Subjects, objects and relativization in Japhug

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Abstract: Japhug is a language with ergative alignment on NP arguments and direct-inverse verbal indexation. However, this article, through a detailed description of relativizing constructions in Japhug, shows the existence of accusative pivots and proposes an unambiguous definition of 'subjects' and 'objects' in this language.

Keywords:Japhug, Relativization, Subject, Object, Syntactic pivot

提要：茶堡话有作格格局的格标记，同时在动词上有正向/反向类型的人称范畴。虽然在动词和名词形态上没有主格/宾格格局，但通过对关系句的仔细考察可以证明茶堡话有非常清楚主格/宾格格局的句法枢纽，在这些枢纽的基础上可以提出对"主语"和"宾语"明确不含糊的定义。

关键词：茶堡话，关系句，主语，宾语，句法枢纽

1 Introduction

The present article deals with relative clauses in Japhug, and how these constructions provide evidence for the existence of syntactic pivots in this language. While previous publications have discussed relative clauses in Rgyalrong languages (in particular Sun 2006, Sun & Lin 2007, Jacques 2008, Prins 2011), this is the first systematic description of relative clauses in Japhug.[2] This article is divided in five sections.

First, I provide background information on flagging and person indexation on the verb in Japhug.[3] Transitivity is morphologically marked in Japhug in an unambiguous way. In addition to plain intransitive and transitive verbs, we find semi-transitive verbs which share their morphological properties with intransitive verbs and some of their syntactic properties with transitive verbs. In addition, both secundative and indirective ditransitive verbs are found.

Second, I present general information on relative clauses in Japhug, and in particular show the existence of both head-internal and prenominal relative clauses.

Third, I describe non-finite relative clauses, whose main verb is in a participial form. Most relative clauses belong to this type, and three participles in *kɯ-*, *kɤ-* and *sɤ-* are used depending on the syntactic function of the relativized element.

Fourth, I study finite relative clauses, whose main verb is not nominalized. The use of this type of relative is highly restricted.

Fifth, I summarize the data presented in the previous sections and show how it allows us to strictly define syntactic pivots that can be labeled as 'subjects' and 'objects' in Japhug. In addition, I discuss how this study is relevant for the typology of alignment in Sino-Tibetan languages and beyond.

2 Flagging and indexation

The present section presents background information on person marking and flagging in Japhug, and shows that neither 'subjects' nor 'objects' can be straightforwardly defined on the exclusive basis of morphogical marking on verbs and on NPs.

2.1 Flagging

Japhug presents strict verb-final word order. The only elements that can occur post-verbally are sentence-final particles, some ideophones and adverbs (see Jacques 2013b, 275-6), and right-dislocated constituents.

Japhug has ergative alignment on all non-SAP arguments: S and P are unmarked (examples 1 and 2), while the A of transitive verbs receives the postposition *kɯ* (example 2). This postposition is obligatory with noun phrases and third person pronouns, but in the case of first and second person pronouns it is optional. The postposition *kɯ* can also be used to mark instruments.

(1) *tɤ-tɕɯ*   *nɯ jo-ɕe*
INDEF.POSS-boy DEM IFR-go

The boy went (there).

(2) *tɤ-tɕɯ*   *nɯ kɯ χsɤr qaɕpa nɯ cʰɤ-mqlaʁ*
INDEF.POSS-boy DEM ERG gold frog   DEM IFR-swallow

The boy swallowed the golden frog. (Nyima Wodzer.1, 131)

Japhug is a strictly postpositional language, and postpositional phrases can be headed by either postpositions (such as comitative *cʰo* or locative *zɯ*) or relators (which must take a possessive prefix, as dative *ɯ-ɕki*, temporal and locative *ɯ-qʰu* 'after' etc). Indirective ditransitive verbs such as *kʰo* 'to hand over', *tʰu* 'to ask', *rŋo* 'to lend' or *ti* 'say' mark their recipient with the

dative *-ɕki* or *-pʰe*,[4] as in example (3) (an oblique case, as is shown in section 4.7).

(3)   *tɤ-pɤtso*   *ra kɯ nɯ-sloχpɯn*   *ɯ-ɕki*   *to-tʰu-nɯ*
   INDEF.POSS-child PL ERG 3PL.POSS-teacher 3SG-DAT IFR-ask-PL

   The children asked their teacher. (Looking at the snow, 11)

Secundative ditransitive verbs (such as *mbi* 'give') mark both the theme and the recipient in the absolutive.

2.2   Indexation of arguments

Japhug verbs have two conjugations, transitive and intransitive. The intransitive conjugation indexes the person and number (singular, dual, plural) of the S, while the transitive conjugation indexes the person and number of both A and P. The indexation of arguments on transitive verb follows a quasi-canonical direct-inverse system (see Jacques 2010, Jacques & Antonov 2014). The person marking prefixes and suffixes of the intransitive conjugation can be combined with either direct marking (via stem alternation), inverse marking (the *wɤ-* prefix) or portmanteau prefixes (the local scenario markers *kɯ-* $2 \to 1$ and *ta-* $1 \to 2$).

In the case of ditransitive verbs as well, only two arguments can be indexed: either the theme (in the case of indirective verbs, such as *tʰu* 'ask') or the recipient (in the case of secundative verbs, such as *mbi* 'give') is treated as the P, while the the third argument receives no indexation on the verb. If a speech act participant (first or second person, henceforth SAP) occurs as the T of an indirective verb, it cannot be interpreted as the recipient. Thus, sentence (4) cannot be translated as 'he asked me'.

(4)   *tɤ́-wɤ-tʰu-a*
   PFV-INV-ask-1SG

   He asked about me / he asked for my hand in marriage (elicited)

2.3   Semi-transitive verbs

Japhug has a special sub-category of intransitive verbs with two absolutive arguments. Only one of these arguments is indexed on the verb, regardless of any person or animacy hierarchy, as illustrated by example (5).

(5)   *aʑo tɤ-rɟit*   *χsɯm aro-a*
   I   INDEF.POSS-child three   have:FACT-1SG

   I have three children. (elicited)

In example (5), agreement with the P-argument would lead one to expect a form **aro-a-nɯ* if the verb were morphologically transitive.

These *semi-transitive* verbs include the possessive verb **aro** 'to possess', experiencer verbs **rga** 'to like', **sɤŋo** 'to listen' and **ru** 'to look at' and verbs such as **rmi** 'to be called ...', **rʑaʁ** 'to spend ... nights'. The possessor or the experiencer is indexed on the verb, while the possessee/stimulus is not. The verb **ru** 'to look' is a special case, as the stimulus can be optionally marked with the dative *-ɕki*.

This semi-transitive construction, which involves two unmarked arguments, only one of which is indexed on the verb, is superficially similar to the 'bi-absolutive' construction found in Nakh-Daghestanian (Forker 2012). However, the Japhug semi-transitive verbs differ from bi-absolutive verbs in Daghestanian languages in that this construction is not restricted to a specific TAM category. They are also distinct from 'extended intransitive' verbs in the sense of Dixon & Aikhenvald (2000, 3), as will be shown in section 4.7.

A better typological parallel is provided by the VAIO (intransitive animate verbs with object) found in Algonquian languages (cf Valentine 2001, 242): although Algonquian languages do not have ergative flagging, VAIO verbs behave like Japhug semi-transitive verbs in that they are conjugated intransitively and the person/number of one of the arguments is indexed on the verb, while the other is not.

Interestingly, there is some overlap between Japhug semi-transitive verbs and Algonquian VAIO verbs: both include verbs of perception and verbs of possession. Further typological comparisons on this specific issue is deferred to future research, as the present article strictly focuses on Japhug.

The absolutive argument that is not indexed on the verb will be referred to as the 'semi-object' in the following sections. Its syntactic status will be discussed in detail.

2.4 Are there subjects and objects in Japhug?

The data presented in this section show that neither flagging nor indexation on the verb provide any evidence for positing 'objects' or 'subjects' in Japhug. However, the following sections explore this question from the point of view of syntactic pivots (Van Valin & LaPolla 1997, 275), and show that the study of relativization offers critical evidence for positing the existence of subject and objects in Japhug.

3   Relative clauses in Japhug

Relative clauses in Japhug can be classified in two ways, depending on the place of the head noun and on the form of the subordinate verb. In this section, I briefly present the general types of relative clauses in Japhug depending on the first criterion.

Dixon (2010, 314) describes of the 'Canonical Relative Clause Construction' as follows:

- It involves two clauses (a main clause and a relative clause) making up one sentence.

- These two clauses share an argument (the Common Argument).

- The relative clause is a modifier of the Common Argument.

- The relative clause must have a predicate and its core arguments.

Such a definition allows for various types of relative clauses, including head-internal ones, but it excludes correlatives, non-restrictive relative clauses (which are in apposition to the NP, and thus not modifiers in the proper sense) and headless (or free) relative clauses.

In linguistic theories that allow for the existence of empty elements, constructions such as (6) with a stand-alone nominalized verb can be viewed as a special sub-type of relative clauses whose head noun has been deleted (Dryer 2007, 197-205).

(6) $[\emptyset_i$ ***puɯ-kɤ-sat***$]_{RC}$ $\emptyset_i$ ***nɯ***   ***kɤ-mto nɯ***
    PFV-NMLZ:P-kill   DEM INF-see DEM

     pɯ-rɲo-t-a.
     PFV-experience-PST:TR-1SG

     I have already seen ones that had been killed (of owls). (Owls, 20)

Whatever the merits and demerits of such an approach from a theoretical point of view, there is a practical advantage of treating such constructions as relative clauses in the particular case of Japhug: all canonical relative clauses in Japhug (except finite relative clauses with relativized time or place adjunct, see section 5.3) can be turned into headless relative clauses by removing the head noun. Headless relative clauses are well-attested in many other languages of the Sino-Tibetan family (Genetti et al. 2008, 128-9), and appear to be relatively common in text corpora in these languages.

Coupe (2007, 227) points out that head-internal relative clauses can be distinguished from other uses of nominalized clause by the fact that the deleted head can always be recovered. For instance, in example (6), restoring the deleted head noun ***pɣɤkʰɯ*** 'owl' is possible in either one of the two slots indicated by $\emptyset$.

The head deletion analysis of headless relative clauses however raises an issue in the case of Japhug: when A or P arguments are relativized either head-internal or prenominal relative clauses are attested (see for instance examples 7 and 8). If head-internal relative clauses are analyzed as having a gap corresponding the common argument (or adjunct), it is not obvious which, of the relative-internal or the post-relative gap, should be considered to be the head of the relative (see example 9).

(7) [**aʑo tɯ-skɤt**$_i$$^{\text{HEAD}}$ **stu**   **a-kɤ-nɯ-rga**]$_{\text{RC}}$ $\emptyset_i$ **nɯ**
I   INDEF.POSS-language most 1SG-NMLZ:P-APPL-like   DEM

kɯrɯ-skɤt   **ŋu**
Rgyalrong-language be:FACT

(8) [**aʑo** $\emptyset_i$ **stu**   **a-kɤ-nɯ-rga**]$_{\text{RC}}$ **tɯ-skɤt**$_i$$^{\text{HEAD}}$ **nɯ**
I   most 1SG-NMLZ:P-APPL-like INDEF.POSS-language DEM

kɯrɯ-skɤt   **ŋu**
Rgyalrong-language be:FACT

Rgyalrong is my favourite language. (elicited)

(9) [**aʑo** $\emptyset_i$$^{\text{HEAD?}}$ **stu**   **a-kɤ-nɯ-rga**]$_{\text{RC}}$ $\emptyset_i$$^{\text{HEAD?}}$ **nɯ**
I   most 1SG-NMLZ:P-APPL-like   DEM

kɯrɯ-skɤt   **ŋu**
Rgyalrong-language be:FACT

My favourite is Rgyalrong. (elicited)

For this reason, I do not indicate the deleted head in the examples of head-internal relative clauses in this article.

Post-nominal relative clauses have been described for some languages of the Sino-Tibetan family (see Genetti et al. 2008, 130). In the Japhug corpus however, all examples of relative clauses following the head noun examined so far can be interpreted as head-internal relative clauses.

4 Non-finite relative clauses

Non-finite relative clauses in Japhug have verbs in their participial form, and are formally distinct from independent main clauses, which require a verb in finite form. All arguments and adjuncts that can be relativized by finite relative clauses (section 5) can also alternatively be relativized with non-finite relative clauses, but the reverse is not true.

In this section, I first present the morphology of the three participles attested in Japhug. Then, I discuss all types of non-finite relative clauses, classified by the syntactic function of the relativized element, including core arguments, possessor of arguments and oblique arguments or adjuncts.

4.1 Participles

Japhug verbs have a rich array of nominalized forms. Three nominalized forms are distinct from the rest in that they preserve some verbal characteristics: they can serve as predicates of subordinate clauses, take TAM or associated motion marking, and I thus refer to them as 'participles'.

Participles differ from finite verbs in three regards. First, they cannot serve as the predicate of a main clause. Second, they cannot take the

personal prefixes and suffixes of intransitive and transitive conjugation (including direct/inverse marking); rather, in some cases they take a possessive prefix coreferent with one the arguments of the participle. It is not possible to index more than one argument on a participial form. Third, there are restrictions on the TAM marking on these verbs.

There are three participles in Japhug, the S/A participle in *kɯ-*, the P participle in *kɣ-* and the oblique participle in *sɣ-*. Examples (10) to (14) illustrate their basic functions. Their uses in building relative clauses are studied in the following sections. Their other functions (in clause linking or complementation) are not discussed in the present article (see Jacques 2014a).

The S/A participle refers to the S (in the case of an intransitive verb, example 10) or the A (in transitive verbs, 11). In the case of transitive verbs, a possessive prefix coreferent with the P is obligatory when no overt NP corresponding to the P is present, and when no other prefix is added to the participle.

(10)   *kɯ-si*
       NMLZ:S/A-die
       'The dead one'

(11)   *ɯ-kɯ-sat*
       3SG-NMLZ:S/A-kill
       'The one who kills him.'

The P-participle corresponds to the P-argument. This form is homophonous with the infinitive.[5]

(12)   *kɣ-sat*
       NMLZ:P-kill
       'The one that is killed.'

It can appear with an optional possessive prefix coreferent to the agent as in (13).

(13)   *a-kɣ-sat*
       1SG-NMLZ:P-kill
       'The one that I kill.'

The *sɣ-*prefix (and its allomorphs *sɣz-* and *z-*) is used for non-core argument nominalization, in particular recipient of indirective verbs, instruments, place and time. It takes a possessive prefix which can be coreferent with S, A or P.

(14)   *ɯ-sɣ-ɣi*
       3SG-NMLZ:OBLIQUE-come
       'The place/moment where/when it comes.'

More complex participial forms, including negative, associated motion or TAM prefixes are also possible, as shown by example (15).

(15) *ɯ-ɣɯ-jɤ-kɯ-qru*   *tɤ-tɕɯ*
      3SG-CISLOC-PFV-NMLZ:S/A-meet INDEF.POSS-boy

      The boy who had come to look for her. (The three sisters 231)

Table 1 summarizes the template of participial verb forms.

Table 1: The template of participial verb forms in Japhug

-5	-4	-3	-2	-1	Σ
possessive prefix	negative prefix	associated motion prefix	TAM directional	participle prefix	enlarged stem

4.2 S and A Relativization

The only way to relativize either S or A arguments in Japhug is by a non-finite relative with a verb in its *kɯ-* participle form.

Relativization of the S is most often expressed by a head-internal relative. Since Japhug has strict verb final word order, the participial verb follows the head noun as in (16).

(16) *ɯ-ɣmbaj*   *zɯ* [*tɕʰɤ*ᴴᴱᴬᴰ *tu-kɯ-ndɯ*]ᴿᶜ   *ci*
      3SG.POSS-side LOC ladder   IPFV-NMLZ:S-be.built INDEF

      pɯ-tu   *ɲɯ-ŋu*
      PST.IPFV-exist SENS-be

      There was a ladder which was leaning on the side (of the tower). (Slobdpon, 55)

Adjectives are a subclass of stative verbs in Japhug,[6] and can only be used as noun modifiers in participial form, as in (17). All attributive adjectives in Japhug thus form a head-internal relative.

(17) *nɯnɯ li*   [**smɤn**ᴴᴱᴬᴰ *mɤʑɯ*   *kɯ-pe*]ᴿᶜ   *ɲɯ-ŋu.*
      DEM   again medicine   not.only NMLZ:S-good SENS-be

      This is an even better medicine. (21, pri, 85)

Prenominal relative clauses with relativized S are also possible, as in example (18), but they are more restricted and more commonly occur in the case of very long relative clauses or when several relative clauses share the same head noun.

(18) [[*mɣŋi kɣ-kɯ-ɣe*]$_{\text{RC}}$ *χpɯn*$^{\text{HEAD}}$ *tʰɯ-kɯ-rgɣz*]$_{\text{RC}}$
Mangi PFV:EAST-NMLZ:S-come[II] monk   PFV-NMLZ:S-old

ci   *pjɣ-tu*   *tɕe,*
INDEF IFR.IPFV-exist LNK

There was an old monk who had come from Mangi. (08 kWqhi, 19)

When the relativized element is the A, prenominal relative clauses such as (19) are more common.

(19) [*tɯ-nɯ*   *ɯ-kɯ-tsʰi̥*]$_{\text{RC}}$ *tɣ-pɣtso*$^{\text{HEAD}}$ *ɣɯ*
INDEF.POSS-breast 3SG-NMLZ:A-drink INDEF.POSS-child GEN

ɯ-kɯ-mŋɣm   *ɲɯ-ŋu*
3SG.POSS-NMLZ:S-be.painful SENS-be

It is a disease of children who drink milk from the breast. (25 kACAl, 61)

Head-internal relative clauses in this case are relatively rare in the corpus. As shown by example (20), the relativized A keeps ergative marking *kɯ-* in head-internal relative clauses.

(20) [[*tɣ-pɣtso*   *ci*   *kɯ*]$^{\text{HEAD}}$ <yangma> *ɯ-kɯ-nɯmbɣɣpɯ*]$_{\text{RC}}$
INDEF.POSS-child INDEF ERG   bicycle   3SG-NMLZ:A-ride

ci   *jɣ-ɣe*
INDEF PFV-come[II]

A boy who was riding a bicycle arrived. (Pear story, Chenzhen, 5)

As pointed out by Sun (2003) and Sun (2006) concerning Tshobdun, a close relative of Japhug, the fact that both S and A arguments are relativized by the same constructions – prenominal or head-internal participial relative clauses in *kɯ-* – suggests the existence of a 'subject' pivot. This question is discussed in more detail in section 6.

4.3 Possessor Relativization

When possessors are relativized, the possessed noun remains *in situ* and the verb are nominalized with the prefix *kɯ-* like S and A arguments. A resumptive possessive prefix on the possessed noun is obligatory whether the possessor is overt (as in 21) or not (22).

(21) *akɯ zɯ* [*qapri*$^{\text{HEAD}}$ *ci*   *ɯ*$^{\text{HEAD}}$-*kɣχcɣl*
east LOC snake   INDEF 3SG.POSS-middle.of.the.head

ɯ$^{\text{HEAD}}$-*ʁrɯ*   *kɯ-tu*]$_{\text{RC}}$ *ci*   *ɣɣʑu*   *tɕe,*
3SG.POSS-horn NMLZ:S-exist INDEF exist:SENSORY LNK

In the east, there is a snake with a horn in the middle of his head. (The divination, 43)

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(22) [*içqʰa* *nɯ*^{HEAD}-*me* *lʁɯba kɯ-ŋu*] *ra ɣɯ*
the.aforementioned 3PL.POSS-daughter mute NMLZ:S-be PL GEN

nɯ-kʰɣru *lɤ-nɯ-ɬoʁ,*
3PL.POSS-kitchen.door PFV:UPSTREAM-AUTO-come.out

As he entered the door of the kitchen of those whose daughter was mute. (The divination2, 55)

When the possessor is first or second person, the resumptive possessive prefixes are not neutralized to third person (see example 23).

(23) [*nɤ*^{HEAD}-*mu* *nɤ*^{HEAD}-*wa* *kɯ-tsʰoz*]_{RC} *tɯ-ŋu,* *aʑo*
2SG.POSS-mother 2SG.POSS-father NMLZ:S-complete 2-be:fact I

[*a*^{HEAD}-*mu* *kɯ-me*]_{RC} *ŋu-a* *tɕe*
1SG.POSS-mother NMLZ:S-not.exist be:fact-1SG LNK

You are someone whose father and mother are all there, I am someone without a mother. (Nyima wodzer, 12)

However, unlike S and A arguments, possessors cannot be relativized by prenominal or headless non-finite relative clauses; only head-internal relative clauses are possible.

4.4   P Relativization

Unlike S, A and possessors, P arguments can be relativized with either finite or non-finite relative clauses. The first type is discussed in section 5.1. The present section describes non-finite relativization of P arguments.

When the relativized participant is the P, both head-internal (24), prenominal (25) or headless relative clauses are possible. In the case of non-finite relativization, the verb is in the P-participle form with a *kɤ-* prefix.

(24) [*tɯrme*^{HEAD} *mɤ-kɤ-nɯfse*]_{RC} *jɤ-ɣe* *tɕe tu-nɯ-ɤndzɯt*
person NEG-NMZL:P-know PFV-come[II] LNK IPFV-APPL-bark

When an unknown person comes, it barks at him. (05 khWna, 9)

(25) [*aʑo a-mɤ-kɤ-sɯz*]_{RC} *tɤjmɤɣ*^{HEAD} *nɯ* *kɤ-ndza*
1SG 1SG-NEG-NMLZ:P-know mushroom DEM INF-eat

mɤ-naz-a
NEG-dare:FACT-1SG

I do not dare to eat the mushrooms that I do not know. (23 mbrAZim, 103)

Unlike in Tshobdun (Sun & Lin 2007, 10), in Japhug non-finite relative clauses with possessive prefixes are not restricted to a generic state of affairs, but can refer to particular situations as in the pseudo-cleft in (26).

(26) *lɤ-fsoʁ* *ɯ-jɯja* *nɯ* *pjɯ-ru* *tɕe*
PFV-be.clear 3SG-along DEM IPFV:DOWN-look LNK

[*ɯ-kɤ-nɯmbrɤpɯ*]_{RC} *nɯ* *kʰu* *pɯ-ɕti* *ɲɯ-ŋu,*
3SG-NMLZ:P-ride DEM tiger PST.IPFV-be.ASSERT SENS-be

As the day was breaking, looking down, he (progressively realized that) what he was riding was a tiger. (Tiger, 20)

4.5 T Relativization

As mentioned in section 2, both indirective and secundative verbs are found in Japhug. By definition, the theme of indirective verbs is treated as the P, and need not be discussed in this section.

The theme of secundative verbs like *mbi* 'give' does not receive any flagging; it differs from the P-argument of monotransitive verbs in that there is no indexing on the verb of its person/number. However, the theme can be relativized by a non-finite relative (either prenominal or head-internal) with a P-participle in *kɤ-* (example 27) exactly like the P argument of a monotransitive verb.

(27) *tɕe* [*ɬamu* *kɯ* *qajɣi*^{HEAD} *nɯ-kɤ-mbi*]_{RC} *nɯ* *tu-ndze*
LNK Lhamo ERG bread PFV-NMLZ:P-give DEM IPFV-eat[III]

pjɤ-ŋu.
IPFV.IFR-be

He was eating the bread that Lhamo had given him. (The Raven, 111)

For secundative verbs, non-finite relative clauses with a P-participle are thus ambiguous: from the form of the verb, it is impossible to determine whether the relativized participant is the theme or the recipient. The form *nɯ-kɤ-mbi* PFV-NMLZ:P-give can thus mean either '(the thing) X has given him' or '(the person) whom X has given it to'.

4.6 Semi-transitive verbs

In the case of semi-transitive verbs, the absolutive argument that is indexed on the verb is relativized like a normal S with a non-finite relative with a *kɯ-* participle as in example (28), with the verb *rga* 'like', whose experiencer is treated as the S, and the stimulus is the semi-object.

(28) [*tɯrme*^{HEAD} *kɯ-rga,*]_{RC} [*wuma ʑo* *kɤ-ndza kɯ-rga*]_{RC}
person NMLZ:S-like very EMPH INF-eat NMLZ:S-like

ɣɤʑu.
exist:SENSORY

There are persons who like it, who like to eat it. (22 BlamajmAG, 62)

On the other hand, the semi-object can be relativized by a non-finite (prenominal or head-internal) relative with a verb in *kɤ-* prefixed P-participle form, as in example (29) (a pseudo-cleft construction). The (optional) possessive prefix is coreferent here with the S.

(29) [*pɣa ra nɯ-kɤ-rga*]   *nɯ   qaj   ntsɯ   ŋu*
    bird PL 3PL-NMLZ:P-like DEM wheat always be:FACT

    (The food) that birds like is always wheat (not barley). (23 pGAYaR, 29)

Thus, while semi-transitive verbs are treated as intransitive verbs from the point of view of indexation and flagging, their semi-object can be relativized with the same construction as the P of a transitive verb.

4.7 Oblique Relativization

Other arguments and adjuncts, when they can be relativized in a non-finite relative clause,[7] require the use of a non-finite relative with a verb in the oblique participle in *sɤ-*.

This includes the recipient of indirective verbs (but not secundative verbs) as in (30), comitative arguments in *cʰo* 'with' (31), time adjuncts (32), place adjuncts (33) and instruments (34). Note that goals of motion / manipulation verbs can alternatively be relativized with the finite verb construction, see section 5.3.

(30) [*ɯ-sɤ-fɕɤt*]ᵣ꜀   *pjɤ-me*   *qʰe tɕe*
    3SG-NMLZ:OBLIQUE-tell IPFV.IFR-not.exist LNK LNK

    tɤ-pɤtso   *ɯ-ɕki   nɯ tɕu nɯra   tɕʰi*
    INDEF.POSS-child 3SG-DAT DEM LOC DEM:PL what

    pɯ-kɯ-fse   *nɯra   pjɤ-fɕɤt.*
    PST-NMLZ:S-be.like DEM:PL IFR-tell

    She had no one (else) to tell it to, so she told the boy everything that had happened. (140515 congming de wusui xiaohai, 77)

(31) *tɕe* [*ɯʑo ɯ-sɤ-ɤmɯmi*]ᵣ꜀   *nɯ   dɤn*
    LNK it   3SG-NMLZ:OBLIQUE-be.in.good.terms DEM be.many:FACT

    ma   ca   kɯ-fse   qaʑo kɯ-fse,   tsʰɤt
    because musk.deer NMLZ:S-be.like sheep NMLZ:S-be.like goat

    kɯ-fse,   ɯʑo cʰo kɯ-naχtɕɯɣ   sɯjno, χɕaj
    NMLZ:S-be.like it   with NMLZ:S-be.identical herbs grass

    ma   mɤ-kɯ-ndza   nɯ ra cʰo nɯ
    apart.from NEG-NMLZ:A-eat DEM PL with DEM

    amɯmi-nɯ   tɕe,
    be.in.good.term:FACT-PL LNK

The (animals) that are in good terms with the rabbit are many, it is in good terms with those that only eat grass, like musk deer, sheep or goats. (04 qala1, 33-4)

(32) *tɕe numu ʑaka [ɯ-sɤ-ji]*_{RC} *ɲɯ-ŋu tɕe*
LNK DEM each 3SG-NMLZ:OBLIQUE-plant SENS-be LNK

These are the (periods) when people plant each of these (crops). (15 tChWma, 19)

(33) *kɯki tɯ-ci ki ɯ-tɯ-rnaʁ*
this INDEF.POSS-water this 3SG-NMLZ:DEGREE-deep
*mɯ́j-rtaʁ tɕe, aʑo [a-sɤ-ɣi]*_{RC}
NEG:SENS-deep LNK I 1SG-NMLZ:OBLIQUE-come
mɯ́j-kʰɯ
NEG:SENS-be.able

The water is not deep enough, there is not (enough) place for me to come. (Go by yourself,4)

(34) *[ɯʑo ɣɯ ɯ-xtsa ɯ-sɤ-xtɕɤr]*_{RC} *numɯ*
3SG GEN 3SG.POSS-shoe 3SG-NMLZ:OBLIQUE-tie DEM
ɲɤ-χɕoʁ tɕendɤre ɯ-ʁi ɯ-mke
IFR-draw.out LNK 3SG.POSS-younger.sibling 3SG.POSS-neck
ko-βraʁ.
IFR-attach

She took off her shoelace (the thing used to tie her shoes) and attached it on her brother's neck. (hist140429 jiedi, 78)

The fact that instruments are relativized with the oblique participle, rather than with the S/A participle is significant, as the instrument receives the same ergative marker *kɯ* as A arguments.[8]

(35) *ɯnɯnɯ ri qase kɯ kú-wɣ-sɯ-xtɕɤr*
DEM LOC leather.rope ERG IPFV-INV-CAUS-tie

There, one ties it with a leather rope. (24 mbGo, 97)

5 Finite relative clauses

Finite relative clauses differ from non-finite ones in that the main verb of the relative is not in participial form, but takes full person and TAM marking, and no nominalization prefix.

Like non-finite relative clauses, finite relative clauses can be either prenominal, head-internal or headless, but they are available for a much more limited range of participants: P arguments, semi-objects, T of ditransitive verbs and some adjuncts.

Although non-finite relative clauses are generally identical to the corresponding independent clause, they do present some subtle differences that are described in this section.

5.1 Simple finite relative

Simple finite relative clauses are those head-internal, headless or prenominal finite relative clauses that cannot take a relator noun.[9]

P arguments can be relativized with simple finite relative clauses as in (36).[10]

(36) [*nɯ qajɯ*[HEAD] *kɯ-ɲaʁ* *tu-ti-a*]ₐ _RC_ *nɯ nɯ*
DEM worm NMLZ:S-black IPFV-say-1SG DEM DEM

kɯ-fse *ɲɯ-βze* *ɲɯ-ŋu*
NMLZ:S-be.like IPFV-grow SENS-be

The black worm that I was talking about grows like that. (28 kWpAz, 30)

Since there is a restriction against combining a TAM prefix with a possessive prefix coreferent with the A in *kɤ-* P-participles (a form such as **a-tu-kɤ-ti* 1SG-IPFV-NMLZ:P-say is not possible), the only way to specify both the A and the TAM on the verb when relativizing the P is to use a finite relative instead of a non-finite one.

In addition, both the R and the T of secundative ditransitive verbs are treated as the P of monotransitive verbs, and can be relativized with a finite relative as in (37).

(37) [*aʑo nɯ́-wɣ-mbi-a*]_RC_ *maka ʑo* *me*
1SG PFV-INV-give-1SG at.all EMPH not.exist:FACT

He did not give me anything. (140430 yufu he tade qizi, 48)

Semi-objects can also be relativized with the same construction, as in (38). Such examples, however, are not found in the corpus and can only be elicited.

(38) [*aʑo qaʑo*[HEAD] *aro-a*]_RC_ *nɯ ra kɯki* *ŋu*
I sheep possess:FACT-1SG DEM PL DEM.PROX be:FACT

The sheep which I own are these ones. (elicitation)

5.2 Inverse marking

Finite relative clauses are attested with inverse marking in Japhug as in example (39), a fact that distinguishes Japhug from Tshobdun, where such sentences are reportedly ungrammatical (Sun & Lin 2007).[11]

(39) [*tɤ-wɯ*   *kɯ* *ʑmbrɯ*^{HEAD} *nɯ́-wɣ-mbi*]_{RC} *nɯ*
     INDEF.POSS-grandfather ERG boat   PFV-INV-give DEM
     cʰɤ-lɤt
     IFR-throw

     He took the boat that the old man had given him. (140430 jin e, 245)

In (39), the relativized element is the theme of the verb 'give' *mbi*. We saw in the previous sections that although *mbi* is a secundative verb, whose R is treated as the P of a monotransitive verb in the verbal morphology, both T and R can be relativized using the same constructions.

The presence of direct vs inverse morphology on the verb of the relative has no influence on the syntactic pivot of the construction: whether the verb takes the prefix *-wɣ-* or not, only the theme or the recipient can be relativized in such construction, never the A. In this regard, Japhug radically differs from languages such as Movima (Haude 2009, 526-7) which display a strict syntactic pivot: direct is used when the relativized participant is the P, while inverse appears when it is the A.

5.3 Other finite relative clauses

The goal of motion verbs and manipulation verbs like *ɕe* 'go' and *tsɯm* 'take away' can be relativized with finite relative clauses, as in examples (40) and (41). Although the goal is not indexed in verb morphology, it is nevertheless included in the verb argument structure.

(40) [*kʰa*^{HEAD} *jɤ-wɣ-tsɯm-nɯ*]_{RC}   *nɯnɯ, lonba* [*ɕom kɯ*
     house   PFV-INV-take.away-PL DEM   all   iron ERG
     nɯ-kɤ-sɯ-βzu]_{RC}   *kʰa*   *pjɤ-ŋu*
     PFV-NMLZ:P-CAUS-make house IPFV.IFR-be

     The house to which he had taken them, it was a house made of iron. (140505 liuhaohan zoubian tianxia, 148)

(41) [*aʑo sɤtɕha*^{HEAD} *jɤ-ari-a*]_{RC}   *nɯ* *nɯnɯ kɯ-ɤrqhi*   *ci*
     1SG place   PFV-go[II]-1SG DEM DEM NMLZ:S/A-be.far INDEF
     ŋu.
     be:FACT

     The place where I have gone is far away. (elicited)

In addition, time and place adjuncts can be relativized with prenominal finite relative clauses with relator head nouns such as *ɯ-raŋ* 'time', *ɯ-sŋi* 'the day' or *ɯ-sta* 'the place', as in examples (42) and (43).

(42) [*nɤ-ɕɣa* *xtɕi*]$_{\text{RC}}$ *ɯ-raŋ*$^{\text{HEAD}}$ *ri* *nɯ*
2SG.POSS-tooth be.small:FACT 3SG.POSS-time LOC DEM

tú-wɣ-nɤzda *ŋu* *ri*
2-INV-be.with:FACT be:FACT but

While you are young, she will be with you. (Slobdpon2, 60)

(43) *iɕqʰa,* [*pɯ-nɤŋkɯŋke*] *ɯ-sta* *nɯ* *ra*
the.aforementioned PST.IPFV-walk.around 3SG.POSS-place DEM PL

rcanɯ *tɯ-ɕnaβ* *pɯ-kɤ-βde*
UNEXPECTED INDEF.POSS-snot PFV:DOWN-NMLZ:P-throw.away

ʑo *fse,*
EMPH be.like:FACT

The places where it has been look like spilled snot. (26 qro, 138)

This construction differs from simple finite relative clauses in two ways. First, only prenominal relativization is possible. Second, the head noun has an obligatory third person possessive prefix *ɯ-*, which is impossible in the case of a prenominal simple finite relative.

5.4 Nominalized status of finite relative clauses

All relative clauses in Japhug, apart from correlative clauses, are instances of clausal nominalization, a situation extremely common across Sino-Tibetan languages (see in particular Genetti et al. 2008 and Bickel 1999).

As we have seen in the previous sections, relative clauses in Japhug can either have a finite or a non-finite verb, the former being limited to the relativization of P, semi-object or theme of ditransitive verbs (with head-internal of prenominal relative clauses) or that of time / place adjuncts (prenominal relative clauses).

While non-finite relative clauses superficially appear to be entirely similar to independent clauses, there are three pieces of evidence showing crucial differences between them.

First, the use of possessive prefixes on nouns in relative clauses is distinct from main clauses.

In Japhug, the possessive prefixes of inalienably possessed nouns have coreference constraints: for instance, with the noun *-pɤro* 'present', the possessive prefix always refers to the person giving the present, never to the recipient as in (44).

(44) *a-pɤro* *ɲɯ-ta-mbi* *ŋu*
1SG.POSS-present IPFV-1→2-give be:FACT

I give it to you as a present. (Elicited)

In relative clauses, including nominalized and non-nominalized ones, it is possible with nouns of this type to use either the possessive prefix corre-

sponding to the giver (as in example 45) or to neutralize the giver and use the indefinite possessor prefix *tɯ-/tɤ-* (46).

(45) [*a-pɤro*   *nɯ-mbi-t-a*]   *nɯ*   *a-rʝit*
    1SG.POSS-present PFV-give-PST:TR-1SG DEM 1SG.POSS-child
    ŋu
    be:FACT

    The one to whom I gave a present is my child. (Elicited)

(46) [*tɤ-pɤro*   *nɯ-mbi-t-a*]   *tɤ-rʝit*   *nɯ*
    INDEF.POSS-present PFV-give-PST:TR-1SG INDEF.POSS-child DEM
    a-tɕɯ   *ŋu*
    1SG.POSS-son be:FACT

    The child to whom I gave a present is my son. (Elicited)

Second, the main verbs of finite relative clauses can undergo totalitative reduplication. Totalitative reduplication is the reduplication of the first syllable of a verb form, expressing the meaning 'all', and is normally only possible on nominalized verbs as in (47).

(47) [<quanxian>   *tɕe kɯ~kɤ-kɯ-nɤndza*]_{RC}   *nɯ*
    the.whole.county LNK TOTAL~PFV-NMLZ:S-have.leprosy DEM
    ɲɤ-ɣɤme.
    IFR-suppress

    (This doctor) cured (suppressed) all lepers in the whole county. (25 khArWm, 72)

However, in finite relative clauses, totalitative reduplication is also possible on a finite verb form as in (48) and (49).

(48) *tɕe* [*nɯ ra tɤrɤkusna*^{HEAD} *nɯ pɯ~pa-ɣɯt*]_{RC}
    LNK DEM PL good.crops   DEM TOTAL~PFV:3→3:DOWN-bring
    nɯ lo-ji-ndʑi
    DEM IFR-plant-DU

    They^{du} planted all the crops that she had brought (from heaven). (flood3.111)

(49) *ɯ-ro*   *nɯ ra,* [*iɕqʰa*   *pɯ~pɯ-fɕat-a*]_{RC}
    3SG.POSS-rest DEM PL the.aforementioned TOTAL~PFV-tell-1SG
    nɯ ra kɯ tɕe tɕe sɯjno tu-ndza-nɯ
    DEM PL ERG LNK LNK grass IPFV-eat-PL

    The rest, all the (animals) that I have talked about before eat grass. (05 khWna, 42)

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Totalitative reduplication, on the other hand, is impossible in the case of main clauses or subordinate clauses other than relative clauses. Apart from totalitative reduplication, reduplication of the first syllable of the verb form is only found in the protasis of some conditionals (Jacques 2014a), but this is an entirely different phenomenon.

Third, evidential marking is neutralized in relative clauses (not an uncommon phenomenon, see Aikhenvald 2004, 253-6): it is not possible to use the inferential in a finite relative clause, only the perfective is possible. For instance, in example (50), while the verb of the main clause is in the inferential, that of the relative *pa-βde* PFV:DOWN:3→3'-throw 'he threw it down' is in the perfective form. Replacing this form by the equivalent inferential *pjɤ-βde* IFR:DOWN-throw would result in an agrammatical sentence.

(50) [*tɤ-tɕɯ-pɯ*   *kɯ* *rdɤstaʁ pa-βde*]   *nɯ*
      INDEF.POSS-boy-small ERG stone   PFV:DOWN:3→3'-throw DEM

      jo-nɯɴqhu-ndʑi tɕe
      IFR-follow-DU   LNK

      'They followed the stones that the little boy had thrown down (along the way).' (Tangguowu, 42)

These three independent pieces of evidence show that finite relative clauses in Japhug morphosyntactically differ from main clauses, despite the fact that the verb is in a non-nominalized form.

6   Defining subject and object in Japhug

We saw in section 2 that neither flagging nor indexation of arguments of the verb offer clear evidence for the existence of either subjects or objects in Japhug.

However, data from relativization provide evidence of *restrictive neutralization* (Van Valin & LaPolla 1997, 275) of several types of arguments in specific constructions. Table 2 summarizes all relativizing constructions described in this article (in this table, HI stands for *head-internal* relative and PN for *prenominal* relative).

Table 2: Summary of relative clauses in Japhug

Function	Participial Relative Clause			Finite Relative Clause	
	kɯ-	*kɤ-*	*sɤ-*	Simple	Relator noun
S	HI, PN				
A	HI, PN				
possessor	PN				
P		HI, PN		HI, PN	
semi-object		HI, PN		HI, PN	
T		HI, PN		HI, PN	
R (secundative)		HI, PN		HI, PN	
goal			HI, PN	HI, PN	
R (indirective)			HI, PN		
comitative			HI, PN		
instrumental adjunct			HI, PN		
time adjunct			HI, PN		PN
place adjunct			HI, PN		PN

The first neutralization is that of S and A (**subjects**), first noticed by Sun (2003) in the case of the related language Tshobdun. Both S and A, and these two types of participants exclusively, can be relativized by headless, prenominal and head-internal relative clauses with a verb in the *kɯ-* participial form. Possessors can also be relativized with non-finite relative clauses and *kɯ-* participles, but only with head-internal relative clauses, not prenominal ones.

There is another area of Japhug grammar where this neutralization is observed: the optional possessive prefix on *kɤ-* participles also follows an accusative alignment. For transitive and ditransitive verbs the prefix always refers to the A (example 13 above), while in the case of semi-transitive verbs, it refers to the S, as in (51), thus displaying S/A restrictive neutralization.[12]

(51) [*pɣa ra nɯ-kɤ-rga*]_RC   *nɯ   qaj   ntsɯ   ŋu*
      bird PL 3PL-NMLZ:P-like DEM wheat always be:FACT

      (The food) that birds like is always wheat. (23 pGAYaR, 24)

The second neutralization is that of P, T and R of secundative ditransitive verbs, T of indirective verbs and the semi-object of semi-transitive verbs (**objects**), the four of which can be relativized in both non-finite relative clauses with a *kɤ-* participle and simple finite relative clauses (see Table 2). The goal of motion / manipulation verbs can be relativized in a finite relative, but require the oblique participle *sɤ-* when grammaticalized with a participial relative, showing that it should be kept distinct.

The accusative alignment shown by the existence of subject and objects in Japhug contrasts with the presence of ergative and neutral alignment in other areas of the grammar. Ergative alignment is found in generic person

marking (see Jacques 2012),[13] while neutral alignment is extremely common especially in clause linking constructions (Jacques 2014a), and also in control constructions. For instance, the S of the verb *rga* 'like' can be coreferent with either the S (52), the A (53) and even the P (54) of its infinitival or finite complement verbs (the complement verb in 52 is intransitive, while it is transitive in 53 and 54). This is still a syntactic pivot, since coreference is only possible with core arguments, not with oblique arguments (including recipients of indirective verbs) or adjuncts.

(52) *tsuku tɕe kɤ-nɯrɣo wuma ʑo rga-nɯ tɕe*
some LNK INF-sing really EMPH like:FACT-PL LNK

Some people like to sing. (26 kWrNukWGndZWr, 104)

(53) *aʑo qajɯ nɯ ra kɤ-nɤtoχpjɤt pɯ-rga-a tɕe*
1SG bugs DEM PL INF-observe PST.IPFV-like-1SG LNK

I liked to observe bugs. (26 quspunmbro, 15)

(54) *maka tu-kɤ-nɤjoʁjoʁ, tu-kɤ-fstɤt nɯ ɲɯ-rga-nɯ*
at.all IPFV-INF-flatter IPFV-INF-praise DEM IPFV-like-PL

They like to be flattered or praised. (140427 yuanhou, 53)

It is possible that other control verbs or that some clause linking constructions have stricter syntactic pivots. Although there is some evidence for this, I defer a fuller investigation of pivots in complementation and clause linking construction to future research. Since the study of syntactic pivots critically depends on negative data (the impossibility of saying a particular sentence, or the impossibility to interpret an attested sentence in a particular way), even a relatively large corpus is not sufficient to ascertain the existence of pivots. While elicitation is necessary, it is often difficult to be sure that a particular judgement on the agrammaticality of a sentence is due to syntactic rather than pragmatic reasons.

Table 3 summarizes the syntactic pivots attested in Japhug. The symbol P' is used for the semi-object of semi-transitive verbs, and T_1 / R_1 vs T_2 / R_2 for the arguments of secundative vs indirective transitive verbs.

Table 3: Syntactic pivots in Japhug

Pivot	Construction
{S, A} (subject)	prenominal relativization with **kɯ**- participle (possessive prefix) on **kɤ**- participles in relative clauses
{P, P', R$_1$, T} (object)	relativization with **kɤ**- participle
{P, P', R$_1$, T, goal} (extended object)	relative clauses with a finite main verb (without relator noun)
{S, P, R$_1$, T$_2$} (absolutive argument)	generic person marking
{S, A, P, P', R$_1$, T} (core argument)	control constructions (**rga** 'like')

In the Sino-Tibetan family, while many languages such as Standard Mandarin (LaPolla 1993) or Lhasa Tibetan (Tournadre 1996) lack strict syntactic pivots, such pivots are well-attested in Kiranti languages (Bickel & Nichols 2001, Bickel 2004). Table 4 recapitulates some of the main syntactic pivots in Belhare (the notation of the arguments is slightly modified from Bickel 2004).

Table 4: Syntactic pivots in Belhare (after Bickel 2004)

Pivot	Construction
{S, A}	embedded non-finite **-si** and **-sa** clauses root nominalization
{S, P, R, T}	internally headed relativisation
{S, P, R}	control by **khes** 'must', **nus**- 'say'

We see that Japhug resembles Belhare in two respects: it has both ergative and accusative pivots, and the accusative pivot is involved in relativization ('root nominalization' in Belhare). However, accusative pivots are more widespread in Japhug, while Belhare tends to favour ergative pivots.

Sino-Tibetan is perhaps one of the most diverse language family from the point of view of morphosyntactic typology, and especially alignment. While isolating Sino-Tibetan languages like Mandarin tend to lack syntactic pivots, languages with richer morphology display a bewildering diversity of alignment types: some languages favour accusative pivots, others ergative pivots, and present at least three distinct pivots depending on the construction. Only purely accusative, or purely ergative languages appear to be unattested in Sino-Tibetan.

7 Conclusion

The present article has shown that, although Japhug has ergative alignment on NP arguments, and a direct-inverse system in person indexation on the verb, it is nevertheless possible to rigorously define 'subjects' and 'objects' in this language, by taking into account restrictive neutralization phenomena observed in relative constructions.

This work shows that ergative and accusative pivots co-exist in Japhug, and that this language cannot be meaningfully classified as 'ergative', 'accusative' or 'hierarchical'. In addition, it shows that unlike languages such as Movima, inverse marking in relative clauses does not necessarily influence the syntactic pivot of the relativized participant.

Notes

[1] The glosses follow the Leipzig glossing rules; on S, A, P, T and R, see Haspelmath (2011). Other abbreviations used here are: APPL applicative, ANTIPASS antipassive, DEM demonstrative, DIST distal, EMPH emphatic, FACT factual, IFR inferential, INDEF indefinite, INV inverse, LNK linker, PFV perfective, POSS possessor, SAP speech act participant (first or second person), RC relative clause, SENS sensory. Words borrowed from Chinese are indicated between chevrons <> and are transcribed in pinyin. I would like to thank Hilary Chappell, Aimée Lahaussois, Anton Antonov, Wu Tong and the two anonymous reviewers for useful comments on previous versions of this article. The examples are taken from a corpus that is progressively being made available on the Pangloss archive (Michailovsky et al. 2014). This research was funded by the HimalCo project (ANR-12-CORP-0006) and is related to the research strand LR-4.11 ''Automatic Paradigm Generation and Language Description'' of the Labex EFL (funded by the ANR/CGI).

[2] Correlatives, non-restrictive relative clauses and other non-canonical relative clauses are not described in this work.

[3] Japhug is Sino-Tibetan language spoken by around 10000 speakers in Mbarkham county, Sichuan, China. Like the three other Rgyalrong languages (Situ, Zbu and Tshobdun), it is a polysynthetic language with complex morphology (see Jacques 2014b).

[4] The preference for one or the other dative marker depends on the speaker.

[5] The infinitive is not discussed in the present article, as it is irrelevant to the study of relativization.

[6] They differ from other stative verbs in that they can take the tropative derivation, see Jacques (2013a).

[7] Not all participants can be relativized in Japhug. In particular, the standard of comparison, which lies at the lower end of Keenan & Comrie (1977)'s accessibility hierarchy, cannot be relativized in this language.

[8] It differs from A arguments in that it is not indexed on the verb and by the fact that the verb optionally takes a causative prefix as in (35) when an instrumental adjunct is added.

[9] Relator nouns differ from normal head nouns in that they have an obligatory third person singular possessive prefix *ɯ-*. They only occur in prenominal relative clauses.

[10] The P of *ti* 'to say' is never the addressee, it always refers to the words that are said.

[11] Direct/inverse marking is not possible in participial verb forms, so that there is no equivalent to such sentences in non-finite relative clauses.

[12] The *kɯ-* participle does not exist for plain intransitive verbs, so that semi-transitive verbs are the only ones where one can test the behaviour of S with an object participle.

[13]Generic S/P is marked by *kɯ-*, while generic A is marked with the inverse prefix *-wɣ-*.

References

Aikhenvald, Alexandra. 2004. *Evidentiality.* Oxford: Oxford University Press.

Bickel, Balthasar. 1999. Nominalization and focus constructions in some Kiranti languages. In Yogendra P. Yadava & Warren G. Glover (eds.), *Topics in Nepalese Linguistics*, 271 – 296. Kathmandu: Royal Nepal Academy.

Bickel, Balthasar. 2004. Hidden syntax in Belhare. In Anju Saxena (ed.), *Himalayan languages: past and present*, 141–190. Berlin, New York: Mouton de Gruyter.

Bickel, Balthasar & Johanna Nichols. 2001. Syntactic ergativity in light verb complements. *Proceedings of the Annual Meeting of the Berkeley Linguistics Society* 27. 39–52.

Coupe, Alec R. 2007. *A Grammar of Mongsen Ao.* Berlin, New York: Mouton de Gruyter.

Dixon, R.M.W. 2010. *Basic Linguistic Theory*, vol. 2, Grammatical Topics. Oxford: Oxford University Press.

Dixon, R.M.W. & Alexandra Aikhenvald. 2000. *Changing Valency: Case Studies in Transitivity.* Cambridge: Cambridge University Press.

Dryer, Matthew S. 2007. Noun Phrase Structure. In Timothy Shopen (ed.), *Language Typology and Syntactic Description*, vol. II: Complex Constructions, 151–205. Cambridge: Cambridge University Press.

Forker, Diana. 2012. The bi-absolutive construction in Nakh-Daghestanian. *Folia Linguistica* 46.1. 75–108.

Genetti, Carol, Ellen Bartee, Alec Coupe, Kristine Hildebrandt & Youjing Lin. 2008. Syntactic aspects of nominalization in five Tibeto-Burman languages of the Himalayan area. *Linguistics of the Tibeto-Burman Area* 31.2. 97–144.

Haspelmath, Martin. 2011. On S, A, P, T, and R as comparative concepts for alignment typology. *Linguistic Typology* 15.3. 535–567.

Haude, Katharina. 2009. Hierarchical alignment in Movima. *International Journal of American Linguistics* 75.4. 513–532.

Jacques, Guillaume. 2008. 嘉絨語研究 *Jiāróngyǔ yánjiū.* 北京：民族出版社 Běijīng: Mínzú chūbǎnshè. (向柏霖).

Jacques, Guillaume. 2010. The inverse in Japhug Rgyalrong. *Language and Linguistics* 11.1. 127–157.

Jacques, Guillaume. 2012. Argument demotion in Japhug Rgyalrong. In Katharina Haude & Gilles Authier (eds.), *Ergativity, Valency and Voice*, 199–226. Berlin: Mouton De Gruyter.

Jacques, Guillaume. 2013a. Applicative and tropative derivations in Japhug Rgyalrong. *Linguistics of the Tibeto-Burman Area* 36.2. 1–13.

Jacques, Guillaume. 2013b. Ideophones in Japhug Rgyalrong. *Anthropological Linguistics* 55.3. 256–287.

Jacques, Guillaume. 2014a. Clause linking in Japhug Rgyalrong. *Linguistics of the Tibeto-Burman Area* 37.2. 263–327.

Jacques, Guillaume. 2014b. Denominal affixes as sources of antipassive markers in Japhug Rgyalrong. *Lingua* 138. 1–22.

Jacques, Guillaume & Anton Antonov. 2014. Direct / inverse systems. *Language and Linguistics Compass* 8/7. 301–318.

Keenan, Edward L. & Bernard Comrie. 1977. Noun Phrase Accessibility and Universal Grammar. *Linguistic Inquiry* 8.1. 63–99.

LaPolla, Randy. 1993. Arguments Against 'Subject' and 'Direct Object' as Viable Concepts in Chinese. *Bulletin of the Institute of History and Philology* 63.4. 759–813.

Michailovsky, Boyd, Martine Mazaudon, Alexis Michaud, Séverine Guillaume, Alexandre François & Evangelia Adamou. 2014. Documenting and researching endangered languages: the Pangloss Collection. *Language Documentation and Conservation* 8. 119–135.

Prins, Marielle. 2011. *A web of relations: A grammar of rGyalrong Jiaomuzu (Kyom-kyo) dialects*: Leiden University dissertation.

Sun, Jackson T.-S. 2003. Caodeng rGyalrong. In Graham Thurgood & Randy LaPolla (eds.), *The Sino-Tibetan languages*, 490–502. London: Routledge.

Sun, Jackson T.-S. 2006. 草登嘉戎語的關係句 Caodeng Jiarongyu de guanxiju (Relative clauses in the Tshobdun language). *Language & Linguistics* 7.4. 905–933.

Sun, Jackson T.-S. & Youjing Lin. 2007. Constructional Variation in rGyalrong Relativization: How To Make a Choice? In *Pre-Conference Proceedings of the International Workshop on Relative Clauses*, 205–226. Taipei: Institute of Linguistics, Academia Sinica.

Tournadre, Nicolas. 1996. *L'ergativité en tibétain.* Louvain: Péeters.

Valentine, J. Randolph. 2001. *Nishnaabemwin Reference Grammar.* Toronto: University of Toronto Press.

Van Valin, Robert & Randy LaPolla. 1997. *Syntax: Structure, Meaning, and Function.* Cambridge: Cambridge University Press.