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Himalayan Linguistics

Person indexation in Anal

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ABSTRACT

The paper describes the person-indexing morphology in Anal (Northwestern South-Central (formerly "Old Kuki"), Manipur, India) with an emphasis on the different forms in the rich verbal system of the language. As in many other related languages, the indexation in Anal verbs is performed by two sets of morphemes: suffixes and prefixes. The suffixes are the set of archaic morphemes attested across different branches of the language family. The prefix paradigm consists of the adnominal possessive forms typical for the South-Central branch, but exhibits peculiar person shifts. Most of the paradigms employ explicit suffixes for the A/S-marking and prefixes for the P-marking of Speech Act Participants (SAP). 3rd person is not marked explicitly. Originally nominal forms that use Stem-2 have two different indexation patterns: 3:P scenarios mark the A-referent by prefixes, while SAP:P scenarios mark the P-referent by a prefix and the A-argument by a suffix. P-prefixes are derived from A-prefixes by vowel-lengthening. There are a few additional person-indexing forms in less frequent paradigms and peculiar paradigm-specific changes such as 1st person-marking by tone and length in one of the tenses. The overall system shows historical evidence for multiple cycles of periphrastic constructions with the copula as the conjugated form.

KEYWORDS

Person indexation, agreement, hierarchical alignment, Kuki-Chin-Naga

Person indexation in Anal[1]

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1 Introduction

Anal is spoken by 20,000 speakers in Chandel district of Manipur. Traditionally, the tribe lives in mostly hilltop villages in the Southeastern corner of the district, with the immediate neighbouring tribes being Monsang and Lamkang. Nowadays, due to relatively recent waves of population shifts, the majority of speakers reside in the valley towns of Chandel and Chakpikarong. Anal speakers affiliate ethnopolitically with Naga tribes. The language is classified as belonging to the Northwestern group (formerly "Old Kuki") of South-Central (SC)("Kuki-Chin") branch of Trans-Himalayan (Tibeto-Burman) languages. Although it is closely related to other languages of the group and in particular to Monsang and Lamkang, the differences between these languages are substantial and the languages are not mutually intelligible.

The data for this paper come from recordings of spontaneous conversation (ca. 1.5 hours) and narratives (ca. 4 hours), as well as elicitation. The source of the data is indicated in the examples by the title of the recording and the line number in the FLEx file/time stamp. If there is no source indicated, the example is elicited.

The organisation of the paper is as follows. Section 2 provides the necessary background on Anal. Section 3 outlines the inventory of person markers in the language (3.1), plural suffixes (3.2), less frequent person-marking forms (3.3) and verbal forms related in a less direct way to person indexation (3.4). Section 4 describes the numerous verbal forms in the language and the underlying principles of person-marking. Section 5 briefly presents some preliminary observations about the possible diachrony of the complexity of the system. Section 6 summarizes the description.

2 Language Background

Anal has 7 vowels [a, o, e, i, u, ʉ, ə]. The vowel transcribed here as [ʉ] (rendered by *u* in the Anal orthography) is a close central vowel pronounced with protruded lips and a high degree of frication. In the speech of the younger generation it shifted to a syllabic [y]. The vowel transcribed as [ə] (o in Anal orthography) is a central vowel pronounced with closed teeth.

There are two tones: High and Low. Onsets are a single consonant. Closed syllables terminate with a short or long vowel carrying high or low tone and a nasal consonant or /l/. Long vowels followed by /ŋ/ have shifted to nasalised vowels (atypical for the branch), but phonotactically

behave as closed syllables. Otherwise syllables are open. Short vowels carry high or low tone. Long vowels can have any of the two tones in affixes. However, in lexical roots they carry (mostly?) the high tone and are characterised by glottalization. This appears to be a result of a merge of long open syllables with short syllables ending with a glottal stop (e.g. aʔ > áˀː). This merge did not occur in the word final position in at least one geographical area (Greenhills), where e.g. /áː/ and /aʔ/ are distinguished. This distinction is also reflected in the traditional spelling, which is based on this dialect (as e.g. *ah* for /aʔ/ vs. *ā for* /áː/), to the confusion of most of the speakers who do not have this distinction in their language variety. As will be discussed below, both tone and length have a peculiar role in person indexation in Anal.

The consonant inventory is similar to that of the closely related languages. It is characterised by the triplets of voiceless, voiceless-aspirated and voiced stops (but no velar voiced *g*). Retroflex consonants *ʈ* and *ʈʰ* (that have no voiced counterpart either) are reflexes of clusters in proto-SC (Konnerth 2018). There is yet unclear dialectal and allophonic variation of /s~sʰ~ɕ/, /tɕ~ts~s/ and /j~dʑ~ʑ/. These phonemes are transcribed here as *s, tɕ* and *j* respectively. Nasal consonants contrast voiced pronunciation with the voiceless or, more frequently, aspirated counterpart. Unlike Monsang, there are no syllabic nasals.

3 The inventory of person-indexing forms

3.1 *The primary inventory of person indexing forms*

The most frequent and regular person indexing forms in Anal are shown in Table 1.

	independent pronoun		prefix	suffix
	singular	plural		
1	*ní*	*ní-hín*	*kà-*	*-niŋ*
INCL	*àní/nàní*	*àní-hín /nàní-hín*	*nà-*	*-sin*
2	*náŋ*	*náŋ-hín*	*à-*	*-ti*
3	*àmá*	*àmá-hín*	*và-/-*	*-*

Table 1 - Person indexing forms

The column of independent pronouns presents the basic, formally singular forms of pronouns in Anal. The plural form is formed by the addition of the regular nominal plural marker *-hin*, which copies the tone of the preceding syllable. All pronouns carry the high tone on their last syllable, hence plural forms terminate high: *ní-hín, àní-hín* etc.

When the possessive pronominal prefixes attach to a noun, the plural marker *-hin* can refer either to the possessor or the possessed, the form itself being ambiguous.

(1)   *ka-lù-**hín***
        1-friend-**PL**
        '**Our** (EXCL.) friend' or '**My** friend**s**' or '**Our** (EXCL.) friend**s**'

The plural of the 1SG *ní-hín* indicates 1PL.EXCL (i.e. 'we, including the speaker and others, but not the listener'). The singular form is clearly cognate with Lamkang *nəy* 'I' and related to a few forms in Naga Belt languages yet is exceptional otherwise (DeLancey 2018).

The notation INCL in tables refers to what is commonly called 1DU.INCL, namely 'you and me'. This notation is used here to emphasize that from the form-oriented point of view these are neither 1st-person nor plural forms, but singular forms that denote the speaker and the interlocutor (cf. e.g. Cysouw 2005:73). The plural of these forms, such as the independent pronoun *àní-hín* indicates a larger group to which the speaker and the interlocutor belong (i.e. 1PL.INCL).

There are two competing forms of the independent INCL pronoun, with or without the initial nasal: *àní/nàní*. The difference between the two is yet unclear; they are found interchangeably in the speech of both genders from all generations and dialects with no clear meaningful, contextual or socio-pragmatic difference. Both disyllabic pronouns appear to represent a compound, the constituents of which are yet to be identified. Its final syllable *-ni* is similar to plural markers in South-Central and in Southern Chin, as well as other branches of the language family (DeLancey 2018, 2019). However, there is no synchronically identifiable related plural marker in Anal. A tempting common connection to the numeral 'two' also does not hold from the language-internal view, since 'two' in Anal is *a-nʰə̀*.

Independent 2SG and 3SG pronouns are typical for the languages of the branch.

The prefixal paradigm is used as possessive markers and as person indices in nominalized verbal forms, which are some affirmative transitive non-future forms and subordinated nominal forms (described in Section 4.3.2). This set of prefixal forms is known from other SC languages, but Anal demonstrates a peculiar shift in this regard. The form *na-* is commonly known as the 2nd person marker and derived from the pronoun *náŋ*. However, this prefix is the INCL in Anal. The 2nd person is indexed by the prefix *a-* which corresponds to the 3rd person marker in other languages, as well as to the Anal free 3rd pronoun *àmá*. Hence, the prefixal paradigm in Anal underwent a double shift, whereby the original 2nd person marker indicates INCL, while 3rd person marker shifted to index the 2nd person. The paradigm has also an innovative 3rd person form *va-*. Its origin is language-internally unclear, but may be related to the demonstrative pronoun *wa* in Lamkang (Thounaojam and Chelliah 2007:45).

Vowel-lengthening of SAP prefixes (i.e. *kaː, aː*) appears across all the transitive paradigms, indexing the NON-AGENTIVE role of the referent. Since the prefix is clearly nominal, this usage in purely verbal forms discussed in Section 4.3.1 is probably a later analogy of all the verbal paradigms to the nominalized transitive forms (discussed in 4.3.2). In 3rd person forms, the prefix *va-* is the possessive prefix and the agentive marker in transitive paradigms but has no lengthened counterpart: the non-agentive 3rd person is a zero. In INCL the non-agentive lengthened form has the high tone, while the short form is low. The origin of this peculiar non-agentive (or "inverse") marking is unclear.

	possessive/agentive prefix	non-agentive prefix
1	*kà-*	*kàː-*
INCL	*nà-*	*náː-*
2	*à-*	*àː-*
3	*và-*	-

Table 2 - Possessive/agentive vs. non-agentive prefixes

The set of suffix forms in Table 1 mostly demonstrates a variation on the commonly known archaic suffixes of the SC branch. An exception here is the INCL suffix *-sin,* which has no known parallels in the branch. However, it is reminiscent of the INCL suffix *-si* proposed for PTH (Bauman 1975). At any rate, the diachrony of the form is yet to be studied. Section 5 below briefly discusses the historical sources of the suffixes. 3rd person has no explicit suffix.

The last set of forms to be briefly mentioned here is deictic suffixes that distinguish location relative to the interlocutors: *-he* indicates 'this' next to the speaker (glossed as 'this.1' in (27) below) and *-e* points to an object near the listener. The deictic form that refers to an object away from the participants is *-le.*

Remarkably, socio-pragmatic motivations allow to employ person-indexing forms with a modified reference supplemented by an interactional meaning. In particular, INCL is commonly used to refer to the speaker alone, appealing to the listener's empathy.

(2)   *The woman is complaining about her age and health to her younger sister.*
         sùm-təkʰə́-tərúːˀ   *ì-váŋ-vá-**sìn**=to*
         ten-seven-six   NMLZ-go-COP-**INCL**=SEQ
         'Now I (literally: **you and me**) became 76 years old…' (anm_20160924_Thotson_gr_1
         7'35'')

Besides, INCL indexation is used to refer to 'our people', namely tribe or clan members, and in generic interlocutor-involving statements (akin to 'impersonal *you*' in English).

3.2   Plural marking

The nominal plural suffix in Anal is *-hin.* In verbal forms there are three different plural suffixes found:

   i.   the same form *-hin* is used for Speech Act Participant (SAP)-indexing on verbs
   ii.   *-je* is 3rd person plural marker
   iii.   *-kʰin* is a special plural suffix used in imperatives (see 3.4 below).

Example (3) shows the marker *-hin* referring to an SAP:S-argument, (4) to an SAP:A-argument and (5) to a SAP:P-argument. Notice that since (4) is a 2→1 scenario, the plurality could relate to any of the participants or to both. The disambiguation in this case is contextual.

(3)   *tɕə́ːˀ-ká-**hìn**-nìŋ*
         go-AFF-**PL**-1
         '**We** (EXCL.) go/went'

(4)   *kà-ː-kà-vá-**hín**-tí=mo*
         1-NON.AG-shoot.2-COP-**PL**-2=DUB.Q
         'Are you (**PL**.) really shooting at me?' (anm_20151202_PO_Anthung_2_Folkstory
         5'48'')

(5)   *à-:-i-tɕá:ʔ-ná-rʰàŋ-**hìn***   *dɜ̀-nà-ká*
      2-NON.AG-NMLZ-eat₂-FUT-PURP-**PL**   do-FUT-AFF
      'He will try to eat you (**PL**.)' (lit: 'He will do in order to eat you.')
      (anm_20151202_PO_Anthung_2_Folkstory 60)

The verbal plural marker of 3ʳᵈ person in any semantic role is *-je*. In (6) the plural 3ʳᵈ person referent has the S role, in (7) – A-role, in (8) – P-role. In this case, (8) is formally (but not contextually) ambiguous and could indicate the plurality of the A-referent, or both A and P.

(6)   *và-tɕà-**jé***
      go-PERF-**PL**
      '**They** went away.' (anm_20151202_PO_Anthung_2_Folkstory 67)

(7)   *mĩ̌=té*   *kà-:-má-sú-**jè**-nù̀*
      person\ERG=CNTR   1-NON.AG-leave-DISTR-**PL**-N.FUT
      '**All the people** left me behind.' (anm_20151123_Solhring_PO_Mithun 29)

(8)   *bú̌.tɕé*   *pɜ-bá:l-ʈɔ́:-**jè**-nù̀*
      raw.rice   CAUS-eat.with.palm-AUG-**PL**-N.FUT
      'He fed **them** with a lot of raw rice.' (anm_20151202_PO_Anthung_2_Folkstory 84.1)

Marking of plurality is optional with 3ʳᵈ person, as (9) shows. It also appears to be optional in some SAP cases, such as (53) below where the addressee is non-human.

(9)   *sinnú=te*   *sá-mí*
      woman=SEQ   sing-3NEG
      'The women did not sing.' (discussing how in older times people used to work in the field). (anm_20160221_Tohnuwng_PO_5_threshing_tunes 1)

Finally, in SAP:PL→3:PL scenarios some speakers produce in elicitation forms where the two markers *-hin* and *-je* follow each other. Other speakers reject this combination or find it very awkward, preferring only the SAP:PL marker *-hin* in this case. The latter forms can be seen in the tables in the appendix.

3.3 Marginal person indexing forms

Person-indexing forms briefly summarized in this section and given in Table 3 are restricted to a limited number of constructions.

		suffix	
1	*length and-or tone*		
INCL	*-tɕɜka/tone*		*(-suŋ)*
2	*zero*		
3	*-ni/-(m-)i/*		*-so*

Table 3 – Marginal person indexing forms

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Marking of 1ˢᵗ person by tone and length is found in one verbal form (*nɨ*-past) and is discussed in Section 4.3.1.3 below (see Ozerov 2018 for a detailed description). In addition, marking along similar lines – namely by shifting low tone to high and lengthening an open syllable – is optionally found in the subordinate irrealis forms of INCL. The regular marking by the INCL suffix followed by the irrealis subordinator is also attested in this case and the difference between the two is unclear. Both can be seen in (10).

(10)   *và-**sìn**-suŋ*   vs.   ***vá:**-suŋ*
        go- **INCL**-SAP.IRR.SUB   go\ **INCL**-SAP.IRR.SUB
        'We will go and…'

Subordinate irrealis forms are also remarkable for having a different subordination marker for SAP vs. 3ʳᵈ person forms, namely *-suŋ* vs. *-so.* However, the latter is found also in other forms such as jussive and some future forms as a proper 3ʳᵈ person marker. These forms are further discussed in Section 4.4.

A special INCL form *-tɕəka* is found in future forms. The cross-linguistically and pragmatically non-surprising source of this form is the hortative marker.

(11)   *dá:ʔ.tuŋ*   *sù-tɕəka*
        how   look-INCL.FUT
        'How will we find out?' (anm_20151202_PO_Anthung_2_Folkstory 127.2)

Synchronically the form *-tɕəka* is exceptional because of being a sesquisyllabic grammatical morpheme (see Section 5   for the discussion of its diachronic sources). It occurs only in affirmative forms, while the negated form is the regular INCL suffix in both hortative and future, as the minimal pair in (46) below demonstrates.

One of the future paradigms is unusual due to the 2ⁿᵈ person being the "bare" minimal form with no overt suffix, while the 3ʳᵈ person is marked by the outlier suffix *-so* mentioned above (see Section 4.4). An additional 3ʳᵈ person or restricted paradigmatic distribution is *-ni*. Finally, the negation marker of 3ʳᵈ person is a special portmanteau form *-mí* (see Section 4.4). Both are probably diachronically related to the former copula *ni* (see Section 5   ).

3.4   Forms indirectly related to person-indexing

There are additional forms related to person indexation in a less direct way, namely cislocative, imperative, nominalisers and reflexive verbal markers. These forms are briefly presented here due to their importance in verbal paradigms as well as their potential relevance for cross-linguistic parallels and historical reconstruction of person-indexing (e.g. inverse markers). The forms overviewed in this section are summarised in Table 4.

a-	transitive imperative prefix
va-	intransitive imperative prefix
root reduplication (+má NEG)	negated imperative
a-	cislocative
a- *pə-*	meaningless prefixes necessarily used with some roots
i-	nominalizer: (i) verbal noun (ii) A/S-referent (~S/A-indexing relative clause)
i-	passive, reflexive, reciprocal prefix
na-	P-referent nominalizer (~ P-indexing relative clause)

Table 4 - Morphology indirectly related to person-indexing: Summary

Imperative forms have a prefix attached to the stem: *a-* for transitive verbs (12) and *va-* for intransitives (13). Negated imperative is formed by root reduplication followed by the negative marker *má* (13). Imperative forms have their own plurality marker *-kʰin* (12)–(13), which can mark the plurality of any argument (14).

(12)   **à-kʰòŋ-ró:ˀ-kʰin**
         IMP.TR-smash-BROKEN-**IMP.PL**
         'Smash (PL.) him!' (anm_20160227_Thungno_Jalngam_2_Tingkingtingtang 78)

(13)   **va-sìŋ-kʰín!**   sà:n   **í:-í:-má-kʰín!**
         IMP.INTR-clever- **IMP.PL**   night   sleep-**RDP**-NEG-IMP.PL
         'Be clever! Do not sleep in the night!' (anm_20151202_PO_Anthung_2_Folkstory 61)

(14)   *kà:pətʰékʰín*
         *kà-:-**a**-pə-tʰé-**kʰín***
         1-NON.AG-**IMP.TR**-CAUS-see-**PL**
         'Show (SG.) it to **us**.' (anm_20160906_PO_ACIsp_1)

In fact, (14) demonstrates a common problem with prefixal forms in Anal verbs. Vowel length has an important functional load in this slot marking agentive vs. non-agentive role of SAP referents. However, there are also a few homonymic *a*-prefixes that can follow the person marking and lengthen it as a result. Since vowel length is binary (short vs. long), a long prefix vowel can "hide" more than a single reason for its lengthening. This is the case in (14), where the long vowel of the first syllable [ka:] reflects three morphemes: 1SG prefix *ka-*, lengthening indicating its non-agentive role (*to me/us*) and the transitive-imperative *a*-prefix.

A different *a*-suffix is also indirectly related to person marking and indicates the *cislocative*. This category is found only with 6 directional motion verbs that designate movement with respect to altitude (up, plain, down) and permanence of stay in the destination (home vs. occasional destination). There is a cognate marker in Lamkang (Chelliah and Utt 2017).

(15)   *húŋ-tɕa*
         go.UP.PERM-PERF
         'He has gone (upwards, home)'

(16)   **à-*húŋ-tɕà***
         CIS-go.UP.PERM-PERF
         'He has come (up, home, towards the speaker's location or a centre of concern).'

A variation on this set of directional verbs can function as prefixes, modifying the directional orientation of a verb. This results again in a potential overlap of non-agentive and cislocative which both merge in a single long vowel. In (17) the vowel length of the initial 2nd person prefix "hides" both the non-agentive prefix due to the P-role of the addressee (*visit you*) and the cislocative marker that precedes the directional motion verbal prefix *jú* 'go down, temporarily'.

(17)   *à:júpúkʰóːˀjáːˀléhìnnìŋ*
         *à-ː-**a-jú**-pú-kʰóːˀ-jáːˀ-lé-hìn-nìŋ*
         2-NON.AG-CIS-go.DOWN.TEMP-drop.by-UNEXP-just-FUT-PL-1
         'We (EXCL.) will just **come down** over **here** (temporarily) to **visit you** at some point.'
         (anm_20160220_Thumri_PO_1 13'23'')

Interestingly, the imperative of directional motion verbs is the bare verb (and has no intransitive imperative suffix *va-*), while the *a*-prefix (homonymic to the transitive imperative prefix) is used as cislocative in this case. This is true also for verbs with directional prefixes: the imperative of these verbs has no intransitive/transitive imperative prefix *a-/va-*. Instead, the *a*-prefix is the cislocative marker and not the imperative prefix. Consider (18) where there is no imperative prefix, because the transitive verb 'call' is accompanied by the directional prefix *jú-* 'go.DOWN.TEMP'. The speaker in (18) sends the addressee *away* with a task. The prefix *a-* would function as the cislocative (and not as a transitive imperative), meaning that the commanded action is to be directed *towards* the speaker.

(18)   *jú-òːn-kʰìn*
         go.DOWN.TEMP-call-PL
         'Go (down, for a while) and call him!' (anm_20160221_Sharingla_PO_1 38)

It is tempting to propose that the cislocative is the source of the non-agentive ("inverse") marker of vowel lengthening, but the issue requires further research.

Finally, a homonymic meaningless prefix *a-* always appears before the root throughout the conjugation of certain verbs ("*a*-verb class"). In these verbs this *a*-prefix is also the first constituent to follow the person marking prefixes *ka-/na-/a-/va-*. As a result, their person prefixes are inherently lengthened. Consequently, the categories expressed by homonymic *a*-prefixes or vowel length are disambiguated in *a*-verbs only contextually. For example, agentive and non-agentive roles of SAP referents are phonetically identical in *a*-verbs, as is the case for *(a)-lʰàm* 'search'. Both examples (19) and (20) are realized as *kàːlʰámmàŋ*.

(19)   *kà:lʰámmàŋ*
        kà-a-lʰám-màŋ
        1-**PREF**-search.2-CONT
        '**I** am looking for **him**.'

(20)   *kà:lʰámmàŋ*
        kà-:-a-lʰám-màŋ
        1-**NON.AG-PREF**-search.2-CONT
        '**He** is looking for **me**.'

Other verbs have an inherent meaningless prefix *pə-* throughout their conjugation, homonymic to the causative prefix. However, these verbs are not necessarily causative (e.g. *pə-hól* 'big')

Another form that represents a few homonyms is the prefix *i-*. One of these homonyms is a nominaliser occurring with Stem-1 verbal forms. It is used to derive an event referring noun (e.g. *i-lʰàm* 'searching'). This can function as a regular noun in the sentence or to complement a verb.

A similar form *i-* is also used to derive participant reference. With intransitive verbs it results in an S-referring noun, which can stand alone or accompany a noun attributing a quality to it (corresponding to an adjective or a relative clause in translation).

(21)   *imàl táŋná à:tɕò:lva*
        i-màl   *táŋná* *à-a-tɕò:l-va*
        NMLZ-fat   very   IMP.TR-PREF-choose-COP
        'Choose **the fattest one**!' (anm_20160227_Thumhring_Thangwar_2 106)

(22)   *sá*   *i-tʰə̀*
        animal **NMLZ**-die
        'A dead animal, an animal that died' (anm_20152111_Ngahring_WB_frog and jackal 7)

With transitive verbs it derives an A-referring noun.

(23)   *i-he-má=tǔ:=te*
        NMLZ-know-NEG=BCKGR=CNTR
        'As for those **who don't know** [it]' (Anm_20160808_group_Thangwar 134)

(24)   *và-ṭá-na-pum*   *bɨ́*   *i-tɕá=te*   *dá:ˀ*   *va*
        3-cry₂-LOC-along.with   rice   **NMLZ-eat**=CNTR   what   COP
        '**The thing that eats** while crying – what is it?'
        (anm_20151216_10_Ngahring_WB_riddles 10)

Accompanied by SAP possessive prefixes, the outcome is that of a referent acting on SAP; with an accompanying noun it corresponds to an A-indexing relative clause.

(25)   *ka-i-bùm*   *sinnɨ́*
        1-**NMLZ**-help   woman
        'The woman **who helps me**' (=*My helper, the woman*)

It appears that for some speakers, the possessive verbal prefix in this form shifted to the non-agentive suffix with the long vowel (i.e. *kaː-i-bum* in (25)). Interestingly, 3rd person form has no possessive prefix in this case.

(26)   **i-bum**   *sinnɨ́*
       NMLZ-help   woman
       'The woman **who helps him** (=*The helper, the woman* – not ***His** *helper*)

The prefix for the opposite, direct scenario (where the referent of the overall form and of the accompanying noun has the P-role) is *na-*. However, in this case the 3rd person is referred to by the possessive prefix *va-*.

(27)   *ka-**na**-tɕá-he*
       1-**DIR**-eat-this.1
       'The things that I ate.' (anm_20152111_Ngahring_WB_frog and jackal 26)

(28)   *tɕaʈàŋ*   *va-**na**-pʰí-to*
       unprocessed.rice   **3-DIR**-dry-ABS
       'The rice that people dry' (anm_20160227_Thumhring_Thangwar_2 34)

Finally, a similar *i-* prefix followed by Stem-1 with the regular verbal conjugation morphology derives passive, reflexive and reciprocal meaning. The form for these meanings is one and the same, and the disambiguation is contextual.

(29)   **i**-*lò-sín-súŋ*   *lʰo*   *a-tʰúː-tɕəka*
       RECP-love-INCL.SUB.IRR.SAP friend   PREF-become-INCL.FUT/HORT
       'We will become "*lʰo*" friends and love **each other**!' (anm_20160221_Pethun_1_Folk story 10)

4 Person marking across different paradigms

4.1 Overview

This section outlines the conjugation patterns across the complex verbal system of Anal. The description covers the primary issues relevant for person-indexation, its forms and their location. It is obviously non-exhaustive.

Transitive and intransitive verbs behave differently in some affirmative non-future forms. In these cases where their conjugation is dissimilar, transitive verbs have Stem-2 based nominalized conjugation, while intransitive verbs have Stem-1 based forms with affirmative marker *-ka* (and some other TAM markers in its place). In these dissimilar paradigms, the intransitive and transitive classes have each their own TAM-markers not found with the other class. Otherwise, transitives and intransitives use Stem-1 and employ identical TAM-markers and paradigms. With Stem-1 forms, transitive verbs in 3:P scenarios are identical to intransitive verbs. In all forms but one the person

markers follow the TAM suffixes. The exception is the *nʉ*-paradigm where the person markers directly follow the stem, preceding the TAM *-nʉ.* This is summarized in Table 5.

	intransitive	*transitive*	*negation (*-má*)*
generic non-future	Stem₁-PERSON-nʉ		Stem₁-PERSON-má-nʉ́
non-future	Stem₁-TAM-PERSON	PERSON-Stem₂-TAM-PERSON	Stem₁-má-(TAM)-PERSON
future (-na*)*	Stem₁-na-ka-PERSON		Stem₁-na-má-PERSON

Table 5 - Overview of conjugation system

As a separate member in the verbal system stands the copular verb *vá*. It differs in many respects from other verbs.

4.2 Copula

The copula in Anal is *vá*. Its conjugation is shown in Table 6. The copula constitutes a verbal class on its own for a number of reasons. The two primary differences are as follows.

i. It is the only form to which the person-indexing suffixes attach directly with no additional suffixes involved.
ii. It is the only form where the negator *má* is a prefix (as is the reconstructed form) and not a suffix (as it is in all other verbs).

		affirmative		negated	
		SG	PL	SG	PL
1		*vá-níŋ*	*vá-hín-níŋ*	*má-vá-níŋ*	*má-vá-hín-níŋ*
	INCL	*vá-sín*	*vá-hín-sín*	*má-vá-sín*	*má-vá-hín-sín*
2		*vá-tí*	*vá-hín-tí*	*má-vá-tí*	*má-vá-hín-tí*
3		*vá*	*vá-jé*	*má-vá*	*má-vá-jé*

Table 6 – Conjugation of the copula *va*

In some dialects the pronunciation of the copula is *pá*. In some varieties the copula in SAP forms is absent, and the person-indexing suffixes "stand alone".

(30)   *akʉ̀   ti?*   (dialectal, instead of *vá-tí*)
       who   2
       'Who are you?'

(31)   *tɕẽ̀:kʰu-ki*   *niŋ*   (dialectal, instead of *vá-níŋ*)
       Cheengkhu-from   1
       'I am from Cheengkhu village.'

4.3   Person indexing in primary TAM paradigms

4.3.1   Stem-1 based forms

   Verbal forms that employ Stem-1 mostly exhibit similar conjugation principles both in transitive and intransitive verbs (with the exception of the paradigms described in Section 4.3.1.1). The suffixes mark the A/S-argument. The prefixes mark the P-referent and hence are found only in transitive verbs. The prefixes are the set of the lengthened nominal possessive prefixes, apparently borrowed from Stem-2 based conjugation, where they indicate the non-agentive role of the indexed referent. However, unlike Stem-2 based forms, 3rd person is unmarked (or zero-marked) in both

$$(P - \text{:}) - Stem_1 - S/A$$

1	*ka:-*
1DU	*ná:-*
2	*a:-*
3	-

transitive only

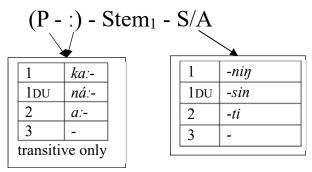| 1	*-niŋ*
1DU	*-sin*
2	*-ti*
3	-

Figure 1 – Stem-1 pattern

prefixal and suffixal slots. Consequently, 3:P transitive forms and intransitive verbs are alike. This can be summarized as follows.

   This indexation is not hierarchical. The only way in which SAP-reference is treated preferentially relative to 3rd person is in having explicit affixes and not a zero (cf. Bickel et al. 2015 for Watkins' law). As will be shown below, Stem-2 based conjugation is radically different in this respect: it does treat the SAP-indexation preferentially, employing non-agentive/inverse marking to indicate the agentive vs. patient role of the SAP referent.

   The following subsections outline the primary paradigms that fit this overall pattern, as well as the peculiarities of person and number marking in each.

4.3.1.1   ka-*forms*

   Forms based on the suffix *-ka* use Stem-1 and express affirmative non-future in intransitive verbs. There is no counterpart of this form in transitive verbs, since it apparently has been replaced by nominalized conjugation with Stem-2 (cf. the grey cell in Table 5). The regular person markers follow the suffix *-ka*; the plural marker occurs between *-ka* and the person-indexing suffix. The tone of the first suffix copies the tone of the last syllable of the stem. The tone of the rest of the suffixes is the opposite of this tone (tonal polarity). 3rd person is unmarked. Low and high tone forms are as follows.

		t̪ʰà 'be good'		*tɕɔ́:ʔ* 'go, walk'	
		SG	PL	SG	PL
1		*t̪ʰà-kà-níŋ*	*t̪ʰà-kà-hín-níŋ*	*tɕɔ́:ʔ-ká-nìŋ*	*tɕɔ́:ʔ-ká-hìn-nìŋ*
	INCL	*t̪ʰà-kà-sín*	*t̪ʰà-kà-hín-sín*	*tɕɔ́:ʔ-ká-sìn*	*tɕɔ́:ʔ-ká-hìn-sìn*
2		*t̪ʰà-kà-tí*	*t̪ʰà-kà-hín-tí*	*tɕɔ́:ʔ-ká-tì*	*tɕɔ́:ʔ-ká-hìn-tì*
3		*t̪ʰà-ká*	*t̪ʰà-kà-jé*	*tɕɔ́:ʔ-ká*	*tɕɔ́:ʔ-ká-jè*

Table 7 – Intransitive *ka*-paradigm

Examples below illustrate selected forms with glosses.

(32) *t̪ʰà-ká*
 good-AFF
 'He is good.'

(33) *t̪ʰà-kà-jé*
 good-AFF-3PL
 'They are good.'

(34) *t̪ʰà-kà-níŋ*
 good-AFF-1
 'I am good.'

(35) *t̪ʰà-kà-hín-níŋ*
 good-AFF-PL-1
 'We (EXCL) are good.'

(36) *tɕɔ́:ʔ-ká-hìn-nìŋ*
 go-AFF-PL-1
 'We (EXCL) go.'

Affirmative future is formed by adding the suffix -*na* to *ka*-forms (except for affirmative SAP forms).

(37) *t̪ʰà-nà-ká*
 good-FUT-AFF
 'He will be good.'

However, compared to non-future *ka*-forms, future forms differ in the location of the plural suffix: it follows the affirmative marker -*ka* in non-future, but occurs immediately after the stem in future forms: compare (33) and (38).

(38)   *ʈʰà-**jè**-ná-kà*
        good-3PL-FUT-AFF
        'They will be good.'

Affirmative SAP future forms are irregular. INCL has its own exceptional suffix *-tɕəka*, originally a hortative, shown above in (11) for future and (46) for hortative.

1ˢᵗ and 2ⁿᵈ person forms have the regular person indexing, but irregular future marking. Instead of the regular suffix *-na*, the future is marked by shifting the low stem tones to high tone and lengthening short open vowel stems (Ozerov 2018). Compare non-future (34) and future (39).

(39)   *ʈʰá:-kà-níŋ*
        good\SAP.FUT-AFF-1
        'I will be good.'

In plural forms, the shift to the high tone affects the plurality marker *-hin* as it is this constituent that would precede the future marker *-na*. Since closed syllables do not lengthen, the shift affects only the tone of *-hin*. As a result, it is primarily the different position of the plurality marker that becomes the primary cue for the non-future vs. future difference in SAP forms as (40) and (41) show.

(40)   *ʈʰà-**kà**-**hín**-níŋ*   *vs.*   *ʈʰà-**hín**-**ká**-níŋ*
        good-AFF-PL-1   good-PL\FUT-AFF-1
        'We (EXCL) are good.'   'We (EXCL) **will** be good.'

(41)   *tɕɔ́:ʔ-**ká**-**hìn**-nìŋ*   *vs.*   *tɕɔ́:ʔ-**hín**-**kà**-nìŋ*
        go-AFF-PL-1   go-PL-AFF-1
        'We (EXCL) go.'   'We (EXCL) **will** go.'

Remarkably, phonotactic considerations alone do not solve the anomaly of future SAP-forms, since identical morphological and phonetic environment in 3ʳᵈ person forms and in the negated paradigm (see Section 4.3.1.2) does not trigger the omission of *-na* and the tone-length shift.

Table 8 summarizes the future forms.

	ʈʰà 'be good'		tɕɔ́:ʔ 'go, walk'	
	SG	PL	SG	PL
1	*ʈʰá:-ká-níŋ*	*ʈʰà-hín-ká-níŋ*	*tɕɔ́:ʔ-ká-nìŋ*	*tɕɔ́:ʔ-hín-kà-nìŋ*
INCL	*ʈʰà-tɕəká*	*ʈʰà-hín-tɕəká*	*tɕɔ́:ʔ-tɕəkà*	*tɕɔ́:ʔ-hín-tɕəkà*
2	*ʈʰá:-ká-tí*	*ʈʰà-hín-ká-tí*	*tɕɔ́:ʔ-ká-tì*	*tɕɔ́:ʔ-hín-kà-tì*
3	*ʈʰà-nà-ká*	*ʈʰà-jè-ná-ká*	*tɕɔ́:ʔ-ná-kà*	*tɕɔ́:ʔ-jé-nà-kà*

Table 8 – *ka*-future

The future of transitive (and ditransitive) forms is formed in the same way by adding the *-na* suffix to a *ka*-based form. Since synchronically there are no *ka*-based forms for transitive non-future

verbs (but nominalized forms of Stem-2), this future form unity for transitive and intransitive verbs suggests a former stage of the language where non-future transitive forms were Stem-1 *ka*-based forms, too. The regular person-indexing suffixes mark the A-referent. The P-referent is indexed by the lengthened possessive prefix in SAP:P scenarios, presumably in an analogy to nominalized paradigms. Tables in the appendix summarize the issue and some examples below demonstrate selected forms.

(42)   *dáːˀ*   ***à-ː-péː-ká-níŋ***
        what   **2-NON.AG**-give**FUT.SAP-AFF-1**
        'What shall I give you?' (anm_20151202_PO_Anthung_2_Folkstory 142.1)

(43)   *mí-dáːˀ-dáːˀ*   ***kàː-pəke-na-ka***   ***kàː-tɕá-ná-kà***
        person-what-RDP   **1-NON.AG**-bite-**FUT-AFF**   **1-NON.AG**-eat-**FUT-AFF**
        'Somebody will bite me, will eat me.'
        (anm_20160227_Thungno_Jalngam_2_Tingkingtingtang 32)

3P is not marked by the prefix *va-*, but is unmarked. Hence, the forms are similar to intransitive paradigms in Table 8.

(44)   *nalʰá*   ***líː-kà-niŋ***
        unmarried.woman   **take****SAP.FUT-AFF**-1
        'I will take a wife.' (anm_20160227_Thumhring_Thangwar_2 38)

(45)   *abǔ̀ː-tɕú-to*   *tɕá-**ná**-kà*
        tree(type)-fruit-ABS   eat-**FUT**-AFF
        'They will eat fruits.' (anm_20160221_Sharingla_PO_1 60)

4.3.1.2   Negated forms (excluding negated nɨ-*forms)*
       Negated forms use Stem-1 and are the same for both intransitive and transitive verbs. They look identical to *ka*-forms with the negator *-má* occupying the place of the marker *-ka*. The negator carries its own high tone which spreads to all the following toneless suffixes. In future forms, *-na* precedes the negator. Unlike affirmative forms, the plural marker is found after the negator (similarly to affirmative non-future) also in future forms.
       The set of person-marking suffixes in negated forms is the regular set from Table 1. Moreover, also the INCL form in negated future is the regular INCL *-sin* and not the originally hortative *-tɕəka*. Negated future SAP-forms have the regular future marker as the minimal pair in (46) and (48) demonstrate. Notice the difference in (46) between the negated form (the regular INCL suffix) and the affirmative form with the special INCL marker *-tɕəka*.

(46)   *a.tʰù-há=te*   *júŋ-tɕún-ná-**má**-hín-**sín***.
        downwards-to=SEQ   DOWN.PERM-run-FUT-**NEG**-PL-**INCL**
        a.tʰó-túŋ-há   *húŋ-tɕún-hín-**tɕəka***
        upwards-side-to   UP.PERM-run-PL-**INCL.FUT**
        '**Let's not** run downhill, **let's** run uphill.' (anm_20151123_Solhring_PO_Mithun 22)

Suffixes mark the A/S-referent; P-referents in transitive verbs are marked by the lengthened possessive suffixes; 3P is unmarked. Examples (47)–(49) demonstrate the usual person-indexing in negated verbal forms.

(47) *amá   sinpá   pəmʰàl-tɕà-ʈə́:ˀ-**má**-níŋ*
       this   man   forget-POL-AUG-**NEG**-1
       'I never forgot that man.' (anm_20151123_Solhring_PO_Mithun 27, simplified)

(48) *pè:sùnmá pətɕằ:nàmáhíntí*
       pə-i-sùn-má   *pətɕằ:-nà-**má**-hín-tí*
       PREF-NMLZ-urinate-NEG   be.able-FUT-**NEG**-PL-2
       'You (PL) will not be able not to urinate.' (anm_20160221_Sharingla_PO_1 124)

(49) *à-:-tʰì-**má**-níŋ*
       2-NON.AG-see-**NEG**-1
       'I don't see you.'

The only exceptional suffix in negated forms is the special negator used with 3ʳᵈ person, which is *mí* (see Section 5 for its possible origin).

(50) *à-vàŋ-lé-**mí***
       CIS-go.PLAIN.PERM-return-**3NEG**
       'It will not return.' (anm_20151216_10_Ngahring_WB_riddles 55)

(51) *nà:tɑ̃̌: dá:ˀ.rá amìn**mí***
       nà-a.tɑ̃̌:   *dá:ˀ.rá*   *a-mìn-**mí***
       INCL-trap   nothing   PREF-be.trapped-**3NEG**
       'Nothing has been caught in our trap.' (anm_20160221_Sharingla_PO_1 24)

(52) *à-:-tʰì-**mí**-jé*
       2-NON.AG-see-**3NEG**-PL
       'They do not see you.'

The negated paradigm is summarized in Table 9. The forms are of non-future forms, i.e. without the suffix *na-*. The table shows the intransitive forms, identical to transitive 3:P.

	ʈʰà 'be good'		*tɕə́:ˀ* 'go, walk'	
	SG	PL	SG	PL
1	*ʈʰà-má-níŋ*	*ʈʰà-má-hín-níŋ*	*tɕə́:ˀ-má-níŋ*	*tɕə́:ˀ-má-hín-níŋ*
INCL	*ʈʰà-má-sín*	*ʈʰà-má-hín-sín*	*tɕə́:ˀ-má-sín*	*tɕə́:ˀ-má-hín-sín*
2	*ʈʰà-má-tí*	*ʈʰà-má-hín-tí*	*tɕə́:ˀ-má-tí*	*tɕə́:ˀ-má-hín-tí*
3	*ʈʰà-mí*	*ʈʰà-mí-jé*	*tɕə́:ˀ-mí*	*tɕə́:ˀ-mí-jé*

Table 9 – Negated paradigm

4.3.1.3 nʉ-*non-future*

The exact meaning of this TAM-paradigm and its difference relative to other non-future forms are yet unclear. From the point of view person-indexing, this paradigm has two peculiarities:

i. it is the only form where the person marking immediately follows the verbal stem and precedes the TAM suffixes as can be seen in (53).
ii. 1ˢᵗ person is marked by the tone-length shift along the lines outlined above for future marking (Ozerov 2018).

Otherwise, the indexing principles are the regular for Stem-1 based paradigms: only SAP forms have explicit marking; A/S-referents are marked by suffixes; SAP:P are expressed by lengthened prefixes. The plural marker follows the stem and precedes the person marker. This is represented in Table 10 for intransitive verbs. Transitive 3:P verbs are identical.

		tʰà 'be good'		*tɕɔ́:ˀ* 'go, walk'	
		SG	PL	SG	PL
1		*tʰá:-nʉ́*	*tʰà-hín-nʉ́*	*tɕɔ́:ˀ-nʉ̀*	*tɕɔ́:ˀ-hin-nʉ̀*
	INCL	*tʰà-sìn-nʉ́*	*tʰà-hìn-sín-nʉ́*	*tɕɔ́:ˀ-sín-nʉ̀*	*tɕɔ́:ˀ-hín-sǐn-nʉ̀*
2		*tʰà-tì-nʉ́*	*tʰà-hìn-tí-nʉ́*	*tɕɔ́:ˀ-tí-nʉ̀*	*tɕɔ́:ˀ-hín-tì-nʉ̀*
3		*tʰà-nʉ́*	*tʰà-jè-nʉ́*	*tɕɔ́:ˀ-nʉ̀*	*tɕɔ́:ˀ-jé-nʉ̀*

Table 10 – *nʉ*-paradigm

Examples (53)–(57) additionally illustrate the transitive and intransitive forms accompanied by glosses.

(53) *pè.na* **kà-:-pè-já:ˀ-tí-nʉ̀**
words **1-NON.AG**-give-JUST-**2-NON.FUT**
'You gave us the information.' (anm_20151202_PO_Anthung_2_Folkstory 141)

(54) *à-ùŋ-lellól-**jé-nʉ́***
PREF-sit-OPENLY-**PL-NON.FUT**
'They were sitting well-visible.' (anm_20151202_PO_Anthung_2_Folkstory 104)

(55) **kà-:-má-sʉ́-jé-nʉ̀**
1-NON.AG-leave.behind-DISTR-3**PL-NON.FUT**
'All the people left me behind.' (anm_20151123_Solhring_PO_Mithun 29)

(56) *nà-nʉ́*   *mí-tʰùm=páŋ*   **ná-:-má-hín**-*nʉ̀*
INCL-mother   person-three=exactly   **INCL-NON.AG**-leave.behind-**PL-NON.FUT**
'Our mother left behind just three of us.' (anm_20160220_Thumri_PO_1 12'17'')

(57) *náŋ   nəlí   **à-ː-sə́ː-nὺ***
      2   task   **2-NON.AG**-send**1-NON.FUT**
      'I sent you with a task.' (anm_20151202_PO_Anthung_2_Folkstory 140)
      (*sə̀* – 'send')

Remarkably, in closed syllables the minimal difference of 1st and 3rd person forms is reduced to tonal marking. Low stems shift to high in 1st person.

(58) *ʈùŋ-nύ*   vs.   ***ʈúŋ-nύ***
      stay-NON.FUT   stay**1**-NON.FUT
      'He is dry.'   'I am dry.'

In the case of high stems, the difference is only in the assignment of the tone to the suffix. The high tone spreads to the suffix in 3rd person; in 1st person the tone of the "missing" syllable would copy the tone of the stem, and the final suffix would demonstrate the opposite tone (tonal polarity). This assignment process takes place as if the missing person-marking suffix remained in its place.

(59) *ʈúŋ-nύ*   vs.   *ʈúŋ-nὺ*
      stay-NON.FUT   stay-(missing syllable for tone spreading)-NON.FUT
      'He stayed.'   'I stayed.'

Since the plural marker is located before the person suffix, it is the plural marker that is affected by the omission of the person index in this case. Compare 2SG→3PL and 1SG→3PL forms in (60).

(60) *tà-jè-tí-nύ*   vs.   *tà-**jéː**-nύ*
      touch-3PL-2-NON.FUT   touch-3PL\\1-NON.FUT
      'You (SG) touched them.'   'I touched them.'

In addition, the negator in *nɯ*-forms precedes the person marker and *-nɯ*.

(61) *kà-ː-má-tɕá-**má-nύ***
      1-NON.AG-leave.behind-POL-**NEG-NON.FUT**
      'He did not leave me behind.' (anm_20151123_Solhring_PO_Mithun 33)

(62) *tʰì-**má-tí-nύ***
      see-**NEG-2-NON.FUT**
      'You did not see him.'

As a result, it is the negator *má* that undergoes the peculiar 1st-marking lengthening.

(63) *pətɕàː-**máː**-nύ*
      be.able-NEG**1-NON.FUT**
      'I couldn't do it.' (anm_20151123_Solhring_PO_Mithun 25)

With some minor structural differences, *nu*-forms are also used in event chaining (co-subordination, *having done X…*).

4.3.2 Stem-2 based forms

Stem-2 based forms have a clearly nominal origin. These are (i) transitive forms that take possessive prefixes, and (ii) subordinate forms that behave like adverbial nominal constituents. Stem-2 is typically formed from Stem-1 by

- vowel lengthening and tone shifting to high in low short vowels in open syllables, e.g. *tà* 'touch' – *tá:ʔ* 'touch.2'
- lengthening alone in high short vowels in open syllables, e.g. *tɕá* 'eat' – *tɕá:ʔ* 'eat.2'
- shortening the vowel in open glottalized long syllables, at times shifting the tone to low, e.g. *ká:ʔ* 'shoot' – *kà* 'shoot.2' vs. *tsɔ́:ʔ* 'go' – *tsɔ́* 'go.2'
- tone shift alone in closed low syllables, e.g. *lʰàm* 'search' – *lhám* 'search.2'

4.3.2.1 Transitive nominalized verbs

Transitive verbs with Stem-2 formally occupy the slot of the intransitive past-present *ka*-forms (see Table 5). It appears indeed that transitive nominalized forms came in place of this slot. However, it would be erroneous to refer to these forms simply as non-future since they developed a wide variety of final TAM-markers that follow the stem. This conjugation type clearly demonstrates a person hierarchy (or a "preferential treatment" of SAP-forms), distinguishing 3:P and SAP:P scenarios.

A - Stem$_2$ - TAM-PL

1	*ka-*
1DU	*na-*
2	*a-*
3	*va-*

Figure 2 – Transitive nominalized pattern, 3:P scenario

In 3:P scenarios the 3:P itself is unmarked. The A-argument is indexed by the possessive prefix. Unlike Stem-1 forms, in this case 3:A is indexed overtly by the prefix *va*- and not by zero. This is summarized in Figure 2. Examples (64)–(66) demonstrate the 3:P scenario.

(64)   *tɕàmàŋpá*   **và-*tɕá:-vàl***
       giant.cannibal   3-eat2-PERF
      'A giant cannibal has eaten him.' (anm_20151202_PO_Anthung_2_Folkstory 49)
      (Stem 1 *tɕá* 'eat')

(65)   *dá:ˀ.tùŋ*   ***à:rʰólvá?***

        dá:ˀ.tùŋ   ***à-a-rʰól-vá?***

        how   **2**-PREF-spin$_2$-COP

        'How did you spin it?' (anm_20160221_Sharingla_PO_1 111)

        (Stem 1 *rʰòl* 'spin')

(66)   *pʰakʰi-lulũ:*   ***kà-hà-tɕá-màŋ***

        joke-like   **1**-add$_2$-POL-PROG

        'I am adding it as a joke.' (anm_20151123_Solhring_PO_Mithun 39)

        (Stem 1 *há:ˀ* 'add, mix in')

In SAP:P scenarios the prefix is the lengthened form indexing the SAP:P-referent. The A-referent is marked by the person-marking suffix which occurs after the plural marker. 3:A is unmarked in SAP:P scenarios. SAP→SAP cases result in double indexation. In the notation in Figure 3 notice that it is not the case that the 3:P-prefix is unmarked, but it is non-existent in this pattern. In 3:P-scenarios the structure used is the one presented in Figure 2. Examples (67)–(69) demonstrate the issue further.
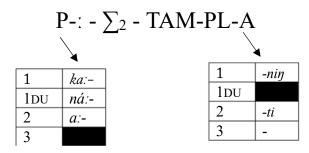
$$\text{P-ː - }\sum_2\text{ - TAM-PL-A}$$

1	*ka:-*
1DU	*ná:-*
2	*a:-*
3	■

1	*-niŋ*
1DU	■
2	*-ti*
3	*-*

Figure 3 – SAP:P scenario

(67)   *mé:je-hẽ:*   ***ná-ː-hǎ̃:-lú:-và***

        grass-this.1\ERG   **INCL-NON.AG**-cut-CARELESSLY-COP

        '(As we walk inside it), Meje grass (a sharp kind of weed) is cutting **us** carelessly.'

        (anm_20151216_10_Ngahring_WB_riddles 18)

(68)   ***à-ː-kà-vá-hìn-nìŋ***

        2-NON.AG-shoot$_2$-COP-**PL-1**

        '**We** are shooting at **you**!' (anm_20151202_PO_Anthung_2_Folkstory 118.2)

        (Stem 1 *ká:ˀ* 'shoot')

(69)   ***kà-ː-kà-vá-hìn-tí?***

        1-NON.AG-shoot$_2$-COP-**PL-2**

        'Are you shooting at me?' (anm_20151202_PO_Anthung_2_Folkstory 117.1)

4.3.2.2 Subordinate paradigm

Many subordinate forms are nominalized verbs combined with postpositions. They employ Stem-2 and a postposition that relates the form to the main clause. For instance, 'when'-forms are structurally locative nouns, namely 'when you go' is literally *in your going*. The postposition employed in this case is the regular locative marker *-tʰuŋ*, used also with regular nouns such as 'house' in (70).

(70) *ín-hín-tʰúŋ*
      house-PL-**LOC**
      'inside houses'

Intransitive verbs use the possessive prefixes. The plural marker appears after the postposition.

(71) *amʰầː-há*   *nà-hè-tɕɔ́-tʰúŋ*
      forest-to   **INCL**-PLAIN-go₂-**LOC**
      'When we go to a forest… (example (67) is the immediate continuation)'
      (anm_20151216_10_Ngahring_WB_riddles 18)

(72) *và-í-tʰúŋ-hín=tɨ̃ː*
      3-sleep₂-**LOC**-**PL**=BCKGR
      'When they were sleeping…' (anm_20151202_PO_Anthung_2_Folkstory 75)

Transitive verbs follow the strategy of nominalized conjugation described above, distinguishing SAP:P and 3:P scenarios. SAP-referents are indexed by the prefix. 3rd person is marked only in 3→3 scenarios.

(73) *kà-táːʔ-tʰúŋ*
      1-touch₂-LOC
      'When I touched it/him/her…'

(74) *kà-ː-táːʔ-tʰúŋ*
      1-NON.AG-touch₂-LOC
      'When it/she/he touched me…'

(75) *và-táːʔ-tʰúŋ*
      3-touch₂-LOC
      'When it/he/she touched it/him/her…'

Remarkably, SAP→SAP scenarios result in double indexation: the P-referent is expressed by a lengthened prefix, while the A-indexing verbal suffix follows the postposition.

(76) *kà-ː-táːʔ-tʰúŋ-ti*
      1-**NON.AG**-touch₂-**LOC**-**2**
      'When **you** touched **me**…'

4.4 Secondary paradigms

The conjugation patterns outlined above constitute the core of the most frequent verbal forms in Anal. However, the verbal system is abundant with relatively infrequent forms which express diverse attenuated TAM and interactional categories. From the point of view of the forms, these verbs extensively "juggle" with the location of person-marking indices, auxiliary verbs and the copula *vá*. While most of the person-indexing markers employed in these forms are taken from the familiar set presented in Table 1, it is here that a few interesting marginally attested forms presented in Table 3 are found.

One such form is the 3rd person marker *-ni*. This occurs in conditional forms shown in (77) and (78). Example (77) shows that the form occupies the same slot as 1st-person suffix *-niŋ*.

(77)   *lí-**niŋ**=te*   vs.   *lí-**ni**=te*
      take-**1SG**=SEQ   take-**3SG**=SEQ
      'If **I** take…'   'If **he** takes…'

(78)   *kà-ː-má-dóːʔ-**ni**=be*   *dáːʔ*   *íŋ-tɕá-và-nìŋ*
      1-NON.AG-leave.behind-away-**3**=EMPH   what   happen-POL-COP-1
      'If **he** left me, what would happen to me?' (anm_20151123_Solhring_PO_Mithun 32)

This form also occurs in dubitative, similarly occupying the slot of the regular suffixal person markers. As a Stem-1 based form, SAP:P, but not 3:P, forms are indexed by the prefix.

(79)   *tɕá-máŋ-**nì***   vs.   *tɕá-máŋ-**ti***   *à-ː-tɕá-máŋ-**nì***
      eat-DUB-**3**   eat-DUB-**2**   **2**-NON.AG-eat-DUB-**3**
      '**He** probably ate.'   '**You** probably ate.'   '**He** would probably eat **you**.'

Another 3rd person suffix that appears in different marginal forms is *-so*. One of its functions is chaining of irrealis/future verbs (*He will/would do X and then…*). It expresses an interim event on a list of future/irrealis events.

(80)   *dáːʔ.tùŋ*   *vɐ̀ːkàːl-há*   *háŋ-kàl-**so***   *abɵ̀-tɕú-tó*
      how   up-to   UP.TEMP-climb-**3IRR.SUB**   tree(type)-fruit-ABS
      tɕá-ná-ká?
      eat-FUT-AFF
      'How **will [fish] climb up high and** eat tree fruits?'(anm_20160221_Sharingla_PO_1 60)

In SAP forms this function is performed by a different non-final irrealis/future marker *-suŋ* that follows the regular person-indexing suffix (with the optional deviant marking of the INCL form by tone and length instead of the suffix, as shown in (10) above).

(81)   *ní-kʰéːʔ*   *à-dúːʔ-**sin-suŋ***   *i-ʈʰà-pá-pá*   *nuŋe-pá-pá*
      day-one   PREF-meet-**1INCL-SAP.IRR.SUB**   NMLZ-good-AUG-AUG nice-AUG-AUG
      pəmìn   *à-ː-sɵ-pe-le-niŋ*
      story   2-NON.AG-narrate-BEN-FUT-1

'One day **we will meet and** I will tell you very beautiful stories.'
(anm_20151123_Solhring_PO_Mithun 45)

Consequently, it may be argued that similarly to *-suŋ*, *-so* is a person-dependent ordinating form that does not index 3ʳᵈ person directly. Instead, there is the regular 3ʳᵈ person "zero-suffix" that precedes it in (80) as glossed in (82). As a result, both SAP and 3ʳᵈ person scenarios exhibit the same structure of STEM-PERSON.SUFFIX-SUBORDINATOR, with the regular personal suffixes from Table 1 and person-dependent subordinators *-suŋ* for SAP and *-so* for 3ʳᵈ person.

(82) *háŋ-kàl-(Ø)-so*
      UP.TEMP-climb-**(3)-3.IRR.SUB**
      'It will climb up and…'

However, *-so* does mark 3ʳᵈ person directly in a few other forms. For example, this is the case with the *le*-future paradigm. This future can be seen in the last word of (81) with a 1ˢᵗ person verb. In 3ʳᵈ person the person marker is *-so*. An additional peculiarity of the *le*-future paradigm is that it is the 2ⁿᵈ person form that is the bare one and has no explicit suffix. The three forms are shown in (83).

(83) *tɕá-le-niŋ*   *tɕá-le*   *tɕá-le-so*
      eat-FUT-1   eat-FUT   eat-FUT-3
      '**I** will eat.'   '**You** will eat.'   '**He** will eat.'

The meaning difference between this paradigm and *na*-forms in Section 4.3.1.1 is yet unclear. The suffix *-so* also indexes 3ʳᵈ person in jussive. This peculiar form is the imperative with its regular prefixes (see sub-section 3.4 above, exx. (12) and (13)), but supplemented by a person-marking suffix.

(84) *a-tɕá*   *a-tɕá-so*   *a-tɕá-**niŋ***
      IMP.TR-eat   IMP.TR-eat-**3**   IMP.TR-eat-**1**
      'Eat!'   'Let **him** eat.'   'Let me eat (do so that I eat).'

Remarkably, this modified imperative form is compatible also with the 2ⁿᵈ person suffix. This combination creates the meaning of a strong suggestion. Even more remarkable though is the fact that this form is possible only with the vocative marker *=ó:ː.*

(85) *a-tɕá-**ti**=o:ː*
      IMP.TR-eat-**2**=VOC
      'Hey, come on, eat it, why don't you?'

(86) *va-úŋ-ti=o:ː*
      IMP.INTR-sit-2=VOC
      'Hey, come on, sit down, why don't you?'

5 Copula cycles in the Anal verb

An examination of the morphologically complex verbal forms in Anal suggests that person-indexing markers and the overall verbal paradigms were shaped by a few cycles of periphrastic

constructions where the final copula served as the host for the person-indexing suffix. Obviously, this tendency is extremely widespread in the branch and more broadly in the language family (DeLancey 2011). This section outlines a few preliminary observations, but the topic requires further research.

The basic set of person-indexing suffixes appears to reflect the earliest merger of the original person markers with the copula *ni*. Both the existence of 3rd person marker *-ni* in a few marginal forms (where it is directly opposed to 1st person *-niŋ*) and the reconstructed PTH-form of 1st person suffix as *-ŋ* suggest that Anal 1st person suffix *-niŋ* is a reanalysis of the conjugated copula *ni* found across the branch (DeLancey 2013). Another evidence for this view is the negated paradigm. The negator *má* precedes the copula in Anal and is a prefix across the language family. The 1st person negated forms ending with *má-niŋ* appear historically to reflect the same synchronic structure of the current negation of the copula *vá*, namely NEG-COP-1. This structure can also explain the irregular 3rd person negator *mí*, apparently reflecting the original negation of the former copula *ni* in the process where the vowel of the negator in *má-ni* erodes and the two nasal consonants assimilate.[2] Possibly, a parallel scenario can also address the 2nd form suffix *-ti* as originating in the form *tV-ni*: clearly, the form of the suffix is that of the 2nd person reconstructed prefix *tV-* (DeLancey 2014), while the vowel is that of the copula *ni*.

Another cycle of copula conjugation appears to be the case of *ka*-forms. The future forms suggest that this form was pertinent to both transitive and intransitive verbs before it was replaced in non-future transitive verbs by nominalized forms. These forms are more recent than the *ni*-based set of suffixes and the negated forms, as is evident from the fact that person indices that attach to it are based on the *ni*-forms. Although *-ka* functions as the affirmative marker to which person-suffixes attach and has no transparent related forms in Anal, in closely related Monsang it is the copula (see also DeLancey (2015)). This form can also be related to the unusually sesquisyllabic hortative suffix *-tɕəka*, where the first syllable could possibly be related to the reconstructed 2nd person prefix *tV-*, which has a palatal affricate variant in many SC languages.

The current copula *vá* is found as one of the TAM markers in the nominalized transitive conjugation as can be seen in (67)–(69). Unlike other forms, this paradigm employs the nominal Stem-2 of the verb. In the current cycle, the verbal form nominalized by the prefix *i-* and followed by a conjugated copula is used in exclamatory sentences, emphatic assertions and questions, as it happens in many other languages of the family (Yap et al. 2011).

(87)   *dáːˀ-ki*   *i-ṭáːˀ-**va-ti**=mo?*
        what-from   NMLZ-cry-**COP-2**=DUB.Q
        'Why are you crying?!' (anm_20160227_Thumhring_Thangwar_2 71.2)

Interestingly, in 3rd person negated forms the copula can be omitted. Compare (88) and (89). Notice that in the latter the negator is the bare *má* that would precede the copula and not the special 3rd person negator *mí*.

(88)   ***i-**dàːm-**vá***
        NMLZ-dance-**COP**
        'He danced.' (anm_20160227_Thumhring_Thangwar_2 59)

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[2] There is a single village in the dialect of which 3rd person negated verbs have the form *V-mə-nî*, indeed.

(89) *tʰàpá:*   *dá:ˀ.rá:ˀ*   ***i-sù-má***
      work (Mt.)   nothing   **NMLZ**-work-**NEG**
      'He did not do *any* work!!!' (anm_20151202_PO_Anthung_2_Folkstory 4)

Copula *vá* is found also in some forms where its function and formal status are unclear. For example, it is optional in imperatives as can be seen in (21) above.

6 Conclusion

Person indexing in Anal verbs follows two primary patterns. Stem-1 forms have A/S-indexing suffixes; SAP:P is marked by lengthened possessive prefixes. Only SAP referents have an explicit marker. Stem-2 forms have A prefixes in 3:P scenarios (or S prefixes in subordinate forms) and lengthened P-prefixes combined with A-suffixes in SAP:P scenarios. Each conjugation type has minor peculiarities and there are additional person-indexing forms of limited distribution.

Interestingly, the requirement to mark both SAP participants "bends" other grammar rules, resulting in person-indexing in unexpected slots, such as a verbal SAP-marking suffix following a postposition in subordinate forms in (76).

The overall systems and forms show evidence for recurrent cycles of periphrastic and nominalized forms where the conjugated constituent is the copula.

It should also be emphasized that this paper evidently does not cover the whole of Anal verbal paradigms. For one thing, there are numerous relatively rare constructions. For another thing, additional TAM markers have nearly identical paradigms to those described here, yet do present some minor differences. For example, the TAM-marker *-tɕa* is used with intransitive verbs for perfect-like meaning (a recently finished event with a currently relevant outcome). Its affirmative paradigm is identical to that of *ka*-forms with *-tɕa* instead of *-ka*, but negated forms preserve the TAM marker after the negator *-má* (unlike *ka*-forms where *-má* replaces *-ka*). There are also many periphrastic forms in Anal that employ the verb *də̀* 'say, think, do' as (5) demonstrates, yet this topic is also beyond the scope of the paper.

ABBREVIATIONS

Abbreviations follow Leipzig Glossing rules. Additional abbreviations are as follows.
UP, DOWN and PLAIN are used for the direction of directional verbs. Ideophones are glossed for their meaning in small caps (e.g. CARELESSLY).

AFF	affirmative	NON.FUT	non-future
AUG	augmentative	PERM/TEMP	permanent/temporary movement
BCKGR	backgrounding	POL	politeness marker
CIS	cislocative	PREF	prefix (meaningless)
DIR	direct	SAP	Speech Act Participant (1,2, INCL)
DUB	dubitative	SEQ	sequentializer (≈ contrastive topic)
HORT	hortative	SUB	subordinated
NON.AG	non-agentive		

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Appendix – transitive conjugation tables of *ta*ˋ 'touch' (Stem-2 *tá:ˀ*)

		1st person		1+2 person (INCL)		2nd person		3rd person	
		SG	**PL (1PL.EXCL)**	**SG**	**PL (1PL.INCL)**	**SG**	**PL**	**SG**	**PL**
1st person	**SG**					**à-ː-tá:-nù**		**tá:-nù**	**tá:-jé:-nú**
	PL (1PL.EXCL)					**à-ː-tà-hín-nú**		**tà-hín-nú**	
INCL	**SG**							**tà-sìn-nú**	**tà-jè-sín-nú**
	PL (1PL.INCL)							**tà-hìn-sín-nú**	
2nd person	**SG**	**kà-ː-tà-tí-nú**						**tà-tì-nú**	**tà-jè-tí-nú**
	PL		**kà-ː-tà-hín-tí-nú**					**tà-hìn-tí-nú**	
3rd person	**SG**	**kà-ː-tà-nú**	**kà-ː-tà-hín-nú**	**ná-ː-tà-nù**	**ná-ː-tà-hín-nù**	**à-ː-tà-nú**	**à-ː-tà-hín-nú**	**tà-nú**	
	PL	**kà-ː-tà-jé-nú**		**ná-ː-tà-jè-nù**		**à-ː-tà-jé-nú**		**tà-jè-nú**	

Table 11 - Transitive *nu*-past

		1st person		1+2 person (INCL)		2nd person		3rd person	
		SG	**PL (1PL.EXCL)**	**SG**	**PL (1PL.INCL)**	**SG**	**PL**	**SG**	**PL**
1st person	**SG**					**à-ː-tá:-vá-nìŋ**	**à-ː-tá:-vá-hìn-nìŋ**	**kà-tá:-và**	**kà-tá:-vá-jè**
	PL (1PL.EXCL)							**kà-tá:-vá-hìn**	
INCL	**SG**							**nà-tá:-và**	**nà-tá:-vá-jè**
	PL (1PL.INCL)							**nà-tá:-vá-hìn**	
2nd person	**SG**	**kà-ː-tá:-vá-tì**	**kà-ː-tá:-vá-hin-tì**					**à-tá:-và**	**à-tá:-vá-jè**
	PL							**à-tá:-vá-hìn**	
3rd person	**SG**	**kà-ː-tá:-và**	**kà-ː-tá:-vá-hìn**	**ná-ː-tá:-và**	**ná-ː-tá:-vá-hìn**	**à-ː-tá:-và**	**à-ː-tá:-vá-hìn**	**và-tá:-và**	**và-tá:-vá-jè**
	PL	**kà-ː-tá:-vá-jè**		**ná-ː-tá:-vá-jè**		**à-ː-tá:-vá-jè**			

Table 12 - Nominalized non-future

		1st person		1+2 person (INCL)		2nd person		3rd person	
		SG	**PL (1PL.EXCL)**	**SG**	**PL (1PL.INCL)**	**SG**	**PL**	**SG**	**PL**
1st person	**SG**					**à-:-tà-má-níŋ**	**à-:-tà-má-hín-níŋ**	**tà-má-níŋ**	**tà-má-jé-níŋ**
	PL (1PL.EXCL)							**tà-má-hín-níŋ**	
INCL	**SG**							**tà-má-sín**	**tà-má-jé-sín**
	PL (1PL.INCL)							**tà-má-hín-sín**	
2nd person	**SG**	**kà-:-tà-má-tí**	**kà-:-tà-má-hín-tí**					**tà-má-tí**	**tà-má-jé-tí**
	PL							**tà-má-hín-tí**	
3rd person	**SG**	**kà-:-tà-mí**	**kà-:-tà-mí-hín**	**ná-:-tà-mí**	**ná-:-tà-mí-hín**	**à-:-tà-mí**	**à-:-tà-mí-hín**	**tà-mí**	**tà-mí-jé**
	PL	**kà-:-tà-mí-jé**		**ná-:-tà-mí-jé**		**à-:-tà-mí-jé**			

Table 13 - Simple negation