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HAL Id: halshs-01244873
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Submitted on 16 Dec 2015

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Clause linking in Japhug

Guillaume Jacques

November 13, 2014

Abstract: This paper presents a detailed description of clause linking in Japhug, based on a corpus of traditional narratives and conversations. It follows the methodology used in Dixon and Aikhenvald’s (2009) collective book on this topic, to ease crosslinguistic comparisons. Although Japhug has a very rich system of converbs, there is not a single meaning that requires a non-finite form: all subtypes of clause linking can be expressed exclusively with finite verb forms, and these indeed predominate in our corpus.

Keywords: Clause linking, Conditional, Counterfactual, Purposive, Tense, Relative time

1 Introduction

This paper deals with clause linking in Japhug Rgyalrong. Although this topic has been summarily treated in previous publications (Jacques 2008: 317-325), the present work is based on a considerably larger corpus, which comprises about 50 hours of narratives and one hour of conversations. Elicited examples are only used when no attestation of a particular construction can be found in the texts.

In addition to richer data, this paper benefits from the descriptive framework and terminology provided by Dixon and Aikhenvald (2009). Their classification of clause linking subtypes is semantically based, and allows a detailed description of all competing constructions available for expressing a particular meaning in the target language, and the semantic differences between them.1

1The glosses follow the Leipzig glossing rules. Other abbreviations used here are: auto autobenefactive-spontaneous, anticaus anticausative, antipass antipassive, appl applicative, dem demonstrative, dist distal, emph emphatic, fact fact, genr generic, indef indefinite, inv inverse, lnk linker, mc main clause, pfv perfective, poss possessor, sc Subordinate clause, testim testimonial. I would like to thank Alec Coupe, Scott DeLancy, Graham Thurgood and two anonymous reviewers for valuable comments and suggestions on previous versions of this article.

1However, following the suggestion of an anonymous reviewer, we avoid Dixon’s supporting vs focal clause whose definition is not entirely explicit (Dixon 2009: 2-5) and keep the more common terms ‘subordinate clause’ and ‘main clause’ instead, except for
Dixon and Aikhenvald’s approach to clause linking is all the more relevant to the present work in that two out of the 15 languages in their sample, Galo and Kham (Post 2009 and Watters 2009), belong to the Sino-Tibetan family, and thus allow family-internal typological comparisons.

In this paper, we first present background information on Japhug Rgyalrong verbal morphology, as well as on other elements involved in clause linking, such as postpositions, relator nouns and linkers. Then, we devote a section on each of the five major categories of clause linkings distinguished by Dixon (2009): Temporal (including Conditional), Consequence, Addition, Alternative and Manner linking.

2 Background information

In this section, we present general information on TAM marking in Japhug, linkers, relator nouns and postpositions which are necessary to understand the data presented in the body of the paper, as coordination and subordination are marked by specific verb forms and / or by independent subordinating or coordinating markers.

2.1 TAM marking in Japhug

Since subordinating and coordinating constructions in Japhug often select specific TAM categories, a detailed list of all TAM categories is a necessary preliminary to the description of clause linkings.

In this section, we first describe the building blocks of TAM marking (directional prefixes and stem alternation) and then present an inventory of the available TAM categories (both finite and non finite).

2.1.1 Directional prefixes

Most verbal forms in Japhug have a directional prefix that contains information on TAM, transitivity and (in the case of motion and concrete action verbs) the direction of the action.

With the exception of contracting verbs whose stem starts in a– and which present special alternations (see Jacques and Chen 2007 for more information), Japhug intransitive verbs have three series of prefixes (A, B and D) and transitive ones four series, as shown in Table (1). The distribution of these four series will be explained in more detail in section (2.1.3).
Table 1: Directional prefixes in Japhug Rgyalrong

<table>
<thead>
<tr>
<th></th>
<th>perfective (A)</th>
<th>imperfective (B)</th>
<th>perfective 3→3’ (C)</th>
<th>evidential (D)</th>
</tr>
</thead>
<tbody>
<tr>
<td>up</td>
<td>rτ–</td>
<td>tu–</td>
<td>τa–</td>
<td>to–</td>
</tr>
<tr>
<td>down</td>
<td>pu–</td>
<td>pjɯ–</td>
<td>pa–</td>
<td>pjɤ–</td>
</tr>
<tr>
<td>upstream</td>
<td>lɤ–</td>
<td>lu–</td>
<td>la–</td>
<td>lo–</td>
</tr>
<tr>
<td>downstream</td>
<td>tʰɯ–</td>
<td>cʰɯ–</td>
<td>tʰa–</td>
<td>cʰɤ–</td>
</tr>
<tr>
<td>east</td>
<td>kɤ–</td>
<td>ku–</td>
<td>ka–</td>
<td>ko–</td>
</tr>
<tr>
<td>west</td>
<td>nɯ–</td>
<td>ɲɯ–</td>
<td>na–</td>
<td>ɲɤ–</td>
</tr>
<tr>
<td>no direction</td>
<td>jɤ–</td>
<td>ju–</td>
<td>ja–</td>
<td>jo–</td>
</tr>
</tbody>
</table>

Most verbs have one intrinsic direction which is lexically determined. For instance, the verb sat ‘kill’ selects the direction ‘down’ for all its forms: **perfective** 1SG→3SG *pa*-sat-a, **imperfective** *pjɯ*-sat, **perfective** 3SG→3’ *pa*-sat and **evidential** *pjɤ*-sat.

Some verbs may allow several directions with slightly different semantics. Thus, *ndza* ‘eat’ normally selects the ‘up’ direction (**perfective** 3SG→3’ *ta*-ndza ‘he ate it’), but when applied to carnivorous animals we also find the ‘downstream’ direction. This can lead to further aspectual distinctions. For instance, the direction ‘downstream’, when used with stative verbs, indicates a progressive development. Footnote (10) discusses the use of different directional prefixes with the existential copula *me*.

Verbs of motion and some verbs of concrete action can be associated with all seven series of prefixes to indicate the direction of the motion. The ‘no direction’ series of prefixes only occurs with motion verbs.

Only three verbs have defective paradigms and never occur with directional prefixes: the sensory existential copulas *ɣɤʑu* ‘exist’ and *maŋe* ‘not exist’ and the verb *kɤtɯpa* ‘speak’ (see the paradigm of the latter in Jacques 2012: 1215).

### 2.1.2 Stem alternation

The existence of stem alternations in Rgyalrong was first reported by Sun (2000), who proposes to distinguish three stems: the base stem (stem 1), the perfective stem (stem 2) and the non stem (stem 3). Some varieties of Zbu Rgyalrong appear to have an additional progressive stem distinct from stem 2 in the progressive form (Jacques 2004: 352).

In Kamnyu Japhug, only four verbs have a perfective stem distinct from the base stem; the list is provided in Table (2).

Stem 3 on the other hand is fully productive. The rules of vowel alternation in Table (3) apply to all finite transitive verbs in the forms 1SG→3, 2SG→3 and 3SG→3’; stem 3 does not appear in verb forms with the inverse marker (see Gong 2014). Jacques (2004: 351-7) provides a historical analysis of these alternations, and shows that they result from the fusion of the verb stem with two suffixes.
Table 2: Stem 2 alternation in Japhug Rgyalrong

<table>
<thead>
<tr>
<th>Stem 1</th>
<th>meaning</th>
<th>Stem 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɕe</td>
<td>to go (vi)</td>
<td>ari</td>
</tr>
<tr>
<td>suxs[e]</td>
<td>to sent (vt)</td>
<td>syryri</td>
</tr>
<tr>
<td>yi</td>
<td>to come (vi)</td>
<td>ye</td>
</tr>
<tr>
<td>ti</td>
<td>to say (vt)</td>
<td>tut</td>
</tr>
</tbody>
</table>

Table 3: Stem 3 alternation in Japhug Rgyalrong

<table>
<thead>
<tr>
<th>Stem 1</th>
<th>Stem 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>–a</td>
<td>–e</td>
</tr>
<tr>
<td>–u</td>
<td>–e</td>
</tr>
<tr>
<td>–ɯ</td>
<td>–i</td>
</tr>
<tr>
<td>–o</td>
<td>–ɤm</td>
</tr>
</tbody>
</table>

Following the Leipzig glossing rules, we indicate stem 2 as [II] and stem 3 as [III] in the glosses in this paper.

2.1.3 Finite TAM categories

There are nine basic finite TAM categories in Japhug, as represented in Table (4). All finite forms except the factual require one and only one directional prefix. All forms can be correctly produced by combining the appropriate derivational prefixes and stems.\(^2\)

In the case of past imperfective pɯ–, evidential imperfective pjɤ–, testimonial puw– and present ku–, the direction that is lexically selected by the verb is neutralized. Note that the past imperfective marker puw– is formally identical to the perfective pɯ– ‘down’ prefix, a feature found in all Rgyalrong languages (see Lin 2011).

The evidential and evidential imperfective forms are used with the circumfix k–...–ci in the case of verb forms whose stem begins in a– (including verbs with the progressive asɯ–).

In addition to the basic forms, there are periphrastic TAM categories combining one of the nine categories with the copulas (ŋu ‘be’ and maʁ ‘not be’).

The past imperfective and evidential imperfective forms cannot be used with most dynamic verbs,\(^3\) except in several types of conditionals, in par-

\(^2\)For the TAM categories requiring stem 3, it is restricted to 1sg→3, 2sg→3 and 3sg→3’ forms; all other forms take the base stem. The person affixes and the past transitive –t suffix are not discussed here; for more information on this topic, see Jacques (2010).

\(^3\) See Lin (2011) for a study of the past imperfective in Rgyalrong languages.
## Table 4: Finite verb categories in Japhug Rgyalrong

<table>
<thead>
<tr>
<th>Category</th>
<th>Stem</th>
<th>Prefixes</th>
</tr>
</thead>
<tbody>
<tr>
<td>factual</td>
<td>FACT</td>
<td>1 or 3</td>
</tr>
<tr>
<td>imperfective</td>
<td>IPFV</td>
<td>1 or 3</td>
</tr>
<tr>
<td>perfective</td>
<td>PFV</td>
<td>2</td>
</tr>
<tr>
<td>past imperfective</td>
<td>PST.IPFV</td>
<td>2</td>
</tr>
<tr>
<td>evidential</td>
<td>EVD</td>
<td>1</td>
</tr>
<tr>
<td>evidential imperfective</td>
<td>EVD.IPFV</td>
<td>1</td>
</tr>
<tr>
<td>testimonial</td>
<td>TESTIM</td>
<td>1 or 3</td>
</tr>
<tr>
<td>present</td>
<td>PRES</td>
<td>1 or 3</td>
</tr>
<tr>
<td>irrealis</td>
<td>IRR</td>
<td>1 or 3</td>
</tr>
<tr>
<td>imperative</td>
<td>IMP</td>
<td>1 or 3</td>
</tr>
</tbody>
</table>

Particular counterfactuals (see (3.3.2) and (3.3.5)) and in combination with the progressive *asu*-. Periphrastic past imperfective and evidential imperfective (combining a verb in the imperfective form with the copula *ŋu* ‘be’ in the past imperfective *pɯ*-ŋu or evidential *pjɤ*-ŋu) are used in all other contexts with dynamic verbs. Example (1) illustrates the use of the non-periphrastic past imperfective with the stative verb *xtɕi* ‘be small’ constrasting with the periphrastic form of the dynamic verbs *sqa* ‘cook’ and *lɤt* ‘throw, pour’.

(1)  
pɯ-kɯ-xtɕi
 PST.IPFV-GENR:S/P-be.small LOC LNK IPFV-cook-PL LNK
w-ci
numu tuji w-ngu tyyru tu-tar
3SG.Poss-water DEM 3SG-inside crops 3SG-on
cʰɯ-lɤt-nɯ
IPFV:DOWNSTREAM-throw-PL PST.IPFV-be LNK
ri tće, ku-sqa-nu u tće
When we were small, (people) used to cook (Rhododendron leaves) and pour the juice on the crops (to kill bugs). (Rhododendron2 83)

Japhug, as other Rgyalrong languages, has a clear tense distinction between past and factual in the imperfective (see *Sun* 2000, *Lin* 2003 and *Jacques* 2004: 371-392), but no grammaticalized future.

Some clause linking constructions require a specific finite TAM form, in particular the imperfective (with the postposition *cuŋgu*, see (3.2.3)), the past imperfective (in one of the counterfactual constructions, (3.3.3)) and the perfective (in the iterative coincidence linking, (3.3.1)).

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4Note also that the auxiliary only appears after the last verb in the past imperfective, see section (3.1).
2.1.4 Converbs

There are three converbs in Japhug (perfective, gerund and purposive), which combine the base stem of the verb with a prefix tɯ– or sɤ– (etymologically probably nominalizing prefixes) and with person prefixes or directional markers in some cases. The converbs are non-finite in the sense that they cannot appear as an isolated sentence without clause chaining, and can only index one argument with possessive prefixes (see for instance Jacques 2014: 4 for the paradigms), whereas finite verbs index up to two arguments with a combination of prefixes and suffixes distinct from the possessive prefixes (see for instance Jacques 2010: 134). In addition, non-finite verb forms lack transitivity marking and are not compatible with some TAM markers.

The infinitive in kɤ– or kɯ– also has converbial uses (especially in the Manner linking, cf section (7)).

The perfective converb tɯ– expresses an immediate succession between two events (‘as soon as’); its use is described in section (3.2.4). It is formed by combining the imperfective form of the intrinsic prefix, the tɯ– prefix and the stem 1 of the verb. Since there is a homophonous prefix tɯ– for second person, the perfective converb is formally identical to the second person singular imperfective form for all verbs whose stem 1 and stem 3 are identical (which includes all intransitive verbs and some transitive ones); these quasi-homophonous forms are however easily distinguished for transitive verbs with stem 3 alternation, as illustrated by Table (5).

Table 5: Examples of the perfective converb tɯ–

<table>
<thead>
<tr>
<th>Stem</th>
<th>Meaning</th>
<th>Imperfective (2sg)</th>
<th>Perfective Converb</th>
</tr>
</thead>
<tbody>
<tr>
<td>sci</td>
<td>to be born (vi)</td>
<td>cʰɯ-tɯ-sci</td>
<td>cʰɯ-tɯ-sci</td>
</tr>
<tr>
<td>ce</td>
<td>to go (vi)</td>
<td>ju-tɯ-ce</td>
<td>ju-tɯ-ce</td>
</tr>
<tr>
<td>tsʰi</td>
<td>to drink (vt)</td>
<td>ku-tɯ-tsʰi</td>
<td>ku-tɯ-tsʰi</td>
</tr>
<tr>
<td>ndza</td>
<td>to eat (vt)</td>
<td>tu-tɯ-ndze</td>
<td>tu-tɯ-ndza</td>
</tr>
<tr>
<td>mto</td>
<td>to see (vt)</td>
<td>pjɯ-tɯ-mtɤm</td>
<td>pjɯ-tɯ-mtό</td>
</tr>
</tbody>
</table>

It is a paradox that a perfective converb is not marked by the perfective stem (stem 2) or by perfective directional prefixes, but receives imperfective markers. This complex question, which probably can only receive a historical answer, will not be discussed in this paper.

The gerund expresses that the event in the subordinate clause occurs at the same time as that of the main clause (3.2.3). It is formed by combining a prefix sɤ– with the partially reduplicated verb stem (only the last syllable is reduplicated), as the verb mtsɯr ‘be hungry’ in example (2).

---

5 More precisely, the 2sg form of intransitive verbs and the 2sg→3sg form of transitive ones.
I am very hungry here, but heavens have sent it (down) for me (to eat). (Slobdpon 253)

The prefix sɤ– has an allomorph sɤz– before sonorant derivation prefixes. In the case of verbs that already have a reduplicated stem, such as nuqambumbjom ‘to fly’, 6 no further reduplication occurs in the gerund formation. Reduplication of the last syllable of the verb stem is not sensitive to morpheme boundaries. Thus, the verb n uy–mu ‘to be afraid of’ has the applicative prefix n uy–, but the y part of the prefix participates in the reduplicated form sɤz-nuy–mu ‘while being afraid of it’.

<table>
<thead>
<tr>
<th>stem</th>
<th>meaning</th>
<th>gerund</th>
</tr>
</thead>
<tbody>
<tr>
<td>yrwu</td>
<td>cry (vi)</td>
<td>sɤz–yrwu–wu</td>
</tr>
<tr>
<td>nundzwulaju</td>
<td>be sleepy (vi)</td>
<td>sɤ-nundzwulaju–laju</td>
</tr>
<tr>
<td>nuy–mu</td>
<td>be afraid of (vt)</td>
<td>sɤz–nuy–mu–ymu</td>
</tr>
<tr>
<td>nuqambumbjom</td>
<td>fly (vi)</td>
<td>sɤ–nuqambumbjom</td>
</tr>
</tbody>
</table>

The purposive converb, like the gerund is formed by combining a sɤ– prefix with the reduplicated stem of the verb; it differs from it in that it also requires a possessive prefix and the imperfective directional prefix. The possessive prefix can be coreferent to either S, P or A: in the case of transitive verbs this form is ambiguous. The purposive converb most commonly occurs in the negative, meaning ‘in order not to X’, and for this reason it is this form which is chosen as representative in Table (7).

Other forms of the purposive converb are presented in section (4.2), including affirmative forms and forms with other personal prefixes.

The infinitive form is the base stem of the verb prefixed with the kɤ– (for dynamic verbs) or ku– (for stative and non-animate intransitives). This form can be prefixed with the negative mɤ– and in the case of transitive verbs

6The root mbjom, which cannot occur independently with the meaning ‘fly’, is partially reduplicated as mbura–mbjom with additional prefixes.
Table 7: Examples of the purposive converb *sy*-

<table>
<thead>
<tr>
<th>stem</th>
<th>meaning</th>
<th>purposive converb</th>
<th>meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>jmɯt</td>
<td>to forget (vt)</td>
<td>us-\textit{my-nu-sy-jmɯ} ~ jmɯt</td>
<td>in order not to forget</td>
</tr>
<tr>
<td>sndu</td>
<td>to hit (vt)</td>
<td>us-\textit{my-tu-sy-sndu} ~ sndu</td>
<td>in order not to be beaten / not to beat</td>
</tr>
<tr>
<td>aɕqʰe</td>
<td>to cough (vi)</td>
<td>us-\textit{my-tu-sy-reqʰɯ-ɕqʰe}</td>
<td>in order not to cough</td>
</tr>
</tbody>
</table>

All converbial prefixes are historically probably derived from nominalizations. As described in Jacques (2014, under review), we find a series of four prefixes for nominalizations in Japhug: \textit{kɯ–} for S/A argument, \textit{kɤ–} for P argument, \textit{sɤ–} for oblique arguments (including instrument, place and time) and \textit{tɯ–} for action nominalization. The infinitive is likely to originate from core argument nominalization prefixes \textit{kɯ–} and \textit{kɤ–}, the immediate precedence converb from the action nominalization prefix and the purposive and gerund from the oblique nominalization prefix.

The details of the grammaticalization pathway from nominalization to converb cannot be fully analyzed by investigating only Japhug data, and require a comparative study that goes beyond the scope of this paper. Nevertheless, we do find ambiguous sentences where a particular form could be either analyzed as the infinitive or as a nominalization, such as (165) or (166) in section (7).

Example (3) shows an oblique instrument nominalization \textit{sy-χtɕi} ‘cleaner’ inside of a relative clause. The direct object of the main verb \textit{pɯ-ŋgrɤl} is \textit{yζɯtʰɯz} ‘Selaginella’, and the nominalized relative clause \textit{tɯtʰɯ sɤ-χtɕi} is an adjunct (without case marking) that should be understood as ‘(as) a pan cleaner’. This type of relative clause used as adjunct could easily be reanalyzed as a purposive converb ‘people would unroot it in order to clean pans’.

\textit{yζɯtʰɯz nuw kɯwɛŋgu tee [tɯtʰɯ sy-χtɕi]}
Selaginella DEM in.the.past LNK pan NMZL:OBLIQUE-wash
\textit{pɯ-ŋgrɤl} IPFV-INV-AUTO-unroot PST.IPFV-be.usually.the.case

In the past, people would unroot \textit{Selaginella} (to use as) a pan cleaner. (Selaginella, 106)

This type of ambiguous constructions are perhaps the pivot forms which allowed reanalysis from nominalized verb to converb. This type of reanalysis
following the pathway in (4) has been described in several Sino-Tibetan languages (see for instance Coupe 2007) and is widely attested in various language families (Epps 2009).

(4) \text{NMLZ} \Rightarrow \text{RELATIVIZATION} \Rightarrow \text{CONVERB}

A trace of the nominal origin of converb is the fact that they can be used with the ergative \text{kɯ} in some contexts, as in example 75 below.

2.2 Postpositions

Apart from specific verbal forms, the markers of clause linking include postposition, relator nouns and linkers.

Postpositions are a closed class of markers that appear after a noun phrase or a clause. The noun phrase/clause and the postposition constitute a postpositional phrase, of which the postposition is the head. They differ from relator nouns, which must bear a possessive prefix and are treated in section (2.3).

The postpositional phrases headed by the ergative/instrumental \text{kɯ}, comitative \text{cʰo}, genitive \text{yɯ} and locatives\text{7 zu, ri and tɕu} can be relativized (Jacques under review). In the following these postpositions will be referred to as core postpositions.

Relativization of these phrases involves a nominalized verb in the relative with the prefixes \text{kɯ–} (for the A marked with the ergative) or \text{sɤ–} (for all the other ones, including the instrumental). Some verbs such as \text{amɯmi} ‘be on good terms’ or \text{naχtɕɯɣ} ‘be similar’ select a postpositional phrase with \text{cʰo}. Example (5) illustrates this use of \text{cʰo} as well as a relativized postpositional phrase in \text{cʰo}.

(5) \text{tɕe [uzo u-sy-rumum] nu}  
\text{Lengkap 3SG-NMLZ:OBLIQUE-be.on.good.terms DEM}  
\text{dyn ma ca kw-fse qazo}  
be.many:FACT because water.deer NMLZ:S-be.like sheep  
\text{kw-fse, tʃɛt kw-fse, uzo cʰo}  
NMLZ:S-be.like goat NMLZ:S-be.like it COMIT  
\text{kɯ-nyɛwuy sujno, xɛвь ma mɛw-kɯ-nɛzə nu}  
NMLZ:S-be.identical herbs grass apart.from NEG-NMLZ:A-eat DEM  
\text{ra cʰo nu amumí-nu tɕe,}  
PL with DEM be.on.good.terms:FACT-PL LNK  
The (animals) that are on good terms with the rabbit are many, it is in good terms with those that only eat grass, like water deer, sheep or goats. (Rabbit, 33-4)

\text{7}The locative \text{tɕu} is not restricted to spatial reference, but can also be used for temporal reference.
Of the core postpositions enumerated above, only the genitive yu is never used in clause linking.

Temporal postpositions are only found after noun phrases (6), pronouns (7) or temporal relator nouns (example (8)). They include caappi ‘since’, mvičsa ‘until’, cuŋgw ‘before’, fźznm ‘at the time when’, cuumuna ‘immediately after’ and kómumuz ‘only then, only after’.

(6) \text{tće \ səyxw cuŋgu pu-nw-ryzi-j, tsʰa ky-tsʰi-j} \\
LNK lunch before PST.IPFV-AUTO-stay-1PL tea PFV-drink-1PL

We stayed there before lunchtime, and we had breakfast. (Dpalcan story 1, 15)

(7) \text{aʑo cuŋgw a-pi ra atu rrzi-nw tće,} \\
1SG before 1SG.POSS-elder.sibling PL up.there stay:FACT-PL LNK nnumu ra yu nnu-rmi tʃz-myśl qʰe, \\
DEM PL GEN 3PL.POSS-name IMP-CAUS-be.first[III] LNK

Before me, (choose) first names for my elder brothers, who are staying up there. (Gesar, 123)

Apart from the core postposition and the temporal postpositions, we find the postposition ma (or mnom) ‘apart from’ whose postpositional phrases cannot be relativized. It can also appear after pronouns (9), noun phrases and clauses.

(9) \text{ωω-ye ω-ruüz yɛzɯ} \\
3SG.POSS-grandson 3SG.POSS-supernatural.ability exist:SENSORY w-kwi-ti nyzo ma me tće \\
3SG-NMLZ:S/A-say 2SG apart.from exist:FACT LNK

Nobody says that his grandson has supernatural abilities apart from you. (Nyima Wodzer2011, 144)

2.3 Relator nouns

Relator nouns are an open class of possessed nouns which, like postpositions, occur as the head of a postpositional phrase.

Relator nouns differ from postpositions and linkers in that they bear an obligatory possessive prefix coreferent with the preceding noun phrase (10). In this section, we mark all examples of relator nouns with a preceding hyphen (as in –ŋgu ‘inside’ or –qʰu ‘after’) to indicate the presence of a possessive prefix.
Unlike postpositions, which require a preceding constituent (whether noun phrase or clause), relator nouns can stand on their own as in (11).

There are (fir mushrooms) among big firs, but there none among little ones. (Fir mushroom, 63)

When relator nouns take a clause rather than a noun phrase as their modifier, the possessive prefix is invariably the third singular *u*-. This is the situation observed in all instances of clause linking based on relator nouns in this paper.

Some relator nouns encode basic syntactic functions, e.g. the dative –ɕki and –pʰe and –tsʰɤt ‘instead of’. Relator noun phrases with the dative as their head can be relativized, but the other ones cannot (Jacques under review).

Most relator nouns have either a spatial or temporal meaning, as –qʰu ‘after (temporal or spatial)’, –taw ‘on’, –pa ‘under’, –ŋgw ‘inside, in, among’, –kʰukʰa ‘while’, –juja ‘while, along with’ and –raŋ ‘while’. The development of relators from concrete nouns is a very common grammaticalization pathway, especially in the Sino-Tibetan family (see for instance DeLancey 1997, Coupe 2007: 184).

*These two dative markers are semantically equivalent, but some speakers, within Kamnyu village, prefer one or the other.
The locative postpositions ri or zuw can follow these relator nouns as in (12) or (13), without a testable semantic difference. With –ŋgɯ the locative merges with the relator noun to become –ŋgɯz (see an example in (17)).

(13) tsʰɤt u-əru yu u-ci numu
    goat 3SG.POSS-horn GEN 3SG.POSS-water DEM
    ə-lu-nurki-ə     ri  a-qʰu zuw
    TRANSLOC-IPFV:UPSTREAM-steal[I]-1SG LNK 1SG-after LOC
    ə-yə-nu     tce a-ty-tu-ru tce,
    PFV:UPSTREAM-come[II]-PL LNK IRR-PFV:UP-2-look LNK

I will go to steal the water from the goat’s horn, but when they come after me look up, (Stealing the water2, 30)

Some markers such as u-teʰuβ ‘in order to’, while having the trace of a possessive prefix u– suggesting that they were relator nouns at an earlier stage, cannot be analyzed as such anymore as they only appear after clauses, not after noun phrases.

2.4 Linkers

Linkers are a diverse class of markers with cannot be classified as either postpositions or relator nouns. Some linkers are homophonous with postpositions, for instance the concessive ri with the locative ri and the causal ma ‘because’ with ma ‘apart from’.

Some linkers, such as tce ‘then’, qʰe ‘then’, ndɤre ‘adversative’, ri ‘but’, ma ‘because’ can be phonologically anchored on either the preceding (example (14)) or the following phrase (15). The first option is the most common.

(14) ndʑi-tɕɯ ci tu ri, PAUSE ndʑi-tɕɯ nuw
    3DU.POSS-son INDEF exist:FACT LNK 3DU.POSS-son DEM
    ənɨn yu-ɾaβ na-nu-ɕar qʰe,
    also 3SG.POSS-wife PFV:3→3′-AUTO-search LNK

They have a son, but their son found himself a wife and.... (Relatives, 286-7)

(15) ɕkrɤz u-ŋgɯ kuŋy tu-ku-ɬuw tu,
    PAUSE oak 3SG-inside also IPFV-NMLZ:S/A-come.out exist:FACT
    ri ɕkrɤz u-ŋgɯ nuw nx-dyn.
    LNK oak 3SG-inside DEM NEG-be.many:FACT

Some also grow among the oaks. However, those among the oaks are not many. (zmbulum 38-39)

Others such as uo ‘adversative’, tryʰa ‘at the moment when’, nx ‘conditional’, zo ‘emphatic’ form a phonological constituent with the preceding group.
The linkers *tɕe* and *qʰe* ‘then’ can appear directly after a noun phrase or a relative clause, in which case they are topicalizers as in (16) and (17).

(16)  
\[
\text{ma nɯnɯ } \text{paʁcy} \ tɕe \ \text{nɯw-tupʰu } \text{tu.}
\]

\[\text{LNK DEM ephedra LNK:TOP two sorts exist:FACT}\]

There are two species (of plants) called *paʁcy* (Ephedra, 93)

(17)  
\[
\text{nɯ } \text{dem } \text{qaɟy, a zo a-ky-su}\text{z nɯ tɕe, qaɟy nɯ}
\]

\[\text{DEM fish 1SG 1SG-NMLZ:P-know DEM LNK:TOP fish DEM}\]

\[\text{w-gw-z tɕe qandʒi } \text{ky-} \text{ti ci tu,}\]

\[\text{3SG-inside-LOC LNK:TOP trout NMLZ:P-say INDEF exist:FACT}\]

\[<\text{shibazi}> ky-\text{ti ci tu, } <\text{shigangqiar}>\]

\[\text{name NMLZ:P-say INDEF exist:FACT name}\]

\[\text{ky-} \text{ti ci tu,}\]

\[\text{NMLZ:P-say INDEF exist:FACT}\]

The fishes, the ones that I know about, among the fishes, there is the trout, the shibazi, the shigangqiar... (Fishes, 160-3)

The linker *nɤ* is mostly restricted to conditionals (3.3) and to alternating or repeated actions linkings (5.3). It also occurs with nouns and ideophones with a semantics very close to that of the repeated action linking.

The structure noun+*nɤ+noun expresses an action which is repeated many times, or which presents a continuous progression or increase (example (18)). This construction is restricted to locative and temporal nouns.

(18)  
\[
taʁ ny tak, taʁ ny taʁ tó-wɣ-tsum
\]

\[\text{up LNK up up LNK up EVD:UP-INV-take}\]

He was taken away, up and up. (The flood3, 21)

With ideophones, the same structure is also found and expresses a rhythmic atelic action as in (19) (see Jacques 2013b).

(19)  
\[
tu-ŋke tɕe dʑaŋ ny dʑaŋ zo
\]

\[\text{PFV-walk LNK IDEO:long.and.thin LNK IDEO:long.and.thin EMPH}\]

\[\text{tu-ŋke nuw-gu}\]

\[\text{IPFV-walk TESTIM-be}\]

When it walks, it walks with (its neck) erected and moving up and down, long and thin. (peacock, 56)

The semantics of the constructions found in examples (18) and (19) as well as the repeated action linking (5.3) present some of the the iconic functions of reduplication mentioned by Sapir (1921: 76): repeated occurrence, increase in size and added intensity.

The emphatic linker *ʑo* occurs after stative verbs (in finite or non-finite forms), adverbs (expressing degree such as *wuma* ‘really, very’, quantity
such as *tʰamtext* ‘all’ or place and time such as *avənundɛrt* ‘everywhere’), ideophones and some clause linking types (especially Temporal and Manner linkings). It also occurs with any element followed by the verb *fse* ‘be like’.

The linker *ʑo* indicates a higher degree, greater intensity, frequency or quantity depending on the semantic nature of the preceding element. It cannot stand on its own and it marks the element preceding it as an adverbial modifier as an adverbial modifier of the following verb, except in the case of ideophones (which can appear, followed by *ʑo*, after the verb that they modify, see Jacques 2013b).

Finally, we find correlative linkers *tɕi* and *ri* ‘also’ in the Elaboration linking (5.2), which are repeated after noun phrases in successive clauses; these noun phrases necessarily have the same syntactic function in each clause.

### 2.5 Other linking strategies

In addition to clause linking markers (postpositions, relators and linkers) and dedicated verbal morphology, several strategies are used to express linkage between clauses, and occur in various clause linking constructions.

#### 2.5.1 Long-distance ergative

As a general rule, the converbial clauses are not only subordinate to the main clause, but are even embedded within it. When the verb of the main clause is transitive and requires an A marked with the ergative *kɯ*, this ergative postpositional phrase appears before the converbial clause, as in (20) and (115) (the A is indicated in bold to ease parsing of the sentence).

(20) *tvɛɪmɛ numu kɯ [u-qom ʃv-ɬɯ~ɬoʁ] kɯ nu*

  young.lady DEM  ERG 3SG.POSS-tear GERUND-come.out ERG DEM  
  ra tʰutʰtɕi puu-kɯ-fse ra lonba zo pʃv-ɛxt

  PL something PST.IPFV-NMLZ:S/A-be.like PL all  EMPH EVD-tell  
  *ɲɯ-ŋu.*

  The young lady told everything that had happened, while her tears were flowing. (Die Gänsemagd, adaptation, 202)

However, this type of embedding is not not restricted to converbial forms, and also commonly appears with various constructions, including even the temporal succession linking as in (21) and (160). This phenomenon is unexpected, as in such constructions the two clauses do not normally present evidence of a subordinating relationship.
The young lady had no other way (but to) say “yes, yes, yes”. (Die Gänsemagd, adaptation, 88)

There are several ways of analysing examples such as (21). One could argue that the first clause is really embedded within the main clause as in the case of converbial clauses. However, given the fact that in such constructions, a pause (together with fillers such as *nɤkinɯ* ‘this one’ used when the speaker hesitates) often occurs after the ergative postpositional phrase, an alternative option would be to consider that the postposition phrase here is topicalized and extracted from the main clause.

Similar phenomena have been reported in other Sino-Tibetan languages, such as Newar (Genetti 1988). We defer the precise syntactic analysis of such constructions, which may require a monograph-size work, to future research.

2.5.2 Tail-head linkage and related phenomena

Tail-head linkage is a type of linking strategy whereby an element (generally the verb) of one clause is repeated in the following clause (see de Vries 2005 for a typological overview). Such constructions are massively attested in languages of Western Sichuan (see for instance Zhang 2013: 688-693). In Japhug, they occur predominantly with parataxis and loose temporal succession linking with finite clauses separated by linkers such as *tee* or *qʰe*. No examples of tail-head linkage involving a converbial subordinate clause have been found.

Tail-head linkage can affect an entire clause without any effect on the verb or on the arguments, as in (22).

(22)  

```plaintext
nuu-me   stu ku-xtcí   nuu   py-mbi-nu,
3PL.POSS-daughter most NMLZ:S/A-be-small DEM EVD-give-PL
tee   nuu-me   stu ku-xtcí   nuu
LNK 3PL.POSS-daughter most NMLZ:S/A-be-small DEM
py-mbi-nu    tee,    tee to-emę nul to-numbřwpw, uzo ku mbro
EVD-give-PL LNK LNK girl DEM EVD-ride he ERG horse
to-mnsi    tee lo-ce-ńdzi.
EVD-lead LNK EVD:UPSTREAM-go-DU
```

They gave (him) their daughter (in marriage), and as they gave (him) their daughter (in marriage), the girl rode, he lead the horse...
and they went upstream. (Frog 64)

However, the repeated element in the second sentence generally only includes a fragment of the first clause, removing for instance one of the arguments or an adjunct as in (23).

(23) *nɯ nɐptso numɯ li sɯŋgɯ zɯ j-ɕe. sɯŋgɯ zɯ j-ɕe*
   DEM boy DEM again forest LOC EVD-go forest LOC EVD-go
tɕe teendye, pʰʊŋgot nɯ kɯ nɐptso nɯ pa-mto tɕe,
LNK LNK boar DEM ERG boy DEM PFV:3→3-see LNK
The boy went again to the forest, and as he went to the forest, the boar saw the boy. (Das tapfere Schneiderlein, adaptation, 220)

Sometimes the second clause is an elaboration on the first, and contains more element and additional verbal morphology as in (24) where in the second clause the verb *lu-z-nasje* IPFV-CAUS-probe[III] ‘he probes into it’ contains the causative prefix *z–* because of the added instrument *uɾ-jaw kɯ* ‘with its paw’.

(24) *lɯlu nɯ nɯtɕu lu-ɕe mɯi`xtɛu ma*
   cat DEM THERE IPFV:UPSTREAM-go NEG:TESTIM-fit.in because
   nɯ-wxti qʰe, teendye lu-nasje qʰe, tɕe
   TESTIM-be.big LNK LNK IPFV-probe[III] LNK LNK
   uɾ-jaw kɯ ki tu-ste
   3SG.POSS-hand ERG DEM:PROX IPFV-do.like[III]
   lu-z-nasje nɯ-ʔu ri,
   IPFV-CAUS-probe[III] TESTIM-be LNK
The cat does not fit in to go inside, because it is (too) big, and it probes (into the hole), it probes with its paw like that. (Weasel, 47)

Cases where nouns are repeated between two clauses, but the verb is changed as in (25) can also be viewed as instance of tail-head linkage.

(25) *w-kɯ kɯra tu-ste tɕe zruw ra*
   3SG:POSS-head PROX.DEM:PL IPFV-do.this.way[III] LNK louse PL
   pju-re nɯ-ʔu. tɕe zruw nɯra tu-ndze
   IPFV-remove.lice TESTIM-be LNK louse DEM:PL IPFV-eat[III]
   nɯ-ʔu.
   TESTIM-be
   He does like this with his head and removes lice, and eats lice. (Monkey, 36)

Another construction that can be viewed as a type of tail-head linkage is Japhug is a paratactic construction where one argument is marked by a demonstrative cataphorically referring to a noun phrase in the next sentence
with repetition of the verb, as in (26). These sentences have a specific intonation and a pause, and the second clause is a type of afterthought.

(26) *nyki tu-ndze gu, sujno tu-ndze nw-gu*


It eats that, it eats plants. (Cricket, 51)

Topicalization by verb fronting as in (27) is similar to tail-head linkage in that the verb of the first clause is repeated in the next one. This type of construction, common in the Sino-Tibetan family (for instance in Sinitic languages, Paris 1981, Matthews and Yip 1994: 76), is well-attested in the Japhug corpus. The topicalized verb is either in the infinitive or in the perfective.

(27) *tɕʰi tv-mbro, kɯu-rtsvq ɕoŋtaw tu-mbro mɯ́j-cʰa.*

what PFV-be.high two-stairs up.to IPFV-be.high NEG:TESTIM-can

As far as its size is concerned, it cannot grow higher than two stairs. (Apple, 26)

3 Temporal

Japhug presents a considerable variety of temporal and conditional clause linking constructions, summarized in Table (8).

3.1 Temporal succession

Temporal succession is a type of clause linking where the temporal sequence in which the events took place is directly reflected by the order of the clauses describing them.

This meaning can be expressed by simple parataxis as in (28). This construction is rare, and also attested with the Elaboration linking (5.2). It is formally similar to a serial verb construction (such constructions occur in Manner linkings, see (7)).

(28) *tɕe nw tu-tw-ɬɔw zo qʰe cʰu-pʰut-nu*

LNK DEM IPFV-CONV:IMM-come.out EMPH LNK IPFV-take.out-PL

*cu-de-nu* cti.

IPFV-throw.away-PL be.AFFIRMATIVE:FACT

As soon as it has grown, people unroot it and throw it away. (*ɕɯrnɡo*, 34)

With parataxis, when the two clauses share the same verb, the first can be elided as in (29).

---

9In this table, all the following charts, converbial forms are indicated in bold.
Table 8: Temporal linking constructions

<table>
<thead>
<tr>
<th>Clause linking type</th>
<th>Construction</th>
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<tr>
<td><strong>Temporal succession</strong></td>
<td><strong>Parataxis</strong></td>
</tr>
<tr>
<td>Length</td>
<td>clause with <em>tsu</em> ‘spend (a certain time)’</td>
</tr>
<tr>
<td>Succession</td>
<td>SC with the relator nouns <em>ɯ-qʰu</em>, <em>ɯ-mpʰru</em> ‘after’ or <em>ɯ-no</em> ‘in the end’</td>
</tr>
<tr>
<td></td>
<td>SC with the postposition <em>jɛzun</em> ‘at the time when’ or <em>cuŋe</em> ‘henceforth’</td>
</tr>
<tr>
<td>Precedence</td>
<td>SC with the postposition <em>ɛŋge</em> ‘before’ (requires imperfective in the SC) or with <em>mɛŋa</em> ‘until’</td>
</tr>
</tbody>
</table>
| Immediate | SC with the **perfective converb** *nu*-
| Succession | SC with the postpositions *ɛnuma* ‘immediately’ and *kɪɛmæ* ‘just after’ |
| Precedence | verb in factual form + *pɯ-ŋu* in the SC or *ɛnja* ‘along with’ |
| Simultaneity | SC with the relator nouns *ɯ-raŋ* ‘time’, *ɯ-kʰɯkʰa* ‘while’ or *ɯ-jɯja* ‘along with’ |
| | SC with the **gerund** *sɤ–** |
| **Conditional** | **Iterative coincidence** |
| Real | Reduplicated perfective verb in the SC |
| Alternative | Verb with interrogative *as–* in the SC + linker *nv* |
| Scalar | Verb in past imperfective with the autobenefactive in the SC + linker *nv* |
| Concessive | Verb in past imperfective with the autobenefactive in the SC + *kunɤ* ‘also’ |
| Counterfactual | Verb with reduplicated first syllable in the protasis + linker *nv* |
| Hypothetical | Verb in past imperfective in the apodosis |

(29) **tɕe** *my-kʰ-pʰas** *nɯ curdum,***

**nu** *curdum,***

**nɯ-kʰ-pʰas** *nɯ supa** **.rmi** **tɕe,**

PFV-NMLZ:P-hack DEM hacked:firewood be:called:FACT LNK

The firewood that is not hacked is called ‘non-hacked firewood’, and the one that has been hacked is called ‘hacked firewood’. (burden10-1)

The most common way to express temporal succession is the linkers **tɕe** and **qʰe** ‘then’ (and their variants **teendyre** and **qʰendyre**). **tɕe** and **teendyre** are by far the most common words in Japhug narratives and conversations, and are often repeated between clauses, as in (30).

(30) **zwuʐuʐːi** **tɕe** **tɕe** **tu-zbaʃ** **tɕe** **u-ci**

progressively LNK LNK PFV-be.dry LNK 3SG.POSS-water

**nu-me** **nu-ŋu** **tɕe** **u-ci** **nu-me** **zo**

PFV-not.exist TESTIM-be LNK 3SG.POSS-water PFV-not.exist EMPH

**tɕe**, **teendyre** **ku-mar-nɯ**

L NK L NK IPFV-smear-PL
Progressively, it becomes dry, its moisture disappears, and when there is no moisture any more, they smear it (with butter). (Red leather, 8-9)

There is some evidence of a subordinating relation between the first and the last clause in this construction. When several clauses are in a periphrastic tense (see section 2.1.3) combining the imperfective form of the verb with the auxiliary puₐ-ŋu PST.IPVF-be, only the last one (tu-ti-nuₐ IPFV-say-PL ‘they say’) receives the auxiliary, as in (31). In view of such data, it is legitimate to consider the last clause (the only one with full TAM marking) to be the main clause, and all previous ones to be subordinate. Notice that there is no constraint in this construction on coreference between the core arguments of the final clause and those of the previous clauses.

(31) kuæungu  tee [βlama kw-se nuw kw nunu]
in.former.times LNK lama NMLZ:S/A-be.like DEM ERG DEM 
ky-ky-ntsuy  u-stu nuw teu tu-tev]
PFV-NMLZ:P-bite 3SG.POSS-place DEM LOC IPFV-take.out 
[nu-ci u-ngu pjw-yyle] tee, kʰuzyţu
INDEF.POSS-water 3SG-inside IPFV-soak LNK puppy
ku-ʃu-ʃe zo tu-ti-nuₐ pu-ŋu
NMLZ:S/A-be.like EMPH IPFV-say-PL PAST.IPFV-be
In former times, lamas would take out (the rabies) from the place that had been bitten, soak it in water, and it looked like a little puppy, people used to say. (Rabies, 13)

The linker qʰe is ten times rarer than tee in our corpus. It is never repeated, but the combination qʰe tee is also attested (32).

(32) ɯzọ pjw-sat-nuₐ qʰe tee u-ndzi nuw pjw-qar-nuₐ
3SG IPFV-kill-PL LNK LNK 3SG.POSS -skin DEM IPFV-skin-PL
People kill it and then skin it. (sponsrym, 107)

The linker tee, unlike qʰe, does not necessarily imply that the events of the two clauses are in succession: it can be used in Unordered Addition linking (5.1). Moreover, tee appears in sentences like (33) whose meaning is intermediate between a pure temporal and a conditional construction.¹⁰

(33) sump⁹u  u-pvl,  okryz tv-me 
tool.for.breaking.earth.clods 3SG.POSS-handle oak PFV-not.exist 
tee nunu xcyj pjw-βzu-nuₐ sna.
LNK DEM tree.species IPFV-make-PL be.appropriate:FACT

¹⁰Note that the verb me ‘not exist’ has two perfective forms, nuₐ-me ‘it does not exist anymore’ as in (30) and the form tv-me ‘in cases when there is no’ illustrated by example (33) that only appears in clause linkings.
The handle of the earth clod breaker, when/if there is no oak wood, people can also make it using the xɕɤj wood (xɕɤj, 44).

The linker tɕe, while etymologically related to the locative tɕu (with a fossilized locative *-j suffix lost in Japhug, proto-Rgyalrong *tɕo-j), is commonly used as a topicalizer. A similar polyfunctionality between linker and topic marker has been reported in various languages, in particular Oceanic (see Bril 2010b).

3.2 Relative time

Relative time in Japhug is expressed by means of postpositions, relator nouns (which can also serve to mark noun phrases) on the subordinate clause, which is always placed before the main clause. There are also a few constructions of this type where the subordinate clause has a verb in converbial form.

3.2.1 Length of time

With the verb tsu ‘to pass, to spend (a certain amount of time)’ in the perfective, simple succession of clauses can be used to indicate the length of a period of time during which the state resulting from the event depicted by the preceding perfective sentence has lasted. The first sentence can be either topicalized with the distal demonstrative nɯ as in (34), left unmarked as in (35) or separated by a linker like tɕe. The clause containing tsu includes a nominal indicating the time period.

(34) numu tv-wyrum nuw tw-sji smu-sji jamar tv-tsu tɕe, [...]
DEM PFV-be.white DEM one-day two-day about PFV-pass LNK ...

LTK DEM PFV-be.ripe TESTIM-be

Once one or two days have passed after it turned white, it ripens.
(Pimples, 124)

(35) iʑo ky-amuʃfe-j kumpu-xpa tv-tsu
we PFV-know.each.other-1PL five-year PFV-pass

We have known each other for five years. (elicitation)

The clause containing tsu normally occurs after the one depicting the event indicating the starting point of the period, but it is possible to reverse the order using the focal clause linker ma.

The auxiliary verb pa ‘do’ can also be used instead of tsu ‘to pass’, as in example (36).

(36) svndzwlamu cʰondɤre tɕiʑo ni ky-amuʃfe-tei
Sangnudzin.Lhamo COMIT 1DU PGFV-know.each.other-1DU LNK
jinde kuʔdyvspi u-ro to-pa
now forty 3SG.POSS-excess EVD-do
Sangndzin Lhamo and I have known each other for more than forty years. (Friends, 2-3)

3.2.2 Succession

There are three ways of expressing succession in Japhug, either by using possessed relator nouns, a postposition or by means of the converb of immediate succession.

The possessed relator noun \( \text{ɯ-}qʰu \) ‘after’ can be postposed to the subordinate clause to express succession between the event depicted in the subordinate clause and that of the main clause. The verb in the subordinate clause has to be in a finite form. In most examples it is in the perfective of evidential forms, but there are no restrictions on its TAM marking and examples in the imperfective are also found (sentence (37)). The locative marker \( ri \) can optionally be added after these nouns as in example (38). The noun \( \text{ɯ-}qʰu \) also has a locative meaning ‘behind’ when used preverbally or following a noun phrase relating to a place.

(37) \[
\begin{align*}
\text{cʰɯ́-wɣ-tar} & \quad \text{ipfv-inv} - \text{weave} &\text{ɯ-qʰu} & \quad \text{3sg.poss} &\text{-after} &\text{tɕe} \\
\text{tɕe} & \quad \text{lnk} &\text{kɤ-tar} & \quad \text{inf} - \text{weave} &\text{tʰɯ-jɤɣ} & \quad \text{pfv} - \text{finish} &\text{tɕe} \\
\text{tɕendɤre} & \quad \text{lnk} &\text{li} & \quad \text{again} &\text{ɲɯ́-wɣ-χtɕi} & \quad \text{ipfv-inv} - \text{wash} &\text{tɕe} \\
\text{li} & \quad \text{lnk} &\text{tɕe} & \quad \text{lnk} &\text{qandʐe} & \quad \text{earthworm} &\text{tu-ɬoʁ} & \quad \text{ipfv} - \text{come.out} &\text{ŋu}.
\end{align*}
\]

need:FACT

After one has woven it, when the weaving is finished, one has to wash it and thrush it again. (gunny bag, 10)

(38) \[
\begin{align*}
\text{smɯntʂɯɣ} & \quad \text{Pleiades} &\text{numu} & \quad \text{3a.poss} - \text{come.out} &\text{ɯ-qʰu} & \quad \text{3sg.poss} - \text{after} &\text{a.little} &\text{tɕe} & \quad \text{loc} &\text{tɕe} & \quad \text{lnk} &\text{qandʐe} & \quad \text{earthworm} &\text{tu-ɬoʁ} & \quad \text{ipfv} - \text{come.out} &\text{ŋu}.
\end{align*}
\]

LNK earthworm IPFV-come.out be:FACT

The (constellation of the) earthworm appears a little after the Pleiades have come out. (Pleiades, 23)

Second, the possessed noun \( \text{ɯ-mpʰru} \) ‘after’, like \( \text{ɯ-qʰu} \), can express succession between two clauses. The verb of the subordinate clause is in the perfective (39) or in the evidential.

(39) \[
\begin{align*}
\text{tumu} & \quad \text{sky} &\text{kə-lɤt} & \quad \text{pfv-3a.auxiliary} &\text{ɯ-mpʰru} & \quad \text{3sg.poss-after} &\text{a.little} &\text{tu} & \quad \text{exist:FACT} \\
\end{align*}
\]

It is found after it has rained. (zdɯmqe, 73)

Third, \( \text{ɯ-ndo} \) ‘internal side of a field (the one towards the river)’ can also express succession and has a temporal meaning ‘in the end’ in sentences like (40).
In the beginning, he was an obedient (child), but in the end he became naughty. (elicitation)

An alternative construction used to express succession is the postposition *jɤznɤ* 'at the time when' which indicates a bounded period of time after the reference point corresponding to the event described in the subordinate clause, as in (41).

(41) \[ tv-\text{to} \] \[ jɤznɤ \text{ pu-xtci} \] lauma \[ nuw \]
PFV-come.out while TESTIM-be.small apart.from.the.fact.that DEM
\[ ku-fse \] \[ puw-nuw-\text{gu} - gu \] qʰe
NMLZ:S/A-be.like TESTIM-AUTO-be LNK
Apart from the fact that it is small (during the period after) it has come out, it is (already) like that (it has a round shape). (zwyrjʰjɱyγ, 19)

To express an unbounded length of time following the reference point (valid up to the present time, unlike in the case of *jɤznɤ*), the postposition *ɕəŋpɕi* 'since, henceforth' can be used instead, and optionally followed by the emphatic linker * zo* and the linkers * tɕe* or * qʰe*. This usage, although possible, is not attested in our corpus.12

(42) \[ uzo jv-\text{ari} \] \[ ɕaŋpei zo tɕe tɕe ky-ntsʰvm \]
3SG PFV-go[II] since EMPH LNK LNK INF-hear
\[ puw-\text{me} \]
PST.IPV-not.exist
We haven’t heard of him since he left. (elicited)

3.2.3 Precedence

The only way to express neutral temporal precedence in Japhug is a construction with the postposition *uŋgu* 'before'.13 The verb of the subordinate clause must be in the imperfective, regardless of whether the verb of the main clause is in the imperfective (43 and 44) or in the perfective (45).

---

11This postposition must be borrowed from Tibetan, since the rhyme *-aŋ* does not occur in the native non-ideophonic vocabulary, but its exact source is unclear; the second syllable is probably related to the first syllable of Tibetan *pʰin.tɕʰa* ‘from ... on’.
12All examples of *caŋpei* ‘since’ in our corpus occur after noun phrases.
13This postposition, used with a noun phrase, only has a temporal meaning unlike *u-qʰu* ‘after’.
They start eating its flesh before it dies. (Lion, 44)

We have to organize the marriage before Lobzang comes back. (Lobzang, 32)

They had divorced before she died. (Siblings, 325)

It is necessary to have someone treat it before one’s disease starts. (elicited)

One should not be bitten by a mouse, because it does not let go of the place that it has bitten until (the flesh) has been torn apart. (Mouse, 182)

One should not let go of the place that it has bitten until (the flesh) has been torn apart. (elicited)

For expressing an event occurring during a period of time with no explicit beginning until the point of reference, the postposition *mɤɕtʂa* ‘until’ is employed, as in (47) and (48). The subordinate clause is almost always in the perfective.
They did not die before they had reached eighty (years old). (Siblings, 38)

In most examples, *myetša* ‘until’ is used with the subordinate clause and the main clause in a negative form as in (47) and (48). We do find examples of *myetša* with non-negative subordinate clauses (49) or non-negative main clauses (50 and 51), but one of the two has to be with a verb in the negative form.

(49) \[ \text{mɯ-mat} \quad \text{tɯ-lɤt} \quad \text{ta-za} \quad \text{myetša} \]
\[
3SG.POSS-fruit \quad NMLZ:ACTION-throw \quad PFV:3\rightarrow3-begin \quad \text{until} \\
\text{myr-suŋɣyl-nɯ} \\
\text{NEG-recognize:FACT-PL}
\]
They are not able to recognize it before it has borne fruit. (Oat, 19)

(50) \[ \text{mɯ-lɤ-fsoʁ} \quad \text{myetša} \quad \text{puŋ-ŋgu-a} \quad \text{pu-ɾa} \]
\[
\text{NEG-PFV-be.clear} \quad \text{until} \quad \text{PSTP-FV-1SG PSTP-FV-need} \\
\text{I had to (remain) lying until the day broke. (Lhazgron, 37)}
\]

(51) \[ \text{mɯ-tʰɯ-wxti} \quad \text{myetša} \quad \text{tv-mu} \quad \text{nɯ} \quad \text{ku} \quad \text{u-pu} \]
\[
\text{NEG-PFV-big} \quad \text{until} \quad \text{INDEF.POSS-mother DEM ERG} \quad 3SG.POSS-litter \quad \text{ra}, \quad \text{u-pʰu} \quad \text{nɯ} \quad \text{u-sy-me} \quad \text{ri} \\
\text{PL 3SG.POSS-male DEM 3SG-NMLZ:OBLIQUE-not.exist LOC} \\
\text{ju-tsum} \quad \text{tce}, \quad \text{LNK} \\
\text{IPFV-take.away LNK} \\
\text{Until they grow big, the mother takes her litter away to a place where the male is not found. (Lion, 75)}
\]

In the subordinate clause, the polarity is actually semantically neutralized; it is possible to add or remove the negative prefix without influencing the truth value. For instance, the sentence (52) is equivalent to (50).

(52) \[ \text{ly-fsoŋ} \quad \text{myetša} \quad \text{puŋ-ŋgu-a} \quad \text{pu-ɾa} \]
\[
\text{PFV-be.clear} \quad \text{until} \quad \text{PSTP-FV-1SG PSTP-FV-need} \\
\text{I had to (remain) lying until the day broke. (elicited)}
\]

It is possible that pragmatic differences exist between the two constructions, but we defer this topic to future studies.

3.2.4 Immediate succession

The perfective converb *tɯ*-., whose morphology is described in (2.1.4), is the main way to express immediate temporal succession (‘as soon as’, ‘just after’) in Japhug. The verb of the focal clause is either in the factual (example (53), (54)) or imperfective forms (55, 56); other TAM categories in the focal clause (in particular perfective or imperative) are not accepted by native speakers.
This non-finite verb form is devoid of person or transitivity marking, but the subordinate clause can include overt arguments, including A (marked with the ergative as in (53)) or S/P (example (54)).

There is often coreference between the arguments of the subordinate clause and those of the main one: A and P in (53), S in (54) and A of the subordinate clause to the S of the main clause in (55). This is however not an absolute syntactic constraint, as we also find examples where no coreference occurs (56).

The subordinate clause in this construction is marked by either linkers such as \( nvg \) (54), \( tce \) or \( qʰe \) (55 and 56) or the marker \( zo \) (53 and 56) which emphasizes the meaning of immediate temporal succession between the events described by the subordinate and the main clauses.

\[
\text{(53) \[ tɯrmə ra kwu pjɯ-tɯ-mtɔ ] zo sat-nw} \\
\text{people PL ERG IPFV-CONV:IMM-see EMPH kill:FACT-PL} \\
\text{be:ASSERTIVE:FACT} \\
\text{People kill it as soon as they see it. (Dhole, 15)}
\]

\[
\text{(54) \[ u-pu convict χu-tɯ-ʁaʁ ] nv kumpˌʃıɾ ʃamər} \\
\text{3SG.POSS-child IPFV-CONV:IMM-hatch.out LNK sparrow about} \\
\text{ma me.} \\
\text{apart.from not.exist:FACT} \\
\text{Just after its chick has hatched out, it is just (as big as) a sparrow.} \\
\text{(Tetras, 87)}
\]

\[
\text{(55) \[ pjɯ-tɯ-qlɯt ] qʰe, mdw qʰe, cʰuβ zo} \\
\text{IPFV-CONV:IMM-break LNK brittle LNK IDEO:I:in.pieces EMPH} \\
\text{pjɯ-ntul} \\
\text{IPFV-ANTI.CAUS:break} \\
\text{When one breaks (its stalk), as it is very brittle, it breaks at once} \\
\text{into two pieces. (mydymyi, 37)}
\]

\[
\text{(56) \[ lu-tɯ-scɔ } \] zo qʰe tu-rəmə} \\
\text{IPFV-CONV:IMM-be:clear EMPH LNK NMLZ:ACTION-work} \\
\text{tu-ze } puw-ŋu. \\
\text{IPFV-begin[III] TESTIM-be} \\
\text{It starts working as soon as the day breaks. (bee, 65)}
\]

This construction can also be used with first or second person referents as in (57).

\[
\text{(57) \[ rʰamak²a pjɯ-tɯ-skɔ ] tce tu-oeqʰe-a } gυ} \\
\text{tobacco IPFV-CONV:IMM-smoke LNK IPFV-cough-1SG be:FACT} \\
\text{I cough as soon as I smoke tobacco. (elicited)}
\]
Another way to express the same meaning is to use the postposition ɕɯmɯma ‘just after’ (optionally followed by the locative rɨ or the emphatic linker zo) after the subordinate clause with the verb in the perfective, as in (58).

(58)  
\[
\text{numu } \text{w-χti } \text{nuw } \text{piu-sat-nu } q^{e}e \ [\text{piu-si}]
\]
DEM 3SG.POSS-mate DEM IPFV-kill-PL LNK PFV-die
ɕɯmɯma nuw ra wuma zo cʰu-ɤɨwu avrʊndun đựngt
immediately.after DEM PL really EMPH IPFV-weep everywhere
ju-nvrʉnce nuw-ɡu rɨ, ɣsw-spi
IPFV-go.in.all.directions TESTIM-be LNK three-day
my-ku-tsʉ q^{e}e lɨ kumav ci ju-yut
NEG-INF:NON.HUMAN-pass LNK again other INDEF IPFV-bring
q^{e}e,
LUNK
When people kill its mate, just after it has died, it weeps a lot and goes everywhere (to look for it), but before three days have passed, it has already found another one. (Chough, 79-81)

The semantic proximity between the two constructions can be illustrated by the fact that in some cases when speakers hesitate as in (59), they can switch between the two.

(59)  
\[
[\text{turgipaktsa } \text{nuw } \text{ty-sci} ] \text{ ɕɯmɯma, } \text{nuw } \text{paktsa}
\]
squirrel DEM PFV-be.born immediately.after DEM piglet
ra cʰu-tu-sci tɕe, tɕe nuw nunuw
IPFV-CONV:IMM-be.born LNK LNK LNK DEM DEM
ku-nuʁ uŋa tu, kuw-wɾum
NMLZ:S/A-be.black completely exist:FACT NMLZ:S/A-be.white
uŋa tu,
completely exist:FACT
When a squirrel has just been born... when piglets have just been born, some are completely black, others are completely white. (Black and white fur, 216-7)

The postposition kósmuz ‘only then, only after’ also expresses immediate succession, but its meaning is intermediate between a purely temporal and a condition linking. It implies that the event of the focal clause not only occurs immediately after that of the subordinate clause, but also that the latter is a condition for it to happen, as in example (60).\footnote{As a postposition, kósmuz also occurs after noun phrases expressing a temporal duration.}
It is necessary to milk (the female yak) only after people have tied it up and attached its feet. (Yak, 19)

More commonly, the phrase *nu₃ kóm₳u₃ nɤ* ‘and only after that’ is used in texts for expressing this meaning as in (61).

(61) **nu₃ u₃-muⁿtoₙₙ**  **nu₃ pɯₙ-ŋgra**  **kóm₳u₃ nɤ**

DEM 3SG.POSS-flower DEM PFV-ANTICAUS:make.fall only.after LNK 3SG.POSS-leaf IPFV-throw LNK **nu₃** only.after 3SG.POSS-fruit IPFV-bear be:FACT

It grows leaves only after its flower has fallen, and only then does it bear fruits. (Apricot, 9-10)

### 3.2.5 Immediate precedence

There are four constructions expressing immediate precedence between two events in Japhug.

First, the linker *tykʰa* ‘about to’ is used in combination with a verb in the factual form in the subordinate clause, as in (62) and (63). It is generally followed by the linkers *tee* and *qʰe*.

(62) **tamu ku₃ [yi-ndo seri]**  **tykʰa**  **tee**  **puₜuₙₙ**  **uₙ-çi**  **uₙo**

Lhamo ERG come:FACT-DU about.to LNK donkey 3SG-DAT 3SG ku₃ ta-tuₙₙ **nu₃** to-suₙjut **tee**, ERG PFV:3→3-say[II] DEM EVD-remember LNK

Lhamo remembered what she had said to her donkey as they were about to depart (to come here). (Raven1, 64-5)

(63) **[ambo seri]**  **tykʰa**  **tee**  **tee**  **puₜuₙₙ-µa**  **tee**,  **tee**

burst:FACT about.to LNK LNK TESTIM-be:afraid-1SG LNK LNK a-jar **puₜuₙₙmuₙ**  **puₙ-çi**  **qʰe**, 1SG.POSS-hand IPFV-move TESTIM-be:ASSERTIVE LNK

(When I was aiming), as (the gun) was about to burst, I was afraid and my hand moved. (guns, 135)

Second, a verb in factual form combined with the copula in the past imperfective or evidential imperfective, as in (64), also expresses the meaning ‘about to’.

---

27
It was about to be dark, but the donkey stayed in front of a house, one half of which had collapsed and the other half was good. (The raven1, 52-3)

This construction, unlike the two previous ones, can have a frustrative meaning, expressing an action in its initial stage that eventually fails (65).

As the (muntjac) was about to gore him, as he was about to fail, the deer appeared and... (Lobzang1.70)

Third, the conative prefix jɯ-, combined with a finite verb in perfective or evidential form, also expresses conative and frustrative meaning as the factual+past imperfective construction, as in (66).

As he was about to finish the third turn, he could not (run) anymore. (The prince, 109-110)

Fourth, the locative tɕu following a verb in the perfective indicates almost exact simultaneity, as in (67).

When bears root out ant hills, they go inside their eyes and urinate in them. (bear, 26)
3.2.6 Simultaneity

There are four main constructions expressing simultaneity between the events of two clauses. First, we find cases whereby the subordinate clause is a relative clause with the possessed noun ɯ-raŋ ‘time’ in a locative form as its head noun. Second, the subordinate clause is marked with the relator nouns ɯ-kʰɯkʰa ‘while’ and ɯ-jɯja ‘while, along with’. Third, the verb of the subordinate clause is in a converbial form. Fourth, to indicate an exact moment, one can combine the perfective with the locative tɕu.

The construction involving ɯ-raŋ ‘time’ is formally a non-nominalized prenominal relative clause. The noun ɯ-raŋ ‘time’ is the head noun, and bears a locative marker (ri, zɯ or nɯ tɕu). This construction corresponds to English ‘In the time when...’. It is generally used to indicate a long time period.

(68) [nɤ-ɕɣa 2sg.poss-tooth xte] ɯ-raŋ 3sg.poss-time ri 2-inv-accompany nɯ tɯ́-wɣ-nɤzda 2-be.with:FACT but

While you are young, she will be with you. (Slob.dpon2, 60)

Like ɯ-raŋ in the previous construction, the marker ɯ-kʰɯkʰa ‘while’ is used to express that the event of the focal clause occurs during (or that its entire duration is embedded within) that of the subordinate clause. This construction is much more common than the previous one, and does not imply a long time period. The verbs of both clauses are finite, and need to be in the imperfective, as in (69) and (70). There are no coreference restrictions on the arguments of the clauses.

(69) teendɤre [tu-nusmɤn] ɯ-kʰukʰa tu-rɤma-nɯ.

(The lepers) worked (there) while he treated them. (Leprosy, 61)

(70) numu [ju-rɟɯɣ] ɯ-kʰukʰa ɯ-se ku-tsʰi

It drinks its blood while (its prey is still) running. (Lion, 50)

The marker ɯ-jɯja ‘while, along’ differs from ɯ-kʰukʰa in that it implies a gradual change of state in both events occurring simultaneously and progressively. The verb of the subordinate clause is generally in the perfective (though examples with imperfective forms are also attested), while that of the focal clause can be in any TAM form.
(71) **[u3o ɭv-w3ti]** **u-jwja** **t3e** **u-jwak** **nnumunu**

3SG PFV-be.big 3SG-along LNK 3SG.POSS-leaf DEM

**nuw−nuw-n3w3β** zo **nuw-gu.**

INCREASE−IPFV-be.tiny EMPH TESTIM-be

As it grows big, its leaves become more and more tiny. (Poplar, 18)

(72) **[l3-f3o3]** **u-jwja** **nu** **pjuw-ru** **t3e**

PFV-be.clear 3SG-along DEM IPFV:DOWN-look LNK

**u-kv-numbr3puw** nu **k’u** **pju-3ti** **pju-gu,**

3SG-NMLZ:P-ride DEM tiger PST.PFV-be.ASSERT TESTIM-be

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

The gerund converb **sɤ−**, generally followed by the marker **zo** (see (2.1.4) for the morphological structure of this non-finite form) semantically overlaps with the **u-kʰ3uk’h3a** ‘while’ construction, as illustrated by this pair of sentences which follow each other within the same text:

(73) **[njuw-nu3qamb3wbjom3]** **u-k’h3uk’h3a** **ri** **ju-ʊ3ji** **t3e**

IPFV-fly 3SG-the.same.time LOC IPFV-catch LNK

**tu-nd3ze** **ŋgr3l.** {**[sy-nu3qamb3wbjom3]** zo,}

IPFV-eat[III] be.usually.the.case:FACT GERUND-fly EMPH

**ku-nd3vm** **t3e,** **pjuw-sat** **ŋgr3l**

IPFV-take LNK IPFV-kill be.usually.the.case:FACT

It catches them while it flies and eats them, it catches them while flying and kills them. (The buzzard1, 6-7)

It differs from it syntactically in that it requires identity between the S/A of the subordinate and the main clause. (74) is an example where the A and P of the SC are coreferent with those of the FC.

(74) **nnumu** **nuw-nu3y-me** **ri** **t3e** **nuw** **kuny** **ku-3se**

DEM IPFV-APPL-fear[III] LNK LNK DEM also IPFV-feed[III]

**nuw-ra,**

**t3e** {**[sy3-yu3ymu−3mu]** zo **ku-3se**}

TESTIM-have.to LNK GERUND-APPL-fear EMPH IPFV-feed[III]

**nuw-ra**

TESTIM-have.to

Although (the ‘stupid bird’) fears (the little buzzard), it still has to feed it, and has to feed it while being afraid of it. (The buzzard2, 104)

The gerund can be optionally followed by the ergative marker **k3u** as in (75).

30
Apart from these four constructions, simultaneity can be expressed by simple parataxis (with optional addition of the marker zo) of two clauses in the imperfective, as in the first clause indicated between square brackets in (76). This example is useful for the parallelism it offers with the ɯ-kʰɯkʰa ‘while’ construction.

(76) βɣɤno yu w-pei ri pjɯ-rmbi yu
lower.millstone GEN 3SG-outside LOC IPFV-pile.up[III] be:FACT
pee, [ku-su-fskɤr] zo pjɯ-rmbi yu matɕi
LNK IPFV-CAUS-go.around EMPH IPFV-pile.up[III] be:FACT because [ku-mtcɯr] ɯ-kʰɯkʰa
IPFV-turn 3SG-the.same.time IPFV-take.out

(The mill)₁ accumulates (the flour)₂ outside of the lower millstone₃, it₁ makes it₂ revolve around it₃ while it₁ accumulates it₂, because it₁ turns around while it₁ takes it₂ out. (The mill, 210)

3.3 Conditional

Conditional constructions indicate that the event in the main clause (apodosis) takes place if the condition depicted in the subordinate clause (protasis) is fulfilled. Depending on whether the protasis is a fact or a hypothetical situation, several types of conditionals can be distinguished.

We distinguish in this work four main types of conditional constructions: recurrent implication, real, counterfactual and hypothetical. As in many languages (Dixon 2009: 14), there is some degree of overlap between temporal and conditional clause linking in Japhug in the case of the first two subtypes.

3.3.1 Iterative coincidence

The construction expressing iterative coincidence or recurrent implication is semantically intermediate between temporal and conditional clause linking. It describes that whenever the event depicted in the protasis is fulfilled, the one of the apodosis necessarily always occurs, and that this has taken place several times in the past. It can be generally translated as ‘each time A then B’. 

A semantically similar construction was described by Valentine (2009: 204).
In this construction, we find a reduplicated verb in the perfective in the protasis, and a verb in the imperfective followed by the auxiliary *gu* ‘be’ in the apodosis. The protasis generally ends with the emphatic linker *ʑo* or the conditional linker *nɤ*; but parataxis is also possible.

(77) \[ cʰa\quad oʊw–c–kv–tsʰi–t–a\]  
\[ lu–βzi–a\quad gu\]  
IPFV-be.drunk-1SG be:FACT  
Each time I drink alcohol, I get intoxicated. (elicited)

(78) \[ tɯmɯ\quad ku–ka–lɤ\]  
\[ ju–nɯ–ɬoʁ\quad gu\]  
IPFV-AUTO-come.out be:FACT  
Each time it rains, snails come out. (elicited)

A similar similar meaning can be expressed with non-reduplicated perfective in the protasis, as in (79).

(79) \[ tɕe\quad lɤ–zо–nɯ\]  
\[ lu–zо–nɯ,\quad \]  
\[ tʰɯ–nɯqambɯmbjom–nɯ\]  
Whenever they perch (on something) they perch together, whenever they fly down, they fly together. (Pigeon, 9)

3.3.2 Real

Real conditionals express that the event described in the apodosis occurs whenever the condition expressed in the protasis is fulfilled, but unlike the recurrent implication type described above, it does not imply that the events in question have already taken place several times in the past.

For this type of conditionals, the protasis can be either in the irrealis (80), in any other TAM form but the interrogative prefix *ɯ* (83) or with reduplication of the first syllable (81).

The linker *nɤ* is more generally used in such type of conditionals (81, 85, 83), though *tɕe* is also found.

Some real conditionals (implicative conditionals) are used to express general truths, as in (80), (81) or (82); these constructions, as with the recurrent implication conditionals presented above, are semantically very close to temporal clause chaining.
If/Whenever (the swallows) are tired, they rest in pairs on electric wires or on trees. (Swallows 55)

It is not easy to spot, and unless one is not very knowledgeable already, one will not see it. (Onions, 7)

As long as one has not touched it, it remains there. (Wasps, 44)

In another type of real conditional (predictive conditionals), the apodosis expresses the probable future outcome if the condition in the protasis is fulfilled, for instance the action that a particular person intends to realize. The most common marking on the verb for predictive conditionals is reduplication of the first syllable of the verb form (85, 86).

An interrogative imperfective form in the protasis followed by an imperfective one in the apodosis can also be used to express a mild order or suggestion (83, 84).
Unless you take me (with you), I won’t give it to you. (flood1, 62)

(86) [cw-ky-ru mɯ−ny-puw-tw-cʰa ɕi] ny
TRANSLOC-INF-bring COND-NEG-PST.IPFV-2-can be:FACT LNK
ny-srym ny-srɔw łyt-i
2SG.POSS-root 2SG.POSS-life throw:FACT-1SG

If you are not able to bring (the treasure) here, we will kill you.
(Slobdpon1, 9)

This conditional construction is used to build linker-like phrases such as
nɯ maʁ nɤ ‘otherwise’ (see section (4.3)) and tɕʰi maʁ nɤ ‘at least’ which can
be analyzed as in (87).

(87) nɯ maʁ ny / tɕʰi maʁ ny
DEM not.be:FACT LNK what not.be:FACT LNK

The clause tɕʰi maʁ ny commonly occurs before another clause ending
with the linker tsəʁ ‘at least’, as in (88).

(88) wɔrtɕʰiwojɤr zo, tɕʰi maʁ ny, [a-yi ra
please EMPH what not.be:FACT LNK 1SG.POSS-relative PL
nɯ-pʰe cu-ʁv-tʃɛt-teʃ] tsəʁ ma,
3PL-DAT TRANSLOC-ANTIPASS-tell:FACT-DU at.least apart.from
yɯ-nɯzdɯɣ-a-nɯ
INV-worry.about:FACT-1SG-PL

Please, at least let us go to tell my parents, otherwise they would be
worried about me. (The fox, 70-1)

3.3.3 Alternative concessive conditional

To express the meaning that an outcome will occur whether or not the
condition in the protasis is fulfilled, there is a specific construction in Japhug,
in which we find a pair of conditional clauses. In the first pair, the protasis is
in an affirmative form, while in the second it is in a negative form. The verb
(or more generally, the copula) in the protasis is in the past imperfective
with the autobenefactive/spontaneous prefix nɯ–, which is often geminated.
Unlike other conditionals, the verb of the protasis is not reduplicated. It
receives past imperfective ‘down’ marking pɯ– regardless of whether it is
stative or dynamic, as shown by the examples (89) and (90).

(89) tee [nɯ-sum puw-a<nɯ>ɾi] ny ju-kw-ee,
LKN INDEF.POSS-mind PFV-<AUTO>go[II] LNK IPFV-GENR:S/P-go
[nɯ-puw-a<nɯ>ɾi] ny ju-kw-ee puw-ra
NEG-PFV-<AUTO>go[II] LNK IPFV-GENR:S/P-go PST.IPFV-have.to
Whether one liked it or not, one had to go. (Relatives, 212)
The verb *nɤla* ‘agree’ normally receives the prefix *tɤ* ‘up’, but when used in the protasis of such constructions, it is marked with the *pɯ* ‘down’ prefix of past imperfective (in (90) in the direct 3→3 form *pa*–).

(90) \[pa-n-nɤla\] 
PST.IPfv:3→3-AUTO-agree LNK IPfv:go-1SG

\[mɯ-pa-n-nɤla\] 
NEG-PST.IPfv:3→3-AUTO-agree LNK IPfv:go-1SG have.to:FACT

I will go whether he agrees or not. (elicited)

An alternative construction is to have a complex predicate in the protasis with the main verb in a finite form followed by the copula in the past imperfective with the *nɯ*– prefix (*puw-nnu-gu* with the affirmative copula and *puw-nnu-maw* with the negative one). For instance, (90) can be reformulated as (91) with the main verb *ta-nɤla* in the perfective without autobenefactive-spontaneous prefix.

(91) *ta-nɤla* *puw-nnu-gu* *puw-nnu-maw* 
PFV:3→3-agree PST.IPfv-AUTO-be PST.IPfv-AUTO-not.be 
če-a ra 
IPfv:go-1SG have.to:FACT

I will go whether he agrees or not. (elicited)

It is possible to have several protases followed by a single apodosis, as in (92).

(92) \[tuw-cya\] *puw-ku-narw* 
INDEF.Poss-tooth PFV-NMLZ:S/A-ANTICAUS:break

\[puw-nnu-gu,\] *[puw-kuw-yrtsur puw-nnu-gu,]* qʰe, 
PST.IPfv-AUTO-be PFV-NMLZ:S/A-crack PST.IPfv-AUTO-be LNK

\[qajɯ ku tu-ndze puw-nnu-gu,\] *\[nu fse\]* 
bug ERG IPfv-eat[III] PST.IPfv-AUTO-be DEM be.like:FACT

\[tu-ku-myvn puw-nnu-gu,\] *numu ku wuma so\* 
IPfv-NMLZ:S/A-hurt PST.IPfv-AUTO-be DEM ERG very EMPH nusmyvn.

heal:FACT

Whether one’s tooth is broken, cracked, whether one has a decayed tooth or whether it simply hurts, he (a particular dentist) treats it very well. (Toothache, 133)

This type of construction is related to, but different from, the complement clauses expressing an alternative between two possibilities, as in (93). Here there is no apodosis, and the first two clauses are treated as the P argument of the verb *nyxsi*. 

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Another way of forming alternative concessive conditionals in Japhug is to use the polar interrogative sentence-final particle "ɕi", as in (94) and (95).

Whether it is a cow or a horse, they get poisoned. (bat, 19)

Whether one needs a big jar or a small one, whatever the shape he needs to make, he has a clear idea in his heart and makes it. (Potter, 14)

### 3.3.4 Scalar concessive conditional

Scalar concessive conditionals express that regardless of whether or not the condition in the protasis is fulfilled, the event / situation in the apodosis will be true, as in English ‘even if’ or ‘even when’.

In Japhug, to express this meaning, it is possible to use the past imperfective in combination with the autobenefactive in the protasis as in alternative concessive conditionals, but followed by kʊnɤ ‘also, too’, as in (96).

Whether it is a cow or a horse, they get poisoned.
This one also grows by its root, as even if it has flowers, (I) have never seen its seeds. (paksma, 155)

Multiple protases are also attested for this construction, as in example (97).

(97) [tw-ci puu-nnu-dyn] [zum]
INDEF.POSS-water PST.IPFV-AUTO-be.very bucket
puu-nnu-rзи kun, tu-mIRy
PST.IPFV-AUTO-heavy also INDEF.POSS-waist
muw-pɑ-cu-mnym
NEG-PST.IPFV:3→3-CAUS-hurt
(this way), even when there was a lot of water, even when the bucket was very heavy, it would not hurt one’s waist. (zgri, 188)

Alternatively, we also find cases where the verb in the protasis does not receive any special morphological marking, as in (98).

(98) [cʰɯ́-wɣ-nɯβlɯ] kun, tu-nɯt
IPFV-INV-burn also IPFV-be.ignited CONTRAST:FOC be:FACT
ri, u-srvt nɯ nɯv zo qe, maka
LNK 3SG.POSS-charcoal DEM be.black:FACT EMPH LNK at.all
muw-ɣɣ-mpje mɤ-cʰa.
IPFV-CAUS-be.warm[III] NEG-can:FACT
Even when one burns it, although it does ignite, its charcoal is black and it does not warm anything. (tʰwum, 8-10)

3.3.5 Counterfactual

Counterfactuals express the meaning that, had the condition in the protasis been verified (which it has not), the event in the apodosis would have occurred.

There are several constructions in Japhug to express counterfactual meaning. It is possible to use the same construction as that of real conditionals, as in (99).

(99) [kw-ngo nɯ smynba ku
NMLZ:S/A-be.sick DEM doctor Erg
muw–mɤ-c-ta-nusmyn] nɤ, si
COND–NEG–TRANSLOC–PFV:3→3′-treat LNK die:FACT
et.
be.AFFIRMATIVE:FACT
If the doctor had not gone to treat the patient, he would have died (elicitation).

Alternatively, there is another construction with the verb in the apodosis in the past imperfective with the prefix puw–, as in (100).
If I had taken my medicine earlier, I would not have gotten sick.
(elicited)

While dynamic verbs do not appear in the past imperfective in independent clauses, they do in the apodosis of this counterfactual construction. This phenomenon is detectable only for verbs whose intrinsic directional prefix is not the ‘down’ direction (see section (2.1.1)). For instance, the verb rpu ‘bump into’ receives the kr- ‘toward east’ direction marker when used in meaning ‘bump one’ head’.

Used in the apodosis of the counterfactual as in (102) however, we find the ‘down’ prefix pɯ- instead of kr-, indicating that this is a past imperfective, not a perfective form.

Hypothetical conditionals refer to a future hypothetical situation, unlike counterfactuals which refer to a potential situation in the past which did not occur. It can also express the hypothetical nature of the causal relation between the two events. This construction differs from all other conditionals in that the verb of the apodosis is in the irrealis as in (103).

3.3.6 Hypothetical

Hypothetical conditionals refer to a future hypothetical situation, unlike counterfactuals which refer to a potential situation in the past which did not occur. It can also express the hypothetical nature of the causal relation between the two events. This construction differs from all other conditionals in that the verb of the apodosis is in the irrealis as in (103).
In my opinion, they have horns, I think that if they attacked together and gored the leopards, they would kill them, but they don’t do that. Instead... (Wild yak, 60-3)

Example (104) illustrates a hypothetical conditional (with both the verb in the protasis and the apodosis in the irrealis) followed by a predictive conditional.

(104) [a-pu-tw-cʰa] ny, nuw
IRR-PST.IPFV-2-can LNK DEM
a-tʰɯ-tɯ-sɯ-jɣɤt ra ma
IRR-PFV:DOWNSTR-2-CAUS-turn.around have.to:FACT otherwise
[nu u-mv-pu-tw-cʰa] q’e tee aзо
DEM INTERROG-NEG-PST.IPFV-2-can LNK LNK 1SG
my’-wy-su-y-cʰa-a
NEG-INV-CAUS-can:FACT-1SG

If you are strong enough, you will have to cause him to go back, otherwise if you are not able to do that, I will be unable (to retrieve the water). (Stealing the water1, 40)

It is also possible to have a non-irrealis verb in the protasis, with a reduplicated first syllable as in (105), even in the case of very speculative conjectures.

(105) [nyzo zuwndza ky-lyt puw–pu-tw-fyɾt] ny;
2SG banquet INF-throw COND–PFV-2-obtain LNK
ny-zuwndza yw u-smyt u-rkuu teu
2SG.POSS-banquet GEN 3SG.POSS-lower.side 3SG.POSS-side LOC
azo a-jr-zyut-a smu`ym
1SG IRR–PFV-reach-1SG prayer

If you succeed (in becoming rich and) organizing a banquet, may it be that I will arrive there at the rear of your banquet. (Raven4, 114)

4 Consequence

In Consequence clause linkings, one clause expresses the cause and the other one its effect. However, while in some constructions the subordinate clause

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corresponds to the cause and the main clause to the effect, the opposite situation is also attested.

Dixon (2009: 17, 44) distinguishes three subtypes (Cause, Result and Purpose), but we collapse here the first two categories for ease of presentation. Table (9) summarizes the attested constructions.

<table>
<thead>
<tr>
<th>Clause linking type</th>
<th>Construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause / result</td>
<td>SC with linker <em>matʃi</em> or <em>ma</em> ‘because’&lt;br&gt;MC with linker <em>nùndʒa</em> ‘for this reason’</td>
</tr>
<tr>
<td>Purpose</td>
<td>Purposive converb in the SC&lt;br&gt;linker <em>utɔʔuβ</em> ‘in order to’ in the SC</td>
</tr>
<tr>
<td>Possible consequence</td>
<td>linker <em>ma</em> + verb in factual form in the MC&lt;br&gt;subordinate clause with the verb <em>susɔ</em> ‘think’ expressing the consequence</td>
</tr>
</tbody>
</table>

### 4.1 Cause-Result

There are two main constructions in Japhug explicitly expressing a causal relationship between two clauses.

The most common construction involves the linker *matʃi* ‘because’, which is prosodically associated with the clause expressing the cause. The placement of the linker is the evidence for considering this clause to be subordinate and the clause expressing the result to be the main clause.16

This construction can be used to express strong causality as in (106) or (107).

(106)  
\[
\begin{align*}
\text{tee} & \quad \text{numu} & \text{tú-} & \text{w} & \text{-yue} & \text{cat} & \quad \text{tee} & \quad [\text{u-s} & \text{n} & \text{o} & \quad \gamma & \text{t} & \text{a}] \\
\text{LNK} & \quad \text{DEM} & \quad \text{IPFV-INV-pack.on} & \text{LNK} & \quad 3\text{SG.POSS-saddle} & \text{INV-put:FACT} & \quad \text{mùj-ra}] & \quad \text{matʃi}, & \quad \text{u-βri} & \quad \text{nù} & \text{tu} \\
\text{NEG:TESTIM:have.to} & \quad \text{because} & \quad 3\text{SG.POSS-body} & \text{DEM LOC} & \quad \text{tv-s} & \text{n} & \text{o} & \quad \text{ku-} & \text{f} & \text{s} & \text{e} & \quad \gamma & \gamma & <nù> & \text{zu} \\
\text{INDEF.POSS-body} & \quad \text{NMLZ:S/A-be.like} & <\text{AUTO}>\text{exist:SENSORY} & \quad \text{cti} & \quad \text{tee}, & \quad \text{beASSERTIVE:FACT} & \quad \text{LNK} \\
\text{When one puts packs on (Camels), there is no need to put a saddle, because they already have something like a saddle on their body. (Camel, 210)}
\end{align*}
\]

16 This is a case where Dixon’s terms ‘supporting’ vs ‘focal’ clause may be more appropriate, but we keep the traditional terminology for consistency.
Pigs have a lot of manure, because they eat anything, so they have a lot of manure. (Pig, 101)

One finds it also in examples such as (108) or (109), where there is no necessary causal implication between the event/situation of the subordinate clause and that of the main clause.

She did not agree, as they were daughters of the heavens, (Flood3, 60)

It was very nice, as there was a lot of food and they were having a good time all the time. (The flood3, 87)

A variant of this construction with the linker *ma* is also attested as in (110). Unlike *matei*, this linker presents many other uses (in particular, possible consequence (4.3)).

People went everywhere to pray for water, but it was for nothing, because none of the mountain gods had water. (Kamnyu mountains1, 17)

An alternative construction expressing a causal relationship between two clauses is built by using the noun *ndza* ‘reason’ or its derived form *nûndza*
‘for this reason’ in the main clause. The adverb *nündža* can appear either between the subordinate and the main clause (as in (111)) or after it (as in (112)). It is used to focalize the causal relationship between the events/situations of the two clauses.

(111)  
\[
\begin{align*}
[\text{tee} & \text{ wu-mtu} \text{ yvw}] \text{ tee, tee nündža} \\
& \text{LNK 3SG.POSS-crest SENSORY:exist LNK LNK for.this.reason} \\
& \text{qapyymtumtu tu-ti-nu} \text{ nɯ-ŋu} \\
& \text{hoopoe IPFV-say-PL TESTIM-be} \\
\end{align*}
\]
It has a crest, and this is the reason why it is called ‘hoopoe’. (Hoopoe, 20)

(112)  
\[
\begin{align*}
\text{kʰu} & \text{ nɯ sqammu-xpa nɯ-tv-ts} \text{ mʁtʃa m-yʁpu} \\
& \text{tiger DEM fifteen-year NEG-PFV-reach until NEG-bear.young:FACT} \\
\text{tu-ti-nu} & \text{ nɯ-ŋu} \text{ tee, tee nündža nɯ, kʰu nɯ} \\
& \text{IPFV-say-PL TESTIM-be LNK LNK for.this.reason DEM tiger DEM} \\
\text{nɯ-rkum.} & \text{kʰu nɯ nɯ-rkum tee nündža} \\
& \text{TESTIM-be.rare tiger DEM TESTIM-be.rare LNK for.this.reason} \\
\text{nɯ-ŋu} & \text{ tu-ti-nu} \text{ nɯ-ŋu} \\
& \text{TESTIM-be IPFV-say-PL TESTIM-be} \\
\end{align*}
\]
They say that the tiger does not bear young until it has reached fifteen years, and for this reason tigers are rare. Tigers are rare for this reason, they say. (Mule 46)

In answer to questions, it is common for the main clause to be elided and to only have the subordinate clause with the markers *ndʒa* or *nündža*, as in (113).\footnote{17}

(113)  
\[
\begin{align*}
\text{maʁ} & \text{ not.be:FACT TESTIM-be.smoky reason be:ASSERTIVE:FACT} \\
\text{ndʒa cti} \\
\end{align*}
\]
No, (I am crying) because there is smoke. (The three sisters, 222)

4.2 Purpose

Purposive clause linking, unlike the previous constructions, indicates that the causal relationship between the two clauses is intentional. There are two main constructions in Japhug expressing this meaning: the purposive con-
verb and the linker *ɯtɕʰɯβ* ‘in order to’.\footnote{18} In Japhug, as in most languages, the semantic relationship between the main and the subordinate clause is the opposite of that of other consequence linkings: the cause is expressed

\footnote{17}{This is the response to the question *a-tɤ-ɕime, te’i ku-tu-yvw? my-kw-pe yvw uʁtŋu?* ‘My lady, why are you crying? Are you feeling unwell?’.}

\footnote{18}{The purposive clause of motion verbs will not be treated here (see Jacques (2013a) for more details).}
in the main clause (which corresponds to Dixon’s ‘supporting clause’ in this case) and the effect in the subordinate clause (the ‘focal clause’).

The purposive converb marking the verb of the subordinate clause (the purpose of the action described in the subordinate clause), is formed by combining a possessive prefix, an imperfective prefix, the prefix sɤ–/sɤz–/z– and a reduplicated form of the verb. The imperfective prefix is sometimes elided (114), and there are examples of the purposive converb without reduplication (115).

When the arguments of the subordinate and the main clause are coreferent, the subordinate clause with purposive converb can be embedded within the main clause as an adjunct as in (115).

(114) [ku-my ku uf-ny-sy-ju–jmut]
NMLZ:S/A-herd Askyabs DEM ERG 3SG-NEG-PURP:CONV-forget
uf-p⁴ungaw nu teu rdššaw-pupaw te₄uru ci
3SG.POSS-inside.clothes DEM LOC stone-little pebble INDEF
ɛv–and
The cowboy Askyabs put a little pebble inside his clothes so that he would not forget it. (The frog, 166)

Alternatively, it can occur before the main clause as in (115) or after it (120b).

(115) tכ nu u-pa numu li kʰʌxtu nunuw,
LNK DEM 3SG.POSS-under DEM again platform DEM
tu-ci,
tuftsaw kɯ pjɯ-sɯ-sspow
INDEF.POSS-water leaking.water ERG IPFV-CAUS-have.a.hole
ŋgrvl tכ, tכ
be.usually.the.case:FACT LNK LNK
[uf-my-pjɯ-sy-su-sspow,] numu teu [...]
3SG-NEG-IPFV-CONV:PURP-CAUS-have.a.hole DEM LOC [...]
cupa ku-fse jɯ-wy-ta tכ,
flat.stone nmlz:S/A-be.like IPFV-INV-PUT LNK
Under the top platform, the water, the leaking water can leak through (the roof), and in order to prevent it from leaking through, people put flat stones there. (water jar, 11)

In the case of transitive verbs, the possessive prefix can refer either to the agent (as in 116) or the patient (117).

(116) mar ma [a-my-pjɯ-sy-ju–jmut]
not.be:FACT because 1SG-NEG-IPFV-CONV:PURP-forget
nu-rku-t-a ɛtī ma
PFV-put.in-PST:TR-1SG be:AFFIRMATIVE:FACT because
No, I put it there so that I would not forget (to tell you). (The frog, 172)

In (117), it would alternatively be possible to use the first singular form of the purposive converb \textit{a-my-tu-sv-rpu-rpu} without changing the meaning.

(117) \textit{kum nyw-mbyr tce,} [\textit{a-ku}
\textit{uw-my-tu-sv-rpu-rpu}]
\textit{puw-pʰaŋ-a} 
\textit{3SG-NEG-IPFV-CONV:PURP-bump PFV-lower-1SG}

As the door is low, I lowered my head so as not to bump it.

Although all examples of the converb in our corpus are negative, it is possible to elicit affirmative forms as in (118) without restriction.

(118) \textit{fsa tce} [\textit{a-tu-sv-numtɛu-nɪtɛi}] \textit{za}
\textit{tomorrow LNK 1SG-IPFV-CONV:PURP-get.up.early early}
\textit{ku-nu-rnɡw-a} \textit{ra} 
\textit{IPFV-AUTO-lie.down-1SG have.to:FACT}

In order to get up early tomorrow, I have to go to bed soon. (elicited)

An alternative way of expressing purposive meaning is to use the linker \textit{utɛʰuβ} ‘in order to’ after the purposive clause. The verb an be either in a finite form or in the infinitive. Thus, the main clause in (119d) can be preceded by any of (a)-(c). This construction is extremely rare in the corpus (only one example was found).

(119) a. \textit{mv-kv-nvndzo} \textit{utɛʰuβ,} /  
\textit{IRR-NEG-PFV-2-feel.cold in.order.to}

b. \textit{a-my-nv-tu-nvndzo} \textit{utɛʰuβ,} /  
\textit{IRR-NEG-PFV-2-feel.cold in.order.to}

c. \textit{nv-my-nv-tu-nvndzo} /  
\textit{2SG-NEG-IPFV-CONV:PURP-feel.cold}

d. \textit{tw-ŋga kɯ-jaŋ tsa tv-ŋge} 
\textit{INDEF.Poss-clothes NMLZ:S/A-thick a.little IMP-wear[III]}

Wear thick clothes, so that you don’t get cold. (elicitation)

The reverse order between main and subordinate clauses is also attested, as illustrated by (120b) and (120c), which follow the same main clause (120a).

(120) a. \textit{tw-ŋga kɯ-jaŋ tsa tv-ŋge tce} 
\textit{INDEF.Poss-clothes NMLZ:S/A-thick a.little IMP-wear[III] LNK}

b. \textit{a-my-nu-tu-nvndzo} \textit{utɛʰuβ a-pɯ-ŋu} 
\textit{IRR-NEG-PFV-2-feel.cold in.order.to IRR-IPFV-be}
This construction is used in particular for expressing contrastive focus in the purposive clause.

4.3 Possible consequence

Possible consequence is a type of clause linking expressing that the event in one clause should be undertaken in order to prevent that of the other clause to take place, as the latter is viewed as an unfavourable result.

There is no dedicated construction expressing possible consequence in Japhug. The linker ma is used with a verb in the irrealis (121), imperative (122, 124) or other TAM categories (123) in the subordinate clause and a verb in the factual in the main clause (expressing the unfavourable result). The adverb tʰa or its variant tɕetʰa ‘later, in a moment’ often appear in the main clause of possible consequence linking (123, 124, 128).

(121) [tuɾme ra kuʷ a-my-tw-ndo-nui] ma
people PL erg irr-neg-pfv-take-PL lnk
yu-w-nyndyy-nu
inv-caus-be-poisoned:fact-PL
People should not touch it, otherwise they would get poisoned. (False matsutake, 26)

(122) [tuɾ-ruɾdzaŋspa] ma tuw-atyr
imp-be.careful lnk 2-fall.down:fact
Be careful not to fall down. (conversation, 2010)

(123) [ʨʰi cʰw-tw-nʁŋkwŋke gu] ma tʰa
what ipfv:downstream-2-walk.around be:fact lnk in.a.moment
βdɯt ku tu-w-ŋzdɔa
demon erg 2-inv-eat:fact
Why are you walking around (you should not be walking around), the demon will eat you. (The demon, 92-3)

(124) [nu kʰramba ma-tw-ʃze-a ra] ma tee
dem lie neg-imp-make[III]-1SG have.to:fact lnk lnk
<lishi> <jizai> pjiw-tw-ʃze cti ʨetʰa
history record ipfv-2-make[III] be:affirmative:fact later
<zuzuβeibei> ku yu-w-nmye-a-nu.
generations erg inv-scold:fact-1SG-PL
I cannot tell lies, as you are making a historical record, and previous and future generations would scold me. (kikakci, 217)
The phrase *ma my-jýy* ‘otherwise it is not possible’, although syntactically a particular case of this construction, has a specific modal meaning ‘must’, as in example (125).

(125)  

\[ \begin{align*}  
  &\text{you PFV:DOWN-come.out} \text{ LNK NEG-be.possible:FACT} \\
  &\text{2SG.POSS-house NEG:IMP-2-stay} \text{ LNK NEG-be.possible:FACT} 
\end{align*} \]

You have to leave, you cannot stay in my house. (The Raven4, 21-2)

The phrases *nɯ mɤɕtʂa* ‘until that’ (= ‘otherwise’) or *nɯ ma* ‘apart from that’ or *nɯ maʁ nɤ* ‘otherwise’ can also appear in addition to the linker *ma* in possible consequence linking (examples (126), (127), (128)). The form *nɯ maʁ nɤ* (DEM not.be:FACT LNK), which is originally the protasis of conditional linking meaning ‘if it is not that’, is very similar to an equivalent structure in Kham (Watters 2009: 112)

(126)  

\[ \begin{align*}  
  &\text{real EMPH INDEF.POSS-hand INDEF.POSS-strength a.little} \\
  &\text{INV-throw:FACT have.to:FACT LNK DEM until INF-take.out} \\
  &\text{NEG-DEEEXPERIENCER-can:FACT} 
\end{align*} \]

One has to exert all of one’s strength with one’s hand, otherwise it is not possible to pull it out. (stoutsa, 150)

(127)  

\[ \begin{align*}  
  &\text{mouse TOP:EMPH people 3SG-on more be.harmful:FACT} 
\end{align*} \]

In the house, the cats eat them, they destroy them, otherwise the mice are harmful to people. (The mice, 165)

(128)  

\[ \begin{align*}  
  &\text{INF-have.a.child soon be.the.time:FACT PFV-be LNK woman DEM} \\
  &\text{a.lot PFV-GENR:S/P-work LNK activity PFV-INV-make} \\
  &\text{INF-be.born be.difficult:FACT PFV-say-PL be.usually.the.case:FACT} 
\end{align*} \]
When they are about to have a child, women have to work a lot and be active, otherwise childbirth is difficult, they say. (Conversation, Chenzhen, 2013)

Another construction attested for possible consequence involves a clause with ergative (similar to the Manner linking) of the verb suso ‘to think’. It can be a finite verb as (129) or the infinitive kv-suso as in (130) and (131), but in both cases it takes a finite complement clause. In this case the subordinate clause expresses the unfavourable result.

There is necessary coreference between the A of the infinitival clause and the S/A of the main clause, but not with the complement clause of the kv-suso.

Constructions involving reported speech are also attested in the possible consequence clause linking of Galo and Kham (Post 2009: 86, 88 and Watters 2009: 110), but their semantics are quite different from this construction.

(129) [a-mi 
numu a-ty-mna 
puw-susam-a] 
tce,
1SG.POSS-foot DEM IRR-PFV-feel.better IPFV-think[III]-1SG LNK
nuw ra kv-z-nusman-a 
ngu.
DEM PL PRES-CAUS-treat-1SG be:FACT
I would like my feet to feel better, and so I treat them with (these medicine). (conversation, 2013)

(130) [nuwe] 
kv-suso 
kw, 
wm-bro 
umu tqaβ
go.back:FACT INF-think ERG 3SG.POSS-horse DEM needle
cʰv-z-nuutcʰnu-nu, 
w-kʰuma 
rukorsa u-pa
EVD-CAUS-eat-PL 3SG.POSS-dog DEM toilet 3SG.POSS-down
lo-ja-nu
EVD-pen-PL
Thinking that he (was about to) go back, they fed his horse with needles and penned his dog in the toilets. (Gesar 250-1)

An interesting aspect of the complement clause embedded within the infinitival clause is the fact that, it reflects in some cases hybrid reported speech (on this concept see Tournadre 2008 and Aikhenvald 2008).

(131) [ny-wa 
kw] [nyzo nuyi] 
kv-suso 
kw 
kʰa
2SG.POSS-father ERG 2SG come.back:FACT INF-think ERG house
u-rku 
kmak 
χsor-twtxur 
pa-su-lvt
3SG.POSS-side soldier three-circle PFV:3⇨3’-CAUS-throw
cti 
tce
be.AFFIRMATIVE:FACT LNK
Your father, thinking that you would come back, put three circles of soldiers around the house. (The fox, 154)
In (131), there are three referents involved, the father \( A \), the addressee \( B \) and the speaker \( C \). We see that the verb \( nɯɣi \) ‘he will come back’ is in third person singular form and reflects the point of view of referent \( A \), while the overt pronoun \( nɤʑo \) ‘2sg’ reflects the addressee. This mismatch could be paraphrased in English as ‘thinking of you ‘he will come back’.’

Despite the agreement mismatch, \([nɤʑo nɯɣi]\) can be assumed to be monoclusal and to form a single constituent for two reasons. First, in this example as well as all examples exhibiting hybrid reported speech in the corpus, there is no pause between the noun phrase or pronoun and the verb form. Second, the noun phrase / pronoun can only appear in the same position as it would have in an independent clause, and no extra-position is possible.

Although Japhug does have an apprehensive marker (see example (154)), unlike Aguaruna this form is not used in Possible Conquence linkings (compare with Overall 2009: 187).

## 5 Addition

The Addition clause linkings are defined negatively in Dixon (2009: 26) as all those which cannot be included in the other categories that he distinguishes. In Japhug, there are specific constructions expressing the meanings associated with several categories of addition clause linkings, in particular Elaboration and Contrast. Moreover, as in Kham (Watters 2009: 113), we find an ‘alternating actions’ clause linking.

As shown in Table (10), no addition clause linking construction involves converbs.

<table>
<thead>
<tr>
<th>Clause linking type</th>
<th>Construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unordered addition</td>
<td>Parataxis</td>
</tr>
<tr>
<td></td>
<td>Coordination with ( tɕe )</td>
</tr>
<tr>
<td>Elaboration</td>
<td>Parataxis</td>
</tr>
<tr>
<td></td>
<td>Comitative postposition ( cʰo )</td>
</tr>
<tr>
<td></td>
<td>Correlative linkers ( tɕi ) or ( ri ) in both clauses</td>
</tr>
<tr>
<td>Alternating actions</td>
<td>verb + ( ny + ) verb</td>
</tr>
<tr>
<td>Contrast</td>
<td>Parataxis</td>
</tr>
<tr>
<td></td>
<td>Contrastive linker ( ri )</td>
</tr>
<tr>
<td></td>
<td>Contrastive focalizers ( \textit{so} ) and ( \textit{ndytre} )</td>
</tr>
<tr>
<td></td>
<td>Adversative linker ( mɤ́ɣrɤz ) ‘instead’</td>
</tr>
<tr>
<td></td>
<td>Linker ( lau\textit{na} ) ‘only, just’ at the end of the MC</td>
</tr>
<tr>
<td></td>
<td>Linker ( jinbala ) ‘altough’</td>
</tr>
</tbody>
</table>
5.1 Unordered Addition

The Unordered Addition linkings describe two distinct events that are related but for which neither a temporal sequence nor a causal relationship can be assumed.

In Japhug, this type of minimal semantic link between two clauses is expressed by using two finite clauses with the linkers *tɕe* and *tɕendɤre* as in (132). Unlike the temporal succession linking (3.1), unordered addition is not expressed by the linker *qʰe*, which always implies a temporal order between two events.

(132) *ʑara ɕsum ma pjv-me-nu tɕe tɕendɤre*

They were only three (brothers), and had a cow. (The flood3, 3)

5.2 Elaboration

In the Elaboration clause linking, the second clause provides addition information on the event or situation described in the first clause. In Japhug, we observe two distinct constructions depending on the locus of the additional information (predicate vs arguments).

When the additional information is on the predicate, the Elaboration linking is expressed by two constructions. First, simple parataxis, with optional pause between the two predicates, can convey this meaning as in (133).

(133) *ɯ-pʰoŋbu ra nɯ-wxti, nɯ-tsʰu zo.*

Its body is big and fat. (Bees, 12)

Second, the comitative postposition *cʰo* or its compound form *cʰonduɤre* can be used to link the two clauses. The syntactic structure of this clause linking, despite superficial resemblance to the Unordered Addition, is quite different: whereas the linkers *tɕe* and *qʰe* are not syntactically anchored either in the clause preceding or following it (see (2.4)), *cʰo* is actually the syntactic head of the clause preceding it. The elaboration linking is thus not a flat syntactic structure.

Example (134) illustrates the use of *cʰo* in elaboration clause linking, connecting two finite clauses with stative verbs sharing the same S without any overt noun phrase.
(134) qambru w-rme puw-fse qʰe, puw-dvən yak 3SG.POSS-hair TESTIM-be.like LNK TESTIM-be.many cʰo puw-ŋyflu.
COMIT TESTIM-be.long
(The camel’s hairs) are like that of the yak, there are many and they are long. (Camel, 77)

(135) numu w-mdzu rcanu, wuma xo mtcow DEM 3SG.POSS-thorn TOP.EMPHE really EMPH be.sharp:FACT cʰondyreu ʃeu
COMIT be.hard:FACT
As for its thorns, they are very sharp and hard. (olo, 2)

Although in most examples one of the clauses is limited to a verb, this is not necessarily the case, as shown by examples (136) and 137

(136) nuw ma teʰi sna cʰo teʰi cʰa ra DEM a.part.from what be.good:FACT COMIT what can:FACT PL mrxsi NEG:GENR:know
Apart from that, I don’t know what it is good for and what it can do. (little leech, 153)

Clause linkings in cʰo can occur as protasis of a conditional linking. In this case, each of the conditions expressed by a distinct clause in the protasis must be fulfilled for the event in the apodosis to take place, as in (137).

(137) tee nuw w-ryi a-my-pu-če ra LNK DEM 3SG.POSS-grain IRR-NEG-PFV:DOWN-go have.to:FACT ma pjiu-tsyi my-cʰa tee teendyreu [a-nuw-yçi LNK IPFV-be.rotten NEG:CAN:FACT LNK LNK IRR-PFV-get.wet zo qʰe cʰo ftɕar a-kv-mdzoi zo qʰe li EMPH LNK COMIT summer IRR-PFV-be.attached EMPH LNK again tu-ɬou cti IPFV-come.out be.AFFIRMATIVE:FACT
One should not let its grains go into (the ground), because they cannot rot, and when they get wet and spring comes, they grow again. (Rye, 46-7)

On the other hand, when the additional information is on the arguments, the correlative linkers teçi and ri ‘also’ are used. This construction is used either when the predicates are identical in all clauses in the linking (139) or belong to the same semantic field (138, 140).
(138) ċa tći pńw-ndze, cvcï tći pńw-tsʰi
meat also TESTIM-eat[III] meat.stew also TESTIM-drink
tv- lu ta-mar tći pńw-ndze
INDEF.POSS-milk INDEF.POSS-butter also TESTIM-eat[III]
(Pigs) eat meat, drink meat stew, and also eat butter. (Pigs, 29-30)

(139) cvmu nnumu u-w-ɾrɯ tći me,
female.muskdeer DEM 3SG.POSS-horn also not.exist:FACT
u-ndzyi tći me.
3SG.POSS-tusk also not.exist:FACT
The female musk deer has neither horns nor tusks. (muskdeer, 34)

(140) nnumu w-pʰɯ rǐ ku-wxti uwo rǐ
DEM 3SG.POSS-price also NMLZ:S/A-be.big 3SG also
ku-sna qu.
NMLZ:S/A-be.worthy be:FACT
That one (silver) is expensive and precious. (Metals, 191)

The correlative linker rǐ found in (140) must be distinguished from the
phrasal adversative linker rǐ used in Contrast linking (section (5.4)).

5.3 Alternating or repeated actions
In order to express two actions occurring one after the other repeatedly, we
find finite verb forms with the linker nɤ; as in (141).

(141) tćeʰ-emë nnumu tće kʰvxtu nuw tće, [ku-če] nɤ
girl DEM LNK platform DEM LNK IPFV:EAST-go LNK
pńw-yi tće pńw-nvrɯra ma nuw ma
IPFV:WEST-come LNK IPFV:look.around because DEM apart.from
rvma mɯ-pjɤ-ra.
work:FACT NEG-EVD:IPFV-have.to
The girl would come and go on the platform and look around, as she
did not have any work to do. (The raven4, 134)

The linker nɤ, used with the same verb, indicates an action that either
takes a long period of time or occurs repeatedly (142).

(142) kʰa yu w-pci ri tu-nvsv/svga [tu-če] nɤ
house GEN 3SG-outside LOC IPFV-climb IPFV:UP-go LNK
tu-ce tće, nunu <wulou> <liulou> jamar tu-zɣɯt
IPFV:UP-go LNK DEM fifth.floor sixth.floor about IPFV:UP-reach
pńw-cʰa.
TESTIM-can
It climbs on the (wall) outside of the house all the way up and can
reach the fifth or sixth floors. (Slugs, 134)
Constructions with similar semantics involving nouns or ideophones are also attested (see section (2.4)).

5.4 Contrast

The Contrast linking expresses that the information contained in one clause strongly contrasts with or is unexpected in view of the other clause. Japhug has seven distinct constructions for expressing this meaning, some of which are shared with the rejection linking (6.2).

First, we find paratactic clause linkings with predicates of opposite meaning (such as dɤn ‘many, a lot’ and rkɯn ‘few’19 in example (143) without any overt linker, adverb or postposition marking contrast.

(143) sungw tee dɤn tsa, kumas nu ra rkɯn
    forest LNK be.many:FACT a.little other DEM PL be.few:FACT

There are a lot in the forest, fewer in other places. (pauntsa rna, 133)

Second, the contrastive linkers ri ‘but’ and its compound form tɕeri can be used between two finite clauses. This is the most common construction used to express contrast.

(144) [tee ky-nyre pjɤ-tɕɤt] ri u-mqɤj
    LNK INF-laugh EVD-take.out LNK 3SG.POSS-scolding
    pjɤ-tu
    EVD.IPFV-exist
    He made a joke, but he was scolded. (The naughty boy, 22)

(145) [u zo si wxti] ri, u-muṇtow ku-ndu~ndɯβ
    3SG tree be.big:FACT LNK 3SG.POSS-flower NMLZ:S/A-EMPH–small
    zo puu-lyt gu
    EMPH IPFV-throw N.PST:be
    It is a big tree, but it grows very small flowers. (tʰywum, 29)

Third, the constrastive focalizers ndɤre and wo ‘on the other hand’ can appear after a noun phrase or an infinitival clause to insist on a difference with a previously mentioned referent.

(146) zara ku pu-ky-nu̯-ji ci yyyu tce, nu
    they ERG PFV-NMLZ:P-AUTO-plant INDEF exist:SENSORY LNK DEM
    ndɤre núj-nu̯m.
    CONTRAST:FOC NEG:TESTIM:be.tasty
    There is one which is grown by people, but that one is not tasty
    (unlike the previous one). (Edible black mushroom 17-8)

19The stative verb rkɯn ‘be few’ is often used as a euphemism for ‘non-existent’ in Japhug.
Pigs eat it, cows eat it, but it is not good for people to eat. (Te’emekytsa 120)

The focalizer so differs from ndyre in that it implies that the content of the sentence is self-evident (like Chinese dào 倒); it is often used together with the adverb luski ‘of course’.

There is (an animal) called the weasel, this one on the other hand (by contrast with the wolf, which was discussed before) is small, though not as small as a mouse. It is bigger than a mouse. (Weasel, 1)

The adversative adverb mɤ́ɣrɤz ‘instead’ (Chinese fǎn’ér 反而) is used to express a result contrary to expectations, as in (149).

If one squeezes (the pimple) too early, blood comes out instead (not pus). (Pimples, 133)

Those who are strong are able to do it, and those who aren’t can’t do it. (Parasitic larva, 22)
The linker *laʁma* ‘apart from the fact that, only, just’ is placed at the end of the main clause. Its meaning is slightly similar to *ma* ‘apart from’, but differs from it in that it adds the additional meaning that of two related events/situations, only that of the main clause is fulfilled (as in (152)). It can also indicate that the event/situation of the subordinate clause is basically true except for the minor counter evidence in the main clause (as in (151)). The main clause can either follow (151) or precede (152) the subordinate clause in this construction.

(151)  
\[
\begin{align*}
&[\text{nu ra isq}'a qarts'az u-ku}] \\
&u-ku & 3\text{sg.poss-head} & \text{dem pl the.aforementioned deer} \\
&wuma & 3\text{sg.poss-head} & \text{real} \\
&fse, & \text{emph be.like:fact} \\
&u-bru & \text{horn} \\
&mə \text{apart from:fact sensory}
\end{align*}
\]

*laʁma*,  

Its head is like that of a deer, apart from the fact that it has no horns. (Water deer, 24)

(152)  
\[
\begin{align*}
&\text{lee goteu ku-tu nu ra suw-a laʁma,} \\
&\text{lnk where nmlz:s/a-exist dem pl know:fact-1sg apart from} \\
&\text{ju-ce-a mʌj-c'a-a.} \\
&\text{ipfv-go-1sg neg: testim-can-1sg}
\end{align*}
\]

I only know where they are, I cannot go there. (*zmboolum*, 63)

Sixth, the negative copula *maʁ* ‘not be’ followed by the ergative *ku* can be used to focus on the opposition between two predicates as in (153). The same construction also appears as a type of Rejection linking (6.2).

(153)  
\[
\begin{align*}
&[\text{ku-mpcu}] \\
&\text{maʁ ku nu-kw-nom} \\
&\text{nmlz:s/a-smooth not.be:fact erg pfv-nmlz:s/a-be.rough} \\
&\text{ku-fse brybryf} \\
&\text{gu teee} \\
&\text{nmlz:s/a-be.like ide:coarse.and.irregular be:fact lnk}
\end{align*}
\]

It is not smooth, it is rough, coarse and irregular. (Mill, 172)

Finally, there is a complex linker *jinbala zuu* ‘although’ comprising the locative *zuu* and the form *jinbala* borrowed from Tibetan *jin.pa.la* (be-nmlz-all). This form is not used in colloquial Japhug, and appears only in a few stories told by elders as in (154).

(154)  
\[
\begin{align*}
&\text{lee [gyrlpu nu nu-rga] jinbala zuu, 'e, a-teu} \\
&\text{lnk king dem pfv-be.happy although loc interj 1sg.poss-son} \\
&\text{ki stybts'xt nuu-cw-c'a kuw} \\
&\text{dem:prox contest neg-apprehensive-can:fact possibility} \\
&\text{py-suso} \\
&\text{evd-think}
\end{align*}
\]
Although the king was pleased, he thought ‘Ah, I fear that my son will not succeed in this contest.’ (The prince, 91-92)

6 Alternatives

Alternative linkings are used when the situation/event in both clauses are mutually exclusive. They include two subcategories, Disjunction and Rejection linking.

<table>
<thead>
<tr>
<th>Clause linking type</th>
<th>Construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disjunction</td>
<td>nuu maa ny ‘otherwise’</td>
</tr>
<tr>
<td></td>
<td>polar interrogative ci</td>
</tr>
<tr>
<td>Rejection</td>
<td>postposition ma ‘apart from’</td>
</tr>
<tr>
<td></td>
<td>negative copula maa ‘not be’ in the SC</td>
</tr>
</tbody>
</table>

6.1 Disjunction

There is no linker specialized for expressing disjunction in Japhug like English either ... or. We find two distinct strategies for disjunction linking.

First, in the case of affirmative sentences, the phrase nuu maa ny ‘otherwise (literally ‘if it is not’)’, which is also used in Possible Consequence linking (4.3) is repeated in both alternative clauses as in (155). Ellipsis of the verb in the second clause is not possible.

(155) nuu maa ny tvtʰu tu-kw-ti, nuu
      DEM not.be:FACT LNK woollen.clothes IPFV-GENR-say DEM
      maa ny tungar tu-kw-ti.
      not.be:FACT LNK woollen.clothes IPFV-GENR-say
      (Woollen clothes) are either called tvtʰu or tungar (mbo , 40)

Second, in the case of interrogative sentences, the polar interrogative sentence final particle ci is employed (example (156)).

(156) [χʃuity tʰyjo u-taw tu-nw-ce] ci, rŋuł
gold palanquin 3SG-on 2-AUTO-go:FACT INTRG:POLAR silver
      tʰyjo u-taw tu-nw-ce?
      palanquin 3SG-on 2-AUTO-go:FACT
      Will you go on the gold palanquin or on the silver one? (the three sisters, 198)
6.2 Rejection

The rejection linking indicates that the event/situation in the two clauses are competing alternatives, and only one of them takes place, while the other one does not. This linking is not well represented in Japhug, and the constructions attested in this meaning are also used for the Contrast linking (5.4). We find two possibilities to express the rejection meaning.

First, the postposition ma ‘apart from’ can be used to express a contrast between two radically opposed alternatives. As in the case of the Contrast linking, it is not the causal linker ma: example (157) shows that there is no causal relationship between the two clauses. In this construction, the main clause (preceding ma ‘apart from’) and the subordinate clause are of opposite polarity; in general, the main clause is positive and the subordinate clause negative.

(157)  
\[
\text{nɯ-kɯ-ɤtɯɣ pfv-genr:S/P -meet tɕe, [tu-kɯ-nɤlielie ipfv-genr:S/P -be.frolicsome}
\]
\[
\text{cti] ma tu-kɯ-nɯ-ɤndzɯt ipfv-genr:S/P -appl -bark mɯ́j-ŋgrɤl neg:testim -be.usually.the.case}
\]

When it meets you (again, after several years), it jumps at you wagging its tail instead of barking at you. (Dogs, 17)

Second, semantic opposition can be expressed by using the negative copula maʁ ‘not to be’ in one clause, and one of the affirmative copulas ŋu or cti ‘to be’ in the other one. The verbs in the clauses can either be finite or non-finite. The negative copula can be sufficient to express this meaning, as in example (158).

(158)  
\[
\text{[u-ɕki ky-ce] maʁ ku, kumaw u-pɕoʁ 3sg-dat inf-go not:be:fact erg other 3sg.poss-direction jo-pʰɣo. evd-flee}
\]

He did not go towards him, but ran in the opposite direction instead. (Tshobdun and Kamnyu, 14)

7 Manner

Manner linking in Japhug can be expressed by parataxis as temporal succession, addition or alternative linkings, but also allows specific constructions such as infinitival clauses or manner deixis verbs, as shown in Table (12).
Table 12: Manner linking constructions

<table>
<thead>
<tr>
<th>Clause linking type</th>
<th>Construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real manner</td>
<td>Parataxis</td>
</tr>
<tr>
<td></td>
<td><strong>Infinitival</strong> SC (optionally with ergative)</td>
</tr>
<tr>
<td></td>
<td>manner deixis verb <em>fse</em> ‘be like’ and <em>stu</em> ‘do like’</td>
</tr>
<tr>
<td></td>
<td>degree nominalization + ergative</td>
</tr>
<tr>
<td>Hypothetical manner</td>
<td>manner deixis verb <em>fse</em> ‘be like’</td>
</tr>
</tbody>
</table>

7.1 Real manner

In this type of clause linking, one clause describes the manner in which the action/situation of another clause takes place. There are four basic ways to express this meaning in Japhug.

First, the simplest construction to express manner is parataxis, with two verbs in the same TAM category and sharing the same arguments, as in (159)

(159)  *ju-mtsak nga zo ma nuw ma [u-mi*

IPFV-jump completely EMPH LNK DEM apart from 3SG.Poss-foot

*piu-su-ırse*

IPFV-CAUS-be.inserted[III] IPFV-walk NEG:TESTIM-can

It only jumps, as it is not able to walk by treading with its feet.

(Frog, 4)

This construction is particularly common with the transitive verb of manner deixis *stu* ‘do like this’ as in (160). Note that in this example the subordinate clause in embedded within the main clause.

(160)  *tɕe u-ııu kw [ki tu-ste]*

LKN 3SG.Poss-hand ERG DEM:PROX IPFV-do.like[III]

*lu-z-naıje nu-wu ri,*

IPFV-CAUS-probe TESTIM-be LNK

(The cat) probes with its paw like that (into the hole). (Weasel, 47)

A formally similar construction appears with deideophonic verbs, as in example (161) which illustrates a verb derived from the ideophone *cpré* ‘loud noise’ (see Jacques 2013b).

(161)  *[nui-ıaw-cprérlv]*

TESTIM-DERIVATION-IDEO:DISORDERLY:loud.noise TESTIM-speak

She speaks loudly (without paying attention to the situation). (elicited)

It also occurs with a specific set of verbs such as *tııöm* ‘be in excess’ for instance, as an alternative to complement clauses (162).
It is not good when there are too many of them (ticks) on the cows, because...

Sun (2012) analyzes the Tshobdun constructions corresponding to that of (161) and (162) as monoclausal serial verb constructions, since in that language no linker can be inserted between the two verbs. In Japhug, adding the linker tɕe between the two verbs is possible in the case of (160) and (161), but not in (162), which suggest that we have here several distinct underlying constructions: genuine serial verb constructions when adding a linker is not possible, and biclausal parataxis in the other cases.

Second, it is possible to use the infinitive kɤ– (for dynamic verbs) or kɯ– (for stative verbs or dynamic verbs with non-animate arguments) in the subordinate clause, to express manner as in (163) and (164).

(163) [kɤ-ŋke] jv-ari puw-ra
INF-walk PFV-go[II] PST.IPFV-have.to
He had to go on foot. (elicited)

(164) [ur-yi ra nuu-my-ky-suɔ] nuu rŋul nuu py-mbi.
3SG.POSS-relative PL 3PL-NEG-INF-know DEM silver DEM EVD-give
She gave him silver without her relatives knowing. (The Raven4, 161)

In the case of stative verbs, whose infinitive is in kɯ– instead of kɤ–, there is some surface ambiguity between infinitive and S-nominalization serving as a nominal attribute. In (165) this ambiguity is resolved by the presence of the emphatic linker zo which rules out the alternative parsing of kw-du–dvn ‘numerous’ as the S of the sentence (in which case we would have glossed it as NMLZ:S/A-be.many).

(165) [kw-du–dvn] zo tuturca tu-ŋke-nu
INF:STAT-EMPH–be.many EMPH together IPFV-walk-PL
my-ŋgryl.
NEG-be.usually.the.case:FACT
They don’t usually walk together in big groups. (cyypya 40)

In (166), apart from zo, the presence of the demonstrative nuu between the noun and the stative verb kw-qarŋuɾne ‘yellow’ indicates that they do not form a constituent, and that kw-qarŋuɾne cannot be therefore be analyzed as the attribute of nuu-qe ‘their excrement’.

58
nɯ-qe  nɯ  [kuw-qayru~rge]  zo
3PL.POSS-excrement  DEM  INF:STAT-EMPH--be.yellow  EMPH
cʰɯ-lɤt-nɯ  tɕe,
IPFV-throw-PL  LNK
They shit yellow. (kʰudi, 112)

Apart from stative verbs of quantity and quality (as in (165) and (166)), many other types of verbs appear in this construction, for instance verbs expressing spatial relations and distances as in (167).

(167)  lu-olgyu  nɯ-eti  qʰe,  kuw-yrqʰi
IPFV-be.connected  TESTIM-be:AFFIRM  LNK  INF:STAT-be.far
ju-ku-ru  qʰe  w-war  nɯ-fse.
IPFV-GENR:S/P-look  3SG.POSS-wing  TESTIM-be.like
(The skin between its limb) is connected, and when one looks from afar, it looks like wings. (Flying fox, 134)

Third, it is possible to use the infinitive kuw-fse of the manner deixis stative verb fse ‘be like’ to mark the subordinate clause, as in (168) and (169). The verb marked by kuw-fse can itself be in the infinitive (170).

(168)  murumumbju  nɯ  [nuw-xyr-sw-xyr]  kuw-fse
swallow  DEM  IPFV-REFL-CAUS-be.slanted  INF:STAT-be.like
tɕe  nymkʰa  zu  ku-ce  ny  nuw-yi  tɕe
LNK  sky  LOC  IPFV:EAST-go  LNK  IPFV:WEST-come  Lnk
The swallow comes and goes flying in a slanted way in the sky. (Swallow, 38)

(169)  βɣaza  tu-ndze  nɯ  tceri  [c-tu-ntsas]
fly  IPFV-eat[III]  be:FACT  LNK  TRANSLOC-IPFV-jump
kuw-fse  c-ku-ndym
INF:STAT-be.like  TRANSLOC-IPFV-catch[III]  NEG:TESTIM-can  LNK
It eats flies, but it cannot catch them by jumping. (frogs, 6)

The semantic scope of the verbal negative prefix can be on the manner rather than on the verbal action as in (170). In this construction, both the disjunct and the conjunct interpretation of negative scope are possible (unlike some languages that restrict one interpretation in some or in all constructions, see Bickel 2010: 61).

(170)  numu  wuma  zo  qomdroŋ  kuw-fse
DEM  really  EMPH  white.goose  INF:STAT-be.like
[kuw-rzurja  kuw-βdi]  kuw-fse
INF:STAT-be.lined.up  INF:STAT-be.well  INF:STAT-be.like

59
Although they do not fly in nice lines like the geese, they always fly (in groups) together. (Pigeons 10-11)

It is possible to combine an infinitival clause with the ergative kɯ, as in (172) and (171). This construction can express a slight concessive meaning as in (171) (‘without turning it off’ = although he should have turned it off’).

(171) tee w-ŋgw nu tɛw pasndza ɲɛ-raw tee, tɛndyre
  LNK 3SG-inside DEM LOC pig.fodder EVD-be.stuck LNK LNK
  [<dian> <guan> mɯ-ŋɛ-bzu] kɯ mɯ-ŋɛ-pa kɯ
electricity turn.off NEG-INF-make ERG NEG-INF-close ERG
  u-jaw  lo-tsum
  3SG.POSS-hand EVD:UPSTREAM-take.away
Some pig fodder got stuck inside (the machine) he reached his hand into it without turning it off, (Relatives, 372-3)

Alternatively, the infinitival clause with the ergative can be semantically intermediate between a manner and a purposive clause, as in (172).

(172) tuw-xtsa nunu w-ɛszur
  INDEF.POSS-shoe DEM 3SG.POSS-shape
  [muw-ɲw-kw-puwr] kɯ
  NEG-IPFV-INF:NON.HUM-ANTICAUS:change ERG
  muw-ɛz-stɔta-nu
  IPFV-CAUS-be.fixed
They wedge the shoes (with a shoe tree) in such a way that their shape does not change. (Red leather, 109)

Fourth, in the case of stative verbs, the degree nominalization tuw– can be combined with a clause describing the degree, circumstance or consequence of the state in question. The ergative kɯ can be inserted between the stative verb and the degree clause; it presence is optional when the degree clause is short, but obligatory in the case of long clauses, as in (173) and (174).

(173) a-pu-kw-su-ːpɛvr qe [u-tu-ʁzi]
  IRR-IPFV-GENR:S/P-CAUS-press LNK 3SG-NMLZ:DEGREE-heavy
  ku te te nu ɡv-jɔw muıj-kw-cʰa
  ERG LNK DEM INF-lift NEG:TESTIM-GENR:S/P-can
If (an elephant) presses one (with one of its feet), it is so heavy that one cannot free oneself. (Elephant, 39-40)
If there is no cat, mice cause a lot of damage in the house as they eat meat and food, and even the things that they cannot eat, (like bags), they make holes in them. (Cat, 27-29)

The ergative is also used in clause linkings involving the verb fse ‘be like’ in the subordinate clause, as in (175).

(175) \[ ri \quad \text{[u-jwaw nusu kuwas čy] nwi ra} \]
\[ \text{LNK 3SG.POSS-leaf DEM other juniper DEM PL} \]
\[ \text{muji-fse} \quad \text{kwi nu-yrauru zo q'e} \]
\[ \text{NEG:TESTIM-be.like ERG TESTIM-be.wrinkled EMPH LNK} \]
\[ \text{nuu-ndo zo. TESTIM-be.clustered.together EMPH} \]

Its leaves differ from other junipers in that they are wrinkled and clustered together. (Ephedra, 71)

### 7.2 Hypothetical manner

The hypothetical manner linking differs from the real manner linking in that the subordinate clause does not describe the actual manner of the action / situation, but compares it to a similar event.

There is no specific construction in Japhug for expressing this meaning. Examples of Hypothetical Manner linkings in our data all use constructions involving the verb fse ‘be like’ as a main verb and a nominalized relative clause.

(176) \[ nyzo ki jamar tce, nu-ntc'i lv-ky-sti \]
\[ 2SG DEM:PROX about LNK 2SG.POSS-mouth PFV-NMLZ:P-plug \]
\[ nuu-tu-fse cti \]
\[ \text{TESTIM-2-be.like be.AFFIRMATIVE:FACT} \]

You look like your mouth has been plugged. (conversation 2002, 81)
Its sound was as loud as thunder. (Daihao)

When it hurts, it feels like an awl has been planted (in one’s lungs). (Lung disease, 8)

8 Conclusion

This article is the first step towards a description of clause linking in Japhug. Further research is particularly needed on the issue of syntactic pivots and cataphora in clause linking. At the present stage of our research, we have not been able to detect any strict syntactic pivot, either accusative or ergative, in the constructions studied in the present work. Such research proved difficult in the case of Japhug, as the grammaticality judgments offered by our consultants on constructions not attested in the corpus are often inconsistent.

Japhug clause linking is uncommon in the context of verb final languages of Eurasia. While several converbial constructions are attested (immediate precedence, gerund, purposive and infinitive), none of them is required to express a particular meaning, as in each of the four cases a semantically similar competing finite construction is available.

Japhug has a strong distinction between finite and non-finite verb forms, but non-finite forms are essentially used for relativization and complementation, not for clause linking. Chains of clauses in non-finite forms, which are common in languages such as Classical Tibetan or Turkic, are completely absent. This is due to the fact that converbs in Japhug are restricted to relatively less common constructions, and are not found for expressing Temporal sequence, Consequence or Condition linkings. There is no converb marking switch reference either; finite forms with inverse marking are used instead for that purpose (see Jacques 2010).

The most common type of clause linking in Japhug involves finite clauses with a linker (or a postposition / relator noun between them). Parataxis is rare, but available for expressing Temporal or Manner linkings. It appears that cases of parataxis require distinct analyses depending on the construction: some of them may be cases of serial verb constructions.
A typological feature distinguishing Japhug from most Sino-Tibetan languages is the fact that some clause linking constructions require a subordinate or a main clause in a particular finite TAM form. In particular, the temporal precedence linking (3.2.3) requires a verb in the imperfective form in the subordinate clause regardless of the TAM marking of the main clause, and several types of conditional (including counterfactual, scalar concessive and alternative concessive) requires the past imperfective.

References


Jacques, Guillaume. under review. Relativization in Japhug Rgyalrong.


