

Reflexive constructions in the world's languages

Edited by

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Acknowledgments

Chapter 1

Comparing reflexive constructions in the world's languages

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1 Reflexive constructions

This paper starts out from the presupposition that the comparison of reflexive constructions in the world's languages must be based on a clear definition of the term REFLEXIVE CONSTRUCTION as a comparative concept, as well as a range of additional technical terms (summarized in Appendix B 14). I begin with the definition in (1), which I think is largely in line with current usage and is at the same time sufficiently clear for rigorous cross-linguistic comparison.

(1) reflexive construction

- A reflexive construction is a grammatical construction
- (i) that can only be used when two participants of a clause are coreferential
 - (ii) and that contains a special form (a reflexivizer) that signals this coreference.

Some examples of reflexive constructions are given in (2a-c).

(2) a. Lithuanian

aš prausi-uo-s

I wash-1SG-REFL

'I wash (myself).'



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b. French

Asma₁ parle d' elle-même₁

Asma talks of her-REFL

'Asma talks about herself'

c. Malay

Ahmat₁ tahu [Salmah₂ akan membeli baju untuk dirinya_{1/2}].

Ahmat know Salmah FUT buy clothes for REFL.3SG

'Ahmat (M) knows that Salmah (F) will buy clothes for him/herself.'

(Cole et al. 2006a: 25)

In (2a) from Lithuanian, the washer and the washed must be the same person, and the verb shows a REFLEXIVE VOICE MARKER. In (2b) from French, the subject *Asma* and the REFLEXIVE PRONOUN *elle-même* must likewise be coreferential. By contrast, a NONREFLEXIVE PERSONAL PRONOUN like *elle* 'she' would give rise to a DISJOINT-REFERENCE interpretation here, indicated in the examples by a different subscript number (*Asma₁ parle d'elle₂* 'Asma talks about her'). Disjoint reference means that the pronoun is not coreferential with the subject, and does not even have overlapping reference. In (2c) from Malay, the form *dirinya* must be coreferential either with the subject of its minimal clause (*Salmah*) or with the subject of the matrix clause (*Ahmat*). The participant with which the anaphoric pronoun is coreferential is called its ANTECEDENT.

In the remainder of this paper, I will first discuss the two conditions of the definition in (1) further (§2-3), before introducing a number of additional comparative concepts that are important for comparing subtypes of reflexive constructions (§4-13). Along the way, I will illustrate the most important types of reflexive constructions from a wide range of languages, and I will mention a few generalizations. The wider research programme in which this paper is embedded is the study of Human Language through the identification of common structural traits in the world's languages (Greenberg 1963, and much subsequent work). Importantly, this line of research does not aim to contribute to elegant language-particular analyses, let alone to descriptions of the speakers' mental grammars. When other linguists adopt very different perspectives in studying reflexive constructions, this is often motivated by additional goals (such as elegant description, mental description, or even the study of innate grammatical knowledge). Appendix A (14) lists a number of proposed universals (primarily to illustrate the need for the technical terms developed throughout the paper), while Appendixes B (14) and C (14) contain lists of terms with definitions and some further discussion. The definitions are important in order to allow us to

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identify the common structural traits of the world's languages independently of innatist claims, and ideally, we would have standard definitions of many commonly used terms (Haspelmath 2020).

For other surveys of reflexive constructions in the world's languages, see Faltz (1977) (this old dissertation is still very readable), Geniušienė (1987), Huang (2000), Dixon (2012: Chapter 22), and Everaert (2013).

2 First condition: Two coreferential clause participants

Reflexive constructions express coreference between two clause participants (semantically present entities). These need not be expressed as overt arguments. In verb-marked constructions like Lithuanian *prausiuo-s* ('I wash', 2a above), there is only a single expressed argument which can be said to bear both semantic roles (agent and patient), and thus to represent both participants.

More generally, the antecedent of an anaphoric pronoun need not be overtly present but can be inferred from the context. This happens in languages where the subject participant need not be overt, as illustrated in (3).

(3) Polish

Widziała siebie w lustrze.

she.saw self.ACC in mirror

'She saw herself in the mirror.'

There is no reason to assume that the subject is present in the syntax of languages like Polish, so the condition on coreference is best formulated in semantic terms, with respect to semantic participants rather than syntactic arguments (see also Jackendoff 1992).¹

3 Second condition: A special form that signals coreference

The second condition mentioned in (1) is that reflexive constructions must contain a special form signaling coreference. Thus, the constructions illustrated in

¹Note also that the coreference may be PARTIAL (e.g. 'I exploit us', Hampe & Lehmann 2013), or the antecedent may be SPLIT (see Volkova (2017) on situations like 'Petja₁ showed Ivan₂ themselves₁₊₂ on the photo', which is possible with one type of reflexive pronoun in Meadow Mari). The opposite of coreference is disjoint reference, which excludes partial or split coreference.

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(4) and (5) are not regarded as reflexive constructions, even though they can only be used when there is coreference of two participants

- (4) He undressed.

- (5) She wants to sing.

In (4), it is clear from the meaning of the verb and from the construction that the two participants of *undress* (the undresser and the undressed) are coreferential, and in (5), the animate participant of *want* (the wanter) and the participant of *sing* (the singer) are coreferential. But there is no special form that signals the coreference, so these are not reflexive constructions.² (Below in §12 I say more about coreference constructions that are not reflexive constructions.)

4 Coreference within the clause can be expressed in other ways

Reflexive pronouns like French *elle-même* and English *herself* have often been discussed in the general context of ANAPHORA, i.e. the use of linguistic forms or constructions to signal coreference within the discourse or within a clause. But reflexive pronouns are not the only way in which anaphoric reference can be expressed. All languages also have nonreflexive anaphoric pronouns like English *he/she/they*, whose use is also often syntactically conditioned.

Nonreflexive anaphoric pronouns may often refer to participants in the non-linguistic context (as in 6a), and they may be coreferential with participants in the discourse (as in 6b).³

- (6) a. (watching a politician₁ talk:) I disagree with her₁.
 b. Angela Merkel₁ has been chancellor for too long. Many people think that she₁ should go.

²Linguists have often found it useful to have different terms for grammatical meanings and corresponding grammatical markers or constructions, e.g. *recipient* vs. *dative*, *question* vs. *interrogative*, *sex* vs. *gender*, *time* vs. *tense*, *speech-act role* vs. *person*, *property concept* vs. *adjective*, *causal* vs. *causative* (Haspelmath 2016), and *mutual* vs. *reciprocal* (Haspelmath 2007). There are of course some authors who call cases like (4) “reflexive” (e.g. Reinhart & Reuland 1993), but I find it clearer to reserve the term *reflexive* to (constructions with) special forms that signal coreference. (Cases like (4) may be called “unmarked autopathic verbs”; see § 2.2sec:Haspelmath:8).

³There are interesting pragmatic conditions on such EXOPHORIC (6a) and ENDOPHORIC (6b) uses of personal pronouns (cf. Ariel 1990; 2001), but for reflexive constructions, they play no role, and only grammatical conditions on anaphora are considered in the present paper.

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But in addition, we often find syntactic conditions on anaphoric pronouns that have interested many syntacticians since the 1960s (e.g. Langacker 1969). In many or most languages, a nonreflexive anaphoric pronoun in object or oblique position cannot be coreferential with the subject of its clause, as can be illustrated from English:⁴

- (7) a. *Pedro₁ admires him₁.
- b. *Angela Merkel₁ was astonished by her₁.

Instead, English must use a special set of REFLEXIVE PRONOUNS, i.e. anaphoric pronouns that are specialized for coreferential use within a clause. But other languages can use their nonreflexive pronouns also for coreference with the subject.⁵ This is well-known for Old English, and the same has been reported for several creole languages (e.g. Haitian Creole) and for several Austronesian languages (e.g. Jambi Malay) (Huang 2000: 222 gives a longer list of such languages).

- (8) Old English
þa behydde Adam₁ hine_{1/2}
 then hid Adam him
 'then Adam hid himself' OR: 'then Adam hid him' (König & Vezzosi 2004a:232)
- (9) Haitian Creole
yo wè yo
 they see they
 'they saw them' OR: 'they saw themselves' (OR: 'they saw each other') (Déchaine & Manfredi 1994: 203)
- (10) Jambi Malay
dio₁ cinto dio_{1/2}
 he love he
 'he loves him' OR: 'he loves himself' (Cole et al. 2015: 147)

Such anaphoric forms are not considered reflexive pronouns (and the constructions are not reflexive constructions) because they can also be used when there is no coreference within the clause.

⁴Such anaphoric pronouns are also called OBVIATIVE (§10).

⁵Note that in this paper, the term *subject* is used in the sense 'S- or A-argument', and *object* in the sense 'P-argument or R-/T-argument' (cf. Haspelmath 2020).

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Additionally, ordinary first and second person pronouns can often be used subject-coreferentially, as in German in (11). And in some languages, the same nominal can be repeated with identical reference in the same sentence, as has been reported for Zapotec of San Lucas Quiaviní (see 12).

- (11) German

Gestern habe ich₁ mich₁ im Fernsehen gesehen.
yesterday have I me on television seen
'Yesterday I saw myself on television.' (Lit. 'I saw me')

- (12) San Lucas Quiaviní Zapotec (Mexico)

R-yu'làa'a'z Gye'eihlly Gye'eihlly.
HAB-like Mike Mike
'Mike likes himself' (Lit. 'Mike likes Mike.') (Lee 2003: 84)

Unlike (8-10), these sentences are unambiguously subject-coreferential, but they are not reflexive constructions either, because they do not involve any special forms.

In the literature, following the tradition of Reinhart (1976); Reinhart (1983c) and Chomsky (1981), the syntactic conditions on clause-internal coreference are often treated under the heading of "binding" (using a term borrowed from mathematical logic), and there is a substantial and highly complex literature in this tradition (e.g. Everaert 2003; Büring 2005; Truswell 2014).⁶ For the purposes of cross-linguistic comparison, it seems best to avoid the term "binding" and to talk about COREFERENCE (for anaphoric relations in the broadest sense) and SUBJECT-COREFERENTIAL uses of anaphoric forms (for anaphoric relations between the subject and an anaphoric pronoun).⁷

⁶ Binding is typically defined as syntactic coindexing of two elements X and Y when X c-commands Y. Note that "bound" elements in this sense may or may not be reflexive pronouns, and may or may not have a co-varying interpretation (involving (semantic) bound variable anaphora, §13). Coreferential forms may or may not involve syntactic binding, and co-varying interpretations may or may not involve syntactic binding. The relationship of syntactic binding to coreference, to reflexive and nonreflexive pronouns, and to pronoun interpretation is thus quite indirect (and often unclear, given the problems with determining c-command that are mentioned in §7). All these problems are avoided when one avoids the term *binding*.

⁷ It should be noted that the term *coreference* has also been used more narrowly, for discourse coreference excluding co-varying interpretations (as in *Every woman_i loves her_i dog*); for more on the two subtypes of coreference, see §13.

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5 Types of reflexivizers

Reflexive constructions always include some special form that signals the impossibility of the disjoint-reference interpretation. Such forms are called REFLEXIVIZERS here, and three main types are distinguished: REFLEXIVE NOMINALS, REFLEXIVE VOICE MARKERS, and REFLEXIVE ARGUMENT MARKERS. These are defined and exemplified in this section. In the final subsection (§5.4), I briefly mention other kinds of reflexive constructions which do not fall into the three main types.

5.1 Reflexive nominals (or pronouns)

The most prominent type of reflexivizer is what would ideally be called REFLEXIVE NOMINAL, illustrated in (13). Such forms are often called *reflexive pronouns*, and some of them are sometimes called “reflexive nouns”.

- (13) a. English
They criticized **themselves**.
- b. Basque
Geu-re buru-a engaina-tzen d-u-gu.
we-GEN head-DEF deceive-IPFV 3.ABS-TR-1PL.ERG
'We deceive ourselves.' (Evseeva & Salaberri 2018: 400)
- c. Egyptian Arabic
Šaaf-it nafsa-ha.
saw-3SG.F self-3SG.F.POSS
'She saw herself.'
- d. Modern Greek
O Pétrοs aghapái ton eaftó tu.
the Petros loves DEF self 3SG.POSS
'Petros loves himself.' (Lit. 'Petros loves his self') (Everaert 2013: 202)
- e. Tukang Besi (Austronesian)
O-pepe-'e na karama-no te ana.
3.REAL-hit-3.OBJ NOM self-3.POSS CORE child
'The child hit himself.' (Donohue 1999: 418)

The term *reflexive nominal* emphasizes that in many languages, these forms behave like full nominals, e.g. in that they can take a definite article (as in Basque, 13b), an adposessive person index (as in Egyptian Arabic, 13c), or both (as in Modern Greek, 13d).

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The term REFLEXIVE NOMINAL would be ideal for these forms because what they share is that they can occur in the regular object position (as P-argument, as in 13a–13e) and as adpositional complements, as in (14a–14b). But since the term *reflexive pronoun* is also very widespread and unambiguous, I use the two terms interchangeably.

- (14) a. English
 They talked about **themselves**.
 b. Basque
 Bere buruari buruz hitz egin zuten.
 their heads about talk do AUX.3PL.PST
 ‘They talked about themselves.’

Moreover, these forms can normally occur in isolation, e.g. in elliptical answers (*Who did they talk about? Themselves*). In this regard, reflexive nominals are like full nominals, and crucially distinct from person indexes (Haspelmath 2013), which are bound (i.e. do not occur in isolation) and usually cannot occur equally as objects and as adpositional complements. More on subtypes of reflexive nominals and their properties will be said below in §6.

5.2 Reflexive voice markers

A reflexive voice marker is a verbal affix that indicates the coreference of two participants of a verb. While this is not logically necessary, it is in fact always an object participant that is coreferential with the subject participant. Most often, the reflexive voice marker occurs on the verb stem, as in (15a–15d).

- (15) a. Turkish (suffix -n)
 kurula-n-di-m
 dry-REFL-PST-1SG
 ‘I dried myself.’
 b. Thulung (Trans-Himalayan; suffix -si)
 Memma tha-si-m sintha konya je.
 then hide-REFL-SUFF night only come.out
 ‘Then he hides (himself) and only comes out at night.’ (Lahaussois 2016: 54)
 c. Hebrew (prefix hit-)

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Dan **hit-raxec**.

Dan REFL-washed

'Dan washed (himself).' (Reinhart & Siloni 2005: 390)

- d. Kolyma Yukaghir (Siberia; prefix met-)

Tudel met-juøj.

he REFL-see-3SG.INTR

'He is looking at himself.' (Maslova 2003: 227)

But occasionally, the reflexive voice marker is cumulated with (= expressed as the same marker as) a person marker, as in Modern Greek.

- (16) Modern Greek

- a. *xteníz-ome*

comb-1SG.REFL

'I am combing (myself, my hair).'

- b. *xteníz-ese*

comb-2SG.REFL

'You are combing (yourself, your hair).'

Finally, the reflexive voice marker may occur in a peripheral position, outside of a tense affix, as in Panyjima, and additionally outside a subject number affix, as in Russian (and in Lithuanian, as in (2a) above).⁸

- (17) a. Panyjima (Pama-Nyungan; suffix -pula)

Ngatha wirnta-rna-pula jina.

1SG.NOM cut-PST-REFL foot

'I cut myself in the foot.' (Dench 1991: 160)

- b. Russian (suffix -s'/-sja)

My my-l-i-s'.

we wash-PST-PL-REFL

'We washed (ourselves).'

In many languages with reflexive voice markers, these are not as general as typical inflectional markers, and they are often regarded as derivational as they may be restricted and unproductive. Verbs with reflexive voice markers are therefore often called REFLEXIVE VERBS.

⁸A pattern of this type also exists marginally in English, with the prefix *self-* (e.g. *she self-medicates*).

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Reflexive voice markers are not always easy to distinguish from reflexive argument markers, which are discussed next.

5.3 Reflexive argument markers

In some languages, a reflexive form is very similar to object person indexes in that it occurs in the same paradigmatic slot as the person index and cannot cooccur with a person index of the same role. Some examples are given below, where a nonreflexive third-person index is contrasted with a reflexive person index.

- (18) French

<i>il la voyait</i>	<i>il se voyait</i>
he 3SG.F saw	he REFL saw
'he saw her'	'he saw himself'

- (19) Swahili

<i>a-li-m-kata</i>	<i>a-li-ji-kata</i>
3SG-PST-3SG.OBJ-cut	3SG-PST-REFL-cut
'she cut him'	'she cut herself'

- (20) Abkhaz ⁹

<i>bəz-bə-yt'</i>	<i>lçə-l-š-we-yt'</i>
2SG.OBJ-1SG.SBJ-see-FIN	REFL.F-3SG.F.SBJ-kill-DYN-FIN
'I see you'	'she kills herself'

Person indexes like the French proclitic (or prefix) *la*=, the Swahili prefix *m*-, and the Abkhaz prefix *bə*- are crucially different from independent personal pronouns in that they cannot occur in isolation, but are bound to the verb (or occur in a special slot for second-position clitics) (see Haspelmath 2013). They are thus not nominals (= reference-performing expressions that can occur in isolation), contrasting with full nominals and independent personal pronouns. The forms *se*=, *ji*- and *lçə*- in the examples above are different from the voice markers in §5.2 in that they occur in the same slot and in complementary distribution with person indexes, so they can be treated as argument indexes, even though they do not (necessarily) vary for person. The Abkhaz reflexive argument index does vary for person (*sçə-s-š-we-yt'* 'I kill myself'), but the Swahili prefix *ji*- does not

⁹Hewitt (1979: 77,105)

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(*ni-li-ji-kata* ‘I cut myself’),¹⁰ and the French *se* occurs only in the third person.¹¹

Some authors have claimed, especially for French and other Romance languages, that constructions such as *il se voit* should be treated as intransitive (e.g. Reinhart & Siloni 2005: §2.1; Creissels 2006: 27–28), and that French *se* should not be regarded as an object clitic, but as a voice marker. This is based on a number of additional characteristics of the construction that go beyond the simple form paradigm (e.g. their behaviour in verb-subject and causative constructions) and can thus hardly be used in cross-linguistic comparison.¹² But it needs to be admitted that the criterion of “occurrence in the same slot” may not always be clearly applicable (e.g. when different object indexes occur in different slots).

5.4 Other types of reflexive constructions

The great majority of reflexive constructions that have been reported in the literature and that have been called “reflexive” belong to one of the three types seen so far, and the great majority of languages have been reported to have either reflexive nominals or reflexive voice markers or both. But there are other construction types which are attested occasionally.

The first case is a construction in which it is not the lower-ranked anaphoric form that indicates the coreference, but the subject antecedent. According to Bowden (2001: 166), Taba has “an invariant reflexive particle *do* which occurs as an attribute of the Actor nominal, and which indicates that the Actor of the verb is coreferential with the Undergoer of the same verb”. This is illustrated in (21).

- (21) Taba (Austronesian; Indonesia)

- a. *I do n=wet i.*
3SG REFL 3SG=hit 3SG
'He hit himself'

¹⁰See also Déchaine & Wiltschko (2017a: §. 4) on *zvi-* in Shona (another Bantu language), which works very similarly.

¹¹French allows first and second person object indexes to be used subject-coreferentially (e.g. *je me vois* ‘I see myself’). This seems to be rare in the world’s languages: Paradigms with subject and object indexes typically have gaps in all the coreferential paradigm slots (cf. Hampe & Lehmann 2013).

¹²Doron & Rappaport Hovav (2009) provide a rich set of arguments against Reinhart & Siloni’s claims. Their view, that French *se* should be analyzed as an “anaphor”, is more in line with the classification chosen here. But it should be kept in mind that I do not treat typological classifications as “analyses”, and that “arguments” which go beyond the definitional properties are not relevant for the classification.

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- b. *Yak do k=alcoma-k yak surat.*
 1SG REFL 1SG=send=APPL 1SG letter
 'I am sending myself a letter.'

If this construction were restricted to personal pronoun subjects, it would be a reflexive pronoun that violates the rank scale generalization (discussed below in §7), but Bowden's description does not report such a restriction.

A related construction uses a kind of bipartite reflexive pronoun which bears the flagging of both the antecedent and the position in which the anaphoric pronoun occurs. This has been documented for a number of Dagestanian languages, e.g. Avar.

- (22) *fali-ca žin-ca-go ži-w-go l"uk"-ana.*
 Ali-ERG self-ERG-EMPH self-G1-EMPH hurt-AOR
 'Ali hurt himself.' (Testelec & Toldova 1998: 45)

Here the first part of the bipartite reflexive pronoun (*žin-ca-go ži-w-go*) bears the ergative case of the antecedent nominal (the subject), and the second part is in the absolute case, as is appropriate for the role of the pronoun. This can probably be regarded as a bipartite reflexive pronoun, though the case-form of the first part links it closely to the antecedent, and thus makes it look somewhat like the case of Taba mentioned in the preceding paragraph.

In some languages, an adverbial expression (meaning 'alone', or 'again') that is not closely associated with an argument expression can indicate coreference of the object with the subject. This might be called a REFLEXIVE ADVERB. An example comes from an Austronesian language:

- (23) Fagauvea (Polynesian)
E hage matea ie ia a cica.
 IPFV alone admire ABS 3SG ART dad
 'Dad admires himself.' (Moyse-Faurie 2008: 138)

Finally, I should briefly mention LOGOPHORIC PRONOUNS, which indicate coreference between a participant of an embedded clause and the subject (or another prominent participant) of the matrix clause. Consider the contrast in (24a-24b), where coreference is indicated by *inyemeñ*, and disjoint reference by the nonlogophoric pronoun *won* (Culy 1994: 1056).

- (24) Donno So (Dogon)

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- a. *Oumar [Anta inyemeñ waa be] gi.*
Oumar Anta LOGOPHOR.ACC seen AUX said
'Oumar₁ said that Anta₂ had seen him₁'
- b. *Oumar [Anta woñ waa be] gi.*
Oumar Anta him.ACC seen AUX said
'Oumar₁ said that Anta₂ had seen him₃'

Such pronouns are not normally treated as reflexive pronouns, though by the definition that I have given so far, they should be regarded as reflexive pronouns. Perhaps their special treatment in the literature is entirely due to the fact that the research tradition has been focused on West African languages.

6 Types of reflexive nominals

The first of the three main types of reflexivizers, reflexive nominals (§5.1), shows a lot of internal diversity, so we can distinguish a number of salient subtypes here.

6.1 Nouns with adposessive person forms (= possessive-indexed reflexive nouns)

In many languages, the reflexive nominal looks like a noun that takes adposessive person forms, so that the literal translation is 'my self', 'your self', 'his self', and so on. These nouns sometimes have plural forms when the antecedent is plural, i.e. 'our selves', 'your selves', 'their selves'. Some examples are given in Table 1 (for Hausa, see Newman (2000); for Chalcatongo Mixtec, see Macaulay (1996: 144–145); for Finnish, see Karlsson (1999: 137); for Hebrew, see Glinert (1989: 67)).

In Georgian, the possessive person form is not a bound form (*čemi tavi* 'myself', *šeni tavi* 'yourself'), and it is not obligatory (Amiridze & Leuschner 2002). Perhaps one can say in general that when the possessive person form is a bound form as in Table 1, it is obligatory, but when it is a free form, it may or may not occur.

Faltz (1977) calls such noun-like reflexive forms "head reflexives", because they can be the "head" of a reflexive nominal.¹³

¹³This term is not ideal, for two reasons: (i) reflexive nouns often come from body-part nouns meaning 'head' (see §11.2 below), so it may be misinterpreted, and (ii) the syntactic notion of "head" is not well-defined (it may often be unclear whether a reflexive-marking form is a "head"

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Table 1: Examples of possessive-indexed reflexive nouns

	Modern Greek	Hausa	C. Mixtec	Finnish	Hebrew
1SG	<i>ton eaftó mu</i>	<i>kâin-ā</i>	<i>máá=rí</i>	<i>itse-ni</i>	<i>ſacm-i</i>
2SG	<i>ton eaftó su</i>	<i>kân-kâ</i>	<i>máá=ro</i>	<i>itse-si</i>	<i>ſacm-exa/-ex</i>
3SG	<i>ton eaftó tis</i>	<i>kân-sà</i>	<i>máá=ñá</i>	<i>itse-nsä</i>	<i>ſacm-o/-a</i>
1PL	<i>ton eaftó mas</i>	<i>kân-mù</i>		<i>itse-mme</i>	<i>ſacm-enu</i>
2PL	<i>ton eaftó sas</i>	<i>kân-kù</i>		<i>itse-nne</i>	<i>ſacm-exem/-exen</i>
3PL	<i>ton eaftó tus</i>	<i>kân-sù</i>		<i>itse-nsä</i>	<i>ſacm-am/-an</i>

6.2 Noun-like forms without adposessive indexes

In languages lacking adposessive person indexes, reflexive nouns are not person-marked. They are noun-like primarily in that they can occur with adpositions and/or case-markers. Examples come from Japanese (*jibun*) and Hindi-Urdu (*apne*) in (25a-b). For the Ute form *nanəs*, Givón's description only gives examples of object use, so it is less clearly noun-like (and could be said to resemble the voice prefixes in (15b-c) above).

- (25) a. Japanese

Ken wa jibun o hihanshi-ta.
Ken TOP self ACC criticize-PST
'Ken criticized himself.' (Hirose 2018: 380)

- b. Hindi-Urdu

Siitaa₁-ne Raam₂-ko [apne_{1/2}-ko dekh-ne-ke] liye majbuur kiyaa.
Sita-ERG Ram-DAT self-DAT look-INF-GEN
for force did

'Sita (f) forced Ram (m) to look at her/himself.' (Davison 2001)

- c. Ute (Uto-Aztecán)

Nanəs p̪unikya-qhay-’u.
self see-ANT-3SG
'She saw herself.' (Givón 2011: 237)

or not).

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6.3 Self-intensified anaphoric pronouns

In some languages, reflexive nominals are etymologically made up of anaphoric pronouns combined with self-intensifiers (i.e. forms that are used like English *himself/herself/themselves*, as in *Is the queen coming herself?*).

- (26) a. Irish

Chonaic na cailíni iad féin.

see.PST the girls them self

‘The girls saw themselves.’ (Nolan 2000: 36)

- b. Mandarin Chinese

Zhangsan ai ta-ziji.

Zhangsan love him-self

‘Zhangsan loves himself.’ (Tang 1989: 98)

An example from French (*Asma parle d'elle-même*) was seen earlier in (2b), and an example from Malayalam is seen below in (40a). Self-intensifiers are often closely related to reflexive nominals (König & Siemund 2000; König et al. 2005), and I will say a little more about them in §11.2.

6.4 Anaphoric pronouns with other reinforcements

Reflexive nominals may also be made up from anaphoric pronouns combined with other reinforcing elements, e.g.

- (27) Tok Pisin

Em go na em kilim em yet.

he go and he kill him EMPH

‘He went and killed himself.’ (Smith & Siegel 2013)

- (28) Kikongo-Kituba

Bo bula bo mosi.

they hit them one

‘They hit themselves.’ (Mufwene 2013)

- (29) Fijian

O Josesē ā digi-taki koya gā.

DET Josesē PST choose-TR him EMPH

‘Josesē voted for himself.’ (Park 2013: 775)

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6.5 Reflexive pronominoids

In some languages, reflexive nominals are similar to independent personal pronouns in that they not only lack noun-specific features like articles and adposessive person indexes, but also share idiosyncratic properties of personal pronouns. This is clearest in western Indo-European languages such as Slavic and Germanic. Table 2 shows a personal pronoun ('you.SG') and the reflexive pronoun in both Polish and Icelandic.

Table 2: Examples of personal pronouns and reflexive pronominoids

	Polish 'you'	Polish 'self'	Icelandic 'you'	Icelandic 'self'
NOM	<i>ty</i>	-	<i>pú</i>	-
GEN	<i>ciebie</i>	<i>siebie</i>	<i>pín</i>	<i>sín</i>
DAT	<i>tobie</i>	<i>sobie</i>	<i>pér</i>	<i>sér</i>
ACC	<i>ciebie</i>	<i>siebie</i>	<i>pig</i>	<i>sig</i>

The inflectional patterns are so similar that there is no question that the reflexive pronouns belong to the same paradigm as the personal pronouns. But it should be noted that such REFLEXIVE PRONOMINOIDs are apparently quite rare in the world's languages.¹⁴

Another language which has reflexive pronominoids, in a much richer way, is Ingush (a Nakh-Dagestanian language of Russia; Nichols 2011: §9.1). A small part of the paradigm is listed in Table 3.

Table 3: Personal pronouns and reflexive pronominoids in Ingush

	1SG	1SG.REFL	2SG	2SG.REFL	3PL	3PL.REFL
NOM	<i>so</i>	<i>sie hwo</i>	<i>hwie</i>	<i>y zh</i>	<i>shoazh</i>	
GEN	<i>sy</i>	<i>sei</i>	<i>hwa</i>	<i>hwaai</i>	<i>caar</i>	<i>shoi</i>
DAT	<i>suona</i>	<i>seina</i>	<i>hwuona</i>	<i>hwaaina</i>	<i>caana</i>	<i>shoazhta</i>
ERG	<i>aaz</i>	<i>eisa</i>	<i>wa</i>	<i>waaixa</i>	<i>caar</i>	<i>shoazh</i>

¹⁴I deliberately introduce the strange term *reflexive pronominoid* here in order to highlight the fact that such forms are unusual, even though they are very familiar to many linguists from European languages (Latin also has such pronominoids). Using the term *pronoun* for the unusual forms in contrast to *noun* for the forms in §6.2 would not have the same effect. (From §7 onwards, I will us the term *reflexive pronoun* for any kind of reflexive nominal, because this term is more familiar from the literature.)

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7 The rank of antecedent and reflexive pronoun

In this and the next few sections, we will consider syntactic conditions under which reflexive pronouns can be used, as well as some technical terms that are associated with these conditions.

According to the definition given in (1), a reflexive pronoun must occur in the same clause as its antecedent.¹⁵ However, there is generally an additional syntactic restriction: The antecedent must be a subject of the same clause or of a superordinate clause. Thus, (30a) with a subject antecedent is possible, while (30b) is not possible.

- (30) a. My friend praised **herself**.
 b. ***Herself** praised my friend.

And in (31), the adposessive reflexive pronoun must be coreferential with the subject, not with the dative object.

- (31) Russian
*Ona₁ dala bratu₂ svoj_{1/*2} zont.*
 she gave brother.DAT self's umbrella
 'She₁ gave her₁ (NOT: his₂) umbrella to her brother₂'

In some languages (such as English), the conditions are less strict, in that it is also possible for the antecedent may additionally be the object and the reflexive pronoun an oblique argument, as illustrated in (32a). But the opposite is impossible, as seen in (32b).

- (32) a. Jane told James about himself.
 b. *Jane told himself about James.

To describe the difference between Russian *svoj* and English *himself*, we say that *svoj* is SUBJECT-ORIENTED, while *himself* does not show this restriction. (Actually, there should be a special term for reflexive pronouns like *himself*, because most reflexive pronouns seem to be subject-oriented, and the English case is apparently less usual.)

¹⁵Note that this is not the same as saying that the antecedent and the reflexive pronoun must be clausemates: Clausemates are elements occurring in the same minimal clause, but a reflexive pronoun need not be a clausemate (see §9). I could have said *sentence* instead of *clause* here, but the difference does not matter here (a sentence is a maximal clause, and maximality is irrelevant in the present context).

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In some languages, the antecedent may be in the matrix clause and the reflexive pronoun in the embedded clause, as illustrated by (33). (More such examples will be seen in §9 below.)

(33) Japanese

Taroo-wa₁ [Hanako-ga zibun-ni₁ kasi-te kure-ta] okane-o
 Taro-TOP Hanako-NOM self-DAT lend-CVB give-PST money-ACC
tukat-te simat-ta.
 spend-CVB end.up-PST

‘Taro has spent all the money that Hanako had lent him.’ (*Kuno & Kaburaki* 1977: 635)

Again, the reverse situation (with the reflexive *zibun* in the matrix clause and the antecedent in the embedded clause) would not be possible here.

While there is no systematic cross-linguistic research, it appears from the rich literature on many different languages that given the rank scale in (34),¹⁶ almost all languages restrict the relation between the antecedent and the reflexive pronoun in such a way that (35) is observed.

(34) rank scale of syntactic positions

subject > object > oblique > within nominal, within embedded clause

(35) antecedent-reflexive asymmetry

The antecedent must be higher on the rank scale of syntactic positions than the reflexive pronoun.

Note that this additional restriction is not definitional, but is an empirical generalization. The reason we can be fairly confident that (35) is true is that a violation of (35) would be very salient, and linguists would have discussed such cases more often. *Forker* (2014) discusses a number of cases that have been mentioned in the literature, but she does not find many clear instances where the reflexive pronoun is unexpectedly in subject position. An exception to (35) is found in Georgian, as illustrated in (36).

¹⁶A scale of this kind was proposed by *Pollard & Sag* (1992: 266), but they only discuss English. Other authors that have proposed similar rank scales are *Bresnan* (2001: 212) and *Van Valin Jr. & LaPolla* (1997: §7.5), and yet others have proposed to explain the restrictions in terms of a semantic role scale (*Jackendoff* 1972: Ch. 4) or a in terms of a case scale (*É. Kiss* 1991). None of these language-particular proposals are incompatible with the cross-linguistic claim of (33).

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- (36) *šen-ma tav-ma gac'ama (šen).*
 your-ERG head-ERG he.tormented.you you.NOM
 'It was yourself that tormented you.' (Amiridze 2003)

In most languages, the occurrence of reflexive pronouns is actually still more restricted than is implied by (34) and (35), though the various language-particular regularities are difficult to generalize over, and nobody has tried to compare all the languages studied so far in a comprehensive way. Since Chomsky (1981) and Reinhart (1983c), it has often been thought that a notion of "c-command" is necessary to describe the occurrence of reflexive pronouns (and nonreflexive anaphoric pronouns) in English, and it has been assumed without much argument that such a notion is universally applicable. However, even for English, c-command fails in many cases (e.g. Barss & Lasnik 1986; Pesetsky 1987; Bruening 2014), and many of the proposals in the literature are highly speculative.¹⁷ The general usefulness of "c-command", while widely assumed by authors working in the Reinhart-Chomsky tradition, is therefore far from established knowledge, and even for particular languages, descriptions in terms of rank scales may be preferable (see n. 16).

In addition to the contrast between subjects, objects and obliques in (34), many languages also allow experiencers which are objects or obliques to be antecedents of reflexive pronouns, as illustrated in (37) from Italian (Belletti & Rizzi 1988).

- (37) *Questi pettegolezzi su di sé preoccupano Gianni più di ogni altra cosa.*
 these rumours about of himself worry Gianni more than any other thing
 'These rumours about himself worry Gianni more than anything else.'

This is also possible in English to some extent (Reinhart 1983b: 81; Pesetsky 1987: 127), and in many other languages. These cases show that the rank scale in (34) (let alone a notion of c-command) is not sufficient to account for the distribution of reflexive pronouns.

¹⁷Many authors have proposed modifications of the constituent structure in order to accommodate recalcitrant cases, e.g. Reinhart (1983a: 81), Pesetsky (1987), and, most blatantly, Larson (1988) (as discussed and criticized by Culicover & Jackendoff 2005: §2.1.3

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8 Domains: Autopathic, oblique and adposessive reflexive constructions

When the form that marks the reflexive construction is a reflexive pronoun, there are often interesting variations with respect to the ANTECEDENT DOMAIN (often called “binding domain”), i.e. the “syntactic distance” between the antecedent and the reflexive nominal. In this section, I distinguish between an autopathic domain, an oblique domain, and an adposessive domain, because these are the most important distinctions. In the next section (§9), we will see domains going beyond the minimal clause.

The AUTOPATHIC DOMAIN is the relation between the subject and the object (or the A-argument and the P-argument) in a monotransitive clause, as in *She saw herself; He painted himself; They hit themselves*. This is Faltz’s (1977: 3) “archetypal” reflexive context, Kemmer’s (1993: 41) “direct reflexive” situation, and it describes what Reinhart & Reuland (1993) call “reflexive predicates”. We need the new term *autopathic* for this domain, because the term *reflexive* is generally used in the wider sense of §1, and because this domain is so important that it deserves its own label.¹⁸ As far as I am aware, reflexive voice markers in the world’s languages are primarily used in the autopathic domain. Moreover, many languages have a short reflexive pronoun and a long reflexive pronoun, and not uncommonly, the longer pronoun is required (or preferred) in the autopathic domain. This is apparently due to the fact that coreference is particularly unlikely in this domain, at least with extroverted verbs (König & Vezzosi 2004b; Haspelmath 2008).

The OBLIQUE DOMAIN refers to the relation between the subject and an oblique-marked participant of the same minimal clause. In this domain, some languages can use a nonreflexive pronoun, e.g. French and English.

- (38) French

Pierre est fier de lui.
‘Pierre is proud of him /of himself’

- (39) English

- a. Jane saw a snake near her / near herself.
- b. John left his family behind him (/*himself). (Kiparsky 2002: 43)

¹⁸The Greek term for ‘reflexive’ is *autopathēs*, deriving from *auto-* ‘self, same’ and *path-* ‘patient’ (i.e. literally it means ‘domain in which the patient is the same’). The term *autopathic* in this sense is thus very transparent etymologically.

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The precise conditions vary (in a complicated way, cf. Zribi-Hertz 1995 for French), but the fact that the anaphoric position is an oblique argument (rather than a direct object, or P-argument) seems to play an important role in a number of languages.¹⁹ Another language that is similar to French and English is Malayalam (Jayaseelan 2000), where the simple reflexive pronoun *taan/tann-* cannot be used in an autopathic situation (which requires the complex form *awan- tanne*), but can be used when the reflexive is in an oblique position:

- (40) Malayalam (Jayaseelan 2000: 121,126)

- a. *Raaman awan-e tanne aṭiccu.* (**Raaman tann-e aṭiccu.*)
Raman he-ACC self hit
'Raman hit himself.'
- b. *Raaman tan-te munn-il oru aana-ye kandu.*
Raman self-GEN front-LOC one elephant-ACC saw
'Raman saw an elephant in front of him(self).'

And in Homeric Greek, a complex reflexive pronoun *hé- + autó-* must be used in the autopathic domain (41a), while the oblique domain allows the bare reflexive *hé-* (41b) (Kiparsky 2012: 86-87).

- (41) Homeric Greek

- a. *Heè d' autò-n epotrún-ei makésa-sthai.*
REFL.ACC PRT self-ACC rouse.3SG fight.AOR-INF
'And he rouses himself to fight.' (Il. 20.171)
- b. *Aspíd-a taureíē-n skhéth' apò héo.*
shield-ACC bull.hided-ACC held.3SG from REFL.GEN
'He held the shield of bull hide away from him(self).'

An important further domain that is less often discussed is the ADPOSSESSIVE DOMAIN, where the coreferential anaphoric form is the adnominal possessor (= adpossessor) of the object or some other nonsubject participant. The West Germanic and Romance languages use nonreflexive possessive forms in this domain, which can be used subject-coreferentially or with disjoint reference (English *She₁ forgot her_{1/2} umbrella*, French *Elle₁ a oublié son_{1/2} parapluie*). By contrast, many other languages make an obligatory distinction between subject-coreferential

¹⁹A related notion is that of COARGUMENT DOMAIN (Kiparsky 2002), which includes P-arguments and oblique arguments, but not modifying participants.

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and subject-disjoint adposessive pronouns. Examples come from Polish (42) and Evenki (43).

(42) Polish

- a. *Ona₁ jest w swoim₁ pokoju.*
she is in self's room.
'She is in her (own) room.'
- b. *Ona₁ jest w jej₂ pokoju.*
she is in her room
'She is in her room (= another person's room).'

While Polish has an independent reflexive possessive pronoun (42a) contrasting with an independent nonreflexive one (42b), Evenki has possessive person indexes (= bound person forms), both reflexive (43a) and nonreflexive (43b).

(43) Evenki ([Nedjalkov 1997](#): 103)

- a. *Nungan₁ asi-vi₁ iche-re-n.*
he wife-REFL.POSS see-NFUT-3SG
'He saw his (own) wife.'
- b. *Nungan₁ asi-va-n₂ iche-re-n.*
he wife-ACC-3SG.POSS see-NFUT-3SG
'He saw his wife (= another person's wife).'

9 Domains: Clausemate and long-distance reflexive constructions

From the point of view of a language like German, where the reflexive pronoun *sich* must have a CLAUSEMATE antecedent (i.e. the antecedent must be an argument of the same minimal clause, or coargument), the most surprising phenomenon is the existence of LONG-DISTANCE REFLEXIVE PRONOUNS (generally shortened to *long-distance reflexives*, because there are no long-distance voice markers). A long-distance reflexive is a reflexive pronoun that can occur in a subordinate clause and take its antecedent in the matrix clause, as in (44a-44d).²⁰ (We already saw an example from Japanese in (33) above.)

²⁰Note that the opposite, a reflexive pronoun in the matrix clause and its antecedent in the subordinate clause, is excluded by antecedent-reflexive asymmetry in (33).

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- (44) a. Italian

Gianni₁ pensava [che quella casa appartenesse ancora alla propria₁ Gianni thought that that house belonged still to self's famiglia].
family

'Gianni thought that that house still belonged to his (own) family.' (Giorgi 1984: 314)

- b. Mandarin Chinese

Zhangsan₁ renwei [Lisi₂ zhidao [Wangwu₃ xihuan ziji_{1/2/3}]].
Zhangsan think Lisi know Wangwu like self

'Zhangsan thinks that Lisi knows that Wangwu likes him.' (Cole et al. 2006b: 22)

- c. Ingush

Aaz shiiga₁ telefon tiexacha, Muusaa₁ chy-vaxar.
1SG.ERG 3SG.REFL.ALL phone do.CVB Musa in-go.PST

'When I phoned him₁ (lit. 'himself'), Musa₁ went home.' (Nichols 2011: 645)

- d. Avar

Mahmud bož-ula [žiw lik'aw či w-uk'-inal-da].
Mahmud believe-PRS self.M good.M man M-be-MSD-LOC

'Mahmud₁ believes that he_{1/*2} is a good man.' (Rudnev 2017: 155)

We can call this the LONG-DISTANCE DOMAIN, contrasting it with the CLAUSE-MATE DOMAIN, where the antecedent must be an argument of the same minimal clause.²¹

In some languages, especially Indo-European languages of Europe, long-distance-reflexives are limited to infinitival clauses. This is the case, for example, in Polish, where the counterparts of (44a-44d) would not be possible, but in (45), the reflexive pronoun *siebie* can be coreferential with the matrix subject (or alternatively with the understood infinitival subject). Likewise in Avar, the reflexive pronoun *žiw-go* can only be used in the clausemate domain and the non-finite

²¹The clausemate domain is often simply called "local domain" (even though locality is generally a relative notion), or sometimes "clause-bound(ed)" (e.g. Van Valin Jr. & LaPolla 1997: 393). It should also be noted that the term *clause* is very different from 'minimal clause', because a clause is generally taken to include all of its subordinate clauses. This is why the definition in (1) talks about clauses, not sentences (though the latter would not have been wrong, because a sentence is generally understood as a maximal clause, and the difference between clauses and sentences is irrelevant in the context of (1)).

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long-distance domain, while in finite subordinate clauses, the form *žiw* must be used (Rudnev 2017: §2.1).

- (45) a. Polish

Renata₁ kazała Piotrowi₂ [zbudować dom dla siebie_{1/2}].

Renata.NOM ordered Piotr.DAT build.INF house.ACC for self.GEN

‘Renata ordered Piotr to build a house for her (OR: for himself).’

(Siewierska 2004: 195)

- b. Avar

Ebelal-da₁ b-ix-ana [Malik-ica₂ žindie-go_{1/2} ruq[‘] b-ale-b].

mother-LOC N-see-PST Malik-ERG self.DAT-EMPH house N-build-N

‘Mother saw Malik building a house for her (OR: for himself).’

(Rudnev 2017: 159)

Perhaps one could distinguish different subdomains within the long-distance domain, but “finite” vs. “nonfinite” (Kiparsky 2002) does not work, because there is no cross-linguistically applicable definition of “(non)finite”.

10 Obviative and nonobviative anaphoric pronouns

In many (or perhaps most) languages, nonsubject anaphoric personal pronouns are OBVIATIVE (Kiparsky 2002; 2012), i.e. they cannot be coreferential with a coargument. This is illustrated in (46a-b).

- (46) a. English

The dogs₁ bit them_{2/*1}.

- b. Mandarin Chinese

*Mali₁ hai-le ta_{2/*1}.*

Mali hurt-PFV her

‘Mali hurt her (*herself).’ (Cole et al. 2015: 142)

As noted earlier (§4), many languages (such as English and Mandarin) must use reflexive pronouns rather than (nonreflexive) personal pronouns when coreference is intended (*themselves*, *ta-ziji*). This complementarity of personal pronouns and reflexive pronouns has often been noted and has been taken as a starting point for larger explanatory claims, but it is useful to have a separate term for anaphoric forms that cannot be used coreferentially with the subject.

In some languages, the use of reflexive pronouns is optional. This has been reported, for example, for Hausa:

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- (47) Hausa ([Newman 2000](#): 524)

- a. *Tàlá táká gán tà à màdùubín.*
Tala 3SG.PST see her in mirror
'Tala saw her/herself in the mirror.'
- b. *Tàlá táká gá kántà à màdùubín.*
Tala 3SG.PST see herself in mirror
'Tala saw herself in the mirror.'

Thus, Hausa *tà* is not obviative, unlike English *her*, even though it is a non-reflexive pronoun, like English *her*. The complementarity between nonreflexive and reflexive pronouns that we see in English textbook examples is by no means necessary (and it is not complete in English either, as seen in (39a)). Another interesting case is Turkish, which has three types of third person anaphoric pronouns: an obviative nonreflexive pronoun *on-*, a nonobviative nonreflexive pronoun *kendi*, and a reflexive pronoun *kendi* ([Kornfilt 2001](#)):

- (48) *Ahmet₁ onu₂/ kendini_{1/2}/ kendini₁ çok beğeniyormuş.*
Ahmet him him(self) himself much admires
'Ahmet admires him / him(self) / himself very much.' ([Kornfilt 2001](#): 200)

Like Hausa, Turkish shows no complementary distribution of reflexive and obviative anaphoric pronouns, and it is clear that it must be specified that *on-* is obviative (i.e. that this cannot be derived from a general principle).

In addition to nonreflexive pronouns like *him/her/them* that are obviative, some languages also have reflexive pronouns that are obviative. Examples are Swedish *sig* and Malayalam *taan*, which are long-distance reflexives but cannot be coreferential in the autopathic domain, as illustrated by (49a-49b).

- (49) a. Swedish

- Generalen₁ tvingade översten₂ att hjälpa sig_{1/*2}.*
the.general forced the.colonel to help REFL
'The general₁ forced the colonel₂ to help him₁.' ([Kiparsky 2002](#): 26)

- b. Malayalam (cf. 40a)

- Raaman₁ wicaariccu [Siita₂ **tann-e**_{1/*2} kaṇḍu enna].*
Raman thought Sita self-ACC saw COMP
'Raman thought that Sita saw him.' (NOT: '... Sita saw herself')
([Jayaseelan 2000](#): 129)

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It is very common for nonreflexive personal pronouns to be obviative (and demonstrative-derived anaphoric pronouns are apparently always obviative), but as we saw in (8–10) in §4, some languages have anaphoric pronouns which are not obviative.

11 Coexpression patterns of reflexivizers

The next topic to be covered briefly here is coexpression patterns, i.e. the use of a single form in a language for several meanings or functions that other languages distinguish. Such patterns are often described in terms of “polysemy”, but the term coexpression is more neutral in that it does not entail that the form actually has multiple (related) meanings in a language.

11.1 Reflexive voice markers

It has been well-known at least since Faltz (1977), Geniušienė (1987: ch1) and Kemmer (1993) that across languages, reflexive voice markers often have other uses, in addition to the reflexive meaning, and that the different meanings tend to recur. Kazenin (2001: 917) notes that such markers are “normally polysemous”, and it is indeed hard to find a reflexive voice marker that has no nonreflexive uses. For example, reflexive voice markers commonly have RECIPROCAL uses, as in (50).

- (50) Kuuk Thaayorre (Pama-Nyungan; Gaby 2008: 260)

- a. *Ngay nhaanhath-e.*
1SG.NOM watch-REFL
'I am looking at myself.'
- b. *Pul runc-e-r.*
2DU.NOM collide-REFL-PST
'They two collided with one another.'

When the verb denotes an action that is usually performed on inanimate objects, the reflexive voice marker often has an ANTICAUSATIVE use, as in (51).

- (51) Polish (Janic2020)

- a. *Gotuję wodę.*
boil.1SG water.ACC
'I am boiling water.'

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- b. *Woda gotuje się bardzo szybko.*
 water boil.3SG REFL very quickly
 'The water boils very quickly.'

Other meanings that are sometimes coexpressed with reflexive voice markers are nontranslational motion middles (e.g. German *sich umdrehen* 'to turn around (intr.)'), passives (e.g. Russian *opisyvat's-sja* 'be described'), and antipassives (e.g. French *se saisir de* 'seize'; Janic 2016: 192).

11.2 Reflexive pronouns

Reflexive pronouns are often identical to nouns with meanings such as 'body' or 'head', evidently because they originate in a metonymy process. Schladt (2000) studied reflexive pronouns in 150 languages worldwide and found that over half of them have reflexive pronouns derived from body-part terms. In many languages, these behave like nouns in a variety of ways, which is evidently due to their relatively recent origin in nouns.

More intriguing is the fact that reflexive pronouns are very often identical or closely related to self-intensifiers (as in *The queen came herself*). In their sample of 168 languages, König et al. (2005) found 94 languages with identity of reflexive pronouns and self-intensifiers, and 74 languages where the two are different forms. König & Siemund (2000) and König & Gast (2006) propose an explanation for this overlap, by noting that the meanings of self-intensifiers are similar to the meanings of reflexive pronouns, and they can thus explain that reflexive pronouns typically derive from (or are made up of) self-intensifiers. However, Gast & Siemund (2006) also note that the direction of change is sometimes the opposite, with reflexive pronoun uses preceding intensifier uses.

12 Coreference constructions that are not reflexive constructions

Grammatical systems often specify coreference in constructions that are never called reflexive constructions. Two examples were already given in §2 above. This section gives a few more illustrations.

In some languages, a construction with an anaphoric adpossessor modifying the object is necessarily interpreted as coreferential with the subject. For Finnish, this is reported by van Steenberg (1991: 232), for Halkomelem, by Déchaine & Wiltschko 2017c: §6), and for Chol, by Coon & Henderson (2011: 53–54). The

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constructions (a) examples below entail coreference between the subject and the object adpossessor.

(52) Finnish

- a. *Pekka₁ luki kirja-a-nsa₁.*
Pekka read book-3SG.POSS
'Pekka read his (own) book.'
- b. *Pekka₁ luki hän-en₂ kirja-a-nsa₂.*
Pekka read he-GEN book-3SG.POSS
'Pekka read his book (i.e. another person's book).'

(53) Halkomelem (Salishan)

- a. *Th'ew-xál-em te Strang.*
wash-foot-INTR DET Strang
'Strang washed his (own) feet.'
- b. *Th'ew-t-es te Strang te sxele-s.*
wash-TR-3SG DET Strang DET foot-3.POSS
'Strang₁ washed his₁/his₂ feet.'

(54) Chol (Mayan)

- a. *Tyi i-boño y₁-otyoty jiñi wiñik₁.*
PFV 3.ERG-paint 3.POSS-house DET man
'The man painted his (own) house.'
- b. *Tyi i-boñ-be y₂-otyoty jiñi wiñik₁.*
PFV 3.ERG-paint-APPL 3.POSS-house DET man
'The man painted his/her house (i.e. another person's house).'

In all three languages, an additional form (a kind of ANTIREFLEXIVE marking) is required to allow (or even force) a disjoint interpretation. In Finnish and Halkomelem, this is the nonreflexive anaphoric person form, and in Chol, it is the applicative suffix -be on the verb.

Coreference constructions are also widespread in clause combining, e.g. in certain complement clauses (see (4) in §1), in infinitival purposive clauses (e.g. German *Sie kam, um zu helfen* [she came for to help] 'She came to help'), and in relative clauses (e.g. English *the people [living next door] are our friends*). Special same-subject (SS) and different-subject (DS) constructions are widely used for clause combining patterns of various kinds in the world's languages (when

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the SS/DS constructions are formally symmetrical, the term *switch reference* is sometimes used, e.g. [van Gijn & Hammond 2016](#)). These constructions also help with reference tracking, and some authors have tried to consider both clause-combining constructions and reflexive markers together (e.g. [Matić et al. 2014](#)). But so far, there is little work that attempts a comprehensive picture of coreference constructions of diverse types.

13 Two kinds of coreference: Discourse-referential and co-varying interpretations

Since the 1960s, it has been recognized that there are often two interpretations of coreferential anaphoric forms, which are best called the DISCOURSE-REFERENTIAL INTERPRETATION and the CO-VARYING INTERPRETATION (often called bound-variable anaphora, e.g. [Reinhart 1983c; Déchaine & Wiltschko 2017b](#)). The contrast can be illustrated by (55a–55b). In (55a), the dog is owned by a particular woman who can be identified in the discourse. But in (55b), there is no particular woman, and no particular dog.

- (55) a. discourse-referential:
Ibrahim₁ loves her₂ dog.
- b. co-varying:
Every woman₁ loves her₁ dog. (every woman x: x loves x's dog)

Rather (55b) says that the interpretation of *her* varies with the interpretation of the quantified expression *every woman*. In logic, this is traditionally expressed by saying that there is a variable *x* that is BOUND by the quantifier 'every' that has scope over it. The anaphoric pronoun *her* can be thought of as corresponding to the bound variable *x* in (55b), rather than denoting a discourse referent.

In a tradition going back to [Reinhart \(1983c; 1983a\)](#), some authors have referred to this distinction as "coreference vs. binding" (e.g. [Heim & Kratzer 1998: §9.1; Reuland 2011: §1.6.1](#)), but this terminology is confusing, because *coreference* has long been used for the meaning underlying reflexive constructions, and is still widely used in this way. Thus, it is better to keep the term *coreference* for the meaning underlying reflexive constructions, and to distinguish between two subtypes of coreference: discourse referential coreference and co-varying coreference.²²

²²I would thus say that two participants are coreferential (i) if they have the same referent or (ii) if their reference covaries. Authors who prefer to use *coreference* in a narrow sense (only

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The distinction is somewhat relevant for reflexive constructions, because it appears that some reflexive constructions only allow a co-varying interpretation, while others also allow a discourse-referential interpretation of the reflexive pronoun. In many cases, anaphoric pronouns can be interpreted in both ways when they are coreferential with the subject, as illustrated in (50) (Sag 1976: 127–128). These two interpretations are usually called STRICT READING and SLOPPY READING.

- (56) Betsy₁ loves her₁ dog, and Sandy₂ does, too.²³
- a. strict reading (= Sandy also loves Betsy's dog)
Betsy₁ x : x loves her₁ dog
& Sandy₂ y : y loves her₁ dog (discourse-referential)
 - b. sloppy reading (= Sandy also loves her (own) dog)
Betsy₁ x : x loves x 's dog & Sandy₂ y : y loves y 's dog (co-varying)

Reflexive coreferential pronouns are often said to force a sloppy reading (i.e. a co-varying interpretation), not allowing a strict reading. Thus, it seems that (57) says that Sandy also looked at herself in the mirror. But on the other hand, (58) can apparently also mean that Ben's boss does not admire Ben so much (i.e. can have not only the sloppy reading, but also the strict reading).

- (57) Betsy looked at herself in the mirror, and so did Sandy. (co-varying)
- (58) Ben admires himself more than his boss does. (co-varying or discourse-referential)

The relevance of the co-varying/discourse-referential distinction for reflexive constructions seems clearest with adposessive reflexives. For Russian, Dahl (1973: 106) reported the contrast between (59a), with the reflexive adposessive *svoj*, and (59b), with the nonreflexive first person singular adposessive *moj*. The contrast in (60a–60b) is completely analogous.

- (59) a. co-varying

for referent identity) have proposed alternative cover terms, e.g. *coconstrual* (Safir 2005) or *covaluation* (e.g. Reinhart 2006), but these terms have not been widely adopted.

²³There is also a third reading of this sentence: *Betsy₁ loves her₃ dog, and Sandy does, too.* Here the anaphoric pronoun is not coreferential with the subject. Its reference is not syntactically limited, and in the right context, it may be coreferential with *Sandy* (this is clearer in an example like *Betsy loves his dog, and Ibrahim does, too.*)

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Ja ljublju svoju ženu, i Ivan tože.

I.NOM love REFL.POSS wife.ACC and Ivan.NOM too

'I love my wife, and so does Ivan (= Ivan loves his (own) wife).'

- b. discourse-referential

Ja ljublju moju ženu, i Ivan tože.

I.NOM love my wife and Iva.NOM too

'I love my wife, and so does Ivan (= Ivan loves my wife).'

- (60) a. co-varying

Tol'ko ja ljublju svoju ženu.

only I.NOM love REFL.POSS wife.ACC

'Only I love my wife (= nobody else loves his wife).'

- b. discourse-referential

Tol'ko ja ljublju moju ženu.

'Only I love my wife (= nobody else loves my wife).'

It seems that when the coreference is not expressed by an anaphoric pronoun but is implicit in the construction (as in the cases in §12), we only get the co-varying interpretation. Sentences such as *He undressed, and so did she*, are unambiguous (she did not undress him), just like sentences such as *He wanted to sing, and so did she* (this cannot mean that she wanted him to sing). Likewise, when the reflexivizer is a verbal marker, we seem to get only the co-varying interpretation, as in (61a) from Russian, which contrasts with (61b).²⁴

- (61) a. *Saša posmotrela-s' v zerkalo, i ja tože.*

Sasha looked-REFL in mirror and I too

'Sasha looked at herself in the mirror, and so did I.' (co-varying only)

- b. *Saša posmotrela na sebia v zerkalo, i ja tože.*

Sasha looked at self in mirror and I too

'Sasha looked at herself in the mirror, and so did I.' (co-varying or discourse-referential)

Thus, there are certain situations where the contrast between discourse-referential and co-varying coreference is relevant to grammatical coding, but there is no systematic cross-linguistic research on this aspect of grammatical expression.

²⁴ However, surprisingly, Kapitonov (2014) finds that the Imbabura Quichua verbal voice suffix *-ri-* can be used with both readings: *Jusi-lla-mi tsijni-ri-n* [José-LIM-VAL hate-REFL-3SG] 'Only José hates himself = 1 nobody else self-hates (2) nobody else hates José'.

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14 Conclusion

This concludes the survey of reflexive and related constructions, which I combined with a survey of ch1 terms for general linguistics that are useful for comparing languages and identifying shared traits. The wide range of diverse reflexive constructions makes it difficult to get a broad view of the big picture, and due to the language-particular focus of the great majority of research papers, it is not easy to focus on what is general and what is particular in this domain. Much of the literature on reflexive pronouns has taken the conditions on English reflexive pronouns as a starting point, but it seems that a broader perspective is more promising when we try to identify general traits of human languages.

The three appendixes that follow contain (A14) a tentative list of universal generalizations, (B14) a list of technical terms as used in this paper, and (C14) a list of other terms that have been used in the literature but that seem less suitable to me because they cannot be defined clearly, at least not independently of larger controversial claims.

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Appendix A: Some universals of reflexive constructions

Universal I If a language has a reflexive voice marker or a reflexive argument marker, one of its uses is for autopathic coreference (agent-patient).

Universal II If a language uses different constructions for agent-patient coreference for different verb types, then it uses shorter coding for introverted verbs than for extroverted verbs. ([König & Vezzosi 2004a](#); [Haspelmath 2008: 44](#))

Universal III In all languages, the usual coding of disjoint anaphoric reference is at least as short as the usual coding of agent-patient coreference. ([Haspelmath 2008: 48](#))

Universal IV If an anaphoric pronoun may also be used as a demonstrative, it is always obviative in the autopathic domain.

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Universal V If a language has nonreflexive object indexes (= bound object person forms), these cannot be used subject-coreferentially in the autopathic domain.

Universal VI If a language has a reflexive voice marker, it also has a voice marker for reciprocal constructions (Dixon 2012: 141).

Universal VII If a language has a reflexive adposessive pronoun, it also has a reflexive object pronoun. (Haspelmath 2008: 50)

Universal VIII If a language has a reflexive pronoun in locative phrases, it also has a reflexive pronoun in object position. (Haspelmath 2008: 55)

Universal IX If a language has a reflexive pronoun in the long-distance domain, it also has a reflexive pronoun in the autopathic domain. (Haspelmath 2008: 58)

Universal X If a language has different reflexive pronouns in the autopathic and the and long-distance domain, the autopathic reflexive pronoun is at least as long as the long- distance reflexive. (Pica 1987; Haspelmath 2008: 55)

Universal XI: Antecedent-reflexive assymmetry In all languages, the antecedent is higher on the rank scale of syntactic positions than the reflexive pronoun: subject > object > oblique > within nominal/within embedded clause (see §7 above; Dixon 2012: 152)

Universal XII If a language has a prenominal definite article, it does not have a reflexive adposessive pronoun. (Despić 2015)

Universal XIII If a reflexivizer and a reciprocalizer are formally related to each other, then the reflexivizer is formally simpler. (Dixon 2012: 153)

Appendix B: Technical terminology used in this paper

anaphora Anaphora is the use of linguistic forms or constructions to signal coreference within the discourse or within a clause.

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anaphoric form An anaphoric form is a form that stands for a referent which is coreferential with another referent (an antecedent) in discourse. (Typical anaphoric forms are anaphoric pronouns.)

antecedent In an anaphoric relationship, the antecedent of an anaphoric form or of an unexpressed anaphoric referent is the referent which determines its reference.

clause A clause is a combination of a predicate (full verb or nonverbal predicate) and its arguments plus modifiers.

endophoric use An endophoric use of a pronoun is an anaphoric use within a sentence or the discourse, as opposed to an exophoric use.

exophoric use An endophoric use of a pronoun is a use for a referent that was not mentioned earlier in the discourse but is present in the context.

obviative pronoun An obviative pronoun is an anaphoric pronoun that cannot be coreferential with a coargument.

reflexive argument marker A reflexive argument marker is a grammatical marker that occurs on a transitive verb and that exhibits striking similarities with non-reflexive object indexes, especially with respect to its position.

reflexive construction A reflexive construction is a grammatical construction that can only be used when two participants of a clause are coreferential and that contains a special form that signals this coreference.

reflexive pronoun = reflexive nominal A reflexive pronoun a form that can be used in the position of a full nominal and that signals coreference with an antecedent in the same clause (subtypes: reflexive pronominaloid...)

reflexive pronominaloid A reflexive pronominaloid is a reflexive pronoun that shares striking similarities with independent personal pronouns and is strikingly different from the nouns in the language

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reflexive voice marker A reflexive voice marker is a grammatical marker that occurs on a transitive verb and indicates that its agent is coreferential with its patient, without exhibiting similarities to argument indexes.

reflexivizer A reflexivizer is a reflexive pronoun or a reflexive voice marker.

self-intensifier A self-intensifier is a form that accompanies a nominal and indicates that the nominal's referent is the central referent in a centre-periphery configuration.

Appendix C: Other terms used elsewhere in the literature

anaphor The term *anaphor* became well-known through Chomsky (1981), and its generally understood as meaning 'reflexive pronoun or reciprocal pronoun',²⁵ but it is rarely defined explicitly in this way (but cf. Forker 2014: 52, n. 1). Some authors define anaphor as an 'interpretatively dependent element' (cf. Reuland 2018: 82), which seems to mean that it cannot be used exophorically. However, as noted by Kiparsky (2002; 2012), many languages have anaphoric forms that must be used endophorically (he calls them "discourse anaphors"), e.g. English *it*. Calling such forms, too, "anaphors" is confusing. Moreover, some authors have invoked a completely different criterion for distinguishing anaphors from pronominals: "pronouns can have split antecedents, and anaphors cannot" (Volkova 2017: 178; following Giorgi 1984: 310).

binding theory "Binding theory" (or sometimes "Binding Theory") is the name for three general rules of English grammar formulated by Chomsky (1981) (following Reinhart 1976; Reinhart 1983c): (A) Anaphors must be bound in their local domain; (B) Pronominals must be free in their local domain; (C) Other nominals must always be free; where "X binds Y" means that X is coindexed (and thus coreferential) with Y and c-commands it. These rules or principles have typically been thought to be universal, though they were established entirely on the basis of English. Since the 1990s, it has been universally recognized that the 1981 formulation does not work (even for English), and many alternative versions have

²⁵More transparently, one would of course use *anaphor* for 'anaphoric form' (or more specifically, 'anaphoric pronoun'). The term is indeed sometimes used in this sense by computational linguists in the context of anaphora resolution (e.g. Mitkov 2002).

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been proposed (Everaert 2003), but always as claims about the regularities of particular languages (possibly rooted in innate knowledge), not as readily testable claims about cross-linguistic distributions.

controller The term *controller* is sometimes used in the same sense as *antecedent* (e.g. Dixon 2012).

pronominal In the Reinhart-Chomsky tradition, “anaphors” are typically contrasted with “pronominals”, illustrated by English personal pronouns such as *her*, *him*, *them*. Like *anaphor*, the term *pronominal* is rarely defined, and it has never been clear whether nonobviative personal pronouns like Jambi Malay *dio* (see 10) in §4 should be considered “pronominals”. (In my terminology, English *him* is an obviative-nonreflexive third-person pronoun, while Jambi Malay *dio* is a nonobviative-nonreflexive third-person pronoun.)

reflexive The noun *reflexive* is often used vaguely in the sense ‘reflexive construction’, or ‘reflexive element’, or ‘reflexive pronoun’ (e.g. Geniušienė 1987; Frajzyngier & Curl 1999; Kazenin 2001; König & Gast 2008; Déchaine & Wiltschko 2017c). The context sometimes makes it sufficiently clear what intended, but when the term is used in a book title, there is no context. I avoid such abbreviated terms in formal contexts. (Though I do abbreviate *long-distance reflexive pronoun* to *long-distance reflexive*, as noted in §9)

reflexivity The term *reflexivity* is sometimes used collectively for the domain of reflexive constructions, and in this sense, there is no problem with it (cf. similar terms such as *ergativity*, *transitivity*, *coordination*). But it is sometimes also used as if it were a semantic notion, and linguists talk about “encoding of reflexivity” (e.g. Déchaine & Wiltschko 2017c: 63). For the semantic notion, I find *coreference* a better term (or maybe *autopathic coreference*, if agent-patient coreference is intended), because it is best to have different terms for constructions and the meanings they express (see n. 2).

reflexivization This term from the 1960s originally referred to the creation of a reflexive construction as a grammatical operation, but more recently it has sometimes been used in a more restricted sense, referring specifically to the creation of “reflexive predicates” (or verbs). Much of this corresponds to reflexive voice marking, but authors such as Reinhart & Siloni (2005: 399) and Everaert (2013:

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197) include constructions like *Max undressed*, which are not regarded as reflexive here (see note 2).

SE anaphor vs. SELF anaphor The distinction between “simplex expression” (or SE) anaphors (Dutch *zich*, Swedish *sig*) and complex SELF anaphors (English *himself*, Dutch *zichzelf*, Swedish *sig själv*) became well-known through Reinhart & Reuland (1993), but these authors did not give clear definitions of these terms. It seems that they thought that reflexive pronominals of the European type (see §6.4) and self-intensified anaphoric pronouns (see §6.3) are typical of reflexive pronouns in general, but it has been known since Faltz (1977) that other types of reflexive nominals are more common in the world's languages.

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Part I

Africa

Chapter 2

Reflexive constructions in Bangime

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CNRS-LLACAN

Bangime, a language isolate spoken in Central Eastern Mali, has two ways to express coreference between clause participants. One strategy is through coordinated markers from one of the language's pronominal series. These markers can be considered to be the language's reflexive pronouns, though it is of typological interest to note that, in object position, an anaphoric pronoun of this series can be coreferential with the main clause's subject. Furthermore, Bangime displays the unusual property of aligning second persons singular and plural to the exclusion of all other persons. This chapter also discusses an additional coreference strategy, namely that of a possessed form of the noun 'head', an areally robust feature of West Africa.

1 Introduction

In Bangime, coreference between clause participants can be expressed in two ways. The first, as with many other West African languages (Heine 2011), including those of the Atlantic branch as well as surrounding Dogon languages, but excluding Mande, involves the noun 'head'. However, Bangime is different from neighboring languages in that, in Bangime, the person and number of the clause's subject are indexed (cf. Haspelmath 2013) on verbs and tense-aspect auxiliaries, and, in the case of the reflexive construction, on nouns. This is shown in (1), an excerpt from a narrative, where these indexes are glossed as lettered sets that are explained in (§3).

- (1) *mɛɛ à gò m=bògò-ɛɛ̄ ̄ŋ=kārā ̄ŋ=dēgē ̄ŋ=kɛ̄*
but DEF man 3SG.B=big-DIM 3SG.B=find.3SG.PFV 3SG.B=head 3SG.B=PRF
'...but the old man [lit. 'little old man'] had found himself again.'
(Heath & Hantgan 2018: 10)



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In the surrounding Dogon languages, reflexive constructions are formed with a possessed form of the noun ‘head’ so that ‘my head’ can be interpreted to mean ‘myself’. In Bangime, as will be discussed in detail in (§4.1), the portion of (1) highlighted in bold differs from the language’s typical possessive construction.

The second method of expressing coreference between clause participants, as illustrated in (2)–(5) drawn from Heath & Hantgan (2018: 438), involves a pronoun (series) which is described as reflexive pronoun here, but also occurs with other middle functions (§4.2). It is also of interest to note that the language opposes second persons to first and third persons plural, as well as third person singular, shown below in (7).

- | | |
|--|--|
| (2) à <i>dègù</i> á | (3) àà <i>dègù</i> áà |
| 2SG.A hit.2SG.PFV 2SG.D | 2PL.A hit.2PL.PFV 2PL.D |
| ‘You hit yourself.’ | ‘You (plural) hit yourselves.’ |
| | |
| (4) <i>nɛ</i> <i>n=dègù</i> <i>mii</i> | (5) <i>nì</i> <i>n=dègù</i> <i>mii</i> |
| 1PL.A 1PL.B=hit.1PL.PFV 1PL.D | 3PL.A 3PL.B=hit.3PL.PFV 3PL.D |
| ‘We hit ourselves.’ | ‘They hit themselves.’ |

Furthermore, as shown in (6)–(7) drawn from Heath & Hantgan (2018: 401), pronouns for coreference and disjoint reference for third singular antecedents are identical and therefore potentially ambiguous in meaning.

- | | |
|--|--|
| (6) Ø <i>dègù</i> <i>mii</i> | (7) Ø <i>dègù</i> <i>mii</i> |
| 3SG.A hit.3SG.PFV 3SG.C | 3SG.A hit.3SG.PFV 3SG.D |
| ‘He/She _x hit him/her _y .’ | ‘He/She _x hit himself/herself _x .’ |

The fact that, in Bangime, an anaphoric pronoun in object position can be coreferential with the subject of its clause may be interesting from a typological perspective as discussed by Haspelmath2019; this is explored further in (§4). Furthermore, that the pronoun *mii* serves to mark coreference and disjoint reference for the third persons singular and plural, as well as the first person plural to the exclusion of the second persons singular and plural and the first person singular is somewhat surprising; the corresponding first person singular reflexive pronoun is given in (8).

- | |
|---|
| (8) n̄ <i>dègù</i> <i>mí</i> |
| 1SG.A hit.1SG.PFV 1SG.D |
| ‘I hit myself.’ (Heath & Hantgan 2018: 438) |

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This chapter seeks to explore means of coreference in Bangime through an exposition of the pronominal system in general. The next section, (§2), provides a brief background on the speakers of Bangime and the language's status as an isolate. An overview of the language's pronominal system is given in (§3). In (§4), reflexive constructions in Bangime are presented, followed by a discussion of intensifier uses involving reflexive constructions in (§5). A conclusion is given in (§6).

Data are drawn from both a published grammatical description and a doctoral thesis as well as unpublished textual sources and newly elicited examples. Transcriptions are phonetic, following the IPA, and glossing follows Leipzig conventions with additions noted in the Appendix.

2 Background

Bangime is a language isolate spoken by around 1,500 people in seven small villages in a remote area of central-eastern Mali. The Bangime-speaking community, the Bangande, together with the Dogon ethno-linguistic group, are the sole inhabitants of the Bandiagara Escarpment, an arduous cliff range located east of the Niger River and south of the Sahara Desert. The Dogon languages were not well described until recently; it is only now apparent that there exist at least 21 different Dogon languages. Nevertheless, and despite the fact that the Bangande say that they and their language are Dogon, the linguistic divergences between Bangime and the Dogon languages separate them completely. Moreover, Bangime is not related at all to the other neighboring language, Jenaama, of the Bozo-Mande grouping.

Grammatical structures found in Bangime pertinent to this study include its almost complete lack of affixal morphology, a tripartite tonal system, and subject-initial clausal word order in non-focus constructions. Possessive pronouns and the definite article precede a noun in a noun phrase (e.g. *ā kùwò* 'the house', *màā kùwò* 'his/her house'), but adjectives follow the noun. With certain kinship relations, possession is expressed in a manner which differs from other possessed nouns, as discussed in (§3.4) below. Verbs are divided into classes based on their morpho-phonological properties and thus follow different patterns of inflection therein. A verb phrase either consists of simply a verb stem (with inflectional marking on the verb itself), or it also contains a auxiliary specifying the aspect of the clause which either precedes or follows the verb stem depending on the aspect in question. It is relevant to note that a pronoun forms precede both the verb stem and the auxiliary when present.

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Major word classes in Bangime consist of nouns, verbs, numerals, adjectives, adverbs, and ideophones. Particles in the language include the determiner, postpositions, and a question marker. Word classes can be distinguished morphologically as well as syntactically. The small number of bound morphemes in the languages are all suffixes or clitics including an agentive, diminutive, and plural markers on nouns and a causative and aspectual markers on verbs. Tone is both lexical and grammatical and the interaction between the two is intricate. The elaborate argument-indexing system is presented in the following section (3). Constituent word order depends on the tense or aspect of the clause and is elaborated upon in (§3.2).

3 Person forms

Bangime has a complex system of person forms, including both bound and free forms, which is essential to understand in order to evaluate the evidence put forth for the presence or absence of a special form that signals coreference, a reflexive pronoun, in the language. The following subsection (3.1) presents Bangime personal pronouns in terms of four sets, and (§3.2) provides the slots into which these pronouns fit in a clause.

3.1 Person form sets

Person and number marking in Bangime consists of both bound person indexes and free personal pronouns. The Bangime person forms consist of four sets depending on the phonetic (surface) realization and position in a clause, as listed in Table 1 and exemplified in (§3.2) below. As already seen in (2)-(5) above, the members of set D are used as reflexive pronouns.

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Table 1: Bangime person forms

Person/Number	A	B	C	D
1SG	n̄ ~ Ø	n	mí	mí
3SG	Ø	n	mì(i) ~ mì̄	mì̄
1PL	n̄è	n	nē̄è	mì̄
3PL	n̄i	n	nì̄	mì̄
2SG	à	á	á	á
2PL	àà	á	āā(-rú)	āà

As represented in Set A, singular first and third persons are either zero or, as in Set B, reduced to a nasal that assimilates in place to the initial consonant of the following constituent in the clause (there are few vowel-initial words in Bangime) and receives its tonal specification from the final tone of the preceding word. As was illustrated in (§1), for sets C and D, forms of the first and third persons plural are identical to that of the third person singular. Second person singular is the same for all sets (second person singular indexes are distinguished by tones alone) but second person plural is sometimes followed by one of the few suffixes in the language: a suppletive plural suffix (-rú) that is also used with kin terms in the language. The following subsection demonstrates where each person form set occurs in the three main clausal paradigms presented in this chapter.

3.2 Person form slots

In Bangime, person and number marking occurs multiple times throughout a sentence by the person forms presented in Table 1, and by tonal melodies on the verb stem. The simple perfective paradigm is shown first as it represents the language's most basic clausal construction. The linear order of the verb and the object is reversed between a perfective (Tables 2–3), and an imperfective (Table 4) verb phrase.

Table 2: Simple transitive perfective clausal paradigm

(S)	S	S	V	O
(NP)	Pronoun Set A	Pronoun Set B	STEM	NP \wedge Pronoun Set C \wedge D

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Table 3: Transitive perfective clausal paradigm

(S)	S	AUX	S	V	O
(NP)	Pronoun Set A	PFV	Pronoun Set B	STEM	NP \wedge Pronoun Set C \wedge D

Table 4: Transitive imperfective clausal paradigm

(S)	S	AUX	O	S	V
(NP)	Pronoun Set A	IPFV	NP \wedge Pronoun Set C \wedge D	Pronoun Set B	STEM

As mentioned above and can be seen from Tables 2–4, a personal pronoun or person index consistently precedes the verb stem, and an auxiliary, if present. The next subsection gives concrete examples of the sets and slots presented here.

3.3 Personal pronoun examples

In general, intransitive verb stems are not preceded by person indexing; the verb ‘go’ is an exception. Examples in the perfective aspect featuring the verb *wōrē* ‘go’ in the form of elicited examples in (9)–(11) are drawn from Heath & Hantgan (2018: 273).

- | | |
|---|--|
| <p>(9) <i>ŋ kóó ñ=wóré</i>
1SG.A 1SG.PFV 1SG.B=go.1SG.PFV

‘I had gone.’</p> | <p>(10) <i>à kwá á wóré</i>
2SG.A 2SG.PFV 2SG.B go.2SG.PFV

‘You had gone.’</p> |
| <p>(11) <i>Ø kóó ñ=wōrè</i>
3SG.A 3SG.PFV 3SG.B=go.3S.PFV

‘He had gone.’</p> | <p>(12) <i>àà kwá á wōrè</i>
2PL.A 2PL.PFV 2PL.B go.2P.PFV

‘You (PL) had gone.’</p> |
| <p>(13) <i>nè kóó ñ=wōrè</i>
1PL.A 1PL.IPFV PL.B=go.1PL.PFV

‘We had gone.’</p> | <p>(14) <i>nì kóó ñ=wōrè</i>
3PL.A 3PL.PFV 3PL.B=go.3PL.PFV

‘They had gone.’</p> |

These examples illustrate person form sets A–B. Set A occurs in subject position. Based on its tonal behavior (the nasal of Set B has no phonemic tone), I

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consider the nasal person index in set B to be a proclitic. The person forms of set C and D are free personal pronouns. The perfective clausal paradigm further illustrates that which was mentioned above in (§1): in Bangime, second persons singular and plural are marked almost identically, and in opposition to the other persons in the language.

Examples using the verb ‘bathe’ in the simple perfective which are drawn from Heath & Hantgan (2018: 325) are given in (15)–(16) to illustrate person form sets C–D.

- | | |
|---------------------------------------|---------------------------------------|
| (15) \emptyset <i>tùū</i> <i>mi</i> | (16) \emptyset <i>tùū</i> <i>mī</i> |
| 3SG.A bathe.3SG.PFV 1SG.C | 3SG.A bathe.3SG.PFV 3SG.D |
| ‘He/She bathed me.’ | ‘He/She bathed (him/herself).’ |

Although some person forms from Set C are homophonous with those from Set D, the former cannot be used together with those from Set A to express coreference between subject and an object. That is, for those persons which differ in form, such as first and third persons plural, Set C cannot be interchanged with Set D; the former strictly marks disjoint-reference between participants while the latter marks coreference.

Further adding to the ambiguity, syntactically, both person form sets C–D occupy the same position, save for when an object pronoun is focalized as illustrated in (17)–(18).

- | | |
|---|--------------------------------|
| (17) \emptyset <i>mūñwō</i> <i>mi</i> | (18) <i>mi</i> <i>ní=dègè</i> |
| 3SG.A like.NEG.3SG.IPFV 1SG.C | 1SG.C 3SG.B=hit.3SG.PFV |
| ‘...he does not like <i>me</i> .’ | ‘It hit <i>me</i> .’ |
| Narrative [TB2008-07-12, Line 1] | Survey [AD2012-08-06, Line 14] |

In focused-object position, the expected word order for Bangime constituents is reversed yet again: a focused object appears after the verb in the imperfective aspect and before it in the perfective.

As shown in (19)–(20), the language does not require that an object is overtly expressed. Otherwise, as can be seen in (20) and Table 3, non-focused object noun phrases, like free pronouns, occur post-verbally in the perfective aspect.

- | |
|--|
| (19) <i>nì</i> <i>kóó</i> <i>jí=yúrù</i> |
| 3PL.A 3PL.PFV 3PL.B=kill.3PL.PFV |
| ‘They killed (him).’ Narrative (Hantgan 2013: 394) |

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- (20) *nì kóó j̄=yùrù à dègè ñ=céé*
 3PL.A 3PL.PFV 3PL.B=kill.3PL.PFV DEF head.DEF 3SG.B=owner
 ‘They killed the chief [lit. ‘head owner’].’ Narrative (Hantgan 2013: 477)

Persons other than third person singular may also be omitted in object position but with lower frequency. On the other hand, pronouns of Set D are obligatory in reflexive constructions.

The following subsection outlines two possessive strategies in the language as these will be crucial to the comprehension of the reflexive constructions presented in (§4).

3.4 Possessive pronouns

There are two ways of marking possession in Bangime: most possessed nouns are preceded by a pronoun from Set A plus the possessive morpheme *maa*(a kind of genitive postposition). However, the second person singular possessive pronoun is simply [àà]. Examples provided in (21)–(24) are drawn from Heath & Hantgan (2018: 57).

- | | |
|---|--|
| (21) <i>∅ máá kùwò</i>
1SG.A 1SG.POSS house.POSS
‘my house’ | (23) <i>∅ màā kùwò</i>
3SG.A 3SG.POSS house.POSS
‘his/her house’ |
| (22) <i>àā kùwò</i>
2SG.A.POSS house.POSS
‘your (sg) house’ | (24) <i>séédù màā kùwò</i>
Seydou 3SG.POSS house.POSS
‘Seydou’s house’ |

Another means of expressing possession in Bangime is with the use of person forms alone. With certain kin terms, for example ‘father’ as shown in the following examples drawn from Heath & Hantgan (2018: 58–59), person forms of Set A may be used with the possessive morpheme (27), or alone (25)–(26), (28).

- | | |
|---|---|
| (25) <i>∅ bów</i>
1SG.A father.1SG.POSS
‘my father’ | (27) <i>séédù màā bów</i>
Seydou 3.POSS father.POSS
‘Seydou’s father’ |
| (26) <i>à bów</i>
2SG.A father.2SG.POSS
‘your father’ | (28) <i>séédù bów</i>
Seydou father.3SG.POSS
‘Seydou’s father’ |

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Note that each type of possessive marking influences the tone of the possessed noun differently; the possessive morpheme bears its own tone depending on the person and number of the possessee which triggers a kind of default tonal marking on the possessed noun. When the possessive morpheme is not present, the possessed noun represents the tone of the person and number of the possessee.

In addition to the constructions with the possessive morpheme *maa* (in 21–24) and with kin terms (in 25–28), there is a third possessive construction: similar to the kinship-type of possession, a possessive, often compound-like, construction in Bangime may be formed using the person indexes from Set B; compare (29) with (30).

- (29) *míró n=dégé*
 bee.INDF 3SG.B=head.3SG.POSS
 ‘bee’s head’
- (30) *míró m=págà*
 bee.INDF 3SG.B=container.3SG.POSS
 ‘apiary [lit. ‘bee’s container’]’

Somewhat curiously, body parts belonging to animals, particularly insects are usually expressed using this construction while humans use the possessive morpheme. More about this and how it relates to reflexive constructions in Bangime will be said below in (§4.1).

Now that an overview of person forms has been presented, the following, (§4) depicts the strategies found in the language to express coreference between clause participants.

4 Reflexive constructions

As stated in Section 1, there are two ways of expressing coreference between clause participants in Bangime.¹ Henceforth, these two constructions will be discussed as the “reflexive noun” and “reflexive pronoun”, presented in (§4.1) and (4.2) respectively.

¹I follow Haspelmath2019 in using the semantically-based term ‘clause participant’ rather than the syntactic ‘clause argument’ as the subject pronoun is not necessarily overtly expressed in Bangime.

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4.1 Reflexive noun

The reflexive noun construction consists of the genitive construction with the noun *dege* ‘head’, of the possessed type presented above in (§3.4), in non-focused object position of a transitive clause. That is, in the reflexive noun construction, the possessive is formed from Set B of the person forms provided in Table 1 above. The reflexive noun paradigm is illustrated with the following examples which are drawn from Heath & Hantgan (2018: 442-443).

- (31) *jì* *jágù* *ñ=dégé*
1SG.A cut.1SG.PFV 1SG.B=head.1SG.POSS
‘I cut myself.’
- (32) *Ø* *jágū* *ñ=dēgè*
3SG.A cut.3SG.PFV 3SG.B=head.3SG.POSS
‘He cut himself.’
- (33) *à* *jágù* *à* *dégé*
2SG.A cut.2SG.PFV 2SG.B head.2SG.POSS
‘You (SG) cut yourself.’
- (34) *àà* *jágū* *à* *dēgè*
2PL.A cut.2PL.PFV 2PL.B head.2PL.POSS
‘You (PL) cut yourselves.’
- (35) *nē* *jì* *jágū* *ñ=dēgè*
1PL.A 1PL.B cut.1PL.PFV 1PL.B=head.1PL.POSS
‘We cut ourselves.’
- (36) *nì* *jì* *jágū* *ñ=dēgè*
3PL.A 3PL.B cut.3PL.PFV 3PL.B=head.3PL.POSS
‘They cut themselves.’

However, besides the possessive constructions as listed above in (§3.4), possessed body parts are usually expressed with the possessive morpheme; compare (37) with (32) above.

- (37) *jì* *jágù* *màā* *kwāà*
3SG.A cut.3SG.PFV 3SG.POSS throat.POSS
‘He slaughtered it (the sheep) [lit. cut its throat].’
Narrative [NB2010-07-16, Line 41]

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Therefore, as stated by Heath & Hantgan (2018: 442), *maa dege* translates to ‘possessor’s head’ while *n dege* is the equivalent of ‘X’s self’, and therefore the reflexive noun as depicted here.

Recall from Tables 2–4 that in perfective clauses, an object follows the verb whereas in imperfective clauses, an object precedes the verb. As illustrated by (31)–(36) above and (38) here, the reflexive noun follows the expected word order and person marking pattern for genitive constructions.

- (38) *ná dá ní=dége* *ñ=jíjé*
 1SG.A 1SG.IPFV 1SG.B=head.1SG.POSS 1SG.B=see.1SG.IPFV
 ‘I see myself.’ Survey [AD2020-01-15, Line 1]

Note that there is no specific reflexive possessive construction in Bangime. That is, ‘possessor’s (own) possessed’ is expressed the same as the regular possessive construction, unless a potentially semantic ambiguity may arise with the noun ‘head’. Compare examples using the verb *kara* ‘shave’ in (39)–(40).

- (39) *ná dá máá sémbó* *ñ=kàà*
 1SG.A 1SG.IPFV 1SG.POSS beard.POSS 1SG.B=shave.1SG.IPFV
 ‘I am shaving my beard.’ Survey [AD2020-01-15, Line 5]
- (40) *ná dá máá ní=dége* *ñ=kàà*
 1SG.A 1SG.IPFV 1SG.POSS 1SG.B=head.1SG.POSS 1SG.B=shave.1SG.IPFV
 ‘I am shaving my (own) head.’ Survey [AD2020-01-15, Line 6]

While the possessive morpheme is sufficient to indicate that the subject is shaving his or her own beard in (39), in (40) the addition of the person index from Set B disambiguates disjoint-reference with the subject.

One other method of distinguishing coreference from disjoint-reference is with the reflexive pronoun that is presented below in (§4.2). While the person index preceding the noun ‘place’ in (41) could indicate either coreference or disjoint-reference with the subject, the reflexive pronoun in (42) can only mean coreference with the subject.

- (41) *dòò* *Ø* *dà* *ñàwɔ̄* *ñ=jàw*
 sleep.INDF 3SG.A 3SG.IPFV sleep.3SG.IPFV 3SG.B=place
 ‘S/He_x will sleep at his/her_{x,y} place.’ (Heath & Hantgan 2018: 441)
- (42) *dòò* *Ø* *dà* *ñàwɔ̄* *mìi* *jàw*
 sleep.INDF 3SG.A 3SG.IPFV sleep.3SG.IPFV 3SG.D place
 ‘S/He_x will sleep at his/her_x place.’ (Heath & Hantgan 2018: 441)

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This is the only use that I am aware of in the language of the reflexive pronoun in a possessive function. Note that locative positions, next to, besides, in front of, etc. use the possessive morpheme followed by a postposition and not the reflexive noun (or pronoun).

For some reflexive constructions such as those given in (44)–(45), speakers preferred the use of the reflexive noun to that of the reflexive pronoun described in (§4.2).

- (43) *ná dá digā n̄=d̄igā n̄=d̄egē wáj*
 1SG.A 1SG.IPFV talk.INDF 1SG.B=talk.1SG.IPFV 1SG.B=head.1SG.POSS RSLT
 ‘I am talking to myself.’ Survey [AD2020-01-15, Line 11]

- (44) *ń j̄urà n̄=d̄egé*
 3SG.A kill.3SG.PFV 1SG.B=head.3SG.POSS
 ‘S/he killed her/himself.’ Survey [AD2020-01-15, Line 12]

- (45) *ná póndā n̄=d̄égé*
 1SG.A hate.1SG.PFV 1SG.B=head.1SG.POSS
 ‘I hate myself.’ Survey [AD2020-01-15, Line 13]

Thus, the reflexive noun is the favored coreference strategy when used with verbs that can be considered to be otherwise hetero-directed (cf. [Puddu 2019: 7](#)), or the autopathic domain as defined by [Haspelmath2019](#). In the following subsection, (§4.2), the reflexive pronoun is shown to be used with a middle type of meaning as depicted in [Kemmer \(1994\)](#).

4.2 Reflexive pronoun

The second strategy for indicating coreference between a participant in object role and its antecedent in subject role is in the form of the person form from Set D above in Table 1, which, in all persons except second, is *mi(i)*. Such reflexive pronouns can also be used in middle functions. As expected on the basis of [Kemmer \(1994\)](#), Bangime uses the reflexive pronoun with self-directed verbs such as bodily care, verbs of posture (or change of posture), motion, and emotion. Some examples of this type of verb are given in the third person singular form in Table 5.

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Table 5: Middle-like verb phrases

Gloss	IPFV	PFV	PRF/RSLT
hide	mī̄ n=dāàndà	dāàndà mī̄	n dāāndī mī̄ ḷ=kè
stretch	mī̄ ḡ=bōrndà	bōrndà mī̄	m bōrndī mī̄ ḷ=kè
scratch	mī̄ ḷ=kōgōjò	kōgōjò mī̄	kōgōjī̄ ḷ=kè
lie straight	mī̄ m=bāràgà	bāràgà mī̄	m=bārgì wáj
lean	m=pēgē mī̄	pēgērē	pēgērē
Gloss	VBLN	IPFV	PFV
bathe	mī̄ n=tùrà	mī̄ n=tùrà	tùū mī̄

In Bangime, these verbs obligatorily take the reflexive pronoun in object position. This type of reflexive or middle marking is discussed in Haspelmath2019 as belonging to the category of reflexive voice markers. The verbal noun ‘bathing’ also necessitates the presence of the reflexive pronoun and is identical to its use in the imperfective aspect; compare (46) with (47).

- (46) à bòw dà **mī̄** n=tūrā
 2SG.A father.2SG.POSS 3SG.IPFV 3SG.D 3SG.B=bathe.3SG.IPFV
 ‘Your father is bathing.’ Survey [AD2020-01-15, Line 3]

- (47) nè tūū **mī̄**
 1PL.A 1PL.B=bathe.1PL.PFV 1PL.D
 ‘We bathed.’ Survey [AD2020-01-15, Line 4]

Although most of the verbs that are formed with the reflexive pronoun, or voice marker, are of the type described by Kemmer (1994), some idiomatic uses do involve more typically active verbs such as those depicted in (48)–(50).

- (48) màà nñw ḷ=kóó n=tāyā **mī̄**
 3SG.POSS mouth.POSS 3SG.B=PFV 3SG.B=take.3SG.PFV 3SG.D
 ‘His mouth slipped [lit. took himself, fig. spoke inappropriately].’
 Narrative [NB2010-07-16, Line 25]

- (49) ā gōndī-ēè ḷ=kóó n=tāyā **mī̄** ḷ=kè
 DEF jackal.DEF-DIM 3SG.B=PFV 3SG.B=take.3SG.PFV 3SG.D 3SG.B=PRF
 ‘The jackal has left [lit. has taken himself].’ Narrative (Hantgan 2013: 401)

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The pronoun *mii* appears throughout my corpus of texts in which it is translated as either a reflexive, as exemplified in (50), or a middle, (51), meaning.

- (50) *ŋ kóó á bŷŷ-mí=ndé tígé nī ŋ=kòò jérò*
 3PL.B PFV DEF Bounou.DEF-DYM=PL also 3PL.A 3PL.B=PFV become.3PL.PFV
nùùñwà mii
 prepare.3PL.PFV 3PL.D

‘The people of Bounou, they also prepared themselves.’
 Narrative [SD2010-10-01, Line 10]

- (51) *à q̪ñw máá mii*
 DEF rain.DEF like.3PL.PFV 3PL.D

‘The rain (gods) were pleased.’ Narrative [SD2013-03-29, Line 11]

To my knowledge, this example does not imply a reflexive reading such as ‘they, themselves, were pleased’. However, in the next section (§5), focus and intensifying constructions using the reflexive noun are discussed.

5 Focus and intensifying constructions

The reflexive pronoun can be combined with the reflexive noun to convey an intensified meaning in the sense of König & Siemund (2000). Two textual examples are provided in (52)–(53).

- (52) *mí dégē jáátì mí pànà*
 1SG.C head.1SG.POSS definitely 1SG.C take.1SG.PFV
 ‘Me, myself definitely, I [lit. ‘it is me (who)’] married [lit. ‘took’] (her).’
 Narrative [TB2010-10-20, Line 185]

- (53) *mì kéndé mā nìŋà à dégé kòmè*
 3SG.C say PROH say.2SG.PFV 2SG.B head.2SG.POSS slave.INDF
 ‘He said, “do not say that you, yourself, are a slave”.’
 Narrative [TB2010-10-20, Line 201]

As in English, another use of the reflexive noun is that of a doing something for (54), or by (55)–(56), oneself.

- (54) *m máárà à kùwò n=dégé wāj*
 1SG.A build.1SG.PFV DEF house.DEF 1SG.B=head.1SG.POSS DAT
 ‘I built the house for myself.’ Survey [AD2020-01-15, Line 10]

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- (55) *Ø tɔpɔw ñ=dēgè ñ=tērō màà kúwò ñ=kò*
 3SG.A alone 3SG.B=head.3SG.POSS 3SG.B=sit.3SG.PFV 3SG.POSS
 house.3SG.POSS 3SG.B=LOC
 ‘He lived by himself in his house.’ Survey [AD2010-10-30, Line 2]
- (56) *mí ñ=dégé máárà à kúwò*
 1SG.C 1SG.B=head.1SG.POSS build.1SG.PFV DEF house.DEF
 ‘I built the house by myself.’ Elicit (Heath & Hantgan 2018: 443)

Described by Gast & König (2002: 8–9) as adverbial uses of “self-forms”, this additional use of the reflexive noun is defined as the reflexive adverb in Haspelmath2019.

6 Conclusion

According to the criteria provided by Haspelmath2019, Bangime utilizes two productive strategies for expressing coreference between clause participants: in all the persons except second singular and plural, a special morpheme *mii* is used which may be diachronically related to the third person singular object personal pronoun *m(i)i*. The other option in the language is to use a possessed form of the word for ‘head’, but this construction does not use the possessive morpheme that is usually used in the language but rather a pronominal index that is otherwise only found with kin terms for the purposes of possession. Frequency counts have not yet been obtained from the corpus; it appears that each option is robustly used, but, based on comments from speakers and observations put forth here, the two options seem to be semantically differentiated.

Bangime has a striking feature of multiple markers of subject throughout a phrase: subject marking occurs as the initial constituent of a clause, pre-verbally, and also, when present, before an auxiliary. Even if these markers are represented by null-morphemes, tones serve to signify the subject of the clause. Additionally, Bangime may be considered a pro-drop language in that object pronouns may be pushed to the end of a phrase or even omitted, but the reflexive pronoun remains intact to the clause in question.

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Abbreviations (outside of Leipzig glossing conventions)

AGENT	Agentive
DYM	Demonym
DIM	Diminutive
RSLT	Resultative
VBLN	Verbal noun

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Chapter 3

Reflexive constructions in Hausa

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This contribution describes reflexive constructions in Hausa (Chadic, Niger, Nigeria). The reflexive pronouns are based on the word *kâi* ‘head, self’, in a possessive construction with a person affix that is coreferential with the clause subject (or sometimes with a preceding direct object or applied object). Subject-coreferential direct objects or applied objects are almost always expressed as reflexive pronouns (with the partial exception of the direct objects of some mental/sensation verbs). Subject-coreferential possessive NPs can optionally be expressed as reflexive pronouns but with an emphasis on the possessive relation. Subject-coreferential locative, benefactive, and instrumental/associative NPs are normally expressed as non-reflexive pronouns but they can also be optionally expressed as reflexive pronouns. The chapter also describes three different constructions that are related to the typical reflexive construction and which may be relevant for an account of its development.

1 Introduction

Hausa (Chadic, Niger, Nigeria) generally requires a distinctive marking for the coreference between a subject NP and another NP in the minimal clause, in particular when the second NP is a direct object, an applied object, and, optionally, an adnominal possessive pronoun, or the object of certain prepositions. This distinctive marking, the reflexive pronoun, is built on the noun *kâi* ‘head, self’ combined in a possessive construction with a person suffix referring to the antecedent (e.g., *kâ-n-shì* ‘himself’, lit. ‘self-of.M-3SG.M’). An example is given in (1):

- (1) *Yaa bugè kânsì*.
3SG.M.CPL hit REFL.3SG.M
'He hit himself'

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In sentence (1), the person/tense/aspect marker *yaa* (or “subject pronoun” in Hausa linguistics) is coreferential with the person suffix *-shi*, which is embedded in a possessive construction with the noun *kâi* ‘head, self’, forming the reflexive pronoun *kânsì* ‘himself’. According to Newman (2000: 529) reflexive pronouns based on a word (ultimately) meaning ‘head’ are widespread among Chadic languages.

This chapter describes the reflexive construction in Hausa, drawing heavily on Newman (2000), who gives the most detailed and exhaustive account of the construction in the language. The chapter also relies on the translation of the questionnaire sentences submitted to the judgment of informants (40 years-old and up, mostly Katsinanci dialect speakers) as well on data from published sources or collected otherwise, as indicated. The chapter also uses sentences constructed by the author, which are then checked with other native speakers.

The chapter is structured as follows. §2 gives the overview of the pronominal system in Hausa. §3–4 describe, respectively, the coreference patterns between the subject and the direct object and those between the subject and other syntactic functions. §5 describes the coreference patterns between non-subject NPs. §6 describes two types of self-intensifiers in Hausa. Finally, §7 discusses the word *kâi* in its usage as ‘self, oneself’ in compounds and fixed expressions.

2 Overview of Hausa personal pronouns

Hausa distinguishes various sets of pronouns depending on their syntactic function: the independent pronouns set (with a long final vowel or with two syllables), the object set with a reduced form (monosyllabic, and with a short final vowel), and the subject pronouns sets which combine (and are sometimes fused) with the tense/aspect markers. Some of the pronouns sets are illustrated in Table 1 (see Caron 1991: 72ff; Newman 2000: 476ff for more details).

The independent pronouns appear in isolation, in topicalization, in nominal emphasis (e.g. *ita Maaliyaa* ‘as for Maria’), or as objects of some prepositions (e.g. *dà ita* ‘with her/it’). Direct object pronouns immediately following a verb assume a reduced form with a low or a high tone, as indicated in Table 1 (the forms *shi* vs. *ya* for the 3rd person masculine singular are free variants). Besides the regular 1st, 2nd, and 3rd person, the subject pronouns also have an impersonal form, with usages similar to French *on*, and for which there are no corresponding independent or direct object forms, as indicated. Since the subject pronouns are often morphologically fused with the tense/aspect markers, they are generally obligatory, whether or not a noun subject is specified in the clause.

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Table 1: Some Hausa pronominal paradigms

Person	Independent pronouns	Direct object pronouns	Completive subject pronouns	Future subject pronouns
1SG	nii	ni/nì	naa	zaa nì/zân
2SG.M	kai	ka/kà	kaa	zaa kà
2SG.F	kee	ki/kì	kin	zaa kì
3SG.M	shii	shi/shì	yaa	zaa shì/zâi
		(ya/yà)		
3SG.F	ita	ta/tà	taa	zaa tà
1PL	muu	mu/mù	mun	zaa mù
2PL	kuu	ku/kù	kun	zaa kù
3PL	suu	su/sù	sun	zaa sù
Impersonal	–	–	an	zaa à

However, possessive pronouns are the pronouns most relevant for the structure of the reflexive markers, in particular the adnominal ‘Noun-of-Pronoun’ possessive constructions, which can have both a possessive and a reflexive meaning with the noun *kâi* ‘head, self’, as seen in le 2 for the Katsinanci dialect.

Table 2: Attributive possessive constructions in Hausa (3rd person singular, Katsinanci dialect)

Full ‘Noun-of-Noun’	Full ‘Noun-of-Pronoun’	Reduced ‘Noun-of-Pronoun’
	kâi naa-shì/naa-sà ‘his head’ (lit. ‘head that.of.M-3SG.M’)	kâ-n-shì/kâ-n-sà ‘his head, himself’
kâi na Abdù ‘head that.of.M Abdu’		kâi-na-s ‘his head’
	kâi naa-yà ‘his head’	kâ-n-yà ‘his head’
		kâi-nâ-i ‘his head’
kâi na Maariyaa ‘head that.of.M Maria’	kâi naa-tà ‘her head’ (lit. ‘head that.of.M-3SG.F’)	kâ-n-tà ‘her head, herself’

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To better show the structure of the possessive constructions in Hausa, the first column of Table 2 gives the full ‘Noun-of-Noun’ constructions, where a masculine singular possessee noun (*kâi* ‘head’) combines with a masculine and a feminine possessor noun (*Abdù* and *Mađiyaa*, respectively). In this column, the nouns are syntactically linked by a pronoun that refers and agrees in gender and number with the possessee noun *kâi* (with a feminine possessee noun, the linking pronoun would be *ta* ‘that.of.F’, as in *mootâa ta Abdù* ‘the car of Abdu’, lit. ‘car that.of.F Abdu’; all plural possessee nouns use the pronoun *na*; also, the ‘Noun-of-Noun’ constructions have reduced versions *kâ-n Abdù* ‘head of Abdu’/*mootâ- Abdù* ‘car of Abdu’ which do not concern us here). In the second column, the noun *Abdù* is replaced with a possessive pronoun, either *shì/sà* or *yà* ‘SG.M’(cf. Table 1). In the full ‘Noun-of-Pronoun’ constructions of the second column, a possessive pronoun replaces the possessive noun (lit. ‘head of him/her’). These constructions are reduced in the third column in two ways: If the linking pronoun is reduced (*na* > *-n*), then the derived form is ambiguous between a possessive and a reflexive form, as indicated. If, on the contrary, it is the possessive pronoun that is reduced (*shì/sà* > *-s*) then only the possessive meaning is possible. When the variant *yà* is used, as seen in the second row of the second column, again for many speakers, the resulting reduced forms do not have a reflexive use in Katsinanci dialect, no matter the reduction pattern followed (the western dialects, which only have the *kainâi* form, also use it as reflexive pronoun; see Caron 1991: 74; see also the discussion in §7). With the 3rd person feminine singular pronoun *tà* (in the last row of Table 2), only the linking pronoun reduction is possible and the form is ambiguous between a possessive and a reflexive form. It may be noted that the reduced forms are more frequent than the full forms.

The reflexive forms in Table 2 are clearly “Head” reflexives in Faltz’s (1985: 32f, 44) typology, given their composite nature incorporating a head noun, a linking pronoun, and a possessive pronoun. Nonetheless, they will be referred to as “reflexive pronouns”, following a usage now established in Hausa literature (see also Caron 1991: 74, Newman 2000: 522; Jaggar 2001: 413; but see Wolff 1993: 117 for a different label). Following a recent proposal (Will 2019, see also Wolff 1993: 117), I assume that the meaning of *kâi* as ‘self’ (instead of ‘head’) is the meaning relevant to the reflexive pronouns (see the discussion in §7). Also, to simplify the data presentation, the reflexive pronouns will be glossed globally as ‘REFL’ plus the person features (e.g., *kânsì* ‘REFL.3SG.M’, instead of *kâ-n-shì* ‘self-of.M-3SG.M’). Finally, although Table 2 focuses on the 3rd person, the pronouns for all persons in Table 1 have corresponding reflexive pronouns, as we will see in the data throughout the chapter. The next section looks at the subject/object coreference.

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3 Subject and direct object coreference

In conformity with the general tendencies (see Haspelmath 2020: 16 and references therein), sentences in Hausa with coreferring subject and direct object require – with a few exceptions – a distinctive reflexive marking. The following subsections present the basic uses of the reflexive pronouns, the contrast between exact and inclusive coreference, the contrast between extroverted and introverted verbs, and the contrast between body-part and whole-body actions.

3.1 Basic uses in subject-object coreference

Nearly all transitive verbs in Hausa require the reflexive form of the direct object when it is coreferential with the subject. This is illustrated in (2):

- (2) a. *Taa yàbi kántà.*
3SG.F.CPL praise REFL.3SG.F
'She praised herself.'
- b. *Ta-nàa yàbo-n kántà.*
3SG.F-IPFV praise-of.M REFL.3SG.F
'She is praising herself.'
- c. *Mutàané-n sun kashè kânsù.*
people-DEF 3PL.CPL kill REFL.3PL
'The men killed themselves.'
- d. *Yaa reenà kânshì.*
3SG.M.CPL belittle REFL.3SG.M
'He lost confidence in himself/renounced his ambitions.'
- e. *Naa ga kâinaa cikin maduubii.*
1SG.CPL see REFL.1SG in mirror
'I saw myself in the mirror.'

The sentences in (2) illustrate basic direct object structures. Notably, most Hausa researchers consider that *kántà* in the imperfective sentence (2b), where it appears formally as the “possessor” of the verbal noun *yàboo* ‘praising’, is the sentence direct object (it can be focused or questioned like the object of the basic verb *yàbi* ‘praise’ in (2a), but unlike true adnominal possessive nouns like *Abdù* in *gidan Abdù* ‘the house of Abdu’). Except for the verb *ga/gan/ganii* ‘see’ in (2e), the reflexive pronouns in sentences (2) are obligatory. In sentence (2c), like in its English equivalent, the men could have killed themselves deliberately or by

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accident, separately or together (mutuality would require the reciprocal marking *juunaa* ‘each other’). When a non-reflexive pronoun is used as direct object, then a disjoint reference interpretation is obligatory. This is illustrated in (3):

- (3) a. *Taa₁ yàbee tà₂*
3SG.F.CPL praise 3SG.F
'She praised her.'
- b. *Mutàanê-n₁ sun kashèe sù₂*
people-DEF 3PL.CPL kill 3PL
'The men killed them.'

Sentences (3a–3b) correspond to sentences (2a) and (2c), respectively. One may note that the reflexive pronoun, being morphosyntactically a noun, behaves like regular nouns in triggering the pre-nominal form of the verb (hence the contrast between *yàbi* and *yàbee* ‘praise’; see Newman 2000: 627 for a complete description). Beside typical direct objects, the reflexive pronouns also occur in atypical direct object positions, such as in double object constructions, or as object of complex predicates, as seen in (4–5):

- (4) a. *Taa hanà kântà kwaanaa.*
3SG.F.CPL deny REFL.3SG.F sleep
'She prevented herself from sleeping.'
- b. *Yaa biyaa kânshì Nairàa goomà.*
3SG.M.CPL pay REFL.3SG.M Naira ten
'Ali payed himself 10 Nairas.'
- (5) a. *Abdù yaa maydà_dà kânshì waawaa.*
Abdu 3SG.M.CPL return.CAUS REFL.3SG.M idiot
'Abdu turned himself into an idiot.'
- b. *Abdù yaa maidà kânshì waawaa.*
Abdu 3SG.M.CPL return.CAUS REFL.3SG.M idiot
'Abdu turned himself into an idiot.'

In sentences (4a–4b), the reflexive pronouns are dative/deprivative arguments (*hanà* basically means ‘deny’) and such arguments, when present, are the true direct objects of the verbs, not the theme arguments, which are placed away from the verb. Example (5a) illustrates a complex causative predicate, made up of the basic verb *mayà* ‘replace, repeat’ and the particle *dà* in a close-knit syntax. The

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two parts can in fact merge into one word, as shown in the equivalent sentence (5b).

As reported in Newman (2000: 524), a reflexive pronoun can alternate with a coreferential non-reflexive pronoun in direct object position with verbs he characterized as “mental/sensation” verbs. This is illustrated in (6)–(7):

- (6) a. *Naa ganee nì cikin maduubii.*
1SG.CPL see 1SG in mirror
'I saw myself in the mirror.'
 - b. *Naa ga kâinaa cikin maduubii.*
1SG.CPL see REFL.1SG in mirror
'I saw myself in the mirror.'
- (7) a. *Sai Bâlki₁ ta gan tà_{1/2} cikin fîm.*
The Balki 3SG.F.RP see 3SG.F in film
'Then/suddenly, Balki saw herself in the movie.' (cf. *Sai Bâlki ta ga kântà cikin fîm.*)
 - b. *Yâara₁ sun jii sù_{1/2} cikin Ʉeediyòo.*
children 3PL.CPL hear 3PL in radio
'The children heard themselves on the radio.' (cf. *Yâara sun ji kânsù cikin Ʉeediyòo.*)

In (6a)–(6b), in the 1st person, a non-reflexive pronoun can alternate with a reflexive pronoun with the same interpretation. For the 3rd person in (7a)–(7b), a non-reflexive pronoun can refer to the subject or to some other participant, giving rise to a disjoint reference interpretation. The alternative sentences given with reflexive pronouns are naturally unambiguous. There are, however, some strong restrictions on the alternation. For example, Newman (2000: 524) lists 13 verbs allowing the alternation. Secondly, subject-coreference with a non-reflexive pronoun is more acceptable in the 1st and 2nd person than in the 3rd person. For example, in Katsinanci dialect, the coreferential 3rd person non-reflexive pronoun is restricted to about six verbs: *ganii* ‘see’, *jii* ‘hear, feel’, *soo* ‘want’, *sàamu* ‘find (oneself in a situation)’, *gaanèe* ‘recognize’, and *san* ‘be aware (of one’s own inclinations)’. Also, as hinted at in Newman (2000: 524), the subject-coreferential 3rd person pronoun is also restricted to the Comitative (with an anterior value) and the perfective aspect. This is illustrated in (8):

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- (8) a. *I-nàa jîi-naa dàazu à cikin ɬeediyò.*
 1SG-IPFV hear-of.M.1SG moment at in radio
 ‘I was hearing myself a while ago on the radio.’
- b. *Su₁-nàa jîi-n-sù_{1/2} dàazu à cikin ɬeediyò.*
 3PL-IPFV hear-of.M-3PL moment at in radio
 ‘They were hearing them a while ago on the radio.’

Examples (8), in the imperfective aspect, show a contrast between the 1st person in (8a), where a subject-coreferring non-reflexive pronoun is possible, and the 3rd person in (8b), where a disjoint reference interpretation of the pronoun is obligatory. These restrictions are in accordance with the general tendency whereby the 3rd person requires the reflexive marking more than the 1st and 2nd person (for a discussion see Haspelmath 2008: 43 and references cited there).¹

3.2 Contrast between exact and inclusive coreference

As reported in Newman (2000: 524), Hausa marks the contrast between exact coreference, e.g., between a singular subject and an agreeing singular reflexive pronoun, and inclusive coreference between a singular subject and a plural reflexive pronoun. This is illustrated in (9):

- (9) a. *Màccê-n₁ taa yàbi kânsù_{1+x}*
 woman-DEF 3SG.F.CPL praise REFL.3PL
 ‘The woman praised herself and the others in her group.’
- b. *Yaa₁ kaarè kânsù_{1+x} dàgà muugù-n zàrgii.*
 3SG.M.CPL protect REFL.3PL from serious-of.M charge
 ‘He defended himself and the others in his group against a serious charge.’

Beside the direct object position, Newman (2000: 524) shows that the inclusive reflexive pronoun is also possible in the applied object position (see §4.1 below).

¹The intransitive motion verbs *jee* ‘go’ and *zoo* ‘come’ can immediately be followed by a pronoun agreeing with the subject, a pronoun known as the Chadic “intransitive copy pronoun” (the pronoun is more common in other Chadic languages; e.g., *sun jee sù makaɬantaa*, lit. ‘they went they to school’, see Jaggar 2001: 407; Newman 2000: 479 and references cited there). In another variant of the phenomenon, a possessive pronoun agreeing with the subject is adjoined to nominalized intransitive motion and stance verbs (e.g., *yaa koomàawa-ɬ-shi makaɬantaa*, lit. ‘he.CPL returning-of-him [i.e., he returned] to school’). Reflexive pronouns are not possible in both cases.

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3.3 Contrast between extroverted and introverted verbs

Reflexive marking in Hausa is apparently sensitive to the contrast between extroverted and introverted verbs (on this contrast see Haspelmath 2008: 44 and references cited there). With the extroverted verbs, defined as verbs expressing socially antagonistic actions, such as in Hausa *cìiji* ‘bite’, *hàlbi* ‘shoot’, etc., reflexive marking is obligatory in case of coreference. This is illustrated in (10):

- (10) a. *Kàree yaa cìiji kânshì.*
dog 3SG.M.CPL bite REFL.3SG.M
‘The dog bit itself.’
- b. *Yaarinyàa taa tsàni kântà.*
girl 3SG.F.CPL hate REFL.3SG.F
‘The girl hates herself.’
- c. *Dan_siyaasàa yaa sòoki kânshì.*
politician 3SG.M.CPL criticize REFL.3SG.M
‘The politician criticized himself.’
- d. *Soojà yaa hàlbi kânshì.*
soldier 3SG.M.CPL shoot REFL.3SG.M
‘The soldier shot himself.’

Beside the obligatory reflexive marking in all sentences (10), one can also note that extroverted sentences can have a simple ‘Subject + Verb + Object’ structure. By contrast, introverted verbs, defined as verbs expressing body-care actions and the like, may not appear in a simple ‘Subject + Verb + Object’ structure in their autopathic use. This is illustrated in (11):

- (11) a. *Yaaròo ya-nàa [yi-n] wankaa.*
boy 3SG.M-IPFV do-of.M wash
‘The boy was washing himself.’
- b. *Yaarinyàa taa yi wankaa.*
girl 3SG.F.CPL do wash
‘The girl washed.’
- c. *Yaa yi askii.*
3SG.M.CPL do haircut
‘He had a haircut (at the barber).’ Or: ‘He did a haircut (to himself).’

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- d. *Abdù yaa sâa kaayaa.*
Abdu 3SG.M.CPL put.on clothes
'Abdu got dressed (dressed himself)'
- e. *Abdù yaa shiryàa.*
Abdu 3SG.M.CPL prepare
'Abdu got ready.'

Sentence (11a) is in the imperfective aspect, but the predicate *wankaa* 'wash, bathe, shower' is more like an action noun that is the direct object of an understood generic verb *yi* 'do' (see Newman 2000: 281; Jaggar 2001: 171). Indeed, the underlying *yi* 'do' verb is obligatory when the sentence is in the Completive, as seen in (11b-c) (in fact even in the imperfective, *yi* is acceptable in the negative, e.g. *bâi yîn wankaa* 'he doesn't wash' or if *wankaa* is modified, e.g., *mun iskè yanàa yî-n wani irìn wankaa* 'we find him washing himself in a peculiar way'). In (11d) the sentence does have the structure 'Subject + Verb + Object' but the object is not coreferential with the subject. Finally in (11e) the sentence is intransitive. In all cases, a reflexive pronoun is not possible. It is possible however to express the introverted action with a reflexive pronoun in the applied object position, as seen in the following (for more on the applied object, see §4.1):

- (12) a. *Yaaròo ya-nàa mà kânshì wankaa.*
child 3SG.M-IPFV APPL REFL.3SG.M wash
'The boy is washing by himself/on his own.' (= Yaaròo yanàa wankaa dà kânshì)
- b. *Yaa yi mà kânshì askii.*
3SG.M.CPL do APPL REFL.3SG.M haircut
'He did a haircut by himself.' (= Yaa yi askii dà kânshì)

Sentences (12) are used in contexts where it is assumed that the subject referent ordinarily cannot carry out the action but, as it happens, they did (for example a child may be too young to perform the action alone). These sentences, as indicated, are semantically equivalent to the 'by himself' emphatic sentences discussed later in §6.1, but formally they involve a bona fide reflexive pronoun in a verbal argument position, as we will see in §4.1 To summarize, it can be said that overall Hausa clearly marks the contrast between extroverted and introverted verbs, and that only the former regularly require the reflexive pronoun in autopathetic contexts.

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3.4 Contrast between body-part and whole-body actions

Actions on specified body-parts are expressed in Hausa in a simple ‘Subject + Verb + Object’ structure, as seen in (13).

- (13) a. *Yaa askè geemèe/ geemè-n-shì.*
3SG.M.CPL shave beard beard-of.M-3SG.M
'He shaved (himself).' Or: 'He had his beard shaved (at the barber).'
- b. *Yaa wankè kâi/ kâ-n-shì.*
3SG.M.CPL wash head/ head-of.M-3SG.M
'He cleaned his head.'
- c. *Yaa wankè jikii/ jiki-n-shì.*
3SG.M.CPL wash body body-of.M-3SG.M
'He did a quick toilet.' (Lit. 'he cleaned his body')
- d. *Yaa shaacè kâi/ kâ-n-shì.*
3SG.M.CPL comb head/ head-of.M-3SG.M
'He combed his head [hair].'

In sentences (13), simple verbs are followed by their direct objects expressing a body-part. There is hence a clear contrast with whole-body autopathic actions, which are expressed with the verb *yi* 'do' plus a nominal (a verbal or an action noun) specifying the action, as seen in (11)–(12) above (one may consider sentence (11c) to describe an action viewed holistically although it concerns the head only, in contrast to sentence (13a) with a specified body-part *geemèe* 'beard'). A possessive pronoun referring to the subject can be adjoined to the body-part noun in sentences (13), as indicated, although this is wholly unnecessary in normal contexts. One may note that even with the possessive *kânsì* 'his head', sentences (13b) and (13d) are not really ambiguous, i.e., they do not have the reflexive meaning 'he washed himself' or 'he combed himself', respectively.² Sentence (13c) illustrates an expression *wankè jikii* 'have a quick toilet' which, despite using the noun *jikii* 'body', in fact refers to the cleaning of the limbs and face. Similarly, in sentence (13d) the hair is combed.

²Sentence 13b, with *kânsì*, can take the reflexive meaning only in the context of a ceremonial cleansing. For example, in a marriage, a groom is ceremonially "washed" normally by female relatives (see *sun wankè angò* 'they washed/cleansed the groom'). But a groom can also choose to retire aside and throw the ceremonial water on himself and, in that case, sentence (13b) with *kânsì* 'himself' can be used to describe the situation. (13b), still with *kânsì*, can also be used in the sense 'he cleared himself (of some accusations)'.

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To conclude this section, one can say that in Hausa the use of a reflexive pronoun is obligatory for a direct object coreferential with the subject, except with a few mental/sensation verbs. Hausa also does not allow a reflexive pronoun in subject function.

4 Coreference between the subject and various semantic roles

Beside the direct object position, reflexive pronouns can also appear in positions not directly governed by the main verb. This section reviews the applied nominal position, the possessive NP, and the objects of various prepositions. The section also looks at long distance coreference cases.

4.1 Recipients and other *mà/wà*-marked applied nominals

The applied nominal is the direct object of the applicative marker *mà/wà*, a free particle that stands in a close-knit syntactic relation with the verb (see Tuller 1984, Abdoulaye 1996, Newman 2000: 280). The applied object assumes a variety of semantic roles, chiefly the recipient role, but also the benefactive, malefactive, locative, and possessor roles, and other minor unspecified roles (most of these roles also have their proper, i.e., non-applied, morphosyntax, as discussed later in this section). Applied nominals that are coreferential with the subject are most naturally expressed as reflexive pronouns, as seen in (14):

- (14) a. *John yaa bàa (wà) kânshì shaawañàa.*
John 3SG.M.CPL give APPL REFL.3SG.M advice
'John advised himself/changed his mind.'
- b. *Sun aikoo mà kânsù wàsiikàa.*
3PL.CPL send APPL REFL.3PL letter
'They sent a letter to themselves.'
- c. *Yaarinyàa taa dafàa mà kântà àbinci.*
girl 3SG.F.CPL cook APPL REFL.3SG.F food
'The girl cooked for herself.'
- d. *Yaa zoo yaa gandañ mà kânshì àlamdñi-n.*
3SG.M.CPL come 3SG.M.CPL see APPL REFL.3SG.M situation-DEF
'He came and saw the situation for himself.'

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Sentences (14a–14c) illustrate recipient and benefactive nominals expressed as reflexive pronouns following the applied marker *mà/wà* (the applied marker is normally omitted with the verb *bâa* ‘give’, as seen in 14a). Sentence (14d) shows that a mental/sensation verb, *gani* ‘see’, requires a reflexive applied object pronoun under subject coreference (by contrast, we have seen in the discussion of (6–7) that mental/sensation verbs can allow a non-reflexive subject-coreferential direct object pronoun). When the non-reflexive pronoun is used in the applied object position, then a disjoint reference reading is normally obligatory, as seen next in (15), unless there is a partial coreference between a singular subject and a plural applied object pronoun, as illustrated in (16):

- (15) a. *John₁ yaa baa shì*_{1/2} shaawañàa.*
John 3SG.M.CPL give 3SG.M advice
'John advised him.'
 - b. *Sun₁ aikoo mà-sù*_{1/2} wàsiikàa.*
3PL.CPL send APPL-3PL letter
'They sent them a letter.'
 - c. **Naa jaawoo ma-nì wàhalàa.*
1SG.CPL draw APPL-1SG troubles
'I invited troubles on myself.'
- (16) a. *Naa₁ bâa kânmu_{1+x}/baa mù_{1+x} wàhalàa.*
1SG.CPL give REFL.1PL give 1PL troubles
'I (uselessly) tired us.'
 - b. *Kaa₁ jaawoo mà kânkü_{1+x}/ma-kü_{1+x} wàhalàa.*
2SG.M.CPL draw APPL REFL.2PL APPL-2PL troubles
'You invited troubles on you and your associates.'
 - c. *Yaa₁ jaawoo mà kânsù_{1+x}/ma-sù_{?1+x/2} wàhalàa.*
3SG.M.CPL draw APPL REFL.3PL APPL-3PL troubles
'He invited troubles on himself and his associates.' OR: 'He invited troubles on them.'

Sentences (15a–15c) show that a non-reflexive pronoun in the applied position, despite matching agreement features, cannot be coreferential with the subject. Sentence (15c) in particular shows that the non-reflexive pronoun is not possible even for the 1st person (the same is true for the 2nd person as well). But in plural pronoun constructions, as illustrated in (16a-b), the 1st and 2nd person may allow

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a non-reflexive subject-coreferential pronoun in the applied position, while for the 3rd person the reflexive pronoun is strongly preferred by speakers, as seen in (16c).

4.2 Possessive NPs

When a possessive NP is coreferential with the subject, Hausa requires a simple possessive pronoun in basic, pragmatically neutral sentences, as illustrated in (17):

- (17) a. *Taa*₁ *dàuki laimà*-~~x~~-*tà*_{1/2}.
 3SG.F.CPL take umbrella-of.F-3SG.F
 'She took her umbrella.'

b. *John*₁ *ya-nàa* *ka*~~x~~*àntà littaafi-n-shì*_{1/2}.
 John 3SG.M-IPFV read book-of.M-3SG.M
 'John is reading his book.'

c. *Maatâ*-*n*₁ *sun* *shaarè daakì-n-sù*_{1/2}.
 women-DEF 3PL.CPL sweep room-of.M-3PL
 'The women swept their rooms.'

As shown in (17), the simple possessive pronoun can be coreferential with the subject or not. Nonetheless, and as Newman (2000: 525) notes, the coreference between the subject and the possessive pronoun can also be expressed as a reflexive pronoun, but with a marked emphasis, as seen in (18):

- (18) a. *Sun ginà gida-n-sù.*
 3PL.CPL build house-of.M-3PL
 ‘They built their house.’

b. *Sun ginà gida-n kânsù/ gidaa na kânsù/*
 3PL.CPL build house-of.M REFL.3PL REFL.3PL house-of.M-3PL one.of.M
 gida-n-sù na kânsù.
 REFL.3PL
 ‘They built their own house.’

c. *Übaa-naa na kâinaa!* (cf. **üba-n kâinaa*/**übaa na kâinaa*)
 father-of.M.1SG one.of.M REFL.1SG
 ‘Hey you my dear [for me alone] “uncle”!’

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Sentence (18a), with a non-reflexive pronoun, has a pragmatically neutral interpretation, just like sentences (17). By contrast, sentence (18b) has a reflexive pronoun in a reduced, a full, or a double possessive construction. In all three options, sentence (18b) contrasts with sentence (18a) by being more emphatic and, naturally, the more profuse the formal means used, the greater the emphasis. Indeed in appropriate contexts, the emphasis can even imply an exclusive use by the possessor of the possessed object, beyond the state of possession itself. In particular, the double possessive appositional construction, i.e., the 3rd option in (18b), is the one that mostly implies the exclusive use of the possessed object by the possessor. So, sentence (18c) expresses - jokingly – the exclusive use meaning and the shorter reflexive constructions cannot be used, as indicated (the expression is used to affectionately greet a familiar – but unrelated – senior person; the senior person greeted can in fact reply *diyaa-taa ta kâinâa* ‘my dear own “niece”, i.e., other kin relations can be used, but always between unrelated people). To summarize, Hausa likely does not have genuine reflexive adnominal possessives and sentence (18b) can be compared to English sentences with the emphatic possession marker *own* (see Haspelmath 2008: 51 for discussion).

4.3 Locatives

Hausa uses basic and derived prepositions to express static locative relations. The derived prepositions are generally homophonous with locational nouns that are formally heads of a possessive constructions taking as “possessor” the NP expressing the location ground (see *baya-n icc  e* ‘behind the tree’, lit. ‘back-of.M tree’). Most of these possessive constructions have grammaticalized towards a prepositional phrase structure and no longer have the behavioral properties typical of true possessive constructions (see Abdoulaye 2018: 48f). When the location ground NP is coreferential with the subject, a non-reflexive pronoun must be used. This is illustrated in (19):

- (19) a. *Ta₁ maya  _d   yaar  o baaya-n-t  ₁/ *baaya-n k  nt  ₁*
 3SG.F.RP return.CAUS child back-of.M-3SG.F back-of.M REFL.3SG.F
 ‘She moved the child behind her.’
- b. *Ka₁-n  a_d   aikii g  ba-n-k  ₁ / *g  ba-n k  nk  ₁*
 2SG.M-have work front-of.M-2SG.M front-of.M REFL.2SG.M
 ‘You have much work to do [in front of you].’

These sentences show that a locative ground NP coreferential with the subject cannot be a reflexive pronoun. There is hence a contrast between locative

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phrases based on the possessive construction and genuine possessive constructions which at least admit an emphatic reflexive pronoun optionally. The locative phrases based on the possessive constructions also contrast with locative phrases based on simple prepositions which, sometimes, allow a reflexive pronoun, as noted by Newman (2000: 522f). This is illustrated in (20)–(21):

- (20) a. *Ta₁ ga wani macijii kusa ḡaree t̄a_{1/2}/ *ḡà kāntà₁.*
3SG.F.RP see one snake near on 3SG.F ON REFL.3SG.F
'She saw a snake beside her/herself.'
 - b. *John₁ ya ajè littaafii neesà dà shì_{1/2}/ *kānshì₁.*
John 3SG.M.RP put.down book away to 3SG.M REFL.3SG.M
'John put a book away from him.'
- (21) a. *Taa₁ shaafà fentii ḡaree t̄a_{1/2}/ ḡà kāntà₁.*
3SG.F.CPL rub paint on 3SG.F ON REFL.3SG.F
'She rubbed paint on her/herself.'
 - b. *Sun₁ jaawoo bâggo bisà suu_{1/2}/ kānsù₂.*
3PL.CPL draw blanket on 3PL REFL.3PL
'They pulled the blanket over them/themselves.'

In sentences (20–21), the particles *gà* ‘on’ (*ḡaree* before pronoun), *dà* ‘with, and, to’ are basic prepositions (without an evident source). *Bisà* ‘on, on top of’ is derived from the noun *bisà* ‘top, sky’ (see *bisà-n-shì* ‘its top part’ or ‘on it’), but it can be used without possessive marking and behaves like basic prepositions. Sentences (20) require a non-reflexive pronoun even when subject-coreference is intended, as indicated by the ungrammaticality of a reflexive pronoun. This may be due to the fact that the sentences express a non-contact locative relation. Although this needs to be investigated more, one can see that in sentences (21), which express a contact location, a locative NP, which is coreferential with the subject, can be a reflexive or a non-reflexive pronoun. However, in sentences (21) a non-reflexive pronoun is still the most natural option.

4.4 Benefactives with preposition *don* ‘for’

§4.1 showed that benefactive NPs can be expressed as applied nominals. They can also be expressed as objects of the preposition *don* ‘for, for the sake of’. Under subject-coreference, the benefactive argument is most naturally expressed as a reflexive pronoun, although the non-reflexive pronoun is also possible. This is illustrated in the following (see also Newman 2000: 524f):

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- (22) a. *Taa₁ sàyi littaafii don kântà₁/ ita_{1/2}.*
 3SG.F.CPL buy book for REFL.3SG.F 3SG.F
 ‘She bought a book for herself/for her.’
- b. *Yaaròo₁ yaa dafà àbinci don kânsì₁/ shii_{1/2}.*
 boy 3SG.M.CPL cook food for REFL.3SG.M 3SG.M
 ‘The boy cooked food for himself/for him.’
- c. *Naa ginà gidaa don kâinaa/ nii.*
 1SG.CPL build house for REFL.1SG 1SG
 ‘I built a house for myself/for me.’
- d. *(To) don kânkà!/ Don kânsì!/ Don kânsù!*
 OK for REFL.2SG.M for REFL.3SG.M for REFL.3PL
 ‘OK, (that’s) your problem!/His problem!/Their problem!’

In sentences (22a–22c) the reflexive pronoun is preferred, even for (22d) with a 1st person pronoun. When a non-reflexive 3rd person pronoun is used, it is naturally ambiguous between subject-coreference and disjoint reference, as indicated. Examples (22d) show that the benefactive phrase with the reflexive pronoun can be used as an idiomatic expression (which can be used by a speaker after hearing someone rejecting a sound advice). In this expression, the reflexive pronoun cannot be replaced with a non-reflexive pronoun (i.e., *don kuu* would mean ‘for you’, not ‘that’s your problem’).

4.5 Instrumental, associative and other oblique NPs

In §3.1 (see discussion of sentence 4) we saw that causative ‘Verb-*dà*’ constructions take true direct objects, which are expressed as reflexive pronouns in subject-coreference contexts. However, *dà* is a multipurpose free particle which, in its basic functions, marks the comitative and the instrumental relations (it also marks ‘and’-conjunction, a function that does not concern us here). In these basic functions, *dà*, like other oblique markers, can optionally take a reflexive complement. This is illustrated in (23):

- (23) a. *Naa gamàa da nii/ kâina.*
 1SG.CPL include with 1SG/ REFL.1SG
 ‘I included myself.’
- b. *Balki₁ taa gamàa dà ita_{1/2}/ kânta₁.*
 Balki 3SG.F.CPL include with 3SG.F/ REFL.3SG.F
 ‘Balki included her/herself.’

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- c. *Balki₁ taa yi shaawaàà gàme dà ita_{1/2}/ kânta₁.*
 Balki 3SG.F.CPL do advice about with 3SG.F REFL.3SG.F
 'Balki1 made a proposal concerning her/herself.'

It may be noted that in (23a–23b), the reflexive pronoun is the best option in case of subject-coreference. When a non-reflexive 3rd person pronoun is used, as in (23b–23c), it can be coreferential with the subject or refer to another participant. It may also be noted that the reflexive pronouns in (23) are not emphatic pronouns and one must distinguish them from the adverbial self-intensifier constructions, which are also built with *dà*-phrases (see §6.1).

4.6 Long-distance coreference

When a higher subject is coreferential with an NP in the lower clause, a non-reflexive pronoun is obligatorily used when the second NP is a subject, a direct object, an applied object, or a prepositional object. In fact, the only cases of long-distance reflexives concerns a position inside the adnominal possessive construction or a long-distance coreference mediated by an understood lower subject in a non-finite clause. This is illustrated in the following (sentence 25b adapted from Newman 2000: 523):

- (24) a. *Taa₁ azà [(*kântà₁) ta_{1/2}-nàa_dà isàssun kudii].*
 3SG.F.CPL think REFL.3SG.F 3SG.F-have enough money
 'She thought that she had enough money.'
- b. *Yaa₁ soo Bintà₂ tà zàabee shì_{1/3}/ *zàabi kânsì₁/*
3SG.M.CPL want B. 3SG.F.SBJ choose 3SG.M choose REFL.3SG.M
zàabi kântà₂.
choose REFL.3SG.F
 'He wanted that Binta choose him/*himself/herself.'
- (25) a. *Yaa₁ soo Bintà₂ tà sàyi hòoto-n shì_{1/3}/ kânsì₁.*
 3SG.M.CPL want B. 3SG.F.SBJV buy photo-of.M 3SG.M REFL.3SG.M
 'Abdu wanted that Binta buy his picture/his own picture.'
- b. *Abdù₁ yaa tàmbàyi Bintà₂ [hanyà-à [kaarè kânsì₁/*
Abdu 3SG.M.CPL ask B. way-of.F protect REFL.3SG.M
kântà₂]].
REFL.3SG.F
 'Abdu asked Binta how to protect himself/herself.'

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- c. *Abdù₁ yaa tàmbàyi Bintà₂ [hanyà-✉ [kaarè shì_{1/3}/ tà_{2/3}]].*
 Abdu 3SG.M.CPL ask B. way-of.F protect 3SG.M/ 3SG.F
 'Abdu asked Binta how to protect himself/herself/him/her.'

In sentences (24a-24b), the coreferential lower subject (pronoun *ta-* '3SG.F') and direct object (pronoun *shi* '3SG.M'), respectively, cannot be expressed as reflexive pronouns. By contrast, the coreferential adnominal possessive argument can be a reflexive pronoun but with an emphatic meaning, as seen in (25a). In sentence (25b), the main verb is followed by two object NPs. The second NP (in first brackets) contains a possessive construction with *hanyàa* 'way' as head and an adnominal non-finite clause (inner brackets). The direct object of the non-finite clause, when coded as a reflexive pronoun, can refer to main subject (*Abdù*) or the main direct object (*Bintà*). In this case, the referent of the main subject or the main direct object would, respectively, be understood to be the agent of the verb *kaarè* 'protect'. When simple pronouns are used as direct objects of *kaarè*, as seen in (25c), then these pronouns can refer to Abdu, Binta, or someone else. If the pronoun refers to Abdu, then Abdu cannot be the understood agent of verb *kaarè*, and similarly with Binta. In other words, sentence (25b) may not illustrate a genuine long-distance coreference (see the discussion in Haspelmath 2020: 14, note 15).

5 Coreference between non-subject arguments

In Hausa, the coreference between non-subject arguments is most naturally expressed with non-reflexive pronouns or, alternatively, with a reflexive pronoun. The coreference relation can take place between a direct object, an applied object, or a prepositional object on the one hand, and an adnominal possessive pronoun or a prepositional object, on the other hand. This is illustrated in the following (see also Newman 2000: 523 for similar data):

- (26) a. *Yaa₁ nuunàa mà Màd✉i₂ hòoto-n-tà_{2/3}/ hòoto-n*
 3SG.M.CPL show APPL M. photo-of.M-3SG.F photo-of.M
kàntà₂.
 REFL.3SG.F
 'He showed Mary her picture/a picture of herself (her own picture).'
- b. *Muusaa₁ yaa yii wà Abdù₂ zancee gàme dà shii_{1/2/3}/*
 Musa 3SG.M.CPL do APPL A. talk about with 3SG.M

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*kâns̄hi*_{1/2}).

REFL.3SG.M

‘Musa spoke with Abdu about himself.’

Sentence (26a), with the reflexive pronoun *kântà*, implies that the photo likely pictures Mary, whereas this reading is not obligatory with the non-reflexive pronoun *tà*. In (26b), the (non-emphatic) reflexive pronoun *kâns̄hi* can only refer to either of the nouns, i.e. *Muusaa* or *Abdù*. The non-reflexive pronoun *shii* can refer to either noun or a third understood participant. Sentence (26b) shows that Hausa reflexive pronouns are not exclusively subject-oriented.

6 Self-intensifiers

We have already seen in §4.2 that adnominal possessive reflexive pronouns can put emphasis on the possessive relation (see *mootâkâns̄hi* ‘his own car’). Newman (2000) discusses at length two other emphatic constructions in Hausa that are related to the reflexive constructions and which are referred to in typological studies as the adverbial and the adnominal self-intensifiers (see König & Siemund 2000: 43). This section is largely based on Newman’s account, although I will use the general terminology. The section presents the two types of constructions, in turn.

6.1 Adverbial self-intensifiers

According to Newman (2000: 526), what he calls “pseudoemphatic” reflexives are prepositional phrases with the preposition *dà* ‘with, and, to, etc.’ followed by an (apparent) reflexive pronoun which is coreferential with the sentence subject. Semantically, they emphasize the fact that the subject referent did an action or underwent a process on their own, by themselves. This is illustrated in (27–28):

- (27) a. *Yâaraa sun koomâa gidaa dà kâ-n-sù.*
children 3PL.CPL return home with self-of.M-3PL
‘The children returned home by themselves.’
- b. *Wutaa taa mutù dà kâ-n-tà.*
fire 3SG.F.CPL die with self-of.M-3SG.F
‘The fired died out on its own.’

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- (28) a. *Yâaraa dà kâ-n-sù su-kà koomâa gidaa.*
 children with self-of.M-3PL 3PL-RP return home
 ‘The children returned home all by themselves.’
- b. *Yâaraa sun koomâa gidaa dà gudù/ dà tâimako-n mutâanee.*
 children 3PL.CPL return home with running with help-of.M people
 ‘The children returned home running/with help from others.’
- c. *tâimako-n kâi (dà kâi)*
 help-of.M self with self
 ‘self-help (all by oneself)’

Newman (2000) calls the reflexive-like forms in (27) “pseudoemphatic” because he believes they are bona fide reflexive pronouns in an adjunct structural position and which are coreferential with the subject. He notes that they typically appear near or at the end of the sentence. He also notes that they can be focus-fronted, just like any other clause constituent, as seen in (28a). Furthermore, (28b) shows that they can alternate with manner phrases introduced with the same preposition *dà* ‘with, and, to’. Nonetheless, it is clear that the reflexive pronouns in (27–28) signal emphasis and should be characterized accordingly. They are indeed used in contexts where a speaker believes the hearer does not expect the subject referent to be able to carry out the action on their own. Nonetheless, one may not consider them to be true reflexive pronouns. Indeed, example (28c) shows that *kâi* meaning ‘self’ can appear without an adnominal possessive pronoun, i.e., a coreference with an antecedent noun is not required to mark the emphasis. These forms are very likely the Hausa instantiation of the adverbial self-intensifiers and can be glossed literally as ‘with self-of-pronoun’, marking more precisely the emphatic meaning ‘with (just) the self, all alone’ (see König & Siemund 2000: 44 who refer to this use of the intensifiers as the exclusive ‘alone’ use; for more on *kâi* as ‘self’ see next section). Sentence (28a), without the intensifier, would have no implication on how the children returned home. Newman (2000: 529) also notes that for an even greater emphasis, the intensifier can combine with true reflexive pronouns, as seen in (29):

- (29) a. *Bintâ taa zârgi kântâ dà kâ-n-tâ.*
 Binta 3SG.F.CPL accuse REFL.3SG.F with self-of.M-3SG.F
 ‘Binta charged herself knowingly, deliberately’

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- b. *Sun kaaràa wà kânsù kudii (suu) dà kâ-n-sù.*
 3PL.CPL augment APPL REFL.3PL money 3PL with self-of.M-3PL
 ‘They raised their pay all by themselves, deliberately.’

Sentences (29a–29b) have, respectively, a direct object and an applied object reflexive pronoun combined with the emphatic *dà*-phrase, here underlining the deliberate aspect of the action. As Newman (2000: 527) notes, an independent pronoun can optionally precede the *dà*-phrase, as seen in sentence (29b). In such cases, Newman proposes that the *dà*-phrase is not an independent sentence constituent but is simply adjoined to the pronoun. This construction then comes close to the second type of emphatic reflexive pronouns, which Newman also believes are adnominal adjunctions, and which are presented next.

6.2 The adnominal self-intensifiers

Indeed, according to Newman (2000), the genuine reflexive-like emphatic pronouns are not sentence-level constituents, that is, they do not fulfill a semantic or syntactic role in the clause. Instead, they always appear in apposition next to a noun or pronoun. Functionally, they seem to signal a scalar ‘even X’/‘X himself’ emphasis or contrast. This is illustrated in the following (see also Newman 2000: 527):

- (30) a. *Bellò (shii) kânsì yaa san bâi_dà gaskiyaa.*
 Bello 3SG.M EMP.3SG.M 3SG.M.CPL know NEG.3SG.M.have truth
 ‘[Even] Bello himself knows he is wrong.’
- b. *Sun ruusà makañantâ- (ita) kântà.*
 3PL.CPL break.up school-DEF 3SG.F EMP.3SG.F
 ‘They destroyed the school itself.’
- c. *Dàalibâ-n duk su-kà gudù, àmmaa maalàmî-n shii kânsì ya tsayàa.*
 students-DEF all 3PL-PF run but teacher-DEF 3SG.M EMP.3SG.M
 3SG.M.RP stay
 ‘The students all ran away, but the teacher himself stood.’

In (30a–b), the self-intensifier follows the modified noun, with an optional (but preferred) pronoun between the two. The pronoun becomes obligatory if the modified noun is omitted or positioned after (or away from) the intensifier (e.g., *shii kânsì* ‘he himself’, *shii kânsì Bellò* ‘Bello himself’). Consequently, one

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can easily formally distinguish the adverbial self-intensifier (see §6.1) from the adnominal self-intensifier, no matter their position in the sentence (see discussion of 31–32 below). Semantically, the adnominal self-intensifiers seem to primarily signal emphasis and, secondarily, contrast, but both in the background of a scalar context. For example, sentence (30a) expresses a clear scalar emphasis: i.e., adversaries and all other people, as expected, think Bello is wrong; however, and quite unexpectedly, Bello, too, knows he is wrong. As for sentence (30b), while it can be used in contexts where no other building was destroyed, it nonetheless supposes an understood scalar background, i.e., if a school can be destroyed, then other less important buildings might as well. This account is then similar to the one given in a number of studies, such as Edmondson & Plank (1978); Primus (1992); Kibrik & Bogdanova (1995), as cited in König & Siemund (2000: 47–48), however, reject this type of account, citing as evidence English data on which sentence (30c) is modeled. They would argue that in (30c), it is well expected that the referent of the marked noun (*maalàmîn* ‘the teacher’) is the one not afraid to face a danger. Nonetheless for Hausa, it can also be noted that sentence (30c), like sentences (30a)–(30b), still has a scalar context: the marked noun refers to an entity situated at the higher end of a scale. The only difference is that sentence (30c) expresses a contrast (between the scaled entities ‘students’ and ‘teacher’; see also sentence (32b) below). That the adnominal self-intensifiers may express both emphasis and contrast should not be surprising, since in general focus studies, too, the same formal means can signal various pragmatic situations (such as when a cleft construction is claimed to signal new information focus, contrastive focus, and exhaustive listing focus). Nonetheless, this preliminary account may not extend to other languages like English, or even crosslinguistically, where the uses of the self-intensifiers are more diverse (see König & Gast 2006: 224) than it appears to be the case in Hausa (at least pending further data).

Adnominal self-intensifiers can be reinforced in a number of ways, for extra emphasis. They can also have idiomatic uses. This is illustrated in (31)–(32):

- (31) a. *Bellò shii dà kâ-n-shì yaa san gaskiyaa.*
Bello 3SG.M with self-of.M-3SG.M 3SG.M.CPL know truth
‘Bello, really he himself, knows the truth.’
- b. *Bello shii kân_kânshì yaa san gaskiyaa.*
Bello 3SG.M EMP-EMP.3SG.M 3SG.M.CPL know truth
‘Bello, really he himself, knows the truth.’

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- (32) a. *Wâyyoo mu(u) kânmü!*
 alas 1PL EMP.1PL
 ‘Alas, poor us!’
- b. *Kee kânkì/ dà kâ-n-kì zaa_kì kunnà wutaa à nân!*
 2SG.F EMP.2SG.F with self-of.M-2SG.F FUT-2SG.F light fire at here
 ‘How come you [who should know better] would light a fire in this place?’

In (31a), the subject noun *Bellò* is followed by a reinforced adnominal self-intensifier *shii dà kânshì*, which clearly contains the adverbial intensifier *dà kânshì* (see §6.1). The pronoun *shii* is obligatory hence, the noun *Bellò* cannot be followed by just *dà kânshì*. Semantically, the modified noun in (31a) is emphasized, as indicated. Sentence (31b) shows that adnominal self-intensifiers can be partially repeated (or, more likely, reduplicated prefixally), for an even greater emphasis. The partial repetition/reduplication device seems not to be available to the adverbial self-intensifiers (in fact to no other reflexive or reflexive-like construction). I will follow Newman (2000: 527) in separating out the two formal types of self-intensifiers and globally gloss the adnominal self-intensifiers as ‘EMP’, plus the person features (see also discussion of sentences 38 below). Nonetheless, as reported by other researchers (see Wolff 1993: 117), it seems that speakers have come to make the two types of self-intensifiers overlap (see sentence 31a, 32b, but also sentence 38b below with its double meaning). Sentences (32) show that adnominal self-intensifiers can partake in fixed or idiomatic expressions (sentences like 32b are generally used for scolding, i.e., the referent of the pronoun *kèe* ‘2SG.F’, in contrast to all other relevant people, should know that fire should not be lit at the place).

In conclusion, Hausa uses forms akin to reflexive pronouns as adverbial and adnominal intensifiers to mark, respectively, the ‘by himself’-action emphasis and the scalar ‘even X’/X himself’ emphasis or contrast.

7 The meanings of *kâi* ‘head, self’

In Hausa, as in many other languages in the area,³ the word for ‘head’ has many derived meanings, including: ‘intelligence’, ‘consciousness’, ‘mind’, ‘person’, and ‘self, oneself’ (see Will 2019 for a review). Indeed, in Hausa the noun *kâi* ‘self, oneself’, independently from the reflexive pronouns in Table 3, can appear alone

³See for example Bernard & White-Kaba (1994: 39) for Zarma.

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in many nominal compounds, semi-fixed verbal expressions, and even proverbs.⁴ Some of the *kâi*-based compounds and idiomatic expressions are illustrated in (33).

- (33) a. *àbu-n kâi/ (àbù) na kâi*
thing-of.M self thing one.of.M self
'property, wealth, own item'
- b. *kiishi-n kâi*
jealousy-of.M self
'self-protection'
- c. *sô-n kâi*
loving-of.M self
'selfishness'
- d. *yii ta kâi*
do one.of.F self
'save oneself'

The expressions in (33a)–(33c) are compound nouns which, like any noun, can be used independently from any previously mentioned referent (for example as subject in *sôn kâi yaa yi yawàa gidan nàn* 'there is too much selfishness in this house', for the compound in (33c); for a crosslinguistic investigation of the reflexive compounds, see Koenig2003). Sentence (33d) presents an idiomatic expression. Compounds based on *kâi* 'self', both with predictable or less predictable meanings, are numerous. Some frequent examples cited in the dictionaries are: *batân kâi* 'confusion', lit. 'loss of self'; *incin kâi* 'independence, autonomy'; *sanîn ciiwòn kâi* 'self-care', lit. 'knowing of pain of self' (cf. also *ciiwòn kâi* 'headache'); *girman kâi* 'pride, vanity', lit. 'big-ness of self' (though this may also be 'big-ness of head'); *jîn kâi*, 'pride, vanity' lit. 'feeling of self'; *sâa kâi* 'volunteerism', lit.

⁴Some *kâi*-based proverbs one can find in dictionaries and the internet are: *iyà ruwa fit dà kâi* 'saving oneself is the measure of one's swimming skills', lit. 'swimming [is] saving self' (a proverb used to mean one should first test oneself before claiming an expertise; a variant of which is: *koowaa ya fid dà kâi naa-sâ shii nèe gwânni* 'whoever saves himself is the expert', using a full 'self that.of.M-3SG.M' possessive construction.); *yâbon kâi jaahilci* 'bragging is shallowness', lit. 'praise of self [is] ignorance'; *girman kâi rawânin tsiyaa* 'pride is destructive', lit. 'big-ness of self/head [is] turban of poverty'; *anâa ta kâi bâa a ta kaayaa* 'one should attend to the most urgent issue first', lit. 'while saving the self, one does not care about properties'. The proverbs usually shed the functional words, like copulas (see Newman 2000: 164f), the light verb *yi* 'do' (see Jaggar 2001: 171, Newman 2000: 281), or even reduce phonological material (cf. *ruwa* above vs. the full form *ruwaa* 'water').

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‘putting self’ (cf. *aikìn sâa kâi* ‘voluntary work’); etc. These expressions and compounds can sometimes keep their idiomatic reading even when *kâi* is adjoined a possessive pronoun (e.g., *kâ-n-shì* ‘self-of-3SG.M’) referring to the sentence subject. This is illustrated in (34)–(35):

- (34) a. *Yaara su-kâ yi ta kâ-n-sù.*
children 3PL-RP do one.of.F self-of.M-3PL
‘The children bolted away/escaped threat.’ OR ‘The children did their own [chair].’ (i.e., ‘they made one [chair] for themselves’)
 - b. *Koo-waa yà yi ta kâ-n-shì!*
even-who 3SG.M.SBJV do one.of.F self-of.M-3SG.M
‘Every man for himself!’ (cf. Fr. *sauve-qui-peut!*); OR ‘May every one make his own [chair].’ ‘May every one follow his own way.’
- (35) a. *Abdù yaa nuunà irì-n [kiishì-n kâ]-n-shì.*
Abdu 3SG.M.CPL show type-of.M protection-of.M self-of.M-3SG.M
‘Abdu displayed his art of self-protection.’
 - b. *Abdù, à yi kiishi-n kâi/ *kâ-n-kâ!*
Abdu IMPRS.SBJV do protection-of.M self/ self-of.M-2SG.M
‘Abdu, you should protect yourself.’
 - c. *Abdù, kâ yi kiishi-n kâ-n-kâ!*
Abdu, 2SG.M.SBJV do protection-of.M self-of.M-2SG.M
‘Abdu, you should protect yourself.’

Sentences (34) illustrate the expression *yi ta kâi* ‘save self’ given in (33d). In both sentences (34a–34b) the idiomatic meaning is still recoverable even though *kâi* is adjoined a possessive pronoun referring to the subject. The sentences however are ambiguous, with possible true reflexive readings, as indicated. Sentence (35a) shows that the compound *kiishìn kâi* ‘self-protection’, too, can take an adnominal possessive pronoun (see also *irin [kiishìn kâ]n Abdù* ‘Abdu’s way in self-protection’, with an adnominal possessive noun). The compound structure is also clear in (35b) where an impersonal subject-pronoun occurs with a specified referent, yet the sentence cannot license an adnominal possessive pronoun. However, with a matching 2nd person subject-pronoun, as in (35c), an adnominal possessive pronoun is possible and one gets a typical reflexive construction, no matter how one might analyze the sequence *kiishi-n kâ-n-kâ* (as a compound ‘self-protection of you’, or as a reflexive pronoun ‘protection of yourself’). The typical reflexive reading is more easily available when the compound or fixed

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expression has a transparent meaning, as seen in the following case (examples adapted from [Newman 2000: 523](#)):

- (36) a. *Abdù yaa tàmbàìyì Bintà hanyà-⊗ kaarè kâi.*
 Abdu 3SG.M.CPL ask Binta way-of.F protect self
 'Abdu asked Binta about how to protect oneself [way of self-protection].'
- b. *Abdù yaa fadàa wà Bintà hanyà-⊗ kaarè kânshì/ kântà.*
 Abdu 3SG.M.CPL tell APPL Binta way-of.F protect REFL.3SG.M
 REFL.3SG.F
 'Abdu told Binta about how to protect himself/herself.'

In (36a) with the bare expression *kaarè kai* 'self-protection', the person that needs to protect themselves can be Abdu, Balki, or some other person, while in (36b), with a reflexive pronoun, Abdu (with *kânshì*) or Balki (with *kântà*) are referred to by the reflexive pronoun, in a typical reflexive construction. Other semantically transparent *kâi*-based compounds and expressions are: *kaa_dà kâi* 'falling all by oneself [self-defeat]'; *kashè kâi* 'suicide' (lit. 'kill self', cf. *kisà-n kâi* 'murder', lit. 'killing-of head/person'); *binciken kâi* 'self-exploration'; *àmfàanin kâi* 'self-benefit' (i.e., doing something for one's own sake); *tàimakon kâi* 'self-help', etc. Some of these can be reinforced with the 'by himself' adverbial intensifiers seen in §6.1: *binciken kâi dà kâi* lit. 'self-exploration by self', *tàimakon kâi dà kâi* lit. 'self-help by self' (see also [Newman 2000: 523](#)). As suggested already in §6.1, these reinforced compounds show that both *dà kâi* and *dà kânshì* can mark the 'by himself' emphasis. Finally, there is at least one case where *kâi* 'self' appears embedded in typical reflexive constructions, i.e., when the plural form *kaawunàà* 'selves' is used, as seen in the following (sentence 37a from a radio broadcast and 37b from [Jaggar 2001: 383](#); see also [Abdoulaye 2018: 45](#)):

- (37) a. ...*na aamulàà dà tsäftàà dà kuma kaarè kaawunà-n-mù*
 one.of.M practice with hygiene and also protect selves-of.PL-1PL
 dàgà cî-n naamà-n beeràayee...
 from eating-of.M meat-of.M rodents
 '[appeals made to us] for practicing hygiene and protecting [restraining] ourselves from eating rodents...'
- b. *Zaa_mù wankè kaawunà-n-mù dàgà zàrgi-n dà a-kèe*
 FUT-1PL clear selves-of.PL-1PL from charge-of.M that IMPRS.RI

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ma-nà.

APP1-1PL

'We will clear ourselves of the accusation against us.'

- c. *Daya baayan daya, su-kà zwaagè kaawunà-n-sù dàgà hañakà-*⊗
 one after one 3PL-RP extract selves-of.PL-3PL from matter-DEF
 'One by one, they extracted themselves from the matter.'

Sentences (37), with the plural form *kaawunaà* 'selves', have a special semantics. Indeed, they tend to imply individualized actions by many people. This is clear in sentences (37a) and (37c), where it is understood that people performed the action separately and at various times. According to Newman (2000: 485), the building of the reflexive pronouns uses only the singular *kâi* and this claim would be true if indeed it applies only to the reflexive pronouns that solely mark coreference between arguments, that is, without an added semantics or an emphasis. Indeed, if the regular reflexive pronoun *kânmù* 'ourselves' (lit. 'our-self') is used in (37a)–(37b), as is possible, then the sentences would not have the individualized actions reading.

Although most Hausa researchers assume that the reflexive pronouns are directly based on the meaning 'head' (see Caron 1991: 74, ;Newman 2000: 529; Jaggar 2001: 413; Pawlak 2014: 147f; for a general proposal in this regard see Faltz 1985: 32f, 109f), a few sources have instead explicitly linked the reflexive pronouns with *kâi* meaning 'self' (e.g., Wolff 1993: 117; Will 2019: 161). The data presented in this section show indeed that the meaning of 'self' may be relevant for an account of the development of the typical reflexive pronouns. Self-intensifier forms, too, are sometimes evoked as possible source of reflexive pronouns (see König & Siemund 2000: 44; Schladt 2000: 105f; and Haspelmath 2020: 22 for discussions) and this proposal may be relevant for Hausa as well. We have seen in §6 that Hausa has two types of self-intensifiers. There is some evidence in Katsinanci dialect that adnominal self-intensifiers are formally closer to typical reflexive pronouns than adverbial self-intensifiers. Indeed, adnominal self-intensifiers and reflexive pronouns tend to have less flexibility in their choice of the 3rd person masculine singular pronoun variants, as given in Table 2, and so contrast with adverbial self-intensifiers and the *kai* 'self' found in compounds and idiomatic expressions, as seen in (38):

- (38) a. *Koo-waa yà yi ta kâ-n-shì/ kâ-n-yà/*
 even-who 3SG.M.SBJV do one.of.F self-of.M-3SG.M self-of.M-3SG.M

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kâi-nâ-i!

self-of.M-3SG.M

‘Every man for himself!’ (cf. sentence 34b above)

- b. *Bello yaa jee makañantâ-ñ dà kâ-n-shì/ kâ-n-yà/*
 Bello 3SG.M.CPL go school-DEF with self-of.M-3SG.M self-of.M-3SG.M
kâi-nâ-i.
 self-of.M-3SG.M

‘Bello went to the school by himself.’ (Also: ‘Bello himself went to the school.’)

- c. *Bello yaa ga kânshì/ ?kânyà/ ?kâinâi cikin maduubii.*
 Bello 3SG.M.CPL see REFL.3SG.M REFL.3SG.M REFL.3SG.M in mirror

‘Bello saw himself in the mirror.’

- d. *Bello shii kânshì/ ?kânyà/ *kâinai yaa san*
 Bello 3SG.M EMP.3SG.M EMP.3SG.M EMP.3SG.M 3SG.M.CPL know
gaskiyaa.
 truth

‘Bello himself knows the truth.’

- e. *Bello shii kân_kânshì/ *kân_kânyà/ *kân_kâinai yaa*
 Bello 3SG.M EMP-EMP.3SG.M/ EMP-EMP.3SG.M EMP-EMP.3SG.M 3SG.M.CPL
san gaskiyaa.
 know truth

‘Bello, really he himself, knows the truth.’

As shown in Table 2, Katsinanci dialect has four reduced variants for the 3rd person masculine singular possessive pronoun, three of which are relevant for our discussion here (the *kâi-na-s* ‘his head’ variant is marginal even for typical possessive constructions). All speakers consulted agree without hesitation that the three variants are grammatical with *kâi* ‘self’, as seen in (38a), and with the adverbial self-intensifiers, as seen in sentence (38b). This result, together with the fact that *dà kâi*, lit. ‘by self’, can alone mark emphasis (e.g., *binciken kâi dà kâi* lit. ‘self-exploration by self’), supports analyzing the ‘by himself’ emphatic constructions as having the literal comitative meaning ‘with (just) his self’, i.e. ‘alone’. By contrast, speakers are less firm in their judgments with the reflexive pronouns and the adnominal self-intensifiers. All speakers consulted immediately favor the form *kânshì* for both constructions, as seen in (38c)–(38d), respectively. Most consulted speakers tolerate *kânyà* for both constructions. By contrast, *kâinâi* is

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acceptable for the reflexive pronouns but is rejected by most speakers for the adnominal self-intensifiers. Finally, for all consulted speakers, in sentence (38e), the adnominal intensifier reinforced with partial repetition/reduplication (see sentence 31b above) can only have the *kānshì* form.

8 Conclusion

This contribution has shown that Hausa distinctively marks coreference between the subject and another NP in the same minimal clause using reflexive pronouns formally based on the possessive construction ‘*kāi* + -n + Pronoun’, lit. ‘self + of + Pronoun’, where the pronoun is coreferential with the clause subject (or sometimes with a preceding direct object or applied object). Subject-coreferential direct objects are almost always expressed as reflexive pronouns (with the exception of the direct objects of some mental and sensation verbs). Subject-coreferential applied objects are also always expressed as reflexive pronouns, except for the 1st and 2nd persons, where a non-reflexive pronoun is possible. Subject-coreferential locative NPs are always expressed as simple pronouns with prepositions derived from location nouns, but they can also be reflexive pronouns with simple, non-derived prepositions. Similarly, prepositional phrases with *dà* ‘with, and’ basically accept simple pronouns, but they also allow the reflexive pronouns, particularly in the 3rd person. Subject-coreferential possessive NPs can optionally be expressed as reflexive pronouns but they then have a special ‘own’-emphasis on the possessive relation. The chapter also described three different constructions that are related to the typical reflexive constructions: compounds and semi-fixed expressions involving *kāi* ‘self’, adverbial self-intensifiers marking the ‘by himself’ emphasis, and adnominal self-intensifiers marking the scalar ‘even X’/‘X himself’ emphasis and contrast. These three constructions may be relevant for an account of the origin of the typical reflexive pronouns in Hausa.

Notes and abbreviations

The data discussed in this paper are based on Katsinanci dialect. Katsinanci was the dialect of precolonial Katsina State, the territory of which today straddles the border between the Republic of Niger (towns of Maradi and Tessaoua) and the Federal Republic of Nigeria (town of Katsina). It is in a central position between the two main Hausa dialectal clusters, the western and the eastern dialects, but it shares more features with the western dialects (see Wolff 1993: 7; Newman 2000: 1).

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The transcription in this chapter follows the Hausa orthography, with some changes. Long vowels are represented as double letters, low tone as grave accent and falling tone as circumflex accent. High tone is unmarked. The symbol ‘ṛ’ represents an alveolar trill distinct from the flap ‘r’. Final ‘f’ generally assimilates to the following consonant. Written ‘f’ is pronounced [h] (or [hw] before [a]) in Katsinanci and other western dialects.

The abbreviations are:

1, 2, 3	1st, 2nd, 3rd person
APPL	applicative
CPL	completive
DEF	definiteness
EMP	emphasis
F	feminine
FUT	future
IMPRS	impersonal
IPFV	imperfective
M	masculine
NEG	negative
NP	noun phrase
PL	plural
REFL	reflexive
RI	relative imperfective
RP	relative perfective
SG	singular
SBJV	subjunctive

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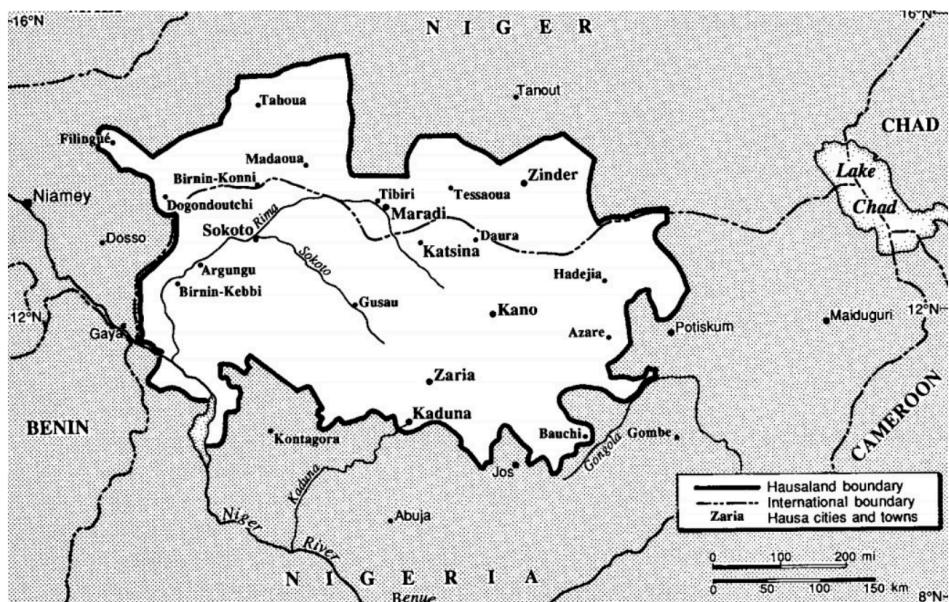


Figure 1: Hausa language primary area (from Newman 2000)

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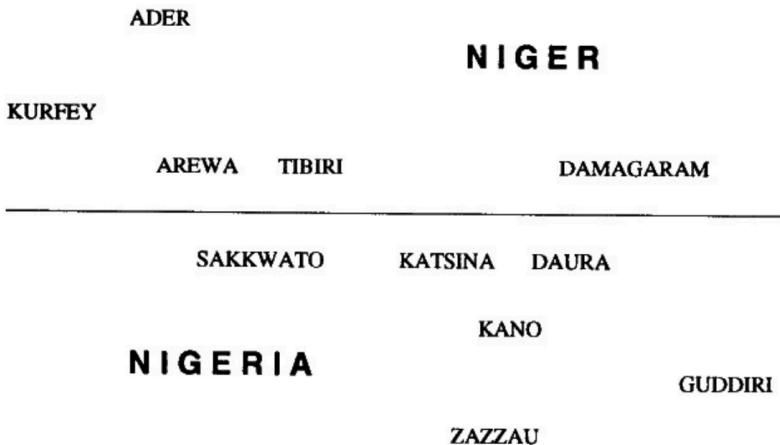


Figure 2: Hausa dialectal areas (line = Niger/Nigeria border; from Wolff 1993)

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Chapter 4

Reflexive Constructions in Jóola Fóoñi

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The reflexive constructions of Jóola Fóoñi (an Atlantic language spoken in south western Senegal) are characterized by a sharp distinction between subject–object coreference, which requires the use of derived forms of the verb, and other possible coreference relationships within the clause, which are not treated differently from coreference in discourse. Three verbal suffixes are involved in the coding of subject–object coreference, none of which is specialized in reflexive function: -ɔɔr (productive in reciprocal function, very marginally involved in reflexivization), -ɔ (productive in decausative and quasi-reflexive function, also used to encode reflexivization with body-care verbs), and -ɔɔṛ (the default marker of subject–object coreference, also used to mark self-intensification of the subject).

1 Introduction

Jóola Fóoñi (a.k.a. Diola-Fogny), spoken in south western Senegal by approximately half a million speakers, belongs to the Bak group of languages included in the Atlantic family.¹ Three overall presentations of Jóola Fóoñi grammar are available: Weiss (1939), Sapir (1965), and Hopkins (1995), but none of them includes a discussion of reflexive constructions. The available documentation on the reflexive constructions of Jóola Fóoñi is limited to a few examples of the use

¹Jóola languages can be divided into Central Jóola, a dialect continuum within the limits of which it is difficult (if not impossible) to decide what is a language and what is a dialect, and peripheral Jóola varieties whose status as separate languages is hardly disputable, in spite of their close relationship to Central Jóola, such as Karon, Kwaataay, Mulomp-North, or Bayot. Jóola Fóoñi is part of the Central Jóola dialect continuum.



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of the verbal suffixes *-ɔ* and *-ɔɔrɔ*, designated by Sapir (1965: 51) as ‘reflexive-descriptive’ and ‘strong reflexive’, respectively. In particular, a crucial property of the suffix *-ɔɔrɔ*, namely the possibility of a non-reflexive use in which it marks self-intensification of the subject, has never been acknowledged before.

In a general way, we base our analysis of Jóola Fóoñi on a corpus of more than twelve hours of recorded naturalistic texts of various genres.² However, in contrast to other morphosyntactic phenomena on which we already worked, and for which our corpus provided abundant data, it turns out that reflexive constructions are very rare in our corpus, and the analysis of reflexive constructions presented in this paper would not have been possible without systematic recourse to elicitation. In fact, most of the examples we quote have been elicited.

The article is organized as follows. §2 provides background information on Jóola Fóoñi morphosyntax. §3 describes the general principles underlying the expression of coreference within the clause in Jóola Fóoñi, characterized by a sharp distinction between subject–object coreference, which requires verbal marking, and other configurations, which are not treated differently from coreference in discourse. §4 is on the reflexive and non-reflexive uses of the verbal suffixes involved in the coding of subject–object coreference. §5 gives additional precisions on the relationship between reflexivization and self-intensification, which constitutes a particularly original aspect of Jóola Fóoñi. §6 summarizes the main conclusions.

2 Background information on Jóola Fóoñi morphosyntax

2.1 Clause structure

2.1.1 Transitive–intransitive alignment

Like most of the languages of Subsaharan Africa, Jóola Fóoñi has a straightforward ‘nominative–accusative’ alignment system making it possible to define a grammatical relation ‘subject’ on the basis of a set of properties shared by A in the basic transitive construction and the sole argument of semantically monovalent verbs, and a grammatical relation ‘object’ on the basis of a set of properties that distinguish the P phrase in the basic transitive construction from noun phrases fulfilling other roles.

²The texts have been transcribed by Boubacar Sambou (a graduate student in linguistics who is also a native speaker of the language), and analyzed by Alain Christian Bassène and Denis Creissels with the help of Boubacar Sambou.

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2.1.2 Subjects, objects and obliques

Subjects and objects are equally unflagged. The most obvious property that distinguishes them is that subjects are indexed by means of verbal prefixes, whereas objects are indexed by means of verbal suffixes. Moreover, as illustrated in (1), with the verb forms lending themselves to subject indexation, the prefixed subject index is obligatory (even in the presence of a subject NP) whereas object indexation, conditioned by topicality, is equally optional with all verb forms.³

- (1) a. *Eyeney ərvnr̥v̥m añulaw.*
ε-yen-ε-y ε-rv̥n-rv̥m a-ñul-a-w
 SG-dog(E)-D-CLE sI:clE-bite-RDPL SG-child(A)-D-clA
 ‘The dog bit the child.’
- b. *Er̥v̥mɔɔrv̥m.*
ε-rv̥m-ɔɔ-rv̥m
 sI:clE-bite-I:clA-RDPL
 ‘It (the dog) bit him (the child).’

Subject NPs consistently precede the verb. The unmarked position for object NPs and obliques is after the verb, as in (2a), but in case of focalization (marked by the use of special verb forms also used in relative clauses), they move to clause-initial position, as in (2b).

- (2) a. *Nijɔjšk Musaa.*
n-i-jšk-jšk Musaa
 PPF-SI:1SG-see-RDPL Moussa(A)
 ‘I saw Moussa.’
- b. *Musaa nijɔkv̥m.*

³Our transcription of the Jóola Fóoñi examples is a broad phonetic transcription that coincides with the official orthography as regards the notation of consonants, but departs from it in the notation of vowels, for which we follow the IPA conventions. This choice is motivated by the fact that the official orthography uses the acute accent to distinguish +ATR vowels from their –ATR counterparts, which may be confusing since accents are more commonly used to indicate word stress or tone. Phonological processes are responsible for variation in the form of some formatives. In particular, ATR harmony is responsible for variation in the vowels of most affixes, as illustrated by the non-subject index of class A, which depending on the context may surface as -ɔɔl, -ooł, -ɔɔ, or -oo. Consonants in coda position are also often affected by phonological processes, as in *er̥vnr̥v̥m* (1a), where the final consonant of *r̥v̥m* ‘bite’ is modified in contact with the initial consonant of the reduplicative suffix, or in *nijɔjšk* (2a), where the final consonant of *jšk* ‘see’ is deleted for the same reasons.

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Musaa n-i-jvkv-s-m
Moussa(A) PPF-sI:1SG-see-EP-ACT₁
 ‘It is Moussa that I saw.’

Obliques are easy to distinguish from objects when they are introduced by a preposition, but unflagged obliques are relatively common in Jóola Fóoñi. However, their indexation properties distinguish them from objects: some obliques cannot be indexed at all, and for those lending themselves to indexation, contrary to objects, the choice of the index is not sensitive to the gender-number of the NP in oblique role, but only to its semantic role. For example, in (3a), *esukey* ‘the village’ is not flagged, which could suggest analyzing it as an object, but if it were the case, it should be possible to substitute the class E index *-yɔ* for it, since *esuk* ‘village’ governs class E agreement. The fact that, in this sentence, *esukey* can only be represented by the locative class index *-bɔ*, as in (3b), shows that it must be analyzed as an unflagged oblique rather than as an object.

- (3) a. *Kvjajaw esukey.*
kv-ja-jaw e-suk-e-y
sI:clBK-go-RDPL SG-village(E)-d-clE
 ‘They went to the village.’
- b. *Esukey, kvjajawbɔ.*
e-suk-e-y kv-ja-jaw-bɔ
SG-village(E)-d-clE sI:clBK-go-RDPL-I:clB
 ‘The village, they went there.’

In Jóola Fóoñi, there is no strict relative ordering of objects and obliques.

2.1.3 Transitivity prominence

Given that, in Jóola Fóoñi, transitivity is crucial in the conditioning of the expression of coreference within the clause, it is important to mention here that one of the salient typological characteristics of Jóola Fóoñi is its extremely high degree of transitivity prominence (i. e., a very strong tendency to extend transitive coding to verbs whose meaning departs from prototypical transitivity).

Creissels (In preparation) proposes a questionnaire consisting of 30 verb meanings specially designed to evaluate the cross-linguistic variation in transitive prominence. The verb meanings that constitute this questionnaire are neither among those expressed by transitive verbs in (almost) all the languages for which

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the relevant data have been checked, nor among those that have a marked tendency to be expressed by verbs assigning other types of coding to their arguments.

Within the limits of this questionnaire, the ratio of transitive coding and other types of coding is for example 29.5 vs. 0.5 for Tswana (Bantu), 23 vs. 7 for Italian, 21 vs. 9 for Yoruba (Benue-Congo), 20.5 vs. 9.5 for Mandinka (Mande), 17 vs. 13 for Basque, 15.5 vs. 14.5 for Russian, 13 vs. 17 for Koroboro Senni (Songhay), and 3 vs. 27 for Akhvakh (Nakh-Daghestanian). Jóola Fóoñi, with a ratio of 29 vs. 1, is among the languages for which this questionnaire indicates an extremely high degree of transitivity prominence.

2.1.4 Multiple-object constructions and the coding of beneficiaries

Another salient characteristic of Jóola Fóoñi, which has consequences for the productivity of voice markers in the expression of coreference within the clause, is the remarkable productivity of multiple-object constructions. In particular, double-object constructions are used not only for semantically trivalent verbs such as *sen* ‘give’ or *yisen* ‘show’, but also for bivalent verbs to which an NP with the semantic role of beneficiary is added.

In contrast to most Atlantic languages, Jóola Fóoñi does not use the applicative strategy to encode beneficiaries,⁴ and does not have a benefactive adposition either: in Jóola Fóoñi, beneficiaries are simply encoded as objects that nothing distinguishes from the objects representing the P argument of transitive verbs. This results in the possibility of transitive constructions of semantically monovalent verbs, as in (4) with *jɔn* ‘set (speaking of the sun)’, and of double-object constructions of semantically bivalent verbs, as in (5) with *wɔnk* ‘call’.

- (4) a. *Begunəb di bɔːne: “Eenɔjaa pan bɔjɔn, pan bɔjɔn, bare eeŋɔjaa lee bɔjɔn, lee bɔjɔn.”*
bɛ-gu-nɛ-b dɪ b-ɔːnɛ eɛn-ɔ-jaa pan bɔ-jɔn
sg-genius(B)-d-clB SEQ sI:clB-say sI:1SG.say-EP-HYP FUT sI:clB-set
pan bɔ-jɔn bare eɛn-ɔ-jaa lee bɔ-jɔn lee
FUT sI:clB-set but sI:1SG.say-EP-HYP FUT.NEG sI:clB-set FUT.NEG
bɔ-jɔn
sI:clB-set

‘Then the genius said: “If I say that it will set (balaab ‘the sun(B)’), it

⁴Jóola Fóoñi has a single applicative marker (*-um*) exclusively used to license applied phrases with a proative, instrumental, causal, motivative or mediative semantic role, which constitutes a typologically unusual situation.

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will set, but if I say that it will not set, it will not set.”’

- b. *emooreaw naanoo*: “*Àñulaw ɔmε, lεε bʊjɔccɔ*.”
- | | | |
|----------------------|----------------------|-------------------|
| <i>e-moori-e-w</i> | <i>n-aan-ɔɔ</i> | <i>a-ñul-a-w</i> |
| SG-marabout(A)-D-clA | PPF-sI:clA.say-I:clA | SG-child(A)-D-clA |
| <i>ɔ-m-ε</i> | <i>lεε</i> | <i>bʊ-jɔn-ɔɔ</i> |
| DEM-clA-PROX | FUT.NEG | sI:clB-set-I:clA |
- ‘Then the marabout told her: “This child, he will die by this evening.”’,
lit. ‘it (balaab ‘the sun(B)’) will not set (for) him.’

- (5) a. *Niwɔnwɔnk Musaa añiilaw*.
- | | | |
|----------------------|--------------|-------------------|
| <i>n-t-wɔn-wɔnk</i> | <i>Musaa</i> | <i>a-ñul-a-w</i> |
| PPF-sI:1SG-call-RDPL | Moussa(A) | sg-child(A)-D-clA |
- ‘I called the child for Moussa.’
- b. *Niwɔnkccɔlɔwɔnk*
- | | | |
|----------------------------------|--|--|
| <i>n-t-wɔnk-cc-łɔ-wɔnk</i> | | |
| PPF-sI:1SG-call-I:clA-I:clA-RDPL | | |
- ‘I called him (for) him.’

Given that non-specific P arguments may simply be left unexpressed, the coding of beneficiaries as objects may give rise to ambiguities of the type illustrated in (6).

- (6) *Pan iƿɔsɔɔl.*
- | | | |
|----------------------|-------------------|--|
| <i>pan i-ƿɔs-ɔɔl</i> | | |
| FUT | sI:1SG-wash-I:clA | |
- ‘I’ll wash him.’ or ‘I’ll do the washing for him.’

2.2 Nouns and noun phrases

Jóola Fóoñi has a gender system of the type commonly found in Niger-Congo languages, especially among Bantu and Atlantic languages, characterized by a close relationship (which however does not boil down to a straightforward one-to-one correspondence) between the division of nouns into subsets according to the way they express the singular vs. plural distinction, and their division into subsets according to the agreement marks they control on their modifiers or on the pronouns that resume them.

In Jóola Fooñi, each noun FORM is associated with one of thirteen possible agreement patterns, and genders can be defined as sets of nominal LEXEMES that

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are associated with the same agreement pattern both in the singular and the plural. Agreement patterns and genders are conventionally designated here by capital letters that evoke the phonological form of the agreement markers. For example, ‘dog’ as a lexeme belongs to gender E/S, which means that the singular form *ε-yen* ‘dog’ is associated with the agreement pattern E (cf. *ε-yen ε-ceen* ‘some dog’, *ε-yen ε-cila* ‘the aforementioned dog’, etc., to be compared for example with agreement pattern K in *ka-laak kv-ceen* ‘some field’, *ka-laak kv-cila* ‘the aforementioned field’, etc.), whereas the corresponding plural form *si-yen* is associated with the agreement pattern S (cf. *si-yen si-ceen* ‘some dogs’, *si-yen si-cila* ‘the aforementioned dogs’, etc., to be compared with agreement pattern U in *v-laak v-ceen* ‘some fields’, *v-laak v-cila* ‘the aforementioned fields’, etc.).

In our terminology, the term ‘class’ refers exclusively to cells in the morphological paradigm of adnominals and pronouns that can be the target of an agreement mechanism.⁵ For example, *ε-ceen* is the class E form of the determiner *-ceen* ‘some’, and *si-ceen* is the class S form of the same determiner.

The inflectional paradigm of adnominals and pronouns consists of 15 cells. 13 of them are involved in one of the 13 possible agreement patterns for noun forms (and are labeled by means of the same capital letter). The remaining two (class D and class N) are only used pronominally or adverbially with meanings that do not refer to any possible controller: vague reference to things for class D, and time for class N. For example, 13 of the 15 possible forms of the indefinite determiner *-ceen* ‘some’ are found in constructions in which their prefix can be analyzed as an agreement marker (*ε-yen ε-ceen* ‘some dog’, *a-ñiil a-ceen* ‘some child’, *u-beer v-ceen* ‘some trees’, *ke-rumbe kv-ceen* ‘some pot’ etc.), but the morphological paradigm of *-ceen* also includes two forms that do not correspond to any noun that could trigger their choice in an agreement mechanism, and can only be used pronominally (*di-ceen* ‘something’) or adverbially (*ni-ceen* ‘sometimes’).

Gender A/BK (agreement pattern A in the singular, BK in the plural) coincides almost perfectly with the set of nouns denoting humans. The other genders are semantically heterogeneous.

Jóola Fóoñi has an enclitic definite article expressing class agreement with the noun to which it attaches.⁶ As illustrated in (7), attributive adjectives agree with their head in definiteness.

- (7) a. *bubver beemek / bubverreb beemekreb*

⁵For a detailed criticism of the way the term ‘class’ is traditionally used in descriptions of Niger-Congo languages, the reader is referred to Guldemann & Fiedler (2017).

⁶Depending on the stem to which it attaches, the first formative of the enclitic definite article may surface as *-a-*, *-v-*, *-ε-*, or *-e-*.

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- bu-beer b-vemek / bu-beer-e-b b-vemek-e-b*
 SG-tree(B) clB-big SG-tree(B)-D-clB clB-big-D-clB
 'big tree' / 'the big tree'
- b. *fal feemek / falaffeemekef*
f-al f-vemek / f-al-a-f f-vemek-e-f
 SG-river(F) clF-big SG-river(F)-D-clF clF-big-D-clF
 'big river' / 'the big river'

Within noun phrases, the general rule is that modifiers follow their head. However, adnominal possessors differ from the other noun modifiers in that they may optionally precede their head. As illustrated in (8), adnominal possessors that follow their head are usually introduced by the genitive linker *-ati* expressing the gender and number of the head, whereas adnominal possessors preceding their head are obligatorily resumed by an index suffixed to their head.

- (8) a. *aseekaw ati Musaa*
a-seek-a-w Ø-ati Musaa
 SG-woman(A)-D-clA clA-GEN Moussa(A)
 'Moussa's wife', lit. 'the wife that-of Moussa'
- b. *Musaa aseekɔɔl*
Musaa a-seek-ɔɔl
 Moussa(A) SG-woman(A)-I:clA
 'Moussa's wife' lit. 'Moussa his wife'

2.3 Verb forms

With the exception of the imperative, in which the 2nd person prefix may optionally be deleted, the verb forms of Jóola Fóoni consist minimally of a stem and a prefix. The stem may be a root (irreducible lexical element), or a root enlarged by one or more derivational suffixes.

According to the nature of their obligatory prefix, verb forms can be characterized MORPHOLOGICALLY as finite or non-finite:

- in finite verb forms, the obligatory prefix preceding the root is a subject index expressing the person (and in the third person, the gender and number) of the subject argument;
- on-finite verb forms do not include a subject index, and their obligatory prefix characterizes them as belonging to one of the following three types of non-finite forms: infinitive, participle, or converb.

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However, this morphological distinction does not coincide with the syntactic distinction between independent and dependent verb forms.

On the one hand, the relative verb forms, whose use is restricted to relative clauses and clauses in which a noun phrase or adverb is focalized, also include an obligatory subject index. They differ from the independent verb forms in the details of their TAM and polarity inflection. Independent verb forms may include TAM markers preceding the subject index, whereas the inflection of relative verb forms is purely suffixal, and includes a special paradigm of three ‘actualizers’ (glossed ACT) that have no equivalent in the inflection of independent verb forms.⁷

On the other hand, the non-finite verb forms as defined above, in addition to uses that justify the labels we use to designate them (infinitive, participle, and converb), can also be used by themselves (i. e., without having to combine with an auxiliary) as the nucleus of independent assertive clauses expressing TAM values distinct from those expressed by morphologically finite verb forms.

2.4 Personal pronouns and indexes

The inventory of personal pronouns and indexes is given in Tables 1 and 2. There is a single morphological paradigm of free pronouns, but two distinct paradigms of indexes. The forms given in these two tables are those that can be considered basic; depending on the contexts in which they occur, they may be modified by regular morphophonological processes.⁸

Note that:

- There is no dedicated subject index of second person plural. Second person plural subjects are indexed by means of the class J index (*j-*), which can also be used optionally to index first person plural subjects instead of the dedicated first person plural index *v-*. We do not know the historical explanation of the use of the class J index to represent speech act participants.

⁷he actualizers characterize the event to which the relative verb form refers as irrealis (ACT_0), realis (ACT_1), or having a close relationship with the time of utterance (ACT_0). The ACT_2 marker *-ñaa* results from the grammaticalization of the adverb *ñaa* ‘now’. In its presence, the incomplete aspect is interpreted as expressing present progressive, and the completive aspect is interpreted as expressing recent past.

⁸In particular, in combination with +ATR stems, all the indexes whose underlying form includes a –ATR vowel undergo ATR harmony.

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Table 1: First and second person pronouns and indexes

	free pronouns	subject indexes	non-subject indexes
1SG	inje	ι-	-ɔm ~ -aam
2SG	aw	ɔ-	-ι
1PL.EXCL	uli ~ oli	ɔ-	-oli
1PL.INCL	walaal ~ ɔlaal	ɔ-...-aal	-ɔlaal
2PL	mɔyɔsl ~ miyɔsl	-	-ɔsl

Table 2: Third person pronouns and indexes

	free pronouns	subject indexes	non-subject indexes
CL. A	cc	a-	-ccɔl
CL. BK	k-cc ~ bɔk-cc	k-	-ul
CL. E	y-cc	ɛ-	-yɔ
CL. S	s-cc	s-	-sɔ
CL. F	f-cc	f-	-fɔ
CL. K	k-cc	k-	-kɔ
CL. B	b-cc	b-	-bɔ
CL. Ñ	ñ-cc	ñ-	-ñɔ
CL. U	w-cc	ɔ-	-wɔ
CL. J	j-cc	j-	-jɔ
CL. M	m-cc	m-	-mɔ
CL. T	t-cc	t-	-tɔ
CL. D'	d-oo ~ r-oo	d- ~ r-	-do ~ -ro
CL. D	d-cc ~ r-cc	∅-	-dɔ ~ -rɔ
CL. N	cc-n	-	-nɔ

- The lack of subject index of class N is due to the fact that there is no noun triggering class N agreement, and class N forms are exclusively used as adverbs.
- Non-subject indexes can be suffixed not only to verbs, but also to nouns (as possessive indexes), to some adnominal particles, and to some adpositions.

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- Non-subject indexes suffixed to verbs can index not only objects, but also some obliques. There is however an important distinction: as object indexes, they agree in gender-number with their antecedent, whereas oblique indexes are determined by the function of the oblique phrase they represent (for example, in object function, *esukey* ‘the village’ – gender E/S – is indexed by the E class index *-yo*, whereas the spatial adjunct *di esukey* ‘in the village’ is indexed by the class B index *-bo*).

As illustrated in (9b) (to be compared with the adposessive construction in (9a)), with the exception of the two unanalysable stems *-umbe(em)* (1st person singular possessive) and *-uya* (2nd person singular possessive), possessive pronouns (also used as possessive determiners) consist of a class prefix marking agreement with their antecedent or head (the possessee), a stem *-ɔɔl-* (glossed POSS), and a suffixed index representing the possessor.

- (9) a. *ɔwɔsaw watl fujiceləf*
ɔ-wɔs-a-w w-atl fu-jicel-e-f
 PL-ear(U)-D-clU clU-GEN SG-male.goat(F)-D-clF
 ‘the ears of the male goat’
- b. *wɔɔlsəfɔ*
w-ɔɔl-o-fɔ
 clU-POSS-EP-I:clf
 lit. ‘those of it’ (possessee of class U, possessor of class F)

3 Coreference within the clause: general principles

Jóola Fóoñi does not have reflexive pronouns or indexes, and does not have logophorics or long-distance reflexives either. This means that coreference relationships within the clause that do not require verbal marking are not treated differently from coreference in discourse, and the same applies to coreference relationships across clause boundaries in complex constructions.

In the examples of coreference within the clause that we have been able to find in our corpus or to elicit, the subject is most of the time one of the two terms of the clause involved in the coreference relationship, and in all cases, the fact that the subject is involved in a coreference relationship with another term of the clause (object, oblique, or adpossessor) has no incidence on its coding.

The most salient characteristic of Jóola Fóoñi with respect to the expression of coreference within the clause is a particularly clearcut distinction between

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subject–object coreference and all other possible configurations, including subject–oblique coreference and subject–adpossessor coreference:

- Subject–object coreference obligatorily implies verbal marking by means of voice markers that reduce by one the number of objects with which the verb can combine.
- In all the other possible configurations, there is no verbal marking, and one of the two terms of the clause involved in the coreference relationship is encoded in the same way as if it resumed a referent to be retrieved from a previous sentence.

All the voice markers that may be involved in reflexivization have possible functions other than the marking of reflexivization, and the verb forms they are part of may be ambiguous between a reflexive reading and other interpretations.

Note that, given the very high degree of transitivity prominence of Jóola Fóoñi and the extensive use of multiple-object constructions, subject–object coreference in Jóola Fóoñi often corresponds to other syntactic types of coreference in other languages. In particular, with ditransitive verbs, agent–theme coreference and agent–goal coreference are just particular cases of subject–object coreference, and when semantically plausible, are not treated differently from agent–patient coreference with monotransitive verbs. Moreover, the fact that beneficiaries are simply encoded as objects (see §2.1) results in that, in Jóola Fóoñi, auto-benefaction (or agent–beneficiary coreference) is also a particular case of subject–object coreference (see §4.2.4).

Subject–object coreference will be described in detail in §4. For the moment, we limit ourselves to illustrating the following two principles:

- in all the possible coreference relationships within the clause other than subject–object coreference, one of the two terms is encoded by means of pronouns or indexes that are not specialized in the expression of coreference within the clause;
- the possibility of interpreting non-subject pronouns or indexes as having an antecedent within the clause is conditioned by the syntactic hierarchy subject > object > oblique.

In all the examples quoted in the remainder of this section to illustrate coreference relationships within the clause other than subject–object coreference, the pronoun coreferential with another term of the clause can in principle be also

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interpreted as resuming a referent to be retrieved from the context, although semantically, this latter interpretation is not always equally plausible, and is sometimes totally excluded for semantic reasons.

Example (10) shows that a possessive pronoun modifying an object may have the subject as its antecedent. The same possibility exists for adpossessor indexes attached to objects.

- (10) *Nawanwañ kalaakak kɔɔla.*

<i>n-a-wan-wañ</i>	<i>ka-laak-a-k</i>	<i>k-ɔɔl-a</i>
PPF-SI:clA-cultivate-RDPL	SG-field(K)-D-clK	clK-poss-I:clA

'He_i cultivated his_{i/j} field.'

This configuration (with an object modified by an adpossessor index or possessive pronoun resuming the subject) is in particular the configuration found with body-care verbs in constructions in which the object noun specifies the body part directly affected by the action, and the affected person is encoded as an adpossessor, as in (11). In such constructions, if the affected person is represented by a possessive pronoun or adpossessor index whose person-gender-number features coincide with those of subject, nothing indicates whether it must be understood as coreferential with the subject, or as resuming a referent to be retrieved from the context:⁹

- (11) a. *Neciiciik fzlempɔɔl.*

<i>n-e-cii-ciik</i>	<i>fz-lemp-ɔɔl</i>
PPF-SI:clA-shave-RDPL	SG-beard(F)-I:clA

'He_i shaved his_{i/j} beard.'

- b. *Nakɔkɔf ukamunool.*

<i>n-a-kɔ-kɔf</i>	<i>u-kemun-ool</i>
PPF-SI:clA-scratch-RDPL	SG-leg(U)-I:clA

'He_i scratched his_{i/j} legs.'

Example (12) shows that an adpossessor index attached to an oblique may have the subject as its antecedent. In this particular example, a non-coreferential reading is ruled out by semantic considerations.

- (12) *Najskuijvkvɔ di kucilool.*

⁹The object of body-care verbs may also represent the affected person, and in that case, as can be expected from the general rules, coreference with the subject requires reflexive marking on the verb – see §4.3.2.

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- n-a-jɔk-u-jɔk-v-bɔ di ku-cil-ool
 PPF-SI:clA-see-I:clBK-RDPL-EP-I:clB PREP PL-eye(K)-I:clA
 ‘He_i saw them there with his_i own eyes.’

Examples (13) and (14) illustrate the possibility that in multiple-object constructions, an adpossessor index or possessive pronoun included in an object phrase has another object as its antecedent:

- (13) *Kat añulaw iñaaayɔɔl!*
 kat a-ñul-a-w iñaaay-ɔɔl
 leave sg-child(A)-D-clA mother(A)-I:clA
 ‘Leave the child_i to his_{i/j} mother.’
- (14) *Nisancenɔɔsancen mɔɔla*
 n-i-sancen-ɔɔ-sancen m-ɔɔl-a
 PPF-SI:1SG-speak-I:clA-RDPL clM-POSS-I:clA
 ‘I spoke with him about him(self).’ lit. ‘I told him_i his_{i/j} (matter).’

Example (15) illustrates the possibility that a possessive pronoun modifying an oblique has an object as its antecedent:

- (15) *Nijɔjɔk ekuuteew di εlsɔspεy yɔɔla.*
 n-i-jɔjɔk e-kuute-e-w di ε-lsɔsp-ε-y
 PPF-SI:1SG-see-RDPL SG-thief(A)-D-clA PREP SG-house(E)-D-clE
 y-ɔɔl-a
 clE-POSS-I:clA
 ‘I saw the thief_i in his_{i/j} house.’

Example (16) shows that an oblique may be the antecedent of a possessive pronoun modifying another oblique.

- (16) *Nayaboyabo di eniineew ɔmɛ mati sikoorees sɔɔla*
 n-a-yabɔ-yabɔ di e-niine-e-w ɔ-m-ɛ
 PPF-SI:clA-get.married-RDPL PREP SG-man(A)-D-clA DEM-clA-PROX
 mati si-koori-e-s s-ɔɔl-a
 because.of PL-money(S)-D-clS clS-POSS-I:clA
 ‘She got married with this man_i because of his_i money.’

Finally, examples (17) and (18) illustrate subject–oblique coreference.

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- (17) *Najɔjvɔk εwela bajandi oo.*
n-a-jv-jvk ε-wela bajandi Ø-oo
 PPF-sI:clA-see-RDPL SG-snake(E) near clA-PRO
 'He_i saw a snake near him(self)_{i/j}.'
- (18) *Najanjam kawel bəlemukool.*
n-a-jan-jam ka-wel bəlemuk-ool
 PPF-sI:clA-hear-RDPL SG-noise(K) behind-I:clA
 'He_i heard a noise behind himself_i'.

We have not been able to find examples of coreference relationship involving two objects in a multiple object construction, and speakers seem to avoid this configuration, as illustrated for example by the fact that 'X showed Y to self (in the mirror)' is rendered literally as 'X showed Y his/her face (in the mirror)', with the second term of the coreference relationship encoded as an adpossessor.

4 The verbal marking of coreference within the clause

As already mentioned in §3, in Jóola Fóoñi, verbal marking by means of voice markers is obligatory in case of subject–object coreference, whereas no verbal marking can be observed in the other possible configurations. In §4.1, we briefly illustrate the reflexive use of the three voice markers involved in reflexive marking (-oorö, -o and -oor). A detailed description of the reflexive and non-reflexive uses of each of them is provided in §4.2 (-oorö), §4.3 (-o) and §4.4 (-oor).

4.1 The voice markers involved in reflexive marking

Jóola Fóoñi has six verbal suffixes involved in the marking of valency operations, and three of them are involved in reflexive marking.¹⁰

- -oorö (~ -oorö in combination with +ATR verb roots), labeled 'strong reflexive' by Sapir (1965);
- -o (~ -o in combination with +ATR verb roots), labeled 'reflexive-descriptive' by Sapir (1965);
- -oor (~ -oor in combination with +ATR verb roots), labeled 'reciprocal' by Sapir (1965).

¹⁰The other three are -en 'causative', -um 'applicative', and -i 'passive'.

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The behavior of these three suffixes in the inflected forms of the verb including the reduplicative suffix provides decisive evidence that they must be analyzed as voice markers forming part the verb stem, rather than reflexive indexes.¹¹ The point is that, as illustrated in (19c) for -ɔɔrɔ, they are systematically repeated in the inflected forms of the verb including the reduplicative suffix, like other derivational suffixes forming part of the stem, whereas object indexes occur just once (19a–b), either before the reduplicative suffix (human object indexes) or after it (non-human object indexes).¹²

- (19) a. *Eyeney εrvnrvmvsʃɔ.*
 $\varepsilon\text{-}yεn\text{-}\varepsilon\text{-}y \quad \varepsilon\text{-}rvn\text{-}rvm\text{-}v\text{-}ʃɔ$
SG-dog(E)-D-clE sI:clE-bite-RDPL-EP-I:clf
‘The dog bit it (*fujicelef* ‘the male goat’).’
- b. *Eyeney εrvmɔɔrvm.*
 $\varepsilon\text{-}yεn\text{-}\varepsilon\text{-}y \quad \varepsilon\text{-}rvm\text{-}ɔɔ\text{-}rvm$
SG-dog(E)-D-clE sI:clE-bite-I:clA-RDPL
‘The dog bit him (*añulaw* ‘the child’).’
- c. *Eyeney εrvmɔɔrɔrvmɔɔrɔ.*
 $\varepsilon\text{-}yεn\text{-}\varepsilon\text{-}y \quad \varepsilon\text{-}rvm\text{-}ɔɔrɔ\text{-}rvmɔɔrɔ$
SG-dog(E)-D-clE sI:clE-bite-ɔɔRɔ-RDPL
‘The dog bit itself.’

In their reflexive function, these three suffixes equally reduce by one the number of objects compatible with the verb in its underived form, and the semantic correlate of this reduction is that the participant roles fulfilled by the subject and (one of) the object(s) in the construction of the base verb are cumulated by a single participant, encoded as the subject of the derived verb. This is illustrated in (20) for -ɔɔrɔ, in (21) for -ɔ, and in (22) for -ɔɔr.

- (20) a. *eniineew basɔfε epimbeney m'aabvɔj ekuuteew.*

¹¹he reduplicative suffix cannot be analyzed as carrying a particular TAM value by itself, but it is an obligatory element of two non-relative forms of the verb expressing completive aspect and habitual aspect, respectively. It disappears in the corresponding relative forms, for example *kv-re-reg* ‘they said’ / *kv-reg-ε-reg* ‘they say (habitually)’ vs. *kv-reg-v-m* ‘that they said’ (where -v- is an epenthetic vowel) / *kv-reg-ε-m* ‘that they say’.

¹²In the presentation of the examples, the gloss REFL is avoided, because it might be a source of confusion, given that each of the suffixes involved in reflexivization also has non-reflexive uses.

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e-niine-e-w ba-sof-ε e-pimben-e-y man a-bwj
 SG-man(A)-D-clA CVB-catch-CVB SG-gun(E)-D-clE CSC slI:clA-kill
e-kuute-e-w
 SG-thief(A)-D-clA

'The man took the gun and killed the thief.'

- b. *eniineew baraane beebeen m'aabwjjɔrɔ*.
e-niine-e-w ba-raan-ε b-eebeen man a-bwj-ɔɔrɔ
 SG-man(A)-D-clA CVB-drink-CVB SG-poison(B) CSC slI:clA-kill-ɔɔrɔ
 'The man committed suicide (lit. 'killed himself') by drinking poison.'

- (21) a. *Nan alaañvlɔm butab, aseekaw napɔs añulaw.*
n-an a-laañ-vlɔ-m b-ut-a-b
 clN-REL slI:clA-return-VEN-ACT₁ SG-rice.field(B)-D-clB
a-seek-a-w n-a-pɔs a-ñul-a-w.
 SG-woman(A)-D-clA PPF-slI:clA-wash SG-child(A)-D-clA
 'After returning from the rice field, the woman washed the child.'

- b. *Nan alaañvlɔm butab, aseekaw napɔɔsɔ*.
n-an a-laañ-vlɔ-m b-ut-a-b
 clN-REL slI:clA-return-VEN-ACT₁ SG-rice.field(B)-D-clB
a-seek-a-w n-a-pɔs-ɔ
 SG-woman(A)-D-clA PPF-slI:clA-wash-ɔ
 'After returning from the rice field, the woman washed (herself).'

- (22) a. *Ijar fvmbanjaf man uguuy añulaw.*
jar fv-mbanj-a-f man u-guuy a-ñul-a-w
 take SG-blanket(F)-D-clF CSC slI:2SG-cover SG-child(A)-D-clA
 'Take the blanket and cover the child (with it).'

- b. *Ijar fvmbanjaf man uguuyoɔr.*
jar fv-mbanj-a-f man u-guuy-oɔr
 take SG-blanket(F)-D-clF CSC slI:2SG-cover-ɔɔr
 'Take the blanket and cover yourself (with it).'

However, none of these three suffixes is specialized in reflexive marking. Moreover, as reflexivizers, they are not interchangeable, and their non-reflexive uses are very different.

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4.2 Reflexive and non-reflexive uses of -ccor

4.2.1 -ccor as the default marker of subject–object coreference

The verbal suffix -ccor can be analyzed as the default marker of subject–object coreference, freely available for the transitive verbs that do not belong to a restricted semantic class of transitive verbs that regularly mark subject–object coreference by means of -o (see §4.3), and are not lexically specified as marking subject–object coreference by means of -o or -ccor (see §4.3 and §4.4).

4.2.2 -ccor and the coding of A–P coreference

The reflexive use of -ccor has already been illustrated above with *rsm-ccor* ‘bite oneself’ in (19c) and *bvj-ccor* ‘kill oneself’ in (20b). Examples (23) to (25) further illustrate the use of -ccor to derive intransitive verbs expressing agent–patient coreference, and more generally, coreference between the core arguments of monotransitive verbs.

- (23) *An acesccorvtascl, ee acesccorccore.*

an a-cesscor-vt-ccor Ø-cc
 person(A) sI:clA-chase.away-NEG-I:clA clA-PRO
a-cesscor-ccore-e
 sI:clA-chase.away-ccRC-CPL

‘Nobody chased him away, he himself decided to leave.’ lit. ‘it’s him who chased himself away’

- (24) *Naŋɔalenŋɔalen apacen bvkaakv, bare aŋɔalenvt apacenccor.*

n-a-ŋɔalen-ŋɔalen a-pacen bvk-aa-kv bare
 PPF-sI:clA-be.able-RDPL sI:clA-save clBK-other-clBK but
a-ŋɔalen-vt a-pacen-ccor
 sI:clA-be.able-NEG sI:clA-save-ccRC

‘He was able to save the others, but not to save himself’

- (25) *Anɔsan atebenccorm, Atijamit pan awalenoɔl, bare aŋɔsan awalenoɔrɔm,*
Atijamit panatebenɔɔl

Ø-anɔsan a-teben-ccrc-m Atijamit pan a-walen-ccl
 clA-any sI:clA-lift.up-ccRC-ACT₁ God(A) FUT sI:clA-bring.down-I:clA
bare Ø-anɔsan a-walen-ccrc-m Atijamit pan
 but clA-any sI:clA-bring.down-ccRC-ACT₁ God(A) FUT

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a-teben-ɔɔl

SI:clA-lift.up-I:clA

'Whoever exalts himself, God will humble him, but whoever humbles himself, God will exalt him.' (from the Jóola Fóoñi translation of the New Testament)

In our data, the coding of A–P coreference by means of *-ɔɔrɔ* is attested by the verbs listed in Table 3:¹³

Table 3: Verbs attesting the use of *-ɔɔrɔ* to mark A–P coreference

Reflexive verb	Base verb
<i>bebən-ɔɔrɔ</i>	<i>bebən</i> 'calm s.o. down'
<i>bukən-ooro</i>	<i>bukən</i> 'hurt s.o.'
<i>bvɔj-ɔɔrɔ</i>	<i>bvɔj</i> 'kill s.o.'
<i>bvɔnt-ɔɔrɔ</i>	<i>bvɔnt</i> 'fool s.o.'
<i>cessɔr-ɔɔrɔ</i>	<i>cessɔr</i> 'chase s.o. away'
<i>gamen-ɔɔrɔ</i>	<i>gamen</i> 'judge s.o.'
<i>jel-ɔɔrɔ</i>	<i>jel</i> 'insult s.o.'
<i>jvɔk-ɔɔrɔ</i>	<i>jvɔk</i> 'see s.o.'
<i>jvɔr-ɔɔrɔ</i>	<i>jvɔr</i> 'look at s.o.'
<i>kambən-ɔɔrɔ</i>	<i>kambən</i> 'lock s.o.'
<i>keənum-ooro</i>	<i>keənum</i> 'take care of s.o.'
<i>lat-ɔɔrɔ</i>	<i>lat</i> 'hate s.o.'
<i>manj-ɔɔrɔ</i>	<i>manj</i> 'know s.o.'
<i>mar-ɔɔrɔ</i>	<i>mar</i> 'like s.o.'
<i>nag-ɔɔrɔ</i>	<i>nag</i> 'hit s.o.'
<i>pacən-ɔɔrɔ</i>	<i>pacən</i> 'save s.o.'
<i>pejul-ooro</i>	<i>pejul</i> 'separate s.o. out'
<i>ramben-ɔɔrɔ</i>	<i>ramben</i> 'help s.o.'
<i>rɔm-ɔɔrɔ</i>	<i>rɔm</i> 'bite s.o.'
<i>sal-ɔɔrɔ</i>	<i>sal</i> 'praise s.o.'
<i>teben-ɔɔrɔ</i>	<i>teben</i> 'glorify s.o.'
<i>walen-ɔɔrɔ</i>	<i>walen</i> 'humiliate s.o.'

¹³In the case of polysemous verbs, the translation of the base verb given in this table is that corresponding to the meaning of the reflexive derivate attested in our data.

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4.2.3 -ɔɔrɔ and the coding of agent–goal coreference

Given the extensive use of multiple-object constructions in Jóola Fóoñi, with ditransitive verbs, agent–goal coreference is a particular case of subject–object coreference, and is consequently productively encoded by means of -ɔɔrɔ – examples (26) and (27).

- (26) *Ujvk, aw fanj nslanlaañ umerulooro.*
v-jvk aw fanj-i n-v-lan-laañ u-merul-ooro
 sI:2SG-look 2SG.PRO self-2SG PPF-sI:2SG-return-RDPL sI:2SG-answer-ɔɔRɔ
 ‘Look, you answered your own question yourself again.’ lit. ‘Look, you answered yourself again.’
- (27) *Nimamman man vssenɔɔrɔ kvsnak kufeeji man vɔɔnɔɔr jak.*
n-i-mam-maj man v-sen-ɔɔrɔ kv-nak ku-feeji man
 PPF-sI:1SG-want-RDPL CSC sI:2SG-give-ɔɔRɔ PL-day(K) clK-three CSC
v-vɔɔnɔɔr jak
 sI:2SG-think well
 ‘I would like you to give yourself three days to think about it well.’

4.2.4 -ɔɔrɔ and the coding of agent–beneficiary coreference

The suffix -ɔɔrɔ is also productively used to encode autobenefaction (i. e., agent–beneficiary coreference) – examples (28) and (29). This is consistent with the fact that, in Jóola Fóoñi, beneficiaries are simply encoded as objects.

- (28) a. *Ninɔɔmɛ aseekom ewoto.*
n-i-nɔɔm-ɛ a-seek-om e-woto
 PPF-sI:1SG-buy-CPL SG-woman(A)-I:1SG SG-car(E)
 ‘I bought a car for my wife.’
- b. *Ninɔɔmɔɔrɔɛ ewoto.*
n-i-nɔɔm-ɔɔrɔ-ɛ e-woto
 PPF-sI:1SG-buy-ɔɔRɔ-CPL SG-car(E)
 ‘I bought a car for myself.’
- (29) a. *Fɔk iñes añɔɔlɔm aseek.*
fɔk i-ñes a-ñɔɔl-ɔm a-seek
 OBLG SI:1SG-look.for sg-child(A)-I:1SG SG-woman(A)
 ‘I must look for a wife for my son.’

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- b. *Fɔk iñesccɔrɔ aseek.*

fɔk i-ñes-ccɔrɔ a-seek
OBLG SI:1SG-look.for-ccɔrɔ SG-woman(A)
'I must look for a wife for myself.'

4.2.5 -ɔɔrɔ as a marker of self-intensification of the subject

As a valency operator, -ɔɔrɔ is exclusively used to encode reflexivization in one of the configurations illustrated in the previous sections. However, in addition to its use as the default marker of subject–object coreference, -ɔɔrɔ is also productively used as a marker of SELF-INTENSIFICATION OF THE SUBJECT. In this use, -ɔɔrɔ has no incidence on the valency properties of the verb to which it attaches, and its contribution to the meaning of the clause corresponds to that more commonly expressed cross-linguistically by free intensifying self-forms having scope on the subject, as in *John HIMSELF came* or *John came HIMSELF*.¹⁴

In its function of self-intensification of the subject, -ɔɔrɔ can attach to intransitive verbs, as in (30).

- (30) *Inje ijawɔɔrɔe beebo.*
inje i-jaw-ɔɔrɔ-e bee-bo
1SG.PRO SI:1SG-go-ɔɔRɔ-CPL ALL-I:clB
'It's me who went there in person.'

With intransitive verbs, the only possible ambiguity is between self-intensification of the subject and autobenefaction.

With transitive verbs, the choice between the possible interpretations of -ɔɔrɔ (coreference between the subject and another core argument, autobenefaction, or self-intensification of the subject) is partly conditioned by the presence vs. absence of object NPs or indexes. However, the choice between an autobenefactive reading and a self-intensification reading can only rely on the context, since in the autobenefactive use of ɔɔrɔ-verbs, the valency operation is not apparent. For example, in (31a), *kamben-ɔɔrɔ* is interpreted as encoding agent–patient coreference ('lock self'). In (31b), the presence of the object index -kɔ excludes this possibility, but the first part of the sentence is decisive for the choice between the two possible readings 'close s.th. for self' (autobenefactive) and 'close s.th. self' (self-intensification of subject).

¹⁴On the general question of the relationship between self-intensification and reflexivization in typological perspective, readers are referred to Gast & Siemund (2006), König & Gast (2006), and references therein.

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- (31) a. *jaw ṽkambenɔɔrɔ di kalumbisak man ṽwɔraŋ.*
jaw ṽ-kamben-ɔɔrɔ di ka-lumbis-a-k man ṽ-wɔraŋ
 go SI:2SG-close-ɔɔR0 PREP SG-room(K)-D-clK CSC SI:2SG-undress
 'Go and lock yourself in the room to change your clothes.'
- b. *Nεenɔɔ akamben kajvnkvtak, naane ijaw ikambenɔɔrɔkɔ.*
n-εen-ɔɔ a-kamben ka-jvnkvt-a-k n-aane
 PPF-SI:1SG.tell-I:clA SI:clA-close SG-door(K)-D-clK PPF-SI:clA.tell
i-jaw i-kamben-ɔɔrɔ-kɔ
 SI:1SG-go SI:1SG-close-ɔɔR0-I:clK
 'I told him to close the door, and he told me to go and close it myself.'

In the case of *reg-ɔɔrɔ* < *reg* ‘tell’, the possibility of a reflexive interpretation is widely attested in our data (in Jóola Fóoñi, as in many other languages, ‘think’ or ‘imagine’ can be expressed as lit. ‘tell to self’), but in (32), the context is hardly compatible with the agent–addressee coreference reading, leaving self-intensification as the only plausible reading.

- (32) *Ucεεŋɔɔl, ɔɔ let añul, pan aŋoolen aregɔɔrɔ.*
u-çεεŋ-ɔɔl Ø-ɔɔ Ø-let a-ñul pan a-ŋoołen
 SI:2SG-ask-I:clA clA-PRO SI:clD-not.to.be SG-child(A) FUT SI:clA-be.able
a-reg-ɔɔrɔ
 SI:clA-tell-ɔɔR0
 'Ask him, he is not a child, he will be able to tell (it) himself.'

Examples (33) to (36) provide further illustrations of the role of the context in the interpretation of -ɔɔrɔ as expressing autobenefaction or self-intensification of the subject.

- (33) a. *Anaw, tanɔɔsan ṽlakɔε, ñes man ukaanɔɔrɔ karees kajake.*
an-a-w t-anɔɔsan ṽ-lakɔ-ε ñes man ṽ-kaan-ɔɔrɔ
 person(A)-D-clA clT-any SI:2SG-be-ACT₀ try CSC SI:2SG-make-ɔɔR0
ka-rees k-a-jak-ε
 SG-name(K) clK-PTCP-be.good-ACT₀
 'Wherever you may be, try to build a good reputation (for yourself).'
- b. *Nan ṽbajst arambena, fɔk ṽkaanɔɔrɔ bɔrɔkab buya.*
nan ṽ-baj-st a-rambena fɔk ṽ-kaan-ɔɔrɔ
 if SI:2SG-have-NEG SG-helper(A) OBLG SI:2SG-make-ɔɔR0
 'If you don't have a helper, make it yourself.'

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bɔ-rɔk-a-b *b-uya*

SG-work(B)-D-clB clB-your

‘If you have nobody to help you, you must do your work yourself.’

- (34) a. *Fɔk iñesɔɔrɔ aseek.*

fɔk i-ñes-ɔɔrɔ *a-seek*

OBLG SI:1SG-look.for-ɔɔRɔ SG-woman(A)

‘I must look for a wife (for) myself.’

- b. *Ampaɔm naane man añesɔm aseek, bare injə neenɔɔ pan iñesɔɔrɔ.*

a-mpa-ɔm n-aane man a-ñes-ɔm

SG-father(A)-I:1SG PPF-SI:clA.say CSC SI:clA-look.for-I:1SG

a-seek bare injə n-een-ɔɔ pan

SG-woman(A) but 1SG.PRO PPF-SI:1SG.say-I:clA FUT

i-ñes-ɔɔrɔ

SI:1SG-look.for-ɔɔRɔ

‘My father said he would look for a wife for me, but I told him that I will look for (a wife) myself.’

- (35) *Nan aseekɔm rsumutum, injə kesiiloro.*

n-an a-seek-ɔm e-sumut-u-m injə

clN-REL SG-woman(A)-I:1SG SI:clA-be.sick-EP-ACT₁ 1SG.PRO

ke-siil-ooro

INF(K)-cook-ɔɔRɔ

‘When my wife is sick, I do the cooking myself.’

- (36) *Elɔwp̩ey yati iñam umbe, injə iteeprɔɔrɔeyɔ.*

e-lɔwp̩-e-y y-atı iñam Ø-umbe injə

SG-house(E)-D-clE clE-GEN mother(A) clA-my 1SG.PRO

i-teeprɔɔrɔ-e-yɔ

SI:1SG-build-ɔɔRɔ-CPL-I:clE

‘My mother’s house, I built it myself.’

However, it may also happen that the lexical meaning of the verb helps to solve the ambiguity. For example *manj-ɔɔrɔ* < *manj* ‘know’ may be used with the reflexive reading ‘know oneself’, but in (37), the presence of a complement clause excludes this possibility, and the self-intensification reading is the only one really available, since semantically, an autobenefactive interpretation is difficult to imagine.

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- (37) *Inje numanjɔɔrɔmanjɔɔrɔ man ijeem b'ɛekaaneɛy.*
inje n-i-manj-ɔɔrɔ-manjɔɔrɔ m-an i-ja-ɛ-m bɛɛ
 1SG.PRO PPF-sI:1SG-know-ɔɔRɔ-RDPL clM-REL SI:1SG-go-ICPL-ACT₁ ALL
e-kaan-ɛ-y
 INF(E)-do-D-clE
 ‘I myself know how I will do (that).’

4.2.6 The lexicalization of ɔɔrɔ-derivates

As a rule, ɔɔrɔ-derivates are semantically transparent. In this respect, -ɔɔrɔ behaves very differently from the other two suffixes involved in the expression of reflexivization, which have a marked tendency toward lexicalization.

There are, however, a few ɔɔrɔ-derivates with a lexicalized meaning. For example, *sɔf-ɔɔrɔ* is attested with two meanings, ‘strive to do s.th.’ and ‘keep from doing s.th.’, which cannot be straightforwardly predicted from the meaning of the base verb *sɔf* ‘catch’, although it is not very difficult to imagine how they developed from ‘catch self’.

Teb-ɔɔrɔ ‘invite oneself’ (in the sense of ‘go s.wh. without having been called’) < *teb* ‘carry’ is another example of lexicalization of an ɔɔrɔ-derivate.

4.3 Reflexive and non-reflexive uses of -ɔ

4.3.1 The reflexive use of -ɔ with body-care verbs

As already illustrated by example (21) (reproduced here as (38)), the verbal suffix -ɔ is used to express a reflexive meaning with body-care verbs, if no particular body part is mentioned and the object represents the person affected by the action (for body-care verbs with a body-part noun in object role, see §3).

- (38) a. *Nan alaañslɔm butab, aseekaw napɔɔs añulaw.*
n-an a-laañ-vlɔ-m b-ut-a-b
 cLN-REL SI:clA-return-VEN-ACT₁ SG-rice.field(B)-D-clB
a-seek-a-w n-a-pɔɔs a-ñul-a-w.
 SG-woman(A)-D-clA PPF-sI:clA-wash SG-child(A)-D-clA
 ‘After returning from the rice field, the woman washed the child.’
- b. *Nan alaañslɔm butab, aseekaw napɔɔɔ.*
n-an a-laañ-vlɔ-m b-ut-a-b
 cLN-REL SI:clA-return-VEN-ACT₁ SG-rice.field(B)-D-clB

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a-sæk-a-w

SG-woman(A)-D-clA PPF-SI:clA-wash-ɔ

'After returning from the rice field, the woman washed (herself).'

In our data, the reflexive use of -ɔ with body-care verbs is attested by verbs listed in Table 4.

Table 4: Body-care verbs attesting the reflexive use of -ɔ

Reflexive verb	Base verb
<i>bɔŋ-ɔ</i> 'braid (self)'	<i>bɔŋ</i> 'braid (s.th., or s.o. else)'
<i>ciik-o</i> 'shave (self)'	<i>ciik</i> 'shave (s.th., or s.o. else)'
<i>kaan-ɔ</i> 'put (clothes) on self'	<i>kaan</i> 'put (clothes) on s.o. else'
<i>kɔk-ɔ</i> 'tie cloth around the waist'	<i>kɔk</i> 'tie (s.th.)'
<i>ñaaaw-ɔ</i> 'bathe (self)'	<i>ñaaaw</i> 'bathe (s.o. else)'
<i>pɔs-ɔ</i> 'wash (self)'	<i>pɔs</i> 'wash (s.th., or s.o. else)'

In all cases, it is also possible to have -ɔɔrɔ instead of -ɔ, as in (39).

- (39) *Añulaw nerindiij tembe yati kapɔɔrɔ.*
a-ñul-a-w n-e-rin-diij tembe y-at
 SG-child(A)-D-clA PPF-SI:clA-reach-RDPL time(E) clE-GEN
ka-pɔs-ɔɔrɔ
 INF(K)-wash-ɔɔRɔ

'The child is old enough to be able to wash himself.'

The use of -ɔɔrɔ instead of -ɔ adds to the reflexive meaning an intensifying nuance. Consequently, a possible analysis is that -ɔ is still present underlyingly, but for phonetic reasons, the addition of -ɔɔrɔ to mark self-intensification of the subject makes it invisible.

4.3.2 The reflexive use of -ɔ: isolated cases

In addition to body-care verbs, for which the suffixation of -ɔ is the regular and semantically unmarked way to encode subject-object coreference, -ɔ is used in reflexive function, without any obvious explanation, in the two verb pairs given in Table 5, one of which is formally an equipollent pair.

There may be other similar cases, but these are the only ones we came across.

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Table 5: Other verbs attesting the reflexive use of -*ɔ*

Reflexive verb	Corresponding non-reflexive verb
<i>lib-ɔ</i> ‘cut self’	<i>lib</i> ‘cut’
<i>rɔɔk-ɔ</i> ‘carry on one’s head’	<i>rɔɔk-en</i> ‘load s.th. onto s.th.’

4.3.3 The quasi-reflexive use of -*ɔ*

Jóola Fóoñi has several verbs of spontaneous motion that are formally related to a verb of caused motion in one of the following two ways:

- either the spontaneous-motion verb derives from the caused-motion verb via the addition of -*ɔ* (Table 6),
- or the spontaneous-motion and caused-motion verbs share a root not attested by itself as a verb stem, the spontaneous-motion verb being derived from this root via the addition of -*ɔ*, and the caused-motion verb via the addition of the causative suffix -*en* (Table 7¹⁵).

Table 6: Spontaneous-motion verbs derived from the corresponding caused-motion verb via the addition of -*ɔ*

spontaneous-motion verb	caused-motion verb
<i>fim-o</i> ‘turn over on one’s stomach’	<i>fim</i> ‘turn over (pot)’
<i>jup-o</i> ‘embark’	<i>jup</i> ‘load s.th.up, insert into’
<i>lak-ɔ</i> ‘sit down’	<i>lak</i> ‘put (a pot) on the fire’
<i>rup-o</i> ‘emerge from’	<i>rup</i> ‘pull s.th. up’
<i>weet-ɔ</i> ‘lie on back’	<i>weet</i> ‘spread out’

This use of -*ɔ* can be deemed QUASI-REFLEXIVE, since the relationship between caused motion and spontaneous motion shares important characteristics with the relationship between two-participant events and the corresponding reflexive events, but nevertheless differs from it in some respects. For example, a person who is standing up cannot be described as performing on him/herself the same action as when raising another person or an object. However, the use of lit.

¹⁵In the case of *wal-en* ‘set down’, it is interesting to observe the contrast between *wal-ɔ* ‘get down’ and *wal-en-ɔɔr* lit. ‘bring self down’ > ‘humble self’, as in example (25).

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Table 7: Spontaneous-motion verbs marked by *-ɔ* corresponding to caused-motion verbs marked by *-en*

spontaneous-motion verb	caused-motion verb
<i>fint-ɔ</i> ‘lie down’	<i>fint-en</i> ‘make lie down’
<i>ňut-ɔ</i> ‘climb’	<i>ňut-en</i> ‘hoist up’
<i>pan-ɔ</i> ‘move aside (intr.)’	<i>pan-en</i> ‘move aside (tr.)’
<i>tink-o</i> ‘lean (intr.)’	<i>tink-en</i> ‘tilt, bow’
<i>wal-ɔ</i> ‘get down’	<i>wal-en</i> ‘set down’
<i>yit-ɔ</i> ‘get up, stand up’	<i>yit-en</i> ‘lift s.th. up’

‘raise oneself’ in the sense of ‘stand up’ is attested in a number of unrelated languages, and this extension of reflexive marking to verbs of spontaneous motion has a clear semantic motivation in that a person who is standing up is the instigator of an event whose manifestations concern exclusively his/her own body.

This can be captured by introducing the notion of QUASI-REFLEXIVITY (or AUTOCASATIVITY in Geniušienė’s (1987) terminology) for the following type of relationship between verbs encoding one- and two-participant events:

- the action performed by the unique participant in the one-participant event manifests itself in the same way and has the same result as if it were the affected participant in the two-participant event;
- the unique participant in the one-participant event acts consciously and voluntarily, but in a way that cannot be assimilated to the action performed by the agentive participant in the two-participant event.

In addition to the motion verbs listed above, the use of *-ɔ* in the verb pairs in Table 8 meets the definition of quasi-reflexivity.

Table 8: Quasi-reflexive uses of *-ɔ* with verbs that are not motion verbs

Quasi-reflexive verb	Base verb
<i>yɔf-ɔ</i> ‘hide self’	<i>yɔf</i> ‘hide s.th. or s.o.’
<i>yokul-o</i> ‘take a rest’	<i>yokul</i> ‘allow s.o. to rest’

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4.3.4 The decausative use of -ɔ

As illustrated by the verb pairs in Table 9, in addition to its reflexive and quasi-reflexive use, the verbal suffix -ɔ is fully productive in decausative (or ‘anti-causative’) function.

Table 9: Examples of verbs attesting the decausative use of -ɔ

Decausative verb	Base verb
<i>bembul-o</i> ‘open (intr.)’	<i>bembul</i> ‘open (tr.)’
<i>benen-ɔ</i> ‘increase (intr.)’	<i>benen</i> ‘increase (tr.)’
<i>fɔm-ɔ</i> ‘break (intr.)’	<i>fɔm</i> ‘break (tr.)’
<i>gumbul-o</i> ‘diminish (intr.)’	<i>gumbul</i> ‘diminish (tr.)’
<i>jis-ɔ</i> ‘tear (intr.)’	<i>jis</i> ‘tear (tr.)’
<i>liw-o</i> ‘wake up’	<i>liw</i> ‘wake s.o. up’
<i>loopul-o</i> ‘come off’	<i>loopul</i> ‘take off’
etc.	

In Jóola Fóoñi, -ɔ is not used productively in passive or resultative function, but it is possible to find sporadic cases of transitive verbs whose ɔ-derivate has a passive or resultative rather than decausative meaning. Those we came across are listed in Table 10.

Table 10: Verbs attesting a passive or resultative use of -ɔ

Passive or resultative verb	Base verb
<i>wot-o</i> ‘be known’	<i>wot</i> ‘know’
<i>kɔr-ɔ</i> ‘be well-mannered’	<i>kɔr</i> ‘educate’
<i>yab-ɔ</i> ‘get married (speaking of a woman)	<i>yab</i> ‘marry’

4.3.5 Lexicalized uses of -ɔ

The lexicalization of ɔ-derivates can be illustrated by the verb pairs in Table 11:

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Table 11: Examples of verbs attesting lexicalized uses of -ɔ

Lexicalized derivate	Base verb
<i>baj-ɔ</i> ‘exist’ or ‘have time’	<i>baj</i> ‘have’
<i>jam-ɔ</i> ‘be famous’	<i>jam</i> ‘hear’
<i>bɔl-ɔ</i> ‘burn self’	<i>bɔl</i> ‘grill, roast’
<i>kɔk-ɔ</i> ‘be unlucky’	<i>kɔk</i> ‘tie s.th. up’
etc.	

4.4 Reflexive and non-reflexive uses of -ɔɔr

4.4.1 The reflexive and quasi-reflexive use of -ɔɔr

The reflexive use of -ɔɔr has been illustrated by example (22), reproduced here as (40):

- (40) a. *Ijar fv̥mbanjaf man uguuy añulaw.*
ŋar fv̥-mbanj-a-f *man u-guuy* *a-ñul-a-w*
 take sg-blanket(F)-D-clF csc sl:2SG-cover sg-child(A)-D-clA
 ‘Take the blanket and cover the child (with it).’
- b. *Ijar fv̥mbanjaf man uguuyoɔr.*
ŋar fv̥-mbanj-a-f *man u-guuy-ɔɔr*
 take sg-blanket(F)-D-clF csc sl:2SG-cover-ɔɔR
 ‘Take the blanket and cover yourself (with it).’

However, -ɔɔr is used only marginally as a reflexive marker, and the possibility of marking subject–object coreference by means of -ɔɔr (rather than -ɔɔrɔ or -ɔ) can only be analyzed as a lexically specified property of a handful of verbs that do not constitute a natural semantic class. In all cases, the ɔɔr-verb can also express a reciprocal meaning. We also came across an equipollent pair in which the ɔɔr-verb has a reflexive meaning, and three pairs in which the use of -ɔɔr can be analyzed as quasi-reflexive (a type of meaning more commonly encoded by means of the suffix -ɔ – see §4.3.3). The list of the ɔɔr-verbs attested with a reflexive or quasi-reflexive meaning in our data is given in Table 12.

In the case of *sɔnten* ‘heal s.o.’, the addition of -ɔɔr gives a reflexive-causative meaning (*sɔnten-ɔɔr* ‘get treatment for self’, cf. French *se faire soigner*), whereas the plain reflexive meaning ‘heal self’ is regularly expressed as *sɔnten-ɔɔrɔ*. Our data include no other verb with the possibility of a similar contrast between -ɔɔr and -ɔɔrɔ.

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Table 12: Reflexive or quasi-reflexive *ɔɔr*-verbs

Reflexive or quasi-reflexive <i>ɔɔr</i> -verb	Corresponding non reflexive verb
<i>guuy-oor</i> ‘cover self’	<i>guuy</i> ‘cover s.o. or s.th.’
<i>kɔf-ɔɔr</i> ‘scratch self’	<i>kɔf</i> ‘scratch s.o.’
<i>kɔoren-ɔɔr</i> ‘heal self with inhalation’	<i>kɔoren</i> ‘smoke an enclosed place’
<i>naan-ɔɔr</i> ‘smear one’s body’	<i>naan-en</i> ‘smear’
<i>bɔɔñ-ɔɔr</i> ‘curl up’	<i>bɔɔñ</i> ‘roll up, fold up’
<i>raaw-ɔɔr</i> ‘stretch self (arms, legs, etc.)’	<i>raaw</i> ‘stretch’
<i>tiiw-oor</i> ‘turn self over, turn self around’	<i>tiiw</i> ‘turn s.th. over, turn s.th. around’

4.4.2 Other uses of *-ɔɔr*

As illustrated in (41), *-ɔɔr* is fully productive as a reciprocal marker.

- (41) a. *Nan asaafolim, naanolii: “Miyvv bεy jijεe bεet?”*
- | | | | |
|-------------|--|---------------------------|--------------|
| <i>n-an</i> | <i>a-saaf-oli-m</i> | <i>n-aan-oli</i> | <i>miyvv</i> |
| clN-REL | sl:clA-greet-I:1PL.EXCL-ACT ₁ | PPF-SI:clA.say-I:1PL.EXCL | 2PL.PRO |
| <i>b-εy</i> | <i>ji-ja-ε</i> | <i>bεet</i> | |
| clB-which | sl:clJ-go-ACT ₀ | ALL | |
- ‘After greeting us, he asked us: “Where are you going?”’
- b. *Nan vsaaforv̥m, naanɔɔm: “Kareesi bsv̥?”*
- | | | | |
|------------------|--------------------------------------|----------------------|--|
| <i>n-an</i> | <i>v-saaf-ɔɔr-v-m</i> | <i>n-aan-ɔɔm</i> | |
| clN-REL | sl:1PL-greet-ɔɔR-EP-ACT ₁ | PPF-SI:clA.say-I:1SG | |
| <i>ka-rees-i</i> | <i>bsv̥</i> | | |
| SG-name(K)-I:2SG | how | | |
- ‘After we greeted each other, he asked me: “What’s your name?”’

-ɔɔr is also productively used with intransitive verbs to express joint action (as in *jaw-ɔɔr* ‘go together’ < *jaw* ‘go’, or *cin-ɔɔr* ‘live together as neighbors’ < *cin* ‘live at a place’).

Finally, the suffix *-ɔɔr* distinguishes itself by the very high proportion of lexicalized verb pairs in which a verb which seems to have been derived via the addition of *-ɔɔr* expresses a meaning whose relationship to that of the base verb is more or less opaque in the present state of the language (see Table 13).

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Table 13: Examples of verbs attesting lexicalized uses of *-ɔɔr*

lexicalized derive	base verb
<i>baj-ɔɔr</i> ‘be in conflict’	<i>baj</i> ‘have’
<i>gam-ɔɔr</i> ‘lament’	<i>gam</i> ‘advise’
<i>gɔr-ɔɔr</i> ‘move (intr.)’	<i>gɔr</i> ‘touch’
<i>kaan-ɔɔr</i> ‘quarrel’	<i>kaan</i> ‘do, make’
etc.	

4.5 Summary

Table 14 summarizes the possible uses of the three verbal suffixes of Jóola Fóoñi variously involved in the coding of reflexivization:

Table 14: The possible uses of *-ɔɔc*, *-ɔɔc-* and *-ɔɔr*

	<i>ɔɔc-</i>	<i>c-</i>	<i>ɔɔr</i>
reflexive (other than body care)	+	(+)	(+)
reflexive (body care)	–	+	–
quasi-reflexive	–	+	(+)
decausative	–	+	–
passive, resultative	–	(+)	–
reciprocal	–	–	+
joint action	–	–	+
self-intensification	+	–	–

5 Reflexivization and self-intensification

As already discussed above, Jóola Fóoñi has the cross-linguistically exceptional particularity of marking self-intensification of the subject by means of a verbal suffix also acting as a reflexive voice marker.

Jóola Fóoñi also has free forms available to express self-intensification of NPs irrespective of their syntactic role, but our data include no example in which one of these self-intensifiers, either alone or combined with a pronoun, could be analyzed as acting as a reflexive pronoun.

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5.1 The adnominal self-intensifier *fay*

Jóola fooñi has a noun *f-aŋ* (gender F/K), glossed ‘personnalité, le moi / personality, the self’ in Sapir et al.’s (1993) Jóola-French-English dictionary, which is the obvious source of the adnominal self-intensifier *fay* illustrated in (42). Note that *fay* as an adnominal self-intensifier is optionally suffixed by an index resuming the noun or pronoun it intensifies.¹⁶

- (42) a. *Kuliinool kɔɔkv di bulokeb, ampaɔɔl ɔɔmɔs di bulokeb, ɔɔ fanjɔɔl Inaa ɔɔmɔs di bulokeb.*

<i>ku-liin-ool</i>	<i>k-ɔɔ-kv</i>	<i>di</i>		
<i>PL-different.sex.sibling(BK)-I:clA clBK-LCOP-clBK PREP</i>				
<i>bu-lok-e-b</i>	<i>ampa-ɔɔl</i>	<i>∅-ɔɔ-mɔs</i>	<i>di</i>	<i>bu-lok-e-b</i>
<i>SG-tears(B)-D-clB</i>	<i>father(A)-I:clA clA-LCOP-clA PREP SG-tears(B)-D-clB</i>			
<i>∅-ɔɔ</i>	<i>fanj-ɔɔl</i>	<i>Inaa ∅-ɔɔ-mɔs</i>	<i>di</i>	<i>bu-lok-e-b</i>
<i>clA-PRO self-I:clA Inaa clA-LCOP-clA PREP SG-tears(B)-D-clB</i>				

'Her brothers are in tears, her father is in tears, and Inaa herself is in tears.'

b. *Inje fanj, mɔɔ nilekoumum taate.*

<i>inje</i>	<i>fanj</i>	<i>m-ɔɔ</i>	<i>n-i-leko-um-u-m</i>	<i>t-aa-t-ε</i>
<i>1SG.PRO self clM-PRO PPF-SI:1SG-stay-APPL-EP-ACT₁</i>			<i>clT-DEM-clT-PROX</i>	

'As for myself, this is why I stayed here.'

c. *Ujɔɔnen vvw jak, jakvɔm vgaalen an, jakvɔm vgaalen aw fanj*
v-jɔɔnen v-vw jak jakvɔm v-gaalen an jakvɔm

<i>si:2SG-fix clU-DEM well PROH</i>	<i>si:clU-disturb person(A) PROH</i>		
<i>v-gaalen</i>	<i>aw</i>	<i>fanj-i</i>	
<i>si:clU-disturb 2SG.PRO self-I:2SG</i>			

'Fix that properly, so that it doesn't disturb anybody, and it doesn't disturb yourself.'

Interestingly, in (42c), in spite of the fact that the subject index of class U is homonymous with the subject index of 2nd person singular, a reflexive interpretation of *jaksm vgaalen aw fayi* (that is, ‘don’t disturb yourself’) is excluded, since if it were the case, the verb form should include the suffix *-ɔɔrɔ*.

¹⁶The optional suffixation of indexes is also found with other adnominal particles such as *ceb* ‘only’ or *buroom* ‘all’.

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5.2 The noun *fu-ko* ‘head’ in self-intensifier function

In Jóola Fóoñi, the noun *fu-ko* ‘head’ has a grammaticalized use as an adnominal self-intensifier. In this use, *fu-ko* obligatorily combines with an index resuming the noun or pronoun it intensifies, and may optionally be introduced by the comitative-instrumental-locative preposition *di*.

Among Atlantic languages, it is common that the noun ‘head’ combined with a possessive index or pronoun acts not only as a self-intensifier, as in (43a), but also as a reflexive pronoun, as in (43b).

- (43) Wolof (Atlantic)¹⁷

- a. *Waxal ko sa bopp!*
wax-al ko sa bopp
 say-IMP I:3SG POSS.2SG head(B)

‘Say it yourself’

- b. *Wuude bi du ëwal boppam.*
wuude b-i du ëw-al bopp-am
 shoemaker(B) clB-D.PROX NEG.SI:3SG sew.leather-APPL head(B)-I:3SG

‘The shoemaker does not sew leather for himself.’

The case of Jóola Fooñi is very different, since ‘*fu-ko* ‘head’ + possessive index or pronoun’ in its grammaticalized use can only occur as an emphatic self-intensifier, never as a reflexive pronoun. In all the examples we have in our data, ‘*fu-ko* ‘head’ + possessive index or pronoun’ combines with a verb form marked by the suffix -ɔɔrɔ in self-intensifying function, and just adds some additional emphasis, as in (44b).

- (44) a. *Jaw usiilooro!*

jaw u-siil-ooro
 go SI:2SG-cook-ɔɔRɔ

‘Go and do the cooking for yourself!’ (autobenefaction)
 or ‘Go and do the cooking yourself!’ (self-intensification)

- b. *Jaw usiilooro fukoi!*

jaw u-siil-ooro fu-ko-i
 go SI:2SG-cook-ɔɔRɔ SG-head(F)-I:2SG

‘Go and do the cooking YOURSELF!’ (emphatic self-intensification)

¹⁷The two sentences quoted in this example are from Diouf’s (2003) Wolof-French dictionary.

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- c. * *Jaw usiil fukoi!*
jaw u-siil *fu-ko-i*
 go SI:2SG-cook-ɔɔrɔ SG-head(F)-I:2SG

6 Conclusion

In this article, basing ourselves on a corpus of naturalistic texts of various genres completed by elicitation because of the relative scarcity of reflexive constructions in the corpus, we have analyzed the way Jóola Fóoñi codes coreference within the clause, as well as the non-reflexive uses of the verbal suffixes that have the ability of acting as reflexive voice markers. The main conclusions are as follows:

- Jóola Fóoñi does not have reflexive pronouns or indexes.
- Subject–object coreference requires verbal marking by means of derivational suffixes that reduce by one the number of objects compatible with the verb and imply that a single participant, encoded as the subject, cumulates the semantic roles assigned to the subject and (one of) the object(s) in the construction of the base verb.
- Due to the extensive use of multiple-object constructions, and to the fact that beneficiaries are simply coded as objects, in Jóola Fóoñi, agent–goal coreference and agent–beneficiary coreference are just particular cases of subject–object coreference.
- Coreference relationships within the clause other than subject–object coreference are not treated differently from coreference in discourse.
- Three verbal suffixes may be found in constructions in which they act as reflexive voice markers, but all three also have non-reflexive uses: -ɔɔr, whose use in reflexive constructions is marginal, is productively used as a reciprocal voice marker; -ɔ, used as a reflexive voice marker with body-care verbs, is also productive in quasi-reflexive (or auto-causative) and decausative function; -ɔɔrɔ, analyzable as the default reflexive voice marker, is also fully productive as a marker of self-intensification of the subject.
- Jóola Fóoñi shows that the co-expression of self-intensification and reflexivization, very common cross-linguistically for free self-forms, may also characterize verbal derivational suffixes.

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Abbreviations

Capital letters between parentheses immediately after the lexical gloss of nouns (for example, ‘woman(A)’, or ‘dog(E)’) or after the gloss INF (‘infinitive’) indicate the agreement pattern associated to the form in question.

The other abbreviations are as follows:

ALL	allative	INF	infinitive
APPL	applicative	LCOP	locational copula
CPL	completive	NEG	negation
ACT	actualizer	OBLG	obligative
clX	class X	PL	plural
CSC	consecutive	POSS	possessive
CVB	converb	PPF	pre-prefix
D	definite	PROH	prohibitive
DEM	demonstrative	PROX	proximal
EP	epenthetic vowel	PREP	preposition
EXCL	exclusive	PRO	pronoun
FUT	future	PTCP	participle
GEN	genitive	RDPL	reduplicative suffix
HYP	hypothetical	REL	relativizer
I	index (other than subject index cf. sl)	SEQ	sequential
ICPL	incompletive	SG	singular
INCL	inclusive	SI	subject index
IMP	imperative	VEN	ventive

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Chapter 5

Reflexive constructions in Kambaata

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Kambaata (Cushitic, Ethiopia) has a nominal and a verbal reflexivizer. The nominal reflexivizer *gag-á* ‘self’, a case-inflecting noun of masculine gender, is used to mark coreference between the subject and a direct, indirect or oblique object. Whereas the antecedent of the reflexive noun is most commonly the subject of the same clause, this chapter argues that *gag-á* ‘self’ also qualifies as a long-distance reflexive. As such, it can mark coreference between an NP in an infinite or finite subordinate clause and the subject of the matrix clause. Apart from being used in reflexive constructions, *gag-á* ‘self’ is a self-intensifier. The middle morpheme *-aqq / -* on verbs is multifunctional. Most productively, it expresses autobenefactivity. It can also mark coreference between the subject and the direct object in the same clause clause. However, in typical reflexive situations (e.g. ‘see oneself’), it is rarely the only reflexivizer but cooccurs with the reflexive noun *gag-á*.

1 Introduction

Kambaata is a Highland East Cushitic (HEC) language spoken by more than 600,000 people (Central Statistical Agency 2007: 74) in the Kambaata-Xambaro Zone in the Southern Region of Ethiopia. Immediate neighbors are speakers of other HEC languages (Hadiyya and Alaaba) and Ometo languages of the Omotic family (Wolaitta and Dawro). The most widespread second language of Kambaata speakers is the Ethiopian lingua franca Amharic. The description of reflexive constructions presented here is based on data from diverse sources obtained during field research between 2002 and 2019: a corpus of recorded narratives and conversations, my field notes of elicited sentences and mock-dialogues as well as a corpus of written texts, including locally published collections of oral literature, schoolbooks, a dictionary, religious texts and the translation of the *Little Prince*.



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Gaps in the data were filled and open questions were discussed in interviews on the phone or through text and voice messages with a native speaker in 2020.

1.1 Typological profile

The constituent order of Kambaata is consistently head-final, hence all modifiers precede the noun in the NP, and all dependent clauses precede independent main clauses. The last constituent in a sentence is usually a fully finite main verb or a copula. Kambaata is agglutinating-fusional and, except for one partial pre-reduplication process,¹ strictly suffixing. Inflectional morphology is realized by segmental suffixes together with stress suprafixes. The following open word classes are defined on morphosyntactic grounds: nouns, adjectives, verbs, ideophones and interjections.

Kambaata has a nominative-accusative case-marking system. The nominative is the subject case, see ‘girls’ in (1). The accusative marks direct objects – see ‘good place’ in (1) – and certain adverbial constituents, it also serves as the citation form of nouns and adjectives. Nouns distinguish nine case forms: nominative, accusative, genitive, dative, ablative, instrumental, locative, oblique and predicative. Nouns are marked for gender (masculine vs. feminine), the assignment of grammatical gender is mostly arbitrary. Attributive adjectives, such as ‘good’ in (1), agree with their head noun in case and gender.²

- (1) (...) *masal-aakk-atí-i danaam-ítá ma'nn-ítá aat-táa-s*
 girl-PLV2-F.NOM-ADD good-F.ACC place-F.ACC give-3F.IPFV-3M.OBJ

(Speaking about the winner of a wrestling competition) ‘(...) and also the girls honor him (lit. give him a good place).’ [Conversation about circumcision traditions, EK2016-02-23_001]

Fully finite main verbs are distinguished from several types of dependent verbs, which are reduced in finiteness, i.e. relative verbs, converbs, purposive verbs and

¹See (27) for an example of a pre-reduplicated noun.

²Transcriptions in this chapter use the official Kambaata orthography, which is based on the Roman script (Treis 2008: 73–80; Alemu 2016). One important adaptation is here made to the official orthography: phonemic stress is marked by an acute accent on the vowel. The following graphemes are not in accordance with IPA conventions: <ph> /p/, <x> /t'/, <q> /k/, <j> /dʒ/, <c> /tʃ/, <ch> /tʃ/, <sh> /ʃ/, <l> /l/, <r> /r/, <y> /j/ and <'> /ʔ/. Geminate consonants and long vowels are marked by doubling, e.g. <shsh> /ʃ:/ and <ee> /e:/. In clusters of a glottal stop and a sonorant, the sonorant is, by convention, written double, e.g. <nn> for /n̩/ and <rr> /r̩/. Nasalization is marked by a macron, e.g. <ā> /ā/.

5 Reflexive constructions in Kambaata

(infinite) verbal nouns. Verbs inflect for aspect, mood, polarity and syntactic dependence. All verb forms apart from verbal nouns obligatorily index their subject; see the portmanteau morpheme *-tāa* in (1), which encodes imperfective aspect and indexes a third person feminine subject. Object suffixes on verbs, such as the third person masculine object suffix *-s* in (1) and the first person singular object suffix *-'e* in (2), are pronominal in nature and usually substitute for object nominals. A finite verb form alone can constitute a complete utterance (2).

- (2) *qéel-teente-'e*
 defeat-2SG.PRF-1SG.OBJ
 (Complete turn in a dialogue:) ‘You have defeated me.’ [Narrative,
 EK2016-02-12_003]

1.2 A preview of reflexive constructions

Kambaata uses a reflexive noun *gag-á* ‘self’ plus a possessive suffix (3) or a reflexive voice marker *-aqq* / *-'*, labelled “middle (derivation)” (MID) (4), to express coreference between the subject and an accusative object.

- (3) *Gag-á-s* *ba'-íshsh-o*
 self-M.ACC-3M.POSS be.destroyed-CAUS1-3M.PFV
 (Speaking about the actual cause of someone’s death whom the addressee thought to have died from an illness) ‘He killed himself (lit. his self).’
 [Elicited, DW2020-01-24]
- (4) *Kabár* *gagmoxx-iin xuud-aqq-aammi=da* *áda*
 today.M.OBL mirror-M.ICP see-MID-1SG.IPFV.REL=COND then
móok-i-i *sabáb-b* *darsh-ítee'u*
 cheek-F.NOM-1SG.POSS ensue-3F.PFV.CV become.swollen-3F.PRF
 (Speaking about the consequences of a brawl) ‘Then when I saw myself in the mirror today, my cheek was badly swollen.’ [Elicited, DW2020-01-24]

In (5), both reflexivizers cooccur in the same clause. The verb *saaxx-* ‘praise oneself’ is the middle derivation of *saad-* ‘praise (someone)’.

- (5) *Isú* *mánn-u* *galaxx-u'nnáachchi-s*
 3M.ACC people-M.NOM thank-3M.NEG4-3M.OBJ
birs-í-n-in *ís* *gag-á-s*
 do.before-3M.PFV.CV-EMP-EMP 3M.NOM self-M.ACC-3M.POSS

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saaxx-án *biir-óochch biir-úta* *zahh-áyyoo'u*
 praise.MID-3M.IPFV.CV office-F.ABL office-F.ACC walk-3M.PROG

‘Before people (could) thank him (for the job), he walked from office to office praising himself’ [Elicited, DW2020-01-24]

In the following sections, I will first introduce the personal pronoun system of Kambaata (§2) and then discuss the form and functions of the noun *gag-á* ‘self’ (§3). Apart from being used as a reflexivizer in various syntactic functions (except in the subject function), it is used as a self-intensifier. In §4, I present the multifunctional middle derivation, whose most productive function is to signal coreference between the subject and a beneficiary (a dative adjunct). It also marks coreference between the subject and a direct (accusative) object, but here it usually cooccurs with the reflexive noun. Thirdly, the middle derivation has an intersubjective use and expresses the emotional involvement of the subject in a state-of-affairs. Together with the passive morpheme, the middle derivation marks reciprocity. In the conclusion (§5), I lay out the contexts in which the reflexive noun is preferred over the middle morpheme and when double expression is preferred over the use of only one reflexive marker.

2 Personal pronouns

Kambaata has free (§2.1) and bound personal pronouns (§2.2), but no pronoun-like reflexive nominals (i.e. pronominoids). Personal pronouns are used to refer to humans, less often to other animates, and usually not to inanimate referents like things or events, for which demonstratives are preferred.

2.1 Free personal pronouns

Free personal pronouns (Table 1) distinguish person, number, gender (in the third person), honorificity (in the second and third person) and case. The case paradigm of personal pronouns is partly suppletive; see, for instance, the different stems that are used for the nominative and accusative forms of 1SG, 2SG, 2HON, 1PL and 2PL. In principle, personal pronouns distinguish as many case forms as nouns. However, there is systematic syncretism of the instrumental-comitative-perative (ICP) and locative (LOC) forms for all persons except 3M. Furthermore, the oblique and the predicative case forms are only minimally distinct in the first person plural. The singular predicative forms combine with the copula (COP3) -*Vt*. In the plural, the copula (F.COP2) '-*taa* is required (see Treis 2008: 397-426 for information on the distribution of Kambaata copulas).

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Table 1: Free personal pronouns

	NOM	ACC	GEN	DAT	ABL	ICP	LOC	OBL	PRED
1SG	án	ées	ú	esáa(ha)	esáachch	esáan	áne	áne	áne
2SG	át	kées	kíi	kesáa(ha)	kesáachch	kesáan	áte	áte	áte
2HON	á'rnu	kí'mnéta	kí'mné	kí'mnée(ha)	kí'mnéachch	kí'mnén	á'mno	á'mno	á'mno
3M	ís	isú	isí	isii(ha)	isiiachch	isín	ísoon	íso	íso
3F	íse	iséta	isé	iséee(ha)	iséechch	iséen	íseen	íse	íse
3HON	íssa	issáta	issá	issáa(ha)	issáachch	issáan	íssaan	íssa	íssa
IPL	na'óot	nées	níi	nesáa(ha)	nesáachch	nesáan	na'ó	na'ó	na'ó
2PI	a'nno'óot	ki'nne'éeta	ki'nne'ée	ki'nne'ée(ha)	ki'nne'éechch	ki'nne'éenki'nne'éena'nno'óo	a'nno'óo	a'nno'óo	a'nno'óo
3PL	issó'óot	issó'óota	issó'óo	issó'óo(ha)	issó'óochch	issó'óon	issó'óon	issó'óo	issó'óo

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2.2 Bound personal pronouns

Bound object pronouns on verbs and bound possessive pronouns on nouns and adjectives (Table 2) are only minimally distinct: for 1SG possessors and 2SG objects, speakers can choose between two freely distributed allomorphs, whereas only one of the allomorphs is admitted for the respective 1SG object and the 2SG possessor form. A comparison with free pronouns (§2.1) shows that bound pronouns neutralize the distinction between honorific and plural referents in the second and third person. The right column of Table 2 exemplifies the use of possessive suffixes on the accusative form of the reflexive noun *gag-á* ‘self’.

Table 2: Bound personal pronouns and the reflexive noun

	Pronominal Suffixes	Reflexive noun (ACC) with possessive suffix
1SG.OBJ	-'e	
1SG.POSS	-'e ~ -'	<i>gag-á-</i> 'e ~ <i>gag-á-</i> '
2SG.OBJ	-(k)ke ~ -he	
2SG.POSS	-(k)k	<i>gag-á-kk</i>
3M	-s	<i>gag-á-s</i>
3F	-se	<i>gag-á-se</i>
1PL	-(n)ne	<i>gag-á-nne</i>
2PL (= 2HON)	-(k)ki'nne ~ -'nne	<i>gag-á-kki'nne</i> ~ <i>gag-á-</i> 'nne
3PL (= 3HON)	-(s)sa	<i>gag-á-ssa</i>

Possessive pronouns never cooccur with full nominal possessors. Object pronouns typically substitute for direct or indirect object nominals; recall (1). However, in case of high referential prominence, an object can be doubly expressed by a full object nominal – a noun or pronoun phrase – and a bound object pronoun on the verb, as seen in (6) and later in (14).

- (6) *Harr-ée buud-á kesáa m-á buchch-íichch*
 donkeys-F.GEN horn-F.DAT 2SG.DAT what-M.ACC soil-M.ABL
eeb-ó<kke>ta-at?
 bring-1SG.PURP.SS<2SG.OBJ>-COP3
 ‘From where on earth am I going to bring you a donkey horn?’
 [Narrative, EK2016-02-12_003]

5 Reflexive constructions in Kambaata

3 Reflexive noun

3.1 Form and meaning

Kambaata uses the reflexive noun *gag-á* ‘self’, usually combined with a possessive suffix (Table 2),³ to express coreference between the subject and another participant in the clause. *Gag-á* ‘self’ is clearly noun-like in nature. It inflects for case (Table 3)⁴ like any regular common noun of the masculine declension M1 (Treis 2008: 103). In the text of this chapter, the reflexive noun is always cited in its accusative form *gag-á*.

Table 3: The case paradigm of *gag-á* ‘self’

ACC	<i>gag-á</i>	ABL	<i>gag-íichch</i>
NOM	<i>gág-u</i>	ICP	<i>gag-íin</i>
GEN	<i>gag-i_'</i>	LOC	<i>gag-áan</i>
DAT	<i>gag-íi(ha)</i>	OBL=PRED	<i>gág-a</i>

Gag-á ‘self’ is a transnumeral noun and thus allows for singular and plural reference. It is not attested with plurative (PLV) marking, but a singulative (SGV) example is presented in (13). The reflexive noun is marked for distributivity through partial pre-reduplication (‘each ... oneself’), as seen in (27). Other morphemes that can attach to the reflexive noun are the emphasis marker *-n* (13), the additive marker *-V* (20), and – when ‘self’ is the head or modifier of the non-verbal predicate (32) – the copula. The stem of the reflexive noun can be the input of the status noun derivation with *-oom-áta* (Treis 2008: 171): *gag-oom-áta* ‘identity (lit. selfhood, selfness)’ (Alemu 2016: 349), as shown in (7).⁵

(7) *Gag-oom-á-nne*

self-STAT-F.ACC-1PL.POSS
caakk-is-soonti-nné=g-a< n>ka
 become.light-CAUS1-2SG.PFV-1PL.OBJ.REL=SIM-M.ACC<EMP>

³There are two instances in the Gospel of John in which the possessor of *gag-á* ‘self’ is expressed by a free genitive pronoun, e.g. *íi* (1SG.GEN) *gag-íi* (self-M.DAT) ‘for myself’. For the use of unmodified reflexive nouns see §3.2.5.

⁴In Table 3, the notation *-i_'* of the genitive morpheme indicates that the case is realized by a segment *-i* and a stress suprafix on the rightmost syllable of the word.

⁵All examples taken from publications in the Kambaata language are stress-marked, segmented, glossed and translated to English by the present author.

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bír-i-kk *caakk-ítu*
 future-F.NOM-2SG.POSS become.light-3F.BDV

‘As you brought our identity to light, may your future be bright!’ (*Adane no date*: 4)

The noun *gag-á* ‘self’ can be used metaphorically to express a ‘person like oneself’, or a ‘close relative’, as illustrated in (8).

(8) Proverb

Gág-u *buud-á* *woqqarr-ó=da* *allagg-íchch-u*
 self-M.NOM horn-M.ACC strike-3M.PFV.REL=COND strangers-SGV-M.NOM
ill-ítá *qas-áno*
 eye-F.ACC poke-3M.IPFV

‘If a next of kin (lit. a self) strikes the horn (of your bull), a stranger (can) poke (you in your) eye.’ (*Alamu Banta & Alamaayyo G/Tsiyoon 2017*: 52)

While ‘head’ is the most common source for reflexive nominals in the languages of the world (*Schladt 2000*) – see also the reflexivizer *ras* ‘head’ in Amharic (*Leslau 1995*: 57-58), the primary contact language of Kambaata, and the reflexivizer *umo* ‘head’ in the closely related HEC language Sidaama (*Kawachi 2007*: 184-187) –, there is no indication that Kambaata *gag-á* goes back to a noun ‘head’. A reflexive noun cognate to that of Kambaata is used in the HEC languages Alaaba, K’abeena and Hadiyya (*Schneider-Blum 2007*: 188-199; *Crass 2005*: 257-259; *Tadesse 2015*: 90-91).

3.2 Reflexive constructions

3.2.1 Autopathic domain

Coreference between the subject and its direct object in a monotransitive clause is expressed by an accusative-marked reflexive noun. The possessive suffixes on *gag-á* ‘self’ are coreferential with the subject of the clause, e.g. 3M in (3), 1SG in (9) and (13), 2PL in (10) and 3PL in (11). The examples (9)-(11) illustrate that the subject is not necessarily expressed by an independent nominative NP, it suffices to have it indexed on the verb. As the seven subject indexes and the seven possessive suffixes are not fully congruent, a mismatch is observed in (11). The ordered persons are indexed as 3F (= 3PL) on the verb *torr-* ‘throw’ but as 3PL (= 3HON) on ‘self’.⁶

⁶Free personal pronouns distinguish nine forms (Table 1), possessive/object pronouns (Table 2) and subject indexes only seven. In the possessive/object paradigm, we see the following syn-

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- (9) (...) *gag-á-* *isso'oo-sí qax-á<n>ka ass-í*
 self-M.ACC-1SG.POSS 3PL.GEN-DEF level-M.ACC<EMP> do-1SG.PFV.CV
kot-íshsh=ké' (...) become.small-CAUS1.1SG.PFV.CV=SEQ
 '(...) I lower myself to their level (...)' (Saint-Exupéry 2018: 11)
- (10) *Gag-á-'nne* *xa'mm-iyyé: áā-ndo áā-bay?*
 self-M.ACC-2PL.POSS ask-2PL.IMP yes-Q yes-NEG1.Q
 'Ask yourselves: Yes or no (lit. not yes)?' (Saint-Exupéry 2018: 93)
- (11) *Át gashsh-itaantí* *mann-á*
 2SG.NOM pass.the.night.CAUS1-2SG.IPFV.REL people-M.ACC
gag-á-ssa *már-t baar-í aazéen*
 self-M.ACC-3PL.POSS go-3F.PFV.CV sea-M.GEN inside-M.LOC
torr-ítunta *azzaz-zoonti-ssá=da* (...) throw-3F.PURP.DS order-2SG.PFV-3PL.OBJ.REL=COND
 'If you ordered the people you govern (lit. make pass the night) to go and
 throw themselves into the sea (...)' (Saint-Exupéry 2018: 38)

In (12), the subject that serves as the antecedent of the reflexive noun is expressed by a possessive pronoun (-ssa 3PL.OBJ) on the infinite verbal noun.⁷

- (12) (...) *gag-á-ssa-n* *íkko ées haww-íichch*
 self-M.ACC-3PL.POSS-EMP or 1SG.ACC trouble-M.ABL
fa'-is-ú-ssa *dag-áam-ba'a*
 be.saved-CAUS1-M.ACC-3PL.POSS know-1SG.IPFV-NEG1
 '(...) I don't know whether they can save themselves and me (lit. I don't
 know their saving themselves or me) from trouble.' (Kambaata Education
 Bureau 1989: 3.118)

The transnumeral reflexive noun can indicate coreference with singular and plural subjects, see *gag-á* in (9) and (10)-(12), respectively. However, we still find a small number of overtly singulative-marked forms in the corpus (13). The pragmatic reason for this marking is still unknown.⁸ In contrast, overt plurative mark-

creatism: 1SG, 2SG, 3M, 3F, 1PL, 2PL (= 2HON), 3PL (= 3HON). Another type of syncretism is found in the subject index paradigm: 1SG, 2SG, 3M, 3F (= 3PL), 3HON, 1PL, 2PL (= 2HON).

⁷Unlike other verb forms, verbal nouns cannot index their subjects. The subject is either expressed by a nominative NP, a genitive NP or a possessive pronoun.

⁸Note that one of the functions of singulative marking on transnumeral nouns is to express affection (Treis 2014: 118f).

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ing (hypothetically **gag-g-áta* PLV1 or **gag-aakk-áta* PLV2 ‘selves’) is unattested and was rejected by the native speaker I consulted.

- (13) *Gag-ichch-ú-’e-n* *ikk-oommí=da* *esáa*
 self-SGV-F.ACC-1SG.POSS-EMP become-1SG.PFV.REL=COND 1SG.DAT
woyy-áno-’e
 become.better-3M.IPFV-1SG.OBJ

(Protagonist of a story who has adopted body parts of other animals:) ‘It would be better if I became myself (again).’ [Narrative, TD2016-02-11_001]

A non-reflexive free accusative pronoun or a non-reflexive object suffix on the verb is necessarily interpreted as being referentially disjoint with the subject. See, for instance, the clause marked in bold in (14): the free accusative pronoun *isú* ‘him’ and the object suffix *-sí* (here infixated into the purposive verb) are always interpreted as being referentially disjoint from the subject of ‘help’ (reflected in the subject index 3M). The same is true of the object suffix *-s* on the main verb ‘ask’; neither in this nor in any other context can it be coreferential with the subject ‘little prince’.

- (14) “(...)” *y-í=ké’* *xa’mm-ée-s* *qakkíchch-u láah-u,*
 say-3M.PFV.CV=SEQ ask-3M.PFV-3M.OBJ little-M.NOM prince-M.ACC
isú kaa’ll-o<si>ta *hashsh-o-sí=biiha*
 3M.ACC help-3M.PURP.SS<3M.OBJ> want-3M.PFV-3M.OBJ.REL=REAS2
 “(...)” said the little prince to him (*himself), because he wanted to help him (*himself). (Saint-Exupéry 2018: 44)

3.2.2 Oblique domain

Kambaata also makes use of the reflexive noun *gag-á* ‘self’ to signal coreference between the subject of a clause and its indirect or oblique objects. In (15), the dative-marked beneficiary is coreferential with the subject ‘doves’. In (16), the ablative-marked source is coreferential with the 2SG subject. In (17), the locative-marked indirect object is coreferential with the 3F (= 3PL) subject of its clause.

- (15) *Wól-i-s* *handar-ití-i* (...) *gag-íiha-n-sa*
 other-F.NOM-DEF doves-F.NOM-ADD self-M.DAT-L-3PL.POSS
it-táa=r-a *bajig-óon* *hacc-itáyyoo’u*
 eat-3F.IPFV.REL=NMZ4-M.ACC happiness-F.ICP look.for.MID-3F.PROG
 ‘And the other doves (...) were happily looking for food (lit. what they eat) for themselves.’ (Kambaata Education Bureau 1989: 8.19f)

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- (16) *Āt káan y-itaanti-i*
 2SG.NOM P_DEM1.M.ACC say-2SG.IPFV.REL-NMZ1.M.NOM
gag-iichchi-kke-eti-ndo (...)?
 self-M.ABL-2SG.POSS-COP3-DISJ
 (John 13:32) ‘Is this your own idea (lit. is it from yourself that you say this) or (...)?’ (Kambaata and Hadiyya Translation Project Hosaina 2005: 83)
- (17) *Gag-áan-tassa dikka'-áa-na wol-ú mann-á*
 self-M.LOC-L-3PL.POSS rely-3F.IPFV.REL-CRD other-M.ACC people-M.ACC
gad-dán “Ná'oot xumm-áan-n-u-a”
 despise-3F.IPFV.CV 1PL.NOM peace-AG-PLV3-M.PRED-M.COP2
y-itáa mann-ii (...) kúll-o-ssa
 say-3F.IPFV.REL people-M.DAT tell-3M.PFV-3PL.OBJ
 ‘(He) said (...) to the people who trusted in themselves, who despised others and who said, “We are righteous”.’ (The Bible Society of Ethiopia no date: 16)

The reflexive noun is also attested in morphologically complex oblique object NPs, e.g. those that are headed by a case-marked relational noun, such as *al-éen* ‘on top’ (18), or a case-marked nominalizer (19). Relational nouns and nominalizers govern genitive-marked modifiers.

- (18) *Gag-i-kkí al-éen gar-é murat-úta*
 self-M.GEN-2SG.POSS top-M.LOC justice-F.GEN judgement-F.ACC
aass-itaanti manch-ú ik-koontí=da (...)
 give-2SG.IPFV.REL person.SGV-M.ACC become-2SG.PFV.REL=COND
 ‘If you are a person who (can) pass a fair judgment on yourself (lit. on top of your self) (...).’ (Saint-Exupéry 2018: 40)
- (19) *Ku máñch-u gag-i-sí=tann-ée*
 A_DEM1.M.NOM person.SGV-M.NOM self-M.GEN-3M.POSS=NMZ3-F.DAT
xall-ii sáww=y-u'nnáan (...)
 only-M.DAT think=say-3M.NEG4
 ‘This man does not only think about himself (lit. for the one of his self) (...).’ (Saint-Exupéry 2018: 52)

Kambaata does not have any adpositions but uses case markers or case-marked relational nouns to mark circumstantial adjuncts, e.g. locative adjuncts. Circumstantial adjuncts usually do not contain a reflexive noun in case of coreference

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with the subject. The phrase *shiin-áan-ta-se* ‘beside her, at her side’ in (20) is ambiguous and can be interpreted as ‘at her own side’ or ‘at her (= another feminine referent’s) side’. (See also §3.2.4 on the reflexive possessor.)

- (20) *Worr-iichch-ú mexx-é-nin shiin-áan-ta-se*
 snakes-SGV-M.ACC single-MULT-EMP-EMP side-M.LOC-L-3F.POSS
xúud-d (...) see-3F.PFV.CV
 ‘She suddenly saw a snake beside her(self) (lit. at her side) (...).’ [Elicited, DW2020-01-24]

3.2.3 Long-distance domain

In Kambaata, the antecedent of the reflexive noun does not have to be an argument of the same minimal clause. Even though my database does not provide a large number examples, there is sufficient proof that *gag-á* ‘self’ qualifies as a long-distance reflexive, i.e. a reflexive noun that “can occur in a subordinate clause and take its antecedent in the matrix clause” (Haspelmath this volume: §9). In some diagnostic examples, the reflexive noun is found in an infinite verbal noun clause (VNC) and its antecedent in the matrix clause. In (21), the antecedent of ‘self’ is the subject of the matrix clause – see the 1SG index on the main verb. In (22), the antecedent is the indirect object, expressed as a 2SG object pronoun, of the main verb.

- (21) [*Gag-a-’í-i, min-i-nné-e,*
 self-M.ACC-1SG.POSS-ADD house-M.ACC-1PL.POSS-ADD
hegeeg-u-’í-i muccur-ú ass-íi]_{VNC} *abb-á*
 area-M.ACC-1SG.POSS-ADD clean-M.ACC make-M.DAT big-M.ACC
yakitt-á ass-áamm
 effort-M.ACC make-1SG.IPFV
 ‘I will make a great effort to clean myself, our house and my environs.’
 (Kambaata Education Bureau 1989: 4.120)
- (22) [(...)*gag-á-kk mann-íi hor-íi< n >ka*
 self-M.ACC-2SG.POSS people-M.DAT all-M.DAT<EMP>
lall-íis-u]_{VNC} *hasis-áno-he*
 appear-CAUS1-M.NOM be.necessary-3M.IPFV-2SG.OBJ
 (John 7:4) ‘(...) you need to show yourself to everybody (lit. to show yourself to everybody is necessary for you).’ (Kambaata and Hadiyya

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Translation Project Hosaina 2005: 32)

Examples (21)–(22) do not seem surprising from the perspective of European languages where reflexive pronouns can be employed in the non-finite long-distance domain (cf. Haspelmath (this volume: §9)). However, Kambaata goes a step further. As (23) illustrates, an antecedent can just as well be coreferential with a reflexive noun in a finite subordinate clause. The ablative-marked standard of comparison *gag-iichchi-s* ‘from/than himself’ – found in a relative clause inside another relative clause that modifies the subject of the main clause – is coreferential with the 3M subject of the hierarchically superior matrix clause, i.e. the subject indexed on *he'-anó* ‘(who) lives’.

- (23) [Mát-o dooll-áan [[haraarím-a-s mát-o
 one-M.OBL time-M.LOC width-F.NOM-3M.POSS one-M.OBL
gag-iichchi-s kank-á< n>ka abb-itúmb-o]RC
 self-M.ABL-3M.POSS that.much-M.ACC<EMP> become.big-3F.NEG5-M.OBL
 plaaneet-í al-éen *he'-anó*]RC-na [jaal-á
 planet-M.GEN top-M.LOC live-3M.IPFV.REL-CRD friend-M.ACC
has-áyyoo]RC qakkichch-u láah-u yoo' ikke]Main C
 look.for.MID-3M.PROG little-M.NOM prince-M.NOM COP1.3 PST
 ‘Once upon a time there was a little prince who lived on a planet the width of which was not much bigger than (the little prince) himself and who was looking for a friend.’ (Saint-Exupéry 2018: 20)

3.2.4 Adposessive domain

The adnominal possessor of a non-subject participant can be coreferential or non-coreferential with the subject. Kambaata does not make a distinction between subject-coreferential and subject-disjoint free possessor (genitive) pronouns or possessive suffixes. In (24), the suffix -s 3M.POSS on an instrumental-comitative-periative participant is coreferential with the subject ‘Father God’, whereas the subject ‘he’ (as indexed on the verb) and the possessor are disjoint in (25).

- (24) Ánn-u Magán-u ***beet-iin-ta-s*** ább-unta (...)
 father-M.NOM God-M.NOM son-M.ICP-L-3M.POSS be.glorified-3M.PURP.DS
 (John 14:13) (Literal translation of the Kambaata version:) ‘So that Father God is glorified through his (own) son (...).’ (Kambaata and Hadiyya Translation Project Hosaina 2005: 68)

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- (25) A: *Manch-i* *min-i* *márr-o_j-ndo?* – B: *Márr-ee_j* *ikke*,
 person.SGV-M.GEN house-M.ACC go-3M.PFV-Q go-3M.PRF PST
mánch-u-s_i *yóo-ba'a*, *beet-iín-ta-s_i*
 person.SGV-M.NOM-DEF COP1.3-NEG1 son-M.ICP-L-3M.POSS
daqq-ámm-ee'u_j
 meet.MID-PASS-3M.PRF

A: ‘Did he_j go to the man’s_i house?’ – B: ‘He_j went there, (but) the man_i was not there, he_j met his_i (= the man’s) son.’ [Elicited, DW2020-02-22]

Explicit coreference between the subject and the possessor of a non-subject participant in the same clause is expressed with a genitive-marked reflexive noun plus a possessive suffix, see ‘the mother’ and ‘her (own) part’ in (26), ‘these’ and ‘their (own) language’ in (27) and ‘they’ and the distributive phrase ‘(each) their (own) people’ in (28).

- (26) (...) *am-atí-i* *gag-i-sé* *wud-iin* *qixxan-táa'u*
 mother-F.NOM-ADD self-M.GEN-3F.POSS side-M.ICP get.ready-3F.IPFV
 ‘(...) and the mother gets ready for her (own) part.’ [Conversation about circumcision traditions, EK2016-02-23_001]

- (27) “*Kúru* *gag-i-ssá* *afóo* *haasaaww-ú*
 P_DEM1.PL.M.NOM self-M.GEN-3PL.POSS mouth-M.ACC speak-M.NOM
iitt-ít *bá'-ee-haa=rr-a”*
 love-3F.PFV.CV do.very.much-3F.PRF.REL-M.COP2=NMZ4-M.PRED
y-isiicc-iyyé!
 say-CAUS2.MID-2PL.IMP
 ‘Make them say to themselves: “These are (people) who love to speak their (own) language (lit. mouth) very much.”’ [Symposium speech, DW2016-09-24]

- (28) *Gág-gag-i-ssá* *mann-á< n>ka*
 RED-self-M.GEN-3PL.POSS people-M.ACC<EMP>
aag-is-sáa-haa
 enter-CAUS1-3F.IPFV.REL-M.COP2
 ‘They intermarry in their own kin-group (lit. they marry each their own people).’ [Elicited, DW2004-11-03]

However, the genitive-marked reflexive noun is not strictly subject-oriented. It may also signal coreference between a possessor and a non-subject participant

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in the same clause. In my database, one finds, among others, examples in which the antecedent is the dative NP in a predicative possessive construction with *yoo* ‘exist’ (COP1), see ‘for the ones who hunt’ in (29), or an accusative object, see ‘the flower’ in (30).

- (29) (...) ées *hugaax-xaa=r-iihá-a_i* ***gag-i-ssá_i***
 1SG.ACC hunt-3F.IPFV.REL=NMZ4-M.DAT-ADD self-M.GEN-3PL.POSS
 seer-u *yoo-haa*
 rule-M.NOM COP1.3.REL-M.COP2

‘(...) and the ones who hunt me have their own rules (lit. for the ones_i who hunt me, there are their_i own rules).’ (Saint-Exupéry 2018: 70)

- (30) (...) *qakkíchch-u láah-u* *fít-ichch-úta_i* *ankar-í*
 little-M.NOM prince-M.NOM flower-SGV-F.ACC night-M.ACC
 ankar-í ***gag-i-sé_i*** *burcuq-óonin* *iffishsh* (...)
 night-M.ACC self-M.GEN-3F.POSS glass-M.LOC-EMP close.3M.PFV.CV
 ‘(...) the little prince shuts the flower_i under her_i glass (globe) every night
 and (...)’ (Saint-Exupéry 2018: 91)

There are even several attested instances in which the reflexive noun is coreferential with an antecedent in an embedded clause: In (31), *gag-i-sí* ‘his own’ is coreferential with the direct object *man-ch-ú* ‘man’ (ACC) in the relative clause (RC). In (32), *gag-i-ssá* ‘their own’ is coreferential with the dative possessor in the conditional clause. In the adposessive domain, Kambaata thus violates the cross-linguistic tendency of antecedent-reflexive asymmetry, which states that “[t]he antecedent must be higher on the rank scale of syntactic positions than the reflexive pronoun” (Haspelmath this volume: §7).⁹

- (31) Periphrasis of proverb in common speech
 [*Manch-ú_i* *abbíshsh* *gen-anó*]_{RC}
 person.SGV-M.ACC exceed.CAUS1.3M.PFV.CV harm-3M.IPFV.REL
 díin-u_j ***gag-i-sí_i*** *ilam-íichch* *ful-áno*
 enemy-M.NOM self-M.GEN-3M.POSS relatives-M.ABL come.out-3M.IPFV
 ‘A person’s worst enemy is found among his relatives (lit. An enemy_j who harms a person_i; very much comes out from his_i own relatives).’
 (Alamu Banta & Alamaayyo G/Tsiyoon 2017: 115)

⁹A consulted native speaker confirmed that -sí could in principle also be coreferential with *díinu* ‘enemy’ (NOM) but that world knowledge would make a listener favor the first interpretation.

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- (32) Periphrasis of proverb in common speech

[*Ám-at il-áa_i ánn-u gizz-íi_j*
 mother-F.NOM children-F.DAT owner-M.NOM cattle-M.DAT
yoo-ba'í=dda] gag-i-ssá_{i+j} hé'-u< n>ku
 COP1.3-NEG1.REL=COND self-M.GEN-3PL.POSS live-M.NOM<EMP>
bárcħ-i-ta
 misery-F.PRED-F.COP2

'If children_i have no mother (and) cattle_j no owner (lit. if there is not a mother for children (and) an owner for cattle) their_{i+j} life is a misery.'
 (Alamu Banta & Alamaayyo G/Tsiyoon 2017: 10)

The use of the reflexive noun in the adposessive domain is optional and serves the purpose of emphasis. This can be illustrated with examples from natural language use, such as (33), in which possession is expressed by juxtaposing a regular genitive pronoun and a genitive reflexive noun.

- (33) *Kúun ammoonsíi kíi-haa-ba'a, íi-haa,*
 P_DEM1.M.NOM however 2SG.GEN-M.COP2-NEG1 1SG.GEN-M.COP2
gag-í-'e-a< n>ka béet-u
 self-M.GEN-1SG.POSS-M.COP<EMP> son-M.PRED
 'But this is not yours, (it) is mine, (it) is my own son.' [Narrative,
 TH2003-05-28_001]

The optionality of the reflexive noun is also reflected in two variants of the same proverb in (34)-(35): the first uses the genitive pronoun *isé* 3F.GEN 'her' (34), while the second uses the reflexive noun *gag-i-sé* 'her own' (35).

- (34) Proverb variant 1

Ball-ó wonan-á mogga'-óo
 mother-in-law-F.GEN enset.ring-M.ACC steal-3F.PFV.REL
beet-í=biit ísé beet-í ar-é bar-í
 son-M.GEN=NMZ2.F.NOM 3F.GEN son-M.GEN wife-F.GEN day-M.ACC
wonan-á hoog-gáa'i
 enset.ring-M.ACC loose-3F.IPFV

'The son's (wife) who stole (her) mother-in-law's enset ring loses (her) enset ring on the day of her son's wife('s arrival).'¹⁰ (Geetaahun 2002: 28)

¹⁰The enset (*Ensete ventricosum*) is a multi-purpose plant cultivated in the highlands of southern Ethiopia. The fermented corm, the fermented pulp and the starch are used for human con-

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- (35) Proverb variant 2

(...) **gag-i-sé** *beet-i* *ar-é* *bar-i* (...)
 self-M.GEN-3F.POSS son-M.GEN wife-F.GEN day-M.ACC
 '(...) on the day of her own son's wife('s arrival)' (*Alamu Banta & Alamaayyo G/Tsiyoon 2017*: 24)

3.2.5 Bare reflexive noun

The possessive suffix on the reflexive noun can be dispensed with in contexts where the antecedent and the reflexive are impersonal or generic, as is often the case in proverbs (37), in conversations about traditions (38) or in general truths (39). The suffix is also missing in the idiom *gag-á daqq-* 'become an adult, come of age (lit. find oneself)'.

- (36) Proverb

Gaazhzh-ó *hór-u< n>ku* **gag-ií** *fun[n]úq*
 wage.war-3M.PFV.REL all-M.NOM<EMP> self-M.DAT shove.away.IDEO
 'All who wage war struggle for themselves (i.e. not for the collective good).' (*Alamu Banta & Alamaayyo G/Tsiyoon 2017*: 51)

- (37) Conversation about mourning traditions

(...) **gag-í** *ilan-ch-ú*, *onxan-é* *ilan-ch-ú*
 self-M.GEN relatives-SGV-M.ACC nearness-F.GEN relatives-SGV-M.ACC
moog-eennó-o *ill-án* *qax-ée*
 bury-3HON.IPFV.REL-NMZ1.M.ACC reach-3M.IPFV.CV extent-M.DAT
waas-á *qammas-áno-ba'a*
 enset.food-M.ACC take.a.bite-3M.IPFV-NEG1
 '(...) (one) did not (even) take a bite of food until (people) buried one's relative, (one's) near relative.' [EK2016-02-23_003]

- (38)
- Gag-á**
- haww-íchch*
- fa'-is-íi*
- dánd-u*
- ammóo*
-
- self-M.ACC trouble-M.ABL be.saved-CAUS1-M.DAT be.able-M.NOM however
-
- qoorím-a-ta*
-
- wisdom-F.PRED-F.COP2

(The horse advises the hare: It is good to have friends.) 'But being able to save oneself from trouble is wise(r).' (*Kambaata Education Bureau 1989*: 3.118f)

sumption. Fresh or dried leaves, midribs and leaf sheaths as well as the fibers extracted from the plant serve to produce household utensils and packaging material.

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3.3 Self-intensifying constructions

As in many languages of the world (see, among others, König et al. 2013; König & Siemund 2000; Gast & Siemund 2006), the reflexive noun *gag-á* is also used as a self-intensifier. The description in this section is preliminary, as the diverse non-reflexive functions of *gag-á* are not yet well understood and still require further investigation. However, my corpus clearly shows that *gag-á* has self-intensifying functions when used adnominally (in apposition to a preceding noun phrase) or on its own as an argument or adverbial adjunct. In the typological literature (König & Siemund 2000; Gast 2002; Gast & Siemund 2006), the adnominal use of self-intensifiers is associated with an alternative-evoking function (roughly paraphrasable as ‘no one other than N’, ‘as opposed to others related to N’), whereas two functions linked to the adverbial use are labeled “adverbial-exclusive” or “actor-oriented” (‘on one’s own, alone, without help’) and “adverbial-inclusive” or “additive” (‘also, too’). However, in Kambaata, no correlation between syntactic position and meaning can be observed.¹¹

In (39), *gag-á* is used in apposition to a subject noun with which it shares case and gender values. The central referent, *Kambáat-u* ‘Kambaata people’, is opposed to the contextually given foreign, non-native speaker of the Kambaata language.

- (39) (...) *Kambáat-u gag-u<n>ku-s*
 Kambaata-M.NOM self-M.NOM<EMP>-3M.POSS
 haasaaww-anó=hanni=g-a *ass-ámm*
 speak-3M.IPFV.REL=NMZ2.M.GEN=SIM-M.ACC do-PASS.3M.PFV.CV
 hiir-ámm-ee'i-i *ih-u*
 translate-PASS-3M.PRF.REL-NMZ1.M.NOM become-M.NOM
 hasis-áno-a
 be.necessary-3M.IPFV.REL-M.COP2

(Context: We didn’t want that the dialogues in the book sounded as if they were spoken by a foreigner.) ‘(The book) had to be translated in a way (that it sounded) as if Kambaata people themselves would speak.’
 [Book launch speech, DW2018-03-12]

¹¹The following examples may give the (wrong) impression that the appositional use correlates with the alternative-evoking function and the non-appositional use with the “exclusive” and “inclusive” functions. This is, however, not the case, as other examples in my data show. Also note that – although all self-intensifiers in (39)-(41) are (parts of) subjects – alternative-evoking and “inclusive” self-intensifiers are also attested as direct objects, indirect objects, and predicates.

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In (40), the self-intensifying *gag-á* expresses that the (male) addressee does not delegate or seek assistance but carries out the action himself.¹² The example illustrates the so-called “adverbial-exclusive” function. The typological label is hardly suitable for Kambaata, as the self-intensifier is not used adverbially in (40) but is the subject of the main clause.¹³

- (40) (...) át *harde'-oom-áan* *yoontí* *j-áata* *qabatt-óon*
 2SG.NOM youngsters-STAT-F.LOC COP1.2SG.REL time-F.ACC belt-F.ICP
gág-u-kki-n *qo'rr-ít*
 self-M.NOM-2SG.POSS-EMP gird.MID-2SG.PFV.CV
has-soontí=b-a *mar-táant ikke*
 want-2SG.PFV.REL=PLC-M.ACC go-2SG.IPFV PAST
 (John 21:18) ‘When you were in your youth you dressed yourself and went where you wanted.’ (Following context: But when you are old you will stretch out your hands, and someone else will dress you and lead you where you do not want to go.) (**Kambaata and Hadiyya Translation Project Hosaina 2005**: 95)

The third self-intensifying function, the so-called “adverbial-inclusive” function, is exemplified in (41). Again, the self-intensifier is not used adverbially in Kambaata but on its own as the subject.

- (41) (...) *hamiil-agúd-aa* *bonx-ichch-í* *al-éen* *qakkíchch-ut*
 cabbage-seem-M.OBL leaf-SGV-M.GEN top-M.LOC tiny.SGV-F.NOM
gaaroríin-ch-ut *afuu'll-ítee'; gág-u<n>ku-se-n*
 chameleon-SGV-F.NOM sit-3F.PRF self-M.NOM<EMP>-3F.POSS-EMP
hamiil-agud-áta *agud-dáyyoo'u*
 cabbage-seem-F.ACC seem-3F.PROG
 (The chameleon, which we, which I see here now,) the tiny chameleon sits on a cabbage-colored leaf; (and) she, too (lit. herself), seems cabbage-colored.’ [Narrative, TD2016-02-11_001]

One and the same clause can contain two forms of *gag-á*, one in reflexive and the other in self-intensifying use, as seen in (42). The genitive form *gag-i-kkí* (lit.) ‘your self’s’ indicates coreference between the 2SG subject and the possessor, the nominative form *gág-u-kk* stressed that the addressee has to enforce their rights on their own.

¹²See also (42).

¹³Note, however, that ‘on one’s own’ could, alternatively, be expressed by the ICP-marked form of ‘self’, i.e. *gag-iin*-poss ‘by, with, through oneself’, in adverbial function.

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- (42) Periphrasis of a proverb

Gag-i-kkí gar-ítá gág-u-kk aphph-ii
 self-M.GEN-2SG.POSS right-F.ACC self-M.NOM-2SG.POSS grab.MID-M.DAT
aphphám-i
 struggle-2SG.IMP

‘Enforce (lit. struggle to grab) your own rights yourself!’ (i.e. Nobody grants them to you.) (Alamu Banta & Alamaayyo G/Tsiyoon 2017: 138)

Self-intensifying functions constitute only a subset of the non-reflexive uses of *gag-á*. The corpus also shows it in contexts such as (43), in which *gag-á* does not lend itself to a self-intensifying interpretation. With respect to (43), a native speaker I consulted considered it interchangeable with a free personal pronoun (§2.1), which here would be *isso'ootí-i* 3PL.NOM-ADD.¹⁴

- (43) (...) *gag-u-ssá-a ammóo ma'nn-ítá*
 self-M.NOM-3PL.POSS-ADD and place-F.ACC
af-fúmb-u-a=rr-a (...)
 take-3F.NEG5-M.PRED-M.COP2=NMZ4-M.PRED

(Context: They had only one ring of petals,) and they (lit. themselves) took up no room (...).’ (Saint-Exupéry 2018: 30)

4 Middle derivation

Kambaata verb roots end in a single consonant or a consonant cluster.¹⁵ The root can be followed by one or several word-class maintaining or word-class changing derivational morphemes, which in turn are followed by inflectional morphemes. The most productive derivational categories on verbs are causative, passive, middle and reciprocal. Kambaata has a short (or simple) causative -(i)s (CAUS1) and a long (or double) causative -(i)siis (CAUS2). Their distribution is partly determined by the valency of the base, but is also partly lexicalized (and thus not predictable). The passive is marked by -am, e.g. *shol-* ‘cook’ > *shol-am-* ‘be cooked’, *biix-* ‘break (tr.)’ > *biix-am-* ‘be broken, break (intr.)’. Kambaata only has one labile verb: *gid-* ‘be(come) non-tactile cold; make (someone) feel non-tactile cold’.

¹⁴Note also that in a synonym matching exercise in a schoolbook, *gág-u-nne* (self-M.NOM-1PL.POSS) ‘ourselves’ has to be paired with the personal pronoun *ná'oot* (1PL.NOM) ‘we’ (Kambaata Education Bureau 1989: 4.122).

¹⁵Only a single verb root ends in a vowel: *re-* ‘die’. If the root is followed by a vowel-initial morpheme, *h* is inserted to avoid a vowel sequence.

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The middle is realized by two predominately phonologically conditioned allomorphs: *-aqq* /ak':/ and –’/?/. The first allomorph is used on verb stems ending in a consonant cluster, e.g. *iyy-* ‘carry’ > MID: *iyy-aqq-* ‘carry for one’s benefit, endure’, *quss-* ‘rub’ > *quss-aqq-* ‘rub oneself’, or on stems ending in an ejective consonant, e.g. *x* /t’/ in *maax-* ‘hide’ > *maax-aqq-* ‘hide for/in oneself’. The second allomorph is suffixed to stems that end in a sonorant, that in turn triggers metathesis to satisfy the phonotactic constraints of Kambaata, see e.g. *mur-* ‘cut’ > *mu’rr-/mu?r-* /‘cut oneself’, *fan-* ‘open’ > *fa’nn-/fa?n-* /‘open for one’s benefit’. Stems ending in a single obstruent can either be marked as middle with *-aqq*, e.g. *xuud-* ‘see’ > *xuud-aqq-* ‘see, consider oneself’, or with the second allomorph. In the latter case, the sequence of an obstruent plus a glottal stop is realized as a geminate ejective consonant, e.g. /g+?/ = /k':/ in *dag-* ‘know, find’ > *daqq-* ‘know, find for one’s benefit’ and /f+?/ = /p':/ in *huf-* ‘comb’ > *hupph-* ‘comb oneself’. The choice of the first or second allomorph after single obstruents seems partly lexically determined, partly a case of free variation.

The middle does not reduce the valency of the verb. It has three discernibly different functions, the expression of autobenefactivity (§4.1), reflexivity (§4.2) and emotional involvement of the speaker (§4.3). The middle is also part of the reciprocal derivation (§4.4).

4.1 Autobenefactive

As in all East Cushitic languages (cf. Mous 2004), the most productive interpretation of the middle marker in Kambaata is to express that the subject of the clause is the beneficiary of the event expressed by the verb. There are apparently no semantic restrictions on the verbs that can be used with an autobenefactive middle marker. In (44) the autobenefactive middle morpheme is on the verb *laa’ll-* ‘search and call (for a missing animal)’, in (45) on the verb *xa’mm-* ‘ask’, and in (46) on the verbs *ass-* ‘do’ (irregular middle form: *eecc-*) and *min-* ‘build’.

- (44) *Laa’ll-aqq-ayyoo’í-i xuud-eemma=dá-a*
 search.call-MID-3M.PROG.REL-NMZ1.M.ACC see-3HON.PFV.REL=COND-ADD
m-á y-éen maassa’-éenno-la?
 what-M.ACC say-3HON.PFV.CV bless-3HON.IPFV-MIT
- ‘And if one comes across (lit. sees) someone who is searching and calling (for a missing animal) for his/her own benefit, what does one say to bless (him/her)?’ [Conversation on blessings, AN2016-02-19_002]

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- (45) *Mát-u qabaaxxáam-u adab-óohu qabaaxxáam-oa< n>ka*
 one-M.NOM rich-M.NOM boy-M.NOM rich-M.OBL<EMP>
manch-í min-í márr-ee'u, beet-úta
 person.SGV-M.GEN house-M.GEN go-3M.PRF daughter-F.ACC
xa'mm-aqq-óta
 ask-MID-3M.PURP.SS

‘A rich young man (lit. boy) went to a rich man’s house in order to ask for the daughter for his own benefit.’ [Narrative, EK2016-02-12_003]

- (46) *Gizz-á hoolam-á ir-á xáaz-z*
 money-M.ACC much-M.ACC time-M.ACC gather-3F.PFV.CV
qú'mm=eecc-ít min-í mi'nn-itóo'u
 gather=do.MID-3F.PFV.CV house-M.ACC build.MID-3F.PFV

‘After having saved money for many years, they could build a house for their own benefit.’ [Elicited, DW2020-01-24]

The autobenefactive function of the middle derivation could, in principle, also be analyzed as a subtype of the reflexivizing function, namely as one indicating coreference of the subject and a dative beneficiary adjunct.

4.2 Reflexive

In (4), the middle derivation was shown to be able to mark on its own that the subject and the direct (accusative) object are coreferential; another example is given in (47). Overall, however, examples of this type seem to be rare. There are no clear cases in which the middle derivation alone marks coreference of the subject and a participant other than the direct object (if we exclude the beneficiary adjunct of §4.1). And even in prototypical reflexive situations, as in (4) and (47), the middle morpheme is often not the only reflexivizer but rather an additional reflexivizing device besides the reflexive noun, as elaborated on at the end of this section).

- (47) *Sull-aqq-ée'u*
 choke.with.rope-MID-3M.PFV

(Speaking about the actual cause of someone’s death whom the addressee thought to have died from an illness) ‘He hung himself.’ [Elicited, DW2020-01-24]

In contrast, we commonly find the middle morpheme on verbs of grooming and bodily care in Kambaata. Grooming and bodily care is typically self-directed,

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so the coreference of the carer and the cared is expected, and in many languages of the world, this coreference relations remains unmarked or marked by shorter morphemes if compared to the marking of prototypical reflexive situations (cf. Kemmer 1994). In Kambaata, with verbs of grooming and bodily care, reflexivity cannot be doubly expressed by a middle morpheme and a reflexive noun. If the noun *gag-á* ‘self’ is used with such verbs, it does not have a reflexive but a self-intensifying meaning; recall the self-intensifier with the verb *qo'rr-* ‘gird’ in (40).

Sometimes the root from which a middle verb was derived is not, or is no longer, attested in the language, and the middle verb forms a pair with a causative verb (Table 4). Here the speaker is bound to overtly express whether the action is carried out by the subject on him- or herself, or on someone else.

Table 4: Grooming verbs (middle vs. causative stem)

Root		Derivative	Translation
<i>*aal-</i>	MID	<i>aa'll-</i> (48)	‘wash (oneself)’
	CAUS1	<i>aansh-</i>	‘wash (something/someone)’
<i>*odd-</i>	MID	<i>odd-aqq-</i> (48)	‘wear, put on (one’s clothes)’
	CAUS1	<i>odd-iis-</i>	‘have (someone) wear, put on (clothes)’
<i>*gunguul-</i>	MID	<i>gunguu'll-</i>	‘cover one’s head’
	CAUS1	<i>gunguushsh-</i>	‘cover someone’s head’
<i>*qor-</i>	MID	<i>qo'rr-</i> (40)	‘gird, put on (belt, skirt, trousers)’
	CAUS2	<i>qor-siis-</i>	‘have (someone) gird, put on (belt, skirt, trousers)’

- (48) *Bór-a gassim-á xóqq=y-ít miin-í-se*
 PN-F.NOM morning-M.ACC get.up=say-3F.PFV.CV face-F.ACC-3F.POSS
aa'll-ít odd-aqq-ít hupphph-ít
 wash.MID-3F.PFV.CV put.on-MID-3F.PFV.CV comb.MID-3F.PFV.CV
xaaloot-á mar-tóo'u
 church-M.ACC go-3F.PFV
 ‘Bora got up in the morning, washed her face, got dressed, combed her hair and went to church.’ [Elicited, DW2020-01-24]

The middle verbs in Table 5 are based on a verb root that usually¹⁶ expresses that an action of bodily care is carried out on a person that is non-coreferential

¹⁶In the corpus we also find some rare examples in which the unextended verb root is used even if the target of bodily care is the subject itself.

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with the subject. In contrast, the middle-derived form can only be interpreted as expressing coreference between the subject and the patient of bodily care. The clothes that are put on and the body parts that are the targets of bodily care can be overtly expressed as accusative objects, irrespective of whether the middle verb is of the type given in Table 4 or in Table 5; see, e.g., *miin-í-se* ‘her face’ in (48).

Table 5: Grooming verbs (root vs. middle stem)

Root	Translation	Middle	Translation
<i>buur-</i>	'butter, anoint (s.o.)'	<i>buu'rr-</i>	'butter, anoint (oneself)'
<i>dad-</i>	'braid, plait (s.o.'s hair)'	<i>daxx-</i>	'braid, plait (one's own hair)'
<i>huf-</i>	'comb (s.o.'s hair)'	<i>huphph-</i>	'comb (one's own hair)' (48)
<i>meed-</i>	'shave (s.o.)'	<i>meexx-</i>	'shave (oneself)'
<i>miiq-</i>	'brush (s.o.'s) teeth'	<i>miiq-aqq-</i>	'brush (one's own) teeth'
<i>xaax-</i>	'wrap, tie around, have (s.o.) wear (e.g. a scarf)'	<i>xaax-aqq-</i>	'wrap, tie around (oneself), wear (e.g. a scarf)'

In cases of non-default coreference of subject and direct object (in the prototypical reflexive situation), it is common to find two reflexivizers, the reflexive noun and the middle derivation, in the same clause, as we saw in (5) and is further illustrated in (49)-(50). The reflexive noun seems to be the primary reflexivizer and the middle derivation an addition. The native speaker I consulted was reluctant to omit the reflexive nouns in (50) and preferred the combination of the nominal and verbal reflexivizer. (An autobenefactive interpretation of the middle derivation in (50) can be excluded.)

- (49) *Gag-á-*' *egexx-íi* *dand-áam-ba'a*
 self-M.ACC-1SG.POSS hold.up.MID-M.DAT be.able-1SG.IPFV-NEG1
 'I cannot contain myself' (Saint-Exupéry 2018: 37)

(50) *Jáal-a-*' *gag-á-se* *abbís-s*
 friend-F.NOM-1SG.POSS self-M.ACC-3F.POSS exceed.CAUS1-3F.PFV.CV
qac-úta *lókk-a-se* *ammóo cílu=at-tumb-úúta*
 thin-F.ACC leg-F.NOM-3F.POSS and beautiful=do-3F.NEG5-NMZ1.F.ACC
ass-ít *xuud-aqq-ít* *gag-á-se*
 do-3F.PFV.CV see-MID-3F.PFV.CV self-M.ACC-3F.POSS

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- shigíg=eecc-ít bá'-ee-taa*
 repel=do.MID-3F.PFV.CV do.very.much-3F.PRF.REL-F.COP2
 'My friend considers herself too thin and her legs ugly, she hates herself deeply.' [Elicited, DW2020-01-24]

4.3 Emotional involvement

The middle derivation has also acquired an intersubjective meaning and expresses the emotional involvement of the speaker – and not the subject – in a state-of-affairs. The three functions of the middle derivation – reflexive, autobenefactive and emotive – are contrasted in (51)–(53), which all contain the verb *aass-* ‘give’. In (51), the subject and the indirect object, the recipient of ‘give’, are coreferential. In (52), the subject is the beneficiary of a gift (or rather a bribe), but not the recipient. In (53), the speaker is emotionally touched by the event that he observes.

- (51) Reflexive
Gag-iiha-n-se abb-áta ma'nn-íta aass-aqq-itóo'u
 self-M.DAT-L-3F.POSS big-F.ACC place-F.ACC give-MID-3F.PFV
 'She attributed (lit. gave) an important place to herself.' [Elicited, DW2020-01-24]
- (52) Autobenefactive
Dáann-u isii fird-unta-s gizz-á
 judge-M.NOM 3M.DAT judge-3M.PURP.DS-3M.OBJ money-M.ACC
aass-aqq-ée'u
 give-MID-3M.PFV
 'So that the judge would decide for him_i, he_i gave (the judge) money for his_i own benefit.' [Elicited, DW2020-01-24]
- (53) Emotive
Ább-u mánn-u aass-áni-yan xúujj
 big-M.NOM people-M.NOM give-3M.IPFV.CV-DS see.3M.PFV.CV
cíil-uhú-u m-á-ndo aass-aqq-ée'u
 infant-M.NOM-ADD what-M.ACC-Q give-MID-3M.PFV
 '(How amazing! How moving!) 'The little child saw adults give something, e.g. to the guests), then he also gave something (to them).' [Elicited, DW2020-01-24]

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4.4 Reciprocity

A sequence of a middle and a passive morpheme regularly gives rise to a reciprocal, e.g. *gomb-* ‘push’ > *gomb-aqq-am-* ‘push each other’, *dag-* ‘find’ > (**dag-?*-am->) *daqq-am-* ‘meet (lit. find each other)’ (25), *mazees-* ‘injure’ > (**mazees-?*-am->) *mazeecc-am-* ‘injure each other’, *y-* ‘say’ > *y-aqq-am-* ‘say to each other’ (54).

- (54) *Āā, āā, kúun y-aqq-am-móommi-a bár-i*
 yes yes P_DEM1.M.NOM say-MID-PASS-1PL.PFV.REL-M.COP2 day-M.PRED
 ‘Yes, yes, it is the day we agreed on (lit. we said to each other).’
 (Saint-Exupéry 2018: 83)

5 Conclusion

Kambaata has a nominal and a verbal reflexivizer, both of which are multifunctional and also used in non-reflexive functions.

The reflexive noun *gag-á* ‘self’, which regularly combines with a possessive suffix, is primarily used to signal that the direct, indirect or oblique object is coreferential with the subject of the same clause. If the reflexive noun were replaced by a free personal pronoun or a bound object pronoun on the verb, the subject and these object pronouns would necessarily be considered referentially disjoint. While the reflexive noun most commonly expresses a coreference relation between arguments of a minimal clause (§3.2.1, §3.2.2), I have also presented evidence that the antecedent of *gag-á* ‘self’ can be found outside this restricted syntactic domain. Examples in which the reflexive noun in an infinite or finite subordinate clause is coreferential with the subject of the matrix clause justify the analysis of *gag-á* ‘self’ as a long-distance reflexive (§3.2.3).

Whereas a non-reflexive (in)direct or oblique object pronoun rules out a coreference relation with the subject NP, an adnominal possessor of a non-subject noun phrase can be interpreted in two ways: as coreferential or non-coreferential with the subject. In the adposessive domain, the reflexive noun serves to signal coreference explicitly and thus has a disambiguating function. As shown in §3.2.4, the antecedent of the adnominal reflexive noun is not necessarily the subject of the clause but may also be another participant, even in a subordinate clause.

Apart from having a reflexive function, the noun *gag-á* ‘self’ is also used as a self-intensifier (§3.3).

The middle derivation *-aqq / -* can serve as a reflexivizer in prototypical reflexive situations, i.e. situations in which coreference between arguments is unexpected. It can only signal coreference between the subject and a direct (ac-

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cusative) object - but even in this context it is rarely the only reflexivizing means in its clause. Instead it often cooccurs with a reflexive noun (§4.2). In less typical reflexive situations in which subject-object coreference (self-affectedness of the subject) is the default, as in the case of grooming and bodily care, the middle morpheme is used as the sole marker of coreference. If the noun *gag-á* ‘self’ occurs in the clause of grooming and bodily care verbs, it necessarily has a self-intensifying function. As in related East Cushitic languages, the most productive synchronic function of the middle derivation is the expression of autobenefactivity (§4.1). In Kambaata; it has furthermore adopted an intersubjective interpretation (§4.3).

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Abbreviations

A_DEM	adjectival demonstrative	MIT	mitigator
ABL	ablative	MULT	multiplicative
ACC	accusative	NEG	negation
ADD	additive	NMZ	nominalizer
AG	agentive	NOM	nominative
BDV	benedictive	OBJ	object
CAUS	causative	OBL	oblique
COND	conditional	P_DEM	pronominal demonstrative
COP	copula	PL	plural
CRD	coordinative	PFV	perfective
CV	converb	PLC	place nominalizer
DAT	dative	PLV	plurative
DEF	definite	PN	proper noun
DISJ	disjunctor	POSS	possessive
DS	different subject	PRED	predicative
EMP	emphasis	PRF	perfect
F	feminine	PROG	progressive
GEN	genitive	PST	past
HEC	Highland East Cushitic	PURP	purposive
HON	honorific, impersonal	Q	question
ICP	instrumental-comitative-perrelative	REAS	reason clause marker
IDEO	ideophone	RED	reduplication
IMP	imperative	REL	relative
IPFV	imperfective	SEQ	sequential
L	linker	SG	singular
LOC	locative	SGV	singulative
M	masculine	SIM	similative, manner
MID	middle	SS	same subject
		STAT	status noun derivation

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Chapter 6

Reflexive constructions in Luganda

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This chapter describes the reflexive construction in Luganda, a Great Lakes Bantu language spoken in Uganda. The reflexive construction in Luganda is formed with the invariable reflexivizer *ee-*, a verbal prefix immediately preceding the stem, which can be reconstructed to Proto-Bantu. There are no reflexive pronouns in Luganda. The prefix is obligatorily used to express coreference between the subject and the patient object in transitive verbs and there is no difference between introverted and extroverted verbs. The reflexivizer is also employed in case of coreference between an applied beneficiary and the subject. Apart from morphologically and semantically transparent reflexive constructions, Luganda also has a considerable number of fossilized reflexive verbs.

1 Introduction

Luganda (or Ganda) is a Bantu language. It belongs to the West Nyanza branch of the Great Lakes Bantu languages of the East Bantu branch (on genealogical classification see [Schoenbrun 1994](#); [Schoenbrun 1997](#)). It is spoken by the Baganda people in a wide area of Uganda including the capital, Kampala (see Figure 1)¹. As of 2014, 5.56 mil. of Ugandans identified themselves as being ethnically Baganda

¹The map is credit to © OpenStreetMap contributors (<https://www.openstreetmap.org/copyright>) and glottolog.



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(Uganda Bureau of Statistics 2016). In addition to English, Luganda is also used as lingua franca across Uganda (Isingoma & Meierkord 2016, Namyalo et al. 2016).

Figure 1: Luganda on a map of Uganda

The basic word order of Luganda is SVO, as is the case for the vast majority of Bantu languages, however, information structure considerations motivate various deviations from this basic word order (see e.g. Downing & Marten 2019). Nominal and verbal inflectional morphology is primarily prefixing. Nominal morphology is characterized by a system of noun class prefixes. Each noun in singular and plural belongs to one of the 23 noun classes. The noun classes are numbered from 1 to 23 corresponding to the reconstructed Proto-Bantu noun classes (see e.g. Van de Velde 2019: 237–239). The nominal prefixes on the nouns are not segmented in the examples, the gloss indicates the inherent noun class in round brackets after the respective noun gloss. For instance, we do not segment the class 2 prefix *ba-* in *abakazi* ‘women’ in (1a) but we indicated that this noun belongs to noun class 2 in the gloss ‘women(2)’. Luganda nouns regularly carry an augment, also known as pre-prefix or initial vowel (see e.g. Van de Velde 2019: 247–255). The augment appears before the noun class prefix and has the forms *a-*, *o-*, or *e-*, e.g. *a-ba-kazi* (AUG-2-woman) ‘women’ in (1a). The augment is neither segmented nor glossed in the examples in this paper. The noun class determines the shape of the agreement prefixes on dependents in a noun phrase, on the verb, as well as on a number of other constituents of the clause. We indicate the noun class agreement prefixes on dependents by segmenting them and providing the respective class number in Arabic numerals, as in the case of the subject prefix *ba-* ‘2SBj’ on the verb *ba-n-walan-a* (2SBj-1SG.OBJ-hate-FV) in (1a). Most examples have class 1 or 2 subject agreement prefixes on the verb which index human singular and plural referents respectively. We also use Arabic numerals to indicate person indexing on the verb, as well as person information on pronouns. Note that in this case the Arabic numerals are always followed by the indication of number (SG or PL), for instance, *n-* (1SG.OBJ) in (1a). Verbs have multiple slots for inflectional morphology. Prefixes express such inflectional categories as negation, tense and aspect, as well as argument indexing (subject and optionally one or more objects). Suffixes express most voice categories, such as the causative and applicative, as well some other inflectional categories, such as aspect, and mood.

Luganda is a tone language and the tone of the reflexive prefix is reported

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to have different properties than the tone of object prefixes in many Bantu languages (e.g. Marlo 2015a), including closely related ones, such as Nkore (Poletto 1998), but it goes beyond the scope of this paper to consider the tonal properties of the Luganda reflexive prefix. Tone is not marked in the standard orthography and we omit it from the examples.

The data used in the present study comes primarily from elicitations with two native speakers carried out in 2019–2020. They were supplemented with authentic examples from a corpus of naturalistic spoken language (over 50,000 words collected in 2019 in Kampala) and written language (over 200,000 words). Each example is indicated as coming from one of these sources with the labels ‘elicited’, ‘spoken’ and ‘written’.

2 The reflexive prefix *ee-* and its basic uses

Luganda does not have reflexive pronouns. The Luganda reflexive prefix *éé-* (*ee-* in the rest of the paper) is used independently of the person or noun class of the subject. It derives from the common Bantu reflexive marker, reconstructed in Proto-Bantu as *-(*j*)*i*- (Meeussen 1967: 109–110). The reflexive marker is a prefix and immediately precedes the verb stem. Its position thus differs from all other Luganda affixes used to express the grammatical category of voice (often called *extensions* in Bantu literature), such as applicative, causative, passive and reciprocal, which are suffixes (see e.g. Schadeberg & Bostoen 2019: 173).

The reflexive prefix *ee-* is obligatorily used when the patient argument of a transitive verb is coreferential with its agent argument in the subject function. The examples in (1a) and (1b) have non-coreferential agents and patients. In (1a) the pronominal patient is expressed by the pronominal index *n-* (1SG.SBJ) in the object slot, whereas in (1b) the nominal patient is expressed by the noun *abalokole* ‘born-again Christians’ following the verb. The examples in (2) have coreferential agents and patients and employ the prefix *ee-* in the object slot of the verb. As these examples illustrate, the same prefix is used with various person and number categories. Examples in (3) support this point by providing an illustration with a different verb.

- (1) a. *Abakazi bampalana.*
 abakazi ba-n-walan-a
 women(2) 2SBJ-1SG.OBJ-hate-FV
 ‘Women hate me.’ [written]

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- b. *Muwalana abalokole.*
mu-walan-a abalokole
1SBJ-hate-FV born_again(2)
'He hates born-again Christians.' [spoken]
- (2) a. *Neewalana.*
n-ee-walan-a
1SG.SBJ-REFL-hate-FV
'I hate myself.' [elicited]
- b. *Weewalana.*
o-ee-walan-a
2SG.SBJ-REFL-hate-FV
'You hate yourself.' [elicited]
- c. *Mukwano gwange yeewalana.*
mukwano gw-ange a-ee-walan-a
friend(1) 1SBJ-1SG.POSS 1SBJ-REFL-hate-FV
'My friend hates himself/herself.' [elicited]
- d. *Tweewalana.*
tu-ee-walan-a
1PL.SBJ-REFL-hate-FV
'We hate ourselves.' [elicited]
- e. *Mweewalana.*
mu-ee-walan-a
2PL.SBJ-REFL-hate-FV
'You hate yourselves.' [elicited]
- f. *Beewalana.*
ba-ee-walan-a
2SBJ-REFL-hate-FV
'They hate themselves.' [elicited]
- (3) a. *Neerabye mu ndabirwamu.*
n-ee-labye mu ndabirwamu
1SG.SBJ-REFL-see.PFV 18.LOC mirror(9)
'I saw myself in the mirror.' [elicited]

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- b. *John yeerabye mu ndabirwamu.*
 John a-a-ee-labye mu ndabirwamu
 John(1) 1SBJ-PST-REFL-see.PFV 18.LOC mirror(9)
 'John saw himself in the mirror.' [elicited]

Following Haiman (1985); König & Vezzosi (2004) we distinguish between introverted verbs, which denote an action typically performed on oneself, such as grooming verbs, and extroverted verbs, which denote an action typically performed on others. The Luganda construction with the reflexive prefix *ee-* is used to express autopathic situations with a wide range of extroverted verbs including 'hate' in (2) above, 'see' in (3), 'kill' in (4), 'bite' in (5), 'criticize' in (6), and 'praise' in (7).

- (4) *Omusajja yetta.*
 omusajja a-ee-tta-a
 man(1) 1SBJ-REFL-kill-FV
 'The man killed himself.' [elicited]
- (5) *Embwa yeeruma.*
 embwa e-a-ee-rum-a
 dog(9) 9SBJ-PST-REFL-bite-FV
 'The dog bit itself.' [elicited]
- (6) *Peter yeekolokota.*
 Peter a-ee-kolokot-a
 Peter(1) 1SBJ-REFL-critisize-FV
 'Peter criticizes himself.' [elicited]
- (7) *Ssaalongo atandika okwewaana nga bwali ssemaka.*
 ssaalongo a-tandik-a oku-ee-waan-a nga bu-a-li
 husband(1) 1SBJ-start-FV INF-REFL-praise-FV how 14SBJ-PST-COP
 ssemaka
 head_of_household(1)
 'The husband starts to praise himself for being the head of the family.'
 [written]

Introverted actions are expressed either by intransitive verbs or transitive verbs with a reflexive prefix. A few intransitive grooming verbs denote situations where

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the agent and the patient of an action have the same referent. These are *naaba* ‘wash (oneself), clean up, bathe’, as in (8a), and *yambala* ‘dress, get dressed’, as in (8b).

- (8) a. *Yabadde afulumye okunaaba.*
a-a-badde a-fulumye okunaaba
1SBJ-PST-AUX 1SBJ-go_out.PFV INF-bathe-FV
'She had gone outside to bathe.' [written]
- b. *Omukyala anyirira ayambala bulungi.*
omukyala a-nyirir-a a-yambal-a bulungi
wife(1) 1SBJ-look_good-FV 1SBJ-dress-FV nicely
'The wife looks good, she dresses nicely.' [spoken]

To express other introverted actions, transitive verbs with the reflexive prefix are employed. These include the reflexive *ee-yambula* ‘to undress (oneself)’ derived from the transitive *yambula* ‘undress (somebody), take off (a piece of garment)’, the reflexive *ee-mwa* ‘shave (oneself)’, as in (9a), derived from the transitive *mwa* ‘shave (somebody or something)’, the reflexive *ee-sanirira* ‘comb (one’s hair)’, as in (10a), derived from the transitive *sanirira* ‘comb (e.g. hair)’, as well as *ee-naaz-a* ‘wash (oneself)’ in (9b), which is the reflexive of the transitive causative verb *naaza* derived from the intransitive verb *naaba* ‘wash (oneself)’, illustrated above in (8a).

- (9) a. *Yeemwa.*
a-a-ee-mwa-a
1SBJ-PST-REFL-shave-FV
'He shaved (himself).' [elicited]
- b. *Embwa yali yeenaza.*
embwa e-a-li e-ee-naaz-a
dog(9) 9SBJ-PST.be 9SBJ-REFL-wash.CAUS-FV
'The dog was washing itself.' [elicited]

3 Contrast between body-part and whole-body actions

With most grooming verbs Luganda encodes whole-body actions (washing, bathing, getting a shave, scratching) using the reflexive construction outlined in §2, as in (10a), (11a), and (12a). Body-part actions (e.g. combing or shaving hair or scratching a body part) allow a range of constructions: a transitive construction

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with the respective body part expressed as the object, as in (10b), (11b), and (12b), a reflexive construction with a body-part expressed as an oblique and marked by the locative preposition (nominal class 18) *mu*, as in (11c), and a reflexive construction with a body-part expressed as an object, as in (11d) and (12c). The respective body parts in (11d) and (12c) retain at least some of the properties of the morpho-syntactic object: apart from not being flagged, they can be indexed on the verb when fronted, as in (11e).

- (10) a. *John yeesaniridde.*
John a-a-ee-saniridde
John(1) 1SBJ-PST-REFL-COMB.PFV
'John combed his hair (lit. combed himself).' [elicited]
- b. *John yasaniridde enviiri ze.*
John a-a-saniridde enviiri (ze)
John(1) 1SBJ-PST-COMB.PFV hair(10) 10.1POSS
'John combed his hair.' [elicited]
- (11) a. *Yeetakula.*
a-a-ee-takul-a
1SBJ-PST-REFL-SCRATCH-FV
'He scratched himself.' [elicited]
- b. *Yatakula omugongo (gwe).*
a-a-takul-a omugongo gwe
1SBJ-PST-SCRATCH-FV back(3) 3.1POSS
'He scratched his back.' [elicited]
- c. *Yeetakula mu mugongo.*
a-a-ee-takul-a mu mugongo
1SBJ-PST-REFL-SCRATCH-FV 18.LOC back(3)
'He scratched himself on the back.' [elicited]
- d. *Yeetakula omugongo.*
a-a-ee-takul-a omugongo
1SBJ-PST-REFL-SCRATCH-FV back(3)
'He scratched his back.' [elicited]
- e. *Omugongo agwetakula buli kiro.*
omugongo a-gu-ee-takul-a buli kiro
back(3) 1SBJ-3OBJ-REFL-SCRATCH-FV every night(7)
'He scratches his back every night.' [elicited]

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- (12) a. *Yeemwa.*
 a-a-ee-mwa-a
 1SBJ-PST-REFL-shave-FV
 ‘He shaved (himself).’ [elicited]
- b. *Abasajja baamwa ebirevu byabwe.*
 a-basajja ba-a-mw-a ebirevu bi-abwe
 men(2) 2SBJ-PST-shave-FV beards(8) 8-2POSS
 ‘The men shaved their beards.’ [elicited]
- c. *Abasajja beemwa ebirevu.*
 a-basajja ba-a-ee-mw-a ebirevu
 men(2) 2SBJ-PST-REFL-shave-FV beards(8)
 ‘The men shaved their beards.’ [elicited]

In contrast to the patterns outlined above, the intransitive verb *naaba* ‘wash (oneself), clean up, bathe’ illustrated in (8a) allows for only one way to express the relevant body part, viz. as an oblique phrase with the preposition *mu*, compare (13a) and (13b).

- (13) a. *Nanaaba.*
 n-a-naab-a
 1SG.SBJ-PST-bath-FV
 ‘I bathed/took a bath/washed myself.’ [elicited]
- b. *Nanaaba mu ngalo.*
 n-a-naab-a mu ngalo
 1SG.SBJ-PST-bath-FV 18.LOC 10.hands
 ‘I washed my hands.’ [elicited]

4 Coreference properties

This section discusses coreference properties of the reflexive construction. In §4.1 we discuss the coreference of the subject and various semantic roles. §4.2 discusses coreference between non-subject arguments.

4.1 Coreference of the subject with various semantic roles

In this section we discuss the marking of the coreference of the subject and various semantic roles. We first consider the coreference between the subject and the possessor, as well as spatial referent, which are not overtly indicated in Luganda.

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We then discuss the coreference of the subject with the recipient with lexical ditransitive verbs and with the beneficiary of applicative verbs, which both use the regular reflexive prefix *ee-*.

The coreference of the subject and of a possessor is not overtly indicated in Luganda: regular possessive pronouns are used and result in ambiguity between a coreferential reading and the reading with disjoint reference, as in (14). For instance, the example from the corpus in (14c) is open to multiple interpretations and only the context resolves the ambiguity: the house belongs to the official of the king.

- (14) a. *Yatwala manvuuli ye.*
 a-a-twal-a manvuuli ye
 1SBJ-PST-take-FV umbrella(9) 9.1POSS
 ‘He_i/she_j took his_{i/k}/her_{j/l} umbrella.’ [elicited]
- b. *John asoma ekitabo kye.*
 John a-som-a ekitabo kye
 John(1) 1SBJ-read-FV book(7) 7.1POSS
 ‘John_i reads his_{i/j}/her_j book.’ [elicited]
- c. *Omukungu wa Kabaka ali mu kattu oluvannyuma*
 omukungu wa Kabaka a-li mu kattu oluvannyuma
 official(1) 1.GEN king(1) 1SBJ-be 18.LOC dilemma(12) after
 lw’ omukazi omukadde okufira mu maka ge.
 lw’ omukazi omukadde oku-fiir-a mu maka ge
 11.GEN woman(1) old(1) INF-die-FV 18.LOC house(6) 6.1POSS
 ‘An official_i of the King is in dilemma after the death of an old lady_k
 in his_{i/j}/her_{k/l} house.’ [written]

The coreference of the subject and a spatial referent is not overtly coded either. Regular pronominal forms, such as the nominal class 1 pronoun *we* ‘he/she’ in (15), are used and the interpretation of their reference is determined by the context.

- (15) a. *Yalaba omusota wabbali we.*
 a-a-lab-a omusota wabbali we
 1SBJ-PST-see-FV snake(3) besides 1
 ‘She_i saw a snake beside her_{i/j}/him.’ [elicited]

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- b. *Yaleka* *emikululo emabega we.*
 a-a-lek-a emikululo emabega we
 1SBJ-PST-leave-FV traces(4) behind 1
 'She_i left traces behind her_{i/j}/him.' [elicited]

With ditransitive lexical verbs, both objects are not overtly flagged and can be indexed on the verb, as in (16). The first token of the verb *wa* 'give' indexes only the recipient, the theme is expressed by the noun *olukusa* 'permission(11)', whereas the second token of *wa* 'give' indexes both objects, in this case the theme prefix *lu-* '11OBJ' (indexing *olukusa* 'permission(11)') precedes the recipient prefix of noun class 1 *mu-* '1OBJ'. When the recipient is coreferential with the subject, the respective person index is replaced with the regular reflexive prefix *ee-*, as in (17). The theme can either be expressed by a noun phrase, e.g. *ekirabo* 'present(7)' in (17a), or by a theme index which precedes the reflexive prefix, as e.g. the class 7 prefix *ki-* in (17b).

- (16) [...] *ng'amuwadde olukusa oba talumuwadde.*
 nga a-mu-wadde olukusa oba ti-a-lu-mu-wadde
 when 1SBJ-1OBJ-give:PFV permission(11) or NEG-1SBJ-11OBJ-1OBJ-give:PFV
 '... whether he has given him a permission, or he has not given it to him.'
 [written]

- (17) a. *Omuwala yeewa ekirabo.*
 omuwala a-a-ee-w-a ekirabo
 girl(1) 1SBJ-PST-REFL-give-FV present(7)
 'The girl gave herself a present.' [elicited]
 b. *Omuwala yakyeewa.*
 omuwala a-a-ki-ee-w-a
 girl(1) 1SBJ-PST-7OBJ-REFL-give-FV
 'The girl gave it to herself.' [elicited]

Luganda has a productive applicative construction formed by the suffix *-ir* and its variants. One of its functions is to introduce a beneficiary of an action expressed by the verb into the clause, as is illustrated twice in (18). Prenominal beneficiaries are then expressed by the regular object prefixes on the verb, as e.g. class two object prefix *ba-* on the last verb in (18).

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- (18) *Nga mugogola enzizi, okuzimbira abakadde amayumba*
 nga mu-gogol-a enzizi oku-zimb-ir-a abakadde amayumba
 when 2PL.SBJ-clean-FV well(10) INF-build-APPL-FV elderly(2) houses(6)
n' okubalimirako.
 ne oku-ba-lim-ir-a=ko
 and INF-2OBJ-dig-APPL-FV=PART
 ‘You would clean the wells, constructing a house for the elderly and
 digging for them a bit.’ [written]

When the applied object is coreferential with the subject, the regular reflexive prefix replaces the object prefix to encode the beneficiary, as in the autobenefactive construction in (19).

- (19) a. *Yeegulira ekitabo.*
 a-a-ee-gul-ir-a ekitabo
 1SBJ-PST-REFL-buy-APPL-FV book(7)
 ‘She bought a book for herself.’ [elicited]
- b. *Omulenzi yeefumbira ekyeggulo.*
 omulenzi a-a-ee-fumbir-a ekyeggulo.
 boy(1) 1SBJ-PST-REFL-cook-APPL-FV dinner(7)
 ‘The boy cooked himself dinner.’ [elicited]
- c. *Beezimbira ennyumba.*
 ba-a-ee-zimb-ir-a ennyumba.
 2SBJ-PST-REFL-build-APPL-FV houses(10)
 ‘They built themselves houses.’ [elicited]
- d. *Bampa ekirala kya kuzannya nga*
 Ba-m-p-a eki-lala kya ku-zanny-a nga
 2SBJ-1SG.OBJ-give-FV 7-other 7.REL INF-act-FV as
neekwanira omulenzi.
 n-ee-kwan-ir-a omulenzi
 1SG.SBJ-REFL-seduce-APPL-FV boy(1)
 ‘I was given another role of seducing a boy for myself.’ [written]

4.2 Coreference between non-subject arguments

No dedicated means exist in Luganda to express the coreference between two non-subject participants of the same clause. Regular possessive pronouns are used both in cases of the coreference of the possessor with one of the referents

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in the clause but also in case when the possessor is not mentioned in the clause at all, as the various readings in (20) indicate.

- (20) *John yalaga Mary ekifaananyi kye.*
 John a-a-lag-a Mary ekifaananyi ki-e
 John(1) 1SBJ-PST-show-FV Mary(1) photo(7) 7-1POSS
 'John_i showed Mary_j a photo of himself_i/herself_j/him_k/her_l.' [elicited]

Attempts to obtain other cases of coreference between two non-subject participants following the questionnaire (JanicHaspelmath2020) resulted in construction with a relative clause, as in (21), and are ambiguous with third person referents, as the various readings of (21b) suggest.

- (21) a. *Yatubuulira ebitukwatako.*
 a-a-tu-buulir-a e-bi-tu-kwat-a=ko
 1SBJ-PST-1PL.OBJ-tell-FV REL-8SBJ-1PL.OBJ-concern-FV=17.LOC
 'She told us about ourselves.' [elicited]
- b. *Yagogera ne John ebimukwatako.*
 a-a-gog-era ne John e-bi-mu-kwat-a=ko
 1SBJ-PST-speak-APPL-FV COM John REL-8SBJ-1OBJ-concern-FV=17.LOC
 'He_i spoke with John_j about himself_{i/j}/him_k/her_l.' [elicited]

5 Contrast between exact and inclusive coreference

In this section we briefly outline the structural difference between constructions used for exact coreference and constructions employed for inclusive coreference. The exact coreference between the agent and the patient arguments is expressed by the use of the regular reflexive prefix *ee-*, as in many examples above, as well as in (22). In case of inclusive coreference, the verb also carries the reflexive prefix *ee-*. The patient argument coreferential with the agent can be optionally expressed overtly with a personal pronoun followed by the self-intensifier particle *kennyini* (see below). The non-coreferential patient is expressed by a prepositional phrase with the preposition *ne* 'with'. Furthermore, the adverb *wamu* 'together' can precede the prepositions phrase, compare (22a) and (22b).

- (22) a. *Yeekolokota.*
 a-a-kolokot-a
 1SBJ-PST-critisize-FV
 'He criticized himself.' [elicited]

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- b. *Yekolokota* (*ye kennyini*) (*wamu*) *n'* *abalala.*
 a-a-kolokot-a ye kennyini wamu ne abalala
 1SBJ-PST-critisize-FV 1 self together with others(2)
 ‘He criticized himself and the others.’ [elicited]

The self-intensifier particle *kennyini* used in (22b) or its agreeing forms (“emphatic pronoun” in Murphy (1972: 178, 439)² is otherwise used to emphasize the exclusive participation of the noun phrase it follows, as e.g. *omulwanyi kennyini* ‘the fighter himself’ in (23a) or *ffe kennyini* ‘we ourselves’ in (23b).

- (23) a. *Naye omulwanyi kennyini ye yasabye nti*
 naye omulwanyi kennyini ye yasabye nti
 but fighter(1) self 1 1SBJ-PST-ask:PFV QUOT
 tasobola *musajja.*
 ti-a-sobel-a musajja
 NEG-1SBJ-cope_with-FV man(1)
 ‘But it was the fighter himself who said that he can't defeat the man.’
 [written]
- b. *Eky' ennaku mu ffe kennyini*
 eky' ennaku mu ffe kennyini
 7.REL sadness(9) 18.LOC 1PL self(2)
 abaakukusanga *emmwaanyi,*
 a-ba-a-ku-kus-a-nga emmwaanyi
 REL-2SBJ-PST-PROG-smuggle-FV-HAB coffee berries(10)
 mwabeerangamu *bambega ba gavumenti.*
 mu-a-beer-a-nga=mu bambega ba gavumenti
 18BJ-PST-be:APPL-FV-HAB=18.LOC spies(2) 2.GEN government(9)
 ‘What is sad is that among us ourselves, the ones who smuggled
 coffee, there also used to be government spies.’ [written]

6 Long-distance coreference

No dedicated means are used to express coreference across clauses, compare (24a), where the agents of the two clauses have disjoint reference, with (24b), where the agents of the two clauses are coreferential.

²What conditions the use of agreeing vs. non-agreeing forms is a topic for further investigations.

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- (24) a. *Agambye nti batandikira Ggulu mu Septembe.*
 a-gambye nti ba-tandik-ir-a Ggulu mu September
 1sBJ-say:PFV QUOT 2sBJ-start-APPL-FV Ggulu(9) 18.LOC September(9)
 ‘He said that they start from Gulu in September.’ [written]
- b. *Ababaka baagambye nti bateekateeka*
 ababaka ba-a-gambye nti ba-teekateek-a
 representatives(2) 2sBJ-PST-say:PFV QUOT 2sBJ-arrange-FV
 okusisinkana Pulezidenti Museveni.
 oku-sisinkan-a Pulezidenti Museveni
 INF-meet-FV president(1) Museveni(1)
 ‘The representatives said that they are organizing to meet President
 Museveni.’ [written]

7 Specialized reflexive form in other functions

This section focuses on two functions of the specialized reflexive prefix *ee-*. We will first outline its use to express the reciprocal meaning (§7.1). We then briefly outline the impressive set of fossilized reflexives in Luganda (§7.2).

7.1 Reflexive-reciprocal polysemy

Apart from the functions outlined above, as in many other Bantu languages, the Luganda reflexive prefix is polysemous and can be used to express the reciprocal meaning (cf. the detailed study by Dom et al. 2016 of the polysemy of the Bantu reflexive marker, as well as other markers involved in the semantic domain of the middle, see also Polak 1983 and Marlo 2015b). Luganda has two dedicated reciprocal suffixes, viz. *-an* (called “associative” in the Bantu inventory of extensions, see Schadeberg & Bostoen 2019: 173) and *-agan*,³ both illustrated in (25). Of the two markers, *-agan* is more productive, though the exact conditions of the distribution of the two markers is a topic for future research (see also McPherson 2008: 44–45) . . .

³This is a historically complex suffix made up of the repetitive *-ag/-ang and associative *-an (Schadeberg & Bostoen 2019: 173, see also Dom et al. 2016 on the origin of the reciprocal suffix *-angan* in Cilubà). With monosyllabic roots and roots in /g/ the suffix is realized as *-ayyan*, see Ashton et al. (1954: 356).

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- (25) *Ffe mu kkanisa bwe tuba tugatta*
 ffe mu kkanisa bwe tu-ba tu-gatt-a
 we 18.LOC church(9) when 1PL.SBJ-AUX 1PL.SBJ-join-FV
abafumbo tubagamba baagalanganenga,
 abafumbo tu-ba-gamb-a ba-yagal-an-e-nnga
 married_couples(2) 1PL.SBJ-2OBJ-say-FV 2SBJ-love-RECP-SBJV-HAB
bakuumaganenga.
 ba-kuum-agan-e-nnga
 2SBJ-protect-RECP-SBJV-HAB

'As for us, when in church we are joining married couples, we tell them to love each other, protect each other.' [written]

In addition to the dedicated reciprocal markers, the reflexive prefix *ee-* is occasionally used to render the reciprocal meaning, as in (26).

- (26) a. *[B]atandise okwebba.*
 ba-tandise oku-ee-bb-a
 2SBJ-start.PFV INF-REFL-steal-FV
 '(Some Ugandans in South Africa have no job so) they started stealing from each other.' [written]
- b. *Twewalana.*
 tu-ee-walan-a
 1PL.SBJ-REFL-hate-FV
 'We hate each other/ourselves.' [elicited]

In some cases, the reflexive is used in combination with the fossilized reciprocal stems, as in (27) (see also Murphy 1972: 122).⁴ The functions and distribution of this construction remains a topic for further research.

- (27) *Bejjukanya.*
 ba-ee-jjukany-a
 2SBJ-REFL-remind.RECP.CAUS-FV
 'They remind each other.'

⁴ McPherson (2008: 46) reports that one of her consultants used the reflexive prefix *ee-* and the reciprocal suffix *-agan* productively with the same verbs. Such examples are found unacceptable by the speakers we consulted and we did not find a single attestation of such a combination in our corpus.

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7.2 Lexicalized reflexive verbs

The discussion in §2–§6 focused on the reflexive construction proper, i.e. on a grammatical construction with a special form (the reflexivizer *ee-*) employed when two participants of a clause are coreferential (as defined in Haspelmath, this volume), as well as on the use of *ee-* to express the reciprocal meaning (§7.1). However, when one considers the distribution of the reflexive prefix *ee-* in the corpus, these two constructions do not account for the most frequent types of constructions with the reflexive prefix *ee-*. What are then these other uses of the reflexive prefix *ee-*?

Geniušienė (1987: 31) makes a distinction between reversible reflexive verbs, which are usually in the focus of studies of reflexive vs. the less studied class of non-reversible reflexive verbs.⁵ The following criteria of reversibility are suggested by Geniušienė (1987: 145–148) to distinguish between the two: (1) morphological reversibility, i.e. a situation when a derived unit is formally related to a base word, morphological non-reversible are traditionally known as reflexiva tantum; (2) syntactic reversibility, viz. a change of reversible reflexive properties according to one of the regular patterns; (3) lexical reversibility, viz. the identity of lexical distribution relative to the corresponding syntactic positions in a non-reflexive construction and related reflexive construction; (4) semantic reversibility, viz. a regular, standard change of the meaning of a reflexive, semantic non-reversible reflexive verbs have the meaning which is related to that of the base non-reflexive way in some idiosyncratic way. We will first consider reflexiva tantum, and then we will proceed with what Goto & Say (2009) call “non-reversible reflexive verbs proper”, these are the verbs that are non-reversible according to one or often several of the criteria (2) to (4).

Reflexiva tantum and semantic non-reversible reflexive verbs proper are widespread in the Bantu languages (see Marlo 2015b for examples from a range of Bantu languages). Polak (1983) notes that this widespread pattern of reflexive lexicalization and fossilization may have already existed in Proto-Bantu. Ashton et al. (1954: 132–133) grammar of Luganda lists a small number of non-reversible reflexive verbs of various types, whereas a quick skim through Murphy (1972) yields hundreds of candidates.⁶

Luganda reflexive-tantum verbs include e.g. the intransitive *eedubika* ‘get stuck in the mud; be immersed’, and *eegoota* ‘walk with a stiff, erect or proud gait’, as well as transitive *eekeka* ‘suspect, beware of’, *eebagala* ‘mount, ride (an animal)’,

⁵This is originally Nedjalkov’s terms (1997: 10–15).

⁶Murphy (1972) also lists frequent non-lexicalized reflexives.

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and *eesigama* ‘lean on; rely on’.

Non-reversible reflexives have idiosyncratic relations to the corresponding non-reflexive verbs. An example for a Luganda semantic non-reversible reflexive verb is given in (28). The reflexive-tantum verb *eesiga* ‘trust, rely on’ has a formally non-reflexive counterpart *siga* ‘to sow, plant’.

- (28) *Basobola okukwesiga okukuwola?*
 ba-sobel-a oku-ku-eesig-a oku-ku-wol-a
 2SBJ-can-FV INF-2SG.OBJ-trust(REFL)-FV INF-2SG.OBJ-lend-FV
 ‘Can they trust you and lend you (money)?’ [written]

Some non-reversible reflexives are semantically nearly identical with their non-reflexive counterparts and thus do not follow the standard change of the meaning of a reflexive, as e.g. *gaana* (29a) and *eegana* (29b): they both mean ‘reject, refuse, deny’ and in one of their senses entail an abstract patient (an idea, a proposal, a statement).

- (29) a. *Kino baakigaana.*
 ki-no ba-a-ki-gaan-a
 7-PROX 2SBJ-PST-7OBJ-reject-FV
 ‘They rejected it (the divorce proposal).’ [written]
- b. *kyokka China yo ebyegaana.*
 kyokka China yo e-bi-eegaan-a
 but China(9) 9.MED 9SBJ-8OBJ.deny(REFL)-FV
 ‘(...) but China denied them (the reports).’ [written]

Others are non-reversible with respect to several criteria at once. For example, the reflexive verb *eetegereza* ‘comprehend, grasp; analyze; observe; recognize, make out’ derives from *tegerezza* ‘listen to, pay attention to’. Apart from semantic non-reversibility, this, as well as many other Luganda reflexive verbs, are syntactically non reversible, as both *tegerezza* and its morphologically reflexive counterpart *eetegereza* are transitive, as the object prefix *mu-* ‘1OBJ’ in (30b) indicates.

- (30) a. *agambye nti agenda kusooka kwetegereza*
 a-gambye nti a-gend-a ku-sook-a ku-eetegerez-a
 1SBJ-say:PFV QUOT 1SBJ-AUX-FV INF-do_first-FV INF-revise(REFL)-FV

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tteeka.

tteeka

bill(5)

‘He has said that he is going to revise the bill first (before signing it).’
[written]

- b. *Oluvannyuma lw' okumwetegereza*
 oluvannyuma lwa oku-mu-eetegerez-a
 after 11.GEN INF-1OBJ-observe(REFL)-FV
namutuukirira.
 n-a-mu-tuukirir-a
 1SG.SBJ-PST-1OBJ-approach-FV

‘After observing her, I approached her (and made a marriage proposal).’ [written]

Another example of non-reversibility with respect to several criteria is provided in (31b). The non-reflexive ditransitive verb *buuza* ‘ask’ takes two arguments, viz. the person being asked and the question, as in (31a). Its reflexive counterpart *eebuuza* means ‘ask oneself, wonder’ but also ‘inquire, consult’. In this second usage in addition to mild semantic non-reversibility, we also observe a change of valency properties, as another participant – the one enquires from – can be added to the clause, though the argument role is in principle already occupied by the reflexive prefix.

- (31) a. *Baamubuuizza lwaki tayagala kusooka*
 ba-a-mu-buuizza lwaki ti-a-yagal-a ku-sook-a
 2SBJ-PST-1OBJ-ask:PFV why NEG-1SBJ-want-FV INF-do_first-FV
kugattibwa.
 ku-gattibw-a
 INF-marry-FV

‘They asked him why he does not want to do the wedding first.’
[written]

- b. *Mukyala wange takyampuliriza era buli*
 mukyala wa-nge ti-a-kya-n-wuliriz-a era buli
 wife(1) 1-1SG.POSS NEG-1SBJ-PERS-1SG.OBJ-listen.to-FV and every
kimu ky' akola yeebuuza ku mikwano
 kimu kye a-kol-a a-eebuuz-a ku mikwano
 thing(1) 7.REL 1SBJ-do-FV 1SBJ-consult(REFL)-FV 17.LOC friends(4)

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gye.

gye

4.1POSS

‘My wife no longer listens to me and she first consults her friends on whatever she does.’ [written]

8 Conclusion

This chapter addressed some questions regarding reflexive constructions in the Bantu language Luganda. It was shown that the prefix *ee-* is used as a general reflexivizer, and that it does not show morphosyntactic agreement with person-number or noun class features of the subject. It is used productively to express coreference between the subject and the patient object in transitive verbs, and there is no difference between introverted or extroverted verbs. Although Luganda has two dedicated reciprocal suffixes, *ee-* can also be used to express reciprocal meaning, which is not uncommon for Bantu languages. The Luganda reflexivizer cannot be used to render coreferential relation between the subject and a possessor, nor for the subject and a spatial referent, and ambiguity has to be resolved by context. This is also true for the coreference between two non-subject arguments within the same clause for which there is no dedicated marker in Luganda. Despite its productivity, reflexive constructions proper do not account for the most frequent usage of the prefix *ee-* in the corpus: it is especially noteworthy that the Luganda lexicon has quite a number of lexicalized reflexive verbs. In addition to reflexiva tantum, which are morphologically irreversible and cannot occur without the prefix, there are also non-reversible reflexives that have idiosyncratic relations (syntactic, lexical and/or semantic) to the corresponding non-reflexive verbs. The reflexivizer can also be used in combination with other verbal extensions such as fossilized reciprocals, which remains a topic for future research.

Abbreviations

Abbreviations generally follow the Leipzig Glossing Rules. Additional abbreviations are the following:

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1SG, etc	person and number (only when followed by SG or PL)
1 to 23	noun classes
FV	final vowel
HAB	habitual
MED	medial demonstrative
PART	partitive
PERS	persistive

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Chapter 7

Reflexive constructions in Mano

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This paper focuses on reflexivity in Mano (Southern Mande). Mano has a dedicated reflexive pronoun *ē* used with 3sg antecedents. It can be followed by the self-intensifier *diè* to form a complex reflexive. Among the highlights of the reflexivity system are (1) frequent non-subject orientation (direct objects, arguments of postpositions and subject's possessors can serve as antecedents) challenges the current accounts of the syntax of Mande VPs; (2) the use of the intensifier cannot be explained by the semantic class of the verb alone (introverted vs extroverted), as *diè* assures a broader function of reference continuity; (3) there are marginal cases of reflexives in the subject position; and (4) against typological predictions, the intensifier *diè* can be used in middle constructions, reflexive constructions and for intensification, but not to express reciprocity.

1 Introduction

Mano (*máá*) is a Southern Mande language spoken by 305 000 people in Liberia and 85 000 in Guinea. It does not have an official status in the countries where it is spoken. In Guinea, Mano is a minority language, while in Liberia, it is the fifth most spoken language. Very little literature is produced in the language, with the high-quality translation of the New Testament published in Liberia as one of the exceptions (UBS 1978).

Figure 1: A map of Mano

Liberian Mano has three dialects, the Northern dialect Maalaa (*máá lāā*), which is spoken around Sanniquellie; the Central dialect Maazein (*máá zéj*), spoken in Ganta; and the Southern dialect Maabei (*máá bēi*), which is spoken in Saklepea. Guinean Mano also has three dialects, Zaan (*zàdà*), the easternmost dialect spoken



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around the town of Bossou, Maa (*màá*), the central dialect spoken in the city of Nzérékoré and to the south of it, and Kpeinson (*kpéýsɔ*) spoken near Diecké. All dialects are mutually intelligible. This paper is based on the central Guinean dialect, Maa (*màá*). On the dialectal situation, see [Khachaturyan \(2018\)](#). A grammatical description of Mano can be found in [Khachaturyan \(2015\)](#), for a typological portrait of the language, see [Khachaturyan \(2020\)](#).

In Guinea, Mano is in intense contact with a South-Western Mande language, Kpelle, spoken by 460 000 people. This results in widespread and often unreciprocated bilingualism (Mano speaking Kpelle more often than the other way round) and unidirectional transfer of certain lexical ([Khachaturyan 2000](#)) and grammatical features ([Khachaturyan 2019](#)). Contact arguably affects the reflexivity system, as well, in the speech of bilinguals and monolinguals alike. On contact between Mano and Kpelle, see [Khachaturyan & Konoshenko \(2022\)](#).

This paper is largely based on my first-hand fieldwork material from Mano, elicited (el.) or natural, coming from my oral corpus (MOC). A small number of examples are taken from the Bible translation (UBS 1978), all checked with my primary language consultant for natural sounding; the verses are marked correspondingly.

The discussion in this paper is organized as follows. In §2, I introduce the basics of Mano morphosyntax. In §3, I introduce the pronominal system, including the dedicated 3SG reflexive pronoun. In §4, I discuss the intensifiers used in reflexive and reciprocal constructions, in particular, *diè* which forms complex reflexive markers. §5 is dedicated to the syntax of reflexivity: the coreference domain, subject-oriented and non subject-oriented uses, as well as reflexives in the subject position. In §6, I briefly discuss the valency changing function of reflexive markers. §7 gives a preliminary assessment of the influence of Kpelle on Mano in the domain of reflexivity. I provide a concluding discussion of the findings in §8.

2 Basics of Mano morphosyntax

2.1 Clause structure and word order

Mano has a rigid word order typical of the Mande family: S Aux O V X, where Aux is an auxiliary expressing TAMP and functioning as a site of subject indexation, and X are postpositional phrases and adverbs. In (1), the third person singular auxiliary, *āà*, belongs to the perfect series. There are in total eleven auxiliary series occurring in different TAMP contexts. The full subject noun phrase is never

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obligatory (1b), and reflexives can appear in clauses without overt subject noun phrase, as is typically the case of languages with pro-drop. In copular clauses, the word order is S Cop X, where the subject noun phrase is obligatory (see (5a) below).

- (1) a. *Pèé āà kɔnɔ yà Pólāá sɔnɔ*
Pe 3SG.PRF food put Pola near
'Pe has put the food near Pola.' [el.]
- b. *āà kɔnɔ yà Pólāá sɔnɔ*
3SG.PRF food put Pola near
'(S)he has put the food near Pola.' [el.]

Some series of auxiliaries are portmanteau forms, incorporating the 3SG pronominal direct object. In some cases, the portmanteau forms are distinct, as in the case of the past series (2a, 2b), in some cases they coincide with non-portmanteau ones, as in the case of the perfect (1b, 2c).

- (2) a. *ē ló*
3SG.PST go
'(S)he went.' [el.]
- b. *ā yà*
3SG.PST>3SG put
'(S)he put it.' [el.]
- c. *āà yà*
3SG.PRF>3SG put
'(S)he has put it.' [el.]

As argued in Nikitina (2009), all postpositional phrases are adjoined at the level of the clause, rather than belonging to the verb phrase (see also Nikitina 2018). This issue presents a major challenge for the analysis of reflexivity in Mano in terms of c-command, a question that I return to in §7.

2.2 Noun phrase structure

Mano has relatively limited nominal morphology, with only one productive derivational suffix (*-là*, suffix of abstract nouns) and two tonal forms: high tone forms used in particular when the noun is followed by a demonstrative (*gɔ* 'man', *gɔ we* man:H DEM 'this man') and low tone construct forms used to mark heads of

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noun phrases with specific preposed dependents (*lēē* ‘woman’, *gí lèè* [stomach woman:CSTR] ‘pregnant woman’). On construct forms in African languages, see Creissels & Good (2018). There is no morphological case in the language, and definiteness is not grammaticalized. Mano distinguishes between alienably and inalienably possessed nouns. Inalienable possession is expressed by juxtaposition of the possessor and possessee; the possessor can also be expressed by a basic pronoun (3). Alienable possession is expressed by possessive pronouns or with full possessor NP + possessive pronoun + head noun, as seen in (4).

- (3) a. *à dàā*

3SG father

‘his father’

- b. *Pèé dàā*

Pe father

‘Pe’s father’

- (4) a. *là ká*

3SG.POSS house

‘his house’

- b. *Pèé là ká*

Pe 3SG.POSS house

‘Pe’s house’

Plurality is expressed by number words: one (*vɔ*) for additive plural, as in *gbá vɔ* ‘dogs’, and one (*nì*) for non-additive, including associative and emphatic plural, as well as plural for kinship terms, as in *dàā nì* ‘fathers’ (father and his kins). The word order in noun phrases is typically genitival dependent – head noun – adjective – numeral – determinative. Determinatives include quantifiers, demonstratives, number words, as well as self-intensifiers, which will be discussed in detail in §4.

3 Pronouns

3.1 Personal pronouns

Mano has five series of pronominal forms used in different syntactic contexts: (1) basic pronouns, used in non-subject argument positions (direct object, argument of postposition, inalienable possessor, (5a); (2) possessive pronouns used

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to express alienable possessors (5b); (3) emphatic pronouns used for emphasis as well as for NP coordination (5c); (4) high-tone pronouns used in the same contexts as high-tone nouns (5d); and (5) inclusory pronouns used as heads in inclusory constructions (5e). There are no subject pronouns, as auxiliaries are the sites of subject indexation. All pronouns distinguish between two numbers and three persons, with the exception of inclusory pronouns, which have only plural forms. Prenominal forms are given in Table 1.

Table 1: Personal pronouns in Mano

	1SG	2SG	3SG	1PL	2PL	3PL
(1) basic pronouns	ñj	í	à / á / á ^a	kō	kā	ó
(2) possessive pro- nouns	ìj	bà	là	kò	kà	wà
(3) emphatic pro- nouns	mā(ē)	bī(ē)	à, (à)yē, (à)yé, yō	kō(ē)	kā(ē)	ó(ē)
(4) high-tone pro- nouns	má	bí	(à)yé	kó	ká	ó
(5) inclusory pro- nouns				kò~kwà	kà	wà

^aThe tone of the 3SG basic pronoun optionally assimilates to the tone of the preceding vowel.

- (5) a. *pεε kε mìà wɔ ó ká*
 fetish do person.PL:CSTR COP.NEG 3PL with
 ‘They are not witches (lit.: fetish-doing-people they aren’t).’ [MOC]
- b. *ó wà ká dɔ*
 3PL.PST 3PL.POSS house build
 ‘They_i build their_{i,j} house.’ [el.]
- c. *ōē ó kεε lεε bɔ nε pèèlə mɔ*
 3PL.EMPH 3PL year 3SG.NEG go.out not.yet two on
 ‘those (of them) who haven’t yet reached two years’ [Matthew 2:16;
 UBS 1978]
- d. *ó á, ó mε ē sí*
 3PL.H DEM 3PL surface 3SG.PST take
 ‘Those ones, they were cleansed.’ [el.]

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- e. *gbóó-wè* *wà* *mīā* *gbēē-wè*
 sobbing-speech:CSTR 3PL.IP person.PL cry-speech:CSTR
 ‘sobbing and people’s crying’ [Matthew 2:18; UBS 1978]

All transitive verbs are obligatorily used with a direct object, a noun phrase or a pronoun. In speech reports, a dummy pronoun is used: it is impossible to use a speech verb without a 3SG direct object pronoun. A typical introduction of a report would be *láà gèē* ‘(s)he is saying it’, followed by the reported discourse (see 19 and 29). Thus, 3SG pronouns are not always referential.

3.2 Reflexive pronoun and basic pronouns in the reflexive function

Mano has a dedicated 3SG reflexive pronoun *ē* which is used in the same positions as the basic pronouns: in the direct object position (6), as well as the argument of postposition and as inalienable possessor. It is used with a third person sg. antecedent within the same minimal finite clause (see §5.1), being in quasi-complementary distribution with the 3SG basic pronoun *à* (6a, (6b), but see §5.2.2 and §7) and is typically not used with antecedents other than 3SG (6d). In other persons and numbers, there aren’t any dedicated reflexives and instead basic pronouns are used in the reflexive function (6c), in particular, the 3pl pronoun *ō* which, unless it is accompanied by a self-intensifier (see §4), routinely has ambiguity between coreferential and disjoint readings (6e). Thus, the paradigm of pronouns used in the contexts of coreferentiality between two arguments in the same clause consists of the basic pronouns plus the reflexive 3SG pronoun *ē* (on the 3SG basic pronoun *à* in that function, see §5.2.2).

- (6) a. *ē* *ē* *gii*
 3SG.PST 3SG.REFL wound
 ‘She wounded herself.’ [el.]
- b. *ē* *à* *gii*.
 3SG.PST 3SG wound
 ‘She wounded him.’ [el.]
- c. *kō* *kō* *gii*
 1PL.PST 1PL wound
 ‘We wounded ourselves.’ [el.]
- d. **kō* *ē* *gii*
 1PL.PST 3SG.REFL wound
 (Intended reading: ‘We wounded ourselves.’) [el.]

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- e. **ō** **ō** **gū**
 3PL.PST 3PL wound
 'They wounded themselves/them.' [el.]

In some rare cases the reflexive pronoun can be used with other types of antecedents (7a)–(7b). It can also sometimes be used without any antecedent, in a non-referential function, as in (8) where it occurs with the adjective *yīè* ‘good’ in a comitative postpositional phrase whose overall meaning is adverbial, ‘well’. The exact contexts where there is a mismatch between the person and number value of the 3SG reflexive pronoun *ē* and the antecedent require further investigation.

- (7) a. *kɔáà wálà pε ē kíè bá*
 1PL.JNT God pray:JNT 3SG.REFL RECP in
 'We pray together.' [MOC]
- b. *kō kō kíè bá*
 1PL.EXI 1PL RECP in
 'We are together.' [MOC]
- (8) **ō** **ō** **kɔ yà à wì ē yīè ká**
 3PL.PST 3PL had put 3SG under 3SG.REFL good with
 'They welcomed him very well (lit.: with its goodness).' [MOC]

4 Reflexive and reciprocal determinatives

4.1 Self-intensifier *dìè* and complex reflexive markers

Basic and reflexive pronouns can be accompanied by determinatives: *dìè*, *kíè* and *zì*.

Dìè is an intensifier, somewhat similar to English *himself*, as in “The President himself came”. It derives from the adjective *dìè* ‘true’.

- (9) *ke kō miìdàāmì dìè là tíé wε é kú kō zò pié*
 so.that 1PL Lord int 3SG.POSS fire DEM 3SG.CONJ catch 1PL heart at
 'So that the fire of our Lord himself ignites in our hearts (lit.: the fire of our lord ignites in our hearts).' [MOC]

Crucially, *dìè* can also be used with the reflexive (10a) and with basic personal pronouns (10b, c) to form complex (as opposed to simplex, bare pronouns) reflexive markers. While the basic 3pl pronoun is ambiguous between the coreferential

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and the disjoint readings (6e), the complex marker *ō diè* is unambiguously coreferential (10b).

- (10) a. *lē bī-pele ē diè mɔ.*
 3SG.EXI touch-INF 3SG.REFL INT on
 ‘He touches himself.’ [el.]
- b. *ō bī-pele ō diè mɔ.*
 3PL.EXI touch-INF 3PL INT on
 ‘They_i touch themselves_i/*them_j’ [el.]
- c. *kō bī-pele kō diè mɔ.*
 1PL.EXI touch-INF 1PL INT on
 ‘We touch ourselves.’ [el.]

4.2 Complex vs simplex reflexive markers

While the complex reflexive marker – pronoun + *diè* – is always possible, there are some restrictions on the use of the simple reflexive and basic personal pronouns in reflexive contexts. In the direct object position, the simplex marker is acceptable with verbs such as *zulú* ‘wash’, *gū* ‘hurt’, *gélé* ‘burn’, *bii* ‘hide’, *kú* ‘warm up’, *miimíi* ‘move’. The simplex marker is marginally accepted with verbs such as *li* ‘make beautiful’, *me* ‘beat’, *zəə* ‘show’, *dà* ‘drop’, *gə* ‘fight against’, *gɛ* ‘see’. The simplex marker is even less acceptable with verbs such as *fòlō* ‘detach’, *gɛ* ‘consider’, *dʒke* ‘give’, *tene* ‘appreciate’, *kpāā* ‘annoy’. Corpus data partially confirms elicitation: simplex reflexive was amply attested with the verb *zulú* ‘wash’, while the complex one was attested with *gélé* ‘burn’, *zəə* ‘show’, *ke* ‘make, become’, *tene* ‘raise’, *fɔɔ* ‘inflate’ (in the reflexive context, means ‘to swagger’), *sí* ‘take’ (in the reflexive context, means ‘to boast’), *sɔlɔ bō* ‘obtain’ (in the reflexive context, means ‘to become fully formed, developed’).

- (11) *lɔkemɔ ɔ yē wɔ mī̄ i ī diè tene,*
 love DEM 3SG.EMPH COP.NEG person 2SG.CONJ 2SG int raise 2SG.CONJ
i ī diè fɔɔ
 2SG int swell
 ‘Love, it isn’t (, like,) man, you should raise yourself, you should swagger
 (lit.: inflate yourself).’ (MOC)

The rules of distribution between the simplex and the complex markers in the direct object position require further investigation; so far, it seems that the

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verbs used with simplex and complex markers cannot be neatly divided into introverted and extroverted classes, respectively, as it is the case in some other languages (König & Vezzosi 2004).

In oblique argument positions expressed with postpositional phrases, the complex marker is usually preferred. However, simplex marker is also marginally possible with the verbs *nāā* ‘love’, *ye* ‘stab’, *tāqā* ‘annoy’, *gbū* ‘help’. The simplex marker is unacceptable with the verbs *túo* ‘frighten’, *pá* ‘touch’, *nū* ‘bring’, *lēmā* ‘forget’.

In the benefactive context, both complex and simplex markers are acceptable.

- (12) *Pèé āà ká lɔ́ ē (diè) lεε*
 Pe 3SG.PRF house buy 3SG.REFL INT PP
 ‘Pe bought a house for himself’

In non-argumental, locative PPs simplex markers seem to be preferred, at least according to the corpus where they occur more frequently than the complex ones.

- (13) *é ló ē mεj̪*
 3SG.CONJ go 3SG.REFL behind
 ‘(So that) he returns.’ [MOC]

If both a complex reflexive and a simplex one can be used, *diè* adds intentionality and emphasis.

- (14) a. *ē ē gil̪*
 3SG.PST 3SG.REFL wound
 ‘He wounded himself’ [el.]
 b. *ē ē diè gil̪*
 3SG.PST 3SG.REFL int wound
 ‘He wounded himself intentionally’ [el.]

- (15) a. *Pèé āà kɔnɔ yà ē sɔnɔ*
 Pe 3SG.PRF food put 3SG.REFL near
 ‘Pe put food near himself’ [el.]
 b. *Pèé āà kɔnɔ yà ē diè sɔnɔ*
 Pe 3SG.PRF food put 3SG.REFL int near
 ‘Pe put food near himself (contrastive: there are other people around).’
 [el.]

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The two functions of the self-intensifier *dìè*, reflexive and non-reflexive, should be considered functions of the same lexeme. In (16a), *dìè* follows the reflexive pronoun *ē* forming a complex reflexive pronoun. In (16b), an utterance that followed (16a) in the recording, it occurs in the subject noun phrase, has an intensifying reading and is used with a basic 3SG pronoun *à* with the same reference as the reflexive pronoun in the preceding clause.

- (16) a. *lefùnɔɔ ēkílībɛ ē nū ē dìè pàà*.
 light DEM 3SG.PST come 3SG.REFL int at
 ‘The light came at his own (home).’ [MOC]
- b. *à dìè pàà mià óó gbāā ò kɔ yà à wì*.
 3SG int at person.PL:CSTR 3PL.NEG NEG 3PL arm put 3SG under
 ‘His own people (lit.: the people at his own) did not accept it.’ [MOC]

4.3 Reciprocal marker *kíè*

Reciprocal constructions are formed with basic plural pronouns followed by the reciprocal determiner *kíè*.

- (17) *kóò kō kíè gɛ tòò jnene dskézɛ*
 1PL.IPFV 1PL recip see:IPFV tomorrow hour same
 ‘We see each other tomorrow at the same hour.’ [el.]

5 Syntax of reflexives

5.1 Coreference domain

The coreference domain of Mano reflexives is always the minimal finite clause. There cannot be antecedents for reflexive markers outside the minimal clause (with the rare exception of reflexives in the subject position, see §5.4). In (18a), the subject is the antecedent of a reflexive marker situated in the argument position of a gerund. In (18b), the reflexive marker is situated in the dependent finite clause. There is potential ambiguity: in case the two clauses’ subjects are coreferential, the subject of the main clause appears as the antecedent of the reflexive marker, but if the subject of the dependent clause is distinct from the subject of the main clause, then it is apparent that it is the subject of the minimal finite clause, and not the main clause, that is the antecedent.

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- (18) a. *lɛɛ nàà Ø bɪ-à ká ē dìè mɔ.*
 3SG.IPFV want:IPFV PRO touch-GER with 3SG.REFL INT on
 ‘He_i wants to touch himself_i.’ [el.]
- b. *lɛɛ nàà ē bɪ ē dìè mɔ.*
 3SG.IPFV want:IPFV 3SG.CONJ touch 3SG.REFL INT on
 ‘She_i wants to touch (lit.: that she_i touches) herself_i/ She_i wants that
 he_j touches himself_j/*her_i’ [el.]

To express coreference between the subject of the main clause and a pronoun in the finite dependent clause, the basic pronoun *à* has to be employed. However, the intensifier *dìè* is often added in such cases to mark that the antecedent is to be found in the immediate discourse context; it may be the subject of the main clause (19) or some other prominent referent (20).

- (19) *Yéi à gèē Kɔɔ lɛɛ é à dìè gɛ*
 Yei 3SG.PST>3SG say Ko PP 3SG.CONJ 3SG int see
 ‘Yei_i said to Ko_j (so that) she_j looks at her_i/him_k/*herself_j.’ [el.]
- (20) *ke-ŋwɔ-γɔɔ séj lɛ mī à ke ε à*
 do-problem:CSTR-bad every ATT person 3SG.SBJV>3SG BKGR 3SG fire
tíé lɛɛ à dìè kú
 3SG.NEG 3SG int catch
 “All sins that a person_i commits, their fire does not catch him_i.” (1
 Corinthians 6:18; UBS 1978)

Unlike many African languages, including some very closely related, such as Dan (Vydrin 2017), Mano does not have logophoric pronouns.

5.2 Subject orientation

5.2.1 Possessive position

The previous sections amply demonstrated the autopathic and oblique constructions with reflexive markers where the antecedent is the subject. Similarly, the reflexive pronoun can also be used in the inalienable possessor position and be coreferential with the subject. It can occur within the direct object NP (22) as well as within the NP occupying the role of the argument of a postposition (21).

- (21) *máriá lɛ wéé-pele ē yɔɔ ŋwej*
 Maria 3SG.EXI speak-INF 3SG.REFL in.law about
 ‘Maria is speaking about her brother-in-law.’ [el.]

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Typical grooming contexts (shaving, combing, brushing the teeth) are expressed with reflexive markers in the inalienable possessor position.

- (22) *lε ē sɔɔ pεlε-pεlε*
 3SG.EXI 3SG.REFL teeth wash-INF
 ‘She is brushing her teeth.’ [el.]

In the case the possessor coreferential with the subject is alienable, there are several strategies available. First, a possessive pronoun can be used. In the 3rd person, it is potentially ambiguous between a coreferential and a disjoint readings.

- (23) *ē lā pɔɔ sí*
 3SG.PST 3SG.POSS thing.PL take
 ‘(The spider) collected its belongings,’ potential additional reading:
 somebody else’s belongings [MOC]

Another option is to use a basic or, in 3sg, reflexive pronoun and the self-intensifier *diè*. In such a case, the verb optionally takes a low-tone construct form (compare with (19) where the lexical tone is used). The reading is unambiguously coreferential.

- (24) *ō ō diè kà gɛ-pεlε*
 3PL.PST 3PL INT house:CSTR see-INF
 ‘They see their own house/*somebody else’s house.’ [el.]

The final option is to use the self-intensifier *zi*. It is typically used in possessive contexts, even without the possessor (25), but can also be used in reflexive possessive contexts (25), (26).

- (25) *kā zi ā bɛɛ káà lɔɔ dɔ*
 2PL.POSS.INT DEM TOO 2PL.JNT>3SG trade:CSTR do:JNT
 ‘Your (share), you sell it.’ [MOC]

- (26) *yé wèñ ãà ē zi kε neñneñ kɔ gíñi*
 when salt 3SG.PRF 3SG.REFL POSS.INT do:NMLZ tasty arm:CSTR lose
 ã...
 BKGR
 ‘But when the salt has lost its matter of being tasty... (lit.:
 its-being-tasty-manner) [how can it become tasty again?]’ (Matthew 5:13;
 UBS 1978)

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- (27) *mīā séj wáà ò zì bεle kȳ*,
 person.PL every 3PL.JNT 3PL POSS.INT string catch:JNT
 'Every person grasped his own rope.' [MOC]

In §5.3, we will see multiple examples of non-subject orientation of reflexive markers, including in the inalienable possessor position. The possibility of non-subject orientation was not tested for reflexive possessives marked with *dìè* and *zì*.

5.2.2 Basic pronoun in the reflexive function

In the postpositional phrase, the basic pronoun *à* coreferential with the subject can occasionally be used, as demonstrated by a handful of corpus examples. In (28), the pronoun is an argument of postposition, in (29) it is used as an inalienable possessor within the argument of postposition and in (30) it is used within alienable possessor expressed with the self-intensifier *dìè*.

- (28) *ē nū à pà.*
 3SG.PST come 3SG at
 'He came back home (lit.: he came at him).' [MOC]
- (29) *à gbē áà gèè à lòkó lεε...*
 3SG son 3SG.JNT>3SG say:JNT 3sg mother PP
 'Her son said to his mother.' [MOC]
- (30) *lε tā kε-pεle à dìè bū gā-à yí.*
 3SG.EXI dance do-INF 3SG INT rice die-GER in
 'She is dancing in her (field of) ripe (lit.: dead) rice.' [MOC]

Such examples are generally disapproved in elicitation and can be collected only through corpus methods.

5.3 Non-subject orientation

5.3.1 Direct object

In addition to subject antecedents, reflexives in Mano can have non-subject antecedents, as well: direct object, argument of postposition and subject's possessor. In all examples attested, the reflexive marker was situated in the postpositional phrase. I begin with the DO position, illustrated by (31).

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- (31) *Ō nefú ā gε ē lòóò Mēlé kεlε.*

3PL.PST child DEM see 3SG.REFL mother Mary hand

'They saw the child in the hands of his mother Mary.' (Matthew 2:11; UBS 1978)

In (32), the reflexive marker in the postpositional phrase has two readings: its antecedent is either the DO, or the subject. Without the self-intensifier *dìè* the preferred interpretation is subject-oriented.

- (32) *Pèé le Máriá zɔɔ-pelε ē dìè lεε*

Pe 3SG.EXI Maria show-INF 3SG.REFL INT PP

'Pe is showing Maria to himself/to herself.' [el.]

5.3.2 Postpositional phrase

The antecedent of a reflexive in a postpositional phrase can be found in another postpositional phrase, as in (33). A full NP with the same referent, *dɔwálàlélàmìà nɔfé dò*, 'any prophet', is in the topic position and cannot occupy the role of the syntactic antecedent.

- (33) *dɔwálàlélàmìà nɔfé dò óó ló dō ò kɔ yà à wì*
 prophet each INDEF 3PL.NEG go once 3PL hand put 3SG under
bεleyà ká ē dìè pàà
 respect with 3SG.REFL int at

'Any prophet_i, they (=people) have never welcomed him_i (lit.: put their hands under him) in his own_i country (lit.: at his own).' [MOC]

However, it seems that the basic pronoun *à* is preferred to the reflexive pronoun if the antecedent is in a PP. It is also preferably, but not obligatorily, used with a self-intensifier *dìè*.

- (34) *Pèé ē wéé Máriá lεε à (dìè) ɳweɳ*

Pe 3SG.PST speak Maria PP 3SG INT about

'Pe_i spoke to Maria_j about herself_j/someone else_k/*himself_i.' [el.]

5.3.3 Subject's possessor

Some examples were attested where the antecedent of the reflexive was the subject's possessor. Example (35) is a resultative copular construction where the syntactic position of the subject is occupied by a nominalized form of the verb

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whose thematic argument occupies the syntactic position of the inalienable possessor. There are examples where the subject is a noun whose inalienable (36) and alienable (37) possessors are antecedents of the reflexive. It is not yet clear what allows such uses, but in all examples attested, the antecedent was a human and a prominent discourse character.

- (35) à wàà lε ē kèlè yí

3SG enter.GER COP 3SG.REFL shell in

‘She is stuck in her shell (said about a child who does not grow fast enough).’ [MOC]

- (36) à bεleyà wɔ à ká ē dìè pàà

3SG respect COP.NEG 3SG with 3SG.REFL INT at

‘He is not respected in his own country (lit.: his_i respect isn’t in his own_i country).’ [MOC]

- (37) là bò wɔ ò pεe-pεle ē dìè kele.

3SG.POSS goat PL 3PL.EXI multiply-INF 3SG.REFL INT hand

‘His_i goats are breeding in his_i possession.’ [MOC]

5.4 Reflexives in the subject position

In rare examples from my corpus, disapproved in elicitation, the subject NP can contain a reflexive marker in the possessor position. In (39), the noun phrase ‘her skin’ was repeated twice, in the first case, with the reflexive pronoun, and in the second case, with the basic pronoun, which is the preferred variant.

- (38) ē dàā ē kε dəmì ká

3SG.REFL father 3SG.PST do chief with

‘His (lit.: his own) father was a chief’ [MOC]

- (39) ē_i kī bō-ò ē_i mɔ gbāā, à_i kī āā bō.

3SG.REFL skin take.off-GER 3SG.REFL on now 3SG skin 3SG.PRF take.off

‘Her_i (lit.: herself’s) skin being peeled off from herself_i, her_i skin was peeled off.’ [MOC]

6 Valency-changing function

In Mano, as is typical of Mande languages, the majority of verbs are labile and can be employed in transitive and intransitive constructions with active/causative

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or passive/inchoative meaning, respectively, without overt marking (on passive lability in Mande, see Cobbinah & Lüpke 2009). However, to explicitly mark the inchoative nature of the action, a postpositional phrase *ē dìè lee* ‘by itself’ can be added.

- (40) a. *ē bò fóló*
3SG.PST goat detach
‘He detached the goat.’
- b. *bò ē fóló*
goat 3SG.PST detach
‘The goat detached.’
- c. *bò ē fóló ē dìè lee*
goat 3SG.PST detach 3SG.REFL INT PP
‘The goat detached by itself.’

In some contexts, some speakers accept the complex reflexive marker in the direct object position, still in the valency-changing, rather than authopatic function. The context where such a construction sounded the most natural was a famous West-African cartoon about the child warrior Kirikou, who was born by itself.

- (41) *Kírikú ē ē dìè yē*
Kirikou 3SG.PST 3SG.REFL INT give.birth
‘Kirikou was born by itself.’ (in the French original: Kirikou s'est enfanté tout seul, lui-même)¹

7 Influence of Kpelle in the reflexive domain

As mentioned above, Mano is in intense contact with a Southwestern Mande language Kpelle. In contrast with Mano, Kpelle lacks a dedicated reflexive pronoun and employs either basic pronominal prefixes for the expression of reflexivity (in the 3SG, the prefix is expressed by consonant alternation and tonal change), or a combination of a prefix with a self-intensifier. Compare the use of the reflexive (41) and basic (42) pronouns in Mano with the use of the basic prefix in Kpelle (43).

¹<https://www.youtube.com/watch?v=yg8GcN0rBLA>

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- (42) *ē ē zúlú*
 3SG.PST 3SG.REFL wash
 ‘He washed himself.’ [el.] (Mano)

- (43) *ē à zúlú*
 3SG.PST 3SG wash
 ‘He_i washed him_j’ [el.] (Mano)

- (44) *àá ywàa*
 3SG.RES 3SG\wash
 ‘He_i washed him_j/himself_i.’ [el.] (Kpelle)

As a result of contact with Kpelle, some Mano – Kpelle bilinguals employ the Mano basic pronoun in their Mano speech even in the contexts where such use is normally disallowed, namely, in the direct object position. Such use is especially common in the speech of young bilingual children and of L2 speakers of Mano. The example (44) was obtained from a 19 year old speaker whose father is Mano and whose mother is Kpelle but who grew up in the Kpelle-speaking village of her maternal grandparents; in addition to a different pattern in the use of reflexives, her speech shows interference in the use of tones, which is why they are not marked.

- (45) *nefu le a die gε-pele gaazu yi*
 child 3SG.EXI 3SG INT see-INF mirror in
 ‘The child is seeing her (meaning: herself) in the mirror.’

It was mentioned in §5.2.2 that the basic pronoun is sometimes used in the reflexive function in the speech of (quasi-)monolinguals. The examples given above concerned the position within the postpositional phrase. Another context is the inclusory construction, which is the main means for expression of nominal co-ordination. In this construction, the inclusory pronoun expresses the entire set of coordinated participants, or the superset and is followed by a noun phrase expressing a subset of participants. In this construction, bilinguals and monolinguals alike employ both basic and reflexive pronouns with equal frequency. (Inclusory constructions in Mande languages in typological and diachronic perspectives were described in Khachaturyan 2019.) Note also that it is a syntactically unusual position where the antecedent is not a subject and is not overtly expressed: the antecedent is included in the referent of the inclusory pronoun.

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- (46) *wà ē/ à lòkóò*
 3PL.IP 3SG.REFL 3SG mother
 ‘he_i and his_i, mother (lit: they (including) his mother)’ [el.] (Mano)

The use of the non-reflexive pronoun in the inclusory construction may be a direct consequence of contact and the fact that that very construction (or, more specifically, the pronoun) was borrowed into Mano from Kpelle (Khachaturyan 2019).

An interesting fact for the syntax of binding is that when the inclusory construction occurs in the non-subject position, the reflexive pronoun can only have a reading disjoint from the subject (47). To express coreference with the subject, the basic pronoun must be chosen (48). Thus, these contexts, which have been tested only in elicitation, provide an intriguing example of obligatory non-subject orientation of the reflexive pronoun and require a further explanation.

- (47) *Pèé ē Máría wà ē yɔɔ gε*
 Pe 3SG.PST Maria 3PL.IP 3SG.REFL in.law see
 ‘Pe_i saw Maria_j and her_j/*his_k/*his_i brother in law.’ [el.]
- (48) *Pèé ē Máría wà à yɔɔ gε*
 Pe 3SG.PST Maria 3PL.IP 3SG in.law see
 ‘Pe_i saw Maria_j and his_i/his_k/*her_j brother in law.’ [el.]

8 Discussion

Mano has one dedicated reflexive pronoun, *ē*, typically used with 3SG antecedents, and two self-intensifiers, *dìè* and *zì*, the latter being used only in possessive contexts. Alone, *ē* forms a simplex reflexive marker, and accompanied by *dìè* it forms a complex reflexive marker. Both simplex and complex markers are used in auto-pathic, oblique and possessive contexts and their use cannot be accounted for by the semantic class of the verb (introverted and extroverted). The self-intensifier *dìè* is preferred in oblique argument position (§4.3), as well as in all cases where the coreference relation is less trivial: when the antecedent is not the subject (§5.3), when there is contrast involved (15), or when it accompanies the basic pronoun *à* in contexts where the coreference domain extends beyond the minimal final clause (§5.1). The function of *dìè* is thus much more than to form a complex reflexive marker used in specific syntactic and semantic contexts: it is employed to ensure broader reference continuity (a somewhat similar account of logophoric marking can be found in Dimmendaal 2001).

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In the direct object position, the reflexive pronoun *ē* is in complementary distribution with the basic pronoun *à*. However, in the postpositional phrase, *à* is also frequently allowed, especially for non-subject orientation. Such lack of complementarity of reflexive and non-reflexive markers in non-core domains has been attested cross-linguistically (Testelets & Toldova 1998). In addition, under the influence of Kpelle, which does not distinguish between reflexive and nonreflexive pronouns, in Mano the basic pronoun can replace the reflexive even in the direct object position in the speech of bilinguals and in the inclusory construction borrowed from Kpelle.

One distinctive feature of the Mano reflexivity system is the possibility of non-subject orientation, especially with direct object antecedents. Table 2 summarizes the uses of reflexive and basic 3SG pronouns *ē* and *à* with different antecedents. The lines reflect the position of the antecedent and the columns reflect the position of the pronouns.

Table 2: Subject and non-subject orientation in 3SG

	SUBJ	DO	PP
SUBJ	-	refl	refl (preferred in el., occurs in corpus); basic (corpus)
DO	-	-	refl (preferred in el., occurs in corpus); no basic pronouns in the corpus
PP	-	-	basic (preferred in el., no corpus examples); refl (1 corpus example)

According to the most recent analysis, Mande languages have a reduced verb phrase structure, with only the direct object belonging to the verb phrase, while all other verbal arguments being expressed by postpositional phrases and adjoined highly (Nikitina 2018). Although there are arguments in support of this analysis for Mano, reflexivity presents a challenge for it, at least if analyzed within the framework of binding theory which imposes the restriction of c-commanding. The reason is that direct object NPs are widely accepted as antecedents to reflexive markers in the position of arguments of postpositions, which is a direct violation of c-commanding, assuming that postpositional phrases are base-generated in the IP-adjoined position, higher than the DO. Potentially, reflexivity represents a challenge to the view of SAuxOV as the underlying word order, and not

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a result of movement (Sande et al. 2019). Alternatively, if the choice of antecedent is regulated not by the principle of c-commanding, but by the scale of syntactic roles (Testelets & Toldova 1998), then the behavior of reflexive markers is much easier to explain: the antecedent is always found in the same position on the scale or higher. In addition, there is a potential case of obligatory non-subject orientation of reflexives as part of the inclusory construction which requires an additional explanation.

Final remark concerns the use of the self-intensifier *diè* in anticausative constructions. The prediction by König & Moyse-Faurie (2016) states that if a marker is used for middle voice (including anticausative), for coreference between the core arguments and in the self-intensifier function, which is the case for Mano, then it has to be used in the reciprocal function. Mano data clearly contradicts the prediction, since there is a dedicated reciprocal marker *kíè*.

Abbreviations

ATT	attention drawer
CONJ	conjunctive
COP	copula
CSTR	construct form
DEM	demonstrative
EMPH	emphatic
EXI	existential
GER	gerund
H	high tone
INDEF	indefinite
INF	infinitive
INT	intensifier
IP	inclusory pronoun
IPFV	impervective
JNT	conjoint
NEG	negative
PL	plural
POSS	possessive
PP	postposition, postpositional phrase
PRF	perfect
PST	past
RECP	reciprocal
REFL	reflexive
RES	resultative
SG	singular.

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Part II

Eurasia

Chapter 8

Reflexive constructions in Abaza

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In this article we describe reflexivization constructions in Abaza (Northwest Caucasian), a polysynthetic language characterized by consistent head marking and morphological ergativity. Abaza features two dedicated reflexivization markers: (i) the prefix *čə-* used to reflexivize the absolute argument, and (ii) the lexical reflexive based on the noun *qa* ‘head’, which is able to reflexivize arguments of different types. Besides that, coreferentiality of arguments can be expressed by the “doubling” of ordinary person-number prefixes, which is primarily used when an indirect object of a transitive verb is coreferential to its ergative subject. The absolute reflexive prefix also has such uses as anticausative and autocausative. A possible path of diachronic development of the Abaza system of reflexivization markers is also briefly discussed.

1 Introduction

1.1 Classification and location of Abaza; sources of data

Abaza (*abaza-bəzsa*, ISO 639-3 *abq*) belongs to the Northwest Caucasian language family, and together with the closely related Abkhaz, it forms the Abkhaz-Abaza branch of this family. The language is spoken by about 50 thousand people, mainly in the Abazinsky district of the Karachay-Cherkess Republic in the Russian North Caucasus and in Turkey, see the map in Figure 1.

In Russia, Abaza enjoys the status of one of the official languages of the Karachay-Cherkess Republic and has a written standard used in press, teaching and books.



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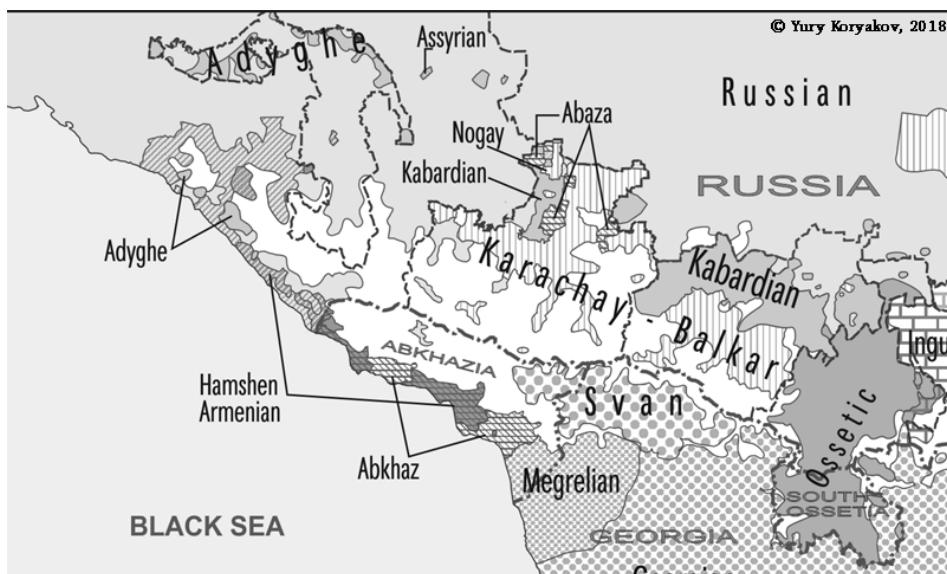


Figure 1: Map of Abaza

Despite that, the language is mostly used in colloquial situations and rural environments and is undergoing a constant pressure from Russian. Most if not all speakers of Abaza in Russia are bilingual in Russian, and many are also fluent in Kabardian, the distantly related language of the same family with which Abaza has been in intense contact. The major dialect of Abaza is Tapanta, often considered to be the only “Abaza proper” variant (see the genealogical tree of the Abkhaz-Abaza dialects in Chirikba 2003: 14).

The data in our paper mainly comes from the fieldwork conducted in the village Inzhich-Chukun (*jənz'ag'-č'kʷən*) of the Abazinsky district of the Karachay-Cherkess Republic. The data was collected in 2017–2019 during fieldtrips organized by the National Research University “Higher School of Economics” and the Russian State University for the Humanities (Moscow). Most examples are elicited, but data from a small collection of oral narratives recorded and annotated by the members of our research team as well as from published texts are also used. Published descriptions of Abaza include the grammars by Genko (1955) and Tabulova (1976) (in Russian), a short sketch by Lomtadidze & Hewitt (1989) and a generative account of certain aspects of morphosyntax by O’Herin (2002) (in English).

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1.2 Salient grammatical features

1.2.1 Clause structure and polysynthesis

Like all languages of the Northwest Caucasian family (see [Arkadiev & Lander 2020](#)), Abaza is polysynthetic and predominantly morphologically ergative. Its morphosyntax is consistently head-marking on both clausal and phrasal levels, all arguments being indexed by prefixal pronominal markers on verbs, see example (1)¹, possessed nouns and postpositions, see example (2). Overt nominals cross-referenced by pronominal prefixes are optional and do not show any case marking, see examples (2) and (3).

- (1) *j-g'-fa-sə-rə-m-t-χ-t*

3SG.N.ABS-NEG.EMP-CSL-1SG.IO-3PL.ERG-NEG-give(AOR)-RE-DCL

‘They did not give it back to me.’ [textual example]

- (2) *h-babuška l-pnə h-fa-n-χa-n*

1PL.IO-granny[R] 3SG.F.IO-at 1PL.ABS-CSL-LOC-remain-PST

‘We remained at our granny’s.’ [textual example]

- (3) *phʷəs-kᵢ l-sabəjᵢ dⱼ-fa-lᵢ-q-aštələ-n*

woman-INDF 3SG.F.IO-child 3SG.H.ABS-CSL-3SG.F.IO-LOC-forget-PST.DCL

‘A woman forgot about her child.’ [textual example]

Basic word order tends to be head-final, but this is not strictly so for clauses. In addition to person-number-gender prefixes, verbs are inflected for tense, aspect, mood and finiteness and besides that can include affixes expressing negation, causative, various applicatives, as well as spatial, aspectual, modal and evaluative meanings. Verbal forms heading main and subordinate clauses are in most cases formally distinct, with overt affixes expressing both the independent status of predication and various types of subordination (relativization, nominalization, different types of converbs). The general verbal template is given in Table 1.

Abaza shows “omnipredicativity” ([Launey 2004](#)), whereby almost any content word, including nouns and adjectives as well as their combinations, can function as a predicate without a copula and be inserted into the regular verbal morphology, cf. example (4).

¹Abaza examples are given in the Caucasological transcription rather than in IPA (see [Arkadiev & Lander 2020: 372–376](#)). The most important divergences from IPA are as follows: ejective consonants are marked by a dot below or above the symbol; palatalization is marked by an apostrophe; *c* = [ts], *č* = [tʃ], *š* = [ʃ], *z* = [dʒ], *ž* = [ʒ], *s* = [ç], *z* = [z], *c* = [tç].

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Table 1: Verbal template

	+7	subordinators, force
endings	+6	tense, mood
	+5	negation
	+4	aspect
	+3	plural
	+2	event operators
stem	+1	directional suffixes
	0	root
	-1	sociative
	-2	causative
	-3	negation
	-4	ergative
	-5	indirect object
	-6	locative preverbs
preverbs	-7	directional preverbs
	-8	applicatives
	-9	potential
	-10	repetitive
	-11	subordinators, negation
	-12	absolutive

- (4) *sara s-an d-adəg'a-b*
 1SG 1SG.IO-mother 3SG.H.ABS-Circassian-NPST.DCL
 ‘My mother is Circassian.’ [textual example]

1.2.2 Noun phrases

Noun phrases in Abaza minimally contain a noun, which can be inflected for number, definiteness, indefiniteness, possession and oblique cases and take modifiers such as demonstrative, possessor, simple or complex numeral, adjectives, other nouns and relative clause. With such modifiers as adjectives, non-referential nouns and simple numerals, the head noun forms the so-called nominal complex – a tightly integrated word-like entity with rigid internal order, which is inflected and modified as a whole, see example (5). Other modifiers do not form part of the nominal complex; most notably, the adnominal possessor forms a full noun

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phrase and is obligatorily cross-referenced by a possessive (= indirect object) prefix, as in example (6).

- (5) *a-[bəzsa-dərə-f^w-ca-dəw]-k^wa*
 DEF-language-know-NAG-PLH-big-PL
 ‘the great linguists’ [textual example]
- (6) *s-an I-aš'a*
 1SG.IO-mother 3SG.F.IO-brother
 ‘my mother’s brother’ [textual example]

As said above, noun phrases cross-referenced by person-number-gender prefixes, including verbal core arguments, do not bear any case marking and are optional. Abaza distinguishes singular and plural number and human and non-human gender, with human being further subdivided into masculine and feminine. Gender is reference-based and manifests itself almost exclusively in pronominal markers on verbs and other argument-taking expressions.

1.2.3 Independent and bound pronouns

Abaza has both independent and bound person forms, the two classes being clearly formally related. Independent pronouns are optional and, like other nominals, lack core case marking, while bound person forms distinguish the absolute and the oblique (=ergative/indirect object) series and are generally obligatory. The two types of person forms are shown in Table 2.

Table 2: Independent and bound person forms

	Absolutive	Oblique	Independent
1SG	s(ə)-	s(ə)-/z-	sara
2SGM	w(ə)-	w(ə)-	wara
2SGF	b(ə)-	b(ə)-/p-	bara
3SGM	d(ə)-	j(ə)-	jara
3SGF		l(ə)-	lara
3SGN	j(ə)-	a-/na-	jara
1PL	h(ə)-	h(ə)-/f-	hara
2PL	s(ə)-	s(ə)-/z-	sara
3PL	j(ə)-	r(ə)-/d(ə)-	dara

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Independent third person pronouns shown in Table 2 occur only rarely and are mainly used for emphasis; normally, demonstratives are used in this function. These are shown in Table 3.

Table 3: Demonstratives

	Sg	Pl
proximal	arəj	arat
medial	anəj	anat
distal	awəj	awat

The prefixes of the absolute series occur in the slot -12 and encode the S argument of intransitive verbs (example (7a)) and the P argument of transitive verbs (example (7b)), while the prefixes of the oblique series encode the A argument of transitive verbs in slot -4 (example (7b)), indirect and applied objects in slots -8, -6 and -5 (example (7c)), as well as objects of postpositions and adnominal possessors (examples (2) and (6) above).

- (7) a. *h-bzaza-d*
1PL.ABS-live(AOR)-DCL
‘We lived.’ [textual example]
- b. *awaɻa hə-ça-də-r-ça-χ-nəs*
there **1PL.ABS-LOC-3PL.ERG-CAUS-put-RE-PURP**
‘so that they bury us there’ [textual example]
- c. *j-ɬa-hə-r-tə-n*
3SG.N.ABS-CSL-1PL.IO-3PL.ERG-give-PST
‘They gave it to us.’ [textual example]

Verbal pronominal prefixes are obligatorily overt with one general exception: 3rd person singular non-human and 3rd person plural prefixes of the absolute series, both looking as *j(ə)-*, are usually dropped if the predicate is immediately preceded by the corresponding full noun phrase. Contrast example (8a), where the absolute object follows the verb furnished with an absolute prefix, with (8b), where the prefix *j-* is absent in the presence of the immediately preceding absolute NP.

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- (8) a. *mhamat-g'arɔj j_i-ʃa-jə-r-t-t*
 Muhamat-Girey 3SG.N.ABS-CSL-3SG.M.IO-3PL.ERG-give(AOR)-DCL
 adg'əl_i
 land
 ‘They gave land to Muhamat-Girey.’ [textual example]
- b. *z-za-ʒə-k* *ʃa-h-χʷʃa-n*
 cow-one-CLN-ADNUM CSL-1PL.ERG-buy-PST.DCL
 ‘We had bought one cow.’ [textual example]

1.2.4 Verb classes, valency and applicatives

Abaza verbs can be monovalent, bivalent or polyvalent, and non-monovalent verbs can be transitive, intransitive and inverse (or “oblique-absolutive”). The valency classes are defined by patterns of verbal cross-reference, as shown in Table 4.

Table 4: Valency classes of verbs

	A-like argument	argu-	P-like argument	argu-	other arguments	example
transitive	Erg		Abs		(IO, Appl)	dər ‘know’, t(a) ‘give’
intransitive		Abs		(IO, Appl)	(Appl)	bzaza ‘live’, pšə ‘look at’, cqraʃa ‘help’
inverse		IO, Appl		Abs		ma ‘have’ q-aštəl ‘forget’

Examples (9a–c) illustrate the three verb classes.

- (9) a. *sə-l-ba-t*
 1SG.ABS-3SG.F.ERG-see(AOR)-DCL
 ‘She (Erg) saw me (Abs).’ (transitive)
- b. *sə-l-pšə-t*
 1SG.ABS-3SG.F.IO-look(AOR)-DCL
 ‘I (Abs) looked at her (IO).’ (intransitive)

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- c. *sə-l-q-aštəl-t*
1SG.ABS-3SG.F.IO-LOC-forget(AOR)-DCL
‘She (IO) forgot me (Abs) [lit. I got forgotten on her].’ (inverse)

Abaza possesses a rich system of applicative prefixes occurring in slots –8 and –6, which freely combine with verbs of all valency types and introduce indirect objects expressed by personal prefixes immediately preceding the corresponding applicative prefix (see e.g. O’Herin 2001). Despite being prone to lexicalization, most applicatives are highly productive. Below we provide examples of the benefactive (10a), malefactive (10b), comitative (10c), instrumental (10d), and judicative (10e) applicatives; the latter mostly combines with non-verbal stems and introduces the role of a person evaluating the situation.

- (10) a. *d-sə-z-ʃa-r-g-χ-t*
1SG.ABS-3SG.F.ERG-see(AOR)-DCL
‘They brought him to me.’ [textual example]
- b. *j-g’ə-j-cə-çə-a-h-k-wa-m*
3SG.N.ABS-NEG.EMP-3SG.M.IO-MAL-LOC:under-1PL.ERG-hold-IPF-NEG
‘We do not conceal it from him.’ (Tabulova 1976: 184)
- c. *buxgalter-qada-ta* *d-sə-cə-n-χ-əj-t*
accountant[R]-chief-ADV 3SG.H.ABS-**1SG.IO-COM-LOC-work-PRS-DCL**
‘She works with me as a chief accountant.’ [textual example] (inverse)
- d. *a-cərəʷə a-zernoa-la-f-ca-r-g-əj-t*
DEF-spade DEF-corn[R]
- 3SG.N.IO-INS-CSL-LOC:under-3PL.ERG-carry-PRS-DCL**
‘They gather corn with a spade.’ [textual example]
- e. *d-rə-ma-λapa-p-ta* *aχč’ə*
3SG.H.ABS-3PL.IO-JUD-expensive-NPST.DCL-ADV money
g’-jə-r-t-wa-m
NEG.EMP-3SG.M.IO-3PL.ERG-give-IPF-NEG
‘They consider him expensive [lit. he appears expensive to them] and
don’t pay him.’ [textual example]

Besides that, many of the numerous locative prefixes (“preverbs”) occurring in the slot –7 (see e.g. Klychev 1995) are also applicatives and introduce indirect objects, consider example (11) with a preverb meaning ‘behind’.

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- (11) *šamilʒ čɔfʷ-ta d-na-sə-š'ta-lɔ-n*
 Shamil horseman-ADV 3SG.H.ABS-TRL-1SG.IO-LOC:behind-go.in-PST.DCL
 ‘Shamil followed me on horseback.’ [textual example]

2 Reflexive constructions

There are two dedicated reflexive constructions in Abaza, one verbal (morphological) and one nominal (lexical). The verbal reflexive construction involves the prefix *čə-* occurring in the absolute slot –12 and limited to the reflexivization of the absolute argument, as illustrated in example (12); it will be discussed in §2.1. The nominal reflexive construction employs the body-part noun *qa* ‘head’ with a possessor prefix coreferential with the A-like argument of the verb, cf. example (13). The nominal reflexive can be used to reflexivize different syntactic positions, including the absolute, where it competes with the verbal reflexive prefix. It will be discussed in §2.2. Apart from this, certain types of coreference between arguments can be expressed by the use of the appropriate pronominal prefixes in two distinct slots, as seen in example (14); even though this strategy is not restricted to reflexivization, it deserves attention and will be discussed in section §2.3.

- (12) *č-hə-r-pχ-əw-n*
 RFL.ABS-1PL.ERG-CAUS-warm-IPF-PST
 ‘We were warming ourselves up.’ [textual example]
- (13) *p-qa b-a-psə*
 2SG.F.IO-head 2SG.F.ABS-3SG.N.IO-look(IMP)
 ‘Look at yourself!’ (said to a woman)
- (14) *zakə-zak haqʷə sə-c-tə-z-g-əw-š-t*
 one-one stone 2PL.IO-COM-LOC-2PL.ERG-carry-IPF-FUT-DCL
 ‘Each of you will take along (lit. with you) a stone.’ [textual example]

2.1 Reflexive constructions with the absolute reflexive prefix

The absolute reflexive prefix *čə-* normally occurs in slot –12 and is used in situations when the absolute argument is coreferential with some other argument higher in agentivity which is encoded in the usual way. The most common situation of this kind is attested with transitive verbs, where the absolute reflexive

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indicates coreference of the ergative agent and the absolutive patient. For transitive verbs, the use of the absolutive reflexive čə- seems to be fully productive; in particular, extroverted and introverted verbs behave similarly in this respect. Example (15) shows an extroverted verb ‘injure’ and (16) shows an introverted verb ‘wash’ (16).

- (15) a. *sə-j-χ^w-t*
1SG.ABS-3SG.M.ERG-injure(AOR)-DCL
'He injured me.'
 - b. *čə-j-χ^w-t*
RFL.ABS-3SG.M.ERG-injure(AOR)-DCL
'He injured himself.'
- (16) a. *jə-l-ʒʒ-əj-t*
3SG.N.ABS-3SG.F.ERG-wash-PRS-DCL
'She is washing it.'
 - b. *cə-l-ʒʒ-əj-t*
RFL.ABS-3SG.F.ERG-wash-PRS-DCL
'She is washing (herself).'

Importantly, the absolutive reflexive prefix does not render the verb intransitive and hence cannot be regarded as a valency-reducing device. This is evidenced not only by the presence of the ergative prefix in examples (15b) and (16b), but also by the formation of the imperative. Imperative forms of Abaza transitive verbs obligatorily lack the ergative prefix corresponding to the 2nd person singular actor, and this occurs in ordinary transitive (17a) and reflexive (17b) constructions alike.

- (17) a. *a-sabəj d-ʒʒa*
DEF-child 3SG.H.ABS-wash(IMP)
'Wash the child!'
- b. *čə-ʒʒa*
RFL.ABS-wash(IMP)
'Wash yourself!'

The use of the reflexive prefix under coreference of the absolutive with a higher ranking argument is obligatory, as indicated by example (18a), where the doubling of the first person prefix results in ungrammaticality, as opposed to example (18b) with the reflexive prefix, and by example (18c) showing that the use

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of the ordinary third person human absolutive prefix is only compatible with a disjoint interpretation.

- (18) a. * *sə-z-dər-əj-t*
1SG.ABS-1SG.ERG-know-PRS-DCL
intended: ‘I know myself.’
- b. *čə-z-dər-əj-t*
RFL.ABS-1SG.ERG-know-PRS-DCL
‘I know myself.’
- c. *də-l-ʒəa-t*
3SG.H.ABS-3SG.F.ERG-wash(AOR)-DCL
‘She washed her/him/*herself’

The absolutive reflexive prefix is also used when the antecedent is an indirect object rather than the ergative. This happens, first, in inverse constructions derived from transitive verbs by means of the potential prefix *zə-*, as in example (19), and the involuntative prefix *mqa-*, as in example (20). Both these prefixes induce the shift of the A-like argument from the ergative to the indirect object (cf. O’Herin (2002: 185)), see the difference between the transitive construction in (19a, b) and the inverse construction in (19c, d).

- (19) a. *sə-j-kʷaba-t*
1SG.ABS-3SG.M.ERG-bathe(AOR)-DCL
‘He bathed me.’
- b. *čə-j-kʷaba-t*
RFL.ABS-3SG.M.ERG-bathe(AOR)-DCL
‘He bathed [himself].’
- c. *sə-j-zə-kʷaba-t*
1SG.ABS-3SG.M.IO-POT-bathe(AOR)-DCL
‘He managed to bathe me [lit. I bathed to him].’
- d. *cə-j-zə-kʷaba-t*
RFL.ABS-3SG.M.IO-POT-bathe(AOR)-DCL
‘He managed to bathe [lit. to him bathed himself].’
- (20) a. *sə-j-mqa-χʷə-t*
1SG.ABS-3SG.M.IO-INVOL-injure(AOR)-DCL
‘He accidentally injured me [lit. I got injured on him].’

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b. *c-jə-mqa-χ^w-t*

RFL.ABS-3SG.M.IO-INVOL-injure(AOR)-DCL

'He accidentally injured himself [lit. on him got injured himself].'

Second, the absolutive reflexive can be coreferential with an indirect object encoding the causee (original ergative subject) in morphological causatives based on transitive verbs. In such cases two interpretations are possible, with the antecedent being either the original agent (the causee IO), as in example (21c.i) (21c.i) or the new agent (the ergative causer), as in example (21c.ii) and (22).

(21) a. *jə-z-33a-t*

3SG.N.ABS-1SG.ERG-wash(AOR)-DCL

'I washed it.'

b. *j-sə-j-rə-33a-t*

3SG.N.ABS-1SG.IO-3SG.M.ERG-CAUS-wash(AOR)-DCL

'He made me wash it.'

c. *c-sə-j-rə-33a-t*

RFL.ABS-1SG.IO-3SG.M.ERG-CAUS-wash(AOR)-DCL

i. 'He made me_i wash (myself_i).'

ii. 'He_i made me wash him_i'.

(22) *zawaʃ a-ʒə*

Zawal DEF-water

č-a-j-rə-q^wara-χ-t

RFL.ABS-3SG.N.IO-3SG.M.ERG-CAUS-strangle-RE(AOR)-DCL

'Zawal drowned himself (lit. he_i let the water strangle him_i).' [textual example]

Third, the absolutive reflexive can occur in non-derived inverse verbs where its antecedent is an experiencer rather than an agent, as in example (23).

(23) a. *d-s-cə-maʁ-p*

3SG.H.ABS-1SG.IO-MAL-be.unpleasant-NPST.DCL

'I hate him.'

b. *c-s-cə-maʁ-χ-p*

RFL.ABS-1SG.IO-MAL-be.unpleasant-RE-NPST.DCL

'I hate myself.'²

²Reflexive constructions of all types can optionally include the refactive suffix -χ (on its uses in

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Finally, the absolute reflexive can be used in inverse denominal predicates derived by the judicative applicative *ma-*, see example (24).

- (24) a. *d-sə-ma-ps za-t*
 3SG.H.ABS-1SG.IO-JUD-beautiful(AOR)-DCL
 'I considered him/her beautiful.'
- b. *c -sə-ma-ps za-t*
 RFL.ABS-1SG.IO-JUD-beautiful(AOR)-DCL
 'I considered myself beautiful.'

The absolute reflexive cannot be used in polyvalent intransitive verbs that encode their A-like argument in the absolute slot (cf. (9b) above).

- (25) *čə-l-pš-əj-t*
 RFL.ABS-3SG.F.IO-look-PRS-DCL
 intended: 'She looked at herself'

2.2 Reflexive constructions with the reflexive pronoun

The reflexive pronoun (or rather the reflexive noun) in Abaza is based on the noun root *qa* 'head' obligatorily furnished with a possessive (indirect object) prefix with the person, number and gender features matching those of the antecedent. The reflexive pronoun itself is cross-referenced by a 3rd person non-human marker in the appropriate slot. Example (26b) shows the reflexive in the absolute position, and example (27b) shows the indirect object reflexive. The corresponding (a) examples feature ordinary nouns in the same syntactic positions. In (26b) the reflexive pronoun immediately precedes the verb, hence the corresponding absolute prefix is absent.

- (26) a. *sara s-an də-z-ba-t*
 1SG 1SG.IO-mother 3SG.H.ABS-1SG.ERG-see(AOR)-DCL
 'I saw my mother'
- b. *sara a-fwəga-la s-qa z-ba-χ-t*
 1SG DEF-mirror-INS 1SG.IO-head 1SG.ERG-see-RE(AOR)-DCL
 'I saw myself in the mirror'

Abaza see Panova (2019) serving to reinforce the reflexive meaning. On such uses of refactive markers see Stoyanova (2010).

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- (27) a. *j-an də-l-c-qraʃ-əj-t*
 3SG.M.IO-mother 3SG.H.ABS-3SG.F.IO-COM-help-PRS-DCL
 ‘He helps his mother.’
- b. *j-qa d-a-c-qraʃa-χ-əj-t*
 3SG.M.IO-head 3SG.H.ABS-3SG.N.IO-COM-help-RE-PRS-DCL
 ‘He helps himself.’

With a plural antecedent, the reflexive pronoun can optionally take the plural suffix *kʷa*, in which case it is cross-referenced by a plural prefix, see examples (28a,b).

- (28) a. *hara h-qa j-a-zə-h-χʷʃa-t*
 1PL 1PL.IO-head 3SG.N.ABS-3SG.N.IO-BEN-1PL.ERG-buy(AOR)-DCL
 b. *hara h-qa-kʷa jə-r-zə-h-χʷʃa-t*
 1PL 1PL.IO-head-PL 3SG.N.ABS-3PL.IO-BEN-1PL.ERG-buy(AOR)-DCL
 a=b ‘We bought it for ourselves.’

The reflexive pronoun is the only reflexivization strategy available for intransitive verbs like ‘look at’ or ‘help’ in examples (25) and (27) above, but is used more widely. With transitive verbs, it competes with the verbal reflexive prefix, which seems to be the default option and is especially preferable in those cases when the use of the nominal reflexive may induce a body-part rather than a reflexive interpretation, as seen in examples (29) and (30)–(31).

- (29) a. *d-sə-r-qʷanc'-əj-t*
 3SG.H.ABS-1SG.ERG-CAUS-guilty-PRS-DCL
 ‘I accuse him/her.’
- b. *s-qa sə-r-qʷanc'-əj-t*
 1SG.F.IO-head 1SG.ERG-CAUS-guilty-PRS-DCL
 ‘I accuse myself.’ / ??‘I accuse my own head’
- c. *c-sə-r-qʷanc'-əj-t*
 RFL.ABS-1SG.ERG-CAUS-guilty-PRS-DCL
 ‘I accuse myself.’
- (30) a. *cə-l-ʒʒ-əj-t*
 rfl.abs-3sg.g.erg-wash-PRS-DCL
 ‘She is washing (herself).’

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- b. *l-qa l-ʒʒ-ʒj-t*
3SG.F.IO-head 3SG.F.ERG-wash-PRS-DCL
‘She is washing her head.’ / **‘She is washing.’

- (31) a. *č-a-cə-s-χč’a-t*
RFL.ABS-3SG.N.IO-MAL-1SG.ERG-protect(AOR)-DCL
‘I protected myself from it.’
- b. *s-qa a-cə-s-χč’a-t*
1SG.IO-head 3SG.N.IO-MAL-1SG.ERG-protect(AOR)-DCL
‘I protected myself / my head from it.’

The nominal reflexive can also be used instead of the verbal reflexive in inverse verbs, cf. example (32).

- (32) *s-qa j-sə-cə-maʂ-χ-p*
1SG.IO-head 3SG.N.ABS-1SG.IO-MAL-be.unpleasant-RE-NPST.DCL
‘I hate myself.’

The reflexive pronoun also occurs in the position of indirect or applied object with transitive verbs, where its antecedent is the ergative agent, see examples (33) and (34); as we show in the next section (§2.3), this pattern of coreference can be expressed by mere doubling of pronominal prefixes.

- (33) a. *sara bara j-b-a-s-hʷ-t*
1SG 2SG.F 3SG.N.ABS-2SG.F.IO-DAT-1SG.ERG-say(AOR)-DCL
‘I said it to you (woman).’
- b. *awɔj l-qa j-a-l-hʷ-χ-t*
DIST 3SG.F.IO-head 3SG.N.ABS-3SG.N.IO-3SG.F.ERG-say-RE-DCL
‘She said it to herself.’

- (34) a. *d-b-cə-s-χč’a-t*
3SG.H.ABS-2SG.F.IO-MAL-1SG.ERG-protect(AOR)-DCL
‘I protected him from you (woman).’
- b. *s-qa d-a-cə-s-χč’a-t*
1SG.IO-head 3SG.H.ABS-3SG.N.IO-MAL-1SG.ERG-protect(AOR)-DCL
‘I protected him/her from myself.’

Finally, the nominal reflexive can also express coreference with a non-subject argument, e.g. with the absolute P as in example (35), where the nominal reflexive is an applied object.

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- (35) *aslan j-qa*
Aslan 3SG.M.IO-head
d-a-cə-s-χč'a-χ-t
3SG.H.ABS-3SG.N.IO-MAL-1SG.ERG-protect-RE(AOR)-DCL
'I protected Aslan from himself'

The nominal reflexive can co-occur with the verbal reflexive when both the absolute and the indirect object are coreferential with the ergative participant, as in example (36).

- (36) *s-qa č-a-cə-s-χč'a-t*
1SG.IO-head RFL.ABS-3SG.N.IO-MAL-1SG.ERG-protect(AOR)-DCL
'I protected myself from myself'

The nominal reflexive cannot be used as an intensifier, this function being expressed by (simple or reduplicated) third person pronouns, see Panova (2020). This is shown in example (37a), where the reduplicated third person masculine pronoun *jara* functions as a self-intensifier, while the use of the reflexive noun in the same position renders the sentence infelicitous (37b).

- (37) a. *zaʒg'aj a-č'kʷən d-g'-p-jə-m-qə-t*,
nobody DEF-boy 3SG.H.ABS-NEG-LOC-3SG.M.ERG-cut(AOR)DCL
jara~jara j-qa pə-j-qə-χ-t
3SG.M~INTF 3SG.M.IO-head LOC-3SG.M.ERG-cut-RE(AOR)-DCL
'Nobody injured the boy, he injured himself'
b. # ... *j-qa awəj d-p-na-qə-χ-t*
3SG.M.IO-head DIST 3SG.H.ABS-LOC-3SG.N.ERG-cut-RE(AOR)-DCL
'his head cut him.'

The third person pronoun is also used to disambiguate the reflexive and disjoint readings in adposessive constructions, see example (38a); the nominal reflexive is ungrammatical in this position (38b).

- (38) a. *dasəwzlakg'aj jara j-tfaca*
whoever.it.is 3SG.M 3SG.M.IO-family
də-r-zə-nχ-əj
3SG.H.ABS-3PL.IO-BEN-work-PRS-DCL
'Everyone works for his own family.'

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- b. * *dasəwzlakg'əj j-qa a-tʃaca*
 whoever.it.is 3SG.M.IO-head 3SG.N.IO-family
 də-r-zə-nχ-əj-t
 3SG.H.ABS-3PL.IO-BEN-work-PRS-DCL
 intended: ‘=a’

The nominal reflexive cannot occur in the position of the subject, i.e. as the ergative argument of transitive verbs, example (39), or the absolute argument of intransitive verbs (40).

- (39) a. *a-phʷəspa i a-fʷəga a-pnə l-qa_i*
 DEF-girl DEF-mirror 3SG.N.IO-at 3SG.F.IO-head
 l-ba-χ-əj-d
 3SG.ERG-see-RE-PRS-DCL
 ‘The girl sees herself in the mirror.’ (Testelets 2017: ex. 10a)
- b. # *l-qa_i a-phʷəspa_{j/*i} a-fʷəga a-pnə*
 3SG.F.IO-head DEF-girl DEF-mirror 3SG.N.IO-at
 d-a-ba-χ-əj-d
 3SG.H.ABS-3SG.N.ERG-see-RE-PRS-DCL
 ‘#Her head again sees the girl in the mirror.’ (*=a) (Testelets 2017: ex. 10b)

- (40) a. *l-qa d-a-c-s-əj-t*
 3SG.F.IO-head 3SG.H.ABS-3SG.N.IO-MAL-fear-PRS-DCL
 ‘She fears herself.’
- b. * *l-qa jə-l-c-s-əj-t*
 3SG.F.IO-head 3SG.N.ABS-3SG.F.IO-MAL-fear-PRS-DCL
 (only #‘Her head is afraid of her.’)

Normally the antecedent of the nominal reflexive must belong to the same clause, but some of our consultants allowed examples like (41) with the matrix subject anteceding a reflexive in a non-finite clause.

- (41) *aslan_i [rəwslan_j j_{i/j}-qa d-a-z-ʒərfʷə-rnəs]*
 Aslan Ruslan 3SG.M.IO-head 3SG.H.ABS-3SG.N.IO-BEN-listen-PURP
 j-a-j-hʷ-t
 3SG.M.IO-DAT-3SG.M.ERG-say(AOR)-DCL
 ‘Aslan told Ruslan to listen to himself (=Ruslan / %=Aslan).’

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2.3 Domains not covered by the dedicated reflexive constructions

In addition to the dedicated verbal and nominal reflexives, coreference in Abaza can be expressed by the use of the same personal prefixes in two distinct slots, which we call “doubling”. In particular, this is the only strategy available for the reflexivization of the adnominal possessor or postpositional object, cf. examples (42) and (43).

- (42) *wə-nbʒ'afw-ca-kʷa z-ʃa-wə-m-d-ja*
^{2SG.M.IO}-friend-PLH-PL REL.RSN-CSL-^{2SG.M.ERG}-NEG-lead-QN
 ‘Why didn’t you (man) bring your friends here?’ [textual example]
 (=Ruslan / %=Aslan).’
- (43) *j-pnə w-a-n-jə-r-pχ'a-wa*
^{3SG.M.IO}at ^{2SG.M.ABS}-^{3SG.N.IO}-LOC-^{3SG.M.ERG}-CAUS-spend.night-IPF
 ‘he lets you (man) spend night at his (place)’ [textual example]

Besides these rather expected cases, doubling of personal prefixes systematically occurs in transitive verbs as well to indicate coreference between the ergative agent and an indirect object. This happens in morphological causatives from transitive verbs (cf. Tabulova 1976: 188), see example (44).

- (44) a. *lə-bəzsa-g'əj h-lə-r-dər-t*
^{3SG.F.IO}-language-ADD ^{1PL.IO}-^{3SG.F.ERG}-CAUS-know(AOR)-DCL
 ‘She taught (lit. caused to know) us her language.’ [textual example]
- b. *j-ʃa-s-sə-r-dər-aj-t*
^{3SG.N.ABS}-CSL-^{1SG.IO}-^{1SG.ERG}-CAUS-know-PRS-DCL
 ‘I learn it (lit.» I cause myself to know it’).’ (Tabulova 1976: 188)

As expected, the coreferent interpretation is obligatory only with the first and second person prefixes, while verb forms with identical third person prefixes may have both coreferential and disjoint interpretations depending on the context, see example (45).

- (45) a. *j-ʃa-j-lə-r-ba-t*
^{3SG.N.ABS}-CSL-^{3SG.M.IO}-^{3SG.F.ERG}-CAUS-see(AOR)-DCL
 ‘She showed it to him.’
- b. *j-ʃa-l-lə-r-ba-t*
^{3SG.N.ABS}-CSL-^{3SG.F.IO}-^{3SG.F.ERG}-CAUS-see(AOR)-DCL
 ‘She_i showed it to her_j/herself_i’

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Expression of coreference by doubling of personal prefixes is widespread with applied objects of transitive verbs. It is attested with the comitative, see example (14) above, benefactive (46), malefactive (47)³, as well as with some locative preverbs (48).

- (46) a. *jə-l-zə-w-χʷ-aŋ-t*
 3SG.N.ABS-3SG.F.IO-BEN-2SG.M.ERG-buy-PRS-DCL
 ‘You (man) buy it for her.’
- b. *jə-w-zə-w-χʷ-aŋ-t*
 3SG.N.ABS-2SG.M.IO-BEN-2SG.M.ERG-buy-PRS-DCL
 ‘You (man) buy it for yourself.’
- (47) a. *d-a-c-a-s-χc'ə-t*
 3SG.H.ABS-3SG.N.IO-MAL-1SG.ERG-protect(AOR)-DCL
 ‘I protected him/her from it.’
- b. *d-sə-cə-s-χc'ə-t*
 3SG.H.ABS-1SG.IO-MAL-1SG.ERG-protect(AOR)-DCL
 ‘I protected him/her from myself.’
- (48) a. *j-f-a-çə-w-ç-əŋ-t*
 3SG.N.ABS-CSL-3SG.N.IO-LOC:under-2SG.M.ERG-put-PRS-DCL
 ‘You (man) put this under that.’
- b. *j-fə-wə-çə-w-ç-əŋ-t*
 3SG.N.ABS-CSL-2SG.M.IO-LOC:under-2SG.M.ERG-put-PRS-DCL
 ‘You (man) put it under yourself.’

When the semantics allow it, it is possible to combine the doubling strategy with one of the dedicated reflexivization devices, cf. example (49a) with the verbal reflexive and example (49b) with the nominal reflexive; cf. also example (36) above.

- (49) a. *c-s-cə-s-χc'ə-t*
 RFL.ABS-1SG.IO-MAL-1SG.ERG-protect(AOR)-DCL
- b. *s-qa jə-s-cə-s-χc'ə-t*
 1SG.IO-head 3SG.N.ABS-1SG.IO-MAL-1SG.ERG-protect(AOR)-DCL
 a=b ‘I protected myself from myself.’

³Note that our consultants allow a broader application of this strategy than reported by O’Herin (2001: 490–491), who claims it to be disallowed with benefactive and malefactive.

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A special case of doubling of personal prefixes occurs in constructions involving relative verbal forms, i.e. relative clauses, content questions (see [Arkadiev 2020](#)) and argument focus constructions. Here a coreferential (or more precisely: covarying, i.e. semantically bound) interpretation is only available if all occurrences of the relevant personal prefix are replaced by the relative prefix *zə-* in the same slot (see a discussion in [O’Herin 2002](#): 264–265). This happens both in verbs with indirect objects, example (50a), and in adposessive constructions, example (51a). If the regular personal prefix is used instead of the relative prefix in the lower position, only the disjoint interpretation is possible, cf. examples (50b) and (51b).

- (50) a. *awaj z-zə-r-dər-wa-z-da?*
 DIST REL.IO-REL.ERG-CAUS-know-IPF-PST.NFIN-QH
 ‘Who learned (lit. caused oneself to know) it?’
- b. *awaj j-zə-r-dər-wa-z-da?*
 DIST 3SG.M.IO-REL.ERG-CAUS-know-IPF-PST.NFIN-QH
 ‘Who taught him that?’ / *‘Who learned it?’
- (51) a. *z-χaʒat-kʷa-la čə-zə-m-bž'a-χ-wa d-laga-p*
 REL.IO-mistake-PL-INS RFL.ABS-REL.ERG-NEG-educate-RE-IPF
 3SG.H.ABS-fool-NPST.DCL
 ‘The one_i who does not learn by his/her_i own errors is a fool.’
- b. # *j-χaʒat-kʷa-la čə-zə-m-bž'a-χ-wa d-laga-p*
 3SG.M.IO-mistake-PL-INS RFL.ABS-REL.ERG-NEG-educate-RE-IPF
 3SG.H.ABS-fool-NPST.DCL
 ‘The one_i who does not learn by his_j (someone else’s) errors is a fool.’

The distribution of the three types of expression of coreference in Abaza, including two dedicated reflexivization strategies and the doubling of personal prefixes, is shown in Table 5.

3 Related functions of the absolute reflexive prefix

The verbal reflexive has autocausative and anticausative uses with both controlling animate and non-controlling inanimate subjects. Verbs allowing such a use

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Table 5: Distribution of reflexivization strategies in Abaza

strategy	Erg>Abs	IO>Abs	Erg>IO	Abs>IO	X>Poss
verbal reflexive čə-	+	+	-	-	-
nominal reflexive <i>qa</i>	+	+	+	+	-
doubling of personal prefixes	-	-	+	-	+

of reflexive include verbs denoting caused motion, example (3), caused change of posture, example (53), and certain verbs of caused change of state, example (54).

- (52) a. *sara č-a-ca-sə-r-pa-t*
 1SG RFL.ABS-3SG.N.IO-LOC:back-1SG.ERG-CAUS-turn(AOR)-DCL
 'I turned (lit. myself) back.'
- b. *a-fljuger*
 DEF-vane[R]
 č-a-ca-na-r-pa-t
 RFL.ABS-3SG.N.IO-LOC:back-3SG.N.ERG-CAUS-turn(AOR)-DCL
 'The weather-vane turned (lit. itself).'
- (53) a. *nana čə-na-lə-r-qʷ-t*
 granny RFL.ABS-TRL-3SG.F.ERG-CAUS-bend(AOR)-DCL
 'Granny bent (to get something from the floor).'
 b. *a-qla č-na-na-r-qʷ-t*
 DEF-tree RFL.ABS-TRL-3SG.N.ERG-CAUS-bend(AOR)-DCL
 'The tree bent.'
- (54) a. *awaj č-a-kʷ-jə-r-βʷkʷa-t*
 DIST RFL.ABS-3SG.N.IO-LOC:on-3SG.M.ERG-CAUS-straight(AOR)-DCL
 'He stretched (lying on a bench).'
 b. *a-napa-kʷa č-də-r-βʷkʷa-χ-t*
 DEF-page-PL RFL.ABS-3PL.ERG-CAUS-straight-RE(AOR)-DCL
 'The pages became smooth again (after the book was put under a press).'

From the data we have, it may appear that most of the verbs that allow such use of the reflexive are morphological causatives, but simplex verbs allow it as well, see examples (55) and (56).

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- (55) *a-qəs-kʷa* č-ʃa-r-tə-t
 DEF-window-PL **RFL.ABS**-CSL-3PL.ERG-open(AOR)-DCL
 'The windows opened.' (Tugov 1967: 362)

(56) č-a-d-h-klə-n zəmʃʷa-g'ə
RFL.ABS-3SG.N.IO-LOC-1PL.ERG-gather-PST all-ADD
 'we all gathered there' [textual example]

A less trivial use of the reflexive prefix is attested only in combination with the morphological causative and involves the meaning of simulation or pretence, cf. examples (57) and (58).

- (57) čə-j-rə-gʷzaza-wa-n
RFL.ABS-3SG.M.ERG-CAUS-hurry-IPF-PST
 'He pretended to be in a hurry.'

(58) č-jə-r-laga-t
RFL.ABS-3SG.M.ERG-CAUS-fool(AOR)-DCL
 'He pretended to be a fool.'

diversity of reflexivization strategies attested in Abaza and their distribution can be explained as a result of successive cycles of grammaticalization (i.e. *layering*, Hopper 1991). The etymology of the absolutive reflexive čə- is unclear, but comparative data from Abkhaz (Hewitt 1979: 77–78) indicates that it goes back to a noun with a possessive prefix incorporated into the absolutive slot of the verb, as shown in example (59).

- (59) *l-čə-l-kʷaba-jt*
3SG.F.IO-RFL-3SG.F.ERG-bathe(AOR)-DCL
‘She bathed.’ Abkhaz (Hewitt 1979: 78, transcription and glossing adapted)

This diachronic process has reached a more advanced stage in Abaza than in Abkhaz and must have started with the absolutive arguments of highly transitive verbs, which is commonly recognized as the most natural reflexive context, see Faltz (1977: 3); Kemmer (1993: 42–52); Haspelmath (2008); Haspelmath (2019: 16–17), then extending to derived and lexical inverse predicates by analogy.

The nominal reflexive qa ‘head’ with a possessive prefix is nothing but a newer instance of the same development. The grammaticalization path from ‘head’ to reflexive is cross-linguistically recurrent (see e.g. Schladt 2000; Heine & Kuteva

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2002: 168–169; Evseeva & Salaberri 2018⁴) and is common in the languages of the Caucasus, being attested across the Northwest Caucasian family as well as in the Kartvelian languages. The strategy with doubling of pronominal prefixes is probably a vestige of an earlier state with no dedicated reflexive marking, ousted to the periphery of the system when the specialized means of expression emerged.

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⁴It should be noted that the data on Abaza and Abkhaz adduced in these works are erratic and probably all stem from errors in the table given by Schladt (2000: 108) without reference to sources.

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Abbreviations

1	1 st person	IO	indirect object
2	2 nd person	IPF	imperfective
3	3 rd person	JUD	judicative
ABS	absolutive	LOC	locative applicative
ADD	additive	M	masculine
ADNUM	adnumerative	MAL	malefactive
ADV	adverbial	N	non-human
AOR	aorist	NAG	agent nominal
BEN	benefactive	NEG	negation
CAUS	causative	NFIN	non-finite
CLN	non-human classifier	NPRO	nominal proform
COM	comitative	NPST	nonpast
CSL	cislocative	PL	plural
DAT	dative applicative	PLH	human plural
DCL	declarative	POT	potential
DEF	definite	PRS	present
DIST	distal demonstrative	PST	past
EMP	emphatic	PURP	purposive
ERG	ergative	QH	human interrogative
F	feminine	QN	non-human interrogative
FUT	future	R	Russian loan
H	human	RE	refactive
IMP	imperative	REL	relativizer
INDF	indefinite	RFL	reflexive
INS	instrumental	RSN	reason subordinator
INTF	intensification	SG	singular
INVOL	involuntative	TRL	translocative.

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Chapter 9

Reflexivity in Kazym Khanty

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This paper discusses reflexivity strategies in the Kazym dialect of Khanty, an endangered Uralic language spoken in northwestern Siberia. Khanty is a language without dedicated reflexive pronouns (Nikolaeva 1995; 1999b); to express reflexivity Kazym Khanty speakers use personal pronouns, a doubled pronoun construction or add a particle to a personal pronoun. For a closed class of verbs in Kazym Khanty detransitivising suffixes can be employed to convey the reflexive meaning. The absence of dedicated reflexive pronouns is a typological rarity, cross-linguistically they are considered the ‘norm’ (Moyse-Faurie 2008; Heine & Miyashita 2008). The paper presents a hypothesis of how Kazym Khanty avoids exceeding anaphoric ambiguity

1 Introduction

The present paper discusses reflexivity strategies in the Kazym dialect of Khanty, an endangered Uralic language spoken in northwestern Siberia. Khanty is known in the literature to be a language without dedicated reflexive pronouns (Nikolaeva 1995; 1999b). That is true also for the Kazym dialect of Khanty: personal pronouns function as reflexive pronouns – cf. (1):

- (1) *Evi-j-en λtuw-ti šiwaλ-əs-λe.*
girl-OBL-POSS.2SG (s)he-ACC see-PST-3SG>SG
‘The girl saw him / herself.’¹

¹In Khanty, the 2nd person singular possessive suffix is often used in a non-possessive function



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A terminological note is warranted before we proceed. We use the term *reflexivity* for the phenomenon where two roles in a situation are performed by the same participant. The ways a natural language encodes reflexivity are referred to as *reflexivity strategies* (e.g. reflexive pronouns, verbal reflexive affixes). We use the term *binding* for an anaphoric dependency within a sentence, especially if the antecedent is non-referential (we, however, use this term loosely and refrain from any theoretical claims as to the nature of this dependency); we reserve the term *coreference* for the cross-sentential anaphoric dependencies. *Local binding* refers to an anaphoric dependency between coarguments of a verb. The term *covalueation* is used as a cover term for both *binding* and *coreference*. We also use the term *reflexive possessive construction*, if the possessor of an argument is covalued with another argument in the clause.

Kazym Khanty differs from the northern varieties of Khanty discussed in the literature: for the 3rd person pronoun to be locally bound, the verb is not required to bear any special kind of agreement (we will address this in detail in §3; the reverse pattern with obligatory object agreement on the verb is described for the Tegi variety in Volkova & Reuland 2014 and for the Obdorsk variety in Nikolaeva 1999b). Apart from employing personal pronouns to encode reflexivity, Kazym Khanty speakers also make use of a doubled pronoun construction or add a particle to a personal pronoun (§4). A closed class of verbs in Kazym Khanty allows detransitivising suffixes to express reflexivity (§5). §6 deals with reflexive possessive constructions which combine a personal pronoun and a possessive affix on the possessed noun. Different means of intensification are discussed in §7.

The absence of dedicated reflexive pronouns is typologically unusual, cross-linguistically they are considered the ‘norm’ (Moyse-Faurie 2008; Heine & Miyashita 2008). We discuss how Kazym Khanty avoids exceeding anaphoric ambiguity in §8. §9 concludes.

The Kazym data and generalizations provided in this paper come primarily from the elicitation sessions conducted during the HSE University team field trips to Kazym (2018–2019). These examples are given below with no reference to the source. However, in illustrating language facts of Kazym Khanty we also (where possible) resort to providing examples from texts. They come from either the Western Khanty corpus collected and glossed by Egor Kashkin (WKhC) or the text corpus collected by our team during the fieldwork (KKhC).

to indicate discourse salience. In such uses, the link to the possessive meaning is preserved: when translating from Khanty to Russian, native speakers often convey the meaning with a 2nd person singular pronoun. The non-possessive uses of possessive affixes in Khanty are often reminiscent of definite articles, but the correspondence is not full. Thus, their distribution and referential properties need further investigation.

2 Khanty: a profile

2.1 Sociolinguistics

Khanty (Ostyak) is a member of the Ob'-Ugric subgroup of the Ugric group (includes also Mansi (Vogul) and Hungarian) of the Uralic language family. It is spoken by some 9,500 people (2010 census). The ethnic population totals 28,700 people spread out over several thousand square kilometers in northwestern Siberia, Russia (LewisEtAl2013) from the upper reaches of Pechora, in the northern Urals, to the Yugan, Vasyugan, and Vakh rivers in the Tomsk region. The majority of Khanty people live in the Khanty-Mansi and Yamalo-Nenets Autonomous Regions, smaller groups reside in the Tomsk region. Due to limited contact between groups of speakers, the Khanty have developed a dialectal continuum, the opposite ends of which diverge greatly in both grammar and lexicon and are mutually incomprehensible (Nikolaeva 1999b). The most commonly accepted classification of dialects goes back to (Steinitz 1937). They can be subdivided into three groups: i) Eastern dialects (dialects of Vakh-Vasyugan, Surgut and Salym); ii) Southern dialects (dialects of Irtysh and Demyanka); iii) Northern dialects (dialects of Middle-Ob', Kazym, Shuryshkary and Obdorsk). At present, the southern dialects have almost died out, the eastern dialects are highly endangered. The northern dialects are used primarily by the older generation (50+).

The variety reported in this paper is spoken in the village of Kazym in the Beloyarsky District in the northern part of the Khanty-Mansi Autonomous Region, just to the east of the Ob' river. Another idiom we mention is the Berezovo Khanty variety spoken in the Tegi village which is situated in the Ob' basin.

2.2 Nominal system

The nominal system has three cases: Nominative, Dative, and Locative. The language distinguishes three numbers: singular, dual and plural. Personal pronouns also distinguish three cases, but unlike nouns, they have dedicated affixes for Accusative and lack Locative. The pronominal system has three persons: 1st, 2nd and 3rd.

Like many other Finno-Ugric languages, Khanty employs a full set of nominal suffixes encoding number and person of a possessor on a possessed noun. A possessor expressed by a full nominal or a free personal pronoun may or may not be present in addition – see (2a) and (2b) respectively. In Kazym Khanty, possessive affixes are obligatory only in the case of an overt free personal pronoun posses-

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sor (2a) and are optional otherwise². In (2c), in a noun phrase “Leshtan’s elder son” a possessive marker is present on the head noun “son” (2textcyrillic), while in a noun phrase “sister’s dress” in (2d) it is absent on the head noun “dress”. λ

- (2) a. *Ma puχ-εm / *puχ wən woš-ən wəχ.*
I son-POSS.1SG / son big town-LOC live
‘My son lives in a big town.’
- b. *Ake-m tiw χăt-əmt-əs.*
uncle-POSS.1SG here move-PUNCT-PST
‘My uncle came in.’ [WKhC, “Russian doll”]
- c. *λeştan-lejke-λ wən poχ-əλ joχt-əs.*
Leshtan-DIM-POSS.3SG big son-POSS.3SG come-PST
‘The elder son of Leshtan came in’ [WKhC, “Bogatyr”]
- d. *Ma upe-m jernas λuamt-s-əm.*
I sister-POSS.1SG dress put.on-PST-1SG
‘I put on my sister’s dress.’

Possessive affixes can also be attached to postpositions (3):

- (3) *Ma λi w piλ-aλ-a kulaś-ti pit-λ-əm.*
I they with-POSS.3PL-DAT fight-IPFV.PART become-NPST-1SG
‘I’ll fight with them!’ [WKhC, “The river land man and Ob’ river land man”]

Possessive affixes in Khanty also have a number of non-possessive functions: they can mark semantic/discourse features of a noun phrases such as definiteness, topicality, familiarity as in (4a) (see Nikolaeva 1999b; Simonenko 2017; Mikhailov 2018 for a detailed discussion). The 2nd person singular possessive suffix is also used in a discourse function (4b), marking what can be roughly described as discourse salience. This is particularly frequent with person names.

- (4) a. *I ike-λ lup-λ.*
one man-POSS.3SG say-NPST[3sg]
‘One man (the river land man) says.’ [WKhC, “The river land man and Ob’ river land man”]

²According to (Nikolaeva 1999b: 52), in Khanty lexical possessors do not trigger possessive marking on the head. In contrast, in our Kazym data (including data of WKhC) we register some cases of headmarking with lexical possessors. Thus, the distribution of possessive markers in Kazym is different from that in Ob’ dialects, but establishing the exact rules of it is outside the scope of present paper.

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- b. *Worja imi-j-en pa lop-t-aλ.*
 raven woman-OBL-POSS.2SG ADD tell-EVID.PRS-3SG
 '(It appears that) The (female) raven says:' [WKhC, "The raven and the gull"]

2.3 Verbal system

Kazym Khanty distinguishes two tenses³: past and non-past. A verb has three argument marking patterns: subject agreement, subject-object agreement and passive. In the case of subject agreement, the verb obligatorily agrees with the subject in number (SG, DU, PL) and person (1st, 2nd, 3rd). Both intransitive (5) and transitive verbs (6a) attach subject agreement suffixes.

- (5) *Tām još ewel̥t n̥ewrem-ət aškola-j-a jāŋχ-λ-ət.*
 this road from child-PL school-OBL-DAT go-NPST-3PL
 'Children go to school along this road.'

Like other Ob'-Ugric languages, Khanty employs differential object marking. In the absence of the Accusative case marker (except for pronouns), it comes in the form of object agreement. Transitive verbs in Khanty can optionally agree in number (singular vs. non-singular) with the direct object – this is expressed by subject-object agreement paradigm (6b). According to some reference grammars (e.g. Honti 1984), agreement with the object is licensed by the definiteness of the direct object. In Kazym, the system is more complex with aspect playing a role (see below in §2.4).

- (6) a. *Vas'a-j-en ar arij-s.*
 Vasja-OBL-POSS.2SG song sing-PST[3SG]
 'Vasja sang a song.'
 b. *Vas'a-j-en ar-əλ arij-s-əλλe.*
 Vas'a-OBL-POSS.2SG song-POSS.3SG sing-PST-3SG>SG
 'Vasja sang the/his song'

The third argument marking pattern is passive (7). The passive affix follows the tense markers on the verb, and then subject agreement affixes are attached. The logical subject is demoted to an oblique locative position. Apart from direct

³There is also a separate paradigm for evidential forms. These forms are formed with participles in a predicative position inflected with possessive affixes for subject agreement.

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objects, in Kazym Khanty, Recipients and low Applicatives (7) can be promoted into the subject position (Nikolaeva 1999b; Colley & Privoznov 2019):

- (7) (Ma) *aŋk-ɛm-ɔn jernas-ɔn jont-s-aŋ-m.*
 I mother-POSS.1SG-LOC dress-LOC sew-PST-PASS-1SG
 ‘My mother sewed a dress for me.’ (lit. ‘I was sewn by my mother with a dress.’)

Like Hungarian, Khanty has a rich system of detachable preverbs which are grammaticalized adverbs. Some of them have the source semantics of space relations (cf. *nux* ‘up’, *ił* ‘down’). A number of them have developed aspectual meanings (e.g. telicity, Kozlov 2019):

- (8) a. *Waška-j-e kinška λuŋt-ɔs.*
 Vasja-OBL-POSS.2SG book read-PST[3SG]
 ‘Vasja read the book / read the book for a while / was reading the book.’
- b. *Waška-j-en kinška nux λuŋt-ɔs-λe.*
 Vasja-OBL-POSS.2SG book up read-PST-3SG>SG
 ‘Vasja read the book (to the end) / #read the book for a while / #was reading the book.’

In (8a), the verb *λuŋtati* ‘read’ in past tense can have an atelic, a telic and a progressive meaning. In contrast, in (8b) when accompanied with the preverb *nux* this verb can have only a telic reading, the atelic reading is unavailable.

Khanty also makes use of a number of polyfunctional verbal affixes to encode valency-changing operations (causative, reflexive, middle, impersonal and antipassive). This point is illustrated in (9):

- (9) a. *Aŋk-ɛm jernas upe-m-a jont-λ.*
 mother-POSS.1SG dress sister-POSS.1SG-DAT sew-NPST[3SG]
 ‘My mother is sewing a dress for my sister.’
- b. *Aŋk-ɛm jont-ɔs-λ.*
 mother-POSS.1SG sew-DETR-NPST[3SG]
 ‘My mother is sewing.’

Adding detransitivising suffix *-ɔs-* to a transitive verb *jontati* ‘sew’ (9a) makes it intransitive (9b). The use of such verbal affixes is lexically restricted and not productive.

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2.4 Clause structure

Khanty is a SOV language, but the word order is relatively free (Nikolaeva 1999b). Khanty employs accusative alignment. The choice between the three argument marking patterns discussed in the previous subsection depends on the information structure of the clause. Object agreement is used if the object is a “secondary topic” (this feature often correlates with definiteness of a noun phrase, see Nikolaeva 1999a). In Kazym Khanty, some speakers disfavour subject agreement on the verb if the direct object is a pronoun (disregarding whether it is bound or not) or a definite noun phrase. However, one more factor comes into play: the aspectual and actional properties of the verb (Kozlov 2019). The interaction of the aspectual interpretation of the clause and the object marking on the verb is rather complicated. Roughly, a definite object and subject agreement on the verb are possible only if the clause has an imperfective reading (10a); on the other hand, with certain telic verbs the definite direct object requires subject-object agreement under perfective interpretation (10b). Consequently, both subject and subject-object agreement patterns on the verb are compatible with a definite/pronominal direct object:

- (10) a. *Petra χw mān-ti wox-əs.*
Peter long.time I-ACC call-PST[3SG]
‘Peter was calling for me for a long time.’
- b. *Petra mān-ti wox-s-əλλe.*
Peter I-ACC call-PST-3SG>SG
‘Peter called me up.’

Passive is a basic topic maintaining device (Nikolaeva 1999b: 30; Koshkaryova 2002: 35). Topic is encoded as a subject (Nikolaeva 1995; 1999b). Thus, passive is used to promote a non-subject argument (e.g. Theme, Recipient) into the subject position under topicalization (for a more detailed discussion of passive properties see Kiss 2019; Colley & Privoznov 2019), while focused subjects of transitive verbs are usually illicit:⁴

⁴Under certain conditions some speakers allow focused subjects (i), but such examples are rare. As for intransitive verbs, the focused wh-word *χuj* ‘who’ can be used with a verb in active voice (ii.a), however, for some verb classes passive is also an option (ii.b) with a low applicative being promoted into the subject position.

(i) *Xuj met χuw-a juwət-λ-əλe.*
who most long-ADV throw-NPST-3sg>sg
‘Who will through [this stick] the farthest’ [WKhC, “The Tale of the Priest and of

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- (11) a. *Täm ar-əλ χuj-ən ari-s-a?*
 this song-POSS.3SG who-LOC sing-PST-PASS[3SG]
 ‘Who sang this song?’ (lit. ‘By whom this song was sung’)
 b. **Xuj täm ar-əλ ari-s(-əλλe)?*
 who this song-POSS.3SG sing-PST-3SG>SG
 Int.: Who sang this song?

Example (11a) is a translation into Khanty of the sentence “Who sang this song?”: “this song” is promoted into the subject position, while the focused wh-word *χuj* ‘who’ is marked by locative; if the focused wh-word occupies the subject position, the sentence is illicit (11b).

Kazym Khanty also uses subject pro-drop. In (12), the subject is expressed only on the verb, there is no overt 2nd person pronoun in the sentence. In (13), a series of clauses has the same subject ‘grandfather’ which is never expressed as a full nominal.

- (12) *Ñaλm-en χotι wer-s-ən?*
 tongue-POSS.2SG what do-PST-2sg
 ‘– What have you done with your tongue?’ [WKhC, “A woman preparing sinews”]
- (13) *textcyrillicUCYRAn pa wə-λ-əm jām-a moś mońś-əs.*
 NEG ADD know-NPST-1SG good-DAT tale tell-PST[3SG]
Ar moś wə-s. Moś-λ-əλ χuw-ət.
 many tale know-PST[3SG] tale-PL-POSS.3SG long-PL
 ‘[He] knew a lot of tales. [His] tales are long.’ [KKhC]

Object pro-drop is also possible:

His Workman Balda”]

- (ii) a. *Jetən oλəŋ-a ši ji-s χuj ši χuwat muw-a män-əλ.*
 evening begin-DAT FOC become-PST who this length land-DAT go-NPST[3SG]
 ‘– It’s evening, who’ll go all the way out here?’ [WKhC, “Pashit-Wort”]
 b. *Maša-j-en χot χuj-at-ən λuŋ-s-a.*
 Masha-OBL-POSS.2SG house who-INDEF-LOC enter-PST-PASS[3SG]
 ‘Masha’s house was entered by someone.’ (Nikita Muravyev, p.c.)

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- (14) *Sempər kew potali juwət-s-a λəw katəλ-s-əlləe.*
 Schemper stone lump throw-PST-PASS (s)he catch-PST-3SG>SG
 '[They] threw the Schemper stone, he caught [it].' [WKhC, "The Schemper stone"]

(14), the argument of the verb *katəλsəlləe* 'caught' occupying the direct object position (in the second clause) is not expressed overtly. It refers to the Schemper stone mentioned in the first clause.

It should be noted, however, that object drop does not license a reflexive interpretation:

- (15) *Upi pa jaj išək-λ-əllən.*
 older.brother and older.sister praise-NPST-3DU>NSG
 {LC: The younger sister and brother performed very well.} 'The older brother and sister praise [them / *themselves].'

2.5 Personal pronouns

In Khanty, personal pronouns have three case forms: Nominative, Accusative, and Dative. The pronominal system distinguishes three persons – 1st, 2nd and 3rd – across three numbers: singular, dual and plural. The paradigms of Kazym Khanty personal pronouns are presented in the table below.

Table 1: Personal pronouns

	1SG	2SG	1DU	2DU	1PL	2PL	3SG	3DU	3PL
NOM	ma	năŋ	min	ninj	məŋj	nin	λəw	λin	λiw (λij)
ACC	mă̄n- ti	năŋ- ti	min-t	nin-t	məŋj-t	nin-t	λəw-ti / λəweλ ^a	λin-t	λiw-t
DAT	mă̄nem	năŋen	minam(a)	ninen(a)	məŋew	ninen	λəweλ(a)	λinan(a)	λiweλ

^aIn Kazym Khanty, the accusative and dative forms of pronouns differ from those in the Ob' region. However, there are speakers in Kazym who use the Ob' variants (*λəwel* [(s)he.ACC] and *λəweλa* [(s)he.DAT]).

The 3rd person pronouns in Kazym Khanty are only used with animate antecedents. If an antecedent is inanimate, speakers of Khanty resort to object drop, repeating the full NP or using a demonstrative. In (16), using the 3rd person pronoun *λəwti* to refer to the bowl is illicit; instead, the object is either dropped or

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the full NP *an-λ* ‘her bowl’ is pronounced. (17) exemplifies the use of a demonstrative *śi* ‘that one’.

- (16) *Maša-en λöt-əs χuram an. Ik-əλ-a*
Masha-POSS.2SG buy-PST[3SG] beautiful bowl husband-POSS.3SG-DAT
(*an-λ* / **λt̪w-ti*) *išək-s-əλλe*.
bowl-poss.3sg / (s)he-ACC praise-PST-3SG>SG
‘Masha bought a beautiful bowl. [She] praised [it] to her husband.’
- (17) *Van'a-en śi-ti išək-λ-əλλe*.
Vanja-POSS.2SG that.one-ACC praise-NPST-3SG>SG
‘Vanja praises it / him /*himself’

There are no dedicated possessive pronouns in Khanty, instead the Nominative form of a personal pronoun is used in possessive constructions:

- (18) *Täm năŋ λajm-en?*
this you axe-POSS.2SG
‘- Is it your axe?’ (WhKC, “The golden axe”]

3 Locally bound pronouns

3.1 Direct object

In Kazym Khanty, the majority of speakers use personal pronouns (non-reflexive forms) to encode binding:

- (19) *Maša-j-en_i λt̪w-ti_{i/j} λapət-λe*.
Masha-OBL-POSS.2SG (s)he-ACC feed-MPST[3SG]
‘Masha feeds herself / him.’

In (19), a 3rd person pronoun can be interpreted both as covalued with the subject of the clause or as coreferential to someone in the previous context.

The constraints on bound vs. disjoint reading of pronouns in such cases vary across the speakers⁵. For some speakers, the presence of object agreement on the verb licenses the bound reading of the pronoun (20a), while the subject agreement on the verb forces the disjoint reading (20b):

⁵At this point in our discussion we are focusing on the so called extroverted (or other-oriented) verbs. The differences in encoding reflexivity between extroverted and introverted (self-oriented) verbs will be addressed in §5

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- (20) a. $\lambda in \quad \lambda in-ti \quad išək-λ-əλλən.$
 they[DU] they[DU]-ACC praise-NPST-3DU>NSG
 ‘They praised themselves’
- b. $\lambda in \quad \lambda in-ti \quad išək-λ-əηən.$
 they[DU] they[DU]-ACC praise-NPST-3DU
 *‘They praise themselves.’ / ‘They praise them.’

This pattern is identical to the one described for Tegi Khanty in Volkova & Reuland (2014). For other speakers, verbal agreement seemingly plays no role, and a personal pronoun can get a bound or a disjoint reading either way. Consider (21a) and (21b): in (21a), the verb carries object agreement while in (21b) it agrees only with the subject; in both cases, the 3rd person pronoun $λ₮w$ can be interpreted as bound or as referring to someone mentioned in the previous discourse.

- (21) a. $Kašəŋ χ-j-at_i \quad λ₮wti_{i/j} išək-s-əλλe.$
 every man-OBL-INDEF he.ACC praise-PST-3SG>SG
 ‘Every man praised himself / him.’
- b. $Kašəŋ χ_i \quad λ₮w-ti_{i/j} išək-əλ.$
 every man he-ACC praise-NPST.3SG
 ‘Every man praises himself/him.’

Judgments on examples like (21) in Kazym Khanty often vary from speaker to speaker and from example to example elicited from the same speaker.

3.2 Indirect Object

Personal pronouns also encode reflexivity in the position of indirect (dative) object. Example (22) illustrates the point, $λ₮w$ is encoding Experiencer in Dative:

- (22) $Paša-j-en \quad λ₮weλa kāλ.$
 Pasha-OBL-POSS.2SG (s)he DAT be.visible.NPST[3SG]
 ‘Pasha is visible to himself / him.’ (~ Pasha is able to see himself / him.)

For Recipient (23), Benefactive (24) and other semantic roles that are encoded in Khanty by Dative, the strategy is the same: a locally bound personal pronoun. Depending on the context, in all these examples $λ₮weλa$ can also have a disjoint interpretation.

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- (23) *Nem χ-j-at λɥw-eλa šiməλ-šək ān pun-λ.*
no.kind man-OBL-INDEF (s)he-DAT few-ATT NEG put-NPST[3SG]
‘Nobody puts less to himself (than to others).’
- (24) *Waška-j-en λɥw-eλa χot os-əs.*
Vasja-OBL-POSS.2SG (s)he-DAT house build-PST[3SG]
‘Vasja built the house for himself / him.’

The 3rd person pronoun in the indirect object position cannot be anteceded by a direct object (25a), however, if it occupies a direct object position, an indirect object can serve as its antecedent (25b).

- (25) a. *. *Ma χur-ən Pet'a λɥw-eλa wantλta-s-əm.*
I image-LOC Petja (s)he-DAT show-PST-1SG>SG
Int.: I showed Petja to himself on the photo.
- b. *Ma χur-ən Pet'a-j-en-a λɥw-ti wantλta-s-əm.*
I image-LOC Petja-OBL-POSS.2SG-DAT (s)he-DAT show-PST-1SG>SG
‘I showed to Petja himself on the photo.’

3.3 Binding conditions for $\lambda_{\text{ɥw}}$

As mentioned above, personal pronouns can be bound by non-referential expressions such as quantifiers. In example (26), the 3rd person pronoun $\lambda_{\text{ɥw}}$ occupies the position of a direct object, and in (27) it occupies the position of an indirect dative object.

- (26) *Nem χθ-j-at λɥw-t ān šøka-λ.*
no man-OBL-INDEF (s)he-ACC NEG offend-NPST[3SG]
‘Nobody will offend himself.’
- (27) *Kašəŋ ewi-ja jont-λ λɥw-eλa tütšan χir.*
every girl sew-NPST[3SG] (s)he-DAT for.needlework pouch
‘Every girl sews herself a pouch for needlework.’

In general, when a subject of a clause is a quantified expression, speakers prefer the bound interpretation of $\lambda_{\text{ɥw}}$, but provided an appropriate context they allow the disjoint interpretation as well (28).

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- (28) *Pet'a-j-en nuχ pit-əs. Kašəŋ kort-əŋ*
Peter-OBL-POSS.2SG up become-PST[3SG] every village-ATTR
 $\chi jat\text{-}əw \lambda \# w\text{-}t išk\text{-}əl.$
man-POSS.1PL (s)he-ACC praise-PST[3SG]
‘Peter won (the game). Every man from the village praise him.’

If the antecedent is referential, there is no clear preference in favour of a bound or a disjoint reading, both are available. In (29), the verb in the first conjoined clause bears subject-object agreement while in the second clause it agrees only with the subject; in both clauses, the pronoun $\lambda \# w$ can get either a bound or a disjoint reading.

- (29) *Maša-j-en_i šuwaλ-əs-λe λ \# w-ti_{i/j} χur χoši i*
Masha-OBL-POSS.2SG see-NPST-3SG>SG (s)he-ACC image to and
Daša-j-en_k λ \# w-ti_{i/k/j} pa šuwaλ-əs.
Dasha-OBL-POSS.2SG (s)he-ACC ADD see-PST[3sg]
‘Masha saw her(self) on the photo and Dasha saw her(self) too.’

The 3rd person pronoun $\lambda \# w$ can also get a sloppy reading – cf. (30a). For the strict reading the speakers prefer repeating the full noun phrase as in (30b):

- (30) a. *Maša-j-en šuwaλ-əs-λe λ \# w-ti χur χoši i*
Masha-OBL-POSS.2SG see-NPST-3SG>SG (s)he-ACC image to and
Daša-j-en pa.
Dasha-OBL-POSS.2SG ADD
‘Masha saw herself in the photo and Dasha did so too (Dasha saw herself).’
- b. *Maša-j-en šuwaλ-əs-λe λ \# w-ti χur χoši i*
Masha-OBL-POSS.2SG see-PST-3SG>SG (s)he-ACC image to and
Daša-j-en iši Maša-j-əl šuwaλ-əs.
Dasha-OBL-POSS.2SG too Masha-OBL-POSS.3SG see-PST[3SG]
‘Masha saw herself in the photo and Dasha saw Masha too.’

3.4 Postpositional phrases

Some postpositions in Khanty can attach case and possessive suffixes (e.g. *ewəλt-əm-a* [from-POSS.1SG-DAT] ‘from me’), similarly to possessed nouns (see §2.2 and §6). The complement noun phrase overtly expressed as a free personal pronoun triggers the agreement on the postposition.

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- (31) \emptyset_i $Xəλ-mit\chiātəλ$ $šuwaλ-as\ješ$ $χoś-a$
 three-ORD day see-NPST[3SG] road near-DAT (s)he
 $λuwi$ $jelpe-λ-ən\wen\taś\pa\mir.$
 in.front.of-POSS.3SG-LOC big herd ADD people
 ‘On the third day he sees a big herd and people in front of him near the road.’ [WKhC, “The three wise words”]
- (32) $Paša-j-en$ (i) $λuwi_j$ $oλη-əλ-ən\putərt-as.$
 Pasha-OBL-POSS.2SG PT (s)he about-POSS.3SG-LOC tell-PST[3SG]
 ‘Pasha told about him/himself’
- (33) $Maša-j-en$ $ńawrem-λ-aλ_i$ $λiw_i\oλη-eλ-ən\putərt-as.$
 Masha-OBL-POSS.2SG child-PL-POSS.3PL they about-POSS.3PL-LOC
 tell-PST[3SG]
 ‘Masha told the children about them.’

In (31) and (32), personal pronoun $λuwi$ is covalued with the subject of the clause. (32) illustrates the fact that both bound and disjoint readings are available for $λuwi$ in a postpositional phrase, as in object position. In (33), $λuwi$ is covalued with a noun phrase in the direct object position.

Kazym Khanty also employs uninflected postpositions. They can also take pronouns as their complements, and the pronouns can be covalued with the subject as shown in (34):

- (34) $Mitχ_i\lambdauwi\rot-a\neoməs-ij-əλ.$
 servant (s)he along-DAT think-IPFV-NPST[3SG]
 ‘The servant thinks to himself.’ [WKhC, “The Quick-witted servant of the king”]

Personal pronouns with the postposition *kut-ən* ‘between’ form a reciprocal postpositional phrase:

- (35) $λin_i\kut-ən_i-ən\jäm-a\wuh-s-ŋən.$
 they.DU interval-2/3DU-LOC good-ADV live-PST-3DU
 ‘They had a good rapport with each other.’ [WKhC, “The Quick-witted servant of the king”]

There is also a dedicated lexeme *panən* meaning ‘with oneself’. This lexeme has the properties of a dedicated presuppositional comitative in terms of Perkova (2018), meaning the involvement of one of the coparticipants is presupposed.

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- (36) *ʃoχ i mǎn-s-ət ime-λ pǎnən tə-s-ət.*
 back go-PST-3PL wife-3SG with.self carry-PST
 ‘Back they went (and) took his wife with them.’ [WKhC, “The younger daughter of the sun”]
- (37) *pǎnən χǎλ-i χir-əλ-ən təp χ qəλ əm aj náń tǎj-əs.*
 with.self food.for.travel-ATTR sack-POSS.3SG-LOC only three small bread take-PST[3SG]
 ‘He took only three little loaves of bread in his sack with him.’ [WKhC, “The boy from the other side”]
- (38) *Mitχ e χon pǎnən λ-ti θems-əs.*
 servant king with.self eat-IPFV.PAR sit-PST[3SG]
 ‘The servant and the king with him sat down to eat.’ [WKhC “The Quick-witted servant of the king”]
- (39) *Amp-ew muŋ piλ-aw-a pǎnən ji-s.*
 dog-POSS.1PL we with-POSS.1PL-DAT with.self go-PST[3sg]
 ‘Our dog went with us (together with us).’ [WKhC, “On the river bank”]

Summing up, in all relevant contexts Kazym Khanty employs locally bound personal pronouns to express reflexivity. The agreement pattern on the verb does not play a crucial role in the availability of a bound reading the way it does in northern dialects of Khanty.

4 Pronoun doubling

4.1 Doubling λ_{HW}

Some speakers prefer or even require a doubling strategy for coargument binding. Examples in (40) and (41) elicited from different speakers illustrate the cross-speaker variation. In (40), $\lambda_{HW} \lambda_{HWti}$ forms a single unit which ensures a bound interpretation, cf. the impossibility to drop λ_{HW} in (40b).

- (40) a. *Maša-j-en_i [λ_{HW} λ_{HWti}]_{i/*j} λapət-λe.* (Speaker X)
 Masha-OBL-POSS.2SG (s)he (s)he-DAT feed-NPST-3SG>SG
 ‘Masha maintains herself by her own efforts (lit. Masha feeds herself).’

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- b. *Xuj *($\lambda \#w$) $\lambda \#w$ -ti muλχatλ išk-əs-əlləe.*
 who (s)he (s)he-ACC yesterday praise-PST-3SG>SG
 ‘Somebody praised himself yesterday.’

Other speakers disprefer this strategy (41a) or reinterpret $\lambda \#w \lambda \#w$ as a combination of an intensifier and a pronominal (on the use of $\lambda \#w$ as a self-intensifier see §7). In (41), both interpretations (bound and disjoint) are available for a simple pronoun.

- (41) a. *Maša-j-en_i (* λ $\#w$) λ $\#w$ -ti_{i/j} λapət-λe.*
 Masha-OBL-POSS.2SG (s)he (s)he-DAT feed-NPST-3SG>SG
 (Speaker Y)
- ‘Masha feeds herself / him.’
- b. *Vas'a-j-en λ $\#w$ λ $\#w$ -ti ān wə-λ-λe.*
 Vasja-OBL-POSS.2SG (s)he (s)he-ACC NEG know-NPST-3SG>SG
 ‘Vasja himself doesn’t know himself.’
- c. *Maša-j-en λ $\#w$ λ $\#w$ elə jontə kernal.*
 Masha-OBL-POSS.2SG (s)he (s)he.DAT sew-NPST[3SG] dress
 ‘Masha (herself) sew herself a dress.’

The order of the elements is also not fixed. Some speakers use the nominative form followed by the case form (40), one speaker also used the reversed order (42). In (42a), the verb bears subject-object agreement, in (42b), it agrees only with the subject, thus both options can be combined with the doubled pronoun.

- (42) a. *Učitel'-ət_i λi w-ti λi w_{i/*j} išək-s-ə λ aλ.* (Speaker Z)
 teacher-PL they-ACC they praise-PST-3PL>NSG
 ‘The teachers praised themselves / *them.’
- b. *Učitel'-ət_i λi w-ti λi w_{i/*j} išək-s-ət.*
 teacher-PL they-ACC they praise-PST-3PL
 ‘The teachers praised themselves / *them.’

4.2 Combining $\lambda \#w$ and *i*

Some Kazym Khanty speakers also use a combination of a discourse particle *i* and a 3rd person pronoun to encode reflexivity. This option unambiguously yields a bound interpretation. For some, it does not depend on the type of agreement on

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the verb (can be combined with both the subject and the subject-object agreement) – (43), others consider subject agreement on the verb in combination with *iλɯwti* illicit (44).

- (43) *Van'a-en i λɯw-ətti išək-λ(-əλλe).*
 Vanja-POSS.2SG PT (s)he-ACC praise-NPST(-3SG>SG)
 'Vanja praises himself / *him.'
- (44) *Evi-en i λɯw-ti išn'i lis-ən šiwaλ-əs*(-λe).*
 girl-POSS.2SG PT (s)he-ACC window glass-LOC see-PST-3SG>SG
 'The girl saw herself in the window glass.'

Summing up, personal pronouns in Kazym Khanty can have both a bound and a disjoint interpretation. If a speaker wants to avoid ambiguity, she can resort to an alternative strategy such as doubling of a 3rd person pronoun or adding a discourse particle *i* to a 3rd person pronoun. Both of these strategies are neither fully grammaticalized, nor accepted by all the speakers.

5 Verbal reflexivization

In Kazym Khanty, two detransitivising suffixes – -əs- (also -as-, -aś-) and -ijλ- – can function as verbal reflexivizers in combination with a closed class of verbs (grooming, bodily posture etc.). The use of the detransitivising suffix -əs- as a verbal reflexive is exemplified in (45).

- (45) a. *Maša-j-en λurt-as-əs.*
 Masha-OBL-POSS.2SG cut.hair-DETR-PST[3SG]
 'Masha got her hair cut.'
- b. *Maša-j-en puχ-əλ λurt-s-əλλe.*
 Masha-OBL-POSS.2SG son-POSS.3SG cut.hair-PST-3SG>SG
 'Masha cut her son's hair.'

The suffix -əs- can also mark reciprocity (46):

- (46) a. *λin λin khtən-ən tan-əs-λ-əŋən*
 they[DU] they[DU] between-POSS.3DU persuade-DETR-NPST-3DU
 'They persuaded each other.'

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- b. *Pet'a-j-en* *Vas'a-j-λ* *taŋ-s-əλe* *χot*
Peter-OBL-POSS.2SG Vasja-OBL-POSS.3SG persuade-PST-3SG>SG house
omas-ti.
build-NFIN.NPST
‘Peter persuaded Vasja to build a house.’

It also covers most of the meanings in the reflexive-middle domain on Kemmer’s semantic map (Kemmer 1993), including middle and antipassive, cf. (47b) for deobjective and (47c) for potential passive (possibilitive).

- (47) a. *Aŋk-εm* *jøn-λ* *jernas.*
mother-POSS.1SG sew-NPST.3SG dress
‘My mother is sewing a dress.’
b. *Aŋk-εm* *jønt-əs-λ.*
mother-poss.1sg sew-detr-npst[3sg]
‘My mother sews (clothes).’
c. *Tam šaškan jáma jønt-əs-λ.*
this textile good sew-DETR-NPST[3SG]
‘This textile is easy (good) to sew.’

Example (48) and (49) illustrate the use of suffix *-ijλ-* as a verbal reflexive:

- (48) a. *Ewi-je-n* *λuxit-ijλ-əs.*
girl-DIM-POSS.2SG wash-DETR-PST[3SG]
‘The girl washed.’
b. *Maša-j-en* *još-ηəλ* *λuxit-s-əλλe.*
Masha-OBL-POSS.2SG hand-POSS.3DU wash-PST-3sg>
‘Masha washed her hands.’
- (49) a. *Jivan-en* *ar vuχ repat-əs* *pa išək-ijλ.*
Ivan-POSS.2SG a.lot money earn-PST[3sg] and praise-DETR.NPST[3SG]
‘Ivan earned a big sum of money and praises himself / boasts.’
b. *Jivan-en* *jaj-əλ* *išək-əλ.*
Ivan-POSS.2SG brother-POSS.3SG praise-NPST[3SG]
‘Ivan praises his brother.’

The suffix *-ijλ-* can also be used to mark reciprocity (50).

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- (50) a. *Pet'a-en Maša-en pilä mosəłt-ijəλ-s-əŋən.*
 Petja-POSS.2SG Masha-POSS.2SG with kiss-DETR-PST-3DU
 'Petja and Masha kissed.' (lit. Petja kissed with Masha)
- b. *Im-əλ eweλt mosəłt-əs.*
 wife-POSS.3SG from kiss-PST[3SG]
 '(He) kissed his wife.'

However, its primary function is to mark frequentative (Kaksin 2007), as can be seen from the contrast between (51a) and (51b):

- (51) a. *Want-i sorəm muw-n oλ śi wojəmt-λ-a.*
 look-IMP.SO dry ground-LOC lay.NPST[3SG] FOC
 fall.asleep-NPST-PASS[3SG]
 'Look, (he) lies on dry ground, and he is about to fall asleep' [WKhC,
 "The river land man and the Ob' land man"]
- b. *At-λ iλ-əŋ teλ-n oməs-s-əλλe χuta wojəmt-ijəλ-s-a moj χuta āntq.*
 night-POSS.3SG soul-ATTR full-LOC sit-PST-3SG.SO where
 fall.asleep-IPFV-PST-PASS[3sg] or where NEG
 '...And so he spent the night, sometimes falling asleep, sometimes
 not.' [WKhC, "The river land man and the Ob' land man"]

The division of labour between *-əs-* and *-ijλ-* is lexically motivated. The existence of a certain suffixed form depends on a particular verb stem (cf. *λurt-* 'to cut hair' vs. *λurt-əs-* [cut.hair-DETR] 'to cut self's hair' vs. **λuχit-əs-* [wash-DETR]).

With detransitivised verbs, *λhw* can occasionally be used as a self-intensifier modifying the subject in a dedicated construction with the postposition *satta-/saxt*, cf. (52) (see §7.1 for details).

- (52) *Maša-j-en λhw saxt-əλ-a λuχit-ijλ-s.*
 Masha-OBL-POSS.2SG (s)he with-POSS.3SG-DAT wash-DETR-PST[3SG]
 'Masha herself washed herself'

The use of a bound personal pronoun or a doubled pronoun is also possible with grooming verbs (53)–(54), but speakers consider such examples artificial or triggering the meaning that by default the participant is incapable of performing this action on her own.

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- (53) *Maša-j-en* ($\lambda \# w$) $\lambda \# w-t$ $\lambda ux t-s-\partial \lambda e$.
 Masha-OBL-POSS.2SG (s)he (s)he-ACC wash-PST-3SG>SG
 ‘Masha (herself) washed herself?’

- (54) *Ajk-en* $\lambda \# w-ti$ $\lambda om \lambda a-s$.
 boy-POSS.2SG (s)he-ACC dress-PST[3sg]
 ‘The boy (himself) dressed himself (the boy is usually dressed by
 somebody else, but now he has managed to do this himself).’

Therefore, to encode reflexivity with introverted verbs, speakers primarily use detransitivising suffixes or possessive constructions (see §6.2).

6 Reflexive possessive constructions

6.1 Adposessive domain

To encode an anaphoric dependency between the subject of a clause and the possessor of a non-subject argument, Kazym Khanty employs a possessive affix sometimes accompanied by a free personal pronoun in the position of the possessor in a corresponding noun phrase:

- (55) a. *[Kašəŋ χjät]i arij-s* ($\lambda \# w_{i/j}$) $ar-\partial \lambda$.
 every man sing-PST[3SG] (s)he song-POSS.3SG
 ‘Every man sang his (own) / his song.’
- b. *[Kašəŋ χjät]i nəm-əλ-λe* ($\lambda \# w_{i/j}$) $kərt-\partial \lambda$.
 Every man remember-NPST-3SG>SG (s)he village-POSS.3SG
 ‘Every man remembers his (own) / his village.’

A bound reading for the possessor of a direct object is available independently of the presence of object agreement on the verb: the verb agrees only with the subject in (55a) and with the subject and object in (55b). This comes in contrast with data reported for the Obdorsk dialect in (Nikolaeva 1999b). In the Obdorsk dialect, a possessive affix is bound if the verb carries object agreement and can be interpreted as bound or disjoint in the case of subject agreement on the verb. In Kazym Khanty, both readings are available for both cases. The combination of a personal pronoun in the possessor position and a possessive affix is also used in 1st and 2nd person:

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- (56) *Ma ma muw-əm-ən jāχ-λ-əm.*
 I I land-POSS.1SG-LOC go-NPST-1SG
 ‘I am walking through my land.’ [WKhC, “The Quick-witted servant of the king”]

Some speakers who adhere to the non-doubling strategy of encoding reflexivity consider the overt pronoun redundant (57) and use it only to add emphasis.

- (57) *Vas'a-j-en (?λ₮w) ar-əλ ari-s-əλλe.*
 Vasja-OBL-POSS.2SG s(he) song-POSS.3SG sing-PST-3SG>SG
 ‘Vasja sang his own song.’

Some speakers strongly prefer a bound interpretation if the possessor position is occupied by an overt pronoun. In (58), the first sentence provides a context which identifies Peter as the author of the song. Despite that, in (58a) and (58b) presented to speakers with this context, this interpretation (Peter is the author of the song) is not readily available. Sentence (58a) has a local antecedent in the Locative while the possessive noun phrase is the subject of the passive construction. Sentence (58b) exemplifies active alignment with subject agreement on the verb:

- (58) *Pet'a-j-en isa arij-s λ₮w ar-əλ.*
 Peter-OBL-POSS.2SG always sing-PST[3SG] (s)he song-POSS.3SG
 ‘Peter always sang his (own) song.’
- Muλχatλ kašəŋ χθ-j-ăt-ən aris-a λ₮w ar-əλ.*
 Yesterday every man-OBL-INDEF-LOC sing-PASS[3SG] (s)he
 song-POSS.3SG
 1) ‘Yesterday, every man sang his (own) song.’ 2) ‘%Peter sang his (own) song. Yesterday every man sang his (Peter’s) song.’
 - Kašəŋ χθ-j-ăt arij-s λ₮w ar-əλ.*
 every man-OBL-INDEF sing-PST[3SG] (s)he song-POSS.3SG
 1) ‘Yesterday, every man sang his (own) song.’ 2) ‘%Peter sang his (own) song. Yesterday every man sang his (Peter’s) song.’

As was mentioned in §2.2, some discourse prominent noun phrases (the noun phrases under the scope of the pragmatic presupposition or noun phrases with secondary topic status, according to Nikolaeva 1999b) are marked with possessive affixes. In Kazym Khanty, direct objects with possessive affixes trigger object

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agreement on the verb (excluding imperfective clauses and noun phrases within the focus domain). There is a tendency among speakers to interpret such direct objects as belonging to subjects (associated with subject's personal domain) even if the relationship between the subject and the direct object is not possessive in the proper sense of the word:

- (59) *Pet'a tut jux-λ-aλ χuλ sewər-s-əλλe.*
 Peter fire tree-PL-POSS.3SG all cut-PST-3SG>NSG
 'Peter cut all his firewood.'

In (59), the relationship between subject (Peter) and the direct object (firewood) is established on the basis of the involvement in the same situation and on the basis of the presence in the same scene (presupposed under the same conditions).

In Kazym Khanty, object agreement on the verb does not force subject orientation for the possessive affixes, as can be seen in (60a) and (60b). In example (60a), the possessive suffix *-əλ-* on the direct object "her son" is covalued with the noun phrase within a PP "from this woman"; in (60b), the possessive suffix on the direct object is covalued with the zero subject ('the woman' mentioned in the previous clause). In both cases, the verb carries object agreement.

- (60) a. *λuʷw si imi ewəλt poχ-əλ woχ-ti*
 (s)he this woman from son-POSS.3SG beg-IPFV.PART
pit-s-əλλe.
 become-PST-3SG.SO
 'He started begging this woman for her son.' [WKhC, "Bogatyr"]
- b. *Śāλta mꝝt jeχət poχ-əλ tini-j-s-əλλe si śoras*
 then most later son-POSS.3SG sell-OBL-PST-3SG>SG this goods
χθ-j-a.
 man-OBL-DAT
 '(The woman)...then sold her son to this merchant.' [WKhC,
 "Bogatyr"]

Example (61) showcases that the antecedent of the possessor expressed with a possessive affix can be the direct object, which is possible both with subject-object agreement (61a) and with subject-only agreement on the verb (61b):

- (61) a. *Maša-j-en ak-et_i χot-eλ_i-a kit-s-əλλe.*
 Masha-OBL-POSS.2SG boy-PL house-POSS.3PL-DAT send-PST-3SG>NSG
 'Masha sent the boys to their house.'

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- b. *Maša-en ajk-et_i χot-eλ_i-n šiwaλ-əs.*
 Masha-POSS.2SG boy-PL house-POSS.3PL-LOC see-PST[3SG]
 ‘Masha saw boys in their house’

In Kazym Khanty, at least for some speakers the unmarked direct object (indefinite direct object) does license the covalued interpretation of a possessive marker on another noun phrase (61b). In this respect, Kazym Khanty also differs from the Obdorsk dialect of Khanty described by Nikolaeva (1999b).

6.2 Possessive constructions in encoding argument binding

Possessive constructions are widely used with introverted verbs, in particular, they are preferred with grooming verbs:

- (62) a. *Vas'a-j-en tuš-λ-aλ λur-s-əλλe /*
Vasja-OBL-POSS.2SG whiskers-PL-POSS.3NSG cut.hair-PST-3SG>NSG /
λurt-əs.
cut.hair-PST[3SG]
 ‘Vasja shaved his whiskers.’
- b. *Vas'a-j-ən tuš-λ-aλ λurt-s-aj-t.*
Vasja-OBL-LOC whiskers.-PL-POSS.3NSG cut.hair-PST-PASS-3PL
 ‘Vasja shaved his whiskers.’ lit. ‘His whiskers were shaved by Vasja.’
- (63) *Maša-j-en ορət-λ-aλ nuh kunš-s-əλλe.*
Masha-OBL-POSS.2SG hair-PL-POSS.3NSG up comb-PST-3SG>NSG
 ‘Masha combed her hair (herself).’

Possessive constructions can also be used with extroverted verbs to encode argument binding. In (64), instead of using the 3rd person pronoun *λuw* in the direct object position (as in ‘saw him(self)'), speakers prefer a possessive construction ‘(his) shadow image’ (=reflection):

- (64) *Was'a-j-en jijk lot-a šeš-əs. Šāta šiwaλ-əs-λe*
Vasya-OBL-POSS.2SG water pit-DAT walk-PST[3SG] there see-PST-3SG>NSG
(λuw) is xur-əλ.
 (s)he shadow image-POSS.3SG
 ‘Vasya came up to a puddle. He saw there his (own) reflection.’

To sum up, in Kazym Khanty there are no dedicated reflexive possessive pronouns or dedicated reflexive possessive affixes. The reflexivity in this context is

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encoded by means of possessive affixes. Besides, the possessor can be overtly expressed with a free personal pronoun in the possessor position in the noun phrase. Not only subjects but also direct objects can antecede possessive affixes irrespective of the agreement patterns on the verb. Possessive constructions are also often used both with introverted (especially, grooming verbs) and extroverted verbs in place of other ways of encoding reflexivity.

7 Self-Intensification

7.1 The postpositional phrase with *satta-/saxt*

Kazym Khanty employs a dedicated grammaticalized postpositional construction as an intensifier with the meaning ‘on one’s own, by oneself’. It consists of a personal pronoun and a postposition *satta-/saxt-* with a corresponding possessive affix:

- (65) *Ma ma satt-εm-a* *śit wer-λ-εm.*
 I I with.self-POSS.1SG-DAT this do-NPST-1SG>SG
 ‘I do it myself’

This intensifier is controlled by the subject. The subject triggers the possessive agreement – cf. (65) for the 1st sg and (66) for the 3rd sg:

- (66) a. *λεw saxt-əλ-a* *moləpś-əλ*
 (s)he with.self-POSS.3SG-DAT deer.skin.coat-POSS.3SG
 λəmt-s-əλλe.
 put.om-PST-3SG>SG
 ‘(He) himself put on his malitsa (deer skin coat) (without anybody’s help)’
- b. *λεw saxtət-əλ-a* *λəmt-λ-əs.*
 (s)he with.self-POSS.3SG-DAT put.on-PRS
 ‘(He) dresses up by himself’

According to Kaksin (2007), the postposition *satta* ‘with’ occurs only with personal pronouns. The final affix *-a* is a dative or an adverbial affix. The construction can be literally translated as ‘me with myself’ (Kaksin 2007: 93). This construction is never used in the sense ‘alone, separately’ or in a contrastive context.

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7.2 *λt̥w* as an intensifier

Some native speakers use the anaphoric pronoun *λt̥w* as an intensifier meaning ‘alone, separately’:

- (67) *Maša-j-en λt̥w juxt-əs petr-əλ ānt*
 Masha-OBL-POSS.2SG (s)he come-PST[3sg] Peter-POSS.3SG NEG
λawəλ-s-əλλe.
 wait-PST-3SG>SG
 ‘Masha came herself, she did not wait for Peter.’
- (68) *Maša-j-en λt̥w wər-s ar.*
 ‘Masha-OBL-POSS.2SG (s)he do-PST[3sg] song.’
 ‘Masha made the song by herself’

7.3 Other expressions for intensification

In Kazym Khanty, there are several other expressions (adjectives and adverbs) conveying intensification or reflexive possession meanings. An adjective *jukan* ‘own, personal’ forces the coreferential reading of the possessor of a noun phrase and the subject of the clause:

- (69) *λt̥w nāŋ nāń ānt λε-λ λt̥w (λt̥w) jukan nāń-əλ*
 (s)he you bread NEG eat-NPST[3SG] (s)he (s)he own bread-POSS.3SG
wər-λ.
 do-NPST[3sg]
 ‘She won’t eat your bread, she will cook her own bread.’

There is also a derivative *jukana* with the meaning ‘on one’s own, separately, for personal usage’: *jukana wəlti* ‘to live by himself’ (Solovar 2014: 102), cf. (70):

- (70) *Kɔrt-əŋ joχ λiŋ jukan-eλ-a tɔp iχušjaŋ wəli*
 village-ATTR people they own-POSS.3PL-DAT only eleven deer
tāj-λ-ət.
 have-NPST-3PL
 ‘The camp people own only eleven deers privately.’ [WKhC, “In the camp”]

Another lexeme with a similar meaning is an adjective *ateλt* ‘alone’ and a corresponding adverb *ateλta*:

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- (71) *Ma atełta wer-λ-əm.*
 I separately live-NPST-1SG
 ‘I live on my own.’

Intensification across languages is often expressed by the same form as reflexivity. In Kazym Khanty, in the absence of dedicated reflexive pronouns, this function can be performed by personal pronouns (for the 3rd person), by a grammaticalized postpositional construction with the postposition *satta-/saxt-* or with the help of dedicated adjectives like *jukan* ‘own, personal’ or *atełt* ‘alone’ and adverbs derived from them.

8 Strategies for overcoming the ambiguity

The Kazym Khanty data is typologically unusual: There are no dedicated reflexive pronouns; personal pronouns, including the 3rd person pronoun *λɯw* '(s)he', are used in reflexive contexts. Thus, the 3rd person pronoun can have both a reflexive and a disjoint reading. The question naturally arises, what are the ways of overcoming this ambiguity? When answering this question, the following factors should be taken into consideration. Firstly, the choice of discourse anaphora devices depends on the distribution of discourse topics and, hence, on the particular information structure of a clause: pronominal noun phrases tend to encode discourse prominent referents (discourse topics, cf. accessibility hierarchy of Gundel 1996), they refer to given information in a clause, and predominantly they are topics or secondary topics (Lambrecht 1994, Nikolaeva 1999b). Secondly, there is a direct mapping between information structure and an argument marking pattern (passive, object agreement) in Khanty. Thirdly, Khanty is a pro-drop language with possibility of direct object and possessor pro-drop.

Khanty exploits two primary strategies to avoid the conflict between reflexive vs. disjoint reading of the 3rd person pronoun in a non-subject position. As has been shown by Nikolaeva (1999b,a); Colley & Privozov (2019); Kiss (2019), information structure is the crucial factor that licenses a particular argument marking pattern in the clause in Khanty. Topics occupy the subject position in Khanty. If a pronominal argument is coreferential with a noun phrase from the previous discourse, it is likely to be a topic (it is given, presupposed). The following possibilities are available for it: (i) this argument is topical while the other argument in the clause is not topical (new), (ii) both core arguments of a predicate are topical.

The case when one argument is topical and the other is new is illustrated in example (72). The subject of the first clause is the agent, *Paša*. In the second

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clause, a new participant is introduced as an agent of the verb ‘to praise’, *Paša* loses its agent role but preserves its topical status – the passive construction is required:

- (72) *Paša-j-en_i* *χot λaŋəl λešit-s-əλλe.* \emptyset_i
 Pasha-OBL-POSS.2SG house roof repair-PST-3SG>SG \emptyset
Aŋk-əλ-ən *išək-s-a.*
 mother-POSS.3SG-LOC praise-PST-PASS[3SG]
 ‘Pasha repaired the roof. [He] was praised by his mother.’

In the second clause in (69), the agent of the verb ‘to praise’ is *aŋkəl* ‘his mother’, it is new, it cannot occupy the subject position. Hence, it is demoted to the oblique position marked with locative. The verb bears the passive marker. The topical noun phrase coreferential to *Paša* occupies the subject position and has no overt expression in the clause. The accusative argument marking as in (73) is not ungrammatical *per se*, but it is not a natural continuation for the first sentence in (72) as it violates discourse coherence.

- (73) *Aŋk-əλ* *λtəw-ti išək-s-əλλe.*
 Mother-POSS.3SG (s)he-ACC praise-PST-3SG>SG
 ‘His mother praised him.’

A similar case is presented in (74).

- (74) *Aš-εm* *muλχattəl sort katλ-əs,* *si sort(-əλ)* *ma*
 father-POSS.1SG yesterday pike catch-PST[3SG] FOC pike(-POSS.3SG) I
jaj-εm-ən.
 brother-POSS.1SG-LOC up let.go-PST-PASS[3SG]
 ‘My father caught the fish, my brother set it free.’

In (74), the noun phrase *sort* ‘pike’ is mentioned in the first clause and is the topic of the second one where it is the patient of the verb *εsəlti* ‘let go’. It is promoted to the subject position, the full noun phrase is repeated, and the verb in the second clause is in passive. Summing up, in Kazym Khanty, the topicalization of an argument is usually accompanied by passivization: the topicalized argument is promoted into the subject position where it is either repeated as a full noun or dropped.

If both arguments in the clause are topical, the subject is a topic introduced in the previous discourse and the direct object is a secondary topic (“an entity

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such that the utterance is construed to be about the relationship between it and the primary topic”, Nikolaeva 1999b,a, cf. also “tail” in Vallduví 1992). This is the context where object-drop is used:

- (75) *Want-λ-əλλε χot χări kut-λ-əp-ən*
 look-NPST-3SG>SG house open.place distance-POSS.3SG-ATTR-LOC
nawərñe-le_i ari-man oməs-əλ. Pupi poχ-ije Ø i
 frog-DIM sing-CONV sit-NPST bear boy-DIM take-PST-3SG>SG hand
wu-s-λe još păte-λ Øi χătśə-s-λe
 bottom-3SG hit-PST-3SG>SG frog-DIM mud-DAT become-PST[3SG]
nawərñe-le wośləχ-a ji-s.

‘[He] looks, a frog is sitting on the floor and singing. The bear took [her], hit [her] with his hand, the frog turned into mud’ (WhKC, “Little chipmunk”)

Example (75) is a fragment of a tale. The bear is a discourse topic in this part of the text. The bear goes to the house where he sees a frog. The frog is introduced in the first sentence and is also a discourse topic in this piece of text. In the consequent clauses the direct object referring to the frog has no overt lexical expression but is cross-referenced on the verb with the help of the subject-object agreement marker.

In other words, Kazym Khanty has an array of strategies (passivization, subject and object drop) that allow it to avoid 3rd person pronouns in the direct object position in the contexts where a familiar Standard Average European would have used a coreferential personal pronoun. This observation is also supported by the quantitative data. In the WhKhC corpus which has 2883 sentences in total there are only 17 clauses where $\lambda \# w$ occupies the direct object position. Five of them are cases where the subject and the direct object differ in their grammatical features (in person or number). The majority of the other cases stem from a retelling of a Russian tale and can be attributed to the influence of Russian.

Speakers of Kazym Khanty also employ a number of strategies to avoid locally bound 3rd person pronouns in the direct object position. These include replacing them with reflexive possessive constructions (§6.2) or using a detransitivised form of a verb instead of a transitive one. However, a 3rd person pronoun in the direct object position is a regular variant in isolated elicited sentences even though the native speakers are not consistent in their judgments on bound vs. disjoint readings. We hypothesize that the overt free pronoun in Kazym Khanty

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is, in a sense, reserved for reflexive contexts – see (76) where the bound 3rd person pronoun is contrastively focused.

(76)	<i>Was'a-j-en</i>	<i>Pet'a-j-λ-a</i>	<i>χur wan-əλt-əs.</i>
	Vasja-OBL-POSS.2SG	Peter-OBL-POSS.3SG-DAT	image look
	<i>Nəməs-əs</i>	<i>śata</i>	<i>Pet'a-j-en pa</i>
	-CAUS-PST[3SG]	think-PST[3SG]	there Peter-OBL-POSS.2SG ADD PT
(i)		<i>λuhw-t</i>	<i>śi</i>
(s)	he-ACC	FOC image-POSS.3SG-LOC	brain-DAT do-PST-3SG>SG
			<i>uš-a</i>
			<i>wər-s-əλλə.</i>

‘Vasya was showing a photo to Petya. (He) thought that Petya was there, (but instead) found himself on the photo’

In naturally occurring texts, coreference (discourse-level anaphora) is usually expressed by other means, therefore there is no real competition between a bound and a disjoint reading for a 3rd person pronoun. But it may arise in isolated sentences presented to speakers.

To sum up, there are no grammatical constraints on the 3rd person pronoun in the direct object position in Kazym Khanty, but in naturally occurring texts its use is rare.

9 Conclusions

Kazym Khanty uses locally bound personal pronouns to express reflexivity. Their behavior, unlike in other dialects of Khanty, is not grammatically constrained. In other words, in most of the cases we considered, a pronoun can have both a bound and a disjoint reading, and one cannot predict the interpretation solely based on grammatical factors.

This is typologically unusual. Other languages reported in the literature to allow locally bound 3rd person pronouns are Frisian (Everaert 1986), Old English (Gelderken 2000), and Haitian Creole Zribi-Hertz & Glaude 2007). In general, the use of dedicated strategies is considered the norm (Moyse-Faurie 2008; Heine & Miyashita 2008). Binding in Khanty thus violates the Principle B of the Binding Theory (Chomsky 1981). It is problematic for both the syntactic Reflexivity theory (Reinhart & Reuland 1993; Reuland 2011) and the semantics-based theory of Schlenker (2005), as well as for the theories that argue for the Disjointness presumption (Farmer & Harnish 1987; König & Siemund 2000) or for a blocking and obviation account (Kiparsky 2012).

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In our paper we discussed factors influencing the encoding of reflexivity in Kazym Khanty and offered an account in terms of distribution of labour. Unlike many European languages, Kazym Khanty avoids ambiguity when a 3rd person pronoun is used. Coreference (discourse-level anaphora) is expressed by different strategies which depend on topic domains and patterns of their encoding. The two crucial factors are: (a) the choice of verbal argument marking regulated by the information structure and (b) the patterns for subject and object pro-drop. The use of 3rd person pronouns in a direct object position is rare and is reserved for a bound reading even if it can also get a disjoint reading.

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Abbreviations

ADD	additive
ADV	adverbial
ATT	attenuative
ATTR	attributive
CAUS	causative
CONV	converb
DETR	detransitivizing affix
DIM	diminutive
DU	dual
EVID	evidential
IMP	imperative
INDEF	indefinite
IPFV	imperfective
KKhC	Kazym Khanty Corpus
NFIN	non-finite
NPST	nonpast
NSG	non-singular
OBL	oblique
ORD	ordinal
PASS	passive
PRS	present
PST	past
PT	particl
PUNCT	punctual
SO	subject-object agreement
WKhC	Western Khanty Corpus

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Chapter 10

Reflexive constructions in Polish

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Polish is an Indo-European language of the West Slavic sub-branch which has three types of reflexive constructions. The coreference between agent and patient participant roles can be expressed by one of the following reflexivizers: *siebie*, *swój* or *się*. The reflexive nominal form *siebie* shares the inflectional pattern with the personal pronoun, which is rather uncommon from a crosslinguistic perspective. The second reflexive nominal *swój* is used in the context of the third person to make a formal distinction between third-person reflexive possessive pronouns and their nonreflexive counterparts. Finally, the reflexive clitic *się* is verbal, modifying the syntactic and semantic value of the verbal valency. Even if *się* is particularly frequent in impersonal constructions, its omnipresence in middle or reflexive domains is non-negligible either. Like many Slavic languages, *się* may also be used to encode the antipassive function.

1 Introduction

1.1 Classification, distribution and dialects of Polish

Polish belongs to the Indo-European language family, which together with Atlantic-Congo, Austronesian and Sino-Tibetan is one of the most populous language families of the world. Within Indo-European, Polish belongs to the Slavic group that falls into three major sub-groups: East, West and South. Together with Czech, Slovak and Sorbian, Polish belongs to the West Slavic group. When compared to other members of West Slavic, Polish has the largest number of speakers. It is also the second most widely spoken Slavic language.

It is a well-documented and well-studied language, spoken mainly in Poland where it is an official language (see Figure 1). Today's calculations indicate that there are 38.5 million people who speak Polish as the first language. In the Czech



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Republic, Slovakia, Hungary, west Belarus and Ukraine, and central-west Lithuania, Polish is spoken by many people as a second language.



Figure 1: Map of Poland

Polish does not exhibit a strong regional diversification. This refers to both grammar and lexicon. It attests four or five dialects, depending on whether Kashubian is included or not. The latter is spoken in the north-west of Poland around the city of Gdańsk and presents characteristics shared by both languages and dialects. Another dialectal area includes Great Poland in the west, centred around the cities of Poznań and Gniezno. The dialect spoken in this area served as the basis for the formation of literary Polish. Another area is Little Poland in the south-east, centred on Kraków. This region greatly influenced the modern stan-

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dard language. The third area is Mazovia. It encompasses the region around the capital city of Warsaw, extended to east and north-east Poland. The last area is Silesia in the south-west, with the major city of Katowice.

1.2 General remarks on Polish morphosyntax

1.2.1 Clause structure

Polish clause structure has a flexible word order. The dominant pattern is SVO, which is the second most common word order type in the world (cf. Dryer 2013). Case coding and gender-number agreement between a verb and its core arguments shape the language in the direction of accusative alignment. It is a pro-drop language where the omitted pronoun can always be pragmatically or grammatically inferred from the context. Reflexive, middle, impersonal and antipassive are valency-changing operations expressed by verbal morphology.

1.2.2 Noun Phrase

Polish has a well-developed gender system. Among various categories, nouns systematically recognize grammatical gender distinction. The latter is based on a three-fold division, including masculine, feminine and neuter. All singular nouns are either masculine, feminine or neuter. Within a class of singular masculine nouns, Polish offers a more fine-grained differentiation based on masculine animate and masculine inanimate recognition. By contrast, plural nouns recognize only masculine (or ‘virile’) and non-masculine (or ‘non-virile’) gender distinction. Gender plays a prominent role in agreement. Specifically, noun gender is of relevance for noun-adjective agreement pattern, and for past tense agreement. Even if the noun gender is inherent in Polish, one cannot deduce its specific value, building on the noun form alone. It is only possible after the recognition of the class declension to which a given noun belongs.

Polish has a relatively rich case system including nominative, accusative, genitive, dative, locative and instrumental. Contrary to other Slavic languages (e.g. Bulgarian, Macedonian), it did not develop articles corresponding to the English definite *the* and indefinite *a/an* distinction. In this respect, Polish does not differ much from many languages of the world. It belongs to 198 languages out of 620 that lack definite and indefinite articles (cf. Dryer 2005). The noun phrases are thus vague in terms of definiteness and whether a particular noun receives a definite or indefinite interpretation is either deduced from a context or resolved by demonstratives.

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2 Pronouns

Polish has a rich set of pronouns, including personal, reflexive, possessive, demonstrative, interrogative, distributive, relative and indefinite. In the present section, I will focus only on those that are relevant for reflexive constructions, namely reflexive §2.2 and possessive §2.3 pronouns. A special attention will also be given to personal pronouns §2.1.

2.1 Personal pronouns

The paradigm of the Polish independent personal pronouns with their clitic counterparts is illustrated in Table 1 and in Table 2. While Table 1 is dedicated to the first- and second-person personal pronouns, Table 2 deals with the third-person status of personal pronouns.

Table 1: 1st and 2nd person pronouns in Polish

	1SG	2SG	1PL	2PL
NOM	ja	ty	my	wy
GEN	mnie/mię	ciebie/cię	nas	was
DAT	mnie/mi	tobie/ci	nam	wam
ACC	mnie/mię	ciebie/cię	nas	was
LOC	mnie	tobie	nas	was
INS	mna	tobą	nami	wami

Table 2: 3rd person pronouns in Polish

	1SG(M)	1SG(F)	1SG(N)	1PL(VIR)	1PL(NVIR)
NOM	on	ona	ono	oni	one
GEN	jego/go	jej	jego/go	ich	ich
DAT	jemu/mu	jej	jemu/mu	im	im
ACC	jego/go	ją	je	ich	je
LOC	nim	niej	nim	nich	nich
INS	nim	nią	nim	nimi	nimi

As it can be seen from above Tables, Polish personal pronouns clearly distinguish between the first, second and the third person. They are also sensitive to

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number and case of a noun or a noun phrase they substitute. The third-person pronouns additionally recognizes gender. Specifically, the singular form of a third-person pronoun is based on masculine, feminine and neuter distinction, whereas its plural counterpart offers only masculine vs. non-masculine opposition. Like in English, the declension of personal pronouns in Polish is quite peculiar as the nominative form differs from other cases i.e. *ja* 'I' vs. *mnie* 'me', etc.

The nominative first-person and second-person personal pronouns are typically omitted. Their realization is, however, necessary when one emphasizes the importance of the subject, as in (1) or seeks for clarification of meaning, as in (2), or contrasts the pronominal subjects, as in (3).

- (1) *Tylko ja pracuję w weekendy.*¹
only 1SG.NOM work.PRS.3SG in weekend.ACC.PL(NVIR)
'Only I work on the weekends.'
- (2) *Czy my się znamy?*
Q 1PL.NOM SELF know.PRS.1PL
'Do we know each other?' (Sadowska 2012: 267)
- (3) *Jeśli ty się teraz zabawiasz, to ja sobie idę.*
if 2SG.NOM SELF now have.fun.PRS.2SG then 1SG.NOM SELF.DAT go.PRS.1SG
'If you're having fun now, then I'm on my way.'

The deletion of the nominative third person pronouns is possible when their referent is easily inferred from the context. They are, however, expressed when used for the first time in a paragraph. In the subsequent ones, they can be omitted as long as their referent remains clear.

Another peculiarity of the Polish personal pronouns is that some of them recognize long vs. short opposition. In Table 1 and Table 2, the short forms appear after the slashes. Represented by the six forms *mię*, *mi*, *cię*, *ci*, *go* and *mu*, they behave like clitics. Neither can the short forms carry their own stress nor appear sentence initially, (4). They also manifest distributional restrictions: unlike their long counterparts, the short forms cannot appear after a preposition, (5).

¹Unless specified otherwise, I am the author of all examples.

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- (4) a. *Szukam cię. Kogo szukasz?*
 look.for.PRS.1SG 2SG.ACC who search.for.PRS.2SG
 'I'm looking for you. Who are you looking for? (Swan 2002: 155)
- b. *Ciebie / *Cię szukam*
 2SG.ACC / 2SG.ACC look.for.PRS.1SG
 'I am looking for you.'
- (5) a. *Patrzy na mnie / *mię.*
 look.PRS.3SG on 1SG.ACCC / 1SG.ACC
 'He is looking at me.'
- b. *Myszę o tobie / *ci.*
 think.PRS.1SG about 2SG.DAT / 2SG.DAT
 'I am thinking of you.'

The longer forms: *mnie* (vs. *mi*, *mię*), *ciebie* (vs. *cię*), *tobie* (vs. *ci*), *jego* (vs. *go*), *jemu* (vs. *mu*) are called emphatic pronouns and are used when the emphasis is required (Bielec 1998). They obligatorily carry the stress. Like the remaining independent pronouns, *mnie*, *ciebie*, *tobie*, *jego* and *jemu* can also occur at the beginning of the clause and after a preposition. The contrast between first-person short clitic form *mi* and its longer equivalence *mnie* is illustrated in (6).

- (6) a. *Nauczyciel dał mi ksiazkę.*
 teacher.NOM.SG(VIR) give.PST.3SG 1SG.DAT book.ACC.SG(F)
 'The teacher gave me the book.'
- b. *Nauczyciel dał mnie ksiazkę.*
 teacher.NOM.SG(VIR) give.PST.3SG 1SG.DAT book.ACC.SG(F)
 'I was the one the teacher gave the book to.' (Feldstein 2001: 65)

The independent personal pronouns that do not recognize short vs. long opposition can be stressed, depending on whether they are emphasized or not.

Regardless of their name, the referent of the personal pronouns in Polish may also denote animals or inanimate objects. This is illustrated in 7, where the inflected third person masculine pronoun *nim*. 3SG(M).LOC corefers with the masculine noun *stół* 'table'.

- (7) *Książki leżą na stole i pod*
 book.NOM.PL(NVIR) lie.PST.3PL(NVIR) on table.LOC.SG(M) and under

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nim.

LOC.SG(M)

‘The books are on the table and under it.’ (Sadowska 2012: 265)

Personal pronouns in Polish share many properties with their English equivalents. For instance, they form a paradigm, are not morphologically transparent and exhibit a restricted possibility in terms of the modification. However, they are necessarily referential, in particular definite. Thus, they cannot have a non-specific or generic interpretation. Neither can the Polish personal pronouns be used as bound variables. Example (8) illustrates the last point.

- (8) a. *Każda kobieta_i uważa, że ona_j*
 every.NOM.SG(F) woman.NOM.SG(F) consider.PRS.3SG that 3SG(F)
jest mądra.
 be.PRS.3SG clever.NOM.SG(F)
 ‘Every woman_i thinks that she_j is clever.’
- b. *Każda kobieta_i uważa, że jest_i*
 every.NOM.SG(F) woman.NOM.SG(F) consider.PRS.3SG that be.PRS.3SG
mądra.
 cleverNOM.SG(F)
 ‘Every woman_i thinks that she_i is clever.’ (Siewierska 2004: 11)

In 8, the anaphoric pronoun *ona* can be construed as coreferential only with some entity situated outside of the clause. Since personal pronouns in Polish are necessarily referential, they cannot be interpreted as bound variables. As pointed out by Siewierska (2004), a bound variable interpretation is still possible, however, only of the person inflection on the verb, (8).

The contrast in the interpretation between (8) corresponds to two kinds of coreference recognized in the literature under discourse-referential interpretation vs. co-varying interpretation. (8a) exemplifies the discourse-referential reading because the anaphoric pronoun *ona* denotes a particular woman the referent of which can only be identified in the discourse. In contrast, (8b) triggers a co-varying interpretation. The person inflected on the verb can be construed as bound by the quantified subject *każda kobieta* ‘every woman’ of the main clause.

Polish personal pronouns share one nominal feature, based on sociolinguistic implications (cf. Siewierska 2004). Among adults, the use of the third-person pronouns is highly informal. Thus, the system of the language developed special third-person pronouns with a formal flavour: *Pan*, *Pani* and *Państwo*, which

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function as honorific second-person pronouns. They serve as alternatives to the informal second-person singular *ty* and plural *wy* forms. The third-person pronouns of polite, formal address is still visible in the agreement of the verb, as shown in (9).

- (9) *Pani powinna przeprosić za swoje zachowanie.*
 Mrs. should.PRS.3SG(F) apologize.INF for REF.POSS.3SG(N)
 behaviour.ACC.SG(N)
- ‘Mrs. (you) should apologize for your behaviour.’

Polish speakers use the honorific pronouns when they address a stranger, a person they do not know well or who is of authority to express respect and distance. In the system, the honorific pronouns *Pan*, *Pani* and *Państwo* function in parallel with their corresponding grammaticalized nouns, meaning ‘gentleman’, ‘lady’, and ‘ladies and gentlemen, Mrs. and Mr.’ accordingly.

2.2 Reflexive pronouns

Polish has two reflexive pronouns, *siebie* and *się*, which display different formal and functional characteristics. In the current section, I will briefly summarize their similarities and differences. I will discuss these two reflexive forms in detail later on in §3.1 and §3.2 respectively.

In terms of the morphosyntactic characteristics, neither *się* nor *siebie* makes a gender distinction. They are also indifferent to number. Both, however, inflect for case. While *siebie* recognizes all of the cases except for nominative, *się* is sensitive to genitive, dative and accusative alone. Both forms thus constitute an incomplete (‘defective’) pronominal paradigm, given in Table 3.²

Since the reflexive pronoun *siebie* has the same inflectional pattern as the first-person and second-person personal pronoun (cf. Table 3), undoubtedly they belong to the same paradigm. In addition to the similar inflectional paradigm, *siebie* exhibits other pronoun-like features. For instance, it lacks article or possessive modifications. The coalition of the reflexive pronoun with the (personal) pronouns rather than with nouns is rare crosslinguistically. It is a particularity of western Indo-European languages in particular of Slavic and Germanic groups.

The difference between *siebie* and *się* also involves morpho-phonological variation. *Siebie* is defined as an independent pronoun. Hence, it is realized as separate word and what is more important it takes a primary word stress. It also

²Table 3 has been slightly modified.

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Table 3: The reflexive pronouns, adopted from Wiemer (2007: 517)

free	clitic form reflexive pronoun	independent form reflexive noun	independent form pro- noun	independent form personal noun	independent form pro- noun	independent form personal noun
NOM	-	-		ty.2SG		ja.1SG
GEN	się	siebie		ciebie		mnie
DAT	(se)*	sobie		tobie		mnie
ACC	się	siebie		ciebie		mnie
LOC	-	(prep.+) sobie		tobie		mnie
INS	-	sobą		tobą		mna

manifests syntactic independence, as it may occur in isolation as an elliptical answer. Example (10) illustrates this possibility.

- (10) a. *Komu kupiłaś lody?*
 whom buy.PST.2SG ice.cream.ACC.PL(NVIR)
 ‘For whom did you buy ice cream?’
- b. *Sobie.*
 SELF.DAT
 ‘Myself’ (Sadowska 2012: 278)

By contrast, the morpho-phonological characteristics of the reflexive form *się* clearly shows the properties of clitics. Even if *się* occurs as a separate word, it is clearly phonologically and morphologically dependent on the host. For instance, it lacks prosodic independence i.e. it cannot be stressed. The presence of *się* does not affect the place of stress of words to which it is adjacent either. Finally, *się* shows little, if at all, syntactic independence. It has a restricted distribution relative to the independent form. For instance, it cannot appear in isolation or after a preposition. Thus, the reflexive forms *siebie* and to two different paradigms.

The morpho-phonological variation between *siebie* and *się* corresponds to what Kemmer (1993) calls the heavy vs. light distinction. The form of *siebie* is thus defined as heavy because it contains more phonological ‘body’ that can be measured in terms of number of segments. *Się*, by contrast, is considered to have a light form. This means that like many other languages with heavy vs. light opposition in the reflexive domain (e.g. Djola, Old Nurse, Surselvan, Slavic), this

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dependent form demonstrates a reduced phonological material relative to the heavy form.

The difference between *siebie* and *się* reflects a nominal/verbal distinction. The possibility to occur in non-object position or in isolation can be taken as indication of the (pro)nominal features associated with *siebie*. *Się* is more of the verbal type. It cannot appear in the non-object position. Its combination with a transitive verb may result in the modification of the syntactic structure of the predicate. Moreover, both reflexive forms demonstrate functional differences. In contrast to *siebie* the use of which is primarily limited to express the coreference meaning, *się* is highly polyfunctional with a wide scope beyond the coreference domain. Finally, both the reflexive forms are diachronically related, where *się* is claimed to originate from the pronoun *siebie*. In the reminder of this chapter, I will address these issues respectively.

2.3 Possessive pronouns

Polish has independent possessive pronouns that agree in gender, number and case with the noun they refer to. Table 4³ and Table 5 offer their forms with differential and coreferential interpretation respectively.

Table 4: Differential possessive pronouns in nominative case; adopted from Wiemer (2007: 519)

	1SG.M	1PL	2SG	2PL
M	mój	moi	twój	twoi
F	moja	moje	twoja	twoje
N	moje	moje	twoje	swoje

The peculiarity of the Polish possessive pronouns is a formal split at the level of the third-person pronoun, leading to the distinction between coreference vs. disjoint interpretation. Since the third-person possessive pronouns: *swój* (3SG(M)), *swoja* (3SG(F)), *swoje* (3SG(N)) (together with their plural equivalents) co-refer with the subject participant of the clause, they are labelled reflexive possessive pronouns. They contrast with their possessive nonreflexive counterexamples: *jego* (SG.M/N) and *jej* (SG(F)) (also with their plural equivalents). These pronouns signal that a possessor referent is different than subject. The formal split based reflexive vs. non-reflexive possessive opposition is rare crosslinguistically. Many

³Table 4 has been slightly modified.

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Table 5: Coreferential possessive pronouns in nominative case; adopted from Wiemer (2007: 519)

	3SG	3PL	3SG	3PL
M	swój	swoi	jego	ich
F	swoja	swoje	jej	ich
N	swoje	swoje	jego	ich

languages lack this distinction, leading *ipso facto* to referential ambiguity. A textbook example comes from English where in the clause *She went to her room*, the possessive pronoun *her* oscillates between coreference reading (*She went to her own room*) and a disjoint one (*She went to somebody else's room*).

3 Reflexive constructions

Polish distinguishes three kinds of reflexive constructions: (i) reflexive construction with the independent reflexive pronoun *siebie*, (ii) reflexive construction with the clitic form *się*, and (iii) reflexive construction with the possessive reflexive pronoun *swój*. Since the general morphosyntactic characteristics of these three reflexive forms have already been introduced in §2, in what follows, I will discuss their functional aspects and the idiosyncratic properties.

3.1 Reflexive constructions with the reflexive independent pronoun *siebie*

3.1.1 Functions

Depending on the subject, *siebie* is translated as ‘myself’, ‘yourself’, ‘herself’, ‘himself’, ‘itself’, ‘ourselves’, ‘yourselves’, ‘themselves’. It primarily performs two functions. In the first place, the pronoun co-refers with a singular subject, leading to the reflexive interpretation, (11).

- (11) a. *Oskarżony bronit siebie zaciekle.*
 accused.NOM.SG(M) defend.PST.3SG(M) SELF.ACC fiercely
 ‘The accused defended himself fiercely.’
- b. *Matka chroniła siebie i*
 mother.NOM.SG(F) protect.PST.3SG(F) SELF.ACC and

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- swoje* *dzieci.*
 REFL.POSS.ACC.PL(NVIR) child.ACC.PL(NVIR)
 ‘The mother protected herself and her children.’

The independent reflexive pronoun *siebie* can also be coreferential with the subject participant in the plural form. Here, it performs a reciprocal function, where it carries the meaning of ‘each other’ and/or ‘one another’. In fact, many Polish clauses with a plural subject and the reflexive pronoun *siebie* are ambiguous, situated at the interface of reflexive and reciprocal interpretations. Thus, in (12a) and (12b) the both reflexive and reciprocal readings are equally acceptable, and to resolve an interpretative conflict, a broader context is required.

- (12) a. *Przyjaciele bronili siebie długo.*
 friend.NOM.PL(VIR) defend.PST.3PL(VIR) SELF.ACC for.a.long.time
 i. ‘The friends were defending themselves for a long time.’
 ii. ‘The friends were defending each other for a long time.’
 b. *Magda i Marta lubiły siebie.*
 Magdanom and Martanom like.PST.3PL(NVIR) SELF.ACC
 i. ‘Magda and Marta liked themselves.’
 ii. ‘Magda and Marta liked each other.’ (Nedjalkov 2007: 263–264)

Not all clauses with a plural subject and pronoun *siebie* in object function are ambiguous. The pragmatic context may occasionally help to provide the disambiguation, as illustrated in (13).

- (13) *Przyjaciele obudzili siebie.*
 friend.NOM.PL(VIR) wake.PST.3PL(VIR) SELF.ACC
 i. *“The friends woke themselves up.”
 ii. ‘The friends woke each other up (e.g. by snoring).’ (Nedjalkov 2007: 264)

3.1.2 Domain of coreference

Example (14) illustrates the distribution of the reflexive *siebie* in various syntactic contexts.

- (14) a. *Marek szanuje tylko siebie.*
 Marek.NOM respect.PRS.3SG only SELF.ACC
 ‘Marek respects only himself.’

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- b. *Dziewczyny lubią tylko siebie.*
girl.NOM.PL(NVIR) like.PRS.3PL(NVIR) only SELF.ACC
'The girls like only themselves.'
- c. *Często mówicie do siebie na głos.*
often speak.PRS.2PL to SELF.GEN on voice.ACC.SG(M)
'You often speak to yourselves.'
- d. *Zawsze noszę na sobie czyste ubrania.*
always wear.PRS.1SG on SELF.LOC clean cloth.ACC.PL(NVIR)
'I always wear clean clothes.'
- e. *Zamknij drzwi za sobą.*
close.IMP.2SG door.ACC.PL(NVIR) behind SELF.INS
'Close the door behind you.'
- f. *Szybko znalazł sobie nową dziewczynę.*
quickly find.PST.3SG(M) SELF.DAT new.ACC.SG(F) girl.ACC.SG(F)
'He quickly found a new girl.'

Example (14) shows that *siebie* accepts two kinds of antecedent domain. The first is ‘autopathic domain’ (cf. Haspelmath, this volume §8) and refers to the coreference relation between subject and object in a monotransitive clause, (14). The second kind, recognized in the literature as oblique domain indicates the coreference relation holding between subject and an oblique participant of the same minimal clause. This can be observed in (14).

Unlike Turkish, Kashmiri and some other languages, Polish disallows the coreference of the independent reflexive pronoun *siebie* with the grammatically less salient antecedent i.e. object, (15). In order to express the coreference between the complement of the PP and the object, the language makes use of the pronominal non-reflexive anaphoric pronoun, as shown in (16).

- (15) *Jan_i opowiedział Piotrowi_j o sobie.*
Jan.NOM tell.PST.3SG(M) Peter.DAT about SELF.LOC
'John_i told Peter_j about self_{i,j}.'
- (16) *Jan_i opowiedział Piotrowi_j o nim*_{i/j/k}.*
Jan.NOM tell.PST.3SG(M) Peter.DAT about 3SG(M).LOC
'John_i told Peter_j about him*_{i/j/k}.' (Siewierska 2004: 193)

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3.1.3 Coreference of subject with the beneficiary

Another type of context relevant for the present discussion involves a coreference between the subject and the non-patient participant such as beneficiary.

In general, benefactive events refer to the type of event wherein the subject participant performs an action that is of benefit either for himself or for a distinct participant. This leads to ‘self-benefactive’ and ‘other-benefactive’ distinction. In self-benefactive events, the subject argument assumes thus two semantic roles: the one of the agent and the one of the beneficiary and the coreference between these two participants can be signalled in languages in multiple ways. For instance, in English, the agent-beneficiary coreference can be expressed either through the reflexive pronoun alone, as in *Paula bought herself a book* or by a reflexive pronoun coupled with the preposition for: *Paula bought a book for herself*. By contrast, the clause *Paula bought a book for John* exemplifies an benefactive event where *John*, construed as the beneficiary, takes advantage of the action performed for him by the agent participant. Like English, Polish also expresses the coreference of subject with a beneficiary by means of the reflexive pronoun that may occur in two syntactic configurations. While the first context involves the reflexive pronoun in dative form,(17a), in the second context, the reflexive pronoun is in the accusative form and accompanied by the preposition *dla* ‘for’,(17b).

- (17) a. *Dziecko kupiło sobie lizaka.*
child.NOM.SG(N) buy.PST.3SG(N) SELF.DAT lollipop.ACC.SG(M)
'The child bought herself a lollipop.'
- b. *Dziecko kupiło lizaka dla siebie.*
child.NOM.SG(N) buy.PST.3SG(N) lollipop.ACC.SG(M) for SELF.ACC
'The child bought a lollipop for herself.'

The alternation in coding the beneficiary coreference is common for all Slavonic languages. Even if it is subject to free variation in Polish, there is a tendency to favour a morphologically less complex beneficiary expressed by dative form rather than a prepositional phrase. This goes hand in hand with Swan's 2002 observation and corpus-based study. A survey of the National Corpus of Polish shows, for instance, that the verbal form *kupił* ‘buy.PST.3SG(M)’ occurs with the dative reflexive beneficiary form 287 times against 4 occurrences wherein the same participant is expressed through a prepositional phrase *dla siebie* ‘for oneself’. Building on the text-frequency criterion for markedness, Kemmer (1993) argues that self-benefactive constructions of the type (17a) are expected to happen far more frequent than their prepositional equivalents (17b). The author

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reports two further pieces of empirical evidence in support of this prediction. The first comes from Surselvan (Indo-European). [Stimm \(1973: 50\)](#), who carried out a corpus-based study for this language found only two examples of self-benefactive construction of the type (17b), against several hundred constructions of the type (17b). The second evidence comes from English. [Kemmer \(1993\)](#) extracted from the corpus of written British texts benefactive self-forms, where the constructions of the type (17a) vastly outnumbered those corresponding to example (17b).

3.1.4 Dative and accusative form of *siebie*

The dative form of *siebie* is used in many contexts optionally with a colloquial flavour. The pronoun gains an extra meaning, adding a nuance of casualness, volitionally, subjectivity, aimlessness, perverseness or even disregard. The omission of *siebie* shifts a register of the language into formal. Compare (18a) with (18b).

- (18) a. *Jak sobie chcesz.*
 as SELF.DAT want.PRS.2SG
 ‘As you want.’
 b. *Jak chcesz.*
 as want.PRS.2SG
 ‘As you want.’

Concerning the accusative form, *siebie* appears to compete in a formal speech with its light equivalent *się*. The contrastive analysis of this heavy-light opposition in the accusative context reveals some differences. [Sadowska \(2012\)](#) specifically points out the emphatic (19a) and contrastive (19b) function performed by the heavy reflexive form alone. In other accusative contexts, the light form *się* is particularly favoured, as shown in (19c).

- (19) a. *Tylko SIEBIE / *się widzę w lustrze.*
 only SELF.ACC SELF see.PRS.1SG in mirror.LOC.SG(N)
 ‘I see only myself in the mirror.’
 b. *Widzę siebie / *się, ale ciebie nie widzę.*
 see.PRS.1SG SELF.ACC SELF but 2SG.ACC NEG see.PRS.1SG
 ‘I see myself, but I don’t see you.’

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- c. *Widzę się w lustrze.*
 see.PRS.1SG SELF in mirror.LOC.SG(N)
 'I see myself in the mirror.'

3.2 Reflexive constructions with the reflexive clitic form *się*

3.2.1 Functions

Się literally means 'self'. One of the functions it performs is to signal in the clause the coreference between two participants. This situation is illustrated in (20), where the agent *oskarżony* 'the accused' in subject function instead of defending a distinct participant, performs the act of defence on himself. The coreference is signalled by means of the reflexive clitic *się*.

- (20) *Oskarżony bronił się w sądzie.*
 accused.NOM.SG(M) defend.PST.3SG(M) SELF in court.LOC.SG(M)
 'The accused defended himself in the court.'

Like the corresponding independent reflexive form, the clitic form *się* can also signal the reciprocal meaning in a clause. This observation holds particularly for the *się*-constructions that admit the presence of the plural subject. In Polish, such constructions are frequently ambiguous, oscillating between reflexive and reciprocal interpretations, as shown in (21).

- (21) *Asia i Janek czesali się codzienne.*
 Asia.NOM and Janek.NOM comb.PST.3PL(VIR) SELF every.day
 i. 'Every day Asia and Janek combed each other.'
 ii. 'Every day Asia and Janek combed themselves.' (Wiemer 2007: 515)

To disambiguate such clauses, either an extended context or the use of specific adverb is required. For instance, in (21), the reciprocal interpretation becomes explicit if one of the two synonymous adverbs *nawzajem* 'one another' or *wzajemnie* 'each other' is added to.

3.2.2 Dative form

We have already mentioned in §2.2 that in formal register *się* displays an accusative-genitive syncretism alone. However, linguistic descriptions occasionally mention the existence of dative form *se* limited to the colloquial use. The dative status of *się* is intriguing. Since it has gone out of use in standard Polish, many grammars

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do not discuss it explicitly (Feldstein 2001; Swan 2003; Sadowska 2012). Nevertheless, *se* appears nowadays to be very productive in colloquial usage. At this occasion, Swan (2002) mentions that in informal communication, the dative form *se* is highly marked stylistically. It adds to a communication a flavour of peasants' talks. This is because the use of the non-standard *se* is a distinctive feature of rural dialects. We observe that nowadays this form is widely accepted even by well-educated people, who employ it to colour their utterances. The colloquial use of dative *se* in Polish contrasts with other Slavic languages like Czech or Bulgarian, in which this form does not carry any stylistic and sociolinguistic implications and is perfectly acceptable in formal register.

3.2.3 Positioning

The position of the reflexive form *się* within a clause is not stable. As a clitic form, it may have different hosts, preceding or following them. Even if different syntactic and stylistic factors may condition this variable position, some clear tendencies can be distinguished. For instance, *się* favours the second position in a clause, as shown in (12) and (23).

- (22) *Dzieci się źle czują.*
 child.NOM.PL(NVIR) SELF bad feel.PRS.3PL
 'Children feel bad.' (Bielec 1998: 59)
- (23) *Janek się chce popatrzyć na ogród.*
 JanekNOM SELF want.PRS.3SG look.INF at garden.ACC.SG(M)
 'Janek wants to have a look at the garden.' (Sussex & Cubberley 2006: 391)

Even if in 23 *się* is hosted by the infinitive *popatrzyć* 'to look' of a subordinate clause, it still occupies the second position of the main clause. This possibility results from the fact that in Polish, a subordinate clause may shift the reflexive clitic to the left to meet a preference of this form for the second position. However, the configuration in which *się* is immediately adjacent to its host *popatrzeć* is also acceptable, as shown in *Janek chce się popatrzyć na ogród*.

According to Swan (2003), the positioning of *się* with regard to its verbal host is subject to language register. While in formal context, the reflexive clitic favours the post-verbal position, 24a, in colloquial speech, it tends to precede the verb, as shown in 24b.

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- (24) a. *Bardzo spieszę się.*
 very hurry.up.PRS.1SG SELF
 'I am in a big hurry.'
- b. *Bardzo się spieszę.*
 very SELF hurry.up.PRS.1SG
 'I am in a big hurry.'

Swan (2002) goes one step further and formulates the correlation between language register, the positioning of *się* and the length of the verbal host: the less formal the style, and the shorter the verb, the more likely it is that *się* will take the position before the verb.

Another context in which *się* demonstrates to some extent more or less stable position involves clauses in which it co-occurs with an enclitic (i.e. unstressed) personal pronoun. In this environment, the reflexive form tends to follow the pronoun rather than to precede it, 25.

- (25) *On mi się nie podoba.*
 3SG(M).NOM 1SG.DAT SELF NEG like.PRS.3SG
 'I don't like him.' (Swan 2002: 318)

Finally, *się* shows a strong regularity in the context of verb-initial-clauses. The clitic systematically occupies the position after the verb. The imperative clause illustrated in 26 may serve as an illustration of this type of structural configuration.

- (26) *Śpiesz się powoli!*
 hurry.up.IMP.2SG SELF slowly
 'Hurry up slowly.'

In some contexts, the employment of *się* may be optional. This is particularly noticeable with a multiple use of the reflexive verbs within a single clause, wherein there is a strong tendency not to repeat the final *się*, (27).

- (27) a. *Chłopcy myjq się i ubierajq (się).*
 boy.NOM.PL(VIR) wash.PRS.3PL SELF and dress.up.PRS.3PL(VIR) SELF
 'The boys are washing and dressing (themselves).'
- b. *Kasia uczy się i bawi (się).*
 Kasia.NOM learn.PRS.3SG SELF and play.PRS.3SG SELF
 'Kasia learns and plays'. (Bielec 1998: 60)

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Another context worth mentioning involves the preposition phrase, in which the occurrence of *się* is prohibited. Thus, in (28), the only possible way to express the coreference of the subject is to make use of the corresponding accented reflexive form *siebie*.

- (28) *Patrzę na siebie / *się w lustrze.*
 look.PRS.1SG on SELF.ACC SELF in mirror.LOC.SG(N)
 'I look at myself in the mirror.'

3.2.4 Reflexive verbs

The term ‘reflexive verb’ refers to any type of verb equipped with the form *się*, without necessarily implying the coreference meaning (e.g. *spieszyć się* ‘to hurry up’). Reflexive verbs recognize a three-fold partition. The first group involves reflexive verbs that have active counterparts and where the presence of *się* does not affect the lexical meaning of the verb (*myć* ‘to wash sb.’ vs. *MYĆ SIĘ* ‘to wash oneself’, *zginać* ‘to bend sth.’ vs. *zginać się* ‘to bend oneself’).

The second class encompasses reflexive verbs called deponents i.e. the verbs that do not have non-reflexive counterparts (Kemmer 1993: 251), such as *bać się* ‘to fear’, *bawić się* ‘to have a good time’, *śmiać się* ‘to laugh’, *opiekować się* ‘to look after’, *kłócić się* ‘to argue’, *uśmiechać się* ‘to smile’. Another characteristic of this group is that even if they couple with the reflexive clitic *się*, it is difficult to assign any particular meaning to this form. Finally, in Polish, deponent verbs often demonstrate a complex morphological form, being derived either from verbs, adjectives or nouns. When derived from verbs, they carry one of the following prefixes: *do-*, *na-*, *o-(ob-)*, *od-*, *po-*, *prze-*, *przy-*, *roz-*, *u-*, *wy-*, *z-*, *za-* (Brooks 1975: 256).

The last group encompasses lexicalized reflexive forms i.e. the verbs that have active counterparts, but wherein the presence of *się* shifts the lexical meaning of the base verb. The meaning of the resulting lexicalized verbs is related in one way or another to the original meaning of the base verb, as in *uczyć* ‘to teach’ vs. *uczyć się* ‘to learn’, *czuć* ‘to detect a smell’ vs. *czuć się* ‘to feel’, *chwalić* ‘to praise’ vs. *chwalić się* ‘to boast’.

Reflexive verbs occur in all conjugation forms and follow the same tense rules as active counterparts. Both syntactically intransitive and transitive verbs accept the presence of the reflexive form *się*. Regarding the former, the language imposes some restrictions on possible combination that are difficult to grasp by a general rule (but see §4.2 on impersonal use of *się*). Hence, this constellation must

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be learnt individually, on a case-by-case basis. Regarding the combination of transitive verbs with *się*, many of such verbs occur with the reflexive form without any constraints. In such a case, the clitic *się* functions as valency-changing operator that reduces the syntactic transitivity of an input verb (cf. §4). The fact that the *się*-verbs do not retain the syntactic structure of the core verb may serve as indication of this reduction,(29).

- (29) a. *Chłopiec chwycił galąż.*
 boy.NOM.SG(M) grap.PST.3SG(M) branch.ACC.SG(F)
 ‘The boy grasped the branch.’
- b. *Chłopiec chwycił się galęzi.*
 boy.NOM.SG(M) grap.PST.3SG(M) self branch.GEN.SG(F)
 ‘The boy grasped the branch.’

In (29b), the argument coding of the reflexive verb *chwycić się* ‘to grasp oneself’ differs from the one associated with the corresponding transitive verb *chwycić* ‘to grasp’, (29a). The object is no longer coded like a core argument, since it carries the oblique i.e. genitive case.

In Polish, not only verbs can host *się*. Deverbal nouns can also perform this function. Hence, the expressions such as *mycie się zimną wodą* ‘washing oneself with cold water’, where the reflexive noun *mycie się* relates to the verb *myć się* ‘to wash oneself’, is perfectly acceptable. A similar observation holds for the non-clitic form *siebie*. The ability to combine deverbal nouns with the reflexive forms seems to be rare in the languages of the world. Among Slavic languages, only Polish seems to attest this possibility (Sussex & Cubberley 2006)).

3.3 Reflexive constructions with the reflexive possessive pronoun *swój*

As indicated in §2.3, Polish makes a formal distinction between third-person reflexive possessive pronouns and their nonreflexive counterparts. This split leads to coreference vs. disjoint-reference opposition as illustrated in (30) and (31).

- (30) *Marek odwiedza swojego brata, a nie jego brata.*
 Marek.nom visit.PRS.3SG REF.POSS.ACC.SG(M) borther.ACC.SG(M) but NEG
 jego brata.
 POSS.GEN.SG(M) borther.GEN.SG(M)
 ‘Mark is visiting his (own) brother and not his (someone else’s) brother.’

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- (31) *Dzieci nie mają swoich paszportów, my mamy ich paszporty.*
 child.NOM.PL(NVIR) NEG have.PRS.3PL REFL.POSS.GEN.PL(NVIR)
 passport.GEN.PL(NVIR) 1PL.NOM have.PRS.3PL POSS.ACC.3PL(NVIR)
 passport.ACC.PL(NVIR)
- ‘The children do not have their (own) passports, we have their passports.’
 (Bielec 1998: 162)

In (30), the accusative form *swój* ‘his own’ co-refers with the subject, which is not a case of its non-reflexive anaphoric counterpart *jego*. The same contrast holds in (31) between *swoich* and *ich*, meaning ‘their’. In the context of the first and second-person possessive pronouns, the referential ambiguity does not hold any more and the choice between reflexive and non-reflexive forms is in general stylistically determined, (32)-(33), (Feldstein 2001: 73).

- (32) *Mam moją / swoją ksiązkę.*
 have.PRS.1SG POSS.ACC.1SG(F) / REFL.POSS.ACC.SG(F) book.ACC.SG(F)
 ‘I have my / my own book.’
- (33) *Masz twoją / swoją ksiązkę.*
 have.PRS.2SG POSS.ACC.2SG(F) / REFL.POSS.ACC.SG(F) book.ACC.SG(F)
 ‘You have your / your own book.’ (Feldstein 2001: 73)

Unlike English and many other languages, Polish is not very prone to code the possessive relation overtly. This includes both inalienable and alienable possession. When the context is transparent, there is a tendency to omit a possessive pronoun. This is clear in the following two examples: in (34) it is self-evident that the addressee can only close his/her own eyes; and that in (35) the agent could only defend the dissertation that she is the author of.

- (34) *Zamknij oczy.*
 close.IMP.2SG eye.ACC.PL(NVIR)
 ‘Close your eyes.’
- (35) *Obroniłam doktorat pod koniec 2013 roku.*
 defend.PST.1SG thesis.ACC.SG(M) under end.ACC.SG(M) 2013 year.GEN.SG(M)
 ‘I defended my dissertation at the end of 2013.’

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However, some contexts ask for explicit coding of the possessive relation. When the possessor is not subject, a possessive pronoun serves to clarify the meaning, as shown in (36).

- (36) *Jadę odwiedzić jego babcię.*
 go.FIT.1SG visit.INF POSS.ACC.3SG grandmother.ACC.SG.(F)
 ‘I am going to visit his (not mine) grandma.’

The possessive relationship is also explicitly coded in the context of contrastive emphasis. The comparison of (37a) with (37) manifests this contrast.

- (37) a. *Weź ubrania i daj mi*
 take.IMP.2SG clothes.ACC.PL(NVIR) and give.IMP.2SG 1SG.DAT
święty spokój.
 saintAC.SG(M) peace.AC.SG(M)
 ‘Take (your) clothes and leave me in peace.’
- b. *Weź SWOJE ubrania a*
 take.IMP.2SG REFL.POSS.ACC.PL(NVIR) clothes.ACC.PL(NVIR) and
MOJE zostaw w spokoju.
 POSS.ACC.PL(NVIR) leave.IMP.2SG in peace.LOC.SG(M)
 ‘Take your clothes and mine leave in peace.’

Finally, the reflexive possessive pronoun *swój* ‘one’s own’ is also used when a speaker intends to highlight the greater specificity of the possessed item. Contrast (38a) with (38b).

- (38) a. *Ewa jeździ do pracy samochodem.*
 Ewa.NOM go.PRS.3SG to work.LOC.SG(F) car.INS.SG(M)
 ‘Ewa drives to work by car.’
- b. *Ewa jeździ do pracy swoim samochodem.*
 Ewa.NOM go.PRS.3SG to work.LOC.SG(F) REFL.POSS.INS.SG(M)
 car.INS.SG(M)
 ‘Ewa drives to work in her own car.’ (Sadowska 2012: 180)

4 Related functions performed by the reflexive form *się*

The functional scope of the reflexive clitic form *się* goes far beyond the coreference meaning. This fully grammaticalized pronoun is nowadays highly polyse-

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mous, performing a range of valency-reducing operations, including middle §4.1, impersonal §4.2 and antipassive §4.3.

4.1 Middle function

Middle formations denote events in which the subject participant is viewed not only as the doer of the action but also as the place on which this action is performed (Benveniste 1966; Kemmer 1993; Creissels 2006). Both the doer and the place of the event are construed as one single inseparable entity. This contrasts with the reflexive type of events, in which the subject assumes two semantic roles, agent and patient, the referents of which are conceived as distinct entities.

In Polish, the reflexive clitic *się* often participates in middle derivations. Swan (2003: 20) argues that the use of *się* to code the coreference meaning (i.e. reflexive and reciprocal) is definitely not as frequent as to express middle types of events. The author reports the particularly frequent presence of *się* in grooming actions e.g. *czesać się* ‘to comb oneself’, *myć się* ‘to wash oneself’, *kąpać się* ‘to bathe oneself’ (39), or *golić się* ‘to shave oneself’, (40).

- (39) *Codziennie się kąpie.*
 every.day SELF bathe.PRS.1SG
 ‘I take a bath every day.’
- (40) *Gole się przed śniadaniem.*
 shave.PRS.1SG SELF before breakfast.INS.SG(N)
 ‘I shave before breakfast.’ (Swan 2003: 584)

Grooming verbs may denote actions performed either on the whole body or only on its part. In Polish, the coding of whole-body actions may differ from body-part actions. For instance, when the action targets a particular body part, the language calls for a transitive construction with a body-part referent expressed as object. Compare (41) with (42).

- (41) *Muszę się umyć.*
 have.to.PRS.1SG SELF wash.INF
 ‘I have to wash up.’
- (42) *Muszę umyć ręce.*
 have.to.PRS.1SG wash.INF hand.ACC.PL(NVIR)
 ‘I have to wash my hands.’ (Swan 2003: 584)

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Within a middle domain, the clitic form is also productively engaged in coding the change of body posture such as *kłaść* ‘to lie down’ vs. *kłaść się* ‘to lie down oneself’, *podnieść* ‘to uplift’ vs. *podnieść się* ‘to get up’, *opierać* ‘to lean’ vs. *opierać się* ‘to lean against’. Another middle type of events with *się* involves non-translational motions like *obrócić* ‘to turn’ vs. *obrócić się* ‘to turn oneself’. The reflexive form *się* is also highly productive in expressing emotional reactions or mental agitations: *złościć* ‘to make sb. angry’ vs. *złościć się* ‘to get angry’, *rumienić* ‘to brown sth’ vs. *rumienić się* ‘to blush’, *martwić* ‘to make sb. worry’ vs. *martwić się* ‘to worry oneself’, *denerwować* ‘to make sb. angry’ vs. *denerwować się* ‘to get angry’. Finally, derivations in *się* are also open to decausative reading. The latter refers to verbs that express a change of state or physical process with no clearly implied agent, as shown in (43).

- (43) *W tym czajniku woda gotuje się bardzo szybko.*
 in DEM.LOC.SG(M) kettle.LOC.SG(M) water.NOM.SG(F) boil.PRS.3SG SELF
 very quickly
 ‘In this kettle, the water boils very quickly.’

In Polish, decausative formations alternate with impersonal reflexive derivations (cf. §4.2). Both remain in a close semantic affinity, revealing, however, a slight semantic difference. Unlike impersonal reflexive verbs, (44a) decausative ones, (44b), do not imply any potential agent, which would be necessarily involved in the development of an action denoted by a verb.

- (44) a. *Kawę się gotuje.*
 coffee.ACC.SG(F) SELF boil.PRS.3SG
 ‘The coffee is being boiled.’
 b. *Kawa się gotuje.*
 coffee.NOM.SG(F) SELF boil.PRS.3SG
 ‘The coffee is boiling.’ (Swan 2002: 320)

4.2 Impersonal function

Polish has a well-developed impersonal system. It recognizes three kinds of impersonal constructions, including impersonal reflexive, impersonal passive and impersonal with dedicated verbal *-no-/to* forms. Impersonal reflexive constructions, (45), select a verb in an invariable third person singular form. The sentence

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lacks the grammatical subject, which leads to the impersonal interpretation. Polish employs reflexive impersonal constructions extensively, which constitutes one of the peculiarities of the grammatical system of this language.

- (45) *Rozumie się.*
understand.PRS.3SG SELF
'It is understandable.'

When referring to the past events, impersonal reflexive verbs occur invariably in the third person neuter singular past-tense indicative form, equipped with the suffix *-ło*, (46). When denoting the present events, they are in the third person singular present-tense form, (47). Finally, in the context of future events, predicates are complex, consisting of an auxiliary in the third person singular future-tense form and the third person neuter singular past *-ło* form, (48).

- (46) *Kiedyś wyłącznie pisało się listy.*
once exclusively write.PST.3SG(N) SELF letter.ACC.PL(NVIR)
'In the past only letters were written.'
- (47) *Teraz pisze się listy i e-maile.*
now write.PRS.3SG SELF letter.ACC.PL(NVIR) and email.ACC.PL(NVIR)
'Now letters and emails are [being] written.'
- (48) *W przyszłości będzie się pisało tylko e-maile.*
in future.LOC.SG(F) be.FUT.3SG SELF write.PST.3SG(N) only email.ACC.PL(NVIR)
'In the future only emails and SMSs will be written.' (Sadowska 2012: 428)

Another distinctive feature of Polish impersonal reflexive constructions is that their verbs accept a direct object much in the same way as corresponding active verbs. However, what is atypical for them and what distinguishes these constructions from their equivalents in other languages e.g. Serbo-Croatian is that this noun phrase occurs in accusative rather in nominative, and that a verb invariably remains in the third person singular form. This type of construction is an approximate equivalent of the English clauses translated by 'one', 'you' or 'they'. Example (49) illustrates this point.

- (49) a. *Owe przesqdy dzisiaj inaczej się interpretuje.*
such prejudice.ACC.PL(NVIR) today differently SELF interpret.PRS.3SG
'One interprets such prejudices differently nowadays.'

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- b. *Sprawę załatwia się od ręki.*
 matter.ACC.SG(F) fix.PRS.3SG SELF from hand.GEN.SG(F)
 'One will fix the matter without any problems.' (Siewierska 1988: 262, 246)

Impersonal reflexive constructions may also occur with dative arguments. The latter can be either represented by a personal pronoun e.g. *ci*, (50), or by a noun phrase e.g. *ludziom*, (51).

- (50) *Jak ci się spało?*
 how 2SG.DAT SELF sleep.PST.3SG(N)
 'How did you sleep?' (lit. How was sleeping to you?)
- (51) *Czy ludziom się tu dobrze mieszka?*
 Q people.DAT.PL(NVIR) SELF here well live.PRS.3SG
 'Do people live happily here?' (lit. Is living happy to people here?) (Bielec 1998: 60)

When compared to the corresponding active constructions, impersonal reflexives occurring with dative may imply a nuance of involuntary act, as in (52b) or disclaim responsibility, as in (53b). The semantic difference is, however, very subtle and difficult to grasp by English translations.

- (52) a. *Dobrze śpię.*
 well sleep.PRS.1SG
 'I sleep well.'
- b. *Dobrze mi się sypia.*
 well 1SG.DAT SELF sleep.PRS.3SG
 'I sleep well.'
- (53) a. *Tak tylko powiedziałem.*
 so only say.PST.1SG(M)
 'I only said that (i.e. I did not mean it).'
- b. *Tak mi się tylko powiedziało.*
 so 1SG.DAT SELF only say.PST.3SG(N)
 'I only said that (i.e. I did not mean it).' (Swan 2002: 312)

In the past tense, impersonal reflexive clauses, (54a), may alternate with dedicated *-no/-to* impersonals i.e. constructions with the neutral singular past indicative verbal form, (54b). Both types of impersonal clauses remain in strong semantic affinity and are subject to free variation.

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- (54) a. *Wymienilo się kilka nazwisk.*
mention.PST.3SG(N) SELF few.ACC name.ACC.PL(NVIR)
‘Several names were mentioned.’
- b. *Wymieniono kilka nazwisk.*
mention.PST.3SG(N) fewACC name.ACC.PL(NVIR)
‘Several names were mentioned.’ (Swan 2002: 316)

The occurrence of *się* in the impersonal context is very high. This may result from the fact that active verbs that normally do not combine with the reflexive clitic realise this restriction in the impersonal context. Practically, any non-*się*-verbs can admit the reflexive clitic to express the impersonal meaning as *być* ‘to be’ and *mieć* ‘to have’ in (55), or *spać* ‘to sleep’ in (56).

- (55) *Jak się było młodym, to się miało więcej czasu.*
how SELF be.PST.3SG(N) young.INS.SG(M) then SELF have.PST.3SG(N) more time.ACC.SG(M)
‘As you were young, you had more time.’
- (56) *Tutaj się dobrze śpi.*
here SELF well sleep.PRS.3SG
‘One sleeps well here.’ (Bielec 1998: 60)

Impersonal reflexive clauses are particularly frequent in the interrogative context, (57).

- (57) a. *Jak tam się jedzie?*
how there SELF go.PRS.3SG
‘How does one get there?’
- b. *Co się mówi w takiej sytuacji?*
what SELF say.PRS.3SG in such situation.LOC.SG(F)
‘What does one say in such a situation?’ (Swan 2002: 320)

In impersonal reflexives, the implicit subject receives a human, indefinite interpretation. Thus, it may be unknown, generic and/or of a low degree of specificity. Logically such clauses cannot occur with overtly expressed subject and can only refer to the situations based on human activities, leading to a three-fold distinction: requests, as in (58a), commands, as in (58b), and statements, as in (58c).

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- (58) a. *Jak się jedzie do Łodzi?*
 how SELF go.PRS.3SG to Łódź.GEN
 ‘How do you get to Łódź? ([Swan 2002](#): 583)
- b. *Tak się mówi.*
 so SELF say.PRS.3SG
 ‘That’s how it is said.’ ([Bielec 1998](#): 60)
- c. *Tutaj się tańczyło.*
 here SELF dance.PST.3SG(N)
 ‘There was dancing here.’

Whether impersonal reflexive constructions are indeed subjectless is in fact a matter of controversy in linguistic discussions. For instance, [Comrie \(1985\)](#) approaches this type of constructions as impersonal passive clauses with no overt subject and where the implied human agent is represented as a demoted underlying subject. On the other hand, ([Siewierska 1988](#)) mentions that in the tradition of the Polish linguistics, impersonal reflexives are often viewed as fully active clauses where the implied human agent is both the underlying and surface subject. The description by Swan ([Swan 2003](#): 538) aligns with this observation. The author argues that *się* occupies a quasi-nominal position, functioning *de facto* as subject.

4.3 Antipassive function

The reflexive clitic *się* may also perform the antipassive type of valency-changing operation. This means that it operates on a transitive verb without affecting the semantic roles of the associated arguments. The resulting construction is syntactically intransitive, wherein the P argument loses the properties of a core argument. The syntactically downgraded P argument can either be realized as oblique, or as in (59b) eliminated from the surface structure of a verb.

- (59) a. *Wasz syn bije dzieci.*
 POSS.NOM.SG(M) son.NOM.SG(M) beat.PRS.3SG child.ACC.PL(NVIR)
 ‘Your son beats up the children.’
- b. *Wasz syn bije się.*
 POSS.NOM.SG(M) son.NOM.SG(M) beat.up.PRS.3SG SELF
 ‘Your son has a tendency to beat up [others].’

In general, Polish antipassive constructions with omitted P-argument are characterised by the fact that this argument is in fact suppressed (or syntactically

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‘blocked’). Hence, it cannot be overtly realized. This type of an antipassive construction is known in the literature under the label ‘absolutive antipassive’. In Polish, the suppressed argument of absolutive antipassive clauses systematically receives a human interpretation. Unless explicitly specified by a context, it tends to display a low degree of specificity, triggering a generic, indefinite and/or non-referential reading. The verb denotes, irrealis, generic type of event, whereas the agent participant is viewed as having special inclination or tendency to perform a denoted action.

Polish reveals a strong correlation between lexical meaning of a verb and the type of antipassive structure in which it occurs. Specifically, only verbs expressing the antagonistic action such as *kopać* ‘to kick’, *szczyapać* ‘to pinch’, *pchać* ‘to push’ *przezywać* ‘to nickname’, *bić* ‘to beat up’, *drażnić* ‘to annoy’, *drapać* ‘to scratch’ *chlapać* ‘to splash’, *gryźć* ‘to bite’ and *pluć* ‘to spit’ can occur in absolute antipassive constructions (Janic 2016: 157).

5 Diachronic development

In her discussion on middle voice, Kemmer (1993) classifies languages according to whether they express reflexive and middle functions through the same form or not. In case of the positive results, the author raises the question of whether these forms are related diachronically. Subsequently, she typologizes languages into three types: i) those with one-form middle system, ii) those with two-form cognate system, and iii) those with two-form non-cognate system. Polish belongs to the second type, which is considered to be rare crosslinguistically. Among other languages with a two-cognate system, one can also mention Jola (Atlantic-Congo) with -ɔrɔ and ɔ distinctive though diachronically related forms and other Slavic languages.

Kemmer (1993) argues that a two-form cognate system results from a diachronic process of repartition (Bréal 1897). The outcome of such an evolution is a division of a single form into two distinct, heavy and light forms. The heavy form usually displays (pro)nominial features, whereas the latter due to grammaticalization shares the characteristic of clitics. The occurrence of the light form results from renewing or reinforcing of the heavy form. This form is reintroduced to a language system as relatively independent element. Then, due to coalescence or erosion, it undergoes phonological reduction. Thus, at the synchronic level, the light form is viewed as a reduced form of the heavy form. The formal split of a single form converges with the semantic division of labour. The light form is typically assigned to the middle domain, in contrast to its heavy counterpart,

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which maintains its initial coreference meaning.

The analogous development took place in Polish, where the light form *się* that demonstrates the properties of clitics originated in the heavy form *siebie*. The formal split aligned with the semantic extension. The grammaticalized form *się* extended the functional scope to the middle domain, preserving, however, the initial reflexive function. The next step of grammaticalization involves desemanticization (or ‘semantic bleaching’) where in some contexts, the clitic *się* loses the semantic content and starts to operate on a structural basis alone (e.g. impersonal or antipassive). In Polish, the encroachment of *się* into more structural-based field did not, however, lead to its total desemanticization (Heine 1999). Even if *się* is particularly frequent in impersonal contexts, its omnipresence in middle or reflexive domains is non-negligible either.

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Chapter 11

Reflexive constructions in Thulung

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In this contribution, I present reflexive constructions in Thulung (Sino-Tibetan, Nepal). After introducing the language and its basic morphosyntax, I describe the primary reflexive strategy, which is the reflexive voice marker *-sit*, as well as the other uses of the same voice marker and the unclear status of the emphatic nominal *twap* in reflexivization. I then discuss the expression of coreference with different verb types, and with different semantic roles, before describing the difficulties of expressing partial coreference. I close the chapter with examples of long-distance coreference, a relatively simple situation in Thulung, which can embed reported discourse (or thought) only as direct speech.

1 Introduction to Thulung

Thulung is a language of the Kiranti subgroup of Sino-Tibetan/Trans-Himalayan, spoken by several thousand speakers in Solukhumbu district in Eastern Nepal (across the villages of Mukli, Deusa, Kangel, Lokhim, Jubu, Panchan, Salle, Necha); see Figure 1.¹ The language is exclusively oral, although missionary efforts over the past twenty years have resulted in the translation of the Old Testament, transcribed in an adaptation of Devanagari.² The data discussed herein comes from fieldwork I have carried out on Thulung since 1999.

Like other Kiranti languages, Thulung is in close contact with Nepali (Indo-Aryan), the national language of Nepal, resulting in a number of calqued constructions.

¹I am grateful to Guillaume Jacques, to the editors and to an anonymous reviewer for very helpful comments on an earlier version of this chapter. I also thank Chandrakala Rai for her continued help and patience.

²The main adaptations concern the phonemes /u/ and /ø/; vowel length is not transcribed.



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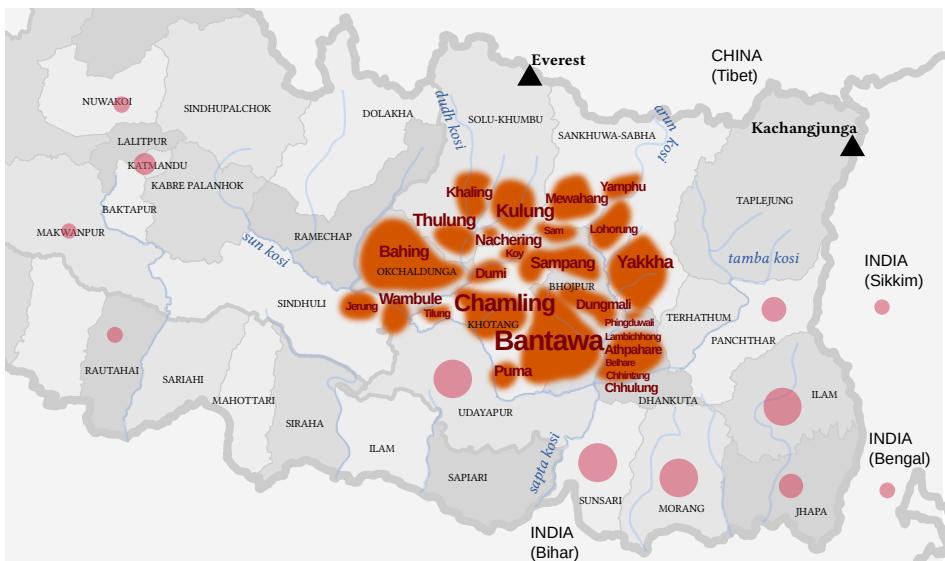


Figure 1: Map of the Kiranti-speaking area, adapted from Schlemmer (2019)

2 Basics of Thulung morphosyntax

While a minimal Thulung sentence can consist of a single finite verb, arguments are often present in the form of pronouns or full noun phrases. Arguments are identified on the basis of case-marking and indexation.

This section presents the personal pronouns of Thulung §2.1, and case-marking and indexing of core arguments §2.2, both important preliminaries to understanding the language's reflexive constructions.

2.1 Personal pronouns

Personal pronouns exhibit person, number (singular, dual, plural), clusivity and formality contrasts. The paradigm is shown in Table 1.

The formality contrast in 2nd and 3rd person singular pronouns is a relatively new phenomenon. An earlier description (Allen 1975) reports 2SG *gana*, 2PL *gani*, 3SG *gu* and 3PL *gumi*. It appears that new formal pronouns were created for the 2SG and 3SG by coopting the 2PL and 3PL pronouns, respectively, some time between Allen's fieldwork and the start of my own in 1999. The creation of new plural pronouns through suffixation of the nominal pluralizer *-mim* filled the resulting gap in the pronoun system, even though speakers currently tend to use

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Table 1: Personal pronouns of Thulung

	SG	DU	PL
1	go	gutsi (<i>incl.</i>)	gui (<i>incl.</i>)
		gutsuku (<i>excl.</i>)	guku (<i>excl.</i>)
2	gana (<i>inform.</i>) gani (<i>formal</i>)	gatsi	gani(mim)
3	gu (<i>inform.</i>) gumi (<i>formal</i>)	gutsi	gumi(mim)

both new and old plural forms with about equal frequency (Lahaussois 2003).

2.2 Case-marking and indexing of core arguments

Core arguments are identified through case-marking and through argument indexation, which are conditioned by the referential hierarchy (e.g. Silverstein 1976; DeLancey 1981) in (1):

- (1) 1>2>3>human>non-human animate>inanimate

Thulung has a split ergative case-marking system, with the split occurring within the person section of the hierarchy. When acting as A arguments, two case-marking possibilities exist: 1st singular, 2nd singular, 2nd dual persons are nominative-marked (i.e. unmarked); this is what is seen in (3) and (5) below. Other A arguments, namely 2nd plural, 3rd persons and other NPs, are ergative-marked (with *-ka*),³ as is seen in (4) and (6) below.

Object arguments also have differential marking, with the split occurring within the animacy part of the referential hierarchy. The dative marker *-lai* (glossed DAT), borrowed from Nepali, appears on primary objects ("an indirect object in a ditransitive clause or a direct object in a monotransitive clause", Dryer 1986: 808) characterized by animacy: it is generally found with high-status humans (see (5) and (6) below), and only optionally with low status humans (e.g. children) and occasionally animals ('dog' is unmarked in (3) and (4)). Inanimate objects

³The unusual position of the split, within the 2nd person, can be explained through the creation of new plural pronouns with suffixation of the nominal pluralizer *-mim*. Presumably, *-mim*, previously only found with 3rd person-like NPs, triggered ergative-marking on the new 2PL form *gani-mim* (through analogy with other *-mim*-marked NPs).

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are almost never marked. (For some discussion of primary object marking across Tibeto-Burman and its semantic nature, see LaPolla 1992).

A few alignment patterns illustrate the marking of core arguments, encoded as follows: 'S- \emptyset V-s' translates to mean that the S argument is unmarked, and the verb (V) takes indexation for the single S argument; Similarly, with transitive scenarios, 'A- \emptyset P- \emptyset V-a>p' is to be translated as two unmarked A and P arguments and a verb with indexation for A and P.

- (2) S- \emptyset V-s:

gu khor
3SG[- \emptyset] snore[.3SG]
'He snores.'

- (3) A- \emptyset P- \emptyset V-a>p:

go khlea jal-u
1SG[- \emptyset] dog[- \emptyset] strike-1SG>3SG
'I strike the dog.'

- (4) A-ka P- \emptyset V-a>p:

gu-ka khlea jal-u
3SG-ERG dog[- \emptyset] strike-3SG>3SG
'He strikes the dog.'

- (5) A- \emptyset P-lai V-a>p:

go me mətsə-lai jal-u
1SG[- \emptyset] DEM man-DAT strike-1SG>3SG
'I strike that man.'

- (6) A-ka P-lai V-a>p:

gu-ka go-lai jal-ŋi
3SG-ERG 1SG-DAT strike-3SG>1SG
'He strikes me.'

Thulung verbs index up to two arguments⁴ on verbs, with a series of intransitive person indexes and a series of transitive indexes. Verbs are often labile, with the same root occurring with either transitive or intransitive indexes, and bringing about changes to argument structure and semantics.

⁴These are the A and P in a monotransitive scenario, and either the A and R (for secundative verbs) or the A and T (for indirective verbs) for ditransitive scenarios.

3 Reflexive strategy and uses

This section will present the reflexive voice marker §3.1, additional uses of the same marker §3.2, and raise the question of the role of the emphatic nominal in reflexive constructions §3.3.

3.1 Reflexive voice marking

Thulung has a reflexive voice marker, *-sit* (and allomorphs *-si*, *-sin*, *-sik*), which is the primary strategy for expressing agent-patient coreference. It occurs in a specific slot of the verbal template, and can be reconstructed to proto-Kiranti **-nši* (van Driem 1990: 47). The reflexive voice marker has a number of functions: the central one is the reduction of the valency of the verb,⁵ which can thereby only take intransitive indexes. This brings about the interpretation of the agent and patient, neither of which is necessarily overtly expressed (although the agent is overtly expressed in (7)–(9)), as coreferential.

- (7) *go sol-si-ŋu-mim tsʌŋra tel-ka kla:-si-ŋu*
 1SG wash-REFL-1SG-NMLZ after oil-INSTR rub-REFL-1SG
 ‘After I wash, I rub myself with oil.’
- (8) *go oram-nuŋ tseŋ-si-ŋu*
 1SG DEM.PROX-COM hang-REFL-1SG
 ‘I will hang (myself) onto this.’ [holding onto to a monkey’s tail to escape a prison]
- (9) *meram mətsə u-twap-ŋa sen-s-ta*
 DEM man 3SG.POSS-self-INT kill-REFL-3SG.PST
 ‘The man killed himself.’ (elicited)

Sentence (9) could equally well be formulated with a 3SG pronoun subject as in (10):

- (10) *gu u-twap-ŋa sen-s-ta*
 3SG 3SG.POSS-self-INT kill-REFL-3SG.PST
 ‘He killed himself.’

⁵Note however that in Thulung, as in related Khaling, intransitive verbs can sometimes be reflexivized (see (Lahaussois 2016: §3.3.5; Jacques et al. 2016§4.2.2; Jacques 2015)).

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It is interesting to contrast this with the expression of the object pronoun in situations of disjoint reference, which in this case would yield (11):

- (11) *gu-ka meram-lai set-dt*
 3SG-ERG DEM-DAT kill-3SG>3SG.PST
 ‘She killed him.’

Note that the use of the distal demonstrative *meram* as the object pronoun makes it clear that this is a case of disjoint reference, with the distal deixis establishing otherness.

While there is a single reflexive voice marker, which is obligatory in reflexive constructions and occurs in full paradigms (see Table 2), with no restrictions as to person/number and tense, there is an older, no-longer productive reflexive marker, the reflex of which is found in many verbs with middle semantics. This older reflexive marker only surfaces in partial paradigms, as an -s on the verb stems that occur with 1PI and 3SG forms (see grey cells in Table 3), and verbs where it appears are now considered to form an inflectional class (the s-stem class). Interestingly, this class is not limited to intransitive verbs: transitive verbs are also found (bearing transitive indexes), though in considerably lower numbers than intransitives.

The two paradigms are contrasted below:

Table 2: Paradigm for verb *khlo:simu*, ‘return’, with the reflexive voice marker -*si* (or allomorphs) in all forms

	NPST	PST
1SG	khlo:-si-ŋu	khlo:-si-ŋro
1DI	khlo:-si-tsi	khlo:-sit-tsi
1DE	khlo:-si-tsuku	khlo:-sit-tsoko
1PI	khlo:-sir-i	khlo:-sit-dj
1PE	khlo:-sin-ku	khlo:-sit-toko
2SG	khlo:-si-na	khlo:-sit-na
2DU	khlo:-si-tsi	khlo:-sit-tsi
2PL	khlo:-si-ni	khlo:-sit-ni
3SG	khlo:-si	khlo:-sit-də
3DU	khlo:-si-tsi	khlo:-sit-tsi
3PL	khlo:-si-mi	khlo:-si-mri

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Table 3: Paradigm for verb *semu*, ‘fart’, with -s only surfacing in forms in grey cells

	NPST	PST
1SG	se-ŋju	se-ŋro
1DI	se-tsi	se-ttsi
1DE	se-tsuku	se-ttsoko
1PI	ses-i	ses-ti
1PE	se-ku	se-ttoko
2SG	se-na	se-nna
2DU	se-tsi	se-ttsi
2PL	se-ni	se-nni
3SG	se	ses-ta
3DU	se-tsi	se-ttsi
3PL	se-mi	se-mri

However, because the productive reflexive voice marker is optionally phonologically reduced to -s, this sometimes leads to identical forms between the paradigms of reflexively-marked verbs and the s-stem class verbs of Table 3, namely in the 1PI and 3SG forms. An example of the variant form of the reflexive voice marker is seen in (9) above: instead of the expected *sen-sit-də* (kill-REFL-3SG.PST), we have *sensta*. While this form may look like it belongs to a paradigm such as that in Table 3, it is in fact a variant form of an otherwise well-behaved reflexively-derived verb. (For more detailed discussion, see Lahaussois 2011; 2016).

3.2 Other uses of the reflexive voice marker

The reflexive voice marker has a number of other uses: it can also mark reciprocal, middle, antipassive and anticausative functions. I retain ‘REFL’ as a gloss for the marker across its different uses, as an indication of what I consider to be the core function.

With a reciprocal function, the utterance must contain a non-singular subject. Semantics is important to interpretation; in (13), without the reduplicated emphatic nominal, the utterance would be ambiguous as to a reciprocal vs a reflexive interpretation (which would be something like ‘twist themselves up’).

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- (12) *mør-tsip mamtha phwa-sit-tsi*
 that-DU last.year separate-REFL-3DU.PST
 ‘They separated last year.’
- (13) *memim twap-twap bal-si-mi*
 3PL self-RED wind-REFL-3PL
 ‘They are tangled together.’

Example (13) can be contrasted with (14), which features a reflexive form of the same verb.

- (14) *memlo u-lu-dra u-mam-ku sem bal-sik-pa*
 then 3SG₂.POSS-tooth-LOC 3SG₁.POSS-mother-GEN hair wind-REFL-PTCP
 mini-ka lwas-tu ?e
 human₁-ERG see-3SG₁>3SG.PST HS
 ‘Then the human₁ saw his₁ mother’s hair that had wound itself around
 his₂ tooth.’

The line between a reflexive and a middle interpretation can be a fine one, but the following examples are of ”situations where there is no clear distinction between the ‘doer’ and the one ‘being done to’” (LaPolla 2003: 36); see also Kemmer 1993: Chapter3), and are considered middles. Example (15) is an example of non-translational motion, (16), of change in body posture.

- (15) *a-rəm nə-ra-ma go ki-si-yro*
 1SG.POSS-body hurt-3SG.PST-CONJ 1SG pull.tight-REFL-1SG.PST
 ‘My body hurt and I stretched.’
- (16) *lamtsoko-ra tsøttø-mim ther-si-mri*
 door-LOC child-PLU lean-REFL-3PL.PST
 ‘The children were leaning on the door.’

With an antipassive use, the patient argument of the underived sentence becomes an oblique argument, a fact which is reflected in the case markers it takes on after derivation: comitative *-nuŋ* or ablative *-ram* (17b), or locative *-ra* (18b). In the underived examples with the same base verbs in (17a) and (18a), *go* and *mandir* are patient arguments. The change in case-marking is accompanied by a change in the indexes on the verb, which are intransitive, indexing the S, after derivation.

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- (17) a. *gu-ka go-lai gham-ŋi*
 3SG-ERG 1SG-DAT feel.disgust-3SG>1SG
 ‘He is disgusted by me.’
- b. *gumi bira-nuŋ/-ram gham-si-mi*
 3PL leech-COM/-ABL feel.disgust-REFL-3PL
 ‘They are disgusted by leeches.’
- (18) a. *gu-ka mandir khir-₋*
 3SG-ERG temple circumambulate-3SG>3SG
 ‘He circles the temple.’
- b. *gu mandir-ra khir-si*
 3SG temple-LOC circumambulate-REFL.3SG
 ‘He circles around at the temple.’

When there is no clear external cause for the action, an anticausative interpretation results. This is the case with the reflexive-marked verb in (19).

- (19) *daksa tsar-sit-d₄*
 tree make.fall-REFL-3SG.PST
 ‘The tree fell.’

3.3 Reflexive or emphatic nominal?

While the primary reflexivization strategy in Thulung is clearly verbal, the language has an emphatic nominal, *twak* or *twap*, which is optionally used in some reflexive constructions, as in (20).

- (20) (*u-twap ts₄i*) *th₄-s-ta*
 (3SG.POSS-self CONTR) hide-REFL-3SG.PST
 ‘He hid (himself).’

This nominal, which can be translated as ‘self’, often takes possessive indexes, as in the following paradigm.

There is an additional set of adnominal possession markers: the possessive indexes in Table 4 combine with a nominalizer *-ma*, generating a full set with person/number/clusivity contrasts; these nominalized forms are used attributively, preceding the noun they modify. We thus have *ama twap*, 1SG.POSS self, ‘my self’ as well as *a-twap*, 1SG.POSS-self, ‘myself’ used interchangeably.

Emphatic nominals are not obligatory with most reflexive constructions, and are often found in scenarios where there is no coreference, as in (21):

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Table 4: Emphatic nominal paradigm (possessive pronoun + ‘self’)

	SG	DU	PL
1	a-	atsi-twap	aki-twap
		(incl.)	(excl.)
		itsi-twap	iki-twap
2	i-	itsi-twap	ini-twap
		twap	
3	u-	u-tsitiwap	uni-twap
	twap		

- (21) *u-twak-ka dwak-u-m-num bia bo-m-sa-mu*
 3SG.POSS-self-ERG like-3SG>3SG.NMLZ-COM marriage do-INF-APPL-INF
 ‘They should marry her to someone she herself likes.’

Nonetheless, in certain reflexive-voice-marked scenarios, the emphatic nominal can be used as well. This is the case with (22) below.

- (22) *me k_{ALAS}-ram ku-ka twap pran-si-mu ba:si*
 DEM Kales-ABL water-INST self sprinkle-REFL-INF must
 ‘Each person must sprinkle himself with water from the Kales.’

4 Coreference with different verb types

This section explores the expression of coreference with different verb types: body care and grooming verbs §4.1, and extroverted verbs §4.2.

4.1 Body care/grooming verbs

Verbs of grooming and body care can be divided into those affecting only part of the body, and those affecting the whole body.

Body-part actions can be expressed either by means of reflexivized verbs or transitive constructions. Example (23) illustrates two body-part actions expressed through reflexivized verbs.

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- (23) *hur-si-ri-mim* *tsʌŋra bui-qʌ:la tel-ka* *kʌ:-si-mu*
 wash.head-REFL-1PI-NMLZ after head-on oil-INSTR apply-REFL-INF
ba:si
 must

'After we wash our hair, we must apply oil [to our heads].'

Transitive constructions, with the object possessively marked or not, can also be used. Example (24) illustrates this alternative construction with the same (first) verb as in (23).

- (24) *go a-sem* *hur-pu-ma* *dʌt-pu*
 1SG 1SG.POSS-hair wash-1SG>3SG>3SG CONJ comb.hair-1SG>3SG
 'I wash my hair and comb it.'

Example (25) shows a transitive construction used for a body-part action, without possessive marking on the body part; the equivalent whole-body action can be seen in (7), with obligatory reflexive voice marking.

- (25) *go lwa dzəmka səl-pu*
 1SG hand carefully wash-1SG>3SG
 'I wash my hands carefully.'

Thulung also expresses some body-part actions through the following deponent verbs (as per Kemmer 1993: 22), for which no base verb currently exists: *hi:simu*, 'turn body or head'; *khusimu*, 'wear on head'; *khlusimu*, 'wear on feet'.

Whole-body actions, typically dressing and bathing, are always reflexively marked, as illustrated in examples (26)–(28).

- (26) *to:si-ra* *tshəm-ra lʌ:-mu-lai bwapme-mim tshəm*
 Tosi.festival-LOC dance-LOC go-INF-DAT housewife-PLU much
blwa-sit-miri
 dress.up-REFL-3PL.PST

'To go to dance at Tosi, the housewives dressed themselves up a lot.'

- (27) *mʌ:stʌ ku-gui plʌm-sit-də*
 buffalo water-into immerse-REFL-3SG.PST

'The buffalo immersed itself in the water.'

- (28) *go nepsun-ra blay-siy-ro*
 1SG sun-LOC dry-REFL-1SG.PST

'I dried myself in the sun.'

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4.2 Extroverted verbs

With reflexivized extroverted verbs ("those which denote an action typically performed on others", Haiman 1998: 73), subjects are nominative case-marked and verbs take intransitive indexes and are reflexively marked. Additionally, they tend to include the emphatic nominal, as seen in (29), as well as in (9), which includes another extroverted verb.

- (29) *khlea u-twəp-ŋa khren-si*
 dog 3SG.POSS-self-INT bite-REFL.3SG
 'The dog bites itself.' (elicited)

4.3 Coreference of subject with different semantic roles

4.4 Possessors

Thulung uses the same coding system for possessors, whether or not there is coreference between the subject and the possessor: possession is marked with a possessive index on the possessed noun and/or a genitive case marker on the possessor.⁶

Examples (30) and (31) illustrate the same adnominal possession marking (prefix *u-*, for 3SG.POSS) used to mark possession which is coreferential with the subject (in the first occurrence in each sentence), and coreferential with the patient (in the second occurrence in each sentence). This shows quite clearly that Thulung has no special adnominal possessor form for coreference with the subject.

- (30) *u-bʌdzai-lai thɔŋ-kot-dt ?e me*
 3SG₁.POSS-grandmother-DAT IDEO-spray-3SG₁>3SG₂.PST HS DEM
thʌŋki-ka u-kʌl-bʌri
 resin-INST 3SG₂.POSS-face-all.over
 'He sprayed his grandmother suddenly with resin, all over her face.'

The first instance of *u-* (*u-bʌdzai*, 'his grandmother') is coreferential with the subject (not overtly expressed, but present in the discourse and indexed on the verb), whereas the second (*u-kʌl*, 3SG.POSS-face) refers instead to the grandmother as possessor, and is thus coreferential with the object. The coreference is indicated with subscript numbers in the glosses.

⁶This yields the following possibilities: [*mam-ku*] (*u-)khel*, [mother-GEN] (3SG.POSS-)leg, [mother's] (her-)leg

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A similar situation is found in (31), although it is made up of two sequential utterances:

- (31) *me u-khel tsʌi hoŋka dʌs-tu ?e me*
DEM 3SG₁.POSS-leg CONTR like.this move-3SG₁>3SG.PST HS DEM
khola-go-ju tsobethat-du ?e ; me yo-ka ne me
river-inside-LOW.LOC dip-3SG₁>3SG.PST HS ; DEM fish-ERG TOP DEM
u-khel khret-da get-da retsʌ ?e
3SG₁.POSS-leg bite-PURP come-3SG₂.PST it.seems HS

'He moved his legs like this, he dipped them into the river, and that fish came to bite his legs.'

The two relevant possessed nouns in (31) are the two occurrences of *khel* 'leg': the first occurrence is coreferential with the (unexpressed, but indexed on the verb) subject of the verb *dʌstʌ*; in the second occurrence, the subject is the (overtly expressed and ergative-marked) *yo* 'fish', and there is no coreference between the subject and the possessor of *khel* 'leg'.

It might be suspected that the possession of body parts and kin terms in (30) and (31) potentially has an impact on the possessive index, but this is not the case: in (32), *u-* alone marks possession by the subject of the utterance.

- (32) *u-ta:rbar khjarerere thut-to jokta ?e*
3SG₁.POSS-machete scraping.sound pull-SIM.CVB go.down-3SG₁.PST HS
'He went down, pulling his machete with a scraping sound.'

In situations where coreference between the subject and possessor must be definitively established, the emphatic nominal *twap* is used, in which case no ambiguity remains. Thus while (33) can be used for both situations with coreference and disjoint reference between the subject pronoun and the nominal adpossessor, (34) can only be interpreted as coreferential.

- (33) *gu-ka uma khe:sa set-du*
3SG₁-ERG 3SG_{1/2}.POSS lover kill-3SG>3SG.PST
'She₁ killed her_{1/2} lover.'
- (34) *gu-ka uma twak-ku khe:sa set-du*
3SG₁-ERG 3SG₁.POSS self-GEN lover kill-3SG₁>3SG.PST
'She killed her own lover.'

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The coding of possessors is also relevant to the expression of coreference between two non-subject arguments of a single clause: because there is no special possessive marker for coreference, such situations are also potentially ambiguous (and can be disambiguated using an emphatic nominal), as in the following:

- (35) *jeluŋ-ka bala-nuŋ uma (twak-ku) du:tham*
 Jeluŋ-ERG Bala-COM 3SG.POSS (3SG.POSS-self-GEN) about
se-urh
 tell-3SG>3SG.PST
 ‘Yelung told Bala about herself’

4.5 Beneficiaries

Coreference between agent and beneficiary (which I have referred to as ‘auto-benefactive’ elsewhere [Lahaussois 2016](#); [Jacques et al. 2016](#)) is also expressed through reflexive voice marking on the verb. This is illustrated in (36) and (37).

- (36) *go a-khe:sa mal-si-ŋro*
 1SG 1SG.POSS-lover search-REFL-1SG.PST
 ‘I searched for a lover for myself’
- (37) *go ama la:gi ko:-le humje bhre-ŋ-si-ŋro*
 1SG 1SG.POSS sake -CL shawl buy-1SG-REFL-1SG.PST
 ‘I bought myself a shawl’

The phrase *ama la:gi* ‘for my sake’ in (37) functions here like an emphatic, but is by no means necessary for the expression of coreference. Note that it is a strategy for introducing a beneficiary in cases of non-coreference as well.

When the beneficiary is not coreferential with the agent, the additional non-agentive argument is usually brought into the argument structure through an applicative marker on the verb; the indexes on the verb are for the agent and the beneficiary argument. There are a few options to mark the beneficiary: dative marker *-lai* (used for primary objects) as in (38), with the phrase *-ku/-kam la:gi*, ‘for the sake of’, where the beneficiary is the possessor, or through possessive marking on the theme, as in (39).

- (38) *gu-ka lwak-lai phadzi bhre-sat-dh*
 3SG-ERG younger.sibling-DAT bag buy-APPL-3SG>3SG.PST
 ‘He bought a bag for his brother’

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- (39) *uma sʌŋ phar-sat-toko*
 3SG.POSS wood collectively.cut-APPL-1PE>3SG
 'We collectively cut his wood for him.'

Verbs which are not applicative-marked are however also found, and use the same strategies for coding the beneficiary, as in (40) where both the applicativized and non-applicativized forms are found to be acceptable.

- (40) *mam-ka tsəttse-lai dzam khok-sa-mri/khok-tu*
 mother-ERG child-DAT rice cook-APPL-3PL>3SG.PST/cook-3SG>3SG.PST
 'Mother cooked rice for the child.'

4.6 Recipients

The expression of coreference between an agent and a recipient appears to be quite unnatural in Thulung. Utterances can be produced during elicitation, but my corpus contains not one spontaneously produced example.

Example (41a) is contrasted with an equivalent example without subject-recipient coreference in (41b).

- (41) a. *mesem u-twap upʌhar gwa:-si*
 girl 3SG.POSS-self gift give-REFL.3SG
 'The girl gives herself a present.' (elicited)
- b. *mesem-ka ʌpɔse-lai upʌhar gwak-u*
 girl-ERG friend-DAT present give-3SG>3SG
 'The girl gives her friend a present.'

In (41a), the verb is detransitivized with *-sit*, as expected, takes intransitive 3SG indexation, and the agent and recipient (expressed overtly through the emphatic nominal) take nominative case-marking, as they would in an intransitive scenario. Yet while sentences expressing coreference between a subject and a recipient are able to be produced in elicitation, in some cases they involve ergative-marked subjects with reflexivized verbs, and thus appear to be marginal.

5 Exact vs partial coreference

In partial coreference, there is incomplete overlap between the agent and patient, a situation brought about when the reference involves a first or second person and one of the arguments encompasses a larger set than the other ("I see us"; "we

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(incl.) see you’”). Because the main strategy for establishing agent-patient coreference in Thulung is the use of the reflexive voice marker, entailing detransitivization and the use of intransitive indexes, the expression of partial coreference is not possible: partial coreference would need to index both arguments, something that cannot be done with intransitive indexes.

While some ditransitive verbs may look like they express partial coreference, this is in fact the result of the verb in question being an indirective and indexing the A and the T (rather than the R, as in secundative verbs). This is seen in (42), in which the verb indexes the subject (1SG) and *dzam* (3SG) meaning ‘food’, and not the recipient (1DI).

- (42) *go gutsi-lai dzam phet-pu*
 1SG 1DI-DAT food serve-1SG>3SG
 ‘I will serve us (incl.) both food.’

Attempts at eliciting situations involving partial coreference result in a number of strategies:

a) altering the scenario to involve exact coreference:

- (43) *gutsi ko:le-ŋa je hum-sin-tsi*
 1DI one-CL-INT cloth wrap-REFL-1DI
 ‘We wrap ourselves in the same blanket.’ [intended: Wrap us (incl.) in the same cloth]⁷
- (44) *gutsi chatta-ka rim-sin-tsi*
 1DI umbrella-INSTR COVER-REFL-1DI
 ‘We cover ourselves with the umbrella.’ [intended: You cover us (incl.) with the umbrella]

b) using a semantically-related intransitive to express the intended scenario

- (45) *gana me-dzəpa ga:ri then-na-ma:la gui si-i*
 2SG NEG-good car drive-2SG>3SG-COND 1PI die-1PI
 ‘If you drive the car badly, we will die.’ [intended: You will kill us (incl.) all (scenario: driver driving dangerously)]

c) paraphrasing the scenario:

⁷Examples (43) and (44) were inspired by examples provided in Bickel et al. (2010).

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- (46) *gana go-lai wakha lamdi-bet-ŋj*
2SG 1SG-DAT slow walk-CAUS-2SG>1SG.PST

'You made me walk slowly.' [intended: you slowed us (incl.) down (by walking slowly)]

The examples above, illustrating Thulung strategies for solving problems of partial coreference, show that the language can only express exact coreference (reflexive voice marking and intransitive indexes) or completely disjoint reference (transitive indexes and appropriate case-marking for distinct argument roles).

6 Long-distance coreference

Thulung uses direct speech as a means of embedding any quoted material, and this applies both to speech and to thinking. As a result, the establishment of coreference of the subject across clauses does not need to be expressed in such complement clauses: a 1st person form of a verb within the direct speech clause establishes coreference; any other person expresses disjoint reference in utterances. For a similar situation in Chantyal, see [Noonan \(2006\)](#).

- (47) *go mi-bi-ŋju rwak-ta*
1SG NEG-come-1SG say-3SG.PST

'He said he wouldn't come.' [lit. He said "I won't come."]

- (48) *gu-ka ne set-to rwak-pa mim-dt-m
3SG-ERG TOP kill-1SG>3SG.PST say-ACT.PTCP think-3SG>3SG.PST-NMLZ
ba-ira
be-PST*

'She had thought she killed him.' [lit. She had thought, saying "I killed him"]

These examples can be contrasted with a scenario where the use of non-1st person marking in the embedded clause firmly establishes disjoint reference between the subjects of the two clauses.

- (49) *[me:sem u-lwak ne set-dt] wostse
female 3SG.POSS-younger.sibling TOP kill-3SG>3SG.PST male
u-wa:-ka mem rwak-ta-m
3SG.POSS-older.sibling-ERG DEM say-3SG.PST-NMLZ*

'The older brother thought that she [an ogre] had killed his younger sister.' [lit. "She killed my younger sister" said the older brother.]

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7 Conclusion

Thulung has a primary strategy for establishing agent-patient coreference: the use of a reflexive voice marker *-sit*. Its use on a verb triggers intransitive subject indexes and nominative case-marking on the subject. In addition to reflexivity, the reflexive voice marker is used to mark reciprocity, middle scenarios, antipas-sives and anticausatives.

A possessive indexed emphatic nominal can be optionally used to reinforce the expression of coreference. The use of the emphatic nominal is notably found in situations where coreference cannot be established through any specialized markers, such as with the marking of possession: adnominal possessive indexes are neutral as to coreference or disjoint reference with other arguments. One also finds the emphatic nominal in sentences with extroverted verbs, suggesting that such situation types require additional coding of the coreference. It is also possible that Thulung is undergoing change with respect to its reflexive-voice-only strategy, and that the use of the emphatic nominal is on the rise, calquing the situation in Nepali.

Additional interesting features of Thulung are the impossibility of marking partial coreference, and the fact that the language's embedding of direct speech makes the marking of coreference across complement clauses unnecessary.

Abbreviations

ACT.PTCP	active participle		
APPL	applicative		
CAUS	causative		
CL	classifier		
COM	comitative		
COND	conditional		
CONJ	conjunction		
CONTR	contrastive focus		
DAT	dative		
DI	dual inclusive		
DE	dual exclusive		
DEM	demonstrative (distal)	POSS	possessive
DEM.PROX	proximal demonstrative	PST	past
DU	dual	PURP	purposive
ERG	ergative	RED	reduplication
GEN	genitive	REFL	reflexive
HS	hearsay	SG	singular
INF	infinitive	SIM.CVB	simultaneous converb
INSTR	instrumental	TEMP	temporal
INT	intensifier	TOP	topic
LOC	locative		
LOW.LOG	low-locative		
NEG	negative		
NMLZ	nominalizer		
PE	plural exclusive		
PI	plural inclusive		
PLU	plural		

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Chapter 12

Reflexive constructions in Early Vedic

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This chapter addresses the diverse reflexive constructions and related functions found in Early Vedic, the earliest attested Indo-Aryan language of the Indo-European family. In particular, we analyze constructions with the middle voice, the nominal strategy *tanú-*, and the reflexive adjective *svá-*. Furthermore, we suggest different diachronic pathways that may explain the historical development of the system synchronically developed here.

1 Introduction

1.1 Vedic and Early Vedic

Vedic (or Vedic Sanskrit) is the earliest attested Indo-Aryan language of the Indo-Iranian (or Indo-Iranic) branch of the Indo-European family. It was spoken from the mid-2nd millennium BCE through to the beginning of the 1st millennium BCE, within the area of today's Afghanistan, northern Pakistan and northern India (Witzel 2006: 160), see Figure 1.¹

Vedic is attested in the oldest religious texts of Hinduism and Sanskrit literature, the *Samhitās* ‘collections’: *Rgveda-Samhitā* (RV), *Sāmaveda-Samhitā*, *Black* (*kṛṣṇa*) and *White* (*śukla*) *Yajurveda-Samhitā* (YV), and *Atharvaveda-Samhitā* (AV).

¹File: Early Vedic Culture (1700-1100 BCE).png. (2020, June 1). *Wikimedia Commons*, the free media repository. Retrieved June 14, 2020 from [https://commons.wikimedia.org/w/index.php?title=File:Early_Vedic_Culture_\(1700-1100_BCE\).png&oldid=423076564](https://commons.wikimedia.org/w/index.php?title=File:Early_Vedic_Culture_(1700-1100_BCE).png&oldid=423076564).



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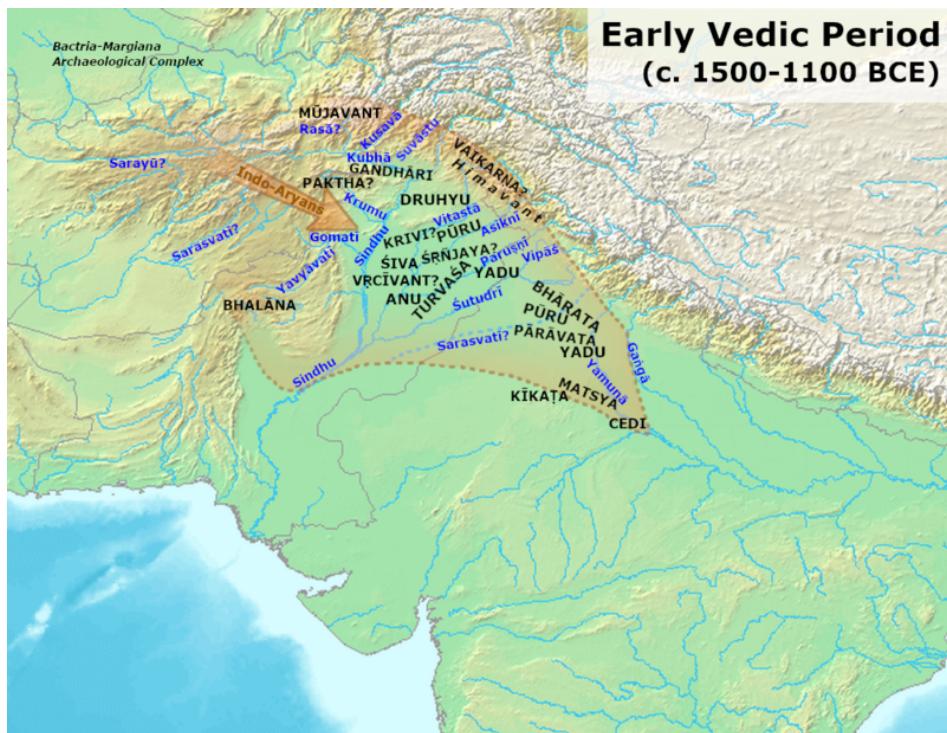


Figure 1: Geographical distribution of speakers of Early Vedic

The texts were composed for the ritual recitation of sacred poetic formulas (*mantrās*) with fixed metrical structures alongside parts in prose; they were memorized and verbally transmitted with astonishingly high fidelity by oral tradition across generations up to the present day, preserved in several recensions or ‘schools’ (*sākhās* ‘branches’, e.g. AV of the *Paippalāda-Śākhā*). Their written fixation and canonization was subsequent to the ongoing process of their creation and continual re-arrangements within the oral transmission.

Given a timescale of roughly 1000 years, it is difficult to speak of a homogeneous language. Therefore, diverse labels are used to differentiate historical varieties: Early Vedic, Old Vedic, Late Vedic.² Early Vedic (henceforth, EV) is the language of the core of the *Rgveda-Saṃhitā*, especially the language of the “family books” (Māṇḍalas 2-7) and RV 1.51-191, 8.1-66 (Oldenberg 1909 [1912]), and pre-

²“Old Vedic” is the language of the Mantra period, subsequent to Early Vedic, and datable to ca. 1150 BC with the beginning of the iron age (Witzel 1997: 280). It is followed by “Late Vedic”, from ca. 1200-800 to ca. 500 BCE.

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sumably several parts of RV 9, which is a later compilation of hymns. Although it is not possible to date these phases with complete accuracy, the earliest sections (RV 5) may have been composed by people who also spoke the language in everyday life around 1400 BCE (Witzel 1989: 124–7, Witzel 1997). The term “Late Early Vedic” refers to the language of RV 1.1–50, 8.67–103, and RV 10.

This is a corpus-based investigation and the focus of this paper is on the language of the RV, which most likely corresponds to the period in which Early Vedic was spoken. The structure of this paper is as follows: in the rest of this first section, we offer an overview of the language under investigation and some relevant remarks about its grammar. In §2, we analyze the diverse strategies for reflexive marking: verbal (§2.1), head noun (§2.2) and adjunct auto-possessive (§2.3). In each of these sections, we further offer an overview of the different values associated with those strategies. We express our conclusions in §3.

1.2 General remarks on Early Vedic grammar

Vedic has fusional morphotaxis with cumulative exponence of grammatical categories. The dominant marking strategy is suffixation; partial reduplication is frequent with verbs (e.g. perf. act. *ca-cákṣ^a* ‘[he/she/it] has seen [him/her/it]’, from √cákṣ-).³ The fusional marking strategy includes portmanteau suffixes (“endings”) for person, number, TAM, voice (see below), or case, number, gender, e.g. acc. sg. f. -*am* of *vāc-am* (Patient, Theme or Goal) from *vāk* (*vāc-*) ‘speech’. There is a high degree of stem variation including root and stem suppletion (e.g. *purú*-adj. m. n. ‘much, many’ vs. *pūrví*-adj. f., and root and/or stem ablaut with multiple morph variants (e.g. √*han-/ghn-/ghan-/ghām-/ja-* ‘to slay, kill’). Several diachronically innovative roots lack ablaut (e.g. 3sg Xth pres. ind. act. *caksáyati* from *cakṣ-* ‘to see’). Verbs and pronouns may show root suppletion, the former depending on TAM: e.g. perfective *á-vadh-īt*, (√*vadh-* ‘to slay, kill’) vs. imperfective *hán-ti* (√*han-* ‘to slay, kill’); the latter depending on case, e.g. anaphoric pronouns *sá-s* (NOM.M) vs. *tá-m* (ACC.M).

³In §1, we follow the conventions of Vedic philology by giving the 3sg form of verbs as citation form, and by hyphenating the stem (e.g. *ca-cákṣ-*). The 3sg ending suffix is given as a superscript when not illustrative. The symbol √ is used to cite the root. The traditional category “present” is rather an imperfective aspect plus present tense. “Present stems” (this is, imperfective stems) are traditionally numbered from 1st through Xth. For the sake of space, examples are translated but left unglossed in this section. In general, we follow the Leipzig glossing rules (see the Abbreviations section at the end for gloss abbreviations). Morphs are not segmented unless absolutely necessary to follow the argumentation in the paper.

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Verbs inflect via endings that encode simultaneously person (1, 2, 3), number (SG, DU, PL), voice (active vs. middle), and TAM distinctions. Present tense is only coded by endings, e.g. 3sg pres. ind. active *-ti* of *hán-ti* ‘[he/she/it] is slaying [him/her/it/them]’ or middle *-te* of *jíghna-te* with the same meaning. Past tense is coded by the prefix *á-* combined with endings (e.g. *á-vadh-it*, *á-han* ‘[he/she/it] slew, killed [him/her/it/them]’). Future tense is coded by a tense stem *haniṣyá-^{t(i)}* ‘will slay, kill’, which is rare in Early Vedic, future tense being more often coded by the subjunctive-future stem. Coding of mood is by endings (indicative *hán-ti*, *jíghna-te*, imperative 2sg *ja-hí*, 3sg *hán-tu*) or by use of modal stems, e.g. “subjunctive” *hána-^{t(i)}* (exhibiting subjunctive-future polyfunctionality), optative *hanyá-^t*, desiderative-conative *jígháṃsa-^{t(i)}*. There is an archaic non-tensed category called “injunctive”, e.g. *hán* ‘[he/she/it] slew, slays, will slay [it/him/her/them]’, under-specified for tense and non-irrealis modal distinctions. Verbs inflect for aspect via varying stems, following a “root and pattern” stem formation principle (Pooth 2014: 113ff.): imperfective (traditionally called “present stem”) *hán-^{ti}*, intensive I *jaṅghán-^{ti}*, intensive II *ghánighn-ant-* (participle), perfective (traditionally called “aorist stem”) *á-vadh-^{it}*, anterior (traditionally called “perfect stem”) *jaghān-^a*.

Nouns and adjectives (e.g. *kṛṣṇa-* m. ‘blackbuck, antelope *cervicapra*’, *kṛṣṇá-* adj. ‘black’) inflect for three genders (feminine, masculine, and neuter), three numbers (singular, dual, plural), and eight cases (nominative, accusative, instrumental, dative, ablative, genitive, locative, vocative). Nouns have lexical gender. Adjectives generally inflect like nouns but for all three genders.

Vedic alignment is of the nominative-accusative type. The nominative typically encodes A = S, while the accusative encodes P (patient), T (theme), G (goal), and even R (recipient); alternations of accusative G and R with dative and locative are not infrequent. The instrumental may express the oblique agent of passive constructions. Vedic lacks the valency relation of necessary complementation (Pooth 2014: 281-301); all arguments can be pragmatically non-overt and covert. Vedic word order is basically discourse-configurational. Noun phrases can be discontinuous.

2 Reflexivizers in Early Vedic

Early Vedic lacks a prototypical reflexive pronoun, but has diverse strategies for coreference of arguments within the minimal clause.⁴ Following the cross-

⁴To our knowledge, a thorough study on Vedic long-distance reflexives is still lacking. As in other ancient Indo-European languages, such a pronoun is absent. It seems possible that the demonstrative pronoun *sá*-may be used in some cases. Further study on this topic is still needed.

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linguistic classification of Faltz (1977), these are basically the middle voice and a head noun strategy: *tanū-* ‘body’. As well, there is a compound strategy with *svá-* (+ noun), used mostly for partial coreference. Early Vedic also has an elaborate system of personal pronouns (1st and 2nd person, sg., du., pl.) and demonstrative pronouns (3rd person sg., du., pl.), which when used in the genitive case (e.g. *máma* 1sg gen., *táva* 2sg gen.), encode both coreferential and disjoint possession.⁵

2.1 Verbal reflexivizers

2.1.1 General remarks on the Early Vedic middle voice and its polysemy

In EV, middle inflection is polyfunctional:⁶ following the terminology of chapters/02_Haspelmath its functions include auto-pathic (i.e. direct reflexive), as the first 3PL form in (1),⁷ auto-benefactive, as in (2), auto-receptive/auto-directed, as in (3), or auto-possessive (reflexive possessive), as in (4).⁸ The subject (mainly nom.) is either beneficiary, recipient/goal, or possessor:

- (1) *añjáte* *vy añjate* *sám* *añjate*
anoint.3PL.PRS.MID REC anoint.3PL.PRS.MID together anoint.3PL.PRS.MID
'They anoint themselves, they anoint each other, together they anoint each other' [RV 9.86.43a]
- (2) *yáje* *tám*
worship.1SG.PRS.IND.MID DEM.ACC
'I worship him for my benefit' [RV 2.9.3c]
- (3) *á* *devó* *dade* ... *vásuni*
(t)hither god.NOM.SG give/take/receive.3SG.PF.IND.MID good.ACC.PL
'The god has taken the goods to/for himself' [RV 7.6.7a]
- (4) *úc chukrám átka-m ajate*
out bright.ACC.SG garment.ACC.SG drive.3SG.PRS.IND.MID
'He pulls out his (own) bright garment' [RV 1.95.7c]

⁵There are also possessive pronominal adjectives (e.g. *mámaka*-‘my’), but these rare in Early Vedic (Macdonell 1910: 305).

⁶The high degree of polysemy and lability in EV middle forms strengthens the hypothesis that the Vedic middle more generally goes back to a Proto-Indo-European “off-valency-processing” detransitivizing category (Pooth 2014).

⁷All translations are our own, unless explicitly stated.

⁸We prefer the labels “recipro-pathic” and “auto-possessive”, as these terms show with more accuracy that these are different functions and that they belong to a complex net of connected functions (autopathic, auto-benefactive, recipro-possessive, etc.).

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With plural subjects, middle inflection can show corresponding reciprocal meanings: recipro-pathic, as illustrated by the second 3pl form in example (1) (often with the particle *ví* an additional marker; *Kulikov 2007a*), recipro-benefactive ('for each other's 'benefit'), recipro-receptive/amphi-directed ('to each other'), recipro-possessive ('each other's ACC'). With plural subjects, middle inflection also encodes joint action ('together with each other'), as in (5), often additionally encoded by the particle *sám* 'together':

- (5) *sám áyanta ā dísah*
 together go.3PL.PRS.IND/SUBJ.MID (t)hither direction.ACC.PL
 'They (will) go together in all directions' [RV 1.119.2b]

Moreover, middle inflection can encode an indefinite Agent, as in (6), and can even have a passive function with an optional oblique Agent (normally in the instrumental case), as in (7)

- (6) *yáthā vidé*
 like know.3SG.PRS/PF.IND.MID
 'As (is) known' [RV 1.127.4a]
- (7) *tvayā yát stavante ... vīrāś*
 2SG.INS when praise.3PL.PRS.IND/SUBJ.MID man.NOM.PL
 'When - by you (oblique agent) - the men are praised' [RV 6.26.7c]

Middle inflection is often lexicalized with experiencer-stimulus verbs, verbs of sentience and cognition (e.g. *mányate* 'to think something, think of someone'), emotive speech, motion, change in body posture, states (e.g. *āste* 'to sit, sit down'). This conforms to a well-known middle marking pattern (*Kemmer 1993*).⁹ Lexicalized middle inflection allows *man-* 'to think' to be used in a predicative reflexive construction, as in (8):

- (8) *mánye revān iva*
 think.1SG.PRS.MID wealthy.NOM.SG as
 'I think of myself as a wealthy man' [RV 8.48.6cd]

In a few cases, middle inflection indicates that the acc. is a non-affected goal, whereas corresponding active forms indicate that the acc. is an affected patient,

⁹Middle inflection is also lexicalized with verbs indicating a lower degree of control, e.g. *pard-* 'to fart' (**párdateis* not attested in the earliest texts but can be reconstructed based on Classical Sanskrit *pardate*; see *Pooth 2014*).

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e.g. middle *jíhīte* ‘to go away to someone (acc.), to give way to someone (acc.)’ vs. active *jáhāti* ‘to leave someone (acc.) behind’ (Pooth 2014: 154ff.). The distinction of active *yé tvām ... pádyanti* ‘who are stepping forward to you’ (RVKhil 4.2.7a) vs. *pádyate, ápādi* ‘to fall down’ (*pad-*) seems to reflect an agentive active vs. non-agentive middle opposition.

When judged from its entire functional scope, the EV middle voice category is “off-valency-detransitivizing” (Pooth 2014). This implies that it is *not necessarily* a valency-changing category, and that *per se* middle inflection does not *categorically* decrease the number of participants involved in the event, but can do so, and does, if such an interaction between verb stem and middle inflection is lexicalized.

As illustrated in (9), middles (e.g. 3pl *áranta/aranta*) can show labile syntactic and semantic behavior. They are used intransitively (‘came together’) or convey *indirect causative* meaning (where *indirect causative* means causing a change of state in P without direct physical contact or manipulation).

- (9) a. *sám ... vām uśána áranta devāḥ*
together 2DU.ACC uśánā.INS meet.3PL.AOR.MID god.NOM.PL
‘The gods made you two come together with Uśanā’ [RV 5.31.8d]
- b. *sám ... aranta párva*
together meet.3PL.AOR.MID limb.NOM.PL
‘The limbs came together’ [RV 4.19.9d]

In (9a), the gods (*devás*) cause a change of state in the 2sg, whereas the meaning of (9b) does not include causation (‘the limbs’ undergo a change of state). Active forms can also exhibit transitive/intransitive lability or similar kinds of polysemy, as in (10).

- (10) *táva bhāgásya trpñuhi*
you.GEN.SG portion.GEN.SG sate.oneself/become.saturated.2SG.IMP.A
‘Sate yourself / be / become sated from your portion!’ [RV 2.36.4cd]

The verb *trp-/tarp-* is stative-processual ‘to be/become sated’ but also allows an agentive reflexive meaning ‘to sate oneself, make oneself be saturated’.¹⁰

¹⁰The stem formation pattern with thematic pres. *trmpá-*, thematic aor. *átrpa-*, perf. mid. *tātrpur*, participle *tātrpáná*-points to a preceding deponent verb (“proto-middle tantum”; Pooth 2014), as also indicated by the “middle-ish” polysemous semantics. The active-*nu*-present forms seem to be innovative.

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Thus, not all TAM stems and active vs. middle forms are equally specified for valency in EV. Transitive/intransitive lability vs. non-lability is licensed by a *lexicalized interaction* between the lexical meaning and the meaning of the respective TAM stem formation viz.-à-viz active vs. middle inflection (Pooth 2014). Consequently, the valency-decreasing function of middle inflection operates as *lexicalized interaction* with TAM stems specified for valency, e.g. “present passive” stems like *pūyá-te* ‘is purified’ vs. active IXth “present” *punāti* ‘purifies someone (acc.)’, etc. (Kulikov 2012; Pooth 2014).¹¹ Various works have described typical lability introduced by special TAM formations, e.g. that of perfect active forms (Kümmel 2000), athematic middle -āna- participles, etc. (Kulikov 2014).

2.1.2 Verbal reflexive constructions in the auto-pathic domain

Auto-pathic reflexives set the coreference between subject and object. Such cases can be expressed by the middle voice in all kinds of clauses, and both with extroverted, as was seen in (1) above and also in (11a), and extroverted events, as in (11b), according to Haiman’s (1983) terminology:

- (11) a. *prché tát éno varuṇa*
ask.1SG.IND.MID DEM.ACC.N sin.ACC.N Varuṇa.voc
‘I ask myself about that sin, o Varuṇa’ [RV 7.86.3a]
- b. *uṣamāṇah ūṛṇām*
clothe.PTC.MID.NOM.SG wool.ACC.SG
‘Clothing himself in wool’ or ‘Being clothed / dressed in wool’ [RV 4.22.2c]

In auto-pathic reflexive constructions, the middle voice is an almost obligatory marking that can co-occur with the nominal strategy, as shown below in §2.2 There is a tendency to use middle inflection as a reflexivizing strategy without additional marking when middle forms have corresponding transitive active

¹¹ A diachronic tendency to introduce the valency-changing function by narrowing active or middle forms of formerly labile verbs to either transitive or intransitive function is evident from the relation of active forms of archaic stems of motion verbs (e.g.¹ ‘to rise, raise’) to corresponding active forms of evidently innovative stems (Pooth 2012). The restriction of transitive valency to active forms of innovative present stems is also evident from active forms *pīnva-ti* vs. middle forms *pīnva-te* of the verb *pīn-* ‘to swell’. Whereas active forms of the Ist present stem *pīnva-* are restricted to transitive function (‘to swell someone’), corresponding middle forms are more dominantly intransitive (‘to swell’), although there are a few relics with indirect causative meaning. The narrowing of several middle forms to valency-decreasing function and the restriction of TAM stems to either transitive or intransitive valency is an ongoing innovative functional change within the EV language (Pooth 2014).

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forms, as in (12), while otherwise the additional nominal marking strategy can be used.¹²

- (12) *táva* *śriyé* *marútah* *marjayanta*
 you.GEN.SG splendour.DAT.SG marut.NOM.PL rub.3PL.CAUS.MID
 ‘For your splendour, the Maruts rubbed themselves’ [RV 5.3.3a]

As for introverted events, the EV verb stem *vás-te* is restricted to middle inflection, while the causative stem *vásáya^{-ti}* can be active and transitive ‘to cloth someone (A acting on P)’ As illustrated in (11b), the meaning of the middle participle *uṣámāṇa-* can have a two-place structure with a P subject (nom.) and a theme (acc.), but it can also have a stative interpretation (‘is dressed/clothed’). Thus, *váste* shows stative-dynamic polysemy ‘to be clothed in (acc.), to clothe oneself in (acc.). The reason why the auto-pathic reflexive reading in (11b) does not co-occur with a nominal strategy may be that *váste* is already a special “introverted verb stem” in EV.

2.2 Head noun reflexivizers

2.2.1 General remarks on *tanū-*

The feminine noun *tanū-* ‘body, person, self’ can be used in direct (in the accusative case) and indirect (in an oblique case) reflexive constructions, with an animate (and highly agentive) antecedent, as in (13):

- (13) *ágne* *yájasva* *tanvàṁ* *táva* *svám*
 agni.VOC worship.2SG.IMP.MID SELF.ACC.SG your.SG own.ACC.SG
 ‘Agni, worship yourself’ [RV 6.11.2d]

However, *tanū-* is not a pure reflexivizer without lexical meaning, because it is not wholly grammaticalized as a reflexive marker (Pinault 2001, Orqueda 2019).¹³ *tanū-* as a reflexivizer in Early Vedic illustrates a well-known cross-linguistic development of reflexives from body-nouns and body-part-nouns, as shown by Schladt (2000), among others. While many cases are ambiguous between a lexical and a reflexive interpretation, others display only a lexical interpretation, as the comparison between (14a) and (14b) shows:

¹²The high number of reflexive examples with an athematic middle participle (especially with the -āṇa- suffix) combined with *tanū-* is consistent with the idea that these participles are ambiguous between different interpretations, as already pointed by Kulikov in various papers (e.g. Kulikov 2006).

¹³The use of

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- (14) a. *sūrah* *upākē* *tanvām* *dádhānah*
 sun.GEN.SG in.front.LOC.SG body/self.ACC.SG put.PRS.PTC.MID.NOM.SG
 ‘Placing your body/yourself in front of the sun’ [RV 4.16.14a]
- b. *ásma* *bhavatu* *nah* *tanūh*
 rock.NOM.SG be/become.3SG.IMP.ACT we.GEN.PL body.NOM.SG
 ‘Let our body be/become a rock’ [RV 6.75.12b]

In ambiguous cases like (14a), only the context may help to disambiguate the polysemy (Pinault 2001, Kulikov 2007b). Both as a reflexivizer and as a lexical item, *tanū-* is far more frequent in the singular, although there are also some plurals and a few duals. Besides, as expected, the accusative case is most frequent, although there are also cases of coreference in oblique cases, as in (18) below.

2.2.2 Head noun reflexive constructions with *tanū-*

As shown in §2.1, the middle voice is the primary reflexivizer in EV, so *tanū-* is mostly used as an additional mark of reflexivity to emphasize the reflexive interpretation, and this explains why practically all reflexive constructions with *tanū-* are also marked with the middle voice. However, there are no examples of *tanū-* with middle-marked and typically introverted events (e.g. *vas-* ‘to be clothed, cloth’). Besides, not all extroverted reflexives allow the addition of *tanū-*.

The reflexive strategy with *tanū-* can operate for all three persons and all three genders. The singular accusative with a singular referent is the most frequent structure, although it is also possible to find both a plural reflexivizer with a plural referent, as in (15) below, and a singular reflexivizer with a plural referent.

- (15) *yátra sūrāsaḥ* *tanvāḥ* *vitanvaté*
 where brave.NOM.PL body/self.ACC.PL stretch.MID.PRS.3PL
 ‘Where the brave ones/heroes stretch their bodies/themselves’ [RV 6.46.12a]

The rarer cases of non-agreement are always ambiguous between a reflexive and a lexical interpretation, but they are worth noting as they explain the incomplete grammaticalization of this item. If *tanū-* had undergone complete grammaticalization as a reflexivizer, we could perhaps expect the loss of its declension and/or agreement, which is not the case.

In the autopathic domain, there is a tendency to use middle inflection as a reflexivizer without additional marking when middle forms have transitive active

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uses within the same stem. Otherwise the additional nominal marking strategy is often used as a disambiguating device.¹⁴ For instance, the present stem of *yaj*-‘to worship’ can be used both as intransitive (without acc.) and indirect causative, as in (16a); and it occurs with *tanū*- to reinforce the reflexive interpretation, as in (16b). In turn, (17) shows that a typically two-place verb form (a Xth causative stem) does not occur with an additional marker:

- (16) a. *yájasva hotar iśitáḥ*
 worship.2SG.IMP.MID priest.voc.sg sent.out.voc.sg
 yájīyān
 worshipper.voc.sg
 ‘Make (our offering) worshipped when prompted, O priest and
 worshipper!’ [RV 6.11.1a]
- b. *ágne yájasva tanvāṁ tátva svám*
 Agni.voc worship.2SG.IMP.MID self.ACC.SG you.GEN.SG own.VOC.SG
 ‘Agni, worship yourself / your own body’ [RV 6.11.2d]
- (17) *tátva śriyé marútaḥ marjayanta*
 you.GEN.SG splendour.DAT.SG marut.NOM.PL rub.3PL.CAUS.MID
 ‘For your splendour, the Maruts rubbed themselves’ [RV 5.3.3a]

Tanū- combined with *svá*- can function as a complex compound reflexive, with no difference in meaning to constructions with *tanū*- and without *svá*. Interestingly, a possessive pronoun or a genitive personal pronoun can also occur within this complex construction, as in (16b) above, but not if *svá*- is missing.

In EV, reflexive *tanū*- plus active-marked verbs are infrequent and restricted to causative stems and the 3pl perfect active form *māmrjuḥ*, as in (17), which suggests an ongoing diachronic change towards the collapse of the active/middle voice distinction and a decline of middle marking of reflexivity:¹⁵

¹⁴The high number of reflexive examples with an athematic middle participle (especially with the -āna- suffix) combined with *tanū*- is consistent with the idea that these participles are ambiguous between different interpretations, as already pointed by Kulikov in diverse papers (e.g. Kulikov 2006).

¹⁵In fact, middle and active voice slowly converge in the history of Sanskrit, and this is in line with a growing use of the masculine noun *ātmán*-‘self’ as a nominal reflexive marker, regardless of the active/middle verbal endings from the AV (Post Early Vedic) onwards: *yám vayám dviṣmáḥ sá ātmánam dveṣṭu* (A.) ‘The one who we hate, let that one hate himself’ [AV 16.7.5b]; *ātmánam pitáram putrám paútram ... / yé priyás tán úpa hvaye* (MID) ‘To myself, the father, the son, the grandson, those that are dear, I invoke’ [AV 9.5.30ab].

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- (18) *vásam devásas tanvī ní māmṛjuḥ*
 power.ACC.SG god.NOM.PL self.LOC.SG down/into rub.3PL.PF.A
 ‘The gods rubbed their power upon (literally down to/into) themselves’
 [RV 10.66.9d]

The antecedent of *tanvī*- is most usually the subject (in the nominative case). The few examples of non-subject antecedents (marked with a non-nominative case) are ambiguous, as in (18)¹⁶ below, where a meaning ‘body’ is possible, too. Here, the antecedent of the indirect reflexive *tanvē* is found in the accusative *árl̥ham vatsám*.

- (19) *árl̥ham vatsám caráthāya mātā*
 unlicked.ACC.SG calf.ACC.SG wander.INF.DAT mother.NOM.SG
svayám gātúm tanvē ichámānam
 by.himself way.ACC.SG body.DAT.SG seek.PTC.MID.ACC.SG
 ‘The mother (leaving) the calf unlicked for wandering, [him] who is now seeking by himself a way for himself / his body’ [RV 4.18.10cd]

We may include these cases in this survey, as the reflexive interpretation is possible.

The head noun reflexive strategy also expresses indirect reflexivity. In these cases, the subject (in the nominative) and an oblique case (e.g., dative, locative, instrumental) are coreferential, as in (20).

- (20) a. *utá sváyā tanvā sám vade tát*
 and own.INS.SG body.INS.SG with say.1SG.PRS.MID this.ACC.SG
 ‘And I discuss this with myself’ [RV 7.86.2a]
 b. *janáyan mitrám tanvē sváyai*
 generate.PTC.PRS.A.NOM.SG friend.ACC.SG body.DAT.SG own.DAT.SG
 ‘Generating a friend for yourself’ [RV 10.8.4d] with antecedent 2g nom. (*tvám*)

Indirect reflexive constructions with *tanvī*- (often with extra emphatic elements, such as *svá-*) are polysemous as for semantic roles; this is not due to the reflexive nature of *tanvī*- but rather due to the functional scope of the dative.

¹⁶In this example, *svayám* is an Actor-oriented intensifier. Although it is not a reflexivizer, it is usually found in reflexive constructions. This can be explained by the fact that Actor-oriented intensifiers are frequently found with highly agentive subjects and these are a requirement for auto-pathic reflexives in Early Vedic.

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As prototypical indirect reflexives imply coreference with an argument of a three-slot verb in the clause (Kemmer 1993: 77–78), but many EV verbs are underspecified for valency (even *dā-* ‘to give, take, receive, get, grab’), there are problems with describing these constructions as prototypical indirect reflexives in a syntactic sense.

2.2.3 The polysemy of *tanū-*

Tanū- can also occur as a reciprocal marker and as an intensifier, which corresponds to a frequent kind of polysemy cross-linguistically. Reflexives may be formally identical to both intensifiers and reciprocals (Geniušienė 1987, Kemmer 1993, König & Siemund 2000, König & Gast 2006).

As a recipro-pathic, the use of *tanū-*, as in (21), is an optional additional marker: it is not frequent in the corpus and in all cases it occurs in interaction with other reciprocal markers (the dual number, the middle voice and, often, the reciprocal adverb *mithāḥ* ‘mutually’):

- (21) *indrāgnī...* *mithāḥ hinvānā* *tanvā*
 indra.agni.NOM.DU mutually impel.MID.PTC.NOM.DU body.NOM/ACC.DU
 ‘Indra and Agni, impelling each other mutually’ [RV 10.65.2ab]

As an intensifier, *tanū-* occurs in the nominative (as an adnominal intensifier), or in the instrumental (as an adverbial intensifier), as in (22a) and (22b), respectively, and it is not restricted to constructions with middle-marked verbs:

- (22) a. *svā tanūḥ bala-déyāya*
 own.NOM.SG body.NOM.SG power-give.GER
mā ā ihi
 1SG.ACC towards go.2SG.IMP.ACT
 ‘Come to me to give me power in your own person’ (‘Come to give me strength yourself’) [RV 10.83.5d]
- b. *mandasvā ándhasah*
 rejoice.2SG.IMP.MID juice.GEN.SG
rādhase tanvā mahē
 generosity.DAT.SG body.INS.SG great.DAT.SG
 ‘Rejoice from the (Soma) juice for the great generosity in person’ [RV 3.41.6ab, RV 6.45.27b]

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As (22a) shows, *tanū-* can be combined with emphatic elements such as *svá-* also when it is used as an intensifier (see Kulikov 2007b and Orqueda 2019), thus structurally running in parallel with its use as reflexivizer.

2.3 Adjunct auto-possessive constructions

As mentioned, Early Vedic has diverse strategies for the expression of the auto-possessive function: the middle voice (see §??), the less frequent use of demonstrative or personal pronouns in the genitive case, as illustrated in (10) above (*táva bhāgásya tṛpṇuhi* ‘Sate yourself /become saturated from your portion!’, RV 2.36.4cd), and the noun phrase integrated by the adjective *svá-* plus a noun for the possessee, as outlined in §2.3.1

2.3.1 Constructions with *svá-*

The adjective *svá-*, etymologically connected to Indo-European cognates that can express (reflexive) possession, such as Latin *suus* and Latvian *savs*, is also highly polysemous, both within the clause and in word-formation. Within the area of functions related to reflexivity, it can be used in auto-possessive function within the clause. In (23), for example, it indicates partial coreference with the subject. It can also be used as an intensifier, marking contrastive focus, as in (24). Furthermore, *svá-* can be used as a disjoint possessive marker, as in (25), and as the primary strategy for intensifying/reflexive nominal compounds (see §2.3.2). In none of these cases is it restricted to the combination with middle endings.

- (23) *vádhīm vṛtrám ...*
kill.1SG.A Vṛtra.ACC.SG
svéna bhámena taviṣáḥ babhūvān
own.INS.SG rage.INS.SG strong.NOM.SG become.PTC.A.NOM.SG
‘I have killed Vṛtra, having become strong through my own rage’ [RV 1.165.8ab]

- (24) a. *pibatu vṛtrakhādāḥ sutám sómam*
drink.3SG.IMP.A Vṛtra.gnawer.NOM.SG pressed.ACC.SG soma.ACC.SG
dāśúṣāḥ své sadhásthe
worshipper.GEN.SG own.LOC.SG place.LOC.SG
‘Let the Vṛtra-gnawer drink the pressed soma in the worshipper’s own/very seat’ [RV 3.51.9cd]

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- b. *sváh svāya dhāyase*
 self.NOM.SG own.DAT.SG nourishing.DAT.SG
kṛṇutām rtvíg rtvíjam
 make.MID.IMP.3SG priest.NOM.SG priest.ACC.SG
 ‘Let the priest himself (and not someone else) make the priest for his own nourishing’ [RV 2.5.7a]

- (25) ... *te ápa sā nú várāt*
 you.GEN.SG away she.NOM.SG just thunderbolt.ABL.SG
dvitā anamat bhiyásā svásya manyóh
 just.so bent.3SG.IMPF.A fear.INS.SG own.GEN.SG fury.GEN.SG
 ‘Now, she bent away just so from your thunderbolt out of fear of your fury’ [RV 6.17.9ab]

As examples (23) through (24) show, the use of *svá-* is not restricted to specific syntactic slots. As for the person feature of its antecedent, 3rd person singular antecedents are in the majority, although the 2nd or 1st person are also frequent, as in (22) and (24), respectively. Regarding the case of the antecedent, it is usually in the nominative subject position (see Vine 1997), but there are examples with an oblique case antecedent in non-subject position, as in (24b). The cases of genitive antecedents seem to be restricted to a few nouns, to 2nd personal pronouns and demonstratives, while there are no 1st person genitive antecedents.¹⁷ Example (26), in turn, shows that antecedents of *svá-* can be subjects of passive constructions (Grestenberger n.d.). This confirms that the antecedents for *svá-* need not be highly agentive.

- (26) *mārjalyāḥ mṛjyate své*
 fit.for.grooming.NOM.SG groom.3SG.PASS own.LOC.SG
dámūnāḥ
 house.master.NOM.SG
kavi-praśastáḥ átithih śiváḥ nah
 poet-praised.NOM.SG guest.NOM.SG kind.NOM.SG our.GEN.PL
 ‘Fit to be groomed, he is groomed in his own [house] as master of the house, praised by poets, our kind guests’ [RV 5.1.8ab]

¹⁷Hock (1991) claims that cases as in (24b) confirm that genitives controlling reflexives have more agentive-like features. But see also Vine (1997: 212–213), who considers that in these cases the genitive indicates the introduction of a new “rhematic” element that binds the auto-possessive marker.

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2.3.2 Nominal compounds with *svá-*

As the first member of a nominal compound,¹⁸ *svá-* may be added to a deverbal noun or adjective, giving rise to a reflexive (e.g., the first compound in 27a), auto-possessive, as in (27b), intensifying (e.g., the second compound in 27a), or anticausative interpretation, as in 27c:

- (27) a. *svá-kṣatrāya sváya-śase*
self-ruling.DAT.SG self-glorious.DAT.SG
'For the self-ruling and the self-glorious' [RV 5.48.1cb]
- b. *sva-dháyā mādáyethe*
self-power.INS.SG rejoice.2DU.CAUS.MID
'You two rejoice with your own power' [RV 1.108.12b]
- c. *yé sva-jāḥ vavrásah*
who.NOM.PL self-generate.NOM.PL hole.NOM.PL
'Who are self-generated, like (earth-)holes' [RV 1.168.2a]

Notably, unambiguous reflexive examples are rare and most usually can also be interpreted as intensifiers. This confirms the formal overlap between reflexives and intensifiers, which is cross-linguistically frequent in word formation (compounding or derivation; König 2011).¹⁹

¹⁸Interestingly, *tanū-* and *svayám* are also first members of nominal compounds in EV. However, the former is only used with its lexical meaning (e.g., *tanū-tyájah* 'leaving their (own) bodies'), while the latter, with only two occurrences in the RV, has an intensifying/anticausative meaning (e.g. *svayam-jāḥ* 'self-produced' (RV 7.49.2b), in reference to waters that arise by themselves (springs), in opposition to waters that are found by digging (well water).

¹⁹The complex polysemic nature of *svá-* may be explained through its diachrony from PIE. Contrary to the common opinion that it develops from an original reflexive root in Proto Indo-European, we believe that a possessive marker was eventually formed on the base of an original deictic marker (a proximative demonstrative stem) that was high in the features of topicality and animacy. This would explain, particularly, the uses with a genitive antecedent and the disjoint possessive. A brief list of facts that support this interpretation is: first, that in practically all cases *svá-* has an animate referent (which usually is not a requisite for disjoint possessives); secondly, that *svá-* frequently occurs in prominent slots in the stanza, mostly the initial position of the clause, in Early Vedic but not in later varieties (contrarily, reflexive markers and possessives need not to be linked to prominent clause slots; thirdly, due to the higher number of cases of intensification in nominal compounds versus the number of clearly reflexive compounds (see especially Orqueda 2017 for an extensive overview of this claim).

3 Final remarks

We can draw the following conclusions regarding the reflexive constructions in Early Vedic. First, we showed that polysemy is widespread for the different strategies linked to reflexivity. Secondly, we showed that, while the middle voice is used for both autopathic reflexives and auto-possessives, the use of differential markings for auto-pathic and auto-possessive constructions arises already in Early Vedic. Thirdly, non-nominative subjects controlling autopathic reflexives are not an ordinary case, although they are attested, as long as they are agent-like NPs. This suggests that antecedents of reflexivizers are mainly selected according to semantic features rather than syntactic functions.

Lastly, we proposed some diachronic explanations for the strategies under study. In particular, we have shown the emergent use of nominal marking for autopathic reflexives, which is in line with the eventual loss of voice distinction in later stages of the language. Reflexives have progressively come to require that the antecedent is an NP high in the features of volition and control, thus distinguishing reflexives from other related functions (such as anticausatives or statives). From our perspective, this development is consistent with changes from a more semantically determined proto-language towards a more configurational syntax. Further research on these topics in later descendants would undoubtedly contribute to a better understanding of these diachronic developments.

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Abbreviations

1	1st person	INF	infinitive
2	2nd person	INJ	injunctive
3	3rd person	INS	instrumental
A	active voice	LOC	locative
ACC	accusative	MID	middle voice
AOR	aorist	N	neuter
CAUS	causative	NOM	nominative
DAT	dative	PF	perfect
DEM	demonstrative	PL	plural
DU	dual	PRS	present
GEN	genitive	PTC	participle
GER	gerund	REC	reciprocal
IMP	imperative	SG	singular
IMPF	imperfect	SUBJ	subjunctive
IND	indicative	VOC	vocative

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Part III

Papunesia

Chapter 13

Reflexive and Middle Constructions in Chini

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In this paper I rely primarily on examples from discourse in Chini, a language of northeastern Papua New Guinea, in order to describe how reflexivity and autopathic semantic relations are expressed. First I describe the reflexive possessive construction. I suggest that the coreferential association is between the possessor and the most topicworthy participant(s), which often but not always corresponds to the clause-internal subject. I then describe the middle construction and argue that its primary function is to identify the main participant in a clause as a semantic patient. The potential for autopathic readings of clauses headed by middle verb forms depends on the degree of the participant's control over the activity and furthermore involves interplays between lexical semantics and contextual interpretation. Finally I discuss certain specialized middle constructions where the reflexive or reciprocal interpretation is made absolute.

1 Introduction

Here I describe the possessive reflexive and the middle construction in Chini, a language of northeastern Papua New Guinea (PNG). I provide background about Chini in §1.1 and my methods in §1.2. In §2 I provide an overview of relevant areas of the grammar, especially participant roles and clause structure. I describe the workings of the reflexive possessive pronoun *ŋi=* in §3 and the middle marker *nji-* in §4 I conclude in §5.

1.1 The Chini language

Chini is the traditional language of the Awaknji people of Andamang village and the Yavinanji of Akrukay. Both villages are associated with a distinct dialect,



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each with a social as well as geographic dimension. The villages themselves correspond to multiple hamlets on the lower Sogeram River in Madang Province, Papua New Guinea (PNG). Local speech practices are characterized by code-switching between Chini and Tok Pisin, the national lingua franca of PNG and areal language of shift. Currently, young adults are mostly bilingual listeners but do not actively use Chini. Most adults in their 40s and older (about 50 people) are active users, and some are multilingual in neighboring languages. Dialect differences and any Tok Pisin material are maintained in examples.

Chini belongs to the Tamolan subgroup in the Ramu family (Brooks 2018b; Foley 2005; Z'graggen 1971), a grouping of at least 20 languages along the lower and middle Ramu River and in adjacent areas. Few descriptive materials are available on these languages.

1.2 Methodological background

The ongoing fieldwork on which this paper is based has been conducted across multiple trips totaling 12 months between 2012 and 2019. My fieldwork practice has ethnographic, linguistic, and documentary components. The corpus is housed at the Endangered Languages Archive (ELAR) (see Brooks 2018a for the web address). The annotated part of the corpus consists of some 15 hours of connected speech in Chini, including narrative but mostly conversation. This is supplemented by my field notes which include many key examples from unrecorded interactions.

The angle I take in this paper is to describe the possessive reflexive and the middle constructions in a way that reflects Chini grammar and usage, as limited by the extent of my understanding. I rely mostly on examples from connected speech. These are identified to their location in my fieldnotes or to recordings in the Endangered Languages Archive. Examples labeled 'Offered' were proposed by native speakers as appropriate utterances for me to parrot. 'Elicited' examples are from targeted elicitation, either from translation of something someone said in context in Tok Pisin, or from transcribing naturalistic speech. While all recordings have the consent of participants to be public, any examples I feel present a concern are not accompanied by identifiers. Common everyday expressions are not cited. Translations aim to reflect the original Chini as much as possible without being too infelicitous in English. Translations that depart significantly from the Chini are labeled as free translations. Likewise, descriptive labels and glosses are not intended rigidly or as representations of universal concepts, but as tools to represent language-specific associations between form and meaning (Reesink 2008).

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Thank you to Monika Feinen for creating this map.



*Red denotes Trans New Guinea languages, Green: Ramu languages, White: uninhabited

Figure 1: Chini in Areal Perspective

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2 Grammatical background

Here I provide an overview of the areas of the grammar relevant to the possessive reflexive and (especially) the middle construction, namely participant categories and how their semantic and pragmatic roles relate to clause structure and valency behavior.

2.1 The noun phrase

Noun phrase structure is [noun][adjective][numeral] with mostly dependent-head order in genitive constructions. The position of deictic determiners is based on semantic scope. Nominal categories include a plural/non-plural relative number distinction (where ‘non-plural’ is semantically akin to a paucal), diminutive, augmentative, and authentic (i.e., an original version of something). Noun phrases are not flagged for core cases. Postpositional enclitics provide different kinds of semantic and/or pragmatic information about the role of the noun phrase in the clause. It is not unusual for multiple enclitics to co-occur. This allows for fairly complex ideas to be expressed in a single noun phrase, including (as it relates to reflexivity) autopathic concepts. In particular, concepts involving self-reflection tend to rely on roundabout (and often, translation-resistant) expressions, without overt reflexive material. Agusta said (1) after complaining her eyesight had become too poor to see her knitting properly:

- (1) *ku pavimiŋyangamika!*
 ku pa=avi=minjɪ=arŋgi=ami=k-a=a!
 1SG.NOM before=NEW=TRANS=LH.NPL=SIM=PROX-DEF=EXCL
 (Free translation) 'Woe am I now, in contrast to the bright-eyed me from before!' [Agusta Njveni, afi021218m_7:09] ¹ ₂

¹Certain graphemic conventions diverge from a phonemically-based orthography. Between vowels or glides, <g> represents the velar approximant /w/. <ŋ> represents /ŋ/, but <ŋg> represents the prenasalized stop /ŋg/. <g> is also used for [g], an allophone of /ŋg/ that occurs before /ŋ/. <h> represents the breathy voice quality of certain stops when it is phonemically contrastive (and co-occurs with ingressive airflow, which is not represented). Other instances of murmur are not represented. <c> occurs in <cm> to represent the voiceless palatal stop in the prestopped nasal /c'm/ and in <ch>, for the affricate /tʃ/. Other conventions include <v> for /β/, <ñ> for /ɲ/ (but note <nj> for /ŋj/).

²Example citations indicate the source of the original utterance. In addition to the speaker’s name, an identifier like ‘afi021218m_7:09’ indicates the ISO code (afi), the date of the recording, the number of participants (s for ‘singular’, m ‘multiple’), and the time stamp.

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2.2 Participant categories for pronouns and nouns

Whereas many Papuan languages are known for the reduced functional role of nominals in discourse (de Vries 2005), in Chini the functional load of nouns and pronouns in referential tracking (among other uses) is high. The language has an abundance of core argument categories for object-like participants. These tend to be given lexical expression, especially Instruments. As a result, nominal-heavy clauses are not so uncommon in Chini discourse as they might be in other Papuan languages. Another reason for this relates to the fact that clause chaining in Chini is not based on reference. Instead, the chain linkage devices code dependency relations that demarcate topical information off from the comment, among other related discourse-pragmatic functions. This can be glimpsed in (2), where the prosody and the chain linker =va demarcate the topical background information from the following comment, which is headed by the final clause. The pragmatic unity between the two clauses in the comment is signaled by the linker =ki. In each clause, reference is clarified by pronouns.

- (2) a. *ku ηganjukηimapava*
 ku ηgi=anju.knji-m-apava=va
 1SG.NOM 3SG.DAT=ask-IPFV-R=PRE.R
 'I had been asking her (Dorin) but'
 b. *ani ηirkηi niŋaviandiki*
 ani nji=irk-nji ni=nji=avia.ndi=ki
 3SG POSS.REFL=talk-NPL INS=1SG.ACC=withhold.R=CNT.R
 'she withheld her plans (lit. her talk) from me and'
 c. *ku yani pupmu kuaviyi.*
 ku yani pupmu ku-avi-yi
 1SG.NOM just alone cross-TLOC.PC-R
 'I went all alone to the other side of the river (to collect greens).'
 [Dorothy Paul, afi051116m_15:14]

2.2.1 Pronouns

The Chini pronouns can be seen in Table 1 below. An initial (a) in 3SG forms indicates a dialect difference; the initial vowel is maintained only in the Akrukay dialect. Nominative and also the dual forms are unbound, all others are bound proclitics.

In Chini, verbs that can be used transitively (that is, occurs with reference to object-like participants) are associated with one (or sometimes, more than one)

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pronominal object case. (Recall that nominals are not marked for case, however.) The three pronominal cases are Accusative, Dative, and Benefactive.³

Table 1: Pronouns in Chini

	DISTAL	1SG	2SG	3SG	1PL	1/2/3PL collective	1DU	2DU	3DU
NOM	x	ku	nu	an̩i	añi	ñi			
ACC	mi	ŋi		(a)ni				ŋgu	
DAT			ŋgu	(a)ŋgi			an̩gi		marjuñi*
POSS		ku	ŋgu		anji	nji			
FOC.POSS	-	-	inku	anki	ainki	in̩ki			-
BEN	mbi	mbi	ndvu	(a)ndvi	anjvi	njvi			(co-occur with BEN vi=)

*Lit. ‘those two’, sometimes: *kajuñi* ‘these two’

The pronouns exhibit several divisions. The 1SG *ŋi=* conflates Accusative and Dative case. 2SG, 3SG, and 1/2/3PL⁴ conflate Nominative and Accusative while distinguishing the Dative. As I discuss in §2.3, constituent order in object-initial main clauses justifies grouping Accusatives and Datives as ‘Patients’ in the sense of ‘the most semantically patient-like argument in a multivalent clause’. As I discuss in §3, the reflexive possessive pronoun *ŋi=* refers to topical possessors.

2.2.2 Allatives, benefactives, and instruments as core participants

Any lexical noun (and some nominalized verb forms) having a certain semantic role of goal, beneficiary, or instrument is considered a core participant in Chini clause structure. That status is cross-referenced by a proclitic that attaches to the verb complex: Allative *mi=*, Benefactive *vi=*, and Instrumental *ni=*. These language-specific categories exhibit some semantic variability, for instance nouns having the semantic role of goal or path count as Allatives.⁵

³A handful of verbs take the Benefactive, for example: *ndi-* ‘like, think of’, *anu-* ‘worry about’, *ayi-* ‘wait for’, *ki-* ‘propel, kick, throw’. Others take the Dative: *ñu-* ‘chase off, after’, *angu-* ‘request information’, the sense ‘hog someone’s time, be possessive over (someone)’ of *amru-* ‘seize’, *ndu-* ‘perceive (pc)’. The majority take an Accusative: *ki-* ‘tell’, *amba-* ‘take care of (someone)’, *amá-* ‘transport, take (someone somewhere)’, *ngin-* ‘perceive (PL)’.

⁴The collective pronouns represent any 2 or more persons as a unit. The DU and 1PL distinctive pronouns represent multiple persons in terms of some property of distinctiveness. Often the difference is subtle.

⁵Also apparent in (3) is the possibility for a noun phrase marked by an adessive or vialis post-position to count as an Allative, a grey area in the core versus oblique distinction.

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- (3) *ku Aminjari mayiki*
 ku Aminjari **mi=ayi=ki**
 1SG.NOM [Ramu_river]_{ALL} ALL=go/come_upriver.IRR=CNT.R
achiki tiŋi mayuku yu.
 achi-ki ti=ŋi **mi=ayuku yu**
 [upriver-PROX path=ADESS]_{ALL} ALL=quickly go/come.IRR
 'I'll go upriver on the Ramu (River), going quickly on the upriver route.'
 [Dorothy Paul, afi260814m_29:03]

Instruments include concrete and abstract instruments, gifts, entities manipulated by human hands, certain roles and capacities, and adverbial manner.

- (4) *ka ku mmhi niminki.*
 k-a ku mmhi **ni=mi=nki**
 PROX-DEF 1SG.NOM [bamboo]_{INS} INS=DIST=light.R
 'This (the matchwood) I lit using the bamboo.' [Anton Mana,
 afi271016m_12:17]

The Benefactive indicates beneficiaries, maleficiaries, purposes, and reasons. As seen in (5), this participant category is the only one shared by pronouns and nominals (here, a nominalized verb):

- (5) *andvambrimbri varatmapaye*
andvi=ambri~mbri vi=ara-tm-apa-y-e
 3SG.BEN=hurry~NMLZ BEN=move_along-IPFV-R-Z-CTRST
 (...*ani papmi mindavarka.*)

'I was on my way in order to hurry for him but (...he had forgotten all about it.)' [Emma Airimari, afi051116m_2_15:59]

Benefactive pronouns in fact conflate Benefactive and Allative functions. Nominal recipients of directional transfers (from a source to a goal, along a path) take the Benefactive form. (6) concerns a soccer game that had taken place:

- (6) *ndvikavi!*
ndvi=ki-avi
 3SG.BEN=propel-TLOC.OPT.PC
 'Kick (the ball) to him.' [Elicited, 2016 Fieldnotes]

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My basic point here is that Chini biases its users to attend to specific types of participants, including ones not always thought of as candidates for core arguments (see [Mithun 2005](#)). In the next section, I discuss some similarities and distinctions between Patients and Instruments when they pattern as topics in clause-initial position.

2.3 Pragmatically-determined constituent order in main clauses

Main clauses are verb-final, and the order of nominal constituents is pragmatically-based. For transitive clauses with a semantic agent ('A') and patient ('P'), APV is the most frequent order. Like in (7), it is used when A is the default topic-worthy argument. In this exchange between a folkloric husband and wife, the P argument has no special pragmatic status; the participation is normative and unremarkable in relation to the activity:

- (7) *ŋgimani* *ŋganŋukŋi* "nu ŋgu aryindani?"
 ŋgi=mani ŋgi=anŋgu-krŋi nu ŋgu ar-yi-nda=n-i
 3SG.POSS=husband 3SG.DAT=ask-IRR 2SG fish catch-IRR-NEG=z-Q.IRR
 'Her husband asked her: "Did you not catch any fish?"' [Frank Mana,
 afi260612s_1:19]

The construction that serves to activate the topicworthiness of a lexical Patient relies on clause-initial placement and a pronominal clitic cross-referenced on the verb complex.⁶ In (8), Emma activates 'sago' as a topic, suggesting (in jest) to her addressee that he has been remiss in his work:

- (8) *anjigi nu miñu?*
 anjigi nu mi=ñu
 sago 2SG dist=carve.IRR
 'Are you ever going to (harvest) that sago?' [Emma Airimari,
 afi250814m_3:14]

Instrument and Benefactive (but not Allative) participants may appear as topics (in initial position) and are cross-referenced on the verb complex just like topicworthy Patients:

⁶The distal deictic *mi=* is used mostly for non-humans. Human Patients are cross-referenced by their relevant (human) pronoun. Accusative *ŋi=* is used for the 1sg. For the 2sg, 3sg, and all pl persons, the Accusative or Dative is used, depending on the verb.

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- (9) ...*ayi* *pirki* *añi manimiñi*.
 ayi *pir-ki* *añi ma=ni=mi=ñi*
 [something bad-NPL]_{INS} 1PL FOC=INS=DIST=get.R.PC
 '(The money, we didn't get it in a good way...) it was by something bad
 (by selling cannabis) that we got it.'

A topicalized object may pattern as both Patient and Instrument. In (10) *vrinki* 'reeds' occurs in clause-initial position as a topicworthy participant. It is cross-referenced on the verb as an Instrument (by the first *ni=* in the clause, whereas the second *ni=* refers to the fire as a second Instrument), due to the alteration of its state by human hands. As the affected participant, it is also a Patient, as indicated by *mi=*:

- (10) (*gwu nimikavi!*) *vrinki ni gwu nimikavimi...*
 vrinki ni=gwu ni=mi=ki-avi=mi
 reed.PL INS=fire INS=DIST=throw-TLOC.OPT.PC=PRE.IRR
 '(Set fire to it!) Set fire to the reeds (...and then the dogs will kill the pig as
 it emerges)' [Alfons Garimbini, afi160714m_8:43]

My point here is that the Chini patterns evince a more complex array of possibilities for participant roles than the term 'object' implies (Mithun & Chafe 1999). At the same time, object-initial clauses do evince a participant category of Patient.

3 The reflexive possessive construction (*ŋi*)

Here I describe the uses of the reflexive possessive pronoun *ŋi=*, the only *bona fide* reflexivizer in Chini. In §3.1 I show how many examples reflect the common analysis of reflexive relations in terms of clause-internal coreference (between possessor and syntactic subject). Then, in §3.2 I discuss how other examples point to topics and (to a lesser extent) agents (rather than subjects) as coreferential with reflexive possessors. This can be seen in instances of partial coreference but also clause-external coreference, where the discourse topicality of the antecedent possessor supercedes the topicality of the subject in the clause where *ŋi=* appears.

3.1 Clause-internal coreference between subject and possessor

In (11), the 2SG possessor is straightforwardly coreferential with the subject:

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- (11) “*nu ñimani kirami (...ani avigiti mayi.)*”
 nu ñi=mani ki-ra=mi
 2SG POSS.REFL=husband tell-OPT=PRE.IRR
 ‘ “You tell your husband (...he must come down and spear the crocodile).”
 ’ [Anton Mana, afi260514s_2:28]

Note that this construction is also used for reciprocal possession (English: ‘each other’s’):

- (12) *añi miyi vindi mi, añi ñirkñi akikina?*
 añi mi-yi vi-ndi mi añi ñi=irk-ñi aki~ki=n-a
 1PL DIST-what BEN-think DIST 1PL POSS.REFL=talk-NPL spear~IPFV=z-Q.R
 ‘Why do we not heed/deflect (lit. spear) each other’s talk?’ [Dorothy Paul, afi260814m_34:55]

In general, when the possessor referent is not the subject (or established topic), a non-reflexive possessive pronoun is used (Table 1). Here Emma uses the non-reflexive collective possessive *nji*= as she complains about a very relatable problem:

- (13) *ainkitwavingayi ajri njirkñi ñginimichinda.*
 ainki=twavingayi aj-ri nji=irk-ñi ñgini-m-i-chi-nda
 1PL.FOC.POSS=child.PL man-PL PL.POSS=talk-NPL perceive-IPFV-IRR-Z-NEG
 ‘The young men of ours don’t listen (lit. perceive/heed any of our talk).’
 [Emma Airimari, afi260814m_34:59]

A possessor in a phrasal afterthought takes the non-reflexive form. The prosodic break (here, a pause indicated by the comma) between the clause and the phrasal afterthought is enough for the latter to be treated as clause-external:

- (14) *mumuju ñaki ivki, ñgambigi.*
 mumuju ña-ki ivk-i ñgi=ambigi
 auntie riverwards-PROX be.sitting.PC-IRR 3SG.POSS=house
 ‘Auntie (Agusta) is sitting over there riverwards, (in) her house.’ [Anton Mana, afi111016m_43:41]

Reflexive possessors need not be human, so long as the animal (15) or inanimate entity (16) is an agentive topic:

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- (15) *chavi* *ŋimiatmi* *ninjaurua.*
 chavi *ŋi*=miatmi ni=*ŋi*=auru-a
 poison.frog POSS.REFL=poison INS=1SG.ACC=wash-R
 'The poison frog shot ('washed') me (in the eye) with its poison.' [Anton Mana, 2018 Fieldnotes, offered example]
- (16) *minatugu* *michagiyi.*
 mi=*ŋi*=atugu mi=chagi-yi
 DIST=POSS.REFL=limit ALL=arrive-R.PC
 'It has reached its limit.' [Anton Mana, 2014 Fieldnotes, offered example]

Note that non-reflexive animal and inanimate possessors rely on the distal deictic *mi*=:

- (17) *miyēntmi* *ara.*
 mi=yim-tmi ar-a
 DIST=chew.betel.nut-NMLZ good-R
 'Its (the meat of the betel nut in question) chewing is good (for getting a buzz).' [Alfons Garimbini, 2014 Fieldnotes, offered example]

3.2 Partial coreference between topic (or agent) and possessor

Coreference does not always involve full identity of the possessor with the subject, however. In instances of partial coreference, the possessor almost always refers to the more topicworthy member within a plural subject. Ros addressed (18) to Anton and me as we emerged from the bush in her part of the village. The possessor and topic is me (not me and Anton, since the recently deceased woman Ikivim is my classificatory grandmother but Anton's aunt). The reference of the possessor and its topicworthiness is then reinforced in the 3SG benefactive pronoun *ndvi*=.

- (18) *na ñi ŋiñinmi* *angini ndvimiruindani?*
 na ñi *ŋi*=ñinmi angini ndvi=mbru-i-nda=n-i
 and PL POSS.REFL=maternal.anc banana 3SG.BEN=cut-IRR-NEG=Z-Q.IRR
 'And did you lot not cut any (savory) bananas of his (i.e. me) (deceased) grandmother's (i.e. her garden) for him?' [Ros Njveni, afi111016m_44:50]

Similarly, in (19) the partial coreference is based on the topical participant within a plural subject. That participant is a (folkloric) village man, as introduced

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in the first clause and as understood as the protagonist of the folktale. He is a subset of the plural subject (i.e., the villagers who carried the pig along with him to his homestead):

- (19) *rami ani mayindaka,*

‘He (the village man) shot the pig and then,’

<i>ñi manjuraki</i>	<i>chaki</i>	<i>ŋi</i>
<i>ñi mi=anjur-a=ki</i>	<i>ch-a=ki</i>	<i>ŋi=ŋgigi</i>
PL DIST=carry-R=CNT.R	ascend-R=CNT.R	POSS.REFL=homestead
<i>ŋgigi</i>	<i>miga...</i>	
<i>mi=g-a</i>		
DIST=set.down-R		

‘they (the villagers, including the man) carried it, went up, and laid it down in his homestead...’ [Paul Guku, afi100514s_12:07]

In one specialized construction, the interpretation of the reference of the possessor hinges on semantic agency rather than pragmatic topicworthiness. This construction expresses accompaniment or “attendant action” (Zaliznjak & Shmelev 2007:214). Its function is based on asymmetries in agency within a plural subject, where one member merely attends the action and is not an agent. Of the two members of the subject in (20), the wife is expressed as the agent, since she is headed to her matrilineally inherited bush ground with her husband, who merely accompanies her.⁷

- (20) *An̄gwami pata ŋimani, manuñi, bmu nigi, manuñi anjigi vuwuyi.*

‘An̄gwami and her husband, those two, a day later they went to (harvest) sago.’

<i>majuñi ŋimaninmi</i>	<i>avkiki</i>	<i>anjigi</i>
<i>majuñi ŋi=mani=nmi</i>	<i>av-ki=ki</i>	<i>anjigi</i>
3DU	POSS.REFL=husband=ACCOM	descend-R.PC=CNT.R

⁷There is an underlying cultural component that drives the use of this construction. It is often used to describe movements into the bush. In Chini society, the bush is subdivided into chunks, each associated with a particular moiety and associated subclan. (Spouses belong to opposing moieties.) The chunks are inherited through a system of mostly matrilineal land tenure according to moiety and clan membership. So, the agent in these situations is that person whose clan owns the land. In Chini they are referred to as *mbipapayangi* ‘the one who goes first to it’. Just as that person (the candidate for the topical agent in this construction) ‘goes first’, their spouse (or other associate) is seen as accompanying them.

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ŋumapa.

ŋu-m-apa

carve-IPFV-R

'The two of them, (she) with her husband went down (to the bush) and harvested sago.' [Anton Mana, afi051116s_0:51]

3.3 Clause-external coreference between topic and possessor

The above examples of full and partial coreference uphold the general view of reflexive relations as a clause-internal matter. However, examples from Chini discourse reveal that reflexivity can involve clause-external coreference. Such uses arise when the discourse topicality of an antecedent supercedes that of the subject, for instance in long stretches of discourse like clause chains where multiple subjects are introduced. The chain in (21) is about an oxbow marsh that several Andamang villagers share with a neighboring village called Watabu. The subject in the third line below is elided, but it is clear from the context that it would be the Awakŋi boys (*agŋiŋri*) fencing off the marsh. It is also clear that the discourse topic (and possessor) is not the boys themselves, but rather the Awakŋi owners of their half of the marsh (Anton and his family), the 'we' from the first clause:⁸

- (21) *añi* *ŋiyärkŋi* *ndumi*,
añi *ŋi=yärkŋi* *ndu=mi*
1PL POSS.REFL='side.of.things' **perceive.PC.MOD=PRE.IRR**
 'We need to attend to our side of things so,'
agŋiŋri *rindata* *vieni*
agŋi-ŋri *ri=nda-ta* *vieni*
 post.initiate.boy-PL head.downriver.MOD=SEQ-IRR sago.palm.frond
agarindata,
ag-ari=nda-ta
 cut-MOD=SEQ-IRR
 'once the (older) boys have gone downriver and cut dried sago palm
 fronds and,'

⁸The boys, while potentially a subset of the 1PL argument in the first clause, are not so easily identified as such. The marsh belongs to a specific clan. The event has also not yet occurred, and the boys represent multiple clans. So, these two referents turn out to represent separate topics. Comrie (1998) points out how breaks in topic continuity often motivate the use of more marked pronominal forms to reactivate the discontinuous topic. However Chini does not distinguish pronouns in this way.

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<i>ŋangí</i>	<i>tirimi...</i>
<i>ŋi=angí</i>	<i>ti-ri=mi</i>
POSS.REFL==LH.NPL cut.PC-MOD=PRE.IRR	
'fenced off (lit. cut) ours (side of the marsh)..' [Anton Mana, afi260814m_1:57]	

For the possessive reflexive construction, coreference most often involves full identity between the possessor and the topical subject. Partial coreference and the possibility for clause-external coreference with a topical antecedent reveal that possessive reflexivity may be more complex than clause-internal relations between syntactic categories. Where clause-external coreference is concerned, some explanation may be found in the potential for newly introduced subject participants to be ephemeral in discourse versus topics which are established as given and definite, and thus more highly recoverable from context (Lambrecht 1994). In other words, highly topical participants enjoy high candidacy for coreference as reflexive possessors, and may in that capacity override subjects (cf. Reesink 1983).

4 The middle construction (*nji*)

Here I describe the workings of the Chini middle, formed by the verbal prefix *nji-* (or the proclitic *nji=* in a few specialized constructions discussed in). There are no reflexive pronouns beyond the possessive *ŋi*, and so the middle construction is the primary grammatical expression for autopathic and mutual relations. As I discuss here, the function of the middle is to represent the action of the verb events as affecting (rather than being fully controlled by) the main participant. That is, the main participant in a middle-marked clause is essentially a semantic patient.⁹ My main focus here will be on illustrating how this function interrelates with autopathic and mutual semantic readings. I argue that those readings are strongest when the main participant has significant control over the action, and much weaker the less control they perceive to have.¹⁰

⁹Middle situation types in Chini correspond mostly to Kemmer's (1993, 1994) findings, with some exceptions. In Chini, middles are mostly not used for changes in body posture, emotive speech actions, cognition, or grooming. Like other languages, Chini middles are characterized somewhat by lexical idiosyncrasy. The generic verbs for 'grow' include a middle for human and animal growth, but an unmarked intransitive for plant growth.

¹⁰By 'mutual' events I refer to Nedjalkov's (2007) work on reciprocals, where participants act "to/of/against/from/with each other" (6). I generally follow Haspelmath (2020) in reserving 'reflexive' and 'reciprocal' for grammatical markers. I also use them to refer to those middles

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The current documentation records 70 middle verb forms in Chini, which corresponds to approximately 20% of the verbal lexicon (where middles are considered separate lexemes, either as deponents or as derivations of non-middle counterparts). Historically, the Chini middle appears to predate the diversification of the Tamolan subgroup. This is hinted at by cognate middle forms and their unmarked transitive counterparts for ‘bathe’ and ‘wash’ in Chini’s nearest relatives (Z’graggen 1974). The historical relation to the plural collective dative pronoun of the same form, *nji-* (see Table 1), is unclear, but the two are almost certainly related. In what follows, I give a brief overview of the transitivity patterns of middles §4.1 In §4.2 I discuss the semantics of middles in terms of how the presence, absence, or mitigated control yields differences with respect to autopathetic (and/or mutual) interpretations.

4.1 Transitivity patterns and argument structural behavior of middles

Middles exhibit a range of possibilities with respect to their unmarked counterparts:

Note that the evidence does not quite support an analysis of *nji-* as a syntactic valency-decreasing device.¹¹ While most middles may have transitive counterparts, this reflects the much greater proportion of transitive-patterning to intransitive-patterning verbs in the lexicon. The presence of intransitive counterparts and the occasional unpredictability of the argument structural alternations that occur between transitive-middle pairs suggest that *nji-* does not function to decrease valency (even if decreased valency is often characteristic of clauses headed by middles). The middle form *njiyiyiyi-* means ‘scratch (oneself)’ but its transitive counterpart *yiyiyi-* means ‘itch’ as in “my skin itches me” (and not:

where reflexive or reciprocal meanings are always involved. For middle verbs where such meanings are more tenuous or a matter of interpretation, I use the terms ‘autopathetic’ and ‘mutual’.

¹¹Transitivity in Chini is best described as semantically based. The coding frames and argument structural combinations of any given verb depend to a great extent on lexical semantics. For some verbs, the patterns generally cohere with the semantic maps fine-tuned by Comrie et al. (2015). However, area- and language-particular conceptualizations of verbal meanings also play a major role (cf. Pawley 2000). For example, the verb *ám-* ‘cook’ never indicates an accomplishment, only an (intransitive) activity. The affected participant of *mu-* ‘become dusk’ is obligatorily (transitively) expressed (*bmu njimu* ‘dusk dusked me’). For some ambivalent verbs, intransitive and transitive uses hardly differ: *nju-* ‘bear offspring (INTR); give birth to (TR)’. For others, intransitive versus transitive meanings are more distinct: *nji-* ‘reside, be settled, settle (one’s body) into a spot (INTR)’ but: ‘set something down in upright position; plant sweet potato, taro, sugar cane, greens (TR)’.

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Table 2: Transitivity patterns for unmarked counterparts

Transitivity pattern of counterpart	Unmarked counterpart	Middle form
No known counterpart (Deponent forms)	-	<i>njimim-</i> 'urinate, shoot projectile poison' <i>njagi-</i> 'paddle (a canoe)'
Intransitive	<i>ch-</i> 'exist, live, be left/remain'	<i>njich-</i> 'exist unto itself/oneself, let something/someone be, nevermind'
	<i>pu-</i> 'get upset'	<i>nji pu-</i> 'thrash about, get all riled up'
Ambitransitive	<i>m bin-</i> 'last (time); well up (water); increase in pressure; pressure someone; stop by pressing (e.g. a recorder)'	<i>njim bin-</i> 'dry up (e.g. a swamp)'
Transitive	<i>pu-</i> 'float; set afloat, adrift (TLOC)'	<i>nji pu-</i> 'drift off (downriver) (TLOC)'
	<i>yiriv-</i> 'turn (something) over'	<i>njiyiriv-</i> 'avert one's gaze'
	<i>yu-</i> 'pick/lift up'	<i>njiyu-</i> 'jump up, onto'

“(someone else) scratches me”). As in (24), some middles can even take patient-like objects. The patterns can be understood as syntactic effects of underlying semantic principles.

4.1.1 Argument structural behavior of middles

In §2.2.1 I described how verbs that take an object-like participant are associated with Accusative, Dative, or Benefactive participant categories. It is precisely these argument types that rarely co-occur with middles. This can be seen in the middle forms of the paucational (22) and pluractional (23) roots for ‘perceive, know’. The former (*ndu-*) specifies a Dative, the latter (*ngin-*) an Accusative. The

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erstwhile Benefactive is exemplified in (24). Reflexive (or reciprocal) relations can be based on coreference between the subject and any of these three object-like participant types:

- (22) *agŋiŋri* *agamki njinduindaka...* (Erstwhile Dative)
 agni-ŋri agamki nji-ndu.i=nda-ka...
 post.initiate.boy-PL all MID-perceive.PC.R=SEQ-R
 ‘All the boys looked at each other and then...' [Anton Mana,
 afi021218m_27:16]
- (23) *agŋiŋri* *agamki njingininda.*
 agni-ŋri agamki nji-ŋgin-i-nda
 post.initiate.boy-PL all MID-perceive.PL-IRR-NEG
 (Erstwhile Accusative)

‘None of the boys looked at each other.’ [Elicited example, 2018 Fieldnotes]

- (24) *ani ŋimiŋi ninjikavi.* (Erstwhile Benefactive)
 ani ŋimiŋi ni=nji-ki-aví
 3SG black INS=MID-propel-TLOC.R.PC
 ‘He painted himself black.’ [2014 Fieldnotes]

As (24) also illustrates, middle clauses need not have monovalent argument structure. The most common multivalent pattern is the inclusion of an Instrument. Although object-like participants are generally absent in middle clauses, it is nevertheless possible for some middles to co-occur with a patient-like argument. Consider the use of *njag-* ‘surpass, put clothes on upper body’ in (25):

- (25) *achami* *njara!*
 achami njara
 clothing.item MID-put.clothes.on.upper.body.OPT-OPT
 ‘Put a shirt on!’ [Offered example, Anton Mana, 2014 Fieldnotes]

4.2 Uses of the Chini middle

Uses of the Chini middle have in common the expression of a general type of action where, whatever degree of control the main participant has, they become

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affected or altered by it in the course of their participation. In §4.2.1 I discuss how, while the majority of uses and lexical meanings include reflexivity (or reciprocity), that inclusion hinges upon the degree of control of the agent. In §4.2.2, I discuss extensions of middle marking.

4.2.1 Three semantic subtypes of Chini middles

In §4.2.1.1 I discuss reflexive and reciprocal middles, where the main participant is equally agent and patient. In §4.2.1.2 I discuss unaccusative middles, where the main participant is purely a patient. In §4.2.1.3 I discuss the partially autopathic middles for verbal actions where the control of the agent is mitigated or otherwise ambiguous.

4.2.1.1 Reflexive and reciprocal middles

A common understanding of middles is a situation where “the participant both performs and undergoes the event” (Lichtenberk 2007: 1563). This is the most general and frequently encountered situation type for Chini middles, both in discourse and as represented in the lexicon. Drawing on Kemmer’s (1994) notion of the relative elaboration of events in terms of participants, three possibilities in Chini are shown in Table 3. While some events are interpretable as autopathic (agents acting upon themselves), others are mutual (agents acting upon each other), while some may be interpreted either way as dependent on context.

While the autopathic or mutual reading of many middle verb forms is uncontroversial (e.g., *njiña-* ‘hide oneself’), some arise via a Chini-specific interpretation of events. The middle form *njaku-* is used to express (among other things) the sprouting of a plant. Upon comparison with its transitive counterpart *aku-* ‘pull (something) out’, the Chini expression of a plant sprouting (*njaku-*) involves the (conceptually autopathic) action of the plant “pushing itself out”.

Unlike reflexive constructions in many European languages for instance, in Chini, middles rarely involve part-whole relations, but there are a handful of middles that do. In addition to the differentiation between clothing one’s upper (*njag-*) versus lower body (*njingi-*) (both deponent forms), transitive *yiriv-* ‘turn (something) over’ pairs with the middle *njiyiriv-* which means ‘avert (one’s) gaze (i.e., in shame)’. The transitive verb *ti-* ‘plant a garden, tubers’ has a middle counterpart *njiti-* with part-whole semantics related to self-decoration:

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Table 3: Autopathic and mutual interpretations of reflexive middles

Transitive counterparts (unmarked)	Middle-derived forms (<i>nji-</i>)	Elaboration of events
(no known counterpart)	<i>njag-</i> ‘surpass, put shirt on (oneself)’ <i>njingi-</i> ‘put trousers on (oneself)’	Strong autopathic interpretation
<i>aku-</i> ‘pull (something) out’	<i>njaku-</i> ‘push (oneself, itself) out, sprout’	
<i>ña-</i> ‘hide (something)’	<i>njiña-</i> ‘hide (oneself)’	
<i>auru-</i> ‘wash (something)’	<i>njauru-</i> ‘bathe (oneself, each other)’	Strong autopathic or mutual interpretation (based on participant number, context)
<i>apri-</i> ‘teach (someone)’	<i>njapri-</i> ‘learn (teach oneself, each other)’	
<i>yiru-</i> ‘declare, call out, name’	<i>njiyiru-</i> ‘designate (oneself, each other)’ (also: ‘claim’)	
<i>aigŋ-</i> ‘write, draw’	<i>njaigŋ-</i> ‘decorate (oneself, each other) in traditional paint, garb (for dance songs)’	
(no known counterpart)	<i>njigwri-</i> ‘argue’ <i>njingi-</i> ‘race (each other); talk over (each other)’	Strong mutual interpretation
<i>aki-</i> ‘marry (one’s partner)’	<i>njaki-</i> ‘marry (each other)’	
<i>achim-</i> ‘amass, collect, gather’	<i>njachim-</i> ‘meet (up), gather (each other)’	
<i>agi-</i> ‘press against, push (someone)’	<i>njagi-</i> ‘be stuck, crammed together’	
<i>ayi-</i> ‘help (someone) out’	<i>njayi-</i> ‘help (each other) out’	

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- (26) ...*ayemŋgra* *ninjitiga.*
 ayemŋgr-a ni=nji-ti-ga
 bird.of.paradise-NPL INS=MID-plant-R
 ‘...planted bird of paradise (feathers) (in their own hair)’ [Ayirivi Mana,
 afi140514s_4:47]

In Chini, some situations commonly expressed by reflexivizers or middles cross-linguistically are expressed by other means, for instance by unmarked intransitives (e.g., *ambia-* ‘boil’). Some situations are hardly expressed at all. What might be normal autopathic construals of events for an English speaker can prove absurd in the Chini sociocultural world (e.g. ‘giving a gift to oneself’). Certain private autopathic actions like ‘speaking to oneself’ are in Chini expressed in terms of ‘doing X alone’. It is only once multiple participants are involved, that a middle form can be used to express the event (and then, to express mutual relations):

- (27) *apwati* *mikiniŋjirati...* *ma añi*
 apwati mi=ki-ninjira-ti m-a añi
 out.in.the.open ALL=propel-TLOC-IRR-NEG DIST-DEF 1PL only
 iki *njichi.*
 iki nji-ch-i
MID-talk-IRR

‘Don’t throw it out in the open... that, we shall only **discuss amongst ourselves**.’ [Ayirivi Mana, afi040814m_29:58]

While the use of socially antagonistic verbs (‘hate/kill/criticize/demean oneself’) to express certain autopathic actions is standard in many languages, Chini linguistic practices (including in Tok Pisin) do not make use of such intentionally self-destructive concepts, at least not in overtly autopathic terms. A few middle forms do involve mutual actions with socially antagonistic verbs: *njaki-* ‘fight’ (based on its transitive counterpart *aki-* ‘attack, shoot with spear/arrow’), and the deponent form *njigwri-* ‘argue’.

4.2.1.2 Unaccusative middles

Unaccusative middles involve a main participant that exerts no control over the situation that affects them. If an agent is involved, they are clause-external. Their defining characteristic is how straightforwardly their meanings are copied from their unmarked transitive counterparts (see Table 4 below). Haspelmath’s (2016) distinction between ‘automatic’ and ‘costly’ unaccusative meanings is useful

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here. The unaccusative middles in Chini refer (mostly) to automatic situations (i.e., which need not involve external energy input) while their transitive counterparts refer to costly situations (and require external energy input). At least three situation types are distinguished.

There is one verb whose event type is outside those identified in Table 4. Uses of the unmarked (ambitransitive) verb *mba-* 'deceive, mislead, do/behave improperly' imply control of the main participant over the deception (including telling an actual lie):

- (28) *na nu minigi ndvirkiki*
na nu mi=nigi ndvi=ir-ki=ki
 and 2SG DIST=another 3SG.BEN=cut.PC-R=CNT.R
mbāmhichi?
mba-mh-i=ch-i
mislead-IPFV-IRR=z-Q.IRR

'And as if you had cut some (savory bananas) for him, now here you are being misleading (i.e. acting as if he had behaved properly according to expectation).' [Ros Njveni, afi111016m_44:52]

In contrast, uses of the middle form *njimba-* 'deceive, be wrong, do/behave improperly' imply the absence of control (i.e., intentionality) in the act of deception (or the improper behavior). In (29), Emma informs Dorothy that she found the strainer she had at first forgot she had brought over for them to cook with:

- (29) *ku mamigi avki, mikani mikani, ku njimba.*
 (ku mamigi avki mikani mikani) ku nji-mb-a
 I brought it down here it is
 'I brought it down, here it is here it is, I was wrong.' [Emma Airimari, 051116m, 22:44]

Chini thus makes use of the middle to make important semantic distinctions, for instance willful versus accidental behavior.

Unaccusative middles generally preclude autopathic or mutual readings (unlike reflexive and reciprocal middles §4.2.1.1 and autopathic causal middles §4.2.1.3). For example, when the sediment base of the riverbed surfaces on a canoe journey, no use of the middle form *njiyu-* 'surface' can be conceived of in terms of the sediment resurfacing or lifting itself. It is always the external agent of the receded water level that is to blame.¹² However, for a few verbs there are occasional ex-

¹²Just like other verbs, middles can be polysemous. The unmarked transitive *yu-* 'pick, lift up' is not polysemous. Its middle form is: *njiyu-* 'resurface (the riverbed); jump up, onto'.

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Table 4: Unaccusative middles

Unmarked parts*	counter-	Middle-derived forms (<i>nji-</i>)	Situation type
<i>vua~ - “”</i>		<i>njivuā-</i> ‘break, burst, crack (via multiple fissures or holes)’	Unaccusative destruction
<i>aivi-</i> (PC), <i>ayima-</i> (PL) “”		<i>njaivi-</i> (PC), <i>njayima-</i> (PL) ‘break and collapse (tall narrow things)’	
<i>irk-</i> (PC), <i>mbu-</i> (PL)“”		<i>njirk-</i> (PC), <i>njimbu-</i> (PL) ‘break, cut (into separate parts)’	
<i>ŋu-</i> “(Eng. fell)”		<i>njiŋu-</i> ‘fall (mature, non-palm trees only)’	
(no known counterpart)		<i>njiyivr-</i> ‘grow, change in size’	Unaccusative appearance
<i>vr-</i> ‘be unable or unwilling to perceive or use’		<i>njivr-</i> ‘become unrecognizable’	
<i>agi-</i> ‘split into separate parts’		<i>njagi-</i> ‘split, fork (a road or river)’	
<i>yu-</i> ‘pick/lift up’		<i>njiyu-</i> ‘(re)surface (the riverbed)’	
<i>ki-</i> ‘remove from enclosed space’		<i>njiki-</i> ‘come loose, fall from enclosed space’	Unaccusative movement
<i>pu-</i> ‘float in place (TLOC, INTR); set adrift (TLOC, TR)’		<i>njipu-</i> ‘be adrift (TLOC)’	

* “” indicates identical meaning for transitive counterpart except in terms of agency

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ceptions where an autopathic (30) or mutual (31) interpretation is possible. These arise when external control is obliquely present in the context of the utterance:

- (30) *ani njichi.*

ani nji-ch-i
3SG MID-exist-IRR

‘(He’s sleeping,) leave him be (“let him exist unto himself”).’ [2018 fieldnotes, elicited example]

- (31) *minjagwuwa.*

mi=nji-agwu-ga
DIST=MID-put/pile.inside-R.PL

‘They (the dried tobacco leaves) are overly piled up (i.e., on each other).’
[Dorothy Paul, afi151116m_35:54]

4.2.1.3 Mitigated control and partially autopathic middles

This middle subtype refers to verbal meanings where the control of the agent is mitigated by some external force or is somehow otherwise ambiguous. For these situations, the question of the main participant’s control over the activity may be less straightforward than clear presence §4.2.1.1 or absence §4.2.1.2. As I discuss below in §4.2.1.3.2, there is a tendency for partially autopathic readings, though this is not always the case. The verbs in Table 5 give an initial impression.

4.2.1.3.1 Mitigated control

Mitigated control over the action is especially true of activities where the participant exerts agentivity as an initiator of the action, but then loses control in some way to become affected by the outcome. Chewing betel nut includes not only the agentive process of combining the ingredients and physically chewing them, but also a chemical reaction resulting in a slightly narcotic effect and heightened sociability. So, the participant is construable as a patient in the chemical and social process, and this is reflected in the grammar of the Chini middle. The transitive verb *yim-* ‘chew betel nut’ and its corresponding middle form *njiyim-* ‘chew betel nut’ subtly distinguish the two possibilities for this event in terms of control. To indicate only the action of the chewing without reference to the chemical or social effect, the transitive form is used:

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Table 5: Middles involving mitigated or ambiguous control

<i>a</i>			
Unmarked parts*	counter-parts*	Middle-derived forms (<i>nji-</i>)	Situation type
<i>ambiñ-</i> 'laugh at (someone) (i.e. with amusement)' <i>pu-</i> 'be upset (at someone, about something)' (no known counter-parts)		<i>njambiñ-</i> 'laugh' <i>njipu-</i> 'get (oneself) riled up (i.e. over something), thrash about in anger' <i>njumia-</i> 'vomit' <i>njimim-</i> 'urinate, shoot projectile poison (frogs)' <i>njavi-</i> 'defecate' <i>njimbovi-</i> 'burp' <i>njagi-</i> 'paddle (a canoe)'	Externally-oriented bodily function or emotion
		<i>njigwuniŋi-</i> 'dance about (with each other) (TLOC)' <i>njari-</i> 'be off, get up to leave' <i>njinku-</i> 'do repetitive back-and-forth or up-and-down motion (e.g. swing, see-saw, do pull-ups)' <i>njiriv-</i> 'jump down, off' <i>njangu-</i> '(cause, allow oneself to) waste time, dilly-dally' <i>njiyu-</i> 'jump up, onto' <i>njan(v)u-</i> 'bend (oneself) down'	Action or state leading to further action or state
<i>yu-</i> 'pick/lift up' <i>ayvu-</i> 'reduce (something)' <i>ni-</i> 'get, retrieve (someone or something)' <i>yim-</i> 'chew betel nut (the action of chewing it)'		<i>njiñi-</i> 'for something to make contact with itself via movement, esp. back-and-forth' <i>njiyim-</i> 'chew betelnut (and experience its narcotic effect)'	

*A number of middle verbs of motion and of bodily function listed in Table 5 may first appear to represent instances of lexical idiosyncrasy, something understood to be characteristic of middles (Kemmer 1994). Part of my argument in this section, however, is that the marking of some verbs as middles may not be idiosyncratic as it seems, but is instead due to semantic properties like mitigated control.

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- (32) *nu miagi yiminikaya*
 nu mia-gi yim-i-n-i=ka=ya
 2SG betel.nut-NPL chew.betel.nut-IRR-NMLZ-NPL=PROX.DEF=TOP
 ‘You being in the midst of chewing betel nut like that,’
miagi kiyi iŋkiri ɻiniɻi magwupmiti makamindi.

‘I wish you wouldn’t keep filling the inside of your (mouth) with betel nut pulp and talking.’ [Emma Airimari, afi260814m_2:48]

In contexts like (32), the complete control of the agent over the act of chewing the betel nut (versus spitting it out) is subtly expressed by the transitive form. When the middle form is used, it is instead the semantic patienthood of the main participant that becomes subtly present. One day, a couple of people saw I was chewing betel nut from across the way. In their question as they smiled and shouted over to me, they used the middle form *njiyim-*, thereby referring to the full process of chewing betel nut including its positive psychosocial effects:

- (33) *nu njiyimkiyi?*
 nu nji-yim-ki=y-i
 2SG MID-chew.betel.nut-R=Z-Q.IRR
 ‘Are you chewing betel nut (i.e., and feeling pleasant/chatty)?!’ [2016 Fieldnotes]

Differing degrees of control might help explain some cross-linguistic differences in terms of which situation types get marked as middles. Kemmer (1993, 1994) describes the cross-linguistic tendency for middles to be used in situations of translational and non-translational motion, including posture. But in Chini, only those motions and postures where the control of the main participant is mitigated count as middles. Going/coming (*anji-*), heading upriver (*agi-*), down-river (*ri-*), sitting down (*pi-*) and many others typically involve an action over which the main participant has full control, and where the main participant is not necessarily drawn into further subsequent activity. In contrast, bending down (*njan(v)u-*) requires that one eventually bend back up; jumping up (*njiyu-*) or down (*njiriv-*) leads to some further trajectory, as does getting up to leave (*njari-*) (which leads, inevitably, to that person leaving). For some verbs, especially of motion and posture, the participant’s control may be seen as only minimally compromised (e.g. swinging or paddling). For others, it may be more strongly

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compromised. Bodily functions arguably fall into this category. Only those bodily functions where some degree of control is (at least initially!) exerted (see Table 5) occur as middles. Bodily functions seen as involving no exertion of control occur as unmarked intransitives (*ayi-* ‘sneeze’ and *chā-* ‘cough’).

4.2.1.3.2 Partially autopathic readings

Here I discuss how motions, postures, bodily functions and other situation types involving a loss of control are readily interpretable in terms of partial autopathy.

Lexical semantics can prove quite important to understanding why certain verbal events expressed by middles have autopathic readings. For middles of motion and posture, the potential for autopathic readings could be related to resultative semantics (Nedjalkov 1988). Where resultatives express a “state produced by the corresponding action” (Kozinsky 1988: 498), middles like *njinku-* ‘swing back and forth’, *njiyim-* ‘chew betel nut’, and others, express a secondary action or change of state produced by the initial action of the verb. So, one’s choice to participate in an event leading to a loss of control allows for a reading of partial (or mitigated) autopathy. This principle is also evident in the semantic differences between some middle forms with their transitive counterparts (e.g., *yu-* ‘pick, lift up’ versus *njiyu-* ‘jump up, onto’ in the sense of ‘pick, lift oneself up, onto’ and *ayvu-* ‘reduce (something)’ versus *njan(v)u-* ‘bend down, over’ in the sense of ‘reduce oneself’).

For some middles, however, the felicitousness of an autopathic reading may be more questionable as a matter of context or even individual interpretation. Consider the (deponent) middle verb form *njagi-* ‘paddle (i.e., oneself, each other along)’. Participation involves dipping and pushing the oar, at which point the resulting force of the push propels the canoe and its occupant(s) across the water. Another example is *njambiñ-* ‘laugh’. It derives from its transitive counterpart *ambiñ-* ‘laugh at (someone)’. On the one hand, laughter can involve a loss of control. Yet one can spur oneself and (especially) others to laughter, leading to the possibility for autopathic or mutual readings for the middle form (‘make oneself/each other laugh’). As in other languages, the control of main participants in emotional-psychological states and also excretive bodily functions can be seen as ambiguous, though context often resolves any apparent ambiguity in the lexical semantics.

I have described how the Chini middle functions to express the main participant in a clause as a semantic patient. Along the way, I have argued that the intertwining of autopathic (and mutual) meaning arises as a secondary semantic effect. The more control the main participant is understood to exert, the more fe-

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licitous the autopathic reading is likely to be. The link is not grammatically rigid, but rather depends on the interplay between lexical semantics, context, and interpretation. While the division of three subtypes I have proposed here is in one sense a mere artefact of my description, it arguably reflects differences in control across middle situation types.

4.2.2 Extensions of middle marking

In a few constructions, the middle marker attaches not as a verbal prefix but as a proclitic to the verb complex. In that capacity it functions as a reflexivizer or reciprocal marker. While I have argued that the middle marker is not in fact a reflexivizer but that autopathic and mutual interpretations of middles arise as a secondary feature of the main participant's limited control over events, in these constructions, the autopathic and/or mutual meaning appears to be what motivates the presence of the middle marker.

In §4.2.1 I mentioned bodily functions as a common middle situation type in Chini and alluded to the related squeamish theoretical question of how construable those events are in terms of autopathy and control. In contexts where one participant is negatively affected by the bodily functions of another, the entirety of the action is not construable as autopathic (even if the bodily function itself is):

- (34) *minimhinjava.*
 mi=ni=mhi=nji-avi-a
 DIST=3SG.ACC=FOC.ALL=
 'It (the puppy) pooped on her.' [Elicited example, 2018 Fieldnotes]

Bodily functions become undeniably autopathic in those unfortunate situations when the main participant is both agent and patient. This is expressed in Chini by a construction where the middle marker is introduced by the focused allative. This 'double middle' construction is restricted to those pronominal person-number combinations that distinguish a dative case. (1SG and all dual participants require the expected accusative or invariant pronominal forms instead of the middle marker.)

- (35) *ani vrimi njimhinjimimki.* Reflexive 'Double' Middle
 ani vrimi nji=mhi=nji-mim-ki
 3SG mistakenly MID=FOC.ALL= MID-urinate-R
 'S/he mistakenly urinated on him/herself.' [Elicited example, 2018 Fieldnotes]

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Finally, the middle marker occurs as part of the reciprocal comitative construction (36) and the reciprocal sociative construction (37). (As Zaliznjak & Shmelev (2007) describe for Latin, the sociative in Chini expresses “participation on equal grounds” (213).)

- (36) *aŋgi njingi* *yu.* Reciprocal Comitative

aŋgi nji=ŋgi *yu*

1DU MID=COM go.IRR

‘We two will go with each other.’

- (37) *aŋgi njavigi* *yu.* Reciprocal Sociative

aŋgi nji=avigi *yu*

1DU MID=upper.arm go.IRR

‘We two will go together (i.e., side by side, in friendship, etc.).’

5 Conclusion

In this paper I have described those constructions in Chini where autopathic (and/or mutual) relations between participants figure prominently in linguistic expression. One is the reflexive possessive construction, where the form *ŋi=* is based on coreference between the possessor and the topic (whether subject or otherwise) or semantic agent.

The other is the middle construction. Middles can be distinguished in terms of the differing degrees of agency of the main participant, whether agency is more or less present §4.2.1.1), absent §4.2.1.2), or mitigated §4.2.1.3). The Chini middle is not used to indicate autopathic relations between participants per se, but rather indicates the semantic patienthood of the main participant across different types of situations. Autopathic (and mutual) readings are possible to the extent that the main participant exerts full or partial control over the action or as permitted by lexical semantics and/or the context of the utterance. Yet autopathic meaning is deeply bound up with the Chini middle. That this is true is seen in the extensions of middle marking to other constructions, namely the double middle for accidental bodily functions, and the reciprocal comitative and sociative constructions (§4.2.2).

Abbreviations

Standard Leipzig glossing abbreviations not listed

13 *Reflexive and Middle Constructions in Chini*

ACCOM	Accompaniment (postposition)		
ADESS	Adessive (postposition)		
CNT(.R/IRR)	Continuity of Information (clause chain linkers, realis vs. irrealis)	Q(.R/IRR)	Question suffix (realis/content question vs. irrealis/yes-no question)
CTRST	Contrastive (clause combining construction)	R	Realis mood
IRR	Irrealis mood	SEQ(.R/IRR)	Temporal succession (clause chain linkers, realis vs. irrealis)
LH	Light head (for noun phrases)	SIM	Simulative
MID	Middle ('voice')	TLOC	Translocative directionality
MOD	Modal verb base (abstract modal interpretation in PRE, SEQ medial clauses)	TRANS	Translational directionality
NPL	Non-plural nominal number	Z	Category- conditioned suffix form that marks a wide range of clause types
OPT	Optative mood		
PC	Paucational verbal number		
PL	Plural nominal number or pluractional verbal number		
PRE(.R/IRR)	Presuppositional Information (clause chain linkers, realis vs. irrealis)		

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Chapter 14

The middle template and other ways of expressing coreference in Komnzo

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Coreference in Komnzo is expressed by various levels of verbal and nominal morphology. Komnzo verb morphology provides a middle construction to express coreference between the agent and the patient argument. Coreference that involves oblique arguments makes use of nominal enclitics for contrastive focus and emphasis. Long distance coreference is always ambiguous in Komnzo. Most notably, the grammatical markers found in coreferences situations function at a much broader level, i.e. they are coexpressive for related meanings. In most cases, coreference has to be inferred from the context. This chapter argues that there is no dedicated reflexive construction and no dedicated reflexive marker in Komnzo. The argumentation is based on a corpus of natural speech.

Keywords: coreference, middle, non-reflexive, Yam languages, Tonda languages, Komnzo

1 Introduction

This chapter describes the expression of various types of coreference in Komnzo, a language of Southern New Guinea. Komnzo has no dedicated reflexive construction and no set of reflexive pronouns to encode coreference. Instead verbs employ an inflectional pattern, which I call “the middle template”. The middle template is used for situation types, which have been described as typical middle situation types (Kemmer 1993), for example intransitive, reflexive, reciprocal, impersonal, and passive situation types. In addition to the middle template, a number of other factors are important for the expression of a reflexive situation,



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e.g. the case frame, the semantics of the verb lexeme, and the context. My argumentation is that the category “reflexive” is not a language internal category in Komnzo. Instead coreference is encoded by grammatical means that are much broader in their function.

This article is structured in the following way: §2 provides background on Komnzo and situates the language within the Yam language family. §3 provides details on the nature of the data, on which this article is based. §4 introduces the relevant grammatical structures: distributed exponence (§4.1), morphological templates (§4.2), pronominals (§4.3) and enclitics (§4.4). The main part of the article provides examples of reflexive situations (§5), that is coreference between agent and patient (§5.1), coreference that involve other semantic roles (§5.2), and coreference across clauses (§5.3). §6 summarises the structures and offers a conclusion.

2 Komnzo within the Yam languages

Komnzo belongs to the Yam language family (formerly known as Morehead-Maro group) which is found in the south of the island of New Guinea. Yam languages are spoken on both sides of the border that divides Indonesia and Papua New Guinea. The language family comprises three subgroups: Nambu languages in the east, Tonda languages in the west and Yei in the north, which is a family-level isolate. Komnzo is the easternmost language of the Tonda subgroup. Together with Anta, Wára, Kánchá, Kémä and Wèré, it belongs to the Eastern Tonda dialect chain (Döhler 2018: 36). Komnzo is spoken by around 250 speakers in the village of Rouku and Morehead Station. Figure 1 below provides a map of the Yam language family.

The Southern New Guinea region stretches from the mouth of the Fly River in the east to the Digul River in the west. Despite a growing interest in the region, the level of documentation of Yam languages is still low compared to other language families in New Guinea, not to speak of other regions of the world. Over the last decade, a number of researchers have published on specific features of Yam languages, for example their unique senary number system (Donohue 2008; Evans 2009; Hammarström 2009; Plank 2009), their complex patterns of verb inflection with respect of TAM (Siegel 2015; Evans 2015a) and valency (Evans 2015b; Siegel 2017). There are two grammars available of individual Yam languages, namely Komnzo (Döhler 2018) and Ngkolmpu (Carroll 2016). There is the Nen dictionary (Evans 2019) and text collections for Nen (Evans 2010–2015) and Komnzo (Döhler 2010–2015). Finally, there are two overview articles of the

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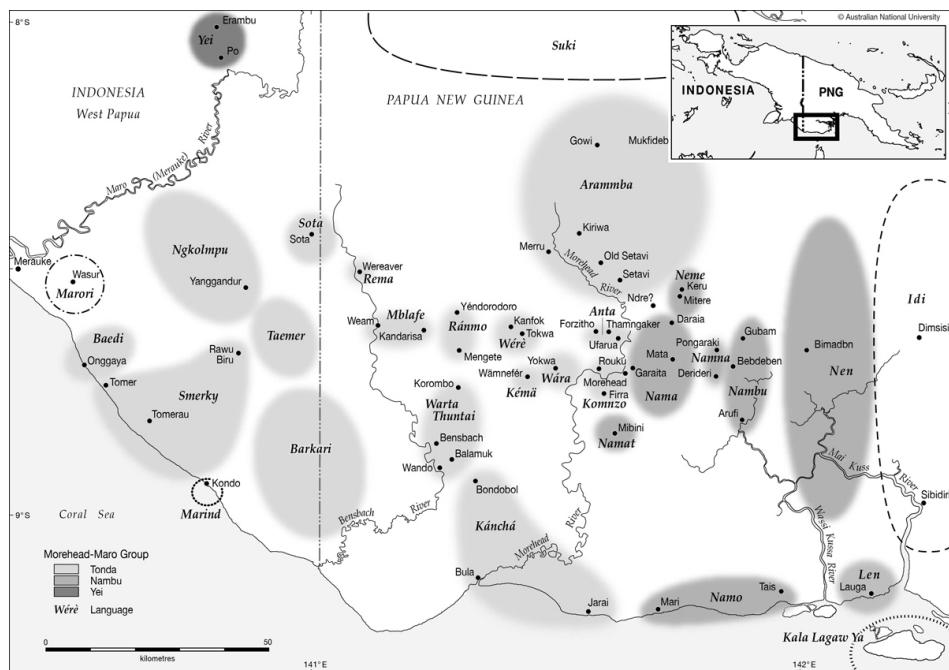


Figure 1: The Yam language family

Southern New Guinea region (Evans 2012; Evans et al. 2017).

3 Methods and Data

The data discussed in this chapter has been collected during 16 months of fieldwork between 2010 and 2015 as part of the author's PhD project. The project resulted in a grammar of Komnzo (Döhler 2018), a dictionary and a text corpus.

The examples in this article are either elicited or taken from the text corpus. The corpus comprises 12 hours of transcribed and translated speech of various text genres, including both natural and stimuli-based narratives, procedurals, conversations and public speech (See Table 1). All corpus examples below are marked with a source code that has been formatted in the following structure: tciYYYYMMDD SSS ##. The first part identifies the transcription file: the three letter ISO 639-3 code for Komnzo (tci) and the date of the recording (YYYYMMDD). The second part identifies the annotation within the transcription file: the tiers are sorted by speaker (SSS) and the annotation number on the respective tier (##). Note that only 8 out of 12 hours have been interlinearized at the

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current stage. Evidence about the frequency of individual verb lexemes in this article is based on the interlinearized subset of the corpus.

Table 1: Database (in hh:mm:ss)

Text type	transcribed	interlinearized
Conversation	01:01:55	-
Stimulus task	01:49:51	01:26:43
Narrative	06:14:18	05:45:15
Procedural	02:11:36	01:02:44
Public speech	00:42:38	-
Total	12:00:18	08:14:41

The corpus can be accessed in two ways. The complete collection has been archived with The Language Archive, Nijmegen (Döhler 2010–2015). This includes around 60 hours of audio-visual footage, text as well as observational recordings, transcribed as well as untranscribed. The corpus of transcribed texts has been archived at Zenodo (Döhler 2020). The latter contains all transcription files in ELAN format (.eaf) in a single zip file. The associated audio and video files are accessible in separate session nodes at both locations. The title of a session node follows the formatting of the source code as described above.

4 Grammatical background

Komnzo is a double-marking language, in which the verb indexes core arguments and noun phrases are flagged for case. The case marking is organised in an ergative-absolutive system. In addition to four core cases (absolutive, ergative, dative, possessive), there are 13 semantic cases. The system of argument indexing in verbs is of the split-S type: The single argument of an intransitive verb is indexed in the same slot as the A argument of a transitive verb, if the event is dynamic. However, it is indexed in the same slot as the P argument, if the event is stative.

In the following sections I describe the principle of distributed exponence in §4.1, which is important for the understanding of verb morphology as well as for the glossing convention adopted in this article. In §4.2 follows a description of verb templates. In §4.3, I describe the pronominals in Komnzo: indexes (§4.3.1) and free pronouns (§4.3.2). In §4.4, I describe two nominal enclitics that play a role in the expression of reflexive situations.

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4.1 Distributed exponence

As other languages of the Yam family, Komnzo has complex verb morphology. Verbs express person, number and gender of up to two participants, 18 TAM categories, valency, directionality and deictic status. Complexity lies not only in the amount of grammatical categories that can be expressed morphologically, but also in the way how these categories are encoded. This is best described by the term “distributed exponence”, which has surfaced in the recent literature on multiple exponence (Caballero & Harris 2012). Carroll gives a precise definition of distributed exponence in his description of Ngkolmpu as “the phenomenon in which morphosyntactic and morphosemantic properties are marked non-redundantly at multiple inflectional sites” (2016: 268).

In Komnzo verb morphology, this plays out as underspecification of individual morphs. Consider Table 2 below, in which the verb *thoraksi* (*thor-*|*thorak-*) ‘appear’ is inflected for different TAM categories.^{Footnote} Komnzo verb lexemes have two stems, which are sensitive to aspect. The formal relationship between the two stems ranges from suffixation to consonant mutation to full suppletion. In this chapter, I will list the two stems in brackets after the infinitive in this way: *thoraksi* (*thor-*|*thorak-*).

Table 2: *thoraksi* ‘appear’ in a SG.MASC frame

TAM category	inflected form
non-past	y-thorak-wr
recent-past imperfective	su-thorak-wr
recent-past durative	y-thorak-wr-m
recent-past perfective	sa-thor
past imperfective	y-thorak-wr-a
past durative	su-thorak-wr-m
past perfective	sa-thor-a
iterative	su-thor

It becomes clear from the table that the inflectional sites (the prefix, the verb stem, and the suffixes) contribute some information to TAM without encoding a particular TAM value. For example, the prefix *y-* occurs in the non-past, the recent-past and the past tense, both in imperfective and durative aspect. Likewise, the verb stem *thor* is involved in expressing perfective aspect, but also the iterative. In other words, the morphs in each inflectional site are underspecified

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as to their grammatical meaning, in this case the TAM category. Underspecification of this type is also found in other grammatical categories, such as number and valency.

Distributed exponence prompts us to take the inflected verb, not the morpheme, as the level of analysis. As a practical consequence, I gloss verbs in a word-in-paradigm style (Matthews 1974), as in (1) and (2) below. In the morpheme tier, slanted lines separate the verbstem from the inflectional material. In the gloss tier, the inflected verb form is placed in its paradigm by listing information in the following order: argument structure, TAM, directionality, and (following a forward slash) lexeme translation. Additionally, I put the entire verb gloss in square brackets followed by an abbreviation of the respective verb template in subscript. The copula in (1) occurs in the prefixing template (PREF), while the verb in (2) occurs in the transitive template (TRANS). The role of verb templates will be addressed in the next section.

- (1) *kabe y\thorak/wr*
man [SG.MASC:NONPAST:IPFV/appear]_{PREF}
'The man appears.'
- (2) *kabe=f nge wn\zā/nzr*
man=ERG.SG child [SG>SG.F:NONPAST:IPFV:VENIT/carry]_{TRANS}
'The man carries the girl.'

4.2 Verb templates

Inflected verbs in Komnzo can be classified into prefixing, middle, and ambifixing depending on whether the prefix, the suffix or both are employed for indexing core arguments. I use the term "verb template" for this arrangement of morphological slots. Hence, we can say that a particular lexeme "occurs in a prefixing template" or that it "occurs in an ambifixing template". Templates are lexically determined for some verbs, which means that we can speak of "a prefixing verb" or of "a middle verb". However, for the majority of verbs, the system of templates is somewhat flexible, that is a verb stem can occur in different templates. Thus, we can describe a particular lexeme by stating that "it occurs in the middle template and the ambifixing template, but not in the prefixing template". Note that the distinction between prefixing, middle and ambifixing is based on a purely structural perspective for now. As we will see below, labels such as 'intransitive' and 'transitive' are a matter of token frequency of individual lexemes in Komnzo.

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The morphological slots involved in the definition of templates are the following: (i) the undergoer prefix, (ii) the diathetic prefix, and (iii) the actor suffix. The undergoer prefix indexes a core argument, in which case it shows agreement in person, number and gender (See §4.3.1). The undergoer slot can also be filled with the middle prefix, which is invariant for these categories. The diathetic slot can be empty or be filled by the diathetic prefix *a-*. The neutral label “diathetic” captures the fact that for some verbs its function is to increase valency, whereas for other verbs it decreases valency. Finally, the actor suffix indexes a core argument in the middle and ambifixing templates, in which case it shows agreement in person and number. In the prefixing template, the actor slot is absent. Table 3 provides a schematic overview of the possible templates. The column for the undergoer slot lists the morph *y-* for SG.MASC, with the exception of the middle template, where the morph is *ŋ-*. The column for the actor slot lists the morph *-th* for 2|3NSG.

Table 3: Verb templates

template	undergoer prefix	diathetic prefix	verb stem	actor suffix
prefixing	✓(y-)	-	✓	-
prefixing (indirect object)	✓(y-)	✓(a-)	✓	-
middle	✓(ŋ-)	✓(a-)	✓	✓(-th)
ambifixing	✓(y-)	-	✓	✓(-th)
ambifixing (indirect object)	✓(y-)	✓(a-)	✓	✓(-th)

Table 3 shows that there are more than the three templates mentioned above. This is caused by the absence versus presence of the diathetic prefix. Thus, the prefixing and the ambifixing template can be subdivided further. The prefixing template without the diathetic prefix indexes an S or P argument in the undergoer slot. It is labelled simply ‘prefixing template’ (PREF in the gloss). The prefixing template with the diathetic prefix indexes a beneficiary or possessor argument. It is labelled ‘indirect object prefixing template’ (IO.PREF in the gloss). Likewise the ambifixing template can occur without or with the diathetic prefix. Without the diathetic prefix, the undergoer prefix indexes a P argument. With the diathetic prefix, it indexes a beneficiary or possessor. I label these two templates as ‘transitive ambifixing template’ and ‘ditransitive ambifixing template’ (TRANS and DITRANS in the gloss). For reasons of better readability, I henceforth drop ‘ambifixing’ from the labels and instead simply use ‘middle’, ‘transitive’

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and ‘ditransitive template’. Note that these labels depart from a purely structural perspective and reflect the function of these templates. I provide more concrete examples in (3a–3e).

The system of verb templates is lexically determined for some verbs, while it is fluid for most verbs. This fluidity is one of the central aspects in understanding Komnzo verb morphology. That being said, there are only a handful of lexemes, which can enter into all five templates. Below, I present the verb *migsi* (*mig*-|*mir*-) ‘hang’ in all five templates to show how template choice impacts on argument structure and, more generally, on the meaning of the verb. The elicited examples in (3) appear here in a reduced gloss, which ignores all TAM information and stem variations.^{Footnote}The few lexemes, which can enter into all five template show a stem alternation that is only used in the prefixing template. The stem of *migsi* for the prefixing template is *mi*, while it is *mig* or *mith* for the middle and the ambifixing template depending on aspect. The *thgr* element in (3a–b) is a stative non-dual suffix that has not been segmented here. Likewise (3c–e) also appear in a simplified gloss. The *-wr* suffix is in fact marking aspect and non-dual number, while the SG is expressed as a zero. For further information on verb morphology, I refer the reader to the Komnzo grammar (Döhler 2018). Note that the examples (3a–3d) correspond to the five templates as they are listed in Table 3 above.

- (3) a. *y-mithgr*
SG.MASC-hang
'He hangs.'
- b. *y-a-mithgr*
SG.MASC-DIA-hang
'Something of his (or for him) hangs.'
- c. *ŋ-a-mig-wr*
M-DIA-hang-SG
'It hangs itself up.'
- d. *y-mig-wr*
SG.MASC-hang-SG
'S/He hangs him up.'
- e. *y-a-mig-wr*
SG.MASC-DIA-hang-SG
'S/He hangs up something of his (or for him).'

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The prefixing template (3a–3b) is used for intransitive event types that are stative, while the middle template (3c) is used for intransitive event types that are dynamic. Note that the diathetic prefix is part of the middle template. Thus, Komnzo has a split-S system that is based on event dynamicity. In terms of numbers of lexemes, the middle template is the preferred template for intransitive verbs. The coreference situation in (3c) is only caused by the semantics of the verb *migsi* ‘hang’ and an alternative, though admittedly long-winded translation of (3c) would be ‘it assumes a hanging position’. As I argue in this chapter, the middle template is coexpressive for a range of functions, which would be termed intransitive, impersonal, reflexive, reciprocal and passive in languages that have dedicated constructions for these. However, there is no constructional distinction between these in Komnzo. Example (3d) shows the transitive template, which is the “major biactant construction” (Lazard 2002). Finally, example (3d) shows the ditransitive template, which differs from the transitive template in that the diathetic prefix has been added to the verb. This is the way to express ditransitives in Komnzo, and one can argue that all ditransitives are derived in the language (Döhler 2018: 206).

For the majority of verb lexemes in Komnzo, labels such as ‘transitive verb’ or ‘intransitive verb’ are a matter of frequency of template choice. I will give three examples to illustrate that claim by showing template frequencies in the text corpus. I start with *msaksi* (*msak|ms*) ‘sit, dwell, stay’, which occurs 331 times in the corpus. 296 tokens are in the prefixing template with the meaning ‘sit, dwell, stay’, as in (4). 30 tokens occur in the middle template with the meaning ‘sit (self) down, assume a sitting position’, as in (5). Finally, 5 tokens occur in the transitive template with the meaning ‘sit someone down’, as in (6). Note that example (6) lacks noun phrases expressing the agent and patient. If these were expressed, they would appear in ergative and absolute case, respectively. The skewing of the distribution allows us to characterise *msaksi* as a stative, intransitive, prefixing verb (4). It follows that the occurrence of this verb in the middle template in (5) should be analysed as an alternation that has to do with dynamicity. Likewise the occurrence in the transitive template in (6) should be analysed as a causative alternation.

- (4) *nafa-ŋare komnzo wä\m/nza masu=n*
 3RD.POSS-wife(ABS) just [SG.F:PST:IPFV/sit]_{PREF} Masu=LOC
 ‘His wife just stayed in Masu.’ [tci20110810-2 MAB 8]

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- (5) *äusi fäth z-zrzü=me ña\msak/wa*
 old.woman DIM(ABS) REDUP-knee=INS [SG:PST:IPFV/sit]_{MID}
 ‘The old woman sat down on her knees.’ [tci20120925-01 MKA 400]
- (6) *wati y\msak/wrth fof*
 then [2|3PL>3SG.MASC:NONPAST:IPFV/sit]_{TRANS} EMPH
 ‘Then they really sit him down.’ [tci20120909-06 KAB 91]

A second example is the verb *brigsi* (*brig*-|*brim*-) ‘return’, which occurs 181 times in the corpus. Note that the prefixing template is not available for this lexeme. 137 tokens occur in the middle template with the meaning ‘return, go back’, as in (7a). Only 44 of the tokens occur in the transitive template with the meaning ‘bring something or someone back’, as in (7b). In Example (7), the speaker describes the slash-and-burn agriculture, whereby gardens are shifted to a new location each year. Thus, *brigsi* is a dynamic, intransitive, middle verb. The occurrence in the transitive template in (7b) should be analysed as a causative alternation.

- (7) a. *fthmäsü za\bth/e bää we*
 meanwhile [Fpl>SG.F:RPST:PFV/finish]_{TRANS} MED also
kwan\brig/wre we z=n\rä/
 [Fpl:RPST:IPFV:VENT/return]_{MID} also PROX=[Fpl:NONPAST:IPFV/be]_{PREF}
zena
now
 ‘Meanwhile we have finished (the soil) there and we returned now ...’
- b. *zane ysakwr=en zf za\thkäf/e*
 PROX season=LOC IMM [Fpl>SG.F:RPST:PFV/start]_{TRANS}
z=\rä/ ñarake
 PROX=[SG.F:NONPAST:IPFV/be]_{PREF} garden
thun\brig/wre zena
 [Fpl>2|3Pl:RPST:IPFV:VENT/return]_{TRANS} now
 ... this year we have started (making gardens) right here. We brought
 back the gardens now.’ [tci20120922-08 DAK 80-81]

The third example is the verb *zrin* (zä-|*thor*-) ‘carry’, which occurs 109 times in the corpus. Again, the prefixing template is not available for this lexeme. Only 3 tokens occurs in the middle template, as in (8), while the remaining 106 are in the transitive template, as in (9). Example (8) comes from a procedural text about

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yam cultivation, while example (9) is from a text about sorcery. It follows that we have to analyse *zrin* as a transitive verb with the meaning ‘carry something’. Its occurrence in the middle template in (8) is a passive alternation.

- (8) *ane thara=karä=sü kra\zä/nzrth bobo*
DEM bundle=PROP=ETC [2|3pl:IRR:IPFV/carry]_{MID} MED:ALL
‘They (yams) will be carried there with the bundle and all.’ [tci20121001
ABB 27]
- (9) *bäne zra\zä/nzr ... fenz kzi=kaf*
RECOG.ABS [SG>SG.F:IRR:IPFV/carry]_{TRANS} (.) pus(ABS) barktray=PROP
‘He will carry the watchamacallit ... the pus in the barktray.’
[tci20130903-04 RNA 49-51]

For some verb stems, the occurrence in different templates may alter the meaning to such a degree, that these are best analysed as separate lexemes. One such example is *rbänzsi* (*rbänz-*|*rbs-*), which has the meaning ‘untie’ in the transitive template, but ‘explain’ in the ditransitive template (lit. ‘to untie for someone’). A second example, is *karksi* (*kark-*|*kar-*), which has the meaning ‘pull’ or ‘smoke’ in the middle template, but ‘take away from someone’ in the transitive template.

As a summary to this section, I want to highlight two points. First, verb templates and the possibility for verb stems to occur in more than one verb template is central to the analysis of Komnzo verb morphology. Labels such as ‘intransitive verb’ or ‘transitive verb’ only make sense if one looks at the frequency of template choice in natural speech. Komnzo is thus a good example of what Lazard describes as “scalar transitivity” (2002: 166).

Secondly, the middle template is a construction that is coexpressive for a number of semantic situation types. We can describe these types in the following way: single actor with coreference (reflexive), single actor without coreference (intransitive), dummy-actor or empty-actor (impersonal), mutual action (reciprocal), patient topicalization (passive), patient backgrounding (antipassive). Henceforth, I will use the labels in brackets to refer to the semantic situation types. In the main part of this chapter in §5, I give examples of these situation types to argue against a dedicated reflexive construction in Komnzo.

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4.3 Pronominals

4.3.1 Indexes

For the purpose of describing argument indexation in verbs in more detail, it is useful to take a look at the prefixes. As we have seen in §4.1, distributed exponence means that the prefixes are underspecified with respect to TAM. For this reason, I have labelled the three series with Greek letters as α , β and γ in Table 4. Each series has distinct forms for person (1,2,3), number (singular vs. non-singular) and gender in third person singular (feminine vs. masculine). The prefixes are underspecified for number, hence the label NSG for non-singular. As in many Yam languages, Komnzo verbs have a dedicated verbal slot that marks duality (dual vs. non-dual). The three-value number system (singular, dual, plural) is constructed by combining two binary oppositions: singular vs. non-singular and dual vs. non-dual.

Table 4: Person prefixes

Gloss	α	β	γ
FSG	wo-	kw-	zu-
FNSG	n-	nz-	nzn-
2SG	n-	nz-	nzn-
SG.F	w-	z-	z-
SG.MASC	y-	s-	s-
2 3NSG	e-	th-	th-
M	η -	k-	z-

As we can see in Table 4, there are a number of syncretisms in the system. Most of them are disambiguated by other elements in the verb morphology. For example, the syncretism between the β and γ series in 3SG and 2|3NSG is disambiguated by the fact that these prefix series combine with different verb stems. Most Komnzo verbs have two verb stems that are sensitive to aspect. What is important for this chapter, is the fact that each prefix series has a morph that is invariant for number and person, which is shown in the last row of Table 4. This is the middle marker (M) used for the middle template as described in §4.2. We can see the middle marker as the first element in the verbs of some of the above examples, even though the morphs have not been segmented these examples: η - (5), k - (7a, 8) and z - (9).

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4.3.2 Free pronouns

Komnzo has a rich set of free pronouns as we can see in Table 5. Free pronouns encode the four core cases: absolute, ergative, dative and possessive. Core cases flag those arguments that can be indexed in the verb. Furthermore, free pronouns express a number of obliques with a range of semantic cases, which cannot be indexed in the verb. Unlike other Yam languages, for example Nen (Evans 2015b) and Ngkolmpu (Carroll 2016), there are no reflexive or reciprocal pronouns in Komnzo.

Table 5: Free pronouns

case	FSG	FNSG	2SG	2NSG	3SG	3SNG
ABS	nzä	ni		bä		fi
ERG	nze		be	bné	naf	nafa
DAT	nzun	nzenm	bun	benm	nafan	nafanm
POSS	nzone	nzenme	bone	benme	nafane	nafanme
CHAR	nzonema	nzenmema	bonema	benmema	nafanema	nafanmema
ASSOC	ninrr	ninä	bnrr	bnä	nafr	nafä
LOC	nzudben	nzedben	budben	bedben	nafadben	nafanmedben
ALL	nzudbo	nzedbo	budbo	bedbo	nafadbo	nafanmedbo
ABL	nzudba	nzedba	budba	bedba	nafadba	nafanmedba
PURP	nzunar	nzenar	bunar	benar	nafanar	nafanar

4.4 Further nominal morphology

There are two nominal enclitics in Komnzo, which play a role in the expression of reflexive situations. The two clitics are the exclusive clitic =nzo (ONLY), which marks contrastive focus, and the emphatic clitic =wä (EMPH), which marks emphasis. The former is related to the adverb *komnzo* ‘only, still, just’ on which the name of the language is based.^{footnote} There is no information as to the origin of the name Komnzo. However, it seems reasonable to assume that it originated in a misunderstanding on the part of a colonial officer. He must have mistaken *komnzo* as a proper name in the phrase *komnzo zokwasi*, which means ‘just language’ or ‘only words’, when he enquired about the language or tribe name. Note that a number of Yam language names of the Tonda branch are based on words that mean ‘only, still, just’, e.g. Kánchá, Kémä, Wára, Wérè and Anta. As can be seen in (10) and (11), neither of the two enclitics is a reflexive marker. There is no coreference in the two examples. In (10), =nzo attaches to the S argument of

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the copula. In (11), =wä attaches to the A argument. In §5, I will show examples in which these enclitics facilitate coreference. What is important here, it the fact that they do not encode coreference, i.e. they are non-reflexive markers.

- (10) *ni=nzo miyatha n|rä/ra wämne dunzi=ma fof*
 fnsg=ONLY knowledge [fpl:PST:IPFV/be]_{PREF} tree arrow=CHAR EMPH
 ‘Only we knew about the arrow in the tree.’ [tci20120814 ABB 106]
- (11) *ni=wä komnzo ḷarake b=ä\fiyok/wre*
 fnsg=EMPH still garden(ABS)
 MED=[Fpl>2|3pl:NONPAST:IPFV/make]_{TRANS}
 ‘We are still making gardens there.’ [tci20120922-08 DAK 75]

For other Yam languages, a dedicated set of reflexive/reciprocal pronouns (R/R) has been described. In Ngkolmpu, these are built from the ergative pronouns by adding a /to/ element, for example: *ngkai* 1SG.ERG vs. *ngkaito* 1SG.R/R or *piengku* 3SG.ERG vs. *piengkuto* 3SG.R/R (Carroll 2016: 138). The same is true in Nen, for which Evans describes a set of reflexive/reciprocal pronouns featuring a word-final /nzo/ element, for example *bm* 2SG vs. *benzo* 2SG.R/R and *bbenzos* 2NSG.R/R (Evans 2015b: 1091).

The /to/ element in Ngkolmpu and the /nzo/ element in Nen are certainly cognate with the exclusive enclitic =nzo in Komnzo. However, it has not grammaticalised into a set of reflexive/reciprocal pronouns. On the contrary, it may combine with any nominal, as we can see in (12), where it attaches to a proper name.

- (12) *bres=f=nzo kwrfar wämne zan=me*
 Bres=ERG.SG=ONLY big.wallaby(ABS) tree beating=INS
di sa\frnz/a
 back.of.head(ABS) [SG>3SG.MASC:PST:PFV/belt]_{TRANS}
 ‘Only Bres struck down the big wallaby by beating it with a stick.’
 [tci20130927-06 MAB 6]

5 Reflexive situations

This section describes the expression of reflexive situations in Komnzo. I discuss coreference between agent and patient in §5.1, which is followed by a description of coreference between agent or patient and other semantic roles in §5.2. Lastly,

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I discuss coreference across clauses in §5.3. In each section, I show that the relevant construction or relevant marker is coexpressive, i.e. it is not solely used for reflexive situations.

5.1 Coreference between agent and patient

As it has become clear from §4.2, the middle template is the strategy to express coreference between agent and patient. Recall that the middle template expresses reflexive situations in addition to a number of other situation types, such as intransitive, reciprocal, impersonal, passive, as well as antipassive. In this section, I discuss these situation types and show evidence from the Komnzo text corpus.

In example (13), we see the verb *traksi* (*trak|tr*) ‘fall’ used in the middle template. This verb can occur in the transitive template, with the somewhat unexpected meaning ‘catch fish’.^{footnote} By analogy to the lexemes discussed in §4.2, one would expect that a lexeme, which means ‘fall’ in the middle template, would mean ‘drop’ in the transitive template. Instead, the meaning of ‘drop’ is expressed by a different lexeme. Hence, the stem of *traksi* has to be analysed as two different lexemes depending on template choice. There are 14 tokens of *traksi* ‘fall’ in the corpus and 13 of these occur in the middle template. There is one token in the ditransitive template, to which I will return in §5.2. The important point here is that the middle template is used to express an intransitive situation. Infact, this is the main function of this template. It is striking that the middle template is much more frequent than the prefixing template when comparing individual verb lexemes. The following list of intransitive verbs occur almost exclusively in the middle template: *yak* (*kwi|math*) ‘run’, *mnzeraksi* (*mnzerak|mnzer*) ‘fall asleep’, *rminzsi* (*rminz|rniith*) ‘smile’, *borsi* (*bor|both*) ‘laugh’, *farksi* (*fark|far*) ‘set off’, *sogsi* (*sog|söbäth*) ‘ascend’, *rsörsi* (*rsör|rsöfäth*) ‘descend’, *bznsi* (*bzn*) ‘work’, *rüsi* (*rü|rüth*) ‘rain’, (*rä|r*) ‘think’.

- (13) *kwa ya\trاك/wr zane nge*
 fut [SG:NONPAST:IPFV/fall]_{MID} DEM:PROX child(ABS)
z=|rä/.
 [PROX=SG.F:NONPAST:IPFV/be]_{PREF}
 ‘It will fall down, this baby girl here.’ [tci20111004 TSA 110]

In (14), we see an example of coreference between agent and patient with the verb *ttüsi* (*ttü|ttüth*) ‘write, paint’ used in the middle template. This lexeme occurs only 7 times in the corpus and (14) is the only example in the middle template.

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The remaining tokens are in the transitive template. Hence, the use of the middle template is a reflexive alternation of an otherwise transitive verb.

- (14) zä kwa *ŋa\ttü/nzé*.
 PROX FUT [FSG:NONPAST:IPFV/paint]_{MID}
 ‘I will paint myself here.’ [tci20130907-02 JAA 110-111]

Example (15) shows another example of coreference between agent and patient. The verb *marasi* (*mar*) ‘see’ is used in the middle template to express ‘look after yourself’. This example comes from a public speech, in which the speaker admonishes the audience about the excessive consumption of alcohol during an upcoming dance. For stylistic reasons, he uses the singular instead of the plural.

- (15) *ka\maranzé!* *bänema wri=f* *kwa*
 [2SG:IMP:IPFV/see]_{MID} because drunkenness=ERG.SG FUT
 n\zä/nzr *we bun* *we ane fäsi* *kwa*
 [SG>2SG:NONPAST:IPFV/carry]_{TRANS} also 2SG.DAT also DEM shame FUT
 \rä/
 [SG.F:NONPAST:IPFV/be]_{PREF}
 ‘Look after yourself! Because when you get totally drunk, it will be
 embarrassing for you.’ [tci20121019-04 ABB 16-17]

The verb *marasi* occurs 229 times in the corpus. 211 tokens are in the transitive template, 9 in the ditransitive template and 9 in the middle template. Of the 9 tokens in the middle template, only one example expresses a reflexive situation (15). 4 tokens express an antipassive situation, i.e. the patient argument is not indexed in the verb. I show an example of this in (21) below. The remaining 4 tokens express a reciprocal situation, as in (16).

- (16) *fi* *nm* *miyo-sé* *ŋa\mar/nath*
 3RD.ABS perhaps desire-ADJZR [2|3du:NONPAST:IPFV/see]_{MID}
 ‘Maybe they are in love?’ (lit. ‘look at each other desiringly?’)
 [tci20120925-01 MKA 39-40]

Example (17) shows another example of a reciprocal situation. The verb *zan* (*fn|kwr*) ‘hit, kill’ occurs 172 times in the corpus: 165 in the transitive template versus 7 in the middle template, which are all reciprocal alternations. Note that the only constructional difference between reflexive and reciprocal situations is that the latter cannot be singular.

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- (17)
- zä zf ḷa|fn/ath.*

PROX IMM [2|3du:PST:IPFV/hit]_{MID}

'They fought each other right here.' [tci20110802 ABB 23]

The middle template in Komnzo is used in contexts that would employ reflexive constructions or reflexive pronouns in other languages, for example body-part or whole body actions. Example (18) shows an example with *maiksi* (*mayuk|mayuf*) 'wash'. This verb is basically transitive ('wash someone or something'), but it can appear in the middle template to express reflexive or reciprocal situations. Example (18) comes from a story about the brolga and the cassowary, who went washing together. As mentioned above, it is from context alone that we can infer that the two were washing themselves, rather than each other. Other lexemes in the same semantic domain are *trisi* (*tri|trinz*) 'scratch', *royaksi* (*royak|royaf*) 'dress, decorate' and *rfrsi* (*rfr|rfrth*) 'shave, trim'.

Note that the first clause in (18) shows a raising construction. Therefore, the phasal verb *thkäfaksi* (*thkär|thkäf*) 'start' occurs in the middle template, while the lexical verb *maikasi* has been nominalised. Only in the second clause, *maikasi* is fully inflected.

- (18)
- watik kra|thkäf/th maik-si kwa|mayuk/nmth*
-
- then [2|3du:IRR:PFV/start]
- _{MID}
- wash-NMLZ [2|3du:PST:DUR/wash]
- _{MID}
-
- kwras a yem*
-
- brolga(ABS) and cassowary(ABS)

'Then they started to wash. The brolga and the cassowary were washing.'
[tci20130923-01 ALB 9-12]

Example (19) shows the middle template used for expressing an impersonal situation, i.e. the argument indexed in the verb is semantically empty. The closest translation of (19) is with an empty dummy-pronoun ('it'). Note that the verb in (19) is the light verb (*ko|kor*) 'become', which lacks an infinitive.

- (19)
- aki zbo krä|kor/.*
-
- moon(ABS) PROX:ALL [SG:IRR:PFV/become]
- _{MID}
-
- 'It became moon(light) here.' [tci20120904-02 MAB 47]

Example (20) shows the use of the middle template to express a passive situation. In the example, the speaker explains the content and arrangement of his yam storage house. It is clear from the context that the argument indexed in the verb and expressed by the indefinite pronoun is the patient of the clause.

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- (20) *fsan=ma nä kwa ñan|zä/nzrth*
 Fsan=CHAR CHAR.ABS FUT [2|3pl:NONPAST:IPFV:VENT/carry]_{MID}
zbo=wä zf.
 PROX:ALL=EMPH IMM
 ‘From Fsan, some more (yams) will be carried right here.’ [tci20121001
 ABB 45]

Example (21) and example (22) show an antipassive situation, in which the patient argument is not indexed in the verb. Instead, the verb occurs in the middle template. Here, we can speak of a dedicated antipassive construction because the case frame is different from all other situation types described above: the actor argument is flagged for ergative case. Note that the patient arguments are not indexed in the verb for semantic or pragmatic reasons, i.e. they often rank low in the animacy hierarchy or they are established in the preceding context. In (21) and (22), the respective patient arguments are given in brackets in the English translation. In both examples in the corpus, they are established in the preceding context.

- (21) *maureen=f zä zf ña\rg/wrm efoth.*
 Maureen=ERG.SG PROX IMM [SG:RPST:DUR/wear]_{MID} day
 ‘Maureen was wearing them (the shoes) right here during the day.’
 [tci20130901-04 MBK 15]
- (22) *watik we masu kar=é kwe\karis/th*
 then also Masu village=ERG.NSG [2|3PL:ITER/hear]_{MID}
 ‘Then, the villagers from Masu also heard it (the message).’
 [tci20131013-01 ABB 363]

The set of examples in this section provides evidence that the middle prefix and the middle template are non-reflexive markers that happen to be coexpressive for reflexive, but also for a range of other situations. The only commonality between these situation lies in the fact that the event is about only one argument, which is one of the main criteria for “middle situations” according to Kemmer (1993). The role of the argument can be disambiguated only in the antipassive construction by the flagging of NPs with the ergative. For the other situation types, it is context alone that determines the correct state of affairs.

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5.2 Coreference involving other semantic roles

This section describes how coreference is expressed with other semantic roles, such as possessor, beneficiary, source, location and purpose. As will become clearer, the markers and constructions that are employed are non-reflexives, i.e. they are coexpressive for other functions.

In Komnzo, possession is expressed by various contractions: (i) possessive pronouns and possessive case, (ii) possessive prefixes, (iii) the template of the verb. Example (23) shows the use of a possessive pronoun. Note that the emphatic clitic =wä attaches to the pronoun, which speakers often translate to English with ‘X’s own’. Here, the speaker explains the different piles of yam tubers in his storage house and points out which yams are his. Note that in the last clause of (20) there is no emphatic clitic on the possessive pronoun. Thus, a more suitable translation is ‘my’ or ‘mine’ instead of ‘my own’.

- (23) *nzone=wä zane zf e|rä/ ... zane*
FSG.POSS=EMPH DEM.PROX IMM [2|3pl:NONPAST:IPFV/be]_{PREF} (.) DEM.PROX
z=e|rä/ ... nzone zane zf
PROX=[2|3pl:NONPAST:IPFV/be]_{PREF} (.) FSG.POSS DEM.PROX IMM
e|rä/
[2|3pl:NONPAST:IPFV/be]_{PREF}
- ‘These (yams) here are my own. These ones are here ... these are mine here.’ [tci20121001 ABB 129]

Example (24) shows the use of possessive prefixes.^{footnote}The semantic difference between possessive case (pronouns, case enclitics) and the possessive prefixes is not based on alienability, but rather on a more general notion of closeness (Döhler 2018: 145). The example concludes an episode in a story with a quote by one of the protagonists. The possessive marker in this example is a prefix on the word *zfth* ‘reason, cause’ and not a possessive pronoun, as in (23). Note that the emphatic clitic =wä attaches to *zfth*. In this verbless clause we find coreference between ‘she’ and ‘her’ as the literal translation shows.

- (24) *watik “fi nafa-zfth=en=wä”*
then 3RD.ABS 3RD.POSS-cause=LOC=EMPH
‘Well (he said) “It was only her fault.” (lit. ‘she in her own cause’)
[tci20120901-01 MAK 207]

Another example of coreference is given in (25), which comes from the description of a picture card showing a man sitting in a prison cell.^{footnote}This is card

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#16 of the Social Cognition Picture Task (Carroll et al. 2009). The speaker uses direct speech to enact the character. The basic clause is expressed by the absolute pronoun *nzä* and the verb *wotkgr* ‘I am inside’. The first singular argument is coreferential with *nzonemäwä* ‘because of me’, which is a possessive pronoun inflected with the characteristic case and the emphatic clitic.^{footnote}The characteristic case encodes the semantic roles of source ‘from’, reason ‘because of’ as well as purpose ‘for’ (Döhler 2018: 157). Note that the characteristic case always attaches to a nominal inflected for possessive case, if the referent is animate.

- (25) “*nzä nzone=ma=wä zfth=en zbo*
 Fsg.ABS Fsg.POSS=CHAR=EMPH cause=LOC PROX.ALL
wotkgr/
 [Fsg.NONPAST:2|3at/be.inside]_{PREF}

“It’s my own fault that I am in here.” (lit. “Because of me, (my) fault, I am in here.”) [tci20120925-01 KAB 23]

There are several layers of coreference in example (26) below. Recall that there are two verb templates in which the diathetic prefix increases valency (cf. §4.2: (3b) and (3d)). Both templates can be seen in (21). The example comes from the description of a picture card that shows a policeman, who hands over clothing to a man.^{footnote}This is card #2 of the Social Cognition Picture Task (Carroll et al. 2009) In the first clause, we see that coreference is established between the beneficiary indexed by the verb prefix *ya-* and the possessor expressed by the possessive pronoun *nafane*. There is no free pronoun in the clause to express the beneficiary. Note that the demonstrative *ane* refers to it, but *ane* does not inflect for any of the core cases. The second clause contains the direct speech of the policeman. The coreferential elements are all in second singular: there is the topic expression (‘As you are inside’) followed by a speech formula that often accompanies transactions (‘It is for you’ or ‘It is yours’). In the last clause, the possessive pronoun (2SG) is indexed in the copula. However, as example (27) shows, the copula *narä* can also index a beneficiary. This is caused by underspecification of the diathetic prefix, which results in an analytic problem, as we will see below.

- (26) *frisman=f nafane slippers gwonyame ane bana fof*
 policeman=ERG.SG SG.POSS slippers(ABS) clothing(ABS) DEM pityful EMPH
yarri/thr “*okay bää mane=me zää*
 [SG>SG.MASC:BEN:NONPAST:IPFV/give]_{DITRANS} okay 2SG which=INS PROX

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gu\thkgr/ *bone*
 [2SG:NONPAST:2|3at/be.inside]_{PREF} 2SG.POSS
b=na\rä/
 MED=[2SG.POSS:NONPAST:IPFV/be]_{IO.PREF}

‘The policeman gives poor him his slippers and clothes (and says) “Now that you are inside, those are your (things).”’ [tci20111004 RMA 435-436]

- (27) *wati sa\kor/a* “*bun bana ruga fof*
 then [SG>SG.MASC:PST:PFV/speak]_{TRANS} 2SG.DAT pityful pig(ABS) EMPH
na\rä/
 [SG.MASC:BEN:NONPAST:IPFV/be]_{IO.PREF}
 ‘Well, he said: “The pig is for you poor guy.”’ [tci20120805-01 ABB 814-815]

A similar strategy is used in (28), which comes from a conversational text. The speaker literally says ‘you will finish my wish’. Another possible translation of this clause is ‘you will finish my wish for me’, if we assume that there is an additional argument, a beneficiary, which is not expressed in a separate noun phrase. In other words, there is an analytic problem with the diathetic prefix. When used to increase valency, as in (26) and (28), it is unclear whether the introduced argument is a beneficiary or a possessor. We can only tell from the flagging of the noun phrase, as in (26) and (28). Note that this overlap in the encoding of beneficiary and possessor roles is not uncommon in the Southern New Guinea region. In Ngkolmpu (Carroll 2016) and Bine (own fieldwork), both functions are expressed by the same case marker.

In (26), one can make an argument from frequency and say that the verb *yarisi* (*ri|r*) ‘give’ always has a beneficiary encoded in the prefix, and the corresponding noun phrase is flagged for dative. But examples like (28) are not as clear. The prefix could be indexing a possessor (as shown in the gloss), but also a beneficiary. Only in the latter case two arguments are coreferential and the translation would have to be ‘you will fulfil my wish for me’.

- (28) *nzone miyo kwa wa\bthak/wr*
 Fsg.POSS wish(ABS) FUT [SG>Fsg:POSS:NONPAST:IPFV/finish]_{DITRANS}
 ‘You fulfil my wish.’ (lit. ‘you will finish my wish’) [tci20130823-06 CAM 23]

As I show in (29), autobenefactives cannot be expressed in this way. Coreference between the two arguments indexed in the verb renders the inflected form

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ungrammatical, as in (29a). Instead, the middle template has to be used, as in (29b).

- (29) a. * *nzone miyo kwa wa\bthak\é*
 Fsg.POSS wish(ABS) FUT [FSG>FSG:POSS:NONPAST:IPFV/finish]_{DITRANS}
 b. *nzone miyo kwa \ya\bthak\é*
 Fsg.POSS wish(ABS) FUT [FSG:NONPAST:IPFV/finish]_{MID}
 ‘I will fulfil my wish.’

Example (30) shows an autobenefactive expressed as an apposition. The speaker explains how they shared the meat after a pig hunt. The verb indexes a first plural actor ('we') and a second/third plural beneficiary ('for them'), which is also expressed by the dative pronoun. The first singular dative pronoun in the apposition is coreferential with the actor in the verb ('we cut for them (and) for us').

- (30) *sitau=aneme afa kwark b=ya\ra nafanm*
 Sitau=POSS.NSG father deceased MED=[SG:PST:IPFV/be]_{PREF} 3NSG.DAT
 ä\kwa/ne ... *nzenm=wä*
 [FPL>2|3PL:BEN:NONPAST:IPFV/cut.meat]_{DISTRANS} (.) FPL.DAT=EMPH
 ‘Sitau’s father (and them) were there. We cut (meat) for them ... and for
 ourselves.’ [tci20120821-02 LNA 96-97]

Source roles are expressed by the characteristic case (CHAR), which - for animates only - attaches to a possessive inflection. In example (31), the agent (Yasi) is coreferential with the source (*nafanemawä*) in the apposition. Note that the latter is marked with the emphatic clitic (=wä).

- (31) *yasi=f ane fof fam thn\r/a*
 Yasi=ERG.SG DEM EMPH thought(ABS) [SG>2|3PL:PST:IPFV:VENT/do]_{TRANS}
 ... *nafane=ma=wä mrn fof*
 (.) SG.POSS=CHAR=EMPH family EMPH
 ‘Yasi thought of them, of his own family.’ [tci20111107-01 MAK 176-177]

In example (32), the speaker is giving advise to his interlocuter as to the right way of sharing ones' harvest. The agent indexed in the verb (2SG) is coreferential with the source (*bonemawä*). Again the source is inflected with the emphatic enclitic (=wä).

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- (32) *keke kwa bone=ma=wä za\na/thé we*
 NEG FUT 2SG.POSS=CHAR=EMPH [2SG>SG.F:IMP:IPFV/eat]_{TRANS} also
näbun=ane=ma be za\na/thé
 INDF=POSS.SG=CHAR 2SG.ERG [2SG>SG.F:IMP:IPFV/eat]_{TRANS}
 ‘Don’t eat (the yam) from your own (harvest)! Eat (the yam) from another
 one’s (harvest)’ [tci20120805-01 ABB 760-761]

The role of location is expressed by one of the local cases: locative, allative and ablative. Coreference is achieved by a possessive construction. In example (33), a possessive prefix attaches to a place noun inflected for the locative case. The actor indexed in the verb is coreferential with the possessor of the locative marked role ('at your place'). In example (34), the agent of the verb which is also expressed in the noun phrase ('Babua's wife') is coreferential with the possessor of the allative marked role ('to her own village').FootnoteNote that in (33) and (34), the gloss shows no person value, but only number (sg). This neutralization of the person value occurs in certain TAM inflections (Döhler 2018: 207).

- (33) “*bu-kar=en ane fof bä safak*
 2SG.POSS-place=LOC DEM EMPH MED saratoga(ABS)
e\mgthk/wa”
 [SG>2|3pl:PST:IPFV/feed]_{TRANS}
 “You fed these saratoga fish there at your place.” [tci20110802 ABB
 121-122]
- (34) *babu=ane ñare zan\math/a nima*
 Babua=POSS.SG wife(ABS) [SG:PST:PFV:VENT/run]_{MID} like.this
nafa-kar=fo=wä safs=fo
 3RD.POSS-village=ALL=EMPH Safs=ABL
 ‘Babua’s wife ran to her own village, to Safs.’ [tci20120814 ABB 211-213]

5.3 Coreference across clauses

Coreference across clauses or long-stance coreference in Komnzo is always ambiguous and only the context resolves whether there is coreference or not. Hence, the elicited example in (35) can have two interpretations if it occurs out of context.

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- (35) *fi ña\ko/nzrth nima fi kmam*
 3RD.ABS [2|3pl:NONPAST:IPFV/speak]_{MID} like.this 3RD.ABS APPR
 thrayak
 [2|3pl:IRR:IPFV/walk]_{PREF}
 ‘They₁ say that they₁ should not go.’
 ‘They₁ say that they₂ should not go.’

Example (36) is a corpus example from a conversational task. It shows coreference between the oblique argument in the matrix clause ('located with you') and the actor argument indexed in the verb in the relative clause (2SG).

- (36) *bun=dbo=nzo |rä mane*
 2SG.DAT=ALL=ONLY [SG.F:NONPAST:IPFV/be]_{PREF} which(ABS)
 za\wok/th
 [2SG>3SG.F:IMP:PFV/choose]_{TRANS}
 ‘It is up to you, which one you choose!’ [tci20111004 RMA 524]

In (37), the agent of the first clause (fsg) is coreferential with the possessor in the second clause ('my eyes'). The possessive construction makes up a verbless clause ('but I saw it'), but it can also be translated as an apposition ('but in my eyes').

- (37) *nzä keke skoro fthé kwof|rä/rm fi*
 Fsg.ABS NEG school(ABS) when [Fsg:PST:DUR/be]_{PREF} but
 nzu-sin=en=wä fof
 Fsg-eye=LOC=EMPH EMPH
 ‘I was not a school (child) at that time, but I witnessed this.’ (lit. ‘but really in my eyes’) [tci20150906-10 ABB 373-374]

6 Conclusion

As the preceding sections have shown, the grammatical markers and constructions that are used for the expression of reflexive situations are all coexpressive for a range of other functions. The middle template covers situation types that fall under label of “middle” as defined by (Kemmer 1993). The exclusive clitic (=*nzo*) and the emphatic clitic (=*wä*) are used for creating contrastive focus and emphasis, respectively. The overlap of intensifiers and reflexives is known from the cross-linguistic literature (König & Siemund 2000). Thus, it would be misleading to speak of a reflexive construction, reflexive pronouns or reflexive markers

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in Komnzo. Instead, express reflexive situations are inferred from constructions like the middle template, emphatic markers and contrastive focus markers that are much broader in their function.

Abbreviations

1	first person			
2	second person	IPFV	imperfective	
3	third person	IRR	irrealis	
ABS	absolutive case	LOC	locative case	
ABL	ablative case	M	middle	
ALL	allative case	MASC	masculine	
ALR	iamitive ('already')	MED	medial (deictic)	
AND	andative	NEG	negator	
APPR	apprehensive	NPST	non-past	
ASSOC	associative case	NSG	non-singular	
BEN	benefactive	OBJ	object	
CHAR	characteristic case	ONLY	exclusive marker (‘only’, ‘just’)	
DEM	demonstrative	PFV	perfective	
DI	diathetic prefix	PL	plural	TRANS
DIST	distal (deictic)	POSS	possessive	
DITRANS	ditransitive template)	PROX	proximal (deictic)	
DU	dual	PREF	prefixing template	
DUR	durative	PST	past	
EMPH	emphatic	PURP	purposive case	
ERG	ergative case	RECOG	recognitional	
ETC	et cetera	REDUP	reduplication	
FEM	feminine	RPST	recent past	
FUT	future	SBJ	subject	
IMM	immediate ('right here')	SG	singular	
IMP	imperative	STAT	stative	
INDF	indefinite	TRANS	transitive template	
IO.PREF	indirect object prefixing template	VENT	venitive	
INS	instrumental case			
= transitive template				

Christian Döhler

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