEN=things-NOM.M.MOD
 ba'-ø-ino/*ba'-'-ino.
 disappear-3SG.M-D.PRF.3/disappear-3SG.F/3PL-D.PRF.3
 'His things (definite/indefinite) disappeared.'

[4] Adjectives

Like the singular NPC = *ta* (F)/ = *ha* (M), the plural NPC = *re* cannot attach to adjectives, though it can attach to an adjective with the comparative/superlative suffix ADJ-*iidi* ‘more/most/relatively ...’ either in NP use or in modification use.

NP use

- (94) *jaw-iidí = r-i* *ba’-’-ino.*
 large-relatively=NPC.PL-NOM.M.MOD disappear-3SG.F/3PL-D.PRF.3
 ‘The larger/largest ones (animate/inanimate, definite) disappeared.’

Mod use

- (95) *jaw-iidí = r-i*
 large-relatively=NPC.PL-NOM.M.MOD
*k’aakk’uúll-u/*k’aakk’uull-i*
 babies-NOM.M/babies-NOM.M.MOD
ba’-’-ino/ba’-ø-ino.
 disappear-3SG.F/3PL-D.PRF.3/disappear-3SG.M-D.PRF.3
 ‘The larger/largest of the babies disappeared.’ (*ba’-’-ino*: gender unspecified, *ba’-ø-ino*: all male)
- (96) **jaǰǰáb-b-u = r-i* *k’aakk’uúll-u/k’aakk’uull-i*
 large-PL=NPC.PL-NOM.M.MOD babies-NOM.M/babies-NOM.M.MOD
ba’-’-ino/ba’-ø-ino.
 disappear-3SG.F/3PL-D.PRF.3/disappear-3SG.M-D.PRF.3
 Intended: ‘(The) large babies disappeared.’

The enclitic =*re* as the plural of =*riččo* (in NP use) can attach to adjectives including those with the comparative/superlative suffix ADJ-*iidi*.

NP use

- (97) *jaǰǰáb-b-u = r-i* *ba’-ø-ino.*
 large-PL-NOM.M=things-NOM.M.MOD disappear-3SG.M-D.PRF.3
 ‘(The) large ones (inanimate, definite/indefinite) disappeared.’
- (98) *jaw-iidí = r-i* *ba’-ø-ino.*
 large-relatively=things-NOM.M.MOD disappear-3SG.M-D.PRF.3
 ‘(The) larger/largest ones (inanimate, definite/indefinite) disappeared.’
- (99) *ínsa búša = re loos-s-e*
 3PL.NOM bad=things(ACCOBL) work-3PL-CVB
oso’l-an-t-u.
 laugh-PASS-3PL-R.PRF.3PL
 ‘They did (the) bad things and were laughed at.’

[5] Relative clauses

The plural NPC =*re* both in NP use and in modification use can attach to relative clauses. Like the use of the singular NPC =*ta* (F)/=*ha* (M), that of the plural NPC =*re* is optional in modification use (e.g., (101)), though it is obligatory in NP use (e.g., (100)). (It remains to be investigated whether a clause formed with the plural NPC =*re* in modification use is a restrictive or non-restrictive relative clause, especially because the modification relation between multiple juxtaposed noun phrases having the same referent may be unclear, e.g., (102).)

NP use

(100) ub-b-inó = r-i

fall-3SG.F/3PL-D.PRF.3 = NPC.PL-NOM.M.MOD

hiikk'-an-t-ino/*hiikk'-am-ø-ino.

break-PASS-3SG.F/3PL-D.PRF.3/break-PASS-3SG.M-D.PRF.3

'The ones who/that fell (animate/inanimate, definite) became broken.'

Mod use

(101) ub-b-inó = r-i/*uw-ø-ino = r-i

fall-3SG.F/3PL-D.PRF.3 = NPC.PL-NOM.M.MOD/

fall-3SG.M-D.PRF.3 = NPC.PL-NOM.M.MOD

mánn-u/*mann-i (lekká)

people-NOM.M/people-NOM.M.MOD leg.ACCOBL

hiikk'-an-t-ino/*hiikk'-am-ø-ino.

break-PASS-3SG.F/3PL-D.PRF.3/break-PASS-3SG.M-D.PRF.3

'The people who fell became broken (in the leg; *lit.* with respect to (the) leg).'

(102) [billaal-i-sí

yanna-rá

scattering-NOM.M.MOD-3SG.M.POSS time-DATLOC.MOD

la'-a-ø-i

look-INF-3SG.F/3PL-ABLINS

no-o = r-í]

come.to.exist.D.PRF.3-LV=NPC.PL-NOM.M.MOD

[oóso] [godo'l-i-t-á-a

children.NOM.F play-EP-3SG.F/3PL-INF-LV

no-o = r-í]

come.to.exist.D.PRF.3-LV=NPC.PL-NOM.M.MOD

[teennisé-te kowaasé godo'l-i-t-á-a

tennis.ACCOBL-GEN.F ball(ACCOBL) play-EP-3SG.F/3PL-INF-LV

no-o = r-í]

come.to.exist.D.PRF.3-LV=NPC.PL-NOM.M.MOD

dag-g-e ka'eentinní, ...
 come-3SG.F/3PL-CVB then
 'The children, who were looking when the stone scattered the avocados (*lit.*, his (the stone's) scattering), and who were playing, who were playing with a tennis ball, came, and then ...' (Pear 6-(6))

The enclitic *=re* as the plural of *=riččo* (in NP use) can attach to relative clauses (e.g., (104)).

NP use

(104) uw-ø-inó = r-i
 fall-3SG.M-D.PRF.3 = things-NOM.M.MOD
 hiikk'-am-ø-ino/*hiikk'-an-t-ino.
 break-PASS-3SG.M-D.PRF.3/break-PASS-3SG.F/3PL-D.PRF.3
 '(The) things that fell (definite/indefinite) became broken.'

APPENDIX 2: Gender marking with the noun-phrase enclitic *=te* (F)/*=ho* (M) in the predicate

Unlike the plural NPC *=re*, the singular NPC *=ta* (F)/*=ha* (M) is used not only to constitute an argument noun phrase but also to form a predicate, which could be analyzed as a noun phrase. The NPC as used for the predicative function (*=te* (F)/*=ho* (M)) has only NP use and has no modification use, and can attach to all the types of grammatical nominalizations other than a complement clause, as shown in Figure 8.

Figure 8. Gender marking on five types of grammatical nominalizations with the predicative noun-phrase enclitic *=te* (F)/*=ho* (M)

NP use:

OBLCARD.NUM/ >	OBLDEM >	OBLGEN >	OBLADJ >	OBLREL.CL/
OBLORD.NUM				*COMP.CL

Mod use:

*CARD.NUM/ >	*DEM >	*GEN >	*ADJ >	*REL.CL/
*ORD.NUM				*COMP.CL

OBL: obligatory (The predicative noun-phrase enclitic obligatorily attach.)

*: impossible (The predicative noun-phrase enclitic cannot attach.)

There is one difference between the singular NPC in its predicative function and that in argument-forming function: unlike the latter, the former can attach to a noun. As in Table 8, when it attaches to a predicate nominal, it takes the form of *=te* (F)/*=ho* (M) when it constitutes a predicate with a grammatical nominalization, except that it is *=ti* regardless of the gender of the subject noun phrase when the predicate nominal is a Modified common noun,

a proper noun, a pronoun, or a demonstrative (see [2] below) in the accusative-oblique case (at least segmentally).

[1] Numerals

[1a] Cardinal numerals

NP use

- (105) dag-g-ino mann-i sáse = ho.
 come-3SG.F/3PL-D.PRF.3 person.PL-NOM.M.MOD three=NPC.M.PRED
 ‘The people who came are three.’

- (106) da-ø-ino mann-i sáse = ho.
 come-3SG.M-D.PRF.3 person.PL-NOM.M.MOD three=NPC.M.PRED
 ‘The men who came are three.’

[1b] Ordinal numerals

NP use

- (107) hákku manč-i lainkí = ho.
 that.M.NOM person-NOM.M.MOD second=NPC.M.PRED
 ‘That man is the second.’

[2] Demonstratives

NP use

- (108) ané rod-ii hakkónne-e = ti.
 1SG.GEN sibling-NOM.M.MOD that.M-LV=NPC.PRED
 ‘My brother is that one.’

- (109) ané rod-uuw-i hakkóre-e = ti.
 1SG.GEN sibling-PL-NOM.M.MOD that.PL-LV=NPC.PRED
 ‘My siblings are those ones.’

[3] Genitive noun phrases

NP use

- (110) íse dangur-í = te.
 3SG.F.NOM Dangura-GEN.M.PROP=NPC.F.PRED
 ‘She is Dangura’s (e.g., daughter).’

[4] Adjectives

NP use

- (111) íse búša = te.
 3SG.F.NOM bad=NPC.F.PRED
 ‘She is bad.’

[5] Relative clauses

NP use

- (112) íse áni bé’ro la’-oó-mm-o = te.
 3SG.F.NOM 1SG.NOM yesterday see-D.PRF.1-1SG-M=NPC.F.PRED
 ‘She is the one (F) who I (M) saw yesterday.’