

The origin of the reflexive prefix in Rgyalrong languages.¹

Guillaume JACQUES, Université Paris Descartes, CRLAO

Abstract: In the Sino-Tibetan family, reflexivity is either not expressed on the verb as in Chinese or Tibetan or expressed by means of a ‘middle’ marker as in Dulong or Kiranti languages. Among the morphologically rich languages of this family, only Rgyalrong languages have distinct and unambiguous reflexive and reciprocal markers on the verb.

This paper shows that the reflexive prefix in Rgyalrong languages has two possible origins. It could come from a fusion of the third person singular marker and the root meaning ‘self’ or alternatively come from the free third person pronoun. Both hypotheses are compatible with our understanding of Rgyalrong historical phonology.

Keywords: Rgyalrong ; Japhug ; reflexive ; reciprocal ; Tangut ; Yukaghir ; grammaticalization

In the Sino-Tibetan family, reflexive and reciprocal meanings are often not expressed on the verb (Chinese, LB, Tibetan etc.). Some languages do have middle markers which, alongside other functions, can express reflexivity (as in Dulong/Rawang, see LaPolla 1996, 2000, LaPolla and Yang 2004), but among the morphologically rich languages of this family, only Rgyalrongⁱⁱ languages have distinct and unambiguous reflexive and reciprocal markers on the verb.

The aim of this paper is to examine the origin and the evolution of the reciprocal and reflexive forms in Rgyalrong languages.

1. Reciprocal

Let us first examine the reciprocal form. As was described in Jacques and Chen (2007:904), the Japhug reciprocal form is made by adding the intransitivizing prefix *a-* (anti-causative) to the reduplicated stem of the transitive verb. Here are two pairs of examples:

- | | | |
|-----|------------------------|--------------------------------|
| (1) | <i>ndza</i> | ‘to eat’ |
| | <i>a-ndzui-ndza</i> | ‘to eat each other’ |
| (2) | <i>nururtʂa</i> | ‘to be jealous of’ |
| | <i>a-nururtʂui-tʂa</i> | ‘to be jealous of one another’ |

It is a fully productive process, which can be applied to most transitive verbs. The subject of a reciprocal verb must always be plural, and this form never has any reflexive interpretation: *a-ndzui-ndza* cannot mean ‘to eat oneself’.

2. Reflexive

All known Rgyalrong languages have a cognate reflexive prefix: Japhug *ʂyʂ-*, Situ *wjo-* (Lin 1993:254-6) and Tshobdun (a.k.a. Caodeng) *ʂe-*ⁱⁱⁱ. In these languages, it is the last derivational prefix in the prefixal chain, and its isolation in the ST family, or even Qiangic, betrays a late origin. In this section, we will first present the syntactic functions of this prefix in Japhug, then investigate possible phonological reconstructions for this prefix in proto-Rgyalrong, and finally propose an explanation for the origin of this prefix and its grammaticalization process.

2.1 Syntactic functions

In Rgyalrong languages, the distinction between transitive and intransitive verbs is a very rigorous one. In particular, transitive verbs have a special *-a-* prefix in the Aorist when both argument are third person and no inverse prefix is present^{iv}. Therefore, it is always straightforward to determine whether a verb is intransitive, transitive or labile.

Adding the reflexive prefix decreases the verb valency by one argument, and transforms a transitive verb into an intransitive one. In the following example, the verb ‘to transform’ *sui-ʂpa* (itself the causative form of the verb ‘to become’) is transitive so that its Aorist form takes the *-a-* transitive prefix, while the reflexive *ʂyʂ-sui-ʂpa* ‘transform oneself into’ is intransitive, and bears no *-a-* prefix (**nu-a-ʂyʂ-sui-ʂpa* would be ungrammatical).

- | | | | | |
|-----|---------------|-----------|--------------|---------------------|
| (3) | <i>u-tʂui</i> | <i>nu</i> | <i>ʂkʂui</i> | <i>nu-a-sui-ʂpa</i> |
|-----|---------------|-----------|--------------|---------------------|

3SG-son DET Muntjac AOR-3>3-CAUS-become
 uzo xtut nuu-zɣɣ-suu-ɣpa
 3SG wild cat AOR-REFL-CAUS-become
 She changed her son into a muntjac, and herself into a wild cat (Lobzang 53)

When the original verb is the causative form of a transitive verb, and has therefore three arguments, the reflexive indicates coreference between the agent of the causative form and the patient of the original transitive verb:

- (4) mu-tu-kɣ-zɣɣ-suu-ndza ftɕaka tu-βzú-ndzi pjɣ-ŋu
 NEG-IMPF-NMLZ:P-REFL-CAUS-eat method IMPF-do-DU IMPFEVD-be
 ma,
 CONJ
 They did their best not to be eaten (by the cat) (The mouse, the bird and the cat 17)

This example literally means ‘They_i acted in such a way not to let (the cat) eat themselves_i’.

When the original verb is a simple transitive, the result is a morphologically intransitive verb. However, we find in some texts a few cases where the ergative appears with the unique argument of a reflexive verb, which seems to indicate that the verb preserves some degree of semantic transitivity:

- (5) tɕendɣre luulu nuu kuu uu-χɕɣl to-zɣɣ-rku
 CONJ cat DET ERG 3SG -middle EVD-REFL-pur_into
 tɕe,
 CONJ
 Then the cat put himself in between (The mouse, the bird and the cat 62)

No affix similar to Japhug zɣɣ- in both form and meaning is to be found in any other ST language, even within the Qiangic group. The rest of the paper will investigate the origin of this prefix.

2.2 Phonological reconstruction

In Jacques (2004, 2008), no reconstruction in proto-Japhug was provided for the initial cluster zɣ- found in the reflexive prefix zɣɣ-. The correspondence zɣ- :: wj- :: ʃ- is unknown elsewhere in the reconstructible Rgyalrongic vocabulary and we need to posit a special reconstruction.

The Situ form wjo- could suggest to reconstruct here a group *wj- in proto-Rgyalrong, which would have simplified to ʃ- in Tshobdun and metathesized to *jw-, then zɣ- in Japhug. However, we have already used a reconstruction *wj- in proto-Japhug for the initial ɣz- in the word *ɣzo* ‘bee’ (Jacques 2004:321). This reconstruction was proposed to account for the Zbu cognate *wujê*. In order to be able to explain both forms, we suggest two possibilities.

First, we could give two distinct reconstructions form Japhug ɣz- and zɣ-:

Proto-Japhug	Japhug	Situ	Tshobdun	Zbu
*wə-j-	ɣz-			wuj-
*wj-	zɣ-	wj-	ʃ-	
*w	ɣ-	w-	v-	v-
*j	z-	j-	ʃ-	j-

Table 1: Origins of Japhug ɣz- and zɣ- in proto-Japhug.

According to this hypothesis, in Japhug, a metathesis *wj- → *jw- first occurred. Other examples of metatheses are found in Japhug, such as *kp- → βɣ- (Jacques 2008: 373). After this change, a new *wj- cluster was created by the fusion of a *u-presyllable *u-j- → *wj-.

Alternatively, given the limited number of examples, one could argue that the proto-Japhug cluster *wj- had a different evolution in affixes and in nouns.

In any case, reconstructing *wj- seems the best solution to account for this cluster. Situ appears to have preserved the original pronunciation.

As for the rime of the prefix, we find the unusual correspondence ɣ :: o :: ə. It could be interpreted in several ways. First, one could argue that the proto-Japhug form had a central vowel *ə, as in Japhug and Tshobdun, and that it became o in Situ due to the influence of the rounded preinitial -w-. Another possibility to consider is that the central vowel appeared due to morphological vowel alternation, as attested in Japhug (Jacques 2004: 196) and Tshobdun (Sun 1998: 109). Vowel alternations such as o → ɣ, a → ɣ etc, are common in compound words, such as:

Basic form	Meaning	Compound form	Meaning	Alternation
<i>ɣzo</i>	bee	<i>ɣzɣ-ndza</i> 'bee food'	<i>Agastache rugosus</i> '	o → ɣ
<i>ɣmdzu</i>	thorn	<i>ɣmdzɣ-rgi</i> 'thorn fir'	thistle	u → ɣ
<i>stok</i>	broad bean	<i>stak-pui</i> 'little broad bean'	pea	ok → ak

Table 2: Examples of vowel alternation in nominal morphology.

In Jacques (2004, 2008)'s reconstruction, it was shown that Situ o has two origins: proto-Rgyalrong *aŋ and *o, which change to o and u respectively in Japhug. Given the fact that both Japhug o and u change become ɣ through vowel alternation, two reconstructions seem possible for the reflexive prefix in proto-Rgyalrong: either *wjaŋ- or *wjo-.

2.3 Etymology

Of these two possible reconstructions, *wjaŋ- is the only one which allows us to find an etymology for the reflexive prefix.

Two grammatical words can be reconstructed as *jaŋ in proto-Rgyalrong: one is the reflexive pronoun (Japhug *tu-zo*), the other is a sentence particle (Japhug *zo*). The reflexive *jaŋ is probably related to Tibetan *rang*; the correspondence j :: r is also

found in the word ‘bee’ considered above (proto-Rgyalrong *u-jaŋ , Tibetan *sbrang*).

Since no account of the function of the intensifier particle *zo* has appeared in print yet, it seems necessary to briefly describe how this particule is used. *zo* appears mainly in the following contexts:

A. In combination with an adverb of degree :

- (6) i_{zo} i-zimkham tɕe, pɣa wuma zo dʁn tɕe,
 We 1PL-country CONJ bird much INT NP:many CONJ
 There are many birds in our country.

- (7) a-wa nu pu-pu-ŋu nɣ phasɣɕlaŋ nu
 1SG-father DET RED-PASIMPF-be CONJ Pha seng gling DET
 zdwythuy zo a-pu-ŋu nɣ ɲu-sna
 barely enough INT IRR-IMPF-be CONJ IMPF-good
 As for my father, Phasengling is just acceptable (Gesar, 8)

B. in combination with a ideophone or a manner adverb

- (8) u-rme u-pɕi nu taqaβ zuɣzuɣ zo to-nuɕok,
 3SG-hair 3SG-outside DET needle straight INT EVD:UP-go_out
 His hair was like straight needles. (Gesar 280)

C. An entire proposition expressing the manner:

- (9) ku-numdar nɣ ɲu-numdar zo kɣ-z-rɣtɕak
 IMPF:EAST-leap CONJ IMPF:WEST-leap INT INF-CAUS-tread
 mu-pjɣ-khu,
 NEG-IMPF EVD-can
 (The frog) was jumping left and right, and she could not tread him down (the frog, 206)

D. A proposition expressing place or time:

- (10) a-rte ci tu-βde-a tɕe, ɲotɕu
 1SG-hat one IMPF:UP-throw-1SG CONJ where
 pu-ari nu tɕu zo a-kɣ-tu-rɣzi ɲu
 AOR:DOWN-go[2] DET LOC INT IRR-PERF-2-stay NP:be
 (Padmasambhāva said) “I will throw this hat of mine upwards, and you will live in the place where it fell down.” (Gesar, 30).

Although the particle *zo* is very frequent, it is not compulsory in any of these constructions. It is probably to be compared to the Tibetan conjunction *yang / kyang*, usually translated as ‘also, even’. It is therefore unrelated to the reflexive, even though they are homonymous in all Rgyalrong languages.

We will present here two hypotheses to explain the origin of the reflexive prefix.

2.3.1 Reflexive pronoun

The reflexive prefix could be derived from the reflexive pronoun, incorporated

into the verb and then grammaticalized as a reflexive marker. The *w- element in *w-jaŋ- could be interpreted as the third person pronoun^{vi}. As we proposed above in 2.2, the morpheme boundary between *w and *-jaŋ blocked the regular change *wj- → *jw- in Japhug.

In other Qiangic languages such as Tangut, the cognate reflexive pronoun^{vii} is also prefixed to the verb. It is already grammaticalized to a certain extent, as even if a reflexive pronoun appears somewhere in the sentence, the pronoun 𐰇 jij¹ must be prefixed directly to the verb. It is therefore very common in texts for this character to appear two times in the same sentence:

- (11) 𐰇 𐰇 𐰇 𐰇 𐰇 𐰇
 jij lju jij sja kiek kha
 1.36 2.52 1.36 1.20 2.53 1.17
 REFL body REFL kill want in
 As she wanted to kill herself (Jacques 2007:16, 4.2-4.3)

However, the exact grammaticalization path is not entirely clear, as the presence of the third person pronominal element *w- has not received any explanation.

It is not uncommon for a pronominal marker to be generalized as a reflexive marker. For instance, in Kolyma Yukaghir (Maslova to appear §5.4), the reflexive prefix met- is derived from the first person singular pronoun, though it is used whatever the person and number of the subject:

- (12) tudel met-juö-j
 he REFL-see-3SG:INTR
 He is looking at himself.

A closely related language, Tundra Yukaghir, preserves the older pattern where the reflexive verbs have a pronominal prefix coreferent with the subject. In Rgyalrong, the third person singular, not the first person would have been generalized. However, it is not obvious why both the third person pronoun and the reflexive pronoun would have had to be incorporated. The reflexive pronoun alone could have fulfilled this function, without any need for a second grammaticalization.

3.3.2 Full third person pronoun

This second hypothesis is not entirely different from the first one. Rather than arguing that two subsequent grammaticalizations occurred (first the reflexive pronoun, then the third person), we alternatively propose that the third person free pronoun could have been incorporated.

In Rgyalrong, the free pronouns are generally composed of a pronominal prefix and a root going back to *jaŋ (-jo in Situ, -zo in Japhug, -ji? in Tshobdun). In Japhug and Tshobdun (Sun 1998:113), all pronouns follow this structure except third person dual and plural. In Situ only the third person pronoun *wə-jo* follows this structure, and in Zbu the second person singular form *nəje?* seems to be the only one with a reflex of the *-jaŋ element.

	Japhug		Tshobdun	Situ	Zbu
1Sg	a-ʒo	a-	ɛ-jiʔ	ŋa	ŋəʔ
2Sg	nɣ-ʒo	nɣ-	nɛ-jiʔ	no	nəjeʔ
3Sg	u-ʒo	u-	o-jiʔ	wə-jo	apheʔ
1Du Incl	tɕi-ʒo	tɕi-	tsə-ʃə-niʔ	ndʒo	tɕɛ-ʃi
1Du Excl			tsə-ʃə	ŋə-ndʒe	
2Du	ndʒi-ʒo	ndʒi-	ndzə-ʃə-niʔ	ndʒo	ndʒɛʃi
3Du	ʒɣ-ni	ndʒi-	ʃɛ-niʔ	wə-jo-ndʒəs	apheʔʃi
1Pl Incl	ji-ʒo	ji-	ʃə-ʃə-rɛʔ	jo	ŋgereʔ
1Pl Excl			ʃə-ʃə	ŋə-ʃe	
2Pl	nɯ-ʒo	nɯ-	nə-ʃə-rɛʔ	ʒo	ʃnɛrɛʔ
3Pl	ʒa-ra	nɯ-	ʃɛ-rɛʔ	wə-jo-ʃe	apheʔʃe

Table 3: Personal pronouns in Rgyalrong languages.

The third person dual and plural forms (Japhug *ʒɣ-ni* / *ʒa-ra*, Tshobdun *ʃɛ-niʔ* and *ʃɛ-rɛʔ*) are formed of the –ni and –ra dual and plural clitics suffixed to the same *jaŋ stem. However, this stem underwent vowel alternation in both languages (see above, Table 2).^{viii} Besides, in Japhug, vowel harmony assimilated *ɣ* to *a*, due to the presence of *a* in the second syllable in *ʒa-ra*.

This pervasive *jaŋ element could well be the reflexive stem. In many languages, including English, intensive pronouns are formed by combining personal pronouns with reflexive (myself, himself etc). However, other languages form intensive pronouns with an adverbial unrelated to the reflexive. In French, for instance, they are formed by adding *même* ‘even, also, same’ to the strong pronoun (moi-même, lui-même etc). Therefore, it would be equally possible to interpret the *jaŋ element in the Rgyalrong pronouns as being cognate to the intensive particle *ʒo* rather than to the reflexive form.

Whatever the exact origin of the *jaŋ element, the alternative hypothesis we propose to explain the origin of the reflexive prefix in Rgyalrong would be the following: the third person pronoun *wu-jaŋ would have been prefixed to the verb and incorporated, becoming the reflexive marker in all Rgyalrong languages, as the first person pronoun in Kolyma Yukaghir.

A problem with this hypothesis is that it would imply that the grammaticalization of the reflexive occurred after the creation of the bimorphemic pronouns in Rgyalrong, relatively late in the history of the Rgyalrong languages. In the prefixal chain, the reflexive is the last derivational prefix, the furthest one from the verb root. Nevertheless, it is still closer to the verb root than any flexionnal prefix. Unless an externalization of inflection occurred (Haspelmath 1993), it is hard to explain how the incorporated pronoun could have been inserted between the inflexional prefixes and the verb stem.

4. Conclusion

In this paper, we have proposed two possible hypotheses to account for the origin of the reflexive prefix in Rgyalrong languages. Its phonological reconstruction is

relatively straightforward, but its exact origin is ambiguous: it could be either the third person pronoun singular or a reflexive pronoun. Further studies in the historical morphology of other Qiangic languages may help to decide which hypothesis is most probable.

The Rgyalrong reflexive prefix reconstructed in this article as *wjaŋ- perhaps arose as a response to the loss of the Middle marker suffix found in Dulong/Rawang (-ɕu/-ɕi), Kiranti and West Himalayish (discovered by LaPolla 1996).

Haspelmath Martin. 1993. The diachronic externalization of inflection. *Linguistics* 31.2: 279-309.

Jacques, Guillaume. 2004. *Phonologie et morphologie du Japhug (rgyalrong)*, thèse de doctorat, université Paris VII-Denis Diderot.

<http://tel.archives-ouvertes.fr/tel-00138568/fr/>

Jacques, Guillaume. 2007. *Textes tangoutes I, Nouveau recueil sur l'amour parental et la piété filiale*, München: Lincom Europa.

Jacques, Guillaume. (向柏霖) 2008. Jiarongyu yanjiu. Beijing: Minzu chubanshe.

Jacques, Guillaume and Chen Zhen 2007. Chabaohua de bujiwu qianzhui ji xiangguan wenti, *Language and Linguistics* 8.4, 883-917.

LaPolla, Randy 1996. Middle Marking in Tibeto-Burman. *Proceedings of the Fourth International Symposium on Languages and Linguistics: Pan-Asiatic Linguistics* (January 8-10, 1996), Volume 5: 1940-1954.

LaPolla, Randy 2000. Valency-changing derivations in Dulong/Rawang, in *Changing valency : Case studies in transitivity*, ed. by R.W.M. Dixon and Alexandra Y. Aikhenvald, Cambridge: Cambridge University Press.

LaPolla, Randy J. and Yang Jiangling. 2004. Reflexive and Middle Marking in Dulong-Rawang. *Himalayan Linguistics Journal* 2. 1-13.

Lin Youjing and Luoerwu 2003. Chabao jiarongyu dazanghua de quxiang qianzhui ji dongci cigan bianhua, *Minzu yuwen* 4, 19-29.

Lin Xiangrong 1993. *Jiarongyu yanjiu*. Chengdu: Sichuan Minzu chubanshe.

Maslova Elena, Reciprocals in Yukaghir languages, To appear in Vladimir P. Nedjalkov (Ed.), *Typology of reciprocal constructions*.

Nedjalkov Vladimir. 2004. Reciprocal constructions in Turkic languages, *International symposium on typology of the argument structure and grammatical relation in languages spoken in Europe and Nord and Central Asia*, LENCA-2, Kazan State University, May 11-14.

Sun, Jackson T.-S. 1998. Nominal Morphology in Caodeng rGyalrong. *Bulletin of the Institute of History and Philology* 69.1:103-149.

Sun, Jackson T.-S. 2000. Parallelisms in the verb morphology of Sidaba rGyalrong and Guanyinqiao in rGyalrongic. *Language and Linguistics* 1.1:161-190.

Sun, Jackson T.-S. 2003. Caodeng rGyalrong. *Sino-Tibetan Languages*, ed. by Graham Thurgood and Randy J. LaPolla. London:Routledge, pp. 490-502.

Sun, Jackson T.-S. 2006. Caodeng jiarongyu de guanxiju, *Language and Linguistics*, 7.4: 905-933.

Sun, Jackson T.-S. and Shidanluo 2002. Caodeng jiarongyu yu “rentong dengdi”

xiangguan de yufa xianxiang, *Language and Linguistics*, 3.1:79-99.

ⁱ I would like to thank Nathan Hill for his help correcting an earlier version of this paper, Randy LaPolla for useful comments and Chen Zhen 陳珍 and her family for teaching me Japhug. The following abbreviations are used: A (agent of transitive verb), AOR (aorist), CAUS (causative), CONJ (conjunction), DEM (demonstrative), DET (determiner), DU (dual), ERG (ergative), EVD (evidential), IMPF (imperfective), IMP (imperative), INF (infinitive), INT (intensifier), INTR (intransitive), INV (inverse), IRR (irrealis), LB (Lolo-Burmese), LOC (locative), NEG (negation), NMLZ (nominalization), NP (non past), P (patient of transitive verb), PASIMMPF (past imperfective), PERF (perfective), PL (plural), RED (reduplication), REFL (reflexive), S (only argument of intransitive verb), SG (singular), ST (Sino-Tibetan), 1 (first person), 2 (second person), 3 (third person), [2] stem 2.

ⁱⁱ There are four Rgyalrong languages: Japhug/Chabao 茶堡, Zbu/Ribu/Showu 日部/修梧, Tshobdun/Caodeng 草登, Situ/Eastern Rgyalrong 四土, spoken in Rngaba (Aba 阿壩) Autonomous County, Sichuan, China. For a general overview of Rgyalrong dialects, see Lin (1993:411-625) and Sun (2000:162-169). Rgyalrong languages belong to the Qiangic branch of ST, which also comprises the dead Tangut language (cited in example 11), Lavrung, Horpa/Shangzhai, Pumi, Muya, Queyu, Qiang and perhaps a few other languages of western Sichuan such as Zhaba, Guiqiong, Ersu, Namuyi and Shixing.

ⁱⁱⁱ See for instance Sun 2006: tə-ko-ʃə-sə-rqɔ (Perf-Nmlz:A:Inv-Ref1-Caus-hug2).

^{iv} This prefix fuses with the Aorist directional prefix, see Lin and Luo (2003), Jacques and Chen (2007).

^v Better known under its Chinese name 藿香 huoxiang.

^{vi} Cognate to the possessive prefix Japhug w-, Situ wə-, Zbu və-.

^{vii} Tangut 𑖧 jij¹ is a perfect cognate of Rgyalrong *jaŋ, as the -jij :: -aŋ correspondence is regular.

^{viii} The alternation was o → ɤ in Japhug and i → ɐ in Tshobdun.