The status of the 1sg in Rgyalrongic and Kiranti languages

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Introduction

Several criteria have been used in the typological literature to argue for person hierarchies in indexation systems (Zúñiga 2006, 27):

1. **Direct/inverse marking**. For instance, the presence of an inverse marker in 2→1 and 3→1/2 configurations in Gyalrong languages (and not in 1→2) has been used to argue for a hierarchy 1 > 2 > 3 (DeLancey 1981; Sun & Shidanluo 2002).

2. **Slot accessibility**. In the Independent Order of most Algonquian languages, there is only one prefixal slot for person; in local configurations (2→1 and 1→2) and in inclusive forms, the verb takes the second person prefix, a fact that has been interpreted as reflecting a hierarchy 2 > 1 > 3.

3. **Access to syntactic functions**. While some languages (like Gyalrong or Algonquian) have person indexation markers that are used for all core arguments (S, A and P), it is common to have markers that are restricted to a subset of syntactic functions.

When all these criteria are taken together, conflicting hierarchies may result (see in particular Zúñiga 2006, 85-6 on Plains Cree). This suggests that they actually reflect distinct morphosyntactic phenomena, and that it may be misleading to build a single indexability hierarchy for a particular language.

In this paper, I discuss two topics related to the indexability hierarchies, which suggest a special status for the 1sg: the presence of portmanteau affixes (a sub-case of criterion 3) and the question of slot accessibilitzation (an extension of criterion 2), on the basis of data from Gyalrongic and Kiranti, and discuss their relative value for establishing an indexibility hierarchy.

1 Portmanteau forms

1.1 Khaling

As shown in Tables 1 and 2 (data from Jacques et al. 2012, 1102), in Khaling 1/2N.SG→2/3 and 3→1/2 forms are identical to their intransitive counterparts (except for the presence of inverse/2 **ʔi-** prefix in 3SG→1 forms), while 1/2SG/3→2/3 direct forms have a specific stem and suffix. The 1SG→3 has a portmanteau **-u** suffix (homophonous with the 1DE) and a unique stem form **lob-** with short, vowel, voicing of the final consonant, and backing effect (**o** instead of **ɵ**) not found elsewhere in the paradigm, and the 1SG→2SG has a portmanteau **-nɛ** suffix.

Table 1: Intransitive non-past forms in Khaling compared to transitive direct and inverse configurations

	X→3SG	2/3SG→X	INTR
1S	lob-u	ʔi-loɔ̂m-ŋʌ	soɔ̂m-ŋʌ
1DI	løp-i	ʔi-løp-i	søp-i
1DE	løp-u	ʔi-løp-u	søp-u
1PI	loɔp-ki	ʔi-loɔp-ki	soɔp-ki
1PE	loɔp-kʌ	ʔi-loɔp-kʌ	soɔp-kʌ
2S	ʔi-lē:b-ʉ	ʔi-loɔp	ʔi-soɔp
2D	ʔi-løp-i	ʔi-løp-i	ʔi-søp-i
2P	ʔi-loɔ̂m-ni	ʔi-loɔ̂m-ni	ʔi-soɔ̂m-ni
3S	lē:b-ʉ		soɔp
3D	lê:b-su		søp-i
3P	lê:b-nu		soɔ̂m-nu

Table 2: 1→2 configuration

	2SG	2DU	2PL
1SG	loɔ̂m-nɛ	loɔ̂m-su	loɔ̂m-nu
1DU/PL.EXCL	ʔi-loɔp	ʔi-løp-i	ʔi-loɔ̂m-ni
INTR	ʔi-soɔp	ʔi-søp-i	ʔi-soɔ̂m-ni

Comparative Kiranti comparison shows that these portmanteau forms are inherited, as shown in Table 3 (data from van Driem 1987, Doornenbal 2009, Bickel et al. 2007, Schackow 2015).

Table 3: Khaling portmanteau suffixes in comparative light

Configuration	Khaling	Bantawa/Puma	Yakkha	Limbu
1SG→3	-u ← *-uŋ	-uŋ	-uŋ	-uŋ
1SG→2SG	-nɛ ← *-na	-na	-nen	-nɛ

The suffix **-u** comes from ***-uŋ** due to a sound change,[1] a complex suffix which can be analyzed as comprising third person P ***-u** and 1sg A ***-ŋ**. The suffix **-nɛ** comes from ***-na**, a form identical to that found in West and South Kiranti languages (including Puma and Bantawa).

1.2 Plains Cree

The Plains Cree conjunct order paradigm presents a pattern reminiscent of Khaling: 1/2SG↔3 configurations have portmanteau forms, while 1/2PL↔3 ones are built by combining the direct **-â-** or the inverse **-iko-** suffixes with the same suffixes as the intransitive paradigm.

Table 4: Plains Cree Conjunct Order indicative paradigms. (Wolfart 1996)

	X→3SG	3SG→X	INTR
1s	-ak	-it	-yân
1pi	-â-yahk	-iko-yahk	-yahk
1pe	-â-yâhk	-iko-yâhk	-yâhk
2s	-at	-isk	-yan
2p	-â-yêk	-iko-yêk	-yêk
3s	-(im)-â-t	-iko-t	-t
3p	-(im)-â-cik	-iko-cik	-cik

However, that the pattern found in Table 4 is recent. In documents from the 19th century, the corresponding forms were nearly all unsegmentable (see table 5).

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[1] Proto-Kiranti ***-uŋ** remains **-uŋ** in word-final stressed syllables (as in **lūŋ** 'stone' and the 2SG and 3SG of intransitive verbs with stem in **-uŋ**), but changes to **ū:** with compensatory lengthening in stressed syllables when followed by a consonant and to **-u** in unstressed word-final syllables.

Table 5: 19th century Plains Cree Conjunct Order indicative paradigms (based on Dahlstrom 1989)

	X→3SG	3SG→X	INTR
1S	**-ak**	**-it**	**-yân**
1PI	**-ahk**	**-itahk**	**-yahk**
1PE	**-akiht**	**-iyamiht**	**-yâhk**
2S	**-at**	**-isk**	**-yan**
2P	**-êk**	**-itêk**	**-yêk**
3S	**-(im)-â-t**	**-iko-t**	**-t**
3P	**-(im)-â-cik**	**-iko-cik**	**-cik**

The modern Conjunct Order paradigm results from analogical levelling: the portmanteau 1/2PL→3 forms have been replaced by a combination of the direct **-â-** suffix with the suffixes **-yahk**, **-yâhk** and **-yêhk** of the intransitive animate paradigm, and the 3→1/2PL forms by the combination of the inverse **-iko-** suffix with the same intransitive endings. Only the 1SG and 2SG forms have been untouched by analogy.

Similar developments, independent from the Plains Cree case, occurred in other Algonquian languages (Ojibwe, Micmac, and more prominently, Arapaho).

1.3   Analogy: the Algonquian model

Jacques & Antonov (to appear) propose the following four generalizations regarding the directionality of analogy in direct/inverse systems based on Algonquian data which include the Plain Cree example given above:

1. Analogy operates from 3'→3 to 3→SAP forms and from 3→3' to all SAP→3 forms. This is a particular case of Watkins's law (Watkins 1962): Analogy starts out from the third person and extends to the other forms through a reanalysis of the third person ending as part of the verb stem.

2. Analogy can apply from SAP→3 forms to 3→SAP and local ones (as shown by the reshaping of 3→1PE and 3→2PL in Nishnaabemwin).

3. Analogy first applies to plural SAP forms before influencing singular SAP forms, both in the case of 3→SAP and SAP→3 paradigms. There is no evidence of a hierarchy between third singular and third plural, as we saw that the 3PL→1SG resisted analogy in Arapaho while its singular counterpart 3SG→1SG was remade.

4. Analogy first applies to 3→SAP forms before affecting SAP→3 forms. There appears to be no hierarchy between 3→SA and local forms as to their sensitivity to analogy.

According to these generations, the direct singular configurations 1SG→3 and 2SG→3 are precisely the ones where analogy is expected to take place last, and thus to better preserve portmanteau forms. These generalisations are assumed to be explainable to the relative frequency of the forms in discourse: the less frequent forms are more easily replaced by analogy that the most frequent ones.

The pattern found in Khaling 1 can thus be accounted for by assuming that the 1SG→3 and 2SG→3 forms are unsegmentable not because of a special cognitive status of the 1SG and the 2SG, but simply because these two forms escape analogy by virtue of being more common.

The presence of portmanteau forms thus, while highly interesting for historical linguistics, is a poor criterion to argue for a special status of the 1SG, or any other person.

2   Slot accessibilization

A striking particularity of 1SG forms in the transitive paradigms of Gyalrong and Kiranti languages is the fact that nearly all configurations including the 1SG allow a second suffix coreferent with the number of the other argument of the verb, while forms other than the 1SG almost never allow to specify the number of more than one argument.

Tables 6 and 7 respectively present the non-past transitive paradigms in Japhug (Gyalrongic, Jacques 2010) and Khaling (Kiranti, Jacques et al. 2012, 1102). Other Gyalrong languages have paradigms that are nearly identical to that of Japhug (see DeLancey 1981, Sun & Shidanluo 2002, Gong 2014, Zhang 2016); Kiranti languages have greater diversity in person indexation, but Dumi is very close to Khaling (van Driem 1993).

2.1 Japhug

In Japhug, 1SG→3, 3→1SG and 2→1SG all take a first person **-a** suffix. The local 1→2 form is the only configuration including a first person which does not bear a suffix coreferent with the first person. The three configurations with an **-a** suffix are precisely those that allow another number suffix (dual **-ndʑi** or plural **-nɯ**) coreferent with the other argument, whether A or P, second or third person. No other form in the paradigm allows the indexation of the number of more than one argument.

We could imagine two possible ways of accounting for this constraint without any reference to the indexability hierarchy.

First, this constraint could be seen as a prohibition against two identical suffixes in the same verb form. Thus, since second and third person number markers are identical, the only way to express a form such as 2DU→3DU would be †Σ₁-**ndʑi-ndʑi** with two times the same suffix. While such an OCP-like constraint certainly makes sense, it cannot account for the absence of second number marker in verb forms suffixed with the 1DU **-tɕi** or the 1PL **-ji**.

Second, it could be argued to be a question of phonology: all person indexation suffixes apart from **-a** have high vowels **i** or **ɯ**, and one could suppose that the ban on double suffixation in this paradigm is due to a constraint against two unstressed suffixes with high vowels.[2]

However, this hypothesis is contradicted by the fact that other verbal paradigms in Japhug do contain verb forms with two suffixes in high vowels, as in example (1).[3]

(1) **to-k-ɣlɯlɣt-ndʑi-ci**
     IFR-EVD-fight-DU-EVD
     'They fought each other.'

Given the fact that the combination of two unstressed suffixes in high vowel are possible in Japhug, there is no reason which a form such as †**kɯ**-Σ₁-**tɕi-ndʑi** (intended for 2DU→1SG) would be impossible.

It thus seems that the presence of the 1SG **-a** literally opens a slot for the additional number suffix, and that this unique ability cannot be explained away by pure morphological or phonological reasons.

2.2 Khaling

Khaling has more configurations in its paradigm which specify the number of both arguments than Japhug:

- 1SG→3

- 3→1SG

- 2→1SG

- 1SG→2

- 2SG→3

The first three are shared with Japhug (and are precisely the ones with double suffixation in Khaling too), and all except the last one involve the 1SG. Arguments against a phonological or morphological account of this distribution can also be proposed:

- While Khaling does have a constraint against suffix stacking for some configurations (such as †**-ʉ-su/nu**), the strategy adopted by the language is to remove the first suffix and keeping the second one (thus 1SG→2 **-nɛ**, 3P **-ʉ** are deleted when followed by **-su** and **-nu**).

- The 1SG→3 suffix **-u** is homophonous with the 1DE, the two forms being only distinguished by the verb stem (not for all conjugation types). There is no phonological or morphological reason why additional number marking should be possible for the former and not for the latter.

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[2]Stress in Japhug is by default on the last syllable of the word, except in the case of a few stress-attracting prefixes, and of some verbal suffixes with are unstressed and even devoiced.

[3]The circumfix **k-...-ci**, here glossed as EVD, occurs in this variety of Japhug in the inferential forms of verb whose stem begins in **a/ɣ-**, as well as in hypothetical mode.

2.3 Conclusion

In both Khaling and Japhug, the 1sg suffixes, but not any other one, open a second suffixal slot marking the number of the other argument; no phonological or purely morphological arguments have been found to account for this distribution. Given the transparency of this phenomenon (compared for instance with the question of portmanteau markers, where sound changes have obscured morpheme boundaries), it is extremely unlikely to be old, and reflects an independent development in the two branches. Khaling and Japhug are thus two independent witnesses of a peculiar status for the 1sg.

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Table 6: Japhug transitive and intransitive paradigms

	1SG	1DU	1PL	2SG	2DU	2PL	3SG	3DU	3PL	3'
1SG				ta-Σ_1	ta-Σ_1-ndʑi	ta-Σ_1-nɯ	Σ_3-a	Σ_3-a-ndʑi	Σ_3-a-nɯ	
1DU				ta-Σ_1	ta-Σ_1-ndʑi	ta-Σ_1-nɯ	Σ_1-tɕi	tɯ-Σ_3		
1PL				ta-Σ_1	ta-Σ_1-ndʑi	ta-Σ_1-nɯ	Σ_1-ji	tɯ-Σ_1-ndʑi	tɯ-Σ_1-nɯ	
2SG	kɯ-Σ_1-a	kɯ-Σ_1-tɕi	kɯ-Σ_1-ji				tɯ-Σ_1	tɯ-Σ_1-ndʑi	tɯ-Σ_1-nɯ	
2DU	kɯ-Σ_1-a-ndʑi	kɯ-Σ_1-tɕi	kɯ-Σ_1-ji				tɯ-Σ_1	tɯ-Σ_1-ndʑi	tɯ-Σ_1-nɯ	
2PL	kɯ-Σ_1-a-nɯ	kɯ-Σ_1-tɕi	kɯ-Σ_1-ji				tɯ-Σ_1	tɯ-Σ_1-ndʑi	tɯ-Σ_1-nɯ	
3SG	wɣú-Σ_1-a	wɣú-Σ_1-tɕi	wɣú-Σ_1-ji	tú-wɣ-Σ_1	tú-wɣ-Σ_1-ndʑi	tú-wɣ-Σ_1-nɯ				Σ_3
3DU	wɣú-Σ_1-a-ndʑi	wɣú-Σ_1-tɕi	wɣú-Σ_1-ji	tú-wɣ-Σ_1	tú-wɣ-Σ_1-ndʑi	tú-wɣ-Σ_1-nɯ				Σ_1-ndʑi
3PL	wɣú-Σ_1-a-nɯ	wɣú-Σ_1-tɕi	wɣú-Σ_1-ji	tú-wɣ-Σ_1	tú-wɣ-Σ_1-ndʑi	tú-wɣ-Σ_1-nɯ				Σ_1-nɯ
3'							wɣú-Σ_1	wɣú-Σ_1-ndʑi	wɣú-Σ_1-nɯ	
INTR	Σ_1-a	Σ_1-tɕi	Σ_1-ji	tɯ-Σ_1	tɯ-Σ_1-ndʑi	tɯ-Σ_1-nɯ	Σ_1	Σ_1-ndʑi	Σ_1-nɯ	

Table 7: Khaling transitive paradigm

	1S	1DI	1DE	1PI	1PE	2S	2D	2P	3S	3D	3P
1S						loɔ̃m-nɛ	loɔ̃m-su	loɔ̃m-nu	lob-u	lob-u-su	lob-u-nu
1DI									lep-i	lep-i	lep-i
1DE									lep-u	lep-u	lep-u
1PI									loɔp-ki	loɔp-ki	loɔp-ki
1PE									loɔp-kʌ	loɔp-kʌ	loɔp-kʌ
2S	ʔi-loɔ̃m-ŋʌ		ʔi-lep-u		ʔi-loɔp-kʌ				ʔi-lɛ̃b-ɥ	ʔi-lɛ̃p-su	ʔi-lɛ̃p-nu
2D	ʔi-loɔ̃m-ŋʌ-su		ʔi-lep-u		ʔi-loɔp-kʌ				ʔi-loɔp	ʔi-lep-i	ʔi-loɔm-ni
2P	ʔi-loɔ̃m-ŋʌ-nu		ʔi-lep-u		ʔi-loɔp-kʌ				ʔi-loɔp	ʔi-lep-i	ʔi-loɔm-ni
3S	ʔi-loɔ̃m-ŋʌ	ʔi-lep-i	ʔi-lep-u	ʔi-loɔp-ki	ʔi-loɔp-kʌ	ʔi-loɔp	ʔi-lep-i	ʔi-loɔm-ni	lɛ̃:b-ɥ	lɛ̃:p-su	lɛ̃:b-nu
3d	ʔi-loɔ̃m-ŋʌ-su	ʔi-lep-i	ʔi-lep-u	ʔi-loɔp-ki	ʔi-loɔp-kʌ	ʔi-loɔp	ʔi-lep-i	ʔi-loɔm-ni	lɛ̃:b-ɥ	lɛ̃:p-su	lɛ̃:b-nu
3P	ʔi-loɔ̃m-ŋʌ-nu	ʔi-lep-i	ʔi-lep-u	ʔi-loɔp-ki	ʔi-loɔp-kʌ	ʔi-loɔp	ʔi-lep-i	ʔi-loɔm-ni	lɛ̃:b-ɥ	lɛ̃:p-su	lɛ̃:b-nu