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Complementation in Japhug Gyalrong^{*}

Guillaume Jacques

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Abstract: This article provides a detailed survey of complement clauses and complementation strategies in Japhug. It shows the bewildering diversity of constructions attested in these languages, which are largely unpredictable and need to be specified for each complement-taking verb. Special focus is given to typologically unusual constructions, in particular Hybrid Indirect Speech.

Keywords: Japhug; Reported Speech; Complement clauses; Infinitive; Participle; Serial Verb Constructions; Causative; Motion Verbs

Introduction

Japhug, like other Gyalrong languages, has a complex verbal morphology and a rich array of complement clauses. Building on previous research, in particular Jacques (2008, 337–356) and Sun (2012), this article presents a detailed survey of all known types of complement clauses in Japhug and their distribution among complement-taking verbs.

The framework of this article is based on Dixon (2006, 9) and adopts a terminology close to that used in Sun’s (2012) study of Tshobdun.

The article comprises four main sections. First, I present background information on essive adjuncts and the difference between infinitives and participles. Second, I provide an overview of the various types of complement clauses and complement strategies in Japhug. Third, I describe some

^{*}The glosses follow the Leipzig glossing rules. Other abbreviations used here are: AUTO autobenefactive-spontaneous, ANTICAUS anticausative, ANTIPASS antipassive, APPL applicative, EMPH emphatic, FACT factual, GENR generic, IFR inferential, INDEF indefinite, INV inverse, LNK linker, POSS possessor, EGO.PRS egophoric present, PROG progressive, SENS sensory. The examples are taken from a corpus that is progressively being made available on the Pangloss archive (Michailovsky et al. 2014, http://lacito.vjf.cnrs.fr/pangloss/corpus/list_rsc.php?lg=Japhug). 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). I would like to thank two anonymous reviewers, as well as Alec Coupe, for providing detailed and helpful comments and corrections on a previous version of this article.

syntactic peculiarities found in complement clauses in Japhug, for instance concerning coreference restrictions between the complement and the matrix clause. Fourth, I propose a list of complement-taking verbs classified by semantic categories, indicating for each verb which types of complements are possible.

1 Background information

This section presents general information on Japhug, and focuses on two issues of morphosyntax that are relevant to properly understanding complementation in Japhug: arguments and adjuncts that occur in absolutive form (without case marking) on the one hand, and a classification of nominalized forms (including participles and infinitives) on the other.

1.1 Japhug and other Gyalrongic languages

Japhug (Chinese Chabao 茶堡) is a Trans-Himalayan language spoken in 'Bar.khams county, Rnga.ba prefecture, Sichuan province, China. All Japhug data in this work come from the author's fieldwork,¹ and reflect the dialect of Kamnyu (*kyɲnyu*, 干木鸟) village.

Japhug belongs to the Gyalrong branch of the Gyalrongic subgroup (Sun 2000b), alongside three other non-mutually intelligible languages, Tshobdun (Caodeng 草登), Zbu (a.k.a Showu, Ribu 日部) and Situ (四土, a.k.a. Eastern Gyalrong), which includes in particular the Cogtse (Zhuokeji 卓克基) and Somang (Suomo 梭磨) dialects on which most early research on Gyalrong languages has focused. Gyalrongic languages are argued to belong to a Burmo-Gyalrongic clade including Lolo-Burmese and Naish (Jacques & Michaud 2011), but this question is still debated (Thurgood to appear).

Gyalrongic languages are among the few truly polysynthetic languages of the Trans-Himalayan family, and are known for their complex verbal morphology (Sun 2000a; Jacques 2013b; Lai 2013; DeLancey 2015), direct-inverse indexation system (DeLancey 1981; Sun & Shidanluo 2002; Jacques 2010; Gong 2014; Lai 2015), incorporation (Jacques 2012b; Lai 2015), and large consonant clusters (Sun 2007; Jacques 2013c).

1.2 Unmarked arguments and adjuncts

Like all Gyalrong languages, Japhug is very strongly head-marking, with obligatory indexation of one or two arguments and morphological marking of transitivity.² There are nevertheless some case markers, such as the ergative

¹My main consultant is *ts^hundzun* Chenzhen 陈珍, born 1950.

²There are several distinct convergent criteria for distinguishing between transitive and intransitive verbs in Japhug: the former have Stem 3 alternation in SG→3 non-past verb forms, the past transitive *-t* suffix in 1/2SG→3 forms, orientation prefixes in *a-* in past

/ instrumental *ku* (obligatory on third person subjects³ of transitive verbs, as in 1), the comitative *c^ho*, the genitive *yu* and the dative *u-cki*.

- (1) *tx-tɕu nu ku xsr qaɕpa nu c^hx-mqlaɕ*
 INDEF.POSS-boy DEM ERG gold frog DEM IFR-swallow
 ‘The boy swallowed the golden frog.’ (Nyima Wodzer.1, 131)

Subjects of intransitive verbs and objects of transitive verbs are indexed on the verb morphology but receive no case marking.

1.2.1 Semi-transitive verbs

A small class of verbs in Japhug are intransitive (ie, their subject does not take ergative marking, only one argument is indexed, and they do not present the morphological properties mentioned in fn. 2), but take an unmarked argument which presents object-like properties.

In example (2), the verb *rga* ‘like’ occurs with an overt noun *nduxu* ‘flower sp.’, but verbal morphology shows that the verb is not transitive (otherwise a stem 3 alternation †*rge-a* instead of *rga-a* would be expected).

- (2) *azo ndɿre nduxu rga-a*
 1SG TOPIC flower.sp like:FACT-1SG
 ‘As for me, I like the *nduxu* flower.’ (14-sWNgWJu, 131)

The syntactic status of nouns like *nduxu* ‘flower sp.’ in (2) is better understood if relativization is taken into account. Like the objects of transitive verbs, these nouns can be relativized by using the *kr*- P-participle (on which see section 1.3.1), with an optional possessive prefix coreferential with the subject. Compare the relativized object of the transitive verb *suz* ‘know’ in (3) with the construction in (4) involving the intransitive verb *rga* ‘like’.

- (3) *paɕci [azo a-kr-suz] nu mura yrzu*
 apple 1SG 1SG.POSS-NMLZ:P-know DEM DEM:PL exist:SENS
 ‘The (types of) apples that I know about are these.’ (hist-07-paXCi, 73)
- (4) *[pya ra nu-kr-rga] nu qaj ntsu ɲu*
 bird PL 3PL.POSS-NMLZ:P-like TOPIC wheat always be:FACT
 ‘(The food) that birds like is always wheat (not barley).’ (23 pGA-YaR, 29)

³3→3’ direct forms, while the latter don’t.

³Subjects and objects in Japhug can be defined on the basis of relativization patterns, in addition to case marking and indexation, see Jacques (2016b).

In the following, arguments selected by verbs such as *rga* ‘like’ that can be relativized using P-participles are referred to as *semi-objects*; semi objects are considered to be one subtype of core arguments. Verbs that take semi-objects are called *semi-transitive*. Semi-transitive verbs are few, but some of them are among the most common verbs in the language, and several of them can take complement clauses, including *rga* ‘like’, *c^ha* ‘can’ and even the adjectival stative verb *mk^hyz* ‘be expert’.

1.2.2 Essive adjuncts

A type of unmarked adjunct not previously described in the literature on Gyalrongic languages but crucial for understanding complement clauses and complementation strategies in Japhug is that of the essive adjunct. Essive noun phrases are not arguments of the sentence, but are used to indicate ‘the property of fulfilling the role of an N’ (Creissels 2014, 606); in English for instance, they are marked by *as* in a sentence such as ‘I am saying this *as your friend*’.

In Japhug, bare noun phrases without any case marker can be interpreted as essive adjuncts, such as *ny-rzaβ* ‘your wife’ in (5), which is neither the object (recipient) nor the theme of the verb *mbi* ‘give’.

- (5) *a-me nu ny-rzaβ juu-ta-mbi ηu*
 1SG.POSS-daughter DEM 2SG.POSS-wife IPFV-1→2-give be:FACT
 ‘I will give you my daughter in marriage. (=I will give her to you as your wife)’

Noun phrases headed by the possessed noun *u-spa* ‘material’ are often used as an essive adjuncts as in (6), a construction that is in the process of grammaticalizing into a purposive phrase, and serves as a grammaticalization strategy with verbs of manipulation (see section 2.6.3).

- (6) *zyrmbu u-spa juu-nu-p^hut-nu*
 broom 3SG.POSS-material IPFV-AUTO-cut-PL
ηgrɿl
 be.usually.the.case:FACT
 ‘They cut it to make brooms. (=as a material for brooms.)’ (140505 sWjno, 22)

1.3 Participles vs infinitives

All Gyalrong languages, including Situ (Lín 2003), Tshobdun (Sun 2012) and Japhug, distinguish many different types of non-finite verb forms. (Sun & Lin 2007; Genetti et al. 2008; Prins 2011).

In the present work, I propose to additionally distinguish between several sub-types of nominalizations.

I call *participles* the nominalized verb forms that can be used as noun modifiers and that refer to an entity that is either argument or adjunct of the nominalized verb (Creissels 2006a, 224). The main function of participles in Japhug is to build relatives (Jacques 2016b); these relatives are known as *participial relatives* (on which, see for instance Lehmann 1984, 50-58; 73-5; 156-7 and Creissels 2006b, 214), and include in particular adjectival stative verbs in attributive function, as in (7).

- (7) *tɕ^heme ku-mpɕuu~mpɕɛr*
 girl NMLZ:S/A-EMPH~be.beautiful
 ‘A beautiful girl’ = ‘A girl who is beautiful’

Infinitives are nominalized verb forms that refer to the action itself (not to an argument or an adjunct of the nominalized verb), can be used in complement clauses and preserve the argument structure of the verb, as in example (8), where the transitive verb *p^hut* ‘cut’ in infinitival form takes an overt object:

- (8) *aʒo nɣ-mɣlɣjaɕ kɣ-p^hut mɣ-c^ha-a*
 1SG 2SG.POSS-limbs INF-cut NEG-can:FACT-1SG
 ‘I cannot cut your limbs.’ (The fox03, 190)

There are in addition a few other non-finite forms, such as action nominals (Jacques 2014b) and degree nominals (on which see Jacques 2016a) which are neither infinitives nor participles.

The formal distinction between participles and infinitives in Japhug is quite subtle, as there are both infinitives and participles in *ku-* and *kɣ-* (or *kə-* and *kɔ-* depending on the transcription system). Since both categories are formally similar and can occur in similar contexts, it is crucial to clearly explain the distinction between the two, especially since Japhug slightly differs from the other Gyalrong languages in this regard.

1.3.1 Participles

The system of core argument participles in Japhug is relatively straightforward (Jacques 2016b). The prefix *ku-* is used to build the S-participle of intransitive verbs, and the A-participle of transitive verbs. A-participles differ from S-participles in taking an additional possessive prefix coreferential with the P, as in (9).

- (9) *a-me a-ku-fstun ŋu*
 1SG.POSS-daughter 1SG.POSS-NMLZ:S/A-serve be:FACT
 ‘My daughter is the one who takes care of me.’ (The prince, 74)

The prefix *kr-* on the other hand serves to build the P-participle, and can optionally take a possessive prefix coreferential with the A, as in (10). Participles are compatible with polarity and associated motion prefixes (Jacques 2016b).

- (10) *azo a-mx-kr-suuz txjmx nu kr-ndza*
 1SG 1SG-NEG-NMLZ:P-know mushroom DEM INF-eat
mx-naz-a
 NEG-dare:FACT-1SG
 ‘I do not dare to eat the mushrooms that I do not know.’ (23 mbrAZim,103)

1.3.2 Infinitives

There are four types of infinitives in Japhug: *ku-*, *kr-*, *tu-* and bare infinitives. The latter two are restricted to very specific constructions (see 2.2), and only the former two types are discussed in this section.

Infinitives in *kr-* are by far the most common form in Japhug. The *ku-* form is restricted to stative verbs (including adjectives, copulas and existential verbs) and impersonal auxiliaries, but even with these verbs, *kr-* infinitives are used in several contexts.

Aside from complement clauses (for which see section 2.1), infinitives are used in two types of constructions, a brief overview of which is provided below.

First, infinitives occur as the citation forms of verbs and in metalinguistic discussion in Japhug, as in examples (11) and (12) for stative vs non-stative infinitives.

- (11) *unumu tce tce u-tu-tsuβ*
 DEM LNK LNK 3SG.POSS-NMLZ:ACTION-sew
mx-ku-βdi tu-ku-ti ηu
 NEG-INF:STAT-be.good IPFV-GENR:A-say be:FACT
 ‘People call this ‘badly sewn.’ (12-kAtsxWb, 12)
- (12) *pju-sui-βndi tce pju-sui-sat. tce nu koβmuuz nx*
 IPFV-CAUS-hit[III] LNK IPFV-CAUS-kill LNK DEM only.then LNK
c^hu-mutsum juu-ra. tce numu
 IPFV:DOWNSTREAM-take.away SENS-have.to LNK DEM
kr-nxarphxβ tu-ku-ti ηu
 INF-strike.with.wings IPFV-GENR:A-say be:FACT
 ‘It strikes it and kills it (with its wings) and only then takes it away. This is called *kr-nxarphxβ* ‘strike with one’s wings.’ (hist150819 RarphAB, 11)

In the topical position, the infinitive is neutralized to the *kɣ*- form even for stative verbs, as in (13).

- (13) *kɣ-rɕi ri pɣɣ-rɕi*,
 INF-be.heavy also IFR.IPFV-be.heavy
 ‘As for being heavy, (the old man) was heavy.’ (140511 xinbada, 138)

Second, infinitives are used as converbs to indicate the manner in which the action of the main clause occurs (example 14), or a background event (Jacques 2014a). The *ku*- infinitive form occurs with stative verbs (as *sɣscit* ‘nice (of an environment)’ in example 15) but it is also attested with a handful of dynamic verbs in lexicalized form such as *mɣ-ku-mbrɣt* ‘without stopping’ in (16).⁴ This latter use is the last trace of the contrast between human *kɔ*- and non-human *kə*- action nominals reported by Sun (2012, 476) and Sun 2014, which otherwise appears to have been lost in the variety of Japhug under study.

- (14) *kɣ-ŋke jɣ-ari puu-ra*
 INF-walk PFV-go[II] PST.IPFV-have.to
 ‘He had to go on foot.’ (elicited)
- (15) *ɕɣɣ tɕe nuɕɕu ku-sɣ-scuu~scit zo*
 night LNK DEM:LOC INF:STAT-DEEXP-EMPH~be.happy EMPH
ɕ-ku-nuu-ŋɣgu ŋu
 TRANSLOC-IPFV-AUTO-lie.down be:FACT
 ‘In the night, he goes in there to sleep cosily.’ (26-NalitCaRmbWm, 35)
- (16) *nuu maka mɣ-ku-mbrɣt zo nuu-rɣma*
 DEM at.all NEG-INF-ANTICAUS:break EMPH IPFV-work
nuu-ɕti tɕe
 SENS-be:AFFIRM LNK
 ‘It works without stopping.’ (hist-26-GZo.txt 67)

Infinitives can take orientation, negation and even associated motion prefixes, but not possessive prefixes.

1.3.3 Japhug vs Tshobdun

The inventory of participial and infinitive forms presented above for Japhug differs from other previous descriptions of Gyalrong languages. In Tshobdun, Sun (2012, 476) describes five types of verbs forms with *kə*- or *kɔ*- prefixes (Table 1), corresponding to Japhug *ku*- and *kɣ*- respectively.

⁴The implied S of the verb *mbrɣt* ‘break, stop suddenly’ (the anticausative of *prɣt* ‘break’) in this sentence is the work of the subject.

Table 1: Nominalization types in Tshobdun (Sun 2012, 476)

Type	Scope	Finiteness	Argument coding	Prefix
purposive	clausal	non-finite	possessor	<i>kə-</i>
participant	clausal	non-finite	possessor	<i>kə-</i> (subject) <i>kɔ-</i> (object)
infinitive	clausal	non-finite	normal	<i>kɔ-</i>
action / state	clausal	non-finite	normal	<i>kɔ-</i> [+human] <i>kə-</i> [-human]
finite	clausal	finite	normal	<i>kə-</i>

While Japhug and Tshobdun have very close systems, the present analysis conflates some of Sun’s categories. The correspondences between the two terminologies are as follows.

First, the categories ‘purposive’ and ‘participant’ in Tshobdun in Table (1) correspond to the Japhug participles. The difference here is partially terminological, but also has to do with the fact that in Japhug not just the subject participle, but also the object participle *kɔ-*, can appear as a purposive complementation strategy of motion verbs (see section 2.6.2) and there is little reason to distinguish between the two.

Second, the categories ‘infinitive’ and ‘action / state’ in Table (1) correspond to the Japhug infinitive. Tshobdun and Japhug differ by the fact that the humanity contrast on these non-finite forms, quite prominent in Tshobdun, has become marginal in the variety of Japhug under study, making it unnecessary to differentiate between action/state nominalization and infinitive.

Third, the category ‘finite’, which refers to verbs forms prefixed in *kə-* with reduced inflection (no person / number marking), appear not to exist under exactly the same form in Japhug. Sun (2012, 481) mentions the occurrence of these clauses with verb of pretence like *nəspəz* ‘pretend’. In Japhug, verbs of this type (like *nuɕpuz* ‘pretend’, cognate with the Tshobdun verb) do take clauses whose verb is prefixed in *ku-*, but there are reasons to analyze these as head-internal relative clauses with a verb in participial form (see section 2.6.2) rather than postulating a distinct morphological category.

Little data is available on Zbu (the only publications specifically on this language are Sun 2004 and Gong 2014, with some data in Lin 1993 and Jacques 2008), but this language seems to have a system of nominalization similar to that of Japhug and Tshobdun. Situ on the other hand appears to be markedly different,⁵ as this language has an additional type of nominal-

⁵Data on nominalization is available from three varieties of Situ: Cogtse (Lin 1993; Wei 2001; Sun & Lin 2007; Genetti et al. 2008), Kyomkyo (Prins 2011) and Bragdbar (personal fieldwork).

ized verb form with the same set of person indexation affixes as finite verb forms. Comparison between the nominalization system of Situ and those of the other Gyalrong languages is more difficult and must await later research (Jacques to appear presents preliminary ideas on this issue).

2 Complement types

This section illustrates the different categories of complements attested in Japhug. Five main types of complement clauses are distinguished: *kr*-/*ku*-infinitival complements, bare infinitival complements, finite complements and reported speech. In addition, Japhug has many distinct complementation strategies.

2.1 Infinitive

The most common types of complement clauses in Japhug are *kr*- and *ku*-infinitival complements. As seen in section 1.3.2, there are *kr*- and *ku*-infinitives in Japhug, the latter found in the citation forms of stative verbs and modal impersonal auxiliary verbs. In complement clauses, stative verbs take the *kr*- infinitive like dynamic verbs in many cases.

2.1.1 Case marking

While infinitives bear no person indexation markers, noun phrases receive the same case markers in infinitive clauses as in main clauses, showing that infinitives have the same argument structures as finite verb forms.

When an argument is shared between the complement and the matrix clause, it often has a different syntactic function in the two clauses, as in (17), where *txɕime* ‘princess’ is A in the complement clause (*stu* ‘do like this’ is transitive) and S in the matrix clause (*c^ha* ‘can’ is semi-transitive; the complement clause is its semi-object).

- (17) [*txɕime nu ku nura kr-stu*] *pjɣ-c^ha*
 princess DEM ERG DEM:PL INF-do.like.this IFR-can
 ‘The princess succeeded in doing it.’ (140511 alading, 252)

In this sentence, the noun takes the ergative marker *ku* in accordance with the verb of the complement clause, showing that it belongs to the complement clause rather than to the matrix clause directly. This is the most commonly observed pattern in Japhug texts: in infinitival clauses, the shared arguments more often take the case marking selected by the verb of the complement clause than that of the matrix clause.

2.1.2 Coreference between matrix and complement clause

Coreference restrictions between complements in *kr*- infinitives and their matrix clauses vary from verb to verb, and three cases can be distinguished.

First, in the case of impersonal verbs such as *ra* ‘have to, need’ (see section 4.1.3), the complement clause is the S and there is no argument coreference between the matrix clause and the complement clause.

Second, with a few transitive complement-taking verbs such as *spa* ‘know how to’ (see section 4.1.1) and *nrz* ‘dare’ (4.5), the subjects of both clauses must be coreferential.

Third, for most verbs taking infinitives (like the semi-transitive *rga* ‘like’ or the transitive *ɾno* ‘experience’), the subject of the matrix clauses can be coreferential to either the S (18), the A (19) or even the P (20 and 21) of its infinitival complement clause (Jacques 2016b).

- (18) *tsuku tɕe kr-nurɾɔ wuma zo rga-nu tɕe*
 some LNK INF-sing really EMPH like:FACT-PL LNK
 ‘Some people like to sing.’ (26 kWrNukWGndZWr, 104) (S=S)
- (19) *azo qajui nu ra kr-nɾtoxpjɾt puu-rga-a tɕe*
 1SG bugs DEM PL INF-observe PST.IPFV-like-1SG LNK
 ‘I liked to observe bugs.’ (26 quspunmbro, 15) (A=S)
- (20) *maka tu-kr-nɾjoɕjoɕ, tu-kr-fstɾt nu juu-rga-nu*
 at.all IPFV-INF-flatter IPFV-INF-praise DEM IPFV-like-PL
 ‘They like to be flattered or praised.’ (140427 yuanhou, 53) (P=S)

In (21), while *xpɾltɕun* is semantically a patient, it receives obligatory ergative marking due to the fact that the matrix verb *ɾno* ‘experience’ is transitive.⁶

- (21) *azo kr-mtsuy muu-puu-ɾno-t-a ri, xpɾltɕun ku*
 1SG INF-bite NEG-PFV-experience-PST:TR-1SG but Dpalcan ERG
pjɾ-ɾno
 IFR-experience
 ‘I have never been stung (by a wasp), but Dpalcan has.’ (26-ndzWrnaR, 19) (P=A)

The subject of the matrix clause can even be coreferential with the possessor of the S, as in example (22), where the non-overt S should be *a-xtu* ‘my belly’ (1SG.POSS-belly). The verb *mɾɾm* ‘hurt’ can only take a body part as its S – the experiencer is indicated by a possessive prefix on the body part, as in (23).

⁶This example illustrates the fact that ergative marking on third person referents in Japhug is syntactically conditioned, unlike many other languages of the family with optional ergative marking (see DeLancey 2011 and other articles in the same volume of LTBA.)

- (22) *azo puu-xtçuu~xtçi-a zo ri tuixtɣɣm*
 1SG PST:IPFV-EMPH~be.small-1SG EMPH LOC dysentery
nuu-atuuy-a tçe, nuu kɣ-mɣɣm puu-ɾno-t-a
 PFV-meet-1SG LNK DEM INF-hurt PFV-experience-1SG
 ‘When I was very small, I had dysentery, (my belly) ached.’ (24-pGArtsAG, 121)
- (23) *a-xtu nuu-mɣɣm*
 1SG.POSS-belly SENS-hurt
 ‘My belly hurts.’

2.1.3 Stative infinitive

Stative verbs, when occurring in a complement clause, generally take the *kɣ*-infinitive, as in example (24) and (25). The main verb of the complement clauses in these examples have the *kɣ*-infinitive, even though both *tu* ‘exist’ and *scit* ‘be happy’ are stative verbs and have a citation form with the *kuu*-prefix.

- (24) *a-ɾɣuul kɣ-tu puu-ɾno-t-a*
 1SG.POSS-money INF-exist PST:IPFV-experience-PST:TR-1SG
 ‘I used to have money’. (elicited)
- (25) *kɣ-scit pɣɣ-ɾgruu nuu-ɾu*
 INF-be.happy IFR-succeed SENS-be
 ‘She succeeded in being happy.’ (150818 muzhi guniang, 6)

In complement clauses, *kuu*-infinitives are uncommon, and only occur in two cases.

First, the conversion to *kɣ*-infinitive only applies to stative verbs, not to impersonal modal verbs such as *ra* ‘have to, need’. When the latter occur in a complement clause, as in example (26), they always have the *kuu*-prefix.

- (26) *smɣn kɣ-ndza kuu-ra puu-ɾno-t-a*
 medicine INF-eat INF-have.to PST:IPFV-experience-PST:TR-1SG
 ‘I used to have to take medicine.’ (elicited)

Second, complements of verb of perception or thought like *supa* ‘consider as’ or *suɣɣɣɣɣɣ* ‘recognize, realize’ can take complement clauses with stative infinitives as objects, as in (27).

- (27) *užo sruunmuu kuu-ɾu nuu tɣ-wa nuu kuu*
 3SG rākshasî STAT.INF-be DEM INDEF.POSS-father DEM ERG
muu-pɣɣ-suɣɣɣɣɣɣ u-nmaɣ muu kuu
 NEG-IFR-recognize 3SG.POSS-husband DEM ERG
 ‘That she was a rākshasî, the father did not realize it, her husband.’
 (28-smAnmi, 62)

2.2 Bare infinitive and *tu-* infinitives

Several phasal verbs, such as *za* ‘begin’, *srza* ‘begin’, *st^hut* ‘finish’, *jɣ* ‘finish’, causative verbs derived from adjectives such as *ɣrtɕ^hom* ‘overdo, do too much’ or *ɣrβdi* ‘do well’ and the aspectual verb *ɲno* ‘experience, have already’ are compatible with bare infinitival and *tu-* infinitival complements. The verbs *srza* ‘begin’ and *ɲno* ‘experience’ are more commonly used with *kɣ-* infinitives. With the exception of *jɣ* ‘finish’, these verbs are all transitive.

Bare infinitives without possessive prefixes are attested in a very marginal construction involving negative existential verbs (see section 4.8).

2.2.1 Bare infinitives and transitivity

Bare infinitives are formed by combining the stem 1 of the verb with a possessive prefix coreferential with the object of the complement clause, as in examples (28). Intransitive verbs do not form bare infinitives.

- (28) *nrzo ku-fse* *a-ɲk^hor* *nu*
 you NMLZ:STATIVE-be.like 1SG.POSS-subject TOP
u-mto *mu-pu-ɲno-t-a*
 3SG.POSS-BARE-INF:see NEG-PFV-experience-PST:TR-1SG
 ‘I never saw anyone like you among my subjects.’ (Smanmi metog
 koshana1.157)

Bare infinitives are in complementary distribution with *tu-* infinitives, which occur when the verb of the complement is morphologically intransitive. There is obligatory coreference between the S/A of the matrix verb and the S of the *tu-* infinitival complement. When the verb of the matrix clause is transitive and that of the complement clause intransitive, there is a conflict in case assignment on their common subject: the transitive verb requires the ergative on third person subjects, while the intransitive one precludes it. In most cases of this type, such as example (29), the common subject is in the absolutive in accordance with the intransitive verb of the complement clause. However in a few examples such as (30), the shared argument takes the ergative in accordance with the transitive matrix verb (the verb *za* ‘begin’ is transitive). I consider that this difference is related to the boundary of the complement clause: in this first case the shared subject belongs to the complement clause, while in the second case it lies outside it.

- (29) [*<xinbada> nu tɕe li tu-ɲke*] *to-za*
 Sinbad DEM LNK again INF-walk IFR-begin
 ‘Sinbad started to walk again.’ (140511 xinbada, 217)
- (30) *ɣɣrtɕu nu ku [nuɕumuma zo tu-nurɣo] c^hɣ-za*
 bird DEM ERG immediately EMPH INF-sing IFR-begin

‘The bird immediately started to sing.’ (140514 huishuohua de niao, 221)

Bare infinitives and *tu-* infinitives are only compatible with polarity prefixes (as in example 31 below), and cannot take TAM or possessive prefixes.

Crucially, semi-transitive verbs are treated like intransitive verbs: they cannot form a bare infinitive, and use *tu-* infinitives instead (example 31), although their semi-object does present some object-like syntactic properties (see section 1.2.1).

- (31) *qajy u-me nunuu, tɕendɤre kʰro mɤ-tu-rga to-za*
 fish 3SG.POSS-daughter DEM LNK a.lot NEG-INF-like IFR-start
 ‘He started not liking the mermaid that much.’ (hist150819 haidenver, 154)

The only exceptions to this distribution are some transitive verbs used in complex predicates referring to weather phenomena, in particular *lɤt* ‘throw’ and *βzu* ‘make, do’, which take *tu-* infinitives as in (32). Note that in these complex predicates, the light verbs *lɤt* ‘throw’ and *βzu* ‘make, do’, although transitively conjugated, cannot take an overt A marked with the ergative.

- (32) *tu-muu ku-wxtuu~wxti zo tu-lɤt*
 INDEF.POSS-sky NMLZ:S/A-EMPH~be.big EMPH INF-throw
pjɤ-za
 IFR-start
 ‘A big rain started.’ (hist150819 haidenver, 104)

2.2.2 Coreference restrictions

Bare infinitives and *kɤ-* infinitives strongly differ as to their coreference restrictions. With *kɤ-* infinitives, the subject of the matrix clause can be coreferential with either the subject, the object or even the possessor of the intransitive subject of the complement clause (see example 22 above). This ambiguity is particularly clear with the verb *nɤkʰu* ‘invite to one’s home as a guest’ (see examples 33 and 34), as with this verb both arguments are equal in terms of volition and control.

- (33) *uɤo ku kɤ-nɤkʰu pu-ɤno-t-a*
 3SG ERG INF-invite PFV-experience-PST:TR-1SG
 ‘I have been to his house as a guest.’ (= ‘He has invited me to come to his house as a guest and I came.’) (P=A)
- (34) *uɤo kɤ-nɤkʰu pu-ɤno-t-a*
 3SG INF-invite PFV-experience-PST:TR-1SG
 ‘He has been to my house as a guest.’ (= ‘I have invited him to come to my house as a guest and he came.’) (A=A)

In the case of bare infinitives, on the other hand, the subjects of the matrix and complement clause must be identical, but the object of the matrix clause can however be neutralized to third person.⁷

In example (35), the shared subject (referring to the host) is 3SG. The verb of the matrix clause takes the complement clause as a 3SG object (hence the verb takes the 3→3' form without 1SG marking), while the verb of the complement clause takes a 1SG object (referring to the guest), marked by the possessive prefix *a-*.⁸

- (35) *a-nɣkʰu* *pa-rɲo*
 1SG.POSS-BARE.INF:invite PFV:3→3'-experience
 'I have been to his house as a guest.' (= 'He has invited me to come to his house as a guest and I came.')
- (36) *uʒo u-nɣkʰu* *pu-rɲo-t-a*
 3SG 3SG.POSS-BARE.INF:invite PFV-experience-PST:TR-1SG
 'He has been to my house as a guest.' (= 'I have invited him to come to my house as a guest and he came.')

This generalization is observed for all transitive verbs taking bare infinitive complement clauses. The intransitive impersonal verb *jɣɣ* 'finish' takes the bare infinitive clause in S function, and remains in third person singular regardless of the subject and object of the complement clause, as in (37), where although the subject of the complement clause is third person plural, no plural marker can appear on *jɣɣ*.

- (37) *mura u-ti* *to-jɣɣ tɕe*
 DEM:PL 3SG.POSS-BARE.INF:say IFR-finish LNK
 'After having finished saying that, (they went to the park)' (140515 congming de wusui xiaohai, 15)

2.2.3 Historical origin

Bare infinitives probably derive from action nominals. There are marginal examples in Japhug of bare infinitives used in this way, as in example (38) (Jacques 2014b).

- (38) *ndzi-mi* *u-tsʰoɕ* *u-tsʰuya* *mura*
 3DU.POSS-foot 3SG-BARE.INF:attach.to 3SG.POSS-form DEM:PL
wuma ʒo naɣtɕuy-ndzi.
 very EMPH NPST:similar-DU

⁷Note that apart from this syntactic difference, there is no detectable meaning difference between examples (33) and (34) on the one hand and their bare infinitive equivalents (35) and (36) on the other.

⁸In the English translation, the 1SG is rendered as a subject, because translating *a-nɣkʰu pa-rɲo* as 'He has invited me' would be inexact, as this English sentence does not imply that the 1SG did attend the invitation.

‘The way their feet (of fleas and crickets) touch the ground is very similar.’ (26-mYaRmtsaR, 17)

As for the *tu-* infinitives, there are at least two possible ways of analyzing their origin.

First, they could be related to the *tu-* action nominals (Jacques 2014b), found in light verb constructions such as (39) or (40)⁹ and used to build abstract nouns (*si* ‘die’ → *tu-si* ‘death’). This solution is attractive due to the fact that *tu-* action nominals are relatively common, but it does not account well for the complementary distribution of bare infinitives and *tu-* infinitives, since both intransitive and transitive verbs can build *tu-* action nominals.

- (39) *tu-rjæʁ* *pu-βzu-t-a*
 NMLZ:ACTION-dance PFV-do-PST:TR-1SG
 ‘I danced.’
- (40) *kuxtʂo cʰondʁe kurtʂy nura u-pa nutʂu*
 basket COMIT leopard DEM:PL 3SG-down DEM:LOC
tu~tu-tʂaβ *zo pjʁ-βzu*
 TOGETHER~NMLZ:ACTION-cause.to.roll EMPH IFR:DOWN-make
 ‘(The rabbit) caused the leopard and the basket to roll down together.’ (The rabbit 2002, 72)

Second, one could interpret the *tu-* here as the indefinite possessor prefix *tu-*, which is added to inalienably possessed nouns when no definite possessor is present (Jacques to appear). In this hypothesis, the bare infinitive takes a possessive prefix coreferential with its P with transitive verbs, but in the case of intransitive verbs, given the absence of P argument, the indefinite possessor is used instead.

2.3 Finite complements

Finite subordinate¹⁰ clauses are common in Japhug and other Gyalrong languages. For instance, some specific types of relative clauses (Sun 2006; Jacques 2016b) or temporal subordinate clauses (Jacques 2014a) take a verb in finite form, in some cases without a subordinator.¹¹ Likewise, finite complement clauses are common in Japhug and other Gyalrong languages.¹²

⁹When the *tu-* nominalization prefix is reduplicated as in (40), it conveys the meaning of several persons/objects being subjected to the same action together.

¹⁰In this work, ‘subordinate clauses’ is understood as a cover term for relative, complement and adverbial clauses.

¹¹Finite relatives, however, have some properties that distinguish them from corresponding independent clauses (Jacques 2016b, 18-21).

¹²Sun (2012, 475-7) uses the term ‘S-like’ (sentence-like) clause instead of ‘finite’, which in his terminology refers to a different type of clause (see section 1.3.3). I chose ‘finite’ rather than ‘S-like’ to avoid confusion with ‘S’ as ‘intransitive subject’.

2.3.1 TAM forms

Like finite relatives, there are constraints on the TAM forms that the main verb of a finite complement can take. Two cases can be distinguished.

The most common type of finite complement have their verb in the imperfective, regardless of the TAM category of the complement-taking verb, whether in sensory or imperfective form as in (41), in irrealis form as in (42), or even in inferential or perfective forms as in (43) and (44).

- (41) *txjpa kuu-xtɕuu~xtɕi ka-lɣt ri*
 snow INF:STAT-EMPH~be.small PFV:3→3'-throw but
múj-ɛduy, pɣjk^hu tu-ndzi juu-c^ha
 NEG:SENS-be.serious still IPFV-melt SENS-can
 'There was a little snow, but it doesn't matter, it can still melt.'
 (conversation, 2015/12/17)
- (42) *nxzo koŋla zo tu-ku-tɕat-a a-puu-tuu-c^ha*
 2SG really EMPH IPFV-2→1-take.out-1SG IRR-IPFV-2-can
a-puu-ŋu
 IRR-IPFV-be
 'If you can take me out of here...' (140516 huli de baofu, 82)
- (43) *ko-spa-mu q^hendɣre, munu rɣyo c^huu-tuu-za q^he, tɣrcurca*
 IFR-be.able-PL LNK DEM song IPFV-IMM-start LNK together
zo c^huu-ti-mu to-c^ha-mu.
 EMPH IPFV-say-PL IFR-can-PL
 'They had learned (its songs) and as soon as it would start his song, they had become able to sing together with it.' (140519 yeying, 156)
- (44) *a-rɣyo juu-tuu-sɣŋo tɣ-tuu-suuso-t tɕe,*
 1SG.POSS-song IPFV-2-listen PFV-2-think-TR:PST LNK
a-ɣuu-jɣ-kuu-suu-ye-a q^he nu ɕti
 IRR-CISLOC-PFV-2→1-CAUS-COME-1sg LNK DEM be.AFFIRM:FACT
 'When you want to listen to my song, just come and ask me.' (140519 yeying, 238)

Imperfective complements are the preferred construction when *c^ha* 'can' takes adjectival stative verbs as complements, as in (45). The meaning of this construction is specifically 'be able to become X'.

- (45) *cɣtɕ^ha munu uu-tuu-mbro nu tuu-mt^hɣɣ*
 plant.sp DEM 3SG.NMLZ:DEGREE-be.high DEM INDEF.POSS-waist
uu-fsu jamar ma tu-mbro mɣ-c^ha
 3SG.POSS-size about apart.from IPFV-be.high NEG-can:FACT
 'The *cɣtɕ^ha* plant can only grow as high as a person' waist.' (18-NGolo, 182)

Second, some complement-taking verbs, including impersonal modal verbs such as *nts^{hi}* ‘have better’, *toɣ* ‘have to’ or *ra* ‘have to, need’ or transitive verbs such as *suso* ‘think’ allow complements in the irrealis form, as (46).¹³

- (46) *ndɤre kuu-xtɕuu~xtɕi*
 LNK INF:STAT-EMPH~be.small
a-mɣ-pú-wy-mu-ɕluuy *ɲuu-ra* *ma*
 IRR-NEG-PFV:DOWN-INV-AUTO-drop SENS-need because
rca *nu* *ɲuu-ndoɣ* *q^{he}* *ɕlaɣ* *zo*
 UNEXPECTEDLY DEM SENS-be.brittle LNK at.once EMPH
pɲuu-NGruu *ɲuu-ɕti*
 IPFV-ACAUS:break SENS-be:AFFIRM
 ‘However, one should not let it drop even a little, otherwise, as it is very brittle, it would break at once.’ (30-Com, 27)

Finally, complements in direct or hybrid indirect speech (in the case of verbs of speech and thought) do not have restrictions on TAM or person marking as found with other types of finite complements (see section 2.5).

2.3.2 Coreference restrictions

Verbs taking finite complements can be divided into three groups depending on the coreference restrictions holding between the complement and the matrix clause.

First, verbs such as *c^ha* ‘can’ require subject coreference between the clauses. For instance, in (47) and (48), the semi-transitive main verb *c^ha* ‘can’ respectively takes second and first singular person indexation, like the subject of the transitive complement verbs. Absence of person indexation on the verb of the matrix clause or indexing the object of the complement clause is impossible.

- (47) *aʒo ɲuu-ku-ɕuuy-mu-a* *mɣ-tuu-c^ha*
 1SG IPFV-2→1-CAUS-be.afraid-1SG NEG-2-can:FACT
 ‘You cannot scare me.’ (140516 guowang halifa, 54)
- (48) *c^huu-ta-ɕuu-fka* *mɣ-c^ha-a*
 IPFV-1→2-CAUS-be.satiated NEG-can:FACT-1SG
 ‘(If you eat me, as I am lean,) I will not be able to satiate your hunger.’ (140516 guowang halifa, 92)

Second, other verbs such as *rga* ‘like’ allow coreference of the subject of the main clause with either the subject or the object of the complement clause (as in 49).

¹³The same is also found in Tshobdun, see Sun (2012, 483).

- (49) *nxzo kuu tu-kuu-nxjoxjox-a nura rga-a*
 2SG ERG IPFV-2→1-flatter-1SG DEM:PL like:FACT-1SG
 ‘I like when you flatter me.’ (elicited)

Unlike infinitival complements (as in example 22), coreference with a possessor is not possible. While it is possible to say (50), it is not grammatical to use a finite complement here, and one cannot replace the infinitive *kx-mjym* (INF-hurt) with a finite form such as *jnu-mjym* (SENS-hurt) for instance.

- (50) *a-xtu kx-mjym mx-rga-a*
 1SG.POSS-belly INF-hurt NEG-like:FACT-1SG
 ‘I don’t like to have belly ache.’ (elicited)

Third, in the case of complement clauses in S function, the verb of the matrix remains in third person singular form regardless of the person of the subject and object in the complement clause, as in (51) (had the matrix verb been in 1SG form like the subject of the complement clause, an (impossible) form such as *†jnu-nts^{hi}-a* would have been expected).

- (51) *ki maka qala kuu pjx-wy-nuβlu-a tce*
 DEM at.all rabbit ERG IFR-INV-cheat-1SG LNK
z-jnu-ɕar-a jnu-nts^{hi}
 TRANSLOC-IPFV-search-1SG SENS-have.better
 ‘That rabbit has cheated me, I have to go to look for him.’ (31-qala, 39)

2.4 Complement-taking nouns

Not all subordinate clauses modifying a noun should be analyzed as relative clauses: only subordinate clauses whose head noun (overt or covert) has a syntactic role in the clause (whether argument, adjunct or noun modifier) can be considered to be a relative clause (Sun 2006; Jacques 2016b).¹⁴

In example (52), the head noun *ftɕaka* ‘method, manner’ is neither a core argument nor an adjunct. It is not possible to transform the subordinate clause into an independent clause that would include this noun. This sentence is thus a complement clause, rather than a relative, despite having a noun rather than a verb as its head.

¹⁴This point of view is not shared by scholars such as Matsumoto (1988) and Comrie (1998), but whatever the theoretical merits of their approach, for the purpose of detailed language description it is always better to err on the side of splitting than on that of lumping. In Japhug, there are in any case observable, though subtle, differences between relative and complement clauses modifying a noun.

- (52) [[*jum* *kɣ-ɕar*] *ftɕaka*] *ɣu* *tu-rʂaɐ*
 wife:HON INF-search method GEN NMLZ:ACTION-dance
su-βzu-j
 CAUS-do:FACT-1SG
 ‘Let us make dances to look for a wife (for the prince).’ (The Prince, 8)

There are also examples of reported speech finite complement clauses of this type, with nouns relating to speech and information, such as the possessed nouns *-fɕɿt* ‘story’ or *-tɕʰa* ‘information’, as in examples 53 and 54.

- (53) *tɕeri* [*zlawiɕɿrɿβ* *ku* *tɕʰoz* *pui-asui-zgruβ*]
 but Zlaba.shesrab ERG religion PST.IPFV-PROG-accomplish
ui-fɕɿt *tu* *ma* [*jum* *pui-asui-ɕar*]
 3SG.POSS-story exist:FACT but wife:HON PST.IPFV-PROG-search
ui-fɕɿt *me*
 3SG.POSS-story not.exist:FACT
 ‘People say that Zlaba shesrab was studying religion, not that he was looking for a wife.’ (The prince, 79-80)
- (54) [<donggua> *cʰo* <qiezi> *ni* *tɕʰi* *zo* *múj-naxtɕuɿ*]
 gourd and eggplant DU what EMPH NEG:TESTIM-similar
ɣu *ui-tɕʰa* *a-jɿ-tui-yut* *ra*
 GEN 3SG.POSS-information IRR-PFV-2-bring need:FACT
 ‘(Then,) come to tell me in what way a gourd and an eggplant are different.’ (yici bi yici you jinbu 7)

Complement-taking nouns all have corresponding complement-taking verbs, which can be either denominal verbs (*-tɕʰa* ‘information’ → *ɣutɕʰa* ‘answer’), verbs from which the nouns are derived (*fɕɿt* ‘tell (a story)’ → *-fɕɿt* ‘story’) or complement-taking noun-verb collocations, such as *ftɕaka* + *βzu* (from *ftɕaka* ‘method, manner’ and *βzu* ‘do, make’) which can either mean ‘do by any means possible’ as in (55) or ‘prepare to X’ (as in 56; in this meaning, this collocation is homonymous with the denominal verb *nuftɕaka* ‘prepare to’).

- (55) *a*-<xuetang> *ui-tui-mbro* <kongzhi>
 1SG.POSS-blood.sugar 3SG.POSS-NMLZ:ACTION-be.high control
tu-βze-a *ɳu* *mu-tu-kɿ-mbro* *ftɕaka*
 IPFV-do[III]-1SG be:FACT NEG-IPFV-INF-be.high manner
tu-βze-a *ɳu*
 IPFV-do[III]-1SG be:FACT
 ‘I do whatever I can to prevent my blood sugar being too high.’
 (conversation, 15/12/05)

- (56) *qartsɿβ kr-kr-βzu ra kr-tɿβ ftɕaka yu-βzu*
 harvest PFV-NMLZ:P-make PL INF-thresh manner INV-make
ra
 have.to:FACT
 ‘Then one has to prepare to thresh the (cereals) that have been
 harvested.’ (2010.10-tArAku, 71)

Complement clauses with nominal heads differ from relatives in one important respect: while most types of relative clauses can be either prenominal, postnominal or head-internal (Jacques 2016b), complement clauses are exclusively prenominal.

2.5 Reported speech

Verbs of speech and cognition can take reported speech complements, in which the speaker either (exactly or partially) reproduces a sentence uttered by the person he is quoting, or verbalizes the words he assumes a person is thinking. These clauses have finite verb forms, and are thus a sub-category of finite complement clauses, but present some properties distinguishing them from the complements studied in the previous section.

While Japhug allows direct speech quotation, the corpus reveals examples of mismatches between the viewpoint of the original speaker (the person whose speech or thoughts are quoted) and the current speaker (the person quoting the words of the original speaker), which following Tournadre (2008) I will refer to as Hybrid Indirect Speech (also called Semi-Indirect Speech, Aikhenvald (2008)). In Hybrid Indirect Speech, the verb morphology (in particular person indexation) invariably presents the viewpoint of the original speaker, while pronouns and adverbs follow that of the current speaker.

Since grammatical relations are mainly marked by verb morphology, and overt pronouns are not common in texts in Japhug and other Gyalrongic languages (a typological feature shared with Kiranti languages, see Bickel 2001), distinguishing between Direct Speech and Hybrid Indirect Speech is only possible in a minority of cases. Mismatch between pronouns and person indexation only occurs when a pronoun or possessive prefix is overt and when at least one argument in the sentence is referred to by a different person form by the original speaker and the current speaker.

Example (57) provides an example of this phenomenon. The verb *nuyi* ‘he comes/will come back (home)’ in the complement clause of the verb *kr-suso* ‘think’ is in the Factual third person singular form. In the same clause we find the second person singular pronoun *nyzo* ‘you_s’; there is no pause between the pronoun and the verb, and no indication from the prosody that *nyzo* is left-dislocated.

This type of mismatch between pronouns and indexation on the verb is anomalous and never found in independent sentences. Here the verb form

corresponds to the point of view of the original speaker (indicated in blue in all following examples), whose original sentence would have been *užo nuji* 3SG come.back:FACT ‘he is coming back’. The pronoun reflects the point of view of the current speaker (in red), for whom the equivalent sentence would be converted to *nržo tu-nuji* 2SG 2-come.back:FACT ‘you are coming back’, since the addressee of the current situation corresponds to the subject of the original situation.

Three distinct translations are proposed here: a direct speech translation, reproducing the words used by the original speaker in his thoughts, an indirect speech translation, and an attempt at representing Japhug Hybrid Indirect Speech in English.

- (57) *ma nr-wa ku [nržo nuji] kr-suso ku*
 LNK 2SG.POSS-father ERG 2SG come.back:FACT INF-think ERG
k^ha u-rku tce ɛmaβ χsu-txxur
 house 3SG.POSS-side LNK soldier three-circle
pa-su-lrt ɕti tce
 PFV:3→3'-CAUS-throw be.AFFIRM:FACT LNK

Direct: ‘Your father, thinking ‘He is coming back’, put three circles of soldiers around the house.’

Indirect: ‘Your father, thinking that you are coming back,’

Hybrid indirect: ‘Your father, thinking that ‘you’ is coming back,’
 (qachGa 2003, 154)

Examples (58) and (60) illustrate the case of possessive prefixes on nouns, which undergo the same shift towards the point of the view of the current speaker, while the verb remains in the same form that was either thought or uttered by the original speaker.

- (58) *tɕendɤre ta-xi nu ku*
 LNK INDEF.POSS-younger.sibling DEM ERG
[u-pi yu u-sci tu-nɤme-a
 3SG.POSS-elder.sibling GEN 3SG.POSS-revenge IPFV-make[III]-1SG
ra] jɤ-suso tce,
 have.to:FACT IFR-think LNK

Direct: ‘The (younger) sister thought “I have to get revenge on my brother”.’

Indirect: ‘The (younger) sister_i wanted to get revenge on her_i brother.’

Hybrid indirect: ‘The (younger) sister_i thought I_i have to get revenge on her_i brother.’ (xiong he mei, 17)

The original sentence corresponding to the complement clause in (58) is presented in (59): the possessive pronoun was first person (coreferential

with the A of the main verb) and undergoes a shift to third person in (58) (representing the point of view of the person telling the tale).

- (59) *a-pi* *yu* *u-sci* *tu-nyme-a*
 1SG.POSS-elder.sibling GEN 3SG.POSS-revenge IPFV-make[III]-1SG
ra
 have.to:FACT
 ‘I have to get revenge on my brother.’ (elicitation based on 58)

Example (60) illustrates the same phenomenon as (58), but with the verb of speech *ti* ‘say’ instead of *suso* ‘think’. In this example, we know from the context that the girl is the addressee, so that if the sentence were in direct speech, a second person singular prefix form *ny-kumtɕʰu* (2SG.POSS-toy) ‘your toy’ would be expected instead.

- (60) *txɕime nu* *ku* *pju-tu-mtsʰym* *tɕe*, [*nunu* *u-kumtɕʰu*
 girl DEM ERG IPFV-CONV:IMM-hear LNK DEM 3SG.POSS-toy
nu *ju-yut-a* *ɲu*] *u-ku-ti* *pjɿ-tu*
 DEM IPFV-bring-1SG be:FACT 3SG-NMLZ:S/A-say IFR.IPFV-exist
ndɿre,
 LNK

Direct: ‘As soon as the girl heard that there was someone saying “I will bring your toy”.’

Indirect: ‘As soon as the girl heard that there was someone saying that he would bring her toy.’

Hybrid indirect: ‘As soon as the girl_i heard that there was someone saying “I will bring her_i toy”.’ (140429 qingwa wangzi, 49)

In example (61), the pronoun *uʒo* ‘he’ has no case marking, while the matrix verb *suso* ‘think’ is transitive and requires its subject to be marked with the ergative, indicating that *uʒo* ‘he’ belongs to the complement clause whose verb *rxzi* ‘remain, stay’ is intransitive. The verb form *mu-pu-rxzi-a* with first singular marking reflects the viewpoint of the original speaker, while the pronoun *uʒo* ‘he’ corresponds to that of the current speaker.

- (61) “*uʒo* *χsu-sɲi* *χsx-rʒaʁ* *ma* *mu-pu-rxzi-a*”
 3SG three-day three-night apart.from NEG-PST.IPFV-stay-1SG
ɲu-nu-susym *pjɿ-ɲu*
 IPFV-AUTO-think[III] IFR.IPFV-be

Direct: ‘He was thinking “I have only stayed for three days and three nights”.’

Indirect: ‘He was thinking that he had only stayed for three days and three nights.’

Hybrid Indirect: ‘He was thinking that **he** **have only stayed** for three days and three nights.’

A potentially even more confusing case occurs when the original speaker is the current speakers’ addressee, and when both the original and the current speakers are referred to in the original utterance. This is the situation observed in example (62), a sentence pronounced by a fox who helped a prince to succeed in various tasks. Here, the first singular possessive prefix *a-* on the possessed noun *-tʃunlɣn* ‘favour’ and the first person singular suffix *-a* on the verb *ɲuu-nuu-fsuy-a* do not correspond to the same referent. The verb form *ɲuu-nuu-fsuy-a* ‘I will pay back’ is the sentence that the fox attributes to his addressee (the prince), so that the first person here corresponds to the prince, while the possessive prefix on *-tʃunlɣn* ‘favour’ reflects the point of view of the fox and thus refers to himself.

- (62) *a-tʃunlɣn* *ɲuu-nuu-fsuy-a* *u-ɲuu-tu-susɣm* *nɣ*,
 1SG.POSS-favour IPFV-AUTO-pay.back-1SG Q-IPFV-2-think[III] LNK
nu *ɬɣ-ste* *ti* *ɲuu-ɲu*
 DEM IMP-do.this.way[III] say:FACT SENS-be
Direct: ‘If you think “**I will requite the favour (which I received from you)**”, do like that.’
Indirect: ‘If you want to **requite the favour (which you received from me)**, do like that.’
Hybrid Indirect: ‘If you think “**I will requite the favour (which you received from me)**, do like that.’

In such a situation, the referents corresponding to first and second person are exactly reversed between the point of view of the current and the original speaker, and therefore between pronouns and possessive prefixes on the one hand and verbal indexation on the other hand.

The corresponding sentence in Direct speech would be (63), with a second person singular possessive prefix on the noun *-tʃunlɣn* ‘favour’ instead.

- (63) *nɣ-tʃunlɣn* *ɲuu-nuu-fsuy-a*
 2SG.POSS-favour IPFV-AUTO-pay.back-1SG
 ‘I will requite the favour (which I received from you).’

Surprisingly, despite this complex shift of perspective between the original speaker and the current speaker, there is no logophoric pronoun in Japhug (Hagège 1974; Nikitina 2012). A logophoric pronoun is however attested in the closely related Stau language, which appears to have a similar system of Hybrid Indirect Speech (Jacques et al. 2017).

2.6 Complementation strategies

Dixon (2006) introduces the term ‘complementation strategy’ to refer to constructions corresponding with a meaning expressed by complement clauses in some languages, which either are not core arguments or the verb of the main clause or are not clauses with a complete argument structure (Dixon 2006, 34-40). Complementation strategies include nominalizations (when the verb sheds its argument structure as it becomes a noun), relative clauses (which are formally a modifier of a core argument), serial verb constructions and clause linking.

2.6.1 Headless relative clauses in core argument function

Not all clauses occurring in subject, object or adjunct function are complement clauses.

Most relative clauses in Japhug are headless (Jacques 2016b). When headless relative clauses occur in subject or object function, they may be superficially similar to complement clauses.

In example (64), the main verb *c^ha* ‘can’ takes a finite complement clause. Note that the subject of the matrix clause and that of the complement clause are coreferential.

- (64) *tɕe li ndzi-pɣrt^hɣβ xpaxts^hɣt kungut jamar*
 LNK again 3DU.POSS-space.in.between yojana nine about
nuu-suu-ɣβze pɣɣ-c^ha
 IPFV-CAUS-become[III] IFR-can
 ‘He succeeded in making (the distance) between them to be of nine yojanas.’ (hist-28-smAnmi, 237)

In example (65), despite the fact that we have the same form *pɣɣ-c^ha* in the matrix clause as in (64), the subordinate clause *tuu~ta-tut* ‘all that he had said’ is here a headless relative clause. Evidence for this analysis is as follows.

- (65) *tx-pɣtso nu kuu mura [tuu~ta-tut]*
 INDEF.POSS-child DEM ERG DEM:PL TOTAL~PFV:3→3’say[II]
mura pɣɣ-c^ha
 DEM:PL IFR-can
 ‘The child had succeeded in doing everything that (the old king) had said.’ (140428 yonggan de xiaocaifeng, 256)

First, the subject of both clauses are not coreferential (this example cannot be interpreted as meaning ‘the boy succeeded in saying all these things’). If the subordinate clause in (65) were a complement clause, subject coreference would be expected with the verb *c^ha* ‘can’ (see section 2.3.2).

Second, the verb of the relative clause has totalitative reduplication, which is attested in relatives and some temporal subordinate clauses (Jacques 2014a, 295), but not in complement clauses. Third, the verb of the relative clause is in the perfective form while that of the main clause is in the inferential; in finite complement clauses other than reported speech, the verb should be in imperfective form (see section 2.3.1). Fourth, although demonstrative and plural markers can follow a complement clause (see section 3.3), only relative clauses can take both preclausal and postclausal demonstratives as in (65), like any noun phrase. Fifth, it is possible to make a sentence with an overt head noun in (65), while this option does not exist with (64).

The contrast between finite headless relative and complement clauses in object function is not always as clear as that between (65) and (64), but one of the criteria presented above, or a combination thereof, can be used to discriminate between the two.

Formal near-ambiguity between headless relative and complement clauses can also exist in the case of non-finite subordinate clauses. In (66), the intransitive verb *ŋgru* ‘succeed’ takes an infinitive complement in *kx-* as its subject, while in (67), its subject is a headless relative clause with an object participle, as is shown by the fact that it can take a possessive prefix coreferential with its A. Note also the semantic difference between a relative (‘may what you wish for come true’) and a complement clause (? ‘may you succeed to wish it.’).

- (66) *kx-nusmɤn a-mɤ-pu-ŋgru cʰo u-nusmɤn*
 INF-treat IRR-NEG-IPFV-succeed COMIT 3SG.POSS-BARE.INF:treat
a-mɤ-tɤ-βdi tɕe pju-kui-sat
 IRR-NEG-IPFV-be.good LNK IPFV-GENR:S/P-kill
nu-ŋgrɤl
 SENS-be.usually.the.case
 ‘If one cannot treat it (rabies), if one does treat it well, it is fatal.’
 (29-chWsYu, 29)

- (67) *nx-kx-nusmulɤm nu a-pu-ŋgruβ*
 2SG.POSS-NMLZ:P-wish DEM IRR-PFV-succeed
 ‘May your wishes (=the things that you wish for) succeed.’ (elicited)

A more delicate ambiguous case of relative vs complement clause is discussed in section (2.6.2) in the case of pretence verbs.

Besides plain finite relatives and participial relatives, correlatives (with an interrogative pronoun) can also appear in subject or object function, as in (68).

- (68) [*u-wa tɕʰi tɤ-stu-t-a*] *nu*
 3SG.POSS-father what PFV-do.like-PST:TR-1SG DEM

tu-ste-a *nuu-łox*
 IPFV-do.like[III]-1SG SENS-have.to
 ‘I have to deal with him in the same way as I dealt with his father. (=How I treated his father, I have to treat him like that)’
 (Slob.dpon2, 159)

There are, however, cases where a surface form can be analyzed either as a complement clause or as a relative, in particular with verbs of perception. In example (69), the verb form *tx-kx-ta* can either be analyzed as the object participle, or as the infinitive of *ta* ‘put’, resulting in two slightly different but semantically nearly identical translations.¹⁵

- (69) *nuçuumuma zo içq^ha kum nutçu*
 immediately EMPH the.aforementioned door DEM:LOC
nu-ftax tx-kx-ta nu pjx-mto
 3SG.POSS-mark PFV-INF/NMLZ:P-put DEM IFR-see
 ‘She immediately saw the mark that had been put on the door / that someone had put a mark on the door.’ (140512 alibaba, 183)

Similar ambiguities can also occur with finite relatives. Example (70) can be either parsed as having a finite complement clause *nura ta-tut* ‘He said these words’,¹⁶ or a relative *ta-tut* ‘what he said’ (with preclausal and postclausal demonstratives *nura* ‘these’), with little semantic difference.

- (70) *u-ɣjox nu kuu nura ta-tut nura*
 3SG.POSS-servant DEM ERG DEM:PL PFV:3→3’-say[II] DEM:PL
pxjx-mts^hym
 IFR-hear
 ‘His servant heard what (the king) had said / that he had said these (words).’ (140428 yonggan de xiaocaifeng, 265)

In the case of example (71), the speaker started by saying the relative clause [*spjaŋkuu kuu suŋgi u-çki tx-kx-tut*] ‘what the wolf had said to the lion’ and then corrected herself and said the verb form *pú-wy-numtç^hu*, which can either be interpreted as a relative (‘The slandering words that the wolf said’)¹⁷ or alternatively as a complement clause (‘that the wolf had slandered him’), showing the close proximity of these two possible analyses.

¹⁵Genetti (2007) discusses similar cases of formally ambiguous ‘bistructural’ constructions in Dolakha Newar (in particular p. 375) and their crucial importance for understanding grammaticalization processes.

¹⁶With verbs of cognition, speech or perception, there are no coreference or TAM restrictions between the complement and the matrix clause, see (4.3).

¹⁷The verb *numtç^hu* ‘slander’ takes the person slandered as its object, but it can be construed as a secundative ditransitive verb whose third argument (the slandering words) can also be relativized with a finite relative clause, like the theme of the verb *mbi* ‘give’ (see Jacques 2016b, 16-17).

- (71) *spjaŋkuu kuu sunɡi u-ɕki tɕ-kɕ-tut,... pu-u-wy-numtɕ^hu*
 wolf ERG lion 3SG-DAT PFV-NMLZ:P-say[II] PFV-INV-slander
numuura pɕɕ-mts^hɕm.
 DEM:PL IFR-hear
 ‘(The fox) heard what the wolf had said to the lion... (that the wolf)
 had slandered him.’ (140425 shizi lang huli, 16)

2.6.2 Participial clauses

Japhug, like Tshobdun (Sun 2012) has a highly grammaticalized type of complementation strategy involving participial clauses. It occurs with motion verbs (*ɕe* ‘go’, *ɣi* ‘come’, but not *ɾɣuɣ* ‘run’) and a few aspectual verbs (*ɾɾŋɡat* ‘be about to’, *ɕɿɾɿŋɿno* ‘prepare to’). These verbs are all morphologically intransitive. These subordinate clauses, although lexically selected by the verbs, are neither objects nor semi-objects, and therefore cannot be considered to be complement clauses in Dixon’s sense (see also Sun’s 2012 analysis of Tshobdun).

Example (72) illustrates this construction, with the A-participle *u-kuu-n-ɱɿjo* ‘waiting for him’. Note that the common argument shared between the participial clause (whose verb is transitive) and the matrix clause (whose verb is intransitive) takes the ergative, showing that it belongs to the participial clause, a pattern already observed with infinitival complements (see section 2.1.1).

- (72) [*u-wa nu kuu k^hɿpa tɕe*
 3SG.POSS-father DEM ERG downstairs LNK
u-kuu-n-ɱɿjo] *pɕɕ-ɣi*
 3SG-NMLZ:S/A-AUTO-wait IFR:DOWN-come
 ‘His father had come downstairs to wait for him.’ (140506 loBzi, 5)

S/A- vs P-participles In examples such as (72), the S or A of the participial clause is obligatorily coreferential with the S of the matrix clause.

Coreference between the P of the participial clause and the S of the matrix clause is possible but requires using the P-participle. Several examples of this construction are found in the corpus with the verb *ɱɿk^hu* ‘invite to one’s home as a guest’, as in (73) (see section 2.2.2 concerning the argument structure of the verb *ɱɿk^hu*).

- (73) <xingqi> *ɾaŋri zo tɕe numu sɿβzuu ɣu u-k^ha*
 week each EMPH LNK DEM mouse GEN 3SG.POSS-house
mutɕu kɕ-ɱɿk^hu] *ju-ɣi pɕɕ-ŋu*
 DEM:LOC NMLZ:P-invite IPFV-come IPFV.IFR-be
 ‘He would come to the mouse’s house as a guest.’ (150818 muzhi
 guniang, 299).

We know that this form is the P-participle rather than the infinitive because it is possible to optionally add a possessive prefix coreferential with the A, as in (74).

- (74) *a-kʁ-nʁkʰu* *jo-yi*
 1SG.POSS-NMLZ:P-invite IFR-come
 ‘He came to my house as a guest.’ (elicited)

Coreference between the P of the complement clause and the S of the matrix clause is possible only if the P has control over the action, something that is possible for only a few transitive verbs and explains the rarity of this construction.

Verbs of pretence The transitive verb *nuɕpuɜ* ‘pretend, imitate’ and the semi-transitive *ʒyɾpa* ‘pretend’ superficially appear to have the same complementation strategy as motion verbs, as could be deduced from examples such as (75).

- (75) *tx-mu* *nu* *ku* *u-ku* *ci*
 INDEF.POSS-mother DEM ERG 3SG.POSS-head INDEF
ɲu-ku-rʁβɾaɕ *to-nuɕpuɜ*
 IPFV-NMLZ:S/A-scratch IFR-pretend
 ‘The (râkshasî)-mother pretended to scratch her head.’ (Slob.dpon1,

However, unlike verbs such as *ɕe* ‘go’ or *rʁŋgat* ‘be about to’, coreference between the subject of pretence verbs and the subject of the verb in participial form is not required, as in example (76).

- (76) *u-zda* *nura*, [*pyɾtɕu ku-ɾɾwu*,] [*kʰuna*
 3SG.POSS-companion DEM:PL bird NMLZ:S/A-cry dog
ku-ɾndzɔt,] [*lulu ku-ɾɾwu*,] [*qacʰya ku-mbri*
 NMLZ:S/A-bark cat NMLZ:S/A-cry fox NMLZ:S/A-cry
ku-fse, *nura* *tu-nuɕpuɜ* *ɲu-spe*.
 INF:STAT-be.like DEM:PL IPFV-imitate SENS-be.able[III]
 ‘It is able to imitate other animals, cry like a bird, bark like a dog, meow like a cat or call like a fox.’ (27-kikakCi, 141)

Since the verb *nuɕpuɜ* ‘pretend, imitate’ is transitive and can take as its P the person imitated by the A, as in (77), a different analysis of (75) and (76) offers itself: the clauses containing the S/A-participles there (indicated here between square brackets) are in fact head-internal/postnominal relatives.

- (77) *yzu* *ra* *ku* *li* *ʒɾni tí-wy-nuɕpuɜ-ndzi*
 monkey PL ERG again 3DU IPFV-INV-imitate-DU
 ‘The monkeys imitated the two of them (and repeatedly threw back the coconuts at them).’ (140511 xinbada, 262)

Examples (75) and (76) could be literally translated as ‘The mother pretended to be someone who is scratching her head’ and ‘It is able to imitate a crying bird, a barking dog, a meowing cat, a crying fox’ respectively.

In Tshobdun, Sun (2012, 481-2) posits a distinct category of *finite nominalized predicates* in *kə-* to refer to the verb forms in nominalized clause in core argument position and in subordinate clauses associated with verbs of pretence. In Japhug, this analysis is not necessary for three reasons.

First, transitive verbs occurring with *nuɕpuɕ* ‘pretend’ or *zyɣpa* ‘pretend’ take a possessive prefix coreferential with the object, optional if TAM or polarity prefixes are present (78) and obligatory if no other prefix is found.

- (78) *u-ŋga* *u-q^hu* *nu*
 3SG.POSS-clothes 3SG.POSS-behind DEM
u-tu-ku-rɣɕi *ra to-zyɣpa-nu*
 3SG.POSS-IPFV-NMLZ:S/A-pull PL IFR-pretend-PL
 ‘They pretended to pull the train of his gown.’ (140521 huangdi de xinzhuang, 176)

Second, verbs of pretence are compatible with object participles in *kɣ-*, with coreference of the subject of the main clause and the object of the participial clause (79).

- (79) *ɕu-kɣ-nɣk^hu* *to-nuɕpuɕ*
 TRANSLOC-NMLZ:P-invite IFR-pretend
 ‘He pretended to go there as a guest.’ (not: ‘He pretended to invite him.’)

Third, the prefix *ku-* in Japhug cannot be used to express action nominalization as the prefix *kə-* in Tshobdun (Sun 2012, 482).

For these reasons, despite the surface similarity of the constructions in Japhug and Tshobdun, there is no need to establish a morphological category distinct from participles in Japhug.

From a historical perspective, it is possible that the use of participles with motion verbs and with *ɣŋgat* ‘be about to’ was grammaticalized from a construction with such a head-internal relative clause in essive function (cf section 1.2) instead of P function, as in (80). Reanalysis was complete when coreference between the subjects of the matrix and of the participle became obligatory.

- (80) *u-ku-nɣjo* *pjɣ-yi*
 3SG-NMLZ:S/A-wait IFR:DOWN-come
 *‘He came as someone waiting for him’ ⇒ ‘He came to wait for him’.
 (from example 72)

In order to test this hypothesis however, data from other Gyalrong languages, in particular Situ, need to be taken into account, and this topic has to be deferred to future work on comparative Gyalrong morphosyntax.

2.6.3 Relative clause in essive function

While motion verbs use purposive participial clauses (section 2.6.2), manipulation verbs such *tsum* ‘take away’ or *yut* ‘bring’ cannot. Examples such as (81), with *kr-* prefixed verb forms appearing before a manipulation verb, could appear to be an example of purposive participial clauses.¹⁸

- (81) *u-mbro* *u-ndzi* *nura* *kr-ntsye jo-tsum*
 3SG.POSS-horse 3SG.POSS-skin DEM:PL ???-sell IFR-take.away
 ‘He took the horses’ skins to (the market) to sell them.’ (150814
 kelaosi, 85)

However, in all examples such as (81), the noun *u-spa* ‘material’ can be added after the verb prefixed in *kr-* without changing the meaning (*kr-ntsye u-spa jo-tsum*). This indicates that the syntactic function of *kr-ntsye* here is in fact that of an essive adjunct (see section 1.2), meaning literally ‘He took the horses’ skins (there) as something to sell’, and that it should be analyzed not as an infinitive form, but as an object participle meaning ‘which is to be sold.’¹⁹

This construction markedly differs from the purposive participial clauses of motion verbs in not being fully grammaticalized.

2.6.4 Action nouns

The transitive verb *k^hyt* ‘do repeatedly, do a long time’ and its causative *su-k^hyt* ‘cause to do repeatedly, cause to do a long time’ can take infinitival complements, but they more commonly occur in a construction with instrumental-like noun phrases marked with the ergative / instrumental *ku*, indicating the action which is performed repeatedly or done over a long time. These noun phrases can include either an action nominal derived from a verb with the prefix *tu-* as in (82), or a action noun from which verbs are derived by denominal prefixes, as (83).²⁰

¹⁸It cannot be a P-participle, as this would require coreference between the subject of the matrix clause and the object of the participial clause, see section 2.6.2.

¹⁹An anonymous reviewer suggested the alternative possibility of viewing this infinitival form as an adverbial clause. While infinitives are indeed used as converbs in Japhug (see Jacques 2014a, 321-2), they are used in manner clauses, not purposive clauses.

²⁰The noun *ta-ma* ‘work’ in (83) is the base from which several common verbs such *ryma* ‘work, do work (vi)’ and *nyma* ‘work on (vt)’ are derived.

- (82) *tu-qioʁ* *ku* *tó-wy-su-kʰyt* *ʒo* *tʃe*,
 NMLZ:ACTION-vomit ERG IFR-INV-CAUS-do.a.long.time EMPH LNK
tʃe *nóʒmuʒ* *nʁ* *tuy* *numu* *ló-wy-su-tʃyt*
 LNK only.then LNK poison DEM IFR-INV-CAUS-take.out
 ‘(The medicine) caused (Gesar) to vomit a long time until he expelled
 the poison.’ (Gesar, 266)
- (83) *ta-ma* *ku* *ta-kʰyt* *ʒo*
 INDEF.POSS-work ERG PFV:3→3’-do.a.long.time EMPH
 ‘He did a lot of work.’

Since the action nominals in *tu-*, have a neutralized valency, this construction cannot be considered to be a type of complement clause.

2.6.5 Compound action nouns

Beside action nouns derived from verbs by means of a nominalization prefix, Japhug is also rich in compound action nouns (either noun-verb or verb-verb, see Jacques 2012b). Used in combination with light verbs, some compound nouns form complex predicates with very specific meanings.

The most frequent construction of this type involves compounds comprising the noun *kʰramba* ‘lie, cheating’ as the first element and a verb root as the second element. The combination of these compounds with the light verb *βzu* ‘do, make’, has the meaning ‘pretend to do X’ as shown by example (84) (see sections 2.6.2 and 4.6 for other constructions with a similar meaning).

- (84) *ʒara* *ku* *cʰa* *nu* *kʰramba-tsʰi* *ka-βzu-nu*, *tʃʰeme* *nura*
 3PL ERG alcohol DEM lie-drink PFV:3→3’-do-PL girl DEM:PL
ntsui *ka-znʁko-nu* *ɲu-ɲu*
 always PFV:3→3’-force-PL SENS-be
 ‘They pretended to drink alcohol, and forced the women (to drink).’
 (Slobdpon05, 100)

In this construction, the light verb *βzu* ‘do, make’ takes the orientation prefix selected by the verb included in the compound (similar phenomena are observed with complement clauses, see section 3.4). In example (84) for instance, the lexeme *tsʰi* ‘drink’ selects prefixes with the ‘toward east’ orientation in finite forms and some participial forms (Perfective/Irrealis *kʰ-*, Perfective 3→3’ *ka-*, Imperfective *ku-* etc). The compound *kʰramba-tsʰi* cannot take any orientation prefix (or any verb morphology, for that matter), but the verb form *ka-βzu-nu* inherits the orientation selected by *tsʰi* ‘drink’ and thus appears with the Perfective 3→3’ *ka-* corresponding to the orientation

‘toward east’.²¹

Another similar construction involves compounds noun with the adverb *kuzya* ‘for a long time’ as first element.²² compare examples (85) and (86) (with raising of the Inferential ‘toward west’ orientation prefix *ɲɻ-* on the light verb).

- (85) *kuzya zo ɲɻ-ɕar*
 long.time EMPH IFR-search
 ‘He looked for him for a long time.’ (elicited)

- (86) *kuzyɻ-ɕar zo ɲɻ-βzu*
 long.time-search EMPH IFR-do
 ‘He looked for him for a long time.’ (elicited)

2.6.6 Serial verb constructions

In Japhug, as in Tshobdun (Sun 2012, 490-1), we find a serial verb construction comprising two verbs sharing TAM category, core argument(s) (both subject and object in the case of transitive verbs) and transitivity. One of the verbs expresses the main action, and the other describes the manner in which the action is performed. Unlike Tshobdun, there is no constraint in Japhug against inserting a linker such as *tɕe* between the two verbs in the serial construction.

This construction is most common with deideophonic verbs,²³ as exemplified by (87), where *nudruβ* ‘gore again and again’ can only be used in this construction together with *tɕ^hu* ‘gore’. The ideophonic verb can either follow (87) or precede the main verb (88), the latter construction being by far more common. Some non-ideophonic verbs expressing manner (such as Japhug *ɲɻɕɛɾt* ‘do with force’, like its Tshobdun cognate *ɲɔfɛfɛt* ‘exert oneself’) can also be used in this construction.

- (87) *iɕq^ha srunmu nu to-tɕ^hu to-nudruβ tɕe*
 the.aforementioned rākshasî DEM IFR-gore IFR-repeatedly.gore LNK
pjɻ-sat
 IFR-kill
 ‘(The rhinoceros) gored the rākshasî repeatedly and killed her.’ (28-smAnmi, 403)

- (88) *srunmu nu to-nudruβ zo to-tɕ^hu*
 rākshasî DEM IFR-repeatedly.gore EMPH IFR-gore

²¹The verb *βzu* ‘do, make’ when used as a full verb most commonly takes the orientation ‘up’, never ‘toward east’.

²²It takes the *status constructus* form *kuzyɻ-* in these compounds.

²³On deideophonic verbs and their morphosyntactic properties, see Sun & Shidanluo (2004) and Jacques (2013c).

‘(The rhinoceros) gored the rākshasî repeatedly and killed her.’
(elicited on the basis of 87)

The second most common type of serial verb construction in Japhug involves the manner deixis verbs *stu* ‘do like this’ (transitive) and *fse* ‘be like this’ (intransitive).

Examples like (89) could seem to indicate that *stu* ‘do like this’ and the lexical verb do not share the same object, as *ki* ‘this’, which obligatorily occurs before the manner deixis verbs, appears to be its object.

- (89) *u-ru nu ki tú-wy-stu pjú-wy-qlut*
3SG.POSS-stalk DEM DEM:PROX IPFV-INV-do.like IPFV-INV-break
‘One breaks its stalk like this.’ (14-tasa, 81)

However, when the lexical verbs takes a non-third person object, the manner deixis verb indexes it as its object too, as in (90): *stu* ‘do like this’ is in fact a secundative ditransitive verb, and the demonstrative is an unmarked T argument.

- (90) *azo kuki ntsu kú-wy-stu-a-nu tce,*
1SG DEM:PROX always IPFV-INV-do.like-1SG-PL LNK
kú-wy-znuuk^hrum-a-nu
IPFV-INV-punish-1SG-PL
‘They punished me like this.’ (Gesar, 278)

The verb *stu* ‘do like this’ cannot be used with intransitive verbs in a serial construction. Instead, its intransitive counterpart *fse* ‘be like this’ occurs with a demonstrative such as *ki* as in (91).

- (91) *azo nu sjiçyr zo kutçu ki fse-a*
1SG DEM night.and.day EMPH here DEM:PROX be.like:FACT-1SG
ndzur-a ntsu juu-ra tce,
stand:FACT-1SG always SENS-have.to like
‘I have to stand like this night and day.’ (The divination, 2002, 44)

Third, some verbs which usually take complements are also compatible with serial verb constructions, including the causative form of adjectives (see section 4.10.2) as well a phasal and modal verbs like *za* ‘begin’ and *c^ha* ‘can’. These serial verb constructions differ from the corresponding complement constructions in that the verbs cannot take either negative or associated motion prefixes.

The phasal verb *za* ‘begin’, though most commonly used with bare infinitive or *tu-* infinitive complements, can also appear in a serial verb construction expressing the specific meaning ‘start doing X from ... until...’, as in (92).

- (92) *tɕe βzuur ri tɕe cʰú-wy-mpʰur cʰú-wy-za tɕe*
 LNK corner LOC LNK IPFV-INV-wrap IPFV-INV-begin LNK
mɣpɕoɕ cʰu βzuur nu-ɕki mɣɕtɕa cʰú-wy-mpʰur
 opposite.side LOC corner 3PL-DAT until IPFV-INV-wrap
 ‘One starts to wrap it up from one corner until the opposite corner.’
 (30-mboR, 20)

Likewise, the modal verb *cʰa* ‘can’ occurs in a serial verb construction, as in example (93), which slightly differs from the previous ones in allowing an intransitive verb to combine with a transitive one (one possible factor for this exception is that *cʰa* ‘can’ is semi-transitive, and thus presents morphosyntactic features of both transitive and intransitive verbs).

- (93) *tarmgunku u-zuβdaɕ numu ku-murkuu*
 Dar.mgon 3SG.POSS-tutulary.spirit DEM NMLZ:S/A-steal
cʰɣ-ɕe. tɕe tu-ci, nɣki tu-tsʰɣruu
 IFR:DOWNSTREAM-go LNK INDEF.POSS-water DEM one-goat.horn
nu, unumu lo-murkuu pjɣ-cʰa.
 DEM DEM IFR-steal IFR-can
 ‘The tutelary spirit of Darmgon went to steal it, and the goat horn full of water, he succeeded in stealing it.’ (02-montagnes-kamnyu-cz)

Finally, there is a closed class of idiomatic serial verb constructions whose meaning is not predictable from that of the two verb roots (either because meaning is not compositional, or because one of the verb roots only appear in the serial construction, never independently). The most common example is *stu + mbat* ‘try hard’, as in (94).

- (94) *tx-stu tx-mbat je*
 IMP-try.hard(1) IMP-try.hard(2) HORT
 ‘Try hard!’

2.6.7 Coordination

In Japhug, some attitudinal verbs such as *ɛnu* ‘suspect’, *nusumɣiz* ‘hesitate’, *nuɕɬumbuy* ‘guess, estimate’ or *nuɕjuβtsʰɣt* ‘guess, estimate’ do not take complement clauses. Rather, they occur in a coordinating construction strikingly similar to that described in Tshobdun by Sun (2012, 487-8): the attitudinal verb is followed by the affirmative copula *ɕti* ‘be’ and an adversative linker such as *ri* ‘but’, as in (95).

- (95) *nu tu-nuɕɬumbuy-a ɕti ri, uzo ku kɣ-nɣma*
 DEM IPFV-guess-1SG be.AFFIRM:FACT LNK 3SG ERG NMLZ:P-work
nu sɣpe
 DEM do.well:FACT
 ‘I guess that he will perform this task well.’

3 Morphosyntactic properties of complement clauses

This section discusses various topics related to the syntax of complement clauses in Japhug, including word order, syntactic pivots (coreference restrictions and restrictive neutralization), demonstratives as possible complementizers, and case marking mismatch.

3.1 Word order and constituency

Complement clauses in Japhug have the same position in the sentence as core arguments: they are strictly pre-verbal. While complement clauses are generally located directly before the verb, we find examples in which the subject appears between the complement clause and the (transitive) main verb, as in (27) above.

Discontinuous complement clauses are rare in Japhug. The only clear example in my corpus is (96). In this example, the 1SG pronoun *azo* (the subject of the matrix clause, which has no syntactic role in the complement clause) appears between the A *hulu ku* ‘the cat’ and the P *ɛnuuz zo* ‘two’ of the complement clause. Despite the rarity of this construction, this sentence was not considered to be unusual by my consultant when listening again to the recording.

- (96) *tɕe [hulu ku azo ɛnuuz zo ka-ndo] puu-mto-t-a*
 LNK cat ERG 1SG two EMPH PFV:3→3'-take PFV-see-PST:TR-1SG
 ‘I saw a cat catching two of them.’ (22-kumpGatCW, 61)

3.2 Syntactic pivots

Table (2) presents a summary of coreference restrictions between matrix and complement clauses in Japhug, based on the data in section (2).

Some verb classes are named by a representative example (for instance *rga* ‘like’) because at this stage of research, it is not yet clear to what extent the classes of all verbs with the same behaviour can be given a simple functional label.

Table 2: Coreference restrictions in complement clauses in Japhug

Verb class	Complement type	Coreference complement = main clause
motion verb	<i>kr-</i> participle	$\{P\}=\{S\}$
motion verb	<i>ku-</i> participle	$\{S,A\}=\{S\}$
transitive verb	bare infinitive	$\{A\}=\{A\}$
transitive verb	<i>tu-</i> infinitive	$\{S\}=\{A\}$
<i>spa</i> ‘be able’	infinitive, finite	$\{S,A\}=\{A\}$
<i>c^ha</i> ‘can’	infinitive, finite	$\{S,A\}=\{S\}$
<i>suexc^ha</i> ‘(cause to) be able’	infinitive	$\{S,A\}=\{P\}$
<i>rga</i> ‘like’	infinitive	$\{S,A,P,P'\}=\{S\}$
<i>rga</i>	finite	$\{S,A,P\}=\{S\}$
cognition, perception	finite	no constraint
impersonal	bare infinitive	zero
impersonal	<i>tu-</i> infinitive	zero
impersonal	finite, infinitive	zero

This table confirms the observation that although Gyalrong languages have ergative case marking, syntactic pivots mainly follow an accusative alignment, with restrictive neutralization of S and A (Van Valin & LaPolla 1997, 275, Sun 2003; Jacques 2016b). Note that the construction with motion verbs and *kr-* participial complements, despite showing obligatory coreference between the intransitive subject of the main clause and the object of the complement ($S=P$), cannot be considered to have an ergative-absolutive pivot, since the same construction cannot express coreference between the intransitive subject of the main clause and that of the complement clause ($S=S$).

Some verbs such as *rga* ‘like’ present looser coreference restrictions, with differing rules depending on the construction. It is possible that additional subtypes will be revealed by finer examination of the behaviour of individual complement-taking verbs.

3.3 Plural and demonstrative markers

Finite, infinitival or participial complements in Japhug can be optionally followed by the distal demonstrative *nu* ‘that’ (97), the plural *ra* (98) or a combination of the two *nura* ‘those’. In example (97), *nu* ‘that’ has a topicalizing function (‘as for growing high, it can grow high, but on the other hand it cannot grow thick’).

- (97) *tu-mbro nuu juu-c^ha ri tu-mbro tɕe ɛnuu-rtɕɿɣ,*
 IPFV-be.high DEM SENS-can LNK IPFV-be.high LNK two-stair
χsɿ-rtɕɿɣ jamar tu-mbro juu-c^ha ri
 three-stair about IPFV-be.high SENS-can LNK
 ‘Although it can grow high, although it can grow two or three stairs
 high,...’ (16-CWɿNgo, 151)

The marker *ra* is an associative plural; in examples such as (98), the use of *ra* implies an open list of activities (‘crawl, walk etc’).

- (98) *kɿ-nurtsuu kɿ-ŋke ra tɿ-c^ha tɕe*
 INF-crawl INF-walk PL PFV-can LNK
 ‘When (the baby) becomes able to crawl or to walk, ...’ (140426
 tApAtso kAnWBdaR, 65)

In Tshobdun, Sun (2012, 481) analyzes these demonstratives as complementizers, an analysis which would imply a grammaticalization pathway identical to that of English ‘that’. No attempt will be made to solve this complex question in the present article. An argument for the special status of demonstratives with complement clauses is that they can only be post-clausal, whereas in the case of relatives (or any noun phrase) demonstratives can be pre-clausal or circum-clausal (see section 2.6.1).

Demonstrative and plural markers are not the only grammatical elements that can follow a complement clause. For instance, to express a restriction (‘only’) having scope over a complement clause, the postposition *ma* ‘apart from’ is used after the complement, sometimes with the postposition repeated two times [X *ma nuu ma*] ‘apart from X, apart from it’ as in example (99).

- (99) *kɿ-mts^hɿm ma nuu ma*
 INF-hear apart.from DEM apart.from
muu-puu-ŋno-t-a
 NEG-PFV-experience-PST:TR-1SG
 ‘I only heard about it.’ (I did not see it and even do not claim that
 it exists, of a mythological animal) (20-RmbroN, 118)

3.4 Orientation prefixes

In Japhug, all finite verb forms except the Factual take an orientation prefix.²⁴ For some categories (egophoric present, sensory, past imperfective),

²⁴See for instance Jacques (2014a, 265-9) for a brief description of the system. In Japhug as in all Gyalrong languages, six orientations are possible: up’, down’, ‘upstream’, ‘downstream’, ‘east’ and ‘west’, to which can be added the ‘unspecified orientation’ prefix used with motion verbs. Only three verbs have defective conjugations and lack orientation prefixes (Jacques 2012b). Similar systems of orientation prefixes are widespread in the area (Sun 1983; Lin 2002; Shirai 2009; Lin 2011).

all verbs take the same orientation prefix (respectively the directions for ‘east’, ‘west’ and ‘down’). In the rest of the conjugations, each verb selects one or more orientations, and consistently uses it to build all TAM forms. Table 3 illustrates some examples of lexically selected orientation prefixes. The forms indicated are third person singular (intransitive verbs) and 3→3’ (transitive verbs).

Table 3: Examples of lexically selected orientation prefixes in Japhug

Base form	Orientation	Perfective	Inferential	Imperfective
<i>ndza</i> ‘eat’ (tr)	Up	<i>ta-ndza</i>	<i>to-ndza</i>	<i>tu-ndze</i>
<i>fɕɿt</i> ‘tell’(tr)	Down	<i>pa-fɕɿt</i>	<i>pjɿ-fɕɿt</i>	<i>pju-fɕɿt</i>
<i>fsoɸ</i> ‘be day’ (intr)	Upstream	<i>lx-fsoɸ</i>	<i>lo-fsoɸ</i>	<i>lu-fsoɸ</i>
<i>nurɿɿɿo</i> ‘sing’ (intr)	Downstream	<i>thu-nurɿɿɿo</i>	<i>c^hɿ-nurɿɿɿo</i>	<i>c^hu-nurɿɿɿo</i>
<i>ts^hi</i> ‘drink’ (tr)	Toward east	<i>ka-ts^hi</i>	<i>ko-ts^hi</i>	<i>ku-ts^hi</i>
<i>ɕar</i> ‘search’ (tr)	Toward west	<i>na-ɕar</i>	<i>jɿɿ-ɕar</i>	<i>jnu-ɕar</i>

In non-finite complement clauses, verbs rarely take orientation prefixes (they are even impossible in the case of bare infinitives and participial complements).

Most complement-taking verbs select one or two orientation prefixes and use them regardless of the verb in the complement. This is the case of *ɿno* ‘experience’, which takes the ‘down’ series of prefixes (Inferential *pjɿ-* and Perfective *pui-*) irrespective of the verb complement. Thus, in (100), while the verb *ts^hi* ‘drink’ in the complement clause selects the ‘towards east’ orientation, the main verb *ɿno* ‘experience’ takes the ‘down’ prefix.

- (100) *ui-se* *kɿ-ts^hi* *pui-ɿno-t-a*
 3SG.POSS-blood INF-drink PFV-experience-PST:TR-1SG
 ‘I have drunk its blood.’ (27-qartshAz, 106)

A minority of complement-taking verbs, including phasal verbs and causative verbs, systematically inherit the lexical orientation of the verb of the complement clause.

The following examples show how the verb *za* ‘start’ takes the orientation prefix of its complements’ verbs, respectively ‘up’ (example 101), ‘down’ (102), ‘upstream’ (103), ‘downstream’ (104) and ‘towards west’ (105). The Inferential forms of these verbs are provided in Table 3 above.

- (101) *ui-ndza* *pui-kɿ-ta* *nura*
 3SG.POSS-food PFV:DOWN-NMLZ:P-put DEM:PL
ui-ndza *to-za*
 3SG.POSS-BARE-INF-eat IFR-start
 ‘(The horse) started eating the food that had been put (there for him).’ (140507 jinniao, 384)

- (102) *tɿtɕupɯ nu ku li u-χpi u-fɕɿt*
 boy DEM ERG again 3SG.POSS-story 3SG.POSS-BARE.INF:tell
pjɿ-za
 IFR-start
 ‘The boy told her again a story.’ (140517 buaishuohua, 69)
- (103) *tu-fsoɤ lo-za tɕe,*
 INF-be.clear IFR-start LNK
 ‘The light of day started to appear.’ (140511 1001 yinzi, 39à)
- (104) *pyɿtɕu nu ku nuɕumuma zo tu-nuɿɿyo c^hɿ-za*
 bird DEM ERG immediately EMPH INF-sing IFR-start
 ‘The bird immediately started singing.’ (140514 huishuohua de niao, 221)
- (105) *numu u-ɕar jɿɿ-za-nu*
 DEM 3SG.POSS-BARE.INF-search IFR-start
 ‘They started searching for it.’ (140518 jinyin chengbao, 59)

The raising of the orientation prefix of the verb in the infinitival clause is observed with verbs such as *ɿβdi* ‘do well’ or *ɿtɕ^hom* ‘do too much’ (derived from the adjectives *βdi* ‘be good’ and *tɕ^hom* ‘be too much’ respectively; see [Jacques 2015](#), 184).

- (106) *c^ha kɿ-ts^hi ko-ɿɿ-tɕ^hom*
 alcohol INF-drink IFR-CAUS-be.too.much
 ‘He drunk too much alcohol.’ (elicited)

A related phenomenon occurs in light verb constructions with verbs such as *βzu* ‘do, make’, *ɿt* ‘throw’ or *ti* ‘say’. When these verbs form complex predicates with their objects, they take the same orientation as the corresponding verb derived by denominal derivation ([Jacques 2012b](#), 1220).

For instance, both the denominal verb *nuɿɿyo* ‘sing’ derived from *ɿɿyo* ‘song’ and the corresponding collocation *ɿɿyo,βzu* ‘sing’ (‘make a song’) select the ‘downstream’ orientation (Inferential *c^hɿ-*, Imperfective *c^hu-* etc), as shown by examples (107), (108), (109).

- (107) *numu tɕ^heme nu ku li ɿɿyo c^hɿ-βzu tɕe,*
 DEM girl DEM ERG again song IFR-make
 ‘The girl sung again.’ (140428 mu e guniang, 167)
- (108) *nu-ɿɿyo c^hu-lat-a tɕe, nuɿɿɿɿ pu-ɿɿɿ-nu*
 3PL.POSS-song IPFV-throw-1SG LNK 2PL IMP-dance-PL
 ‘I will play a song for you, dance!’ (140513 mutong de disheng, 100)

- (109) *rxʁo ku-mpɕu~mpɕʁ* *zo cʰʁ-ti*
 song NMLZ:S/A-EMPH~be.beautiful EMPH IFR-say
 ‘It sung a beautiful song.’ (140519 yeying, 78)

An extension of this phenomenon occurs in the compound action noun complementation strategy (section 2.6.5).

3.5 Case marking

When the verb of the matrix and the complement clauses sharing the same subject have distinct transitivity values, the subject noun phrase can either take absolutive or ergative marking.

Examples (110) and (111) provide a minimal pair illustrating this optional treatment. In both examples, the matrix verb *rga* ‘like’ is semi-transitive (and its subject cannot take ergative marking), while *ndza* ‘eat’ is transitive (and requires a subject with the ergative).

In example (110), the common subject *paɕ ra* ‘pigs’ takes the ergative *ku* selected by the verb *ndza* ‘eat’ in the complement clause, suggesting that it should be analyzed as belonging to the complement clause.

- (110) [*paɕ ra ku kʁ-ndza*] *wuma zo rga-nuu*
 pig PL ERG INF-eat very EMPH like:FACT-PL
 ‘Pigs like to eat it.’ (12 ndZiNgri, 149)

In (111), the subject *fsapaɕ ra* ‘domestic animals’ has no ergative marking, a difference which can be accounted for by assuming that the complement clause in this example is restricted to the sole infinitive verb form *kʁ-ndza* to eat’.

- (111) *fsapaɕ ra [kʁ-ndza] wuma rga-nuu*
 animals PL INF-eat very like:FACT-PL
 ‘Domestic animals like to eat it.’ (hist-19-qachGa mWntoR, 116)

3.6 Complements of participles

When a complement-taking verb is itself in the S/A-participle form, it is possible for the complement either to be in the expected form (infinitive or finite), or to be in S/A-participle form itself, as in example (112).

- (112) [*rɲul ku ndzi-ku-sɲndu*] *ku-cʰa*
 silver ERG 3DU-NMLZ:S/A-exchange NMLZ:S/A-can
ku-fse pu~pu-tu nɲ
 NMLZ:S/A-be.like COND~PST.IPFV-exist if
 ‘If there was someone who could redeem (the life of two brothers) with money, ...’ (140507 jinniao, 339)

Such examples are rare, but not considered to be mistakes by consultants when listening again to the recordings.

4 A classification of complement-taking verbs

4.1 Modal verbs

This section includes complement-taking verbs expressing deontic and epistemic modality, to the exclusion of verbs of volition (want, wish etc) and attitudinal verbs, which are classified among verbs of cognition and speech.

Table 4 presents the list of all the auxiliary verbs in this category. They can take both finite and infinitival complement clauses – since all verbs in this category are relatively uniform with regards to the type of complements they can take, complement types are not indicated in this table. The impersonal verbs are not compatible with person or number marking, and take the complement clause as their subject.

A detailed study of the fine semantic differences between these verbs goes beyond the topic of the present article. More detailed data is provided for three of them, *spa* ‘be able, know how to’ (section 4.1.1), *suxc^ha* ‘be able’ (4.1.2) and *ra* ‘have to’ (4.1.3).

Table 4: Inventory of modal verbs in Japhug

	Meaning	Transitivity	Coreference
<i>c^ha</i>	can	semi-tr	S/A=S
<i>spa</i>	know how to	tr	S/A=A
<i>suxc^ha</i>	(cause to) be able	inverse	S/A=P
<i>sna</i>	be worthy of, be usable to	stative	S/A/P=S
<i>k^hu</i>	be possible	stative	S/A/P=S, zero
<i>ɬoɣ</i>	have to	imp.	zero
<i>ra</i>	have to	imp.	zero
<i>ɸzi</i>	need	imp.	zero
<i>ntshi</i>	be preferable	imp.	zero
<i>mna</i>	be preferable	imp.	zero
<i>ŋgru</i>	succeed	imp.	zero
<i>zɣɿt</i>	should	imp.	zero
<i>jɿɣ</i>	be possible, be authorized	imp.	zero

4.1.1 *spa* ‘be able to, know how to’ and *c^ha* ‘can’

The verb *spa* ‘be able to, know how to’ originates from the abilitative form of the verb *pa* ‘do’ (Jacques 2015) and has a cognate in Tangut (Jacques

2014c, 255-6), showing that its lexicalization occurred even earlier than proto-Gyalrongic.

The verb *spa* ‘be able to’ can have a noun phrase as its object, as in (113).

- (113) *ʕoŋβzu ko-spa*
carpentry IFR-be.able
‘He learned carpentry.’ (elicited)

As a complement-taking verb, *spa* ‘be able to, know how to’ takes both infinitival (examples 114 and 115) or finite (116) complements, and its A is coreferential with the S or the A of the complement clause. The subject coreference is required, and no example of coreference with objects, adjuncts or other elements of the complement clause have been observed with this verb.

- (114) *nu u-mdoʔ nu aj kɣ-ti múj-spe-a*
DEM 3sg.poss-colour DEM 1SG INF-say NEG:SENS-be.able[III]-1sg
‘I am not able to name its colour.’ (06-qaZmbri, 57)

- (115) *kɣ-nɣre u-tá-spa?*
INF-laugh Q-PFV:3→3’-be.able.to
‘Is he now able to laugh?’ (conversation, 2014, of a three month old infant)

- (116) *u-tʰoʔ nu ku-fse, sɣtɕʰa nu*
3SG.POSS-ground DEM INF:STAT-be.like ground DEM
ju-rɣtye ku-fse qʰe,
IPFV-measure.handspan.by.handspan INF:STAT-be.like LNK
tu-ŋke ma nu ma juu-nuqambumbjom ra
IPFV-walk apart.from DEM apart.from IPFV-AUTO-fly PL
múj-spe
NEG:SENS-be.able[III]
‘It is only able to move on the ground as if measuring it handspan by handspan, it cannot fly.’ (26-qambalWla, 79)

The verb *cʰa* ‘can’ occurs in the same construction as *spa* ‘be able to, know how to’, except that it is a semi-transitive verb (section 1.2.1), whose subject is not marked with the ergative and whose semi-object is not indexed by verb morphology.

4.1.2 *suxcʰa* ‘(cause to) be able’

The verb *suxcʰa* ‘(cause to) be able’ is the causative derivation of *cʰa* ‘can’. It can take both an object and an infinitival complement. This verb nearly

exclusively occurs in inverse form with a non-overt causer (subject), and has the specific meaning of ‘(cause to) be physically able to X’, ‘(cause to) be strong enough to X’, as in examples (117) and (118). The subject is not expressed, but implicitly as the heavy object in (117) and the animal taken by the eagle in (118).

- (117) *ɲuu-rʒi tʃe kɻ-fkur*
 SENS-be.heavy LNK INF-carry.on.the.back
múj-tu-wɣ-sux-cʰa.
 NEG:SENS-2-INV-CAUS-can
 ‘It is heavy, you won’t be able to carry it on your back.’ (elicitation)
- (118) *tʰu-wxti-nu tsa tʃe tʃe, ta-tsum tʃe*
 PFV-be.big-PL a.little LNK LNK PFV:3→3’-take.away LNK
tu-ɣɾɾɣβjɾβ ɲuu-ʈi tʃe uʒo kɻ-tsum
 IPFV-struggle SENS-be.AFFIRM LNK 3SG INF-take.away
mu-ɲú-wɣ-sux-cʰa.
 NEG-SENS-INV-CAUS-can
 ‘When (piglets, lamb) have grown up, when (the eagle tries to) take away (one of them), it struggles and (the eagle) is not strong enough to take it away. (150819 RarphAB, 6)

The object (causee) of *suxcʰa* ‘(cause to) be able’ is coreferential with the subject of the complement clause.²⁵ Such a coreference restriction is extremely rare in Japhug, but it is the logical consequence of the fact that the base verb *cʰa* ‘can’ has subject coreference restriction, and that the causative derivation demotes the subject of the base verb (causee) to object status.

Exceptionally, this verb is attested in direct forms, as in (119), but only in its use as a plain transitive verb ‘cause to be able to bear’, and does not take infinitival complements.

- (119) *kumpya pʰu nu ɲuu-βka tʃe, mu nura*
 fowl male DEM SENS-win LNK female DEM:PL
mu-ɲuu-sux-cʰe
 NEG-SENS-CAUS-can[III]
 ‘(Otherwise) the roosters are too strong, and and the hens cannot bear it. (150819 kumpGa, 9)

4.1.3 *ra* ‘have to’

The modal verb *ra* ‘have to, need’ cannot take any person or number marker. Its subject is either a noun phrase or a complement clause. If the intransitive

²⁵In these examples the subject of *suxcʰa* ‘(cause to) be able’ is coreferential with the object of the clause, but this is not a requirement.

subject of *ra* ‘have to, need’ is a noun phrase, the experiencer is marked with the genitive case, as in (120). In complement clauses however, the experiencer does not received special marking, as in (122).

- (120) *aʒuʒ u-ʒa ra ma nu ma*
 1SG:GEN 3SG.POSS-meat have.to:FACT apart.from DEM apart.from
*ku-**ra** me*
 NMLZ:S/A-have.to not.exist:FACT
 ‘I need its meat, I don’t need anything else.’ (02-deluge2012, 14)

The verb *ra* ‘have to, need’ is compatible with either finite (see 46 or 58 above) or infinitive (example 121) complements. Other types of complements or complementation strategies are not attested.

- (121) *tx-**prtso** nu, tu-**prme** roro jamar tʒe tʒe*
 INDEF.POSS-child DEM one-year.old over about LNK LNK
*tu-**nu** kʁ-su-**βde** pʃʁ-**ra***
 INDEF.POSS-breast INF-CAUS-abandon IPFV.IFR-have.to
 ‘Children had to be weaned at about one year old.’ (140426 tApAtso kAnWBdaR, 83)

The verb in the complement clause is almost always either in imperfective or irrealis form. It can be in the Perfective if *ra* ‘have to’ takes the past *pu-* prefix, as in (122).

- (122) *tʒe ɪʒo ji-**kʰa** kumʁ kʁ-**fstun-i***
 LNK 1PL 1PL.POSS-house also PFV-take.care.of-1PL
*pu-**ra***
 PST.IPFV-have.to
 ‘We also had to take care of him at our home.’ (14-tApitaRi, 358)

The modal *ra* ‘have to’ is one of the few verbs that can take one or several complement clauses in the imperative, as in (123). In this construction, *ra* ‘have to’ appears in the factual form.

- (123) *a-**mke** kʁ-**rqoʁ** qʰe a-**rca** tx-**ʒi***
 1SG.POSS-neck IMP-hug LNK 1SG.POSS-following IMP:UP-come
ra
 have.to:FACT
 ‘Hug my neck and come with me (in the heavens).’ (31-deluge, 109)

4.2 Phasal verbs and other aspectual auxiliaries

Aspectual and phasal complement-taking verbs present a much greater variety of constructions than modal verbs. Table 5 summarizes the constructions

attested with each verb, not all of which are equally common.²⁶

As shown in section 2.2.2, verbs in this group have different coreference restrictions depending on the complement type. With *ɲno* ‘experience’ for instance, when used with a bare infinitive / *tu-* infinitival complement, subject coreference is obligatory, while when it takes a *kr-* infinitival complement, coreference with the object or with a possessor of the subject is also possible.

Table 5: Inventory of phasal and aspectual auxiliaries in Japhug

Verb	Meaning		I.	BI	F.	Strategy
<i>ɲno</i>	experience	tr.	✓	✓		
<i>sɣza</i>	begin, start	tr.	✓	✓		
<i>za</i>	begin, start	tr.	✓	✓		serial
<i>st^hut</i>	finish	tr.	✓	✓		serial
<i>sɣtɕutɕi</i>	continue	tr.	✓		✓	serial
<i>nuftɕaka</i>	prepare to	tr.	✓		✓	
<i>suyjɣɣ</i>	finish	tr.	✓			
<i>k^hɣt</i>	do repeatedly	tr.	✓			(2.6.4)
<i>jɣɣ</i>	be finished	imp.	✓	✓		
<i>ɲgrɣl</i>	be usually the case	imp.			✓	
<i>rɣɲgat</i>	be about to	intr.		✓		participle
<i>zɣɣɲno</i>	prepare to	intr.		✓		participle
<i>mda</i>	be time to	imp.	✓		✓	

In addition to *ɲno* ‘experience’, which has been treated in previous sections, data are provided for *st^hut* ‘finish’ (the verb in this group with the greatest diversity of complement types) and *ɲgrɣl* ‘be usually the case’ (as a representative of impersonal aspectual verbs).

4.2.1 *st^hut* ‘finish’

Of all the complement-taking verbs in Japhug, *st^hut* ‘finish’ is one of those which are compatible with the greatest diversity of complement types.

It appears with *kr-* infinitives (124), bare infinitives (125) or in serial verb constructions (126), with respectively 16, 8 and 3 examples in the corpus.

- (124) *tu-nu* *kr-jts^hi* *na-st^hut* *tɕe tɕe*
 INDEF.POSS-breast INF-give.to.drink PFV:3→3’-finish LNK LNK
ɣɣ-ɣɣtso *nu li* *u-sta* *mutɕu* *ko-ɕu-rɲgu*
 INDEF.POSS-child DEM again 3SG.POSS-bed DEM:LOC IFR-CAUS-lay

²⁶The abbreviations are as follows: I. (*kr-* Infinitive), BI (bare infinitive and *tu-* infinitive), F. (finite complement), tr. (transitive), imp. (intransitive impersonal).

‘After she had finished breastfeeding, she put back the child on his bed.’ (140429 jiedi, 270)

- (125) *nu u-ti ta-st^hut*
 DEM 3SG.POSS-BARE.INF:say PFV:3→3’-finish
 ‘When she finished saying that,’ (150818 muzhi guniang, 125)

- (126) *nura pa-βzjoz pa-st^hut tce u-sloχpun*
 DEM:PL PFV:3→3’-learn PFV:3→3’-finish LNK 3SG.POSS-teacher
nu ku taqaβ tu-ldza jɣ-wy-mbi
 DEM ERG needle one-CL IFR-INV-give
 ‘When he finished learning this (craft), his teacher gave him a needle.’
 (140508 benling gaoqiang de si xiongdi, 97)

Like *za* ‘start’ (see section 3.4), *st^hut* ‘finish’ inherits the orientation of the verb in the complement clause. In the examples (124), (125) and (126) above, *st^hut* ‘finish’ respectively takes the ‘towards west’ (Perfective *na*-), ‘up’ (Perfective *ta*-) and ‘down’ (Perfective *pa*-) orientations, which are the orientations lexically selected by *jts^hi* ‘give to drink’,²⁷ *ti* ‘say’ and *βzjoz* ‘learn’ respectively.

4.2.2 *ŋgrɿl* ‘be usually the case’

The verb *ŋgrɿl* ‘be usually the case’, although very common, occurs in a very restricted construction. It cannot take person/number marking, and is only used with finite complements. The verb in the complement clause is nearly always in the imperfective, as in (127), except for existential verbs such as *tu* ‘exist’, which appear in the factual (128).

- (127) *azo kumpya c^hu-nu-χse-a pu-ŋgrɿl*
 1SG chicken IPFV-AUTO-feed[III]-1SG PST.IPFV-be.usually.the.case
 ‘I used to raise chickens /(for my own sake).’ (150819 kumpGa, 69)
- (128) *ɕɿr tce tu ŋgrɿl tu-mbri*
 night LNK exist:FACT be.usually.the.case:FACT IPFV-call
ŋgrɿl
 be.usually.the.case:FACT
 ‘(Owls) appear, howl during the night.’ (22-pGAkhW, 19)

4.3 Verbs of cognition and speech

Verbs and complex predicates expressing cognition, perception and speech can be divided into three categories depending on the type of complements they can take.

²⁷This verb is the causative of *ts^hi* ‘drink’ which take the ‘towards east’ orientation: despite being etymologically related, these two verbs select distinct orientations.

First, some verbs accept both infinitival and finite (including reported speech, see 2.5) complements; this category mainly includes modal verbs of volition, verbs of thought and attitudinal verbs (‘fear’, ‘hate’).

Second, some verbs of perception and cognition accept finite complements, but cannot take infinitival complements.

Third, some attitudinal verbs and intentional perception verbs (‘look at’, ‘listen to’) cannot take complement clauses, and can only use the coordination complementation strategy (section 2.6.7).

Table 6: Inventory of verbs of cognition, perception and speech in Japhug

Verb	Meaning		I.	BI	F.	Strategy
<i>suso</i>	think, want	tr	✓		✓	
<i>jmut</i>	forget	tr	✓		✓	
<i>rga</i>	like	semi-tr	✓		✓	
<i>nuymu</i>	fear	tr	✓		✓	
<i>q^ha</i>	hate	tr	✓		✓	
<i>ɛmuɣ</i>	intend to	tr	✓		✓	
<i>numga</i>	want to obtain	tr	✓		✓	
<i>ui-sum + ɛe</i>	want	colloc	✓		✓	
<i>ui-ɛjiz + yi</i>	wish	colloc	✓		✓	
<i>suɣsɣl</i>	realize that	tr			✓	
<i>mto</i>	see	tr			✓	
<i>mts^hɣm</i>	hear	tr			✓	
<i>ɕuftaɣ</i>	remember	tr			✓	
<i>tso</i>	know, understand	semi-tr			✓	
<i>suɣ</i>	know	tr			✓	
<i>numgro</i>	hope	tr			✓	
<i>ti</i>	say	tr			✓	
<i>ru</i>	look at	it				coordination
<i>sɣŋo</i>	listen to	lab				coordination
<i>nusumɛɣiz</i>	hesitate	it				coordination
<i>nusumŋɣn</i>	suspect	it				coordination
<i>ɛnu</i>	suspect	it				coordination
<i>nuɣlumbuy</i>	estimate	it				coordination

4.4 Motion verbs

Two motion verb *ɛe* ‘go’ and *yi* ‘come’ take participial purposive clauses (see section 2.6.2, example 129 below). Other motion verbs (such as *ŋke* ‘walk’, *ɣɣuy* ‘run’, *nuqambumbjom* ‘fly’) and verbs of manipulation (*ɣut* ‘bring’

and *tsum* ‘take away’) cannot take purposive clauses, though the latter use relative clauses in essive function as a complementation strategy (section 2.6.3).

Japhug has both motion verbs with purposive clauses and associated motion prefixes (venitive *yuu-* and andative *ɕuu-* grammaticalized from *yi* ‘come’ and *ɕe* ‘go’ respectively). As shown in Jacques (2013b, 203), these two constructions present an obvious semantic contrast when used in the perfective. In the purposive clause construction, when the motion verb is in the perfective, only the motion is implied to have taken place, nothing is said about the action described by the complement. For instance, example (129) makes sense only if the action of the purposive clause has not taken place yet.

- (129) *tɕʰi u-kuu-nɣma jɣ-tuu-ye?*
 what 3SG-NMLZ:S/A-do PFV-2-come[II]
 ‘What have you come to do?’

By contrast, the associated motion construction implies that both the motion event and the action following it have been completed, as in example (130).

- (130) *ɕuu ra nu-kʰa tɕe ɕ-puu-tuu-rr-tɕuβ tɣ-ti*
 who PL 3PL.POSS-house LNK TRANSLOC-PFV-2-APASS-sew IMP-say
ra
 have.to:FACT
 ‘Tell us in whose house you have gone to do sewing.’ (140512 alibaba, 162)

4.5 Attempt

The verbs *tsʰɣt* ‘try’ and *rrtsʰɣt* ‘try’ (no discernible semantic difference between the two could be ascertained) are not attested with complement clauses in the corpus. They can occur with a coordinated reported speech (section 2.6.7), as in example (131).

- (131) *tɕe juu-βʒoβ-nuu uikʰuikʰa qraβ numuu tu-tsʰɣt-nuu tɕe*
 LNK IPFV-carve-PL while ploughshare DEM IPFV-try-PL LNK
uu-juu-ɣtʰoβmpʰɣt kuu numuu tu-tsʰɣt-nuu ntsuu ra
 QU-SENS-fit QU DEM IPFV-try-PL always have.to:FACT
 ‘While they shape (the hole to insert the ploughshare), they try the ploughshare, they try it to determine whether or not it fits in.’ (24-mbGo, 31)

The verbs *nrz* ‘dare’ and *pʰot* ‘dare’ (the second is barely used in the Kamnyu dialect) can be used with both infinitival and finite complements. They are among the few verbs whose infinitival complements require subject

coreference. In example (132) with the verb *nrk^hu* ‘invite to one’s home as a guest’ (one of the few transitive verbs implying a volitional action of both subject and object, see section 2.2.2), the interpretation ‘I do not dare to go to his house as a guest’ (with coreference of the object of the complement clause and the subject of the main clause) is not possible.

- (132) *ɕu-kɣ-nrk^hu* *mɣ-naz-a*
 TRANSLOC-INF-invite NEG-dare:FACT-1SG
 ‘I do not dare to invite him.’ (elicited)

4.6 Pretence

The verbs of pretence *nuɕpuɜ* ‘pretend, imitate’ and *zyɣpa* ‘pretend’ do not accept complement clauses, they only take participial relatives as their objects or semi-object, as described in section 2.6.2. An alternative construction for expressing pretence involves complex predicates with the auxiliary verb *βzu* ‘do’ and a compound noun with *k^hramba* ‘lie, cheating’ as the first element (see 2.6.5).

4.7 Deixis

There are two manner deixis verbs in Japhug, the transitive verb *stu* ‘do like this’ (transitive) and the intransitive *fse* ‘be like this, look like’. Both can take an essive noun phrase not indexed in the verb morphology (often restricted to a demonstrative). They can be combined with other verbs in a serial verb construction to express the meaning ‘do X like Y’ (2.6.6).

- (133) *u-xɕrt* *c^hu-lɣt-nu* *ki* *c^hu-stu-nu* *tɕe*
 3SG.POSS-power IPFV-throw-PL this IPFV-do.like.this-PL LNK
 ‘People insert (bullets in the muzzle of the gun) forcefully like this.’
 (28-CAmWGdW, 61)

Alternatively, the same meaning can be expressed with an infinitive complement clause, as in (134).

- (134) *tɕe* *ɕɣmuɣdu kɣ-lɣt* *nu* *tu-stu-nu* *ɲu-ŋu*
 LNK gun INF-throw DEM IPFV-do.like.this SENS-be
 ‘They shoot it like that.’ (28-CAmWGdW, 96)

4.8 Negative existential verbs

Although Japhug, like other Gyalrongic languages, has a series of negative prefixes (whose form vary depending on the TAM category), negation can also be expressed by post verbal negative auxiliaries like *maɣ* ‘not be’, *me* ‘not exist’ or *maŋe* ‘not exist (sensory)’. Example (135) illustrates both negative forms (negative prefix *muu-puu-mto-t-a* vs negative auxiliary *puu-mto-t-a me*).

- (135) *tɕe u-mdoɣ tɕʰi zo fse mɣxsi,*
 LNK 3SG.POSS-colour what EMPH be.like:FACT NEG:GENR:know
a-kɣ-ti me ma
 1SG.POSS-NMLZ:P-say not.exist:FACT LNK
muu-puu-mto-t-a. u-ndzi kunɣ puu-mto-t-a
 NEG-PFV-see-PST:TR-1SG 3SG.POSS-skin also PFV-see-PST:TR-1SG
me
 not.exist:FACT
 ‘I don’t know what its colour is, I cannot say as I have not seen it.
 I never even saw its hide.’ (27-kikakCi, 21-22)

This situation is not unusual in Sino-Tibetan, and has led in some languages to the complete replacement of pre-verbal by post-verbal negation (see Post 2015).

The negative copula *maɣ* ‘not be’ is used as a negative auxiliary in compound tenses (on which see Jacques 2014a, 268-9), to express focus (example 136) or polar questions (137).

- (136) *nɣzo nɣ-pʰe tu-ti-a maɣ, pɣnma wombɣɣ u-pʰe*
 2SG 2SG-DAT IPFV-say-1SG not.be:FACT p.n. p.n. 3SG-DAT
tu-ti-a ɕti
 IPFV-say-1SG be.AFFIRM:FACT
 ‘I am not talking to you, I am talking to Padma ’Od.’bar.’ (Slobdpon, 190)
- (137) ‘*u-kɣɣme tuu-ldza ci nɣ a-mɣ-jɣ-tuu-yut*’
 3SG.POSS-hair one-CL one even IRR-NEG-PFV-2-bring
ɣɣ-tuut-a maɣ u-ŋu
 PFV-say[II]-1SG not.be:FACT QU-beFACT
 ‘Didn’t I say ‘Don’t bring her back, not even one hair?’ (2014-kWLAG, 686)

The negative existential verbs *me* ‘not exist’ and *maŋe* ‘not exist (sensory)’ differ from negative prefixes in that they express emphatic negation, their meaning being translatable with an indefinite negative pronoun or adverb such as ‘nothing’ or ‘never’, as in (135) and (138).

- (138) *kumaɣ tu-nɣme-a nuu-suso-t-a me*
 other IPFV-work[III]-1SG PFV-think-PST:TR-1SG not.exist:FACT
 ‘I never thought of doing anything else.’ (150819 woniu, 39)

With transitive verbs, this construction is often used to express negation with an indefinite object, but it is not necessarily the case, as in (139).

- (139) *kyntɕʰaʁ kʰro ju-tsum-a me, kʰa tɕe*
 street a.lot IPFV-take.away-1SG not.exist:FACT house LNK
tu-nu-ŋge-a ŋu
 IPFV-AUTO-wear[III]-1SG be:FACT
 ‘I don’t take it much on the streets, I wear it at home.’ (conversation 150418)

Negative prefixes can be combined with negative auxiliaries to build a double negation construction, as in (140).

- (140) *muu-pjuu-mtam-a me, a-ky-tso*
 NEG-IPFV-see[III]-1SG not.exist:FACT 1SG.POSS-NMLZ:P-know
wuma dʁn
 really be.many:FACT
 ‘I have seen everything (there is nothing I do not see), I know really a lot.’ (2002qajdoskat, 36)

The nature of the finite clauses occurring in this construction is in question. It could seem at first glance that these are relative clauses. Indeed, one of the most common ways of expressing a negative indefinite in Japhug is by using participial relative clauses with a negative existential verb, as in examples (141) and (142).

- (141) *nyzo nuu-nu-yɣwu ma, ny-kuu-nuy-mu*
 you IMP-AUTO-cry because 2SG-NMLZ:S-APPL-be.afraid
me ma mɣ-ta-mbi
 FACT:not.exist because NEG-1→2-FACT:give
 ‘Cry as you wish, nobody is afraid of you, I will not give her to you.’ (The frog, 38)
- (142) [*smɣy-ri nuu ra u-kuu-ntɕhoz*] *maka maŋe*
 wool-thread TOP PL 3SG-NMLZ:A-use at.all not.exist:SENSORY
 ‘Nobody uses woollen threads.’ (Coloured belts, 89)

Since Japhug also has finite relatives, the same analysis could be applicable to examples such as (140) (‘the things I do not see do not exist’). However, in Japhug only objects can be relativized with finite verb forms (Jacques 2016b, 12-3). If this analysis were correct, we would thus not expect to find intransitive verbs negated by negative existential verbs, and negated transitive verbs should only have an indefinite object reading – thus *puu-mto-t-a me* (PFV-see-PST:TR-1SG not.exist:FACT) in (135) should only be interpretable as ‘I did not see anything’, not ‘I never saw it.’

Thus, while this construction probably originates from a negated finite relative, in the synchrony of Kamnyu Japhug it is better analyzed as a complement clause.

The negative existential verbs *me* ‘not exist’ and *maje* ‘not exist (sensory)’ also appear in a very unusual construction, [X *mx*-X negation] (where X stands for the bare stem of the verb) meaning ‘whether or not X, it amounts to the same’. This form is not even the bare infinitive, since no possessive prefix can be added.

In this construction, contrary to all previous ones, the negative auxiliaries can take person marking, and are obligatorily coreferential with the object if the verb in the complement clause is transitive, as in (143). With intransitive verbs, no person marking appears on the negative verb, as in (144). In this construction, the subject (whether of transitive or intransitive verbs) cannot be expressed.

- (143) *ndza mx-ndza me-a*
eat NEG-eat not.exist:FACT-1SG
‘Whether (you) eat me or not, it amounts to the same.’ (sentence obtained as the correction of a sentence I produced to translate a story in Japhug)
- (144) *tɕe u-qiu juu-mts^ham-a, u-qiu*
LNK 3SG.POSS-half SENS-hear-1SG 3SG.POSS-half
múj-mts^ham-a q^he, ɕe mx-ɕe maje
NEG:SENS-hear-1SG LNK go NEG-go not.exist:SENS
‘I can hear half of it, can’t hear the other half, whether or not (I) go it amounts to the same.’ (conversation 140510)

4.9 Analytic causative constructions

While Japhug has two productive causative prefixes, *ɣr-* restricted to (some) stative verbs and the general causative (*su-/suy-/z-* (see Jacques 2015 and Sun 2014; Lai 2014 for a comparative perspective on Tshobdun and Khroskyabs), it also presents no less than two main analytic causative constructions.

The first type of analytic causative construction involves an auxiliary (including *βzu* ‘do, make’, *srβzu* ‘cause to become, make’, *srpa* ‘cause to become, consider’ and *tɕrt* ‘take out’) and a subordinate clause with its main verb in subject participle form.

This construction is especially common with adjectives, as in (145), and (146). In example (146), both the synthetic causative verb *ɣrwxiti* ‘make bigger’ and the analytic causative with *βzu* are attested.

- (145) *c^hu-ndul-mu tɕe ku-ndu~nduβ zo c^hu-βzu-mu*
IPFV-grind-PL LNK NMLZ:S/A-EMPH~fine EMPH IPFV-make-PL
‘They grind (tobacco) and make it very fine-grained.’ (30-CnAto, 38)

- (146) *u-p^hu juu-wxti tʃe, nura t^hamtʃɛt*
 3SG.POSS-price SENS-be.big LNK DEM:PL all
ma-tʃ-tu-ɣɣ-wxti, aʒo nu tu-nu-ɣti-a nura
 NEG-PFV-2-CAUS-be.big 1SG DEM IPFV-AUTO-buy[III]-1SG DEM:PL
st^huci ku-wxti u-p^hu ma-tʃ-tu-βze
 as.much NMLZ:S/A-be.big 3SG.POSS-price NEG-PFV-2-make[III]
ku-tʃaŋ ci tʃ-βze
 NMLZ:S/A-be.fair a.little IMP-make[III]
 ‘It is too expensive, don’t make it that expensive, I will buy it, don’t
 make its price that expensive, give it for a fair price.’ (Bargaining
 12, 12)

With dynamic verbs, examples of this construction are not attested in the corpus. Rather, the preferred construction is to use an impersonal modal verb such as *k^hu* ‘be possible’ or *ra* ‘have to’ in participial form taking a complement verb, as in (147) and 148 (note that these complements can be either in finite or infinitive form).

- (147) *la-rɣci-nu tʃe, lu-nu-ɬoɣ*
 PFV:3→3’-pull-pl LNK IPFV:UPSTREAM-AUTO-come.out
mɣ-ku-k^hu tu-βzu-nu
 NEG-NMLZ:S/A-be.possible IPFV-make-PL
 ‘They pull (on the thread to close the opening) and prevent it from
 coming out.’ (30-CnAto, 42)
- (148) *ɕu-kɣ-βde mɣ-ku-ra nu ndʒiʒo ku*
 TRANSLOC-INF-throw NEG-NMLZ:S/A-have.to DEM 2DU ERG
nu-tu-sɣβzu-ndʒi ŋu
 PFV-2-cause.to.become-DU be:FACT
 ‘Thanks to both of you, there is no need to throw (people in the
 lake) anymore.’ (2011-05-nyima, 191)

In this construction, the causative auxiliary verb takes the participial clause as its object. When the participial clause has a first or second person object, as in (149) and (150), the auxiliary remains in third person object form (a form such as †*tu-ku-sɣβzu-j* IPFV-2→1-cause.to.become-1PL ‘you caused us to become X’ would not be possible).

- (149) *izora kɣ-nuʒuβ mɣ-ku-k^hu*
 1PL INF-sleep NEG-NMLZ:S/A-be.possible
tu-tu-sɣβze juu-ŋu
 IPFV-2-cause.to.become[III] SENS-be
 ‘You prevent us from sleeping.’ (elicitation)

- (150) *a-tu-ci* *ɲu-tu-s-qarndum* *tɕe azo*
 1SG.POSS-INDEF.POSS-water SENS-2-CAUS-be.muddy LNK 1SG
tu-ci *ku-ɣmgri* *kɣ-tsʰi*
 INDEF.POSS-water NMLZ:S/A-be.clear INF-drink
mɣ-ku-khu *ɲu-tu-sɣpe* *ɲu-ɲu*
 NEG-NMLZ:S/A-be.possible SENS-2-cause.to.become[III] SENS-be
 ‘You have spoiled my water, you caused me to be unable drink clear
 water.’ (lang he yang, 26)

As shown by examples (148) and (150) in particular, the use of causative auxiliaries with dynamic verbs is common to express indirect causation, the (voluntary or involuntary) indirect result of the action performed by the causer.

The verb *tɕɣt* ‘take out’ is very rare as a causative auxiliary, and only occurs with negative participial forms, as in (151).

- (151) *kɣ-ɣhulɣt mɣ-ku-ra* *ɲɣ-tu-tɕɣt*
 INF-fight NEG-NMLZ:S/A-have.to IFR-2-take.out
 ‘You prevented them from fighting.’ (elicitation, based on the story
 Nyima ’Odzer)

An alternative synthetic causative uses the causative form *ɣɣkʰu* of the verb *kʰu* ‘be possible’. This verb takes infinitive or finite complements as in (152). Like the construction above, the causative auxiliary *ɣɣkʰu* ‘cause to be possible’ takes a third person object form regardless of the person of the complement verb. In example (152) it would not be possible to use the 2SG→1SG form †*mu-mu-ku-ɣɣkʰu-a* (IPFV-2→1-cause.to.become-1SG).

- (152) *kɣ-sci* *mu-mu-tu-ɣɣkʰu-t*
 INF-be.born NEG-IPFV-2-CAUS-be.possible-PST:TR
 ‘You prevented me from being born.’ (Gesar, 61)

Future research will be necessary to ascertain the precise semantic difference between all causative constructions, a task made difficult by the dearth of examples of the constructions illustrated by examples (151) and (152) in the corpus.

4.10 Complements of adjectives

Adjectives in Japhug can be formally defined as the subclass of stative verbs allowing the tropative *nɣ-* derivation, a derivation that turns a stative verb into a transitive verb meaning ‘find/consider X’ (eg ‘beautiful’ → ‘find/consider to be beautiful’, see Jacques 2013a).²⁸

²⁸This definition excludes some noun-like property words.

4.10.1 Infinitival and finite complements

A few adjectives are semi-transitive, like *mk^hɣz* ‘be expert, be knowledgeable’ and optionally take either a noun (153) or a complement clause (154) in addition to their S. The complement clause can be either infinitival or finite, with a verb in the imperfective.

- (153) *u-nmaʁ* *ɟɣ-ku-ye* *nu* *ʕoŋβzu*
 3SG.POSS-husband PFV-NMLZ:S/A-come[II] DEM carpentry
mk^hɣz *tɕe*
 be.expert:FACT LNK
 ‘Her husband (who came to live in her family) is very good at carpentry.’ (14-tApitaRi, 273)

- (154) *tɕizo rcanu,* *kɣ-taʁ* *wuma zo* *mk^hɣz-tɕi*
 1DU UNEXPECTED INF-weave really EMPH be.expert:FACT-1DU
 ‘We are very good at weaving.’ (140521, huangdi de xinzhuang, 20)

4.10.2 Causative forms of adjectives

The causative forms of adjectives, in addition to their base causative meaning ‘cause to become X’, can also be used with complement clauses to express manner (Jacques 2015, 184). In this construction, both *kɣ*- infinitives and bare infinitives are possible. For instance, the verb *ɣɣ-βdi* derived from *βdi* ‘be good, be well’ can either mean ‘repair, treat’, as in (155) or ‘do well, do properly’ with a complement clause as in (156).

- (155) *a-βi* *ku* *nu* *ma* *spe*
 1SG.POSS-younger.sibling ERG DEM apart.from be.able[III]:FACT
me *ri,* *<tuolaji>* *ku-fse,* *mk^huurlu*
 not.exist:FACT but tractor NMLZ:S/A-be.like.this machine
nura *tu-ɣɣβdi* *spe*
 DEM:PL IPFV-CAUS-be.well be.able[III]:FACT
 ‘My brother is only able to do one thing, repair tractors and cars.’
 (14-tApitaRi, 166)
- (156) *k^ha* *u-βɣri* *nutɕu* *u-fkɣɣm*
 house 3SG.POSS-front.of DEM:LOC 3SG.POSS-BARE.INF:place
a-kɣ-tu-ɣɣβdi *tɕe,* *ɕ-pu-sɣtse*
 IRR-PFV-2-CAUS-be.good LNK TRANSLOC-IMP-stick.into[III]
 ‘Place these in front of your house in orderly fashion and stick them (into the ground).’ (Smanmi 2003, 129)

The complement-taking causative verbs inherit the orientation prefix and person marking of the complement verb (see 3.4).

Alternatively, causative verbs derived from adjectives can occur in a serial verb construction similar to the one found with manner deixis verbs (see sections 2.6.6 and 4.7), as in example (157) where the causative form of the verb *asuy* ‘be tight’ shares the same TAM, person and orientation marking as the other member of the serial construction *xtɕɿr* ‘tie’.

- (157) *tɕe tumbri ɲɿ-ɕar tɕe u-mɲu nuɾa koŋla zo*
 LNK rope IFR-search LNK 3SG.POSS-opening DEM:PL really EMPH
ko-xtɕɿr ko-su-ɾsuy zo
 IFR-tie IFR-CAUS-be.tight EMPH
 ‘He looked for a rope, and tied the opening (of the bag) very tight.’
 (kelaosi, 288)

Conclusion

This article is the first step towards a comprehensive description of complementation in Japhug, but much remains to be done, in particular in ascertaining fine-grained semantic differences between related constructions. It has three main contributions.

First, it confirms the observation from previous research on subordinate clauses in Gyalrong languages (Jacques 2016b, Sun 2003) that while Japhug has ergative case marking, in complex clauses only neutral or accusative pivots are attested, and not a single ergative pivot is found – the only ergatively-aligned construction being generic person marking on the verb (Jacques 2012a).

Second, it illustrates how the reanalysis of unmarked relative clauses in essive function (1.2) is a widespread mechanism to create complement clauses (2.6.2, 2.6.3).

Third, this article documents several typologically unusual constructions, in particular Hybrid Indirect Speech (section 2.5), the verb *suxc^ha* ‘(cause to) be able’ which only appears in inverse forms (4.1.2) and the puzzling construction [X *mɿ*-X negation] meaning ‘whether or not X, it amounts to the same’ (4.8) with exclusive indexation of the object of the complement clause on the negative auxiliary.

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