Title

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ABSTRACT

The South Central languages show two distinct indexation paradigms: a set of postverbal agreement words, incorporating person-number indexation and tense/aspect/polarity marking, inherited from a pre-SC ancestor, and a set of proclitic pronouns, otherwise used as possessive clitics on nouns. The interaction of the two series differs across the branch. Some Northeastern languages have full competing paradigms, with the choice of one or the other marking register. At the other extreme, languages in the Central group use only the innovative proclitic paradigm, though it may incorporate pieces from the archaic postverbal paradigm. In most Northwestern and some Southeastern languages the paradigms are associated with transitivity and/or polarity, with the proclitic paradigm found in affirmative transitive and the postverbal in negative intransitive clauses. We find great variation across the branch in the interaction of indexation with transitivity. Many languages have innovated object-indexation, a few have developed inverse markers and/or hierarchical indexation patterns.

KEYWORDS

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1 Introduction

One of the distinctive features of the South Central (Kuki-Chin) languages is an innovative system of argument indexation (verb agreement) in which a set of possessive pronominal forms occur with verbs as well as nouns, indexing subject and sometimes also object arguments. These are often described as proclitic or prefixed to the verb, but in some languages they are phonologically independent. The paradigm is attested in most languages of the branch, although it appears to be absent in a handful. Less well-known, but of great typological and comparative interest, is an archaic postverbal conjugation consisting of what were originally conjugated auxiliary verbs, which have grammaticalized into a series of "agreement words".[1] In this paper I will describe these paradigms and survey their functions.

1.1 *The South Central group*

The South Central languages are generally recognized as a genetic unit within Trans-Himalayan or Sino-Tibetan.[2] Many classification schemes place the Naga languages (Angami-Pochuri, Ao, Zeme, and Tangkhulic) as the next-closest relatives to South Central in a Kuki(-Chin)-Naga group, along with Meitei and Karbi (Shafer 1950; Bradley 2007; DeLancey 2021), but this has not been demonstrated. Aside from this, higher-order affiliations of South Central are not clear. Bradley and DeLancey group them together with the Sal languages (Jinghpaw, Northern Naga, and Bodo-Garo) in a major Central branch of the family, and there is both morphological and lexical evidence for this Central branch. In particular the postverbal indexation paradigm, though its roots are traceable to the archaic Proto-Trans-Himalayan (PTH) indexation paradigm, shares innovations with Jinghpaw, Northern Naga, and Meyor (DeLancey 2015).

The internal subclassification of South Central is not securely established. Northwestern ("Old Kuki"), Northeastern ("Northern Chin"), Central, and most of the Southeastern languages each constitute an obvious subgroup. I will use Peterson's (2017) model, as presented in his introduction to this issue.

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[1] I call our topic "indexation" rather than the traditional "(verb) agreement" (Haspelmath 2013). Before adopting this usage I coined the term "agreement word" as an interim label for the unusual morphological structure found in South Central languages as well as Jinghpaw and Northern Naga (DeLancey 2014a). I do not yet have a more typologically informative label, and continue to use "agreement word" as a provisional placeholder.

[2] I adopt the term Trans-Himalayan, as there is no strong evidence for a "Tibeto-Burman" clade, see DeLancey (2021).

1.2 Syntactic preliminaries

Standard categories of alignment and grammatical relations are difficult to apply to Trans-Himalayan languages. South Central languages generally show either ergative case marking or differential (agent/subject) marking, that is, there is a case postposition which appears with transitive A but (usually) not intransitive S arguments. In contrast, argument indexation always in many languages, and for the most part in almost all, is most easily described as accusative. That is – with exceptions which we will see in the course of this paper – a South Central language will index A and S arguments with the same form, and if O arguments (including Recipients as well as Patients) are indexed it is with different forms, or even a completely different construction. (See section 5). Deviations from accusative alignment are generally in the direction of deictic or locuphoric indexation (what is imprecisely called "hierarchical alignment" in the literature), and thus not appropriately described in terms of grammatical relations (at least in my opinion, see DeLancey 2018b). In this paper I will for convenience refer to "subject" and "object" forms, but this should not be taken as any kind of definitive characterization of what is going on syntactically.

2 Argument indexation in the South Central branch

The South Central group is unusual in having two distinct argument indexation paradigms, preverbal and postverbal, which will be described in section 2.1. These were entirely distinct in Proto-South Central, but in the daughter languages they are usually restricted to distinct functions, involving transitivity (section 2.2), polarity (section 2.3), and/or main vs. subordinate status (section 2.4).

2.1 The postverbal and proclitic indexation paradigms

Proto-Trans-Himalayan had a suffixal argument indexation paradigm which is preserved in several branches of the family, including South Central. The South Central branch is distinct from the rest of the family in also having an innovative indexation paradigm in which a nominalized stem of the verb is inflected with possessive pronominal proclitics. In a few languages – all, as far as I know, in the Northeast group – the two paradigms remain distinct, the choice of one or another reflecting some kind of register difference. Thus in Tedim one can say either of examples (1-2), the only functional difference being that (2) is more formal:

(1)   *pai   iŋ*
       go   1SG
       'I go' (Mroueh 2019: 125)

(2)   *ka-pai hi*
       1SG-go FINAL
       'I go' (Mroueh 2019: 125)

Tedim preserves the original Proto-South-Central system, where the inherited postverbal and innovative proclitic paradigms were both fully functional.

The two Tedim paradigms are presented in Table 1:

	1SG	**INC**	**2SG**	**3SG**	**1PL**	**2PL**	**3PL**
Postverbal	Σ *iŋ*	Σ *haŋ*	Σ *teʔ*	Σ	Σ *u-ŋ*	Σ *uʔ teʔ*	Σ *uʔ*
Proclitic	*ka-*Σ	*i-*Σ	*na-*Σ	*a-*Σ	*ka-*Σ *uʔ*	*na-*Σ *uʔ*	*a-*Σ *uʔ*

Table 1. Proclitic and postverbal paradigms in Tedim (adapted from Mroueh 2019: 125)

2.2 *Proclitic paradigm and transitivity*

In some NW languages the postverbal paradigm is used with intransitive verbs, and the preverbal indexes with transitives. An example is Monsang, where the proclitic forms cannot occur with an intransitive verb:

(3)   *i-sí=k=iŋ*
       NMLZ-go=COP=1SG
       'I am going/I go.' (Konnerth and Wanglar 2019: 61)

(4)   *kí-bín-naʔ*
       1SG-beat-IMPF
       'I'm beating him.' (Konnerth and Wanglar 2019: 66)

Note the different verbal morphology in examples 3-4, although the sentences have the same tense/aspect value. When there is explicit marking of a tense/aspect category, it may be different depending on which indexation paradigm is used. Certain verbal operators, like Monsang *k-* in example 3, occur only in the agreement word construction, while others, like *-naʔ* in example 4, occur with preverbal indexation.

2.3 *Postverbal paradigm and negation*

In all of the languages where the postverbal paradigm is preserved it is used in negative constructions. So in Monsang, the proclitic paradigm occurs with transitive verbs, but only in affirmative clauses; negated verbs take postverbal indexation:

(5)   *bìn-máː-ŋ*
       beat-NEG-1SG
       'I don't/didn't beat him.' (Konnerth and Wanglar 2019: 67)

It seems to be most common that negative constructions occur only with the postverbal conjugation, but in some languages the negative auxiliary can be conjugated either way, as in Sizang:

(6)   *pài: ke-ŋ*
       go   NEG-1SG
       'I don't go.' (Mroueh 2019: 125)

(7) *ká   pài   kei   hî:*
    1SG go   NEG FINAL
    'I don't go.' (Mroueh 2019: 125)

In Hyow we see a typologically astonishing result of this association of negation with the postverbal paradigm. As we will see in section 2.4, in affirmative main clauses in Southeastern we see only the preverbal paradigm, not the older postverbal forms. Negated clauses require the postverbal indexes. Usually they also have an overt negative morpheme, but in Hyow negation is expressed simply by using the postverbal rather than the preverbal indexes, with no other mark of negation (Zakaria 2018). Thus the Hyow negative paradigm is simply:

	SG	DU	PL
1	Σ-*ŋâ*	Σ-*hnìʔ-ŋâ*	Σ-*ù-ŋâ*
INC		Σ-*pû*	Σ-*kɔ̂*
2	Σ-*tî*	Σ-*hnìʔ-tî*	Σ-*tsû*
3	Σ-*áʔ*	Σ-*hɕ́ʔy*	Σ-*ú*

Table 2. Negative intransitive paradigm in Hyow

Compare this with the preverbal affirmative paradigm:

	SG	DU	PL
1	*kV*-Σ	*kí-hníʔ*-Σ	*kí-ní*-Σ
INC		*ì-ní*-Σ	
2	*nV*-Σ	*ní-hníʔ*-Σ	*ní-ní*-Σ
3	*(V)*-Σ	*í-hníʔ*-Σ	*í-ní*-Σ

Table 3. Affirmative intransitive paradigm in Hyow (Zakaria 2018: 318)

Unlike the languages discussed above, Hyow needs no negative morpheme per se; the postverbal paradigm is in itself negative.

2.4 *Postverbal paradigm and subordination*

In some Southeastern languages the postverbal paradigm seems to be used only in the negative in main clauses. But it is also used in certain non-final or subordinate clauses, where it has the effect of switch-reference marking. An example is K'cho (or Mindat), as described by Jordan (1969:48-51). In a clause chain, the verb of the final, morphosyntactically finite clause with affirmative polarity takes the preverbal indexation paradigm. In a non-final clause, if the non-final and final clauses share the same subject, the non-final verb is not indexed for person with either paradigm, but may optionally be followed by a number index:

(8) *ngaw* *u* *neh*   *kah* *mi* *bi*   *ci*
     sit   PL   NONFINAL.SIMULTANEOUS   1   PL   work   FINAL
     '(We) sitting, we do (our) work'

When the non-final and final clauses have different subjects, the non-final subject is indexed with the postverbal paradigm (Jordan 1969: 49-50):

(9) *ei*   *ngah* *hleih*   *law*   *ci*
     eat   1SG   NONFINAL   come   FINAL
     'he came while I was eating'

(10) *ei*   *u*   *ngah* *hleih*   *law*   *ci*
     eat   PL   1SG   NONFINAL   come   FINAL
     'he came while we were eating'

(11) *ei*   *ci*   *hleih*   *law*   *ci*
     eat   2   NONFINAL   come   FINAL
     'he came while you were eating'

Temporal succession between chained clauses is expressed by a different nonfinal marker, *tah*. Jordan writes the postverbal person indexes as attached to this by a hyphen:

(12) *chü*   *u*   *ah-tah,*   *law*   *ci*
     call   PL   1-NONFINAL.SEQUENTIAL   come   FINAL
     'I having called, he came.'

(13) *chü*   *u*   *ci-tah,*   *law*   *ci*
     call   PL   2-NONFINAL.SEQUENTIAL   come   FINAL
     'You having called, he came.'

3 The postverbal agreement word system

Postverbal indexation is the older of the two paradigms. It dates back to well before Proto-South Central, and the basic indexation forms are inherited from Proto-Trans-Himalayan. The postverbal paradigm is not explicitly noted in early work on the branch, although it shows up in negative forms in a few of the sample texts for Northwestern languages in the *Linguistic Survey of India*, as in the forms in Table 4, taken from different versions of the Parable of the Prodigal Son (Grierson 1904):

	Rāngkhōl	**Hallām**	**Pūrūm**
1SG	Σ-*māüng*	Σ-*māing*	Σ-*nong*
2SG	*nē*-Σ-*māk*	*nā*-Σ-*māk-chei*	Σ-*no*
3SG	Σ-*māk*	Σ-*māk-ngāi*	Σ-*ni-yo*

Table 4. Postverbal indexation in negative forms in the *Linguistic Survey of India*

The final velar nasal in the 1st person forms is the old Trans-Himalayan 1st person singular index, and the *-chei* in Hallām is the 2nd person index. Postverbal indexation was first noted for two closely-related NE languages, Tedim (Tiddim; Henderson 1957) and Sizang (Siyin; Stern 1963), after Gordon Luce took the two authors on a brief field trip to Chin State (Luce 1959).

3.1   The "agreement word" construction

In some languages, and in the reconstructed proto-language, the postverbal paradigms do not consist of suffixes attached to the verb, but of AGREEMENT WORDS. These are one, two or three syllable sequences, phonologically independent of the verb, which include an agreement index, a plural morpheme if appropriate, and sometimes a verbal operator expressing negation, TAM or some other verbal category. One such language is Tedim:

(14)   *ama   tuŋaʔ   naŋ   oŋ   pʲa   iŋ*
       3SG   to   2SG   CIS   give   1SG
       'I give you to him.' (Mroueh 2019: 127)

The 1SG index *iŋ* follows the verb, but is not phonologically attached to it.

The 1st person index in example (14) is what I call a "simple" agreement word – *iŋ* is a single morpheme, although it could be interpreted as having a zero-marked tense value (non-future). These simple forms combine with verbal operators which express tense/aspect and polarity. In example (15) we see Tedim *iŋ* combined with the future tense marker *n-*:

(15)   *si   baiʔ   taktak   n-iŋ   e*
       die₁   soon   surely   FUT-1SG   FINAL.REAL
       'I will die quickly.' (Mroueh 2019: 127)

In example (15) we see that in Tedim some adverbial or other elements may occur between the verb stem and the agreement word, another example of this is (16):

(16)   *gʷɛj   kɛi   Tedim   aʔ   om   lai   n-iŋ   ɛ*
       VOC   I   Tedim   in   be₁   still   FUT -1SG   FIN:REAL
       'Guys! I will stay in Tedim.' (Mroueh 2019: 121)

3.2 Reconstructing the postverbal paradigm

The simple argument indexes mark only person clusivity and/or number. The basic forms can be seen in the Tedim paradigm in Table 5:

	SG	**PL**
1	Σ ìŋ	Σ ùŋ
INC	Σ hàŋ	
2	Σ tɛʔ	Σ úʔ tɛʔ
3	Σ	Σ uʔ~úʔ

Table 5. Tedim "general" (unmarked) paradigm (Henderson 1965: 109)

Other verbal categories are expressed by complex agreement words or sequences. The 1SG and 1PL.EXC indexes combine with an initial consonant; other person and number indexes remain independent (Henderson 1965: 110-111):

	SG	**PL**
1	Σ nì-ŋ	Σ nú:-ŋ EXC
		Σ ní: INC
2	Σ nī tɛʔ	Σ nŭ tɛʔ
3	Σ īn tɛʔ	Σ ūn tɛʔ

Table 6. Tedim future paradigm

3.2.1 The simple paradigm in the conservative subbranches

The Northeastern and Northwestern groups have the same paradigm of simple agreement words, with minor variations:

	1SG	*1PL*	*1PL.INC*	*2SG*	*2PL*	*3SG*	*3PL*
NE							
Tedim	ìŋ	ùŋ	hàŋ	tɛʔ	úʔtɛʔ	–	uʔ
Sizang	iŋ·	ûŋ·		te·	ù· tè·	(a)	
NW							
Chiru	-ìŋ	-ù ... -ŋ	-ù ... -mè	cè	-ù ... -mè	–	-ù-
Monsang	-iŋ	-uŋ	mɤ	tʃɤ	tʃʷu	–	he
Hrangkhol	=ŋ	=uŋ	=i	ci	ci-n	–	hai
Chorei	=ŋ	=uŋ	=ui	ti=	u ... ta=	–	u
			=me				

Table 7. Postverbal agreement words in NE and NW South Central

All of these elements follow the verb stem; those marked with a following hyphen or = precede some other verbal suffixes. The paradigms are obviously cognate, although there are some interesting differences. First, note the variation in the 2nd person form: in some languages it has initial

/t/, in others a palatal /c/ or affricate /ts/. Second, note variation in the order of the 2ⁿᵈ person and plural morphemes, with Tedim *úʔ tɛʔ* vs. Monsang *tʃ-ʷu*. The one category where there is significant variation is the inclusive, which will be discussed in section 3.2.3.

The same paradigm is found in Southeastern languages, but limited to negative clauses and non-final clauses. Consider the Hyow negative paradigm:

	SG	DU	PL
1	*-ŋâ*	*-hnìʔ-ŋâ*	*-ù-ŋâ*
INC		*-pû*	*-kɔ̂*
2	*-tî*	*-hnìʔ-tî*	*-tsû*
3	*-áʔ*	*-hɔ́ʔy*	*-ú*

Table 8. Negative paradigm in Hyow (Zakaria 2018)

Except for the innovative dual marking, a grammaticalization of the numeral 'two', and the peculiar dual inclusive form, the forms are evidently relatable to those of the NE and NW languages. (This is the same innovative dual element which we find in the preverbal paradigm, see section 4.2.3). Note that Hyow agrees with the NW languages against the NE in ordering the plural #*u*³ after the 2ⁿᵈ person index.

Basically the same paradigm, used in non-final clauses, is described for K'cho by Jordan (1969):

	SG	DU	PL
1	*(ng)ah-tah*	*ni (ng)ah-tah*	*u (ng)ah-tah*
2	*ci-tah*	*ni ci-tah*	*u ci-tah*
3	*khü-tah*	*ni khü-tah*	*u khü-tah*

Table 9. K'cho different-subject non-final indexation

The variation in the 1ˢᵗ person forms is dialectal. In the *ngah-* dialect the 1ˢᵗ and 2ⁿᵈ person match those in Hyow paradigm, except that the order of person and number in the 2PL form is reversed in the two languages, just as between Northeastern and Northwestern: K'cho *u ci*, Hyow *-tsu* < *-ci-u*.

The postverbal paradigm is almost completely lost in Daai Chin, but the 1ˢᵗ person agreement word still occurs in negated main clauses (So-Hartmann 2009: 244-52):

(17) *am   sit   be   khoh=ngü*
      NEG   go   back   able=1
      'I am/was not able to go back.'

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³ I adopt Bauman's (1975) use of # instead of * to indicate an approximate reconstruction of a form which must be posited for the proto-language, but whose exact form has not been systematically reconstructed.

(18)   *am   pyeːn   vaai   xa=ngü*
         NEG   speak   go   definitely-1
         'I definitely will not go and speak.'

Dual and plural indexes precede the 1ˢᵗ person index, as in all other languages:

(19)   *am   hmuh=ni=ngü*
         NEG   see=DU=1
         'We2 did not see [him].'

In contemporary Daai, this occurs only in negative sentences, but in an older form of the language preserved in oral texts, it can occur in some assertive clauses as well:

(20)   *tuh=ngooiː   ta   niːng   hmu   lo   veeng(=ngü)*
         today   FOCUS 2SG.OBJ   see   ASPECT   certainly(=1)
         'Today I will certainly see you.'

3.2.2 *Remnants of the postverbal paradigm in Central languages*

In the Peripheral and Northwestern languages the two indexation paradigms serve separate functions (section 2). But in some Central languages, including Mara, we do not find alternate or competing indexation paradigms. For the most part these languages have simply adopted the innovative proclitic paradigm and abandoned the postverbal set. However a few fossils of the old postverbal paradigm remain. The most striking is the adoption of the 2ⁿᵈ person index *#ce* into the innovative transitive paradigm, and its adaptation to indexing only object arguments, which we will discuss in section 5.2.2. The other conspicuous remnant of the agreement word paradigm in these languages is the use in both Mizo and Mara of 2ⁿᵈ person *-teʔ* (significantly in the unpalatalized form, see section 3.2.3) as an imperative, as in Mizo:

(21)   *thû-teʔ*
         sit-IMPERATIVE
         'Sit!' (Chhangte 1993:105)

The same form in Mizo also occurs in a "less formal hortative":

(22)   *i-kâl-teʔ-áŋ*
         DU-go-IMPERATIVE-FUTURE
         'Let's go (it's time)!' (Chhangte 1993:108)

Mizo also has a "weak" imperative *-ta=cèè*, which is probably related to the palatalized 2ⁿᵈ person forms in the other subbranches.

A century ago, Lorrain and Savidge recorded a set of paradigms in Mara which may contain a remnant of the agreement word paradigm. Lorrain's extensive list of paradigms (1951: 28-44)

includes several paradigms for a nonfinal clause construction ending in *la* 'if', which he labels "subjunctive" or "conditional", for example the following "pluperfect conditional" paradigm:

	SG	PL
1	Σ *hawh sa-la*	Σ *he sa-la*
2	Σ *ha la*	Σ *ha u-la*
3	Σ *ha sa-la*	Σ *he sa-la*

Table 10. Mara "pluperfect conditional" conjugation (Lorrain 1951: 40)

The *-awh* which occurs uniquely in the 1SG construction, and alternates with 1PL *e*, is a regular reflex of PSC *iŋ (VanBik 2009: 371). Thus the paradigm includes 1SG #*iŋ*, inclusive #*i* (see section 4.1.2), and plural #*u* (in the 2PL), all familiar from the postverbal forms in the other subbranches.

3.2.3 *Comparative reconstruction within South Central*

The complex agreement words are evidently old inflected auxiliaries. But the simple paradigm is problematic, as the forms are best analyzed synchronically as simple monomorphemic argument indexes. Table 11 compares the forms found in the three conservative subbranches:

	1SG	1PL	2SG	2PL	3SG	3PL
NE	*iŋ*	*uŋ*	*teʔ*	*u teʔ*	*(a)*	*u*
NW	*iŋ*	*uŋ*	*ce*	*ce-u*	*(ə)*	*u ~ əi*
SE	*-ŋa*	*-u-ŋa*	*-ti*	*-tsu/-u-ci*	*-aʔ*	*-u*

Table 11. Postverbal agreement words in the conservative branches of SC

There can be no question that these are cognate paradigms, and that therefore this paradigm can be reconstructed for Proto-South Central. The variation in the ordering of the 2nd person and plural indexes shows that plural #*u* is newer than the other indexes and had variable position when it was first introduced into the paradigm. The SE and the NE and NW 1st person form are evidently related; the difference between them remains to be explained. Nevertheless the similarity between the NE and NW forms means that we have to reconstruct a form #*iŋ* for their nearest common ancestor, which is Proto-South Central.

Aside from these differences, and the problematic variation between 2nd person forms in *t*- and *c*-, the paradigms are identical, and must reflect common inheritance from PSC. Since the first discovery of these paradigms, the resemblance of the 1st and 2nd person indexes to those found elsewhere in the family has been noted, and taken as evidence that they date far beyond Proto-South-Central (Henderson 1957; Stern 1963). A problem with these comparisons has always been the difficulty of equating agreement words with more typical prefixes and suffixes. The obvious comparanda for *iŋ* and *teʔ* are PTH 1SG #*-ŋ*, 2nd #*t*- (DeLancey 2010, 2011), thus to validate the comparison requires a way to equate one agreement word to a widespread suffix, and the other, part of the same South Central paradigm, to a prefix. The fact that in some languages the agreement

words occur after nouns as well as verbs, in other words that the agreement words function as an equational copula inflected for person, suggests that the basic agreement words originated as inflected copulas.

Most languages with a postverbal paradigm distinguish the Inclusive, but while the Exclusive plural form corresponds across the various languages, the Inclusive varies greatly; some examples are given in Table 12:

		1SG	**EXC**	**INC**
Northeastern	Tedim	*ìŋ*	*ùŋ*	*hàŋ*
	Sizang	*iŋ·*	*ûŋ·*	
Northwestern	Chiru	*-ìŋ*	*-ù ... -ŋ*	*-ù ... -mè*
	Monsang	*-iŋ*	*-uŋ*	*mɤ*
	Hrangkhol	*=ŋ*	*=uŋ*	*=i*
	Chorei	*=ŋ*	*=uŋ*	*=ui / =me*

Table 12. Postverbal agreement words in NE and NW South Central

Clusivity is more consistently distinguished in the preverbal paradigms, as we will see in section 4.1.2.

A different sort of variation is seen in the postverbal 2nd person index, which has two forms, one with *t-*, the other with a palatalized and/or affricated initial. The pattern of variation seems very arbitrary. We find *t-* forms in NE and *c-* in NW in forms that otherwise correspond perfectly (i.e., have the same syntagmatic behavior and occupy the same place in an otherwise identical paradigm). In some conservative NW languages, such as Monsang, the two forms are in complementary distribution, *t-* occurring with the *ni* tense marker, *c-* everywhere else. In SE there is even less pattern; in Hyow we have *t-* in singular and *ts-* in plural forms, while K'cho has *c-* in both. And Mizo has two affectively distinct imperative forms, one with *t-* and one with *c-* (section 3.2.2).

The explanation for this variation appears to be partly phonological, and partly sociolinguistic. For comparative reasons I suspect that the copula underlying the simple agreement words had a glide initial (DeLancey 2014b), which would provide phonological conditioning for palatalization. But this is not a regular shift anywhere in SC, and, as we have seen, the palatalization is sporadic even within a single language, so this is not a sufficient explanation. I suspect that the alternation between original *t-* and a palatalized/affricated version originally had some kind of affective force, probably that the palatal form was gentler or more familiar. 2nd person reference seems to be a bit awkward across the family (DeLancey 2014b, 2018b), as we see in the convoluted development of the modern Central and Maraic paradigms (section 5.2.2).

3.3   The origins of the postverbal paradigm

The complex agreement words are evidently old inflected auxiliaries, the verbal operators reflecting the verb stem. For example, the future operator *n(i)-* seen in Tedim examples 14-16 (section 3.1) and Monsang paradigms to be discussed below is a reflex of the copula *#ni* which is widely attested across the branch and the family. But the simple paradigm is problematic, as the forms are easily analyzed as simple monomorphemic argument indexes. A related puzzle is their morphological behavior. The evident relationship of 1SG *#iŋ* and 2nd person *#teʔ* to Proto-Trans-Himalayan *#-ŋ*, 2nd

person *#tV-* has long been recognized (Bauman 1975; DeLancey 1989; van Driem 1993), but how a PTH suffix and a prefix ended up as part of the same paradigm of phonologically independent postverbal particles has always been a problem.

The clue to their origin is found in some Northwestern languages where the agreement words still function as equational copulas. An example is Tarao (collected by the author from L. Morre Tarao, Leishokching Village, Chandel, Manipur, December 2012):

(23)   *kəi*   *tarao*   *əŋ*
       1SG   Tarao   1SG
       'I am Tarao.'

(24)   *nəŋ*   *tarao*   *ce*
       2SG   Tarao   2
       'You are Tarao.'

(25)   *əma*   *tarao*
       3SG   Tarao
       'He is Tarao.'

(26)   *kə-ni*   *tarao*   *uŋ*
       1EXC-PL   Tarao   1PL.EXC
       'We (not you) are Tarao.'

(27)   *nə-ni*   *tarao*   *cə-u*
       2-PL   Tarao   2-PL
       'Y'all are Tarao'

(28)   *ənma*   *tarao*   *əi*
       3PL   Tarao   PL
       'They are Tarao'

This suggests that our provisionally reconstructed *#i-ŋ* and *#t-eʔ* might reflect inflected forms of an old copula, and we will see some comparative evidence for this below.

On this analysis the simple forms originally had the same structure as the archaic negative irrealis forms preserved in a few NW languages, where a set of relict forms in the negative future paradigm provide the missing link between the general SC agreement words and indexation paradigms elsewhere in Trans-Himalayan. The relevant forms in Monsang are given in Table 13:

	SG	PL
1	Σ-*mà:-n-ìŋ*	Σ-*mà:-n-ùŋ*
2	Σ-*mà:-té-nɕ*	Σ-*mà:-té-nʷ-ú*
3	Σ-*mà:-nɕ*	Σ-*mà:-né-hé*

Table 13. Monsang future negative paradigm (Konnerth and Wanglar 2019: 63)

The Future morpheme *-n(ɔ́)* is a grammaticalization of the PTH and PSC copula *#ni* (/ɔ/ is the regular Monsang reflex of Proto-South-Central *-i* (Konnerth 2018: 30)). So, buried in the negative future paradigm we find a copula inflected with 1st person suffix *-ŋ* and 2nd person prefix *te-*.

Table 14 compares this paradigm to the simple forms in the reconstructed pattern. We see that the latter are simply inflected forms of a vocalic stem, exactly parallel to the inflected forms of the copula *ni* which constitute the future conjugation:

	PSC indexes	Monsang future negative
1SG	# *i-ŋ*	*nì-ŋ*
2SG	# *t-eʔ*	*té-nɔ́*
3SG	# *aʔ*	*nɔ́*

Table 14. Monsang conjugations compared

The original auxiliary which formed the base of the simple agreement words may be attested also in the strikingly similar copula paradigm in Trung, a Nungish language, as compared in Table 15:

	PSC simple agreement	Trung copula
1SG	# *i-ŋ*	*i-ŋ*[55]
2SG	# *t-eʔ*	*nə-ɛ*[53]
3SG	# *aʔ*	*ɛ*[53]

Table 15. Trung agreement words and inflected copulas (Perlin 2019: 120)

Since the Trung 2nd person prefix *nə-* is a recent innovation, replacing inherited *#tV-* with a more transparent 2nd person index (DeLancey 2014b), the 1st and 2nd person forms match very well, down to the unexplained vocalic alternation.

4 The preverbal indexation system

Almost all of the South Central languages share a preverbal indexation paradigm consisting of phonologically reduced pronouns. In every language where possessive pronominal proclitics are reported, the possessive and indexation proclitics are the same paradigm. Sources differ in how they describe the morphological status of these forms, and it probably differs across the subbranches. They are often described as prefixes or proclitics, but in languages such as Mara there is little or no phonological dependency between the indexes and the verb. I usually represent forms from specific languages with a hyphen or not according to how they are presented in my source, but may occasionally add a hyphen to clarify whether a form is pre- or postverbal. Preverbal indexation is usually described as obligatory, in contrast to independent pronouns, which occur only with contrastive force. However, in some languages, such as Lamkang (Thounaojam and Chelliah 2007: 47) or Tedim (Mroueh 2019), the preverbal indexes are not reliably present in connected text.

There is a basic subject indexation paradigm shared by most of the languages across all of the branches (section 4.1). A common plural marker occurs in most of the branches, but is not attested

in Northeastern Chin or Maraic. In section 4.2 I will describe this paradigm, then note variations on it found only in individual languages or branches. Object indexation will be taken up in section 5.

4.1   The proclitic paradigm

Almost all the South Central languages share a proclitic indexation paradigm distinguishing three persons and singular and plural. The basic paradigm was described a century ago by Konow (1902, Grierson 1904). While many languages have innovated variations on the basic paradigm, the forms described in this section must be features of Proto-South Central.

4.1.1   Person indexation

The basic person indexes are self-evidently related to the independent pronouns (Thurgood 1985). The person indexes are consistent across the branch, except for Khumi, as shown in Table 16:

	1	**INC**	**2**	**3**
Northwestern				
Monsang	*kí-*	*ì-*	*ná-*	*á-*
Hrangkhol	*ki=*	*ei=*	*ni=*	*a=*
Central				
Hakha	*ka*	–	*na*	*ʔa*
Mizo	*ka*	–	*i*	*a*
Maraic				
Mara	*ei*	–	*na*	*a*
Northeastern				
Sizang	*ka*	*i*	*na*	*a*
Thadou	*ka=*	*i=*	*na=*	*a=*
Southeastern				
Hyow	*kV-*	*ì-*	*nV-*	*(V-)*
K'cho	*kah*	*mi*	*nah*	*(a)*
Southwestern				
Khumi	*ka(ŋ)*		*aŋ*	*aŋ*

Table 16. Singular subject indexes

We see the same paradigm across the languages and branches. The obvious interpretation is to regard it as shared inheritance from Proto-South Central. This requires local explanations for paradigms with one or more non-corresponding forms, such as the Mizo 2nd person and Mara 1st person forms in Table 16, which we will discuss below. (A second problem is the existence of a few languages such as Chothe with no prefixal indexation; I will not deal with this question here).

4.1.2 Distinguishing inclusive and exclusive

A cognate clusivity distinction is found in most NE and NW languages, in both independent pronouns and preverbal indexes. Cognate forms are also found in the SE subbranch, illustrated here by Hyow, but there the Inclusive independent pronouns have an innovative form. Some examples illustrating corresponding pronouns and indexes are given in Table 17. In South Central languages non-singular pronouns are compositional, consisting of a person form compounded with a dual, plural, or non-singular element; in the table -# represents the latter slot:

	1SG	EXC	INC
Northeastern			
Tedim	*kɛi*	*ko-#*	*ɛi-#*
	ka-Σ	*ka-Σ uʔ*	*i-Σ uʔ*
Thadou	*kei*	*kei-#*	*ei-#*
	ka=Σ	*ka=Σ-u*	*i=Σ-u*
Northwestern			
Monsang	*kə́*	*kí-#*	*ì-#*
	ki-Σ	*kí-N-Σ*	*ì-Σ*
Hrangkhol	*kei*	*kei-#*	*ei-#*
	ki=Σ	*ki-n=Σ*	*ei=Σ*
Southeastern			
Hyow	*kêy*	*kéy-#*	*nàŋ-kéʔy*
	kV-Σ	*kí-ní-Σ*	*ì-ní-Σ*

Table 17. Inclusive and exclusive indexes in NE and NW

This distinction must be reconstructed for the nearest common ancestor of NE and NW; since these do not form a larger subgroup within the branch, we must reconstruct Inclusive *#(e)i* for PSC. In fact the *#k-* / *#i* opposition is attested outside the branch, in some Naga languages and in Kiranti, so it appears that it is older than PSC (DeLancey 2018a, 2019).

4.1.3 Secondary innovations in proclitic paradigms

A number of languages have replaced one or more of the original person indexes. In Table 16 (section 4.1.1) we saw Mizo 2nd person *i-* replacing the original *#na-*, and in Mara 1st person *ei-* replacing original *#ka-*. I interpret both of these as reanalyses of originally Inclusive *#(e)i-*. Other languages also show shifts related to clusivity. Two Northwest languages, Chiru (Awan 2019) and Anal (Ozerov 2019), have replaced Inclusive *#(e)i* with *na-*, apparently a reanalysis of the 2nd person index. Both languages have an innovative 2nd person index; in Chiru the full pronoun *náŋ*, in Anal *à-*, probably a reanalysis of the 3rd person index, which in Anal has been replaced by innovative *và-*.

Similarly to the apparent chain shifts in Chiru and Anal, in closely-related Lamkang the vocalic 2nd person prefix resembles the common 3rd person form, while 3rd person is represented by *mə* (Chelliah et al. 2019). This is a grammaticalization of a 3rd person independent pronoun which is well attested across the branch. The 2nd person form is also the 2nd person possessive; it occurs on verbs only in interrogative and imperative clauses, apparently because it is homophonous with a very

frequent deictic prefix. Presumably replacement of the original 3rd person form with the newer pronominal form #*ma* was secondary to the innovation of a 2nd person form homophonous or close to the older 3rd person #*a-*, re-creating the distinction between 2nd and 3rd person. The innovative 2nd person form could perhaps have a history parallel to Mizo 2nd person *i-*, but there may well be other explanations to be found. In this connection we note the final irregularity on the chart, the anomalous Khumi *aŋ* indexing both 2nd and 3rd person.

4.2 Plural indexation

Most languages distinguish singular and plural indexation. There is one plural formation which is closely tied to the person markers, and may be reconstructible for PSC. Two other plural markers are attested across the branch, but developed independently of the preverbal paradigm. Dual indexation is marked in various languages, but all of the attested dual forms seem to be secondary developments.

4.2.1 Regular plural marking with #ni

Most of the languages of the Northwestern, Central, and Southeastern groups have a plural element #*ni* in the independent pronominal paradigm:

	1SG	1PL.EX	2SG	2PL	3SG	3PL
Northwestern						
Chiru	*kèi*	*kéi-ni*	*náŋ*	*náŋ-nì*	*àmá*	*àmá-nì*
Monsang	*kɔ́*	*kí-nnʷú*	*náŋ*	*níŋ-nʷú*	*ámá*	*m̩mé-nɔ̀*
Central						
Mizo	*kéy*	*kei-nìì*	*náŋ*	*náŋ-nìì*	*ânìì*	*án-nìì*
Southeastern						
Hyow	*kêy*	*kéy-níʔ*	*náŋ*	*nàŋ-níʔ*	*ání*	*ání?*
Daai	*kei:*	*kei:-nih-e*	*na:ng*	*na:ng-nih-e*	*ah-nih*	*ah-nih-nih-e*

Table 18. Pronominal forms in Northwestern, Central, and Southeastern

And this shows up attached to the person markers as well:

	1SG	1PL.EX	2SG	2PL	3SG	3PL
Northwestern						
Purum	*kV*	*ki-n*	*nV-*	*ni-n*	*ə-*	*ə-n*
Monsang	*kí-*	*kí-N*	*ná-*	*ní-N*	*á-*	*Ń-*
Central						
Mizo	*ka*	*ká-n-*	*i-*	*i-n-*	*a-*	*á-n-*
Southeastern						
Hyow	*kV-*	*kí-ní-*	*nV-*	*ní-ní-*	*(V-)*	*í-ní-*
Daai	*kah*	*kah-nih*	*nah*	*nah-nih*	*ah*	*ah-ni*

Table 19. Person/number indexes in Northwestern, Central and Southeastern

This plural formative does not occur in either the independent or the clitic pronominal series in Northeastern. Since the set of languages which share it cross-cuts the Center/Periphery split, on the most economical reconstruction it is as old as the person paradigm.

4.2.2 Relict plural marking with #ma

In a scattering of languages there is a plural morpheme *ma* or *mo*, which may occur in association with independent pronouns, with proclitic person indexes, or in postverbal agreement words. Similar plural forms are found in Kiranti and Jinghpaw (DeLancey 2013), but the precise nature of the connection, if any, between these and the South Central morphemes remains to be elucidated. The distribution of this form in the available data does not show any particular pattern. There is a *mV-* plural, originally a prefix, found in a few archaic forms in the postverbal paradigms of a few conservative Northwestern languages (DeLancey 2013), as in the Moyon 1PL.INC form, as seen in the paradigm in Table 20:

	SG	PL
1	*niŋ*	*nuŋ* EXC
		mə-no INC
2	*nə-cə*	*nə-co*
3	*na*	*ne*

Table 20. Intransitive Nonfuture conjugation in Moyon

Presumably relatable is the plural *mi* in Cho (Southeastern), which we will see in Table 24 in section 4.2.3.

In Mara we find this form in both the pronouns and preverbal indexes:

	SG	PL
1	*kei*	*kei-ma*
2	*na*	*na-mo*
3	*ano*	*a-mo*

Table 21. Mara singular and plural pronouns

	SG	PL
1	*ei* Σ	*ei-ma* Σ
2	*na* Σ	*na-mo* Σ *ei*
3	*a* Σ	*a-ma* Σ *ei*

Table 22. Mara singular and plural preverbal indexes

Note that Mara requires additional plural marking in the form of postverbal *ei* (section 4.2.4) with 2ⁿᵈ and 3ʳᵈ person subjects. Preverbal *ma-* is also found in Asho Chin (Southeastern; Otsuka 2015); in Asho only number is marked in plural forms:

	SG	PL
1	*ka=*	
2	*na=*	*ma=*
3	*ʔa=*	

Table 23. Asho Chin singular and plural preverbal indexes

4.2.3 *Dual indexation in the Southeastern group*

The Southeastern languages have innovated a dual category in the preverbal conjugation. (This is distinct from the dual words discussed in section 3.2). We saw the same dual morpheme incorporated in the postverbal paradigm in section 3.2.1. The preverbal forms are:

	Hyow	Daai	Cho
1SG	*kV-*	*kah*	*ka*
1DU.EXC	*kí-hníʔ-*	*kah-nih*	*ka-ni*
1PL.EXC	*kí-ní-*		*ka-mi*
1DU.INC	*ì-ní-*	*nih*	*ni*
1PL.INC			*mi*
2SG	*nV-*	*nah*	*na*
2DU	*ní-hníʔ-*	*nah-nih*	*na-ni*
2PL	*ní-ní-*		*na-mi*

Table 24. Dual and plural preverbal forms in Southeastern

Daai and Cho do not distinguish number in the 3ʳᵈ person preverbal indexes, but these forms in Hyow – singular (*V-*), dual *í-hníʔ*, plural *í-ní* – as well as the exclusive/inclusive distinction in the dual, show that the dual morpheme *hníʔ*, a grammaticalization of the numeral 'two', is distinct from the plural #*ni*. They have merged in Daai, where the dual/plural distinction is re-coded with postverbal number words (section 3.2.2). The most interesting feature of this table is the Cho column, where the ambiguity of the dual and plural markers has been eliminated by the adoption of a different plural marker, apparently related to the #*ma* discussed in section 3.2.2. Since the other Southeastern languages share the #*-n(i)* plural with the other subbranches, this must have been the form in Proto-Southeastern, so the *-mi* forms in Cho represent a quite recent innovation. The limited distribution of the #*ma* plural in Northwestern suggests an ancient fossil, but Cho *-mi* must have still had some productive function in Southeastern if it was available to be used in refurbishing the paradigm in the aftermath of the innovation of the confusing dual form.

4.2.4 Postverbal number marking

Two other plural markers, *#u* and *#ei*, are found in several subbranches. Both follow the verb, but occur in some languages with the preverbal as well as the postverbal conjugation. In addition, several languages have innovated new postverbal plural and sometimes dual morphemes, derived from number words.

The *#u* plural is attested in Central, and prominent in Northwestern and Peripheral. It is the only plural indexation form reported for Northeastern, where it occurs with both preverbal (Table 25) and postverbal (section 3.1) indexation:

	SG	PL
1	*ka Σ*	*ka Σ uh*
2	*na Σ*	*na Σ uh*
3	*a Σ*	*a Σ uh*

Table 25. Tedim preverbal paradigm

In Northwestern, at least as far as presently available data goes, it occurs only in the postverbal conjugation; the preverbal indexes, as we have seen in section 4.2.1, are pluralized with *-n*. In Southeastern it occurs as part of complex systems of number marking; see section 4.2.4.

The other common postverbal plural, *#ei*, is originally a plural form used with nouns, in which function it occurs across the branch. It may be that where we find it associated with a verbal construction it is evidence that the construction originated in a nominalized structure. In some languages this seems to have been incorporated into the verbal indexation system independently of the preverbal system. In Mara it occurs redundantly with 2nd and 3rd (but not 1st) person subjects, although plurality is also marked preverbally by *-ma~-mo* (Table 20, section 4.2.2). In Moyon (Northwestern), which like other Northwestern languages indexes plural subject with preverbal *-n*, postverbal *#ei* indexes plural objects:

(29) *ki   lerik   kə-pa-na*
      1SG   book   1-read-ASP
      'I am reading a book. (Kongkham 2010: 113)

(30) *ki   lerik-e   kha   kə-pa-na-e*
      1SG   book-PL   DET   1-read-ASP-PL
      'I am reading those books. (Kongkham 2010: 114)

(Note that in Moyon the preverbal paradigm occurs only in transitive clauses).

4.2.5 Miscellaneous number indexes

Several languages have unique plural and/or dual forms, always postverbal. Sometimes these also occur with nouns, and it is likely that they all originate as nominal forms. In most cases the plural is marked with one of the forms which we have already seen, and the dual is new. Table 26 shows some examples:

	DUAL	PLURAL
Thadou	*hlòn*	*ū*
Lai	*hnaa*	
Cho	*bawi*	*gui*
Daai Intr	*xooi*	*e*
Daai Tr	*ni*	*u*
Matu	*hih*	*u*

Table 26. Innovative postverbal dual and plural forms

Note that most of these are Southeastern languages, where we have already seen a shared innovative dual indexation construction.

4.2.6 *A complex number marking system*

Many languages use more than one of the number marking devices which we have discussed. Daai Chin uses all three. The preverbal indexes are marked as plural with the *#-ni* morpheme discussed in section 4.2.1:

	SG	PL
1	*kah*	*kah-nih* EXC *nih* INC
2	*nah*	*nah-nih*
3	*ah*	*ah-ni*

Table 27. Preverbal subject conjugation in Daai Chin

The *-nih* plural is also used to form nonsingular pronouns; the dual/plural distinction is then indicated by plural *-e*:

	SG		DU	PL
1	*kei:*	EXC	*kei:-nih*	*kei:-nih-e*
		INC	*nih-nih*	*nih-nih-e*
2	*na:ng*		*na:ng-nih*	*na:ng-nih-e*
3	*ah*		*ah-nih-nih*	*ah-nih-nih-e*

Table 28. Daai Chin contrastive pronouns

Note the typologically unusual development resulting from the merger of the dual and plural morphemes; the resulting homophony is disambiguated by addition of *-e* to distinguish the plural, which is thus formally marked with respect to the dual (DeLancey 2019).

There are also two pairs of postverbal number indexes. The first pair, dual *=xooi* and plural *=e*, is also used to mark number on nouns. In the verbal system these occur after *=kti* 'NonFuture' and *=kkhai* 'Future':

(31) *kei:-nih-e*   *phi*   *kah-nih*   *lo=kkhai=e*
      1PL.EXC   also   1SU-DU/PL.EXC   come-FUTURE-PL
      'We also will come.' (So-Hartmann 2009: 275)

Transitive clauses don't take the tense particles, and therefore take different number markers: dual *=ni* and plural *=u*:

(32) *she*   *kah-nih*   *mash-ei=u*   *ni*
      cow   1SU-DU/PL.EXC   breed-AO-PL   EMPHATIC
      'We breed cattle.' (So-Hartmann 2009: 276)

These are both familiar already. The plural is the pan-SC *u*, and the dual is the same as the preverbal dual, a grammaticalization of the numeral 'two'. In Daai the *u* morpheme also occurs following a Noun Phrase, but then it indicates plurality not of the head noun, but of a possessor (So-Hartmann 2009: 146-151).

5 Transitivity and object indexation

Some South Central languages are explicitly described as having only subject but never object indexation, e.g. Hmar (Baruah and Bapui 1996: 62). But most also index at least some object arguments in at least some paradigms. We find an astonishing range of patterns of object indexation; languages may use the same indexes for subject and object (section 5.1), they may innovate new object indexes for 1st and 2nd person (section 5.2), or innovate a single object index for both 1st and 2nd person (section 5.3). And some languages seem to be re-inventing canonical inverse paradigms or other unusual typological patterns (section 5.4). A recurrent theme is the special grammatical status of 1st and 2nd person (SAP's, for "Speech Act Participants"), this is particularly prominent in section 5.3 and section 5.4. In section 5.5 I will summarize the various directions of grammaticalization which we see in the development of object indexation in the branch.

5.1 *Transparent subject–object indexation*

One strategy for object indexation is to simply index subject as well as object, using the same prefixes in subject-object order. The nearest we come to this is in two Central languages, Lai and Bawm; in both of these, however, there is special marking of the 2OBJ category. So in Bawm:

O	1SG	2SG	3SG/INTR
A			
1SG		*ka-nan*	*ka*
2SG	*na-ka*		*na*
3SG	*a-ka*	*a-nan*	*a*

Table 29. Transitive indexation with singular arguments in Bawm (Reichle 1981: 147-149)

The source of the extra *-n* in the 2nd person object forms is not evident. It is homophonous with the plural index (section 4.2.1); the resulting ambiguity is partially remedied by the addition of a postverbal non-1st person object marker *nâ* (Reichle 1981: 149):

(33) *na*   *sinah*   *chabu*   *ka*   *na-n*   *pêk*
    2   to   book   1   2-OBJ   give
    'I gave the book to you.'

(34) *na-n*   *rangah*   *chabu*   *ka*   *na-n*   *pêk*   *nâ*
    2-PL   to   book   1   2-PL   give   1/2PL.OBJ
    'I gave the book to you (pl).'

In Lai we see the same paradigmatic pattern, but with a more opaque 2OBJ index *ʔin~ń* (Peterson 2003 and personal communication):

O	1SG	1PL	2SG	2PL	3SG
A					
1SG			*ka-ń*	*ka-ń Σ hnaa*	*ka*
1PL			*ka-n-ʔin*	*ka-n-ʔin Σ hnaa*	
2SG	*na-ka*	*na-ka-n*			*na*
2PL	*na-n-ka*	*na-n-ka-n*			*na-n*
3SG	*ʔa-ka*	*ʔa-ka-n*	*ʔa-ń*	*ʔa-n-ʔin*	*ʔa*

Table 30. Person indexes in Lai

It seems that the Lai 2OBJ forms must be related to Bawm 2OBJ *nan*, but it is not clear exactly how. In any case the phonological elaboration of the forms in Lai is probably motivated by the ambiguity between the object marker and the plural as in Bawm.

5.2 Distinct object indexes for 1st and 2nd person

Several languages have 1st and/or 2nd person object forms. Some of these are entirely innovative; we will see examples in section 5.2.1. In section 5.2.2 we will see 2nd person object indexes which are retained from the otherwise lost postverbal series and incorporated into a modern mixed paradigm.

5.2.1 Innovative proclitic object indexes

Laizo (Central; Bedell et al. 2001, cp. Osburne 1975) has innovated distinct object markers, 1ˢᵗ person *i* and 2ⁿᵈ *lo*:

O A	1SG	1PL	2SG	3
1SG			*ka lo*	*ka*
1PL			*ka-n lo*	*ka-n*
2SG	*i*	*i-n*		*na*
2PL	*i-n*			*na-n*
3SG	*i*	*i-n*	*a lo*	*a*
3PL	*i-n*		*a-n lo*	*a-n*

Table 31. Transitive indexation in Laizo/Zahao

The 2OBJ *lo* is found also in Falam Chin (King 2010); its origin is not determined. The 1OBJ index recalls 1ˢᵗ person *ei* in Mara (section 4.1.3), which is used for both Subject and Object indexation. If Laizo *i* is likewise derived from an inclusive marker, then it must have originally occurred only in the 2→1 form, which is often marked as inclusive in Trans-Himalayan and elsewhere (DeLancey 2018b), and then extended into the 3→1 slot.

Another example is Daai Chin (Southeastern):

O A	1SG	2SG	3SG/INTR.
1SG		*kah ning*	*kah*
2SG	*nah nah*		*nah*
3SG	*ah nah*	*ah ning*	*ah*

Table 32. Person indexes with singular arguments in Daai Chin

The Daai Chin 2OBJ form is identical to a form found indexing various combinations of 1ˢᵗ and 2ⁿᵈ person: Trung (Dulong) 1→2 request forms (Sūn 1982: 108-10), Dhimal "imperious" 1SG→2 (King 2002: 49-55), and the Lai cohortative ('Let's!', Peterson 2003: 414-5), all *-niŋ*. These are evidently cognate with one another, agreeing well in form, function, and syntagmatic position. Equating the Daai Chin 2OBJ index with them is problematic, since it is preverbal, while the others occur postverbally:

Trung	*-niŋ*	'VERB me / VERB for me'
Dhimal	*-niŋ*	'I'm gonna VERB you!'
Daai	*niŋ-*	'I/he VERB you'
Lai	*-niŋ*	'Let's you and me VERB!'

Table 33. Functions of *niŋ* in four TH languages

But since the form is clearly attested in another South Central language, and it is easy to imagine it spreading analogically from the 1→2 form to a more generalized 1/3→2 marker, and since there is no other apparent source for the Daai Chin form, it seems very likely that this is the history. If that is the case, then it seems that Daai Chin may have earlier had the same system as Purum (see section 5.3.1), and the extension of the use of *niŋ* occurred so as to re-distinguish the 1OBJ and 2OBJ categories after they merged through the extension of *nah* from 2OBJ to 1/2OBJ. Thus *nah* '1OBJ' < *-na 'SAP.OBJ' < *-na '2OBJ' < *na '2ⁿᵈ'.

Faced with the same encroaching homophony, Hyow has taken a different path:

O A	1SG	2SG	3SG/ INTR
1SG		*kì-ní*	*kV-*
2SG	*ì-ní-*		*nV-*
3SG	*V̀- / khrɔ̂ŋ-V́-*	*í-ní-*	*V́-*

Table 34. Person indexes with singular arguments in Hyow

Where Daai adopted a new 2OBJ construction, retaining the *1/2 object < *2 *na* as the 1OBJ form, Hyow has innovated a unique 1OBJ index *khrɔ̂ŋ-* in the 3→1 form, through reanalysis of an impersonal construction based on the noun 'person'. We see this same route to 1OBJ marking in Mizo in section 5.2.2.

5.2.2 *Mixed paradigms in Mizo and Mara*

Another language which has innovated 1ˢᵗ and 2ⁿᵈ person object indexes from completely different sources is Mizo, where we see a unique 1ˢᵗ person object prefix and, strikingly, a 2ⁿᵈ person object suffix which is retained from the otherwise lost postverbal paradigm:

O A	1SG	2SG	3SG/INTR
1SG		*ka-Σ cê*	*ka-Σ*
2SG	*mi-Σ (cê)*		*i-Σ*
3SG	*mi-Σ*	*a-Σ cê*	*a-Σ*

Table 35. Person indexes with singular arguments in Mizo (Chhangte 1993)

The 1OBJ prefix *mi-* is homophonous with the noun 'person', and it is likely that here, as in Hyow in section 5.2.1, we see an old impersonal construction reanalyzed as a 1ˢᵗ person object marker (DeLancey 2018b). The 2ⁿᵈ person index is a reflex of #*teʔ*, the 2ⁿᵈ person agreement word in the postverbal paradigm (section 3.2). In Mizo *cê* occurs only in transitive forms. In the colloquial language it marks only 2ⁿᵈ person object, but in some formulaic uses it also occurs in the 2→1 form (Chhangte 1993: 91-2).

The old 2nd person index is also retained in the negative transitive paradigm in Zophei (Maraic), but it has split into two morphemes: postverbal *cih* '2nd person Subject' and preverbal *cá* '2nd person Object':

O A	1SG	2SG	3SG
1SG		cá-Σ-nih	Σ-nih
2SG	pá-Σ-cih		Σ-cih
3SG	pá-Σ	cá-Σ	Σ

Table 36. Zophei negative transitive paradigm (after Lotven and Zai Sung 2020)

In the affirmative paradigm all subject arguments are indexed by proclitics, and the redundant 2nd person suffix is lost:

O A	1SG	2SG	3SG
1SG		ka-cá-Σ	ka-Σ
2SG	na-pá-Σ		na-Σ
3SG	a-pá-Σ	a-cá-Σ	a-Σ

Table 37. Zophei affirmative transitive paradigm (after Lotven and Zai Sung 2020)

In Mara, however, postverbal *chi* is retained specifically in the 2→1 form:

O A	1SG	2SG	3SG
1SG		ei cha Σ	ei Σ
2SG	ei na Σ chi		na Σ
3SG	ei na Σ	a cha Σ	a Σ

Table 38. Mara person indexation (after Arden 2010)

In effect, Mara has innovated a new 2OBJ form and a new local 2→1 form through the syntagmatic split of an original *2nd person index not specified for grammatical role. Presumably #*ce* shifted to preverbal position when it indexed an object by analogy to the preverbal 1OBJ index *na*. In the 2→1 form it remains in its original postverbal position, where it serves to distinguish this form from the otherwise identical 3→1 form, marked by the *ei* '1st person involved' and *na* '1st person object'.

The syntagmatic split was possible because the form(s) were, and still are, phonologically independent agreement words (or, in Arden's formulation, pronominal words). As evidence for this in Mizo, Chhangte (1993: 92) notes that, unlike other affixal indexes, *-cê* is outside the phonological scope of reduplication expressing continuative aspect:

(35) *mî-sik*   *mî-sik*
      1OBJ-pinch   1OBJ-pinch
      '[S/he] pinches me again and again.'

(36) [*â-sik*   *â-sik*]   *cê*   *mòò*
      3SG-pinch   3SG-pinch   2OBJ   INTERROGATIVE
      'Does [s/he] pinch you again and again?'

5.3   SAP Object indexation

Several languages have developed a paradigm in which 1st and 2nd person object arguments are indexed with the same form. We see several different paths to this pattern attested in the branch: through extension of a 2nd person index to 1st person (section 5.3.1), possibly from a plural marker (section 5.3.2), and from a cislocative construction (section 5.3.3).

5.3.1   na- as a 1/2 object index

We see the extension of a 2nd person object form to SAP object marking in Purum (NW):

O A	1SG	2SG	3SG/ INTR. SUBJECT
1SG		*kə-nə*	*kə*
2SG	*nə-nə*		*nə*
3SG	*ə-nə*	*ə-nə*	*ə*

Table 39. Transitive person indexes with singular arguments in Purum

Here we have an innovative 1st/2nd person object marker *-nə*. Reconstructing from the Purum paradigm, it seems that the 2OBJ marker has broadened its function to indicate that the object argument is either one or the other SAP.

5.3.2   Other SAP-O indexes

Another example of an SAP Object index is found in Asho Chin, where a prefix *mə-*, of undetermined origin, occurs on any transitive verb with a SAP object:

O A	1SG	2SG	3SG/ INTR S
1SG		*(kə)-mə-*	*kə-*
2SG	*mə-*		*nə-*
3SG	*mə-*	*mə-*	*ə-*

Table 40. Transitive person indexes with singular arguments in Asho Chin

This is identical to the plural index (Table 23, section 4.2.2), but there is no obvious path which derives SAP Object marking from plural. For present purposes what matters is that it is clearly not related to 2ⁿᵈ person marking, and thus represents a distinct pathway from that which we saw in section 5.3.1.

5.3.3 SAP Object marking from cislocative *hoŋ*

A common source of SAP object indexation in South Central languages is the motion verb *hoŋ* 'come'. This has become partially or completely grammaticalized as a cislocative 'hither' prefix on motion verbs in many languages, and seems to be being incorporated into the transitive indexation paradigm in some Northeastern and Central languages, where it has developed the additional function of optionally marking some transitive or ditransitive configurations with 1st person (as in Bawm) or 1ˢᵗ or 2ⁿᵈ person (Sizang, Tedim) object.

In Tedim and Sizang, we find the cislocative marker used with any transitive or ditransitive verb with 1st or 2nd person object or goal, as in these Sizang examples:

(37) *naŋ-má:* *k-oŋ* *né:* *tû:* *hî:*
      you   1-CIS   eat   will FIN
      'I will eat you.' (Stern 1984: 48)

(38) *hoŋ* *sá:t* *thê:i* *lê:*
      CIS   beat   ever   INTERROGATIVE
      'Do [they] ever beat you?' (Stern 1984: 52)

(39) *hoŋ* *sá:t* *lé:* *ká-pe:ŋ* *tál* *dŏŋ* *ká-ta:i* *tû:*
      CIS   beat   if   1-leg   break until 1-flee   FUTURE
      'If [they] beat me I'll run till my legs break.' (Stern 1984: 56)

Note that the only indication of the 2ⁿᵈ person object in (38), or the 1ˢᵗ person object in the first clause of (39), is the *hoŋ*; there is no other reference to the object argument in these clauses. Personal indexation in the transitive verb, if present, is consistently with the subject rather than with the principal participant. (This is clear in example (37); in (38-39), with 3rd person agent, there is no subject index). Thus while inverse forms with SAP subject, such as (37), are unambiguous in isolation, 3rd person subject forms depend upon context for the identification of the SAP object. Consistent with its origin in a deictic motion verb, *hoŋ* is used to mark a range of non-agentive involvement on the part of a 1ˢᵗ or 2ⁿᵈ person, not necessarily a syntactic object, as in (40), where *hoŋ* indexes, not the object of 'eat', but the 2ⁿᵈ person possessor of the object:

(40) *na-sí:a hoŋ* *ně:k* *sâk* *sǐ:a* *zia:* *sǐ:a* *hî:*
      2-tax CIS   eat2   appl   the.very   that   the.very be
      'That's the very one that ate your tax.' (Stern 1984: 49)

In Bawm (Reichle 1981: 147-149), *hawng* optionally but apparently regularly marks 1OBJ, but not 2OBJ, along with the pronominal index:

(41) *a*   *(hawng)*   *ka*   *simh*
    3   CIS   1   tell
    'He tells me.'

(42) *ka*   *pâ*   *nih*   *hâi*   *hawng*   *ka*   *pêk*
    1   father ERG   cup   CIS   1   give
    'My father gives me the cup.'

In an example like (42), where there is no 3rd person subject indexation, *hawng* disambiguates the verb form, which without it is identical to the 1st person subject form.

5.4 Inverse marking in South Central indexation paradigms

Elsewhere in the family, with the exception of West Himalayan, indexation is usually "hierarchical" (Siewierska 2013), which means that 1st and 2nd person (SAP) arguments are indexed regardless of their role (DeLancey 2017). This means that, for example, 'I hit him' and 'he hit me' have the same 1st person indexation. In some languages the resulting ambiguity is resolved by what is called inverse marking (Jacques and Antonov 2014). This is not common in South Central, but it does occur. In the canonical inverse pattern, an inverse marker is added to the verb in 2→1, 3→1, and 3→2 transitive configurations, and indicates that the argument which is indexed in the verb is not the grammatical subject. A South Central example is Monsang (NW):

A \ O	1	2	3
1		Σ-*máː-ŋ-tʃɘ*	Σ-*máː-ŋ*
			Σ-*máː-mɕ*
2	*ì-*Σ-*máː-té-nɘ*		Σ-*máː-té-nɕ*
3		*ì-*Σ-*máː-nɕ*	Σ-*máː-nɕ*

Table 41. Monsang future negative transitive paradigm (Konnerth and Wanglar 2019: 76)

All transitive paradigms in Monsang show a canonical inverse pattern. In the future negative paradigm in Table 41, the inverse marker is the erstwhile nominalizer *ì-*; in some other paradigms it is the detransitivizer *ŋ-*, but in all it occurs in the canonical pattern (Konnerth 2021).

5.5 Directions in transitive argument indexation

The basically accusative alignment which we see in argument indexation in the South Central branch represents a major difference from the other branches–Kiranti, Rgyalrongic, Nungish, Jinghpaw and Northern Naga–where we find argument indexation, and from the PTH indexation paradigm which we reconstruct based on them (DeLancey 2017). (The West Himalayan languages, like South Central, have subject indexation). This raises the question of whether the various manifestations of hierarchical patterning which we have surveyed in this section are somehow relict traces of the older pre-South Central hierarchical paradigm, but this does not seem to be the case.

Konnerth (2021) shows that both Monsang inverse markers are secondary, and indeed quite recent, as they are not shared even across the Northwest subbranch. And the lack of correspondences among the various paradigms which we examined in this section is evidence of parallel secondary innovation, not gradually diverging shared inheritance.

ABBREVIATIONS

1	first person	OBJ	object
2	second person	PL	plural
3	third person	PSC	Proto-South Central
₁	stem alternant form	NE	Northeastern
AO	agent orientation	NEG	negative
ASP	aspect	NW	Northwestern
CIS	cislocative	PERF	perfective
DET	determiner	SE	Southeastern
DU	dual	SG	Singular
EXC	exclusive	SUBJ	Subject
INC	inclusive		

DATA SOURCES

Forms not otherwise identified in the text are from the following sources:
Asho Chin: Otsuka 2015; Bawm: Reichle 1981; Cho, or K'cho: Bedell 2000; Chorei: Haokip 2018; Chothe: H. Brojen Singh 2008; Daai Chin: So-Hartmann 2009; Falam: King 2010; Lai: Peterson 2003; Hmar: Baruah and Bapui 1996; Hrangkhol: Haokip 2018; Hyow: Zakaria 2018; Khumi: Peterson 2006; Koireng: Ch. Yashawanta Singh 2010; Laizo/Zahao: Osburne 1975: Bedell et al. 2001; Lamkang: Thounaojam and Chelliah et al. 2019; Mara: Arden 2010; Matu: Bedell n.d.; Mizo: Chhangte 1993; Monsang: Bareh and War 2014, Konnerth and Wanglar 2019, and my own notes; Moyon: Kongkham 2010; Purum: Sharma and N. Gopendro Singh 2011; Sizang: Stern 1963, Sarangthem 2010; Tarao: Ch. Yashawanta Singh 2002 and my own notes; Tedim: Henderson 1965, Mroueh 2019; Thadou: Krishan 1980, Haokip 2019.

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