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From ergative to comparee marker: multiple reanalyses and polyfunctionality^{*}

Guillaume JACQUES
CNRS-CRLAO-INALCO

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Abstract: This article describes the uses of the marker **ku** in Japhug, which presents many distinct functions, including ergative, instrumental, distributive, causal linker, manner linker and comparee marker in the comparative construction. A series of grammaticalization pathways, some of which have never been documented before, are proposed to account for the polyfunctionality of this marker.

Résumé: Cet article décrit les utilisations du marqueur **ku** en japhug, qui présente de nombreuses fonctions distinctes, dont l’ergatif, l’instrumental, le distributif, le marquage de la cause et de la manière ainsi que du comparé dans la construction comparative. Une série de chemins de grammaticalisation, dont certains n’ont jamais été documentés auparavant, sont proposés pour rendre compte de la polyfonctionnalité de ce marqueur.

Zusammenfassung: Dieser Aufsatz beschreibt die Verwendung des Markers **ku** in Japhug, der viele unterschiedliche Funktionen erfüllt, darunter die Markierung von Ergativ, Instrumental und Distributiv, die Funktion eines kausalen und modalen Linkers, eines emphatischen Adversativs, sowie die Markierung des Komparandum in Komparativkonstruktionen. Eine Reihe von Grammatikalisierungspfaden, von denen einige zuvor

^{*}The glosses follow the Leipzig Glossing Rules. Other abbreviations used here are: ASSERT assertive, AUTO autobenefactive / spontaneous, DEM demonstrative, DIST distal, EMPH emphatic, INDEF indefinite, INV inverse, LNK linker, PFV perfective, POSS possessor, FACT factual, SENS sensory. I wish to thank Anton Antonov, Giorgio Arcodia, Lauren Gawne, Aimée Lahaussais, Johann-Mattis List, Alexis Michaud, Enrique Palancar, Joseph Salmons, Mathieu Ségui, Amos Teo, Nicolas Tournadre, Fernando Zúñiga and two anonymous reviewers for useful comments and corrections. I am responsible for any remaining mistake. This research was funded by the HimalCo project (ANR-12-CORP-0006) and is related to the research strand LR-4.11 “Automatic Paradigm Generation and Language Description” of the Labex EFL (funded by the ANR/CGI).

noch nicht dokumentiert worden sind, werden vorgestellt, um die Polyfunktionalität dieses Markers zu erfassen.

Keywords: comparative; ergative; instrumental; clause linking; adversative; distributive; Japhug

1 Introduction

In Japhug,¹ clitic markers of the form **ku** appear in a wide array of different constructions. The most common one is the ergative marker, but we also find homophonous markers with syntactic functions as varied as distributive, causal linker and comparee marker.

Syncretisms between agent or ergative markers on the one hand and various spatial cases on the other hand are common typologically (Palancar 2002). However, the apparent polyfunctionality of the marker **ku** in Japhug, if a single marker is indeed posited, is unique. It is unclear at first glance to what extent these various uses are related synchronically and diachronically, and whether one or several distinct markers have to be described.

In order to avoid circular reasoning and to clearly separate the exposition of the data from the hypotheses, the synchronic and diachronic aspects of the topic are treated separately in this paper, which is divided into three main sections. In section 2, I will provide a synchronic description of the various functions of the marker **ku** besides its use as an ergative / instrumental marker, including its function in a distributive construction, in manner and cause clause linking, in the degree construction and in the comparative construction. In section 3, I will discuss the etymology of the marker **ku**. A detailed overview of all markers and grammatical morphemes that are phonologically similar to **ku** is provided, including external comparisons with other Sino-Tibetan languages. The marker is shown to be borrowed from the Amdo Tibetan ergative **kə/γə**. In section 4, building on the two previous sections, I will present a series of historical scenarios showing the links between each function of the marker **ku**, in particular the tortuous path from ergative / instrumental to comparee marker.

¹Japhug is a language spoken in Mbarkham county, Rngaba prefecture, Sichuan province China, by under 10000 speakers. Together with Situ, Zbu and Tshobdun, it belongs to the Gyalrong (Rgyal.rong) subgroup of the Sino-Tibetan family (see Sun 2000), and is known for its polysynthetic morphology (see Jacques 2013b and Jacques 2014c) and its elaborate consonant clusters. A small grammar (Jacques 2008) and a text collection (Jacques & Chen 2010) are available. This research is based on oral narratives and conversations collected by the author (the total corpus comprises more than 50 hours of transcribed recordings), which is being made progressively available on the Pangloss Archive (Michailovsky et al. 2014) at the address http://lacito.vjf.cnrs.fr/pangloss/tools/list_rsc.php?lg=Japhug

2 Synchronic functions of the marker **ku**

The marker **ku** has five distinct functions described in detail in the present section. Besides its use as an ergative / instrumental marker, **ku** is found in distributive, clause linking, degree and comparative constructions.

The use of **ku** in the comparative construction stands out in being typologically unusual. While many languages, including Tibetan, have ergative / instrumental markers in comparative constructions, they are typically used to mark the *standard* of comparison. Instead, in Japhug, it is the *comparee* which is marked with **ku**; a historical explanation for this fact is presented in section 4.

2.1 Ergative / Instrumental

Japhug has a very clear distinction between transitive and intransitive verbs, which is reflected in both case marking and verbal morphology.²

Japhug has ergative alignment on noun phrases; S and P are unmarked (examples 1 and 2 respectively), while the A of transitive verbs receives the clitic **ku** (example 2). This clitic is obligatory with nouns and third person pronouns, but optional for first and second person pronouns, since the verb agreement morphology distinguishes between agent and patient in a non-ambiguous way.³

- (1) **tr-tɕu** **nu jo-ɕe**
 INDEF.POSS-boy DEM IFR-go
 ‘The boy went (there).’
- (2) [**tr-tɕu** **nu**] **ku** **ɣsɣr qaɕpa nu** **c^hɣ-mqlaɣ**
 INDEF.POSS-boy DEM ERG gold frog DEM IFR-swallow
 ‘The boy swallowed the golden frog.’ (Nyima Wodzer.1, 131)

Additionally, as in many languages, the ergative is also used as an instrumental marker (Palancar 2002, 32). When an instrumental phrase with **ku** appears in the sentence, the verb is generally marked with the causative prefix **su-** / **z-**. It is possible to have sentences with two noun phrases marked with **ku** (one A and one instrument) as in 6, but such examples are extremely rare in our corpus.

- (3) **kuɕuŋgu tɕe**, [**ɣɣo**] **ku** **turju tu-su-βzu-nu**
 before LNK song ERG/INSTR word IPFV-CAUS-do-PL
pjɣ-ŋu **tɕe**,
 IPFV:IFR-be LNK

²An account of argument indexation and morphological transitivity marking in Japhug goes beyond the scope of this paper; see Jacques (2010) for a detailed description.

³In all examples containing the marker **ku** in this paper, I indicate with square brackets the constituent over which it has syntactic scope.

‘In old times, people used to speak by song.’ (Gesar, 37)

- (4) [nu-**mtsioɣ** nu] **ku** lu-sw-ly-a-nu **q^he**,
 3PL.POSS-beak DEM ERG/INSTR IPFV-CAUS-dig-PL LNK
tɿtsoɣ lu-nu-tɕɿt-nu **ɲu-ŋgrɿ**
 potentilla.anserina IPFV-AUTO-take.out-PL IPFV-be.usually.the.case
k^hi
 HEARSAY
 ‘(The wild geese) dig (the ground) with their beaks, and they take
 out Potentilla anserina roots.’ (22, qomndroN 28)

- (5) **suŋgi ku u-jaɣ** **ku** **rca nu**,
 lion ERG 3SG.POSS-hand ERG/INSTR UNEXPECTED
u-rja **ra tu-murkuɣ** **zo** **pjɣ-su-lɿt**
 3SG.POSS-face PL NMLZ:ACTION-scratch EMPH IFR-CAUS-throw
tɕe
 LNK
 ‘The lion scratched its (own) face with its paw.’ (The lion and the
 mosquito, 23)

Causative marking on the verb with an instrument is not compulsory, and one can find the two constructions with or without the causative marker side by side in the same narrative:

- (6) [qarts^haz u-ndzi] **ku** **c^hu-βzu-nu tɕe**, **nu** **stu**
 deer 3.SG.POSS-hide ERG/INSTR IPFV-do-PL LNK DEM most
ku-zru.
 NMLZ:S/A-strong
 ‘They make (shoes) with deer hide, it is the most resistant (type of
 skin).’ (30 mboR, 48)
- (7) [qarts^haz u-ndzi **ɣja**] **ku** **zo**
 deer 3.SG.POSS-hide entirely ERG/INSTR EMPH
t^hu-kɣ-su-βzu
 PFV-NMLZ:P-CAUS-do
 ‘(It is) entirely made of deer hide.’ (30 mboR, 53)

While the instrument and the agent are both marked by **ku**, their syntactic status is different, as shown by relativization.

The agent is relativized in prenominal or head-internal relative clauses with the main verb in the S/A-participle form (marked by the prefix **ku-**) with an additional possessive prefix coreferent with the P, as **u-** in **u-ku-numbrɣpu** ‘the one who rides it’ in 8.

- (8) [[**tr-prtso** **ci**] **ku** <yangma> **u-ku-numbrɿpu**] **ci**
 INDEF.POSS-boy INDEF ERG bicycle 3SG-NMLZ:A-ride INDEF
jr-ye
 PFV-come[II]
 ‘A boy who was riding a bicycle arrived.’ (Pear story, Chenzhen, 5)

On the other hand, the instrument is relativized in prenominal relative clauses with the verb in the oblique participle form (with the prefix **sr-**). The causative prefix **su-** is also removed in this form, as illustrated by example 9.

- (9) [**nu-mt^hɿ** **sr-xtɛr**] **xɛfsa ma**
 3PL.POSS-waist NMLZ:OBLIQUE-tie thread apart.from
pjr-me
 IFR.IPFV-not.exist
 ‘They only had threads to tie their waists (the only things that they could use to tie their waist were threads).’ (Milaraspa translation)

The marker **ku** can be used with abstract nouns to indicate cause, as in 10, where **sumuɿzduɿ** ‘worry’ is a noun borrowed from Tibetan **sems.sdug** (same meaning).

- (10) [**sumuɿzduɿ**] **ku** **ɛr** **u-zuβ** **mucin**
 worry ERG/INSTR night 3SG.POSS-sleep at.all
mu-pu-ye **ɲu-ɲu.**
 NEG-PFV-come[II] SENS-be
 ‘As she was worried, she could not get any sleep for the whole night.’ (Slobdpon, 174)

It also appears in a clausal construction with the possessed noun ‘its strength’ **u-xɛrt** borrowed from Tibetan **ced** ‘strength’.⁴

- (11) [**tu-mɿɿm** **u-xɛrt**] **ku** **azo nu**
 NMLZ:ACTION-hurt 3SG.POSS-strength ERG/INSTR 1SG DEM
a-ku **ɛru pjr-ɿrtsur** **ɲu-ɲu** **nu-suso-t-a.**
 1SG.POSS-head bone IFR-have.a.crack SENS-be PFV-think-PST-1SG
 ‘Because of the pain, I felt as though my skull had cracked.’ (24 pGArtsAG, 77)
- (12) [**tr-zduɿ** **u-xɛrt**] **ku** **pju-si**
 INDEF.POSS-toil 3SG.POSS-strength ERG/INSTR IPFV-die
ɕti,
 be:AFFIRM:FACT

⁴This borrowing comes specifically from Amdo, as it reflect an intermediate stage in the sound change from [ɕet] to [xɕit] as in most Amdo varieties.

‘(The bee) dies of exhaustion.’ (26 GZo, 40)

In this construction, we either find an abstract noun as in 12 or an action nominal in **tu-** (as in 11).

Another causal construction in **ku** involves the noun **t^hurzi** ‘mercy’ (from Tibetan **t^hugs.rdze**), as in example 13.

- (13) **tce** [**turpa u-t^hurzi**] **ku** **nw-<shenghuo>** **nw ra**
 LNK axe 3SG.POSS-mercy ERG/INSTR 3PL.POSS-life DEM PL
wuma zo pj^y-pe j^w-ju.
 really EMPH IFR.IPFV-be.good SENS-be
 ‘Thanks to the axes, their life was very good.’ (The little village, 35)

2.2 Distributive

The marker **ku** can have a distributive meaning (‘for one X’, ‘per’) when used with a classifier designating a quantity. It occurs in constructions with intransitive verbs where no agent or instrument is present, but exclusively to express the price of the quantity designated, as in 14 and 15.

- (14) [**tu-turpa**] **ku sqi jamar j^w-ra.**
 one-pound ERG ten about SENS-have.to
 ‘You need ten (yuans) per pound (of Angelica).’ (17 ndZWnW, 22)
- (15) [**tu-turpa**] **ku yurza u-ro, u-p^hu**
 one-pound ERG hundred 3SG.POSS-more 3SG.POSS-price
j^w-yi.
 SENS-come
 ‘It costs more than one hundred (yuans) per pound.’ (20 grWB-grWB, 5)
- (16) [**tu-xtsa tu-t^ha**] **ku yurza u-ro**
 INDEF.POSS-shoe one-pair ERG hundred 3SG.POSS-more
j^w-ra
 SENS-have.to
 ‘It costs more than one hundred for a pair of shoes.’ (elicited)

The construction with **ku** cannot be used with classifiers expressing duration, as in 17 (replacing the linker **tce** by **ku** here would be agrammatical).

- (17) **tu-sla tce u-^ygra yurza u-ro y^yzu**
 one-month LNK 3sg.poss-salary hundred 3SG.POSS-more exist:SENS
 ‘His salary is more than one hundred a month.’

2.3 Clause linking

The marker **ku** appears in manner clause linking, with the verb of the subordinate clause in either infinitival or finite form (see Jacques 2014b for additional examples).

2.3.1 Infinitival manner linking

Japhug has infinitival clauses in clause linking and complementation constructions.

The infinitive of the verb is either **ky-** for (dynamic verbs) or **ku-** (for adjectives, copulas, some modal auxiliaries and intransitive dynamic verbs that are incompatible with an animate S). These prefixes happen to be homophonous with, and are probably historically derived from, the P-participle in **ky-** and the S/A-participle **ku-** prefixes. Aside from their functional differences, infinitives clearly differ from participles in that dynamic intransitive verbs have an infinitive in **ky-**, but no P-participle **ky-**. For instance, the intransitive **ŋke** ‘walk’ has no P-participle, only a S/A-participle **ku-ŋke** ‘the one who walks’, but its infinitive is **ky-ŋke** and can be used as a manner subordinate clause as in 18.

- (18) **ky-ŋke jo-ɕe**
INF-walk IFR-go
‘She went on foot.’ (Bailingniao, 215)

Bare infinitival subordinate clauses with dynamic verbs as in 18 are rare, and almost only attested in our corpus by motion verbs such as in 18 or by cognition verbs such as ‘think’ or ‘know’.

Infinitival subordinate clauses are more commonly used with the marker **ku**, to indicate the circumstance or background situation in which the action described by the verb of the main clause took place, as in 19.

- (19) **tɕe u-ŋgu nu tɕu paɳdza ɲɲ-raɕ tɕe, tɕendɲre**
LNK 3SG-inside DEM LOC pig.fodder IFR-be.stuck LNK LNK
[<dian> <guan> **mɲ-ky-βzu**] **ku** [**mɲ-ky-pa**] **ku**
electricity turn.off NEG-INF-make ERG NEG-INF-close ERG
u-jaɕ lo-tsum
3SG.POSS-hand IFR:UPSTREAM-take
‘Some pig fodder got stuck inside (the machine), and she put her hand into it without turning it off,’ (14 tApitaRi, 372-3)

While examples such as 20 could lead us to believe that the infinitival clause marked with **ku** expresses the cause and the main clause the result, it is clear that this construction does not entail a unidirectional causal relationship between the main and the subordinate clause. In 19 the events

expressed by the main and the subordinate clauses are not causally linked to one another, and in 21 it is the subordinate clause which expresses the purpose of the action of the main clause (the causality is reversed in comparison with 20).

- (20) [nɯʈɕe ky-suɔso] ku, u-mbro nuɯ taqab
 go.back:FACT INF-think ERG 3SG.POSS-horse DEM needle
 cʰɣ-z-nwtɕʰak-nu, u-kʰuna nu rkorsa u-pa
 IFR-CAUS-eat-PL 3SG.POSS-dog DEM toilet 3SG.POSS-down
 lo-ja-nu
 IFR-pen-PL
 ‘Thinking that he (was about to) go back, they fed his horse needles and locked his dog in the toilets.’ (Gesar 250-1)

- (21) tu-xtsa nuɯ [u-ɣzuɣ
 INDEF.POSS-shoe DEM shape
 mu-pu-ku-pjur] ku
 NEG-IPFV-INF:NON.HUM-ANTICAUS:change ERG
 pu-z-ɣsta-nu
 IPFV-CAUS-be.fixed
 ‘They wedge the shoes (with a shoe tree) in such a way that their shape does not change.’ (30 komar, 109)

2.3.2 Finite manner linking

In the finite manner clause linking, the subordinate clause is likewise marked by **ku**, but its verb is in finite form. The finite main clause adds further information on the state or situation described by the subordinate clause, as in 22.

- (22) ri u-jwak nuɯ [kumaɣ ɕɣɣ nu ra
 LNK 3SG.POSS-leaf DEM other juniper DEM PL
 muj-fse] ku pu-ɣɣuɣu zo qʰe
 NEG:SENS-be.like ? SENS-be.wrinkled EMPH LNK
 pu-ɣndundo zo.
 SENS-be.clustered.together EMPH
 ‘Its leaves differ from other junipers in that they are wrinkled and clustered together.’ (16 RlWmsWsi, 71)

Semantically, the infinitival and the finite manner clause linkings are quite distinct. In the former, the subordinate clause presents background information (whether a circumstance, a cause or even a purpose) on the main clause. In the latter, on the other hand, the subordinate clause preceding **ku** indicates the main event / state of affair, and the main clause represents an additional characterization of this event.

2.3.3 Emphatic adversative

Combined with the copula **maʁ** ‘not be’ in finite form or with a negative verb form, the marker **ku** is also used to express adversative meaning between the subordinate clause the main clause (example 23).

- (23) [turgi ku-fse u-stu tu-ʕe ɲu-maʁ]
fir INF:STAT-be.like 3SG.POSS-straight IPFV:UP-go SENS-not.be
ku, aʁɲdundɯt u-rtaʁ ɲu-ʔoʁ ɲu-ɲu tʕe,
? everywhere 3SG.POSS-branch SENS-come.out SENS-be LNK
‘It does not grow straight like the fir, on the contrary, its branches
spread out in all directions.’ (18 qromJoR, 54)

This construction is used to focus on the contrast between the (negated) event/situation described in the subordinate clause, and that of the main clause, and corresponds to the English phrase ‘on the contrary’.

2.4 Degree construction

Japhug has two degree constructions built by nominalizing a verb (generally an adjective) with the action nominalization prefix **tu-** and a possessive prefix coreferent with the referent presenting the property described by the nominalized verb.

This degree nominal (like **u-tu-tʕur** ‘its sourness’ in 24) is the S in both constructions.

First, the degree nominal can be combined with an adjective expressing degree such as **saʁaʁ** ‘be extremely ...’, **syre** ‘be funny, be extremely ...’, **tʕʰom** ‘be excessive’, in the *monoclausal nominalized degree* construction, exemplified by example 24.

Second, it can be associated with one or several clause(s) containing a simile describing the degree of the property, in the *multiclausal nominalized degree* construction. In multiclausal nominalized degree constructions, the nominalized verb has to be combined with the marker **ku**, as in example 25 (the sentence following 24 in the same text).

- (24) mtʕʰi u-mat rca
sea.buckthorn 3SG.POSS-fruit UNEXPECTED
u-tu-tʕur **saʁaʁ**.
3SG-NMLZ:DEGREE-be.sour be.extremely:FACT
‘The fruit of the sea-buckthorn is very sour,’ (09 mi, 65)
- (25) [u-tu-tʕur] **ku** [tu-kuur u-ɲgu
3SG-NMLZ:DEGREE-be.sour ? INDEF:POSS-mouth 3SG-inside
lu-wy-rku **qʰe maka**
IPFV:UPSTREAM-INV-put.in LNK at.all

ɲu-su-ɣmuzyut **q^he, tu-p^hoŋbu** **ra kunɣ**
 IPFV-CAUS-be.evenly.distributed LNK INDEF:POSS-body PL also
ɲu-sux-tɕur **ku-fse** **ɕti]**
 IPFV-CAUS-be.sour NMLZ:S/A-be.like be:AFFIRM:FACT
 ‘(The fruit of the sea-buckthorn) is so sour that when one puts it
 in one’s mouth, it makes it completely (sour), and it is as if one’s
 (whole) body became sour.’ (09 mi, 66)

The nominalized verb and the marker **ku** of multiclausal nominalized degree constructions form a constituent and can be right dislocated together, as in 26.

- (26) **tu-ci** **u-ymbaj** **nu tɕu, tɣ-rtsa**
 INDEF.POSS-water 3SG.POSS-side DEM LOC INDEF.POSS-wave
ku-xtɕu-xtɕi **nu hanuɲi ju-ɕe** **ɲu-ŋu**
 NMLZ:S/A-REDP-be.small DEM a.little IPFV-go SENS-be
ma **nu ma** **ku-saxsɣl** **maŋe,**
 apart.from DEM apart.from NMLZ:S/A-be.clear not.exist:SENS
[u-tu-mbjom] **ku.**
 3SG-NMLZ:DEGREE-be.quick ?
 ‘(When it dives into the water), it is so quick that one can only see
 little ripples near the shore.’ (Kingfisher, 54)

Unlike other nominalizing prefixes such as the **ku-** (S/A participle) or **sɣ-** (oblique participle), the degree action nominal in **tu-** cannot take any TAM markers (whether prefixes or stem alternation). However, TAM is not neutralized in this construction: it is marked on the following verb; compare **saxaɣ** ‘it is extremely X’ in 24 with its past imperfective form **pu-saxaɣ** in 27.

- (27) **tɕendɣre ndzi-tu-ɣmuɲi**
 LNK 3DU-NMLZ:DEGREE-be.in.good.terms
ndzi-tu-scit **pu-saxaɣ** **zo**
 3DU-NMLZ:DEGREE-be.happy PST.IPFV-be.extremely EMPH
ɲu-ŋu
 SENS-be
 ‘They were very happy together.’ (Lobzang, 13)

The marker **ku** is not restricted to the multiclausal nominalized degree construction, as it also occurs optionally with the monoclausal one, as in 28, although this use is very rare.

- (28) **[tɣ-ɣnat** **tɣ-mtsɯr]** **ku**
 INDEF.POSS-be.tired INDEF.POSS-be.hungry ?
pu-saxaɣ **zo** **ɲu-ŋu**
 PST.IPFV-be.extremely EMPH SENS-be

‘He was extremely tired and hungry.’ (Lobzang, 66)

Optionally, in the monoclausal degree construction, the infinitive of the verb ‘say’ **ky-ti** can be inserted between the degree nominal and the marker **ku** as in 29.

- (29) [tuutsye ky-βzu u-tui-c^ha ky-ti] ku
 commerce INF-make 3SG-NMLZ:DEGREE-can INF-say ?
 pu-saxar zo ju-gu.
 PST.IPFV-be.extremely EMPH SENS-be
 ‘He was extremely proficient in commerce.’ (Slopdpn, 2)

2.5 Comparative construction

A clitic **ku** formally identical to the ergative also appears in the main Japhug comparative construction, which can be illustrated by examples 31 and 32 (example 30 illustrates a non-comparative sentence with an adjectival predicate).⁵

- (30) p^hu nu mpe^{rr}
 male DEM be.beautiful:FACT
 ‘The male (pheasant) is beautiful.’ (24 kWmu, 64)
- (31) u-ki syz [u-pi
 3SG.POSS-younger.sibling COMPARATIVE 3SG.POSS-elder.sibling
 nu] ku mpe^{rr}
 DEM ? be.beautiful:FACT
 ‘The elder one is more beautiful than the young one.’ (elicited)
- (32) ju^{fc}ur syz [ju^{sn}i] ku ju^{mp}ja
 yesterday COMPARATIVE today ? SENS-warm
 ‘Today is warmer than yesterday.’ (elicited)

The terminological framework used in this section is mainly based on Dixon (2008) and Stassen (2011). The following English sentence illustrates their terminology:

- (33) John is more intelligent than Paul
 COMPAREE INDEX PARAMETER MARK STANDARD

Comparative constructions involve two participants that are not equal. The COMPAREE is the entity that is being compared, while the other one,

⁵It is possible to define a category of adjectives in Japhug as a subclass of stative intransitive verbs on the basis of morphology: adjectives are the stative verbs that allow the tropative derivation in **ny-** (Jacques 2013a).

the STANDARD, is the entity against which the comparee is compared. The PARAMETER indicates the property in terms of which the comparison is carried out. It is generally an adjective, more rarely an active verb. The INDEX is an element indicating the degree of the parameter, and the MARK an element (case marker or otherwise) appearing on the standard to distinguish it from the comparee. All languages that have monoclausal comparative constructions have comparees, standards and parameters, but indexes and marks may or may not be present depending on the language.

The Japhug comparative construction comprises three syntactic constituents, corresponding to the standard, the comparee and the parameter. It is possible to have partial constructions with either only the comparee (as in 34), or only the standard (as in 35). In both cases, the elided element is definite and anaphorically linked to a previously mentioned referent.

- (34) [co yu nunu] ku mʁku ma [nunu tɕu] ku
 valley GEN DEM ? be.early:FACT because DEM LOC ?
 nu-mpja
 SENS-be.warm
 ‘The one in the valley (grows) earlier, because it is warmer there.’
 (08 khWjNga, 61)

- (35) qajdo sʁznʁ wxti.
 pigeon COMPARATIVE be.big:FACT
 ‘(It) is bigger than a pigeon.’ (Hawk, 7)

The standard bears a comparative marker when overt, either **sʁz** as in 31 and 35 or its variants **sʁznʁ**, **stax** and **staxnʁ**. The comparative marker can only be dropped when a mark such as **st^huɕi** ‘that much, as much’ is present.

When both the standard and the comparee are overt, the standard can occur either before (as in 31) or after (36) the comparee.

- (36) tɕeri u-rzaβ azo sʁz wxti,
 but 3SG.POSS-wife 1SG COMP be.big:FACT
 ‘But his wife is older than me.’ (14 tApitaRi, 198)

The marker **ku** on the comparee is optional, except when the standard is not overt. When the comparee has a genitival modifier, four constructions are attested. First, the marker **ku** appears after the whole noun phrase (as in example 37).

- (37) [tʁru yu u-jwaβ] ku nu-jndzyz
 Pyracantha GEN 3SG.POSS-leaf ? SENS-be.big
 ‘The leaves of the Pyracantha are bigger.’ (11 paRzwamWntoR, 130)

Second, the comparee can be elided, leaving only the modifier with the genitive marker **ywu** (38).

- (38) **u-ru tsa fse ri, [qrose ywu] kuw**
 3SG.POSS-trunk a.little be.like:FACT but plant.sp. GEN ?
mbro.
 be.high:FACT
 ‘Its trunk is a little similar, but the one of the **qrose** grows higher.’
 (16 CWrNgo, 210)

Third, even the genitive marker can be elided, leaving only the genitival modifier without the mark (39).

- (39) **tçeri ndzi-mdox ra kuwny, [qaliax nuw] kuw juw-ɲax**
 but 3DU.POSS-beak PL also eagle DEM ? SENS-be.black
 ‘As for their beaks, that of the eagle is blacker.’ (19 qandZGi, 37)

Fourth, in the case when the standard and the comparee share the same head noun and differ only by their genitival modifier, the postpositional phrase comprising the modifier with **kuw** can be left-dislocated as in example (40), where **u-p^hu** ‘its price’ is the head noun of both the standard and the comparee, and **kuw** is placed after **nuwnu**, the modifier of **u-p^hu**. This is crucial evidence that **kuw** does not form a constituent with the verb.

- (40) **[nuwnu] kuw u-p^hu juw-wxti,**
 DEM ? 3SG.POSS-price SENS-be.big
 ‘This one is more expensive.’ (the price of this one is bigger) (13 NanWkWmtsWG, 175)

The comparee marked by **kuw** differs from both the A and the instrument in the way it is relativized. The instrument is relativized by using the oblique participle in **sy-**, the A by the S/A-participle in **kuw-** with a possessive prefix coreferent with the P. The comparee is relativized in the same way as any S, in a head-internal relative with the relativized verb in the S/A participle **kuw-** as in 41, without an additional possessive prefix on the participle: a form such as ***u-kuw-wxti** would not be correct in 41.

- (41) **[uwo syz kuw-wxti] ruɖax ra kuwny pju-kym**
 it COMP NMLZ:S-big animal PL also IPFV-prevail[III]
çti
 be:ASSERT:FACT
 ‘It also prevails over animals that are bigger than itself.’ (20 sWNgi, 23)

The marker **kuw** is not a typical INDEX. It is not translated by speakers as meaning ‘more’, and does not form a constituent with the verb. Examples

like 40 show instead that it forms a constituent with either the comparee or with a constituent within the noun phrase corresponding to the comparee, and that it is not necessarily adjacent to the verb. Therefore, I refer to it as ‘comparee marker’ rather than ‘index’.

The comparee marker **ku** is not restricted to the comparative constructions seen above. It also occurs in tropative constructions (see Jacques 2013a) with the verb **supa** ‘consider’ and an infinitival complement (42), with tropative verbs (43) or with experiencer verbs such as **rga** ‘like’ that include a stimulus in their argumental structure (44).

- (42) **tɕe** [**thoŋraʁ** **nu**] **ku** **ku-mum** **tu-sup-a-nu**
 LNK bucket.alcohol DEM ERG INF:STAT-be.tasty IPFV-consider-PL
ŋu
 be:FACT
 ‘They consider bucket alcohol to be tastier (than pan alcohol).’ (30 thoNraR, 15)
- (43) [**thoŋraʁ** **nu**] **ku** **ɲu-nɣ-mum-nu**
 bucket.alcohol DEM ERG SENS-TROP-be.tasty-PL
 ‘They consider bucket alcohol to be tastier (than pan alcohol).’
 (elicited).
- (44) **tsuku tɕe** [[**tuŋguraʁ**] **ku** **ku-rga**] **ɣɣu-nu**, **tsuku**
 some LNK pan.alcohol ? NMLZ:S/A-like exist:SENSORY-PL some
tɕe [[**thoŋraʁ**] **ku** **ku-rga**] **ɣɣu-nu**
 LNK bucket.alcohol ? NMLZ:S/A-like exist:SENSORY-PL
 ‘There are people who prefer pan alcohol, and there are who prefer
 bucket alcohol.’ (30 thoNraR, 17-18)

3 The origin of the markers **ku**

Before investigating the possible historical relationships between the five main functions of the marker **ku**, it is necessary to evaluate whether the five types of **ku** go back to one or more etymological sources. These could include grammaticalization from Japhug-internal sources, inheritance from a proto-Sino-Tibetan marker with a related function, or borrowing from another language. The evidence points to a single etymological origin: borrowing from Amdo Tibetan.

3.1 Possible pathways

Table 1 presents attested grammaticalization pathways leading to markers with grammatical functions overlapping with those of **ku** seen in the previous section. Since no exact typological parallels to the use of **ku** in the

degree and the comparative constructions are known, they are not included in the table; in the case of the marker on the comparee, a development from a genuine INDEX of comparison like ‘more’ could be considered.

Table 1: Attested historical origins of functions expressed with **ku**

Function	Origin	Reference
Ergative / instrumental	spatial case	Palancar (2002)
	discourse markers	Gaby (2010)
	verb ‘to do’ in converbal form	Jacques (2014a)
Distributive	spatial case ‘though, along’	von Wartburg 1958, 213
Causal linker	back; ‘here’; locative; ‘matter’	Heine & Kuteva (2002)
	place, purposive, ‘say’	
Manner linker	comitative, instrumental	Heine & Kuteva (2002)

This list of pathways provide a framework to evaluate the possibilities of language-internal derivation. In the following, the possibilities of grammaticalization from independent words or affixes with a phonological shape similar to **ku** are evaluated for each of the five functions described above.

3.1.1 Locative ‘in the east’

The bound lexeme **—ku** ‘east’ is found in locative nouns and adverbs such as **aku** and **tɕɿku** ‘in the east’⁶. Although grammaticalization of ergative, distributive, and causal markers from spatial cases has been documented, it is very unlikely that any of the functions of **ku** described in section 2 can be shown to derive from this element.

Before being grammaticalized as an ergative or causal marker, the marker **—ku** would have had to become the general locative marker. This cannot have been the case, since Japhug, like other Gyalrong languages, has the locative marker **zu** (Situ **—s**, cf. Lin 1993, 330-336) and since there is no evidence in any dialect of a locative ***ku** or ***ku**.

Moreover, the locative markers **aku** and **tɕɿku** are exclusively prenominal in Japhug, as illustrated by example 45, and it is unclear how they could have become postpositions.

- (45) **tɕɿku co ci zu kha-nqra ci tɕ-khu**
east valley INDEF LOC house-shabby INDEF INDEF.POSS-smoke
ku-nu-ɬoɕ ci pɕɿ-tu
NMLZ:S/A-AUTO-come.out INDEF IPFV.IFR-exist
‘In a valley in the east, there was a shabby house from which smoke was rising.’ (Nyima wodzer02, 63)

⁶The elements **a-** and **tɕɿ-** are prefixes used to build locative adverbs, see Lin 1993, 162; there are cognates of **aku** in all Gyalrong languages, for instance Situ **akû** ‘east’, Lin 2002, 29.

3.1.2 Proximal demonstrative

The demonstrative **ki** ‘this’ takes the form **ku-** as the first element of compounds, in particular **ku-st^hu-ci** ‘this much’, and the reduplicated form **ku-ki** ‘this’. Since **st^hu-ci** ‘as much’ and **ku-st^hu-ci** ‘this much’ do appear in equative and comparative constructions, it raises the question of whether the use of **ku** on the comparee NP described above might derive from the first element of **ku-st^hu-ci** by decliticization.

The adverb **st^hu-ci** ‘as much’ and the forms derived from it can be used in a comparative construction as in 46 to mark the standard, with or without the comparative **sɿz**, which is optional in this case. However, since **ku-st^hu-ci** ‘this much’ is always contiguous with the standard, as in 47, never with the comparee NP, it is impossible that **ku** in the construction described in section 2.5 derives from this element.

- (46) **tɕ^hu-kyar zmbri nu sɿz st^hu-ci múj-rɲi.**
 beach willow DEM COMP as.much NEG:SENS-be.long
 ‘It is not as long as the beach willow.’ (07 Zmbri, 21)
- (47) **u-jme nura koŋla <kongque> nu ku-st^hu-ci nu**
 3SG.POSS-tail DEM:PL really peacock DEM this-much DEM
múj-zri
 NEG:SENS-be.long
 ‘Its tail is not as long as that of the real peacock.’ (24 qro, 75)

3.1.3 Interrogative

In Japhug, there is a sentence final particle **ku** used in rhetorical or introspective questions as in (48), most probably cognate to the Tangut particle **kji** (Jacques 2011; see also Sun 1995 for possible cognates in other languages).

- (48) **‘pú-wy-sat u-mɿ-ɕti ku?’ tu-ɲjit pɲɿ-ŋu,**
 PFV-INV-kill QU-NEG-be:AFFIRM QU IPFV-think IFR:IPFV-be
 ‘She was thinking: ‘Have they killed him?’ (The frog, 91)

A related sentence final particle **ku-ma** has the same functions. In 49, its use implies that the speaker is not sure whether there is any tree left to talk about.

- (49) **tɕendɿre myzu si, myzu tɕ^hi mu-pu-fɕɿt-tɕi ku-ma?**
 LNK again tree again what NEG-PFV-tell-1DU QU
 ‘Which trees, which ones haven’t we yet talked about?’ (13 tApW-pjoR, 65)

This particle can appear in reported speech with cognitive verbs such as **su-so** ‘think’.

- (50) **a-kr-nwts^hɣβ-nw** **tɕe a-tr-tɕ^hu-nw** **tɕe, a-pw-sat-nw**
IRR-PFV-do.in.pack-PL LNK IRR-PFV-gore-PL LNK IRR-PFV-kill-PL
ku pw-swsam-a **ri nu ra múj-stu-nw** **ri**
QU IPFV-think[III]-1SG but DEM PL NEG:SENS-do.this.way-PL but
‘I think that if they would attack the leopard in pack and gore it,
they could kill it, but they don’t do that, rather,’ (20 RmbroN, 66)

From such a construction, the particle **ku** could be reanalyzed as a complementizer; a grammaticalization path towards causal or manner linker may be possible. On the other hand, any historical relationship with other **ku** markers, in particular the ergative, would involve an unprecedented grammaticalization pathway and is highly implausible.

3.1.4 Verbal affixes

Japhug, like other Gyalrongic languages, is mainly prefixing, with very few suffixes (Jacques 2013b). There are strong phonological constraints on the possible shapes of the prefixes: with the exception of a few directional prefixes of recent origin, prefixes may not contain (i) stops other than voiceless unaspirated stops (ii) consonant clusters (iii) vowels other than **a**, **ɣ** and **u** (Jacques 2014c).

As a consequence of these constraints, many homophonous prefixes with shapes such as consonant+**u-** are found in the language; for instance, no less than six unrelated prefixes have the shape **nu-**. There are four prefixes with the form **ku-**, as indicated in Table 2. All **ku-** prefixes can be shown to derive historically from the function of S/A participle (see ?).

Table 2: Grammatical morphemes with the form **ku**

Function	Example
S/A participle	sat ‘kill’ ⇒ u-ku-sat 3SG.POSS-NMLZ:S/A-kill ‘the one killing him’
2→1 portmanteau	sat ‘kill’ ⇒ a-mɣ-pu-ku-sat-a IRR-NEG-PFV-2→1-kill-1SG ‘don’t kill me’
S/P generic	ngo ‘be sick’ ⇒ tu-ku-ɕu-ngo IPFV-GENR:S/P-CAUS-be.sick ‘it makes people sick’
modal	ɲu “be” ⇒ u-mɣ-ku-ɲu-ci QU-NEG-MODAL-be-MODAL “maybe it is”

A change from prefix to enclitic through a ditropic clitic stage is attested

(see for instance [Himmelmann \(2014\)](#) and the references therein). If the functions of the prefixes in Table 2 were related to those of the **ku** markers described in the previous section, a historical scenario linking them could be found.

There are two reasons why none of the five **ku** described in section 2 can derive from the **ku-** verbal prefixes. First, from a morphological point of view, the **ku-** prefix occurs close to the verb root and generally has one or more additional prefixes to its left. It is thus rarely contiguous with the preceding noun, and shows no sign of evolution toward a ditropic clitic. Second, from the point of view of morphosyntax, if the use of **ku** as a linker (section 2.3) were indeed derived from the nominalizing **ku-** prefix, this would imply that the verb in the clause *following ku-* – the main clause – would have to be nominalized. Given the wide gap between finite and non-finite verb forms in Japhug (see [Jacques 2014b](#), 267-272), if the verb of the main clause was in a nominalized form in a previous stage, it is unclear how it could have become finite by simply losing the nominalizing prefix. A verb in the bare infinitive, rather, would have been expected (see [Jacques 2014c](#), 7).

3.2 Sino-Tibetan etymology

Various authors have proposed the existence of genitive or ergative markers with the form ***kV** for proto-Sino-Tibetan/proto-Tibeto-Burman (see for instance [Benedict 1972](#), 95-6 or [DeLancey 1984](#)), which could be a potential source for Japhug **ku**. However, a careful examination of the data has revealed that the comparisons on which the proposals were made are rather shaky ([LaPolla 1995](#)).

The Tibetan ergative / instrumental **g'is**, **k'is**, **gis**, **-s** and the genitive **g'i**, **k'i**, **gi**, **-i** do indeed resemble Japhug **ku**, and it is tempting to suppose that the two markers are cognate. However, Japhug regularly preserves final ***-s** as **-z** (sporadically as **-t**) in the inherited vocabulary and even in the oldest layers of borrowings, for instance **knuz** ‘two’ vs. Tibetan **gnis** ‘two’ (inherited) and **sanrjz** ‘Buddha’ (Tibetan **sangs.rg'as** ‘Buddha’, borrowed).⁷ If Tibetan ergative **g'is**, **k'is**, **gis**, **-s** had a cognate in Japhug, a form ***kuz** or ***kwt** rather than **ku** would have been expected.

3.3 Language contact

None of the above hypotheses to explain the origin of the **ku** markers explored in the previous sections is particularly compelling, and none accounts for more than one of the five attested functions of **ku**. A more satisfactory

⁷See [Jacques \(2004, 83-200\)](#) for a detailed account of the criteria used to distinguish cognates from borrowings in Japhug.

solution, involving borrowing from Tibetan, is presented here.⁸

The Japhug ergative **ku** and genitive **y** markers, while distinct from their Old and Classical Tibetan counterparts, do resemble Amdo Tibetan forms – the language that used to be the main *lingua franca* of the area before the mid-twentieth century.

In Amdo Tibetan, the ergative / instrumental and genitive clitics are only distinguished in pronouns. For all other forms there is syncretism, and the genitive/ergative is realized as **yə**, **kə** or fronting vowel alternation depending on the stem form of the last word of the preceding NP (Haller 2004, 62).

Interestingly, not all dialects of Japhug agree on the forms of the ergative and the genitive postpositions. While the Kamnyu dialect documented in the present paper has ergative **ku** vs genitive **y**, the Datshang dialect has the opposite forms, ergative **yə** and genitive **kə** (data from Lin 2011, 63-4). The **k** : **y** and **y** : **k** correspondences are not attested in any other lexical item between these dialects, and this exceptional correspondence can hardly be explained as anything other than as the result of borrowing *after* proto-Japhug, as Japhug dialects attribute different functions to the **kə** and **yə** allomorphs of the Tibetan marker.⁹

The borrowing hypothesis is all the more meaningful since the ergative / instrumental marker in Tibetan is also used in causal and manner clause linking constructions.

In all described varieties of Tibetan, from the Classical language to all modern dialects, the ergative can be used to mark the causal subordinate clause, either on its own or with nouns such as **dbaŋ** ‘power’ or **ced** ‘strength’. In Amdo Tibetan, for instance, the ergative **yə** appears in examples such as 51 (Zhou 2003, 271-272; for similar examples in Lhasa and classical Tibetan see Tournadre 1996, 129).

- (51) **kʰokjaŋwi rtsatʰaŋ-na wdatrdot-nə yə rtsatʰaŋ ʰdandza-ni**
boundless steppe-LOC live-NMLZ ERG steppe like-NMLZ:GEN
kʰokrdza jaŋmo jəkʰə
heart broad have
‘Because he lives on the boundless steppe, his mind is broad like the steppe.’

It is thus probable that the whole construction with **u-xɛrt ku** was borrowed from Tibetan together with the use of **ku** as a simple ergative /

⁸I am indebted to Jackson Sun for the idea that Japhug **ku** is borrowed from Amdo Tibetan (p.c., 2002).

⁹Most other Gyalrongic languages have borrowed the ergative from Tibetan, including Zbu **kə** (Gong 2014), Khroskyabs **yə** (Lai 2013, 36), Cogtse Situ **kə** (Lín 1993, 336). Stau however has a distinct marker **-w** (Jacques et al. 2014) potentially cognate to the Tangut instrumental **ŋwu**.

instrumental. The use of **ku** in Japhug as a clausal linker is restricted apart from the **u-xɛrt ku** construction; it is essentially limited to abstract nouns.¹⁰

The ergative / instrumental in Tibetan languages can also mark manner (see in [Tournadre 1996](#), 128 and [Tournadre \(2010\)](#) on Lhasa and Classical Tibetan). In Amdo Tibetan, the ergative / instrumental **ya** is well attested as a gerund marker (example 52 from [Haller 2004](#), 162; 167), a use relatively close to that of Japhug **ku** in manner subordinate clauses (section 2.3.1).

- (52) **ta niya ɸtsi-ya ɸtsi-ya ta tʰaŋ-a rdom-sʰuŋ**
 now 3DU play:PST-ERG play:PST-ERG now steppe-LOC roam-PFV
 ‘They roamed the steppe, playing (around).’

The hypothesis that **ku** in its ergative / instrumental and clause linking functions is borrowed from Tibetan is the only one that accounts for the discrepancy of form between Japhug dialects and which explains two (ergative and clause linking) out of the five functions of **ku**.

It should be noted that the Amdo Tibetan ergative does appear in the comparative construction, but in the typologically more common position on the standard rather than on the comparee, as in 53 ([Zhou 2003](#), 239)

- (53) **totshək-kə tɕʰartɕʰə lohda-ya maŋ-ŋə.**
 this.year-GEN rain last.year-ERG be.many-SENS
 ‘There was more rain this year than last year.’

The uses of Japhug **ku** in the distributive, comparative and degree construction have no equivalent in Amdo Tibetan and have to be explained as internal developments since there are no possible alternative sources from which they could be derived.

4 Typological and historical perspectives

4.1 Isomorphism between A and comparee markers

The most unexpected isomorphism between the various markers having the form **ku** in Japhug is that between the ergative / instrumental on the one hand and the marker on the comparee (not on the standard) on the other hand.

The optional clitic **ku** on the comparee clearly forms a constituent with the comparee NP (or its genitival modifier in a few limited cases), not with the verb. The comparee NP, though an S from the point of view of agreement with the predicate and from that of relativization, optionally receives the same flagging as the A.

¹⁰Note however that in the closely related language Tshobdun, the cognate ergative marker **kə** does appear with causal subordinate clauses, even finite ones (see [Sun 2012](#), 479).

While many comparative constructions in the world’s language do treat the comparee in the same way as the A (types B, C and E in Dixon’s survey (2008, 789), ‘exceed comparative’ in Stassen 2011), in all these constructions the standard has the same status as the P. The comparative construction in Japhug should be classified differently.

Since the standard NP is marked by an oblique case (**srz** or **star**) specific to this construction, and since the parameter of comparison is marked by a morphologically intransitive predicate, the Japhug comparative construction belongs to Stassen’s (2011) ‘particle comparative’ type and to Dixon’s (2008, 789) type A2. While this type is not attested in combination with ergative flagging in WALS (cf Table 3, obtained by combining Stassen 2011 with Comrie 2011), this may be due to the assignment of particular languages to the *locative* rather than *particle* comparative types, and might not reflect a real gap in the data.

On the other hand, no case of a marker on the comparee NP isomorphic with the ergative or instrumental, as **kuu** in Japhug, has been documented in previous surveys of comparative constructions.

Table 3: Combination of chapters 98 (Alignment of Case Marking of Full Nouns) and 121 (Comparative constructions) of the WALS

	Neutral	Nominative - accusative (standard)	Nominative - accusative (marked nominative)	Ergative - absolutive	Tripartite	Active- inactive
Locational	7	13	2	5	2	1
Exceed	10		1			
Conjoined	10	3		2		
Particle	3	8				1

Isomorphism between ergative / instrumental and the marker of the *standard NP*, rather than the comparee NP, is expected given the well attested grammaticalization pathways 54 and 55 (Heine & Kuteva 2002, 29).

(54) ABLATIVE → AGENT

(55) ABLATIVE → COMPARATIVE

Since locational cases like ablative can change both into comparative markers (on the standard) and into ergative markers, if both grammaticalizations occurs in the same language, isomorphism between ergative and comparative is a logical consequence, as in Amdo Tibetan (example 53 above). Using the same marker on the comparee NP and the A on the other hand is a typological oddity, whose explanation can only be sought for by proposing a historical account of the grammaticalization of the markers **kuu** in all the constructions where they are attested.

A first theoretical possibility to explain this isomorphism¹¹ would involve two parallel pathways. First, the evolution of a contrastive focus marker to an ergative marker following the model proposed by Gaby (2010). Second, the constructionalization of the focus marker on the comparee: in comparative constructions, the comparee is more often the focus than the standard. This evolution could be paraphrased as the reanalysis of a surface form meaning ‘in comparison with X, **it is Y who is Z**’ (with a focus marker on Y) to ‘(in comparison with X), Y is more Z’ (with the focus marker reanalysed as a comparee marker). If these two paths were to occur in the same language, an isomorphism similar to the one observed in Japhug could come into being.

However, this hypothesis cannot be valid in the case of Japhug for two reasons. First, it is clear that the ergative marker **ku**, being borrowed from Tibetan, has never been a focus marker. Second, there is already a focus marker in Japhug expressing unexpectedness, which can appear on the comparee as in 56.

- (56) **u-ŋgum rcanu uzo syz ɲu-wxti.**
 3SG.POSS-egg UNEXPECTED 3SG COMP SENS-be.big
 ‘Its eggs are bigger than it is itself.’ (of the ants, 26 qro, 9)

Since this focus marker is attested in other Gyalrong languages (for instance, in Zbu, Gong Xun p.c.) and is most probably inherited from proto-Gyalrong, its presence would have blocked the pathway from focus marker to comparee marker.

In the following section, we explore a different solution to explain the ergative / comparee marker isomorphism.

4.2 Historical pathways

While the structure of the Japhug comparative construction, and in particular the homophony between the comparee marker and the ergative, does not appear to have clear typological parallels elsewhere, most of the uses of the **ku** marker in Japhug described in the previous sections can be argued to be derived from the basic ergative-instrumental function.

In this section, a series of diachronic pathways leading from one construction to the other are postulated. In the absence of ancient written evidence from Japhug and the other Gyalrong languages, the following developments are necessarily hypothetical, and in some cases several competing explanations are provided.

Only grammatical changes caused by the reanalysis of an existing construction in an ambiguous context are proposed, and examples of potentially ambiguous sentences (pivot constructions) taken from our Japhug corpus are

¹¹This idea was suggested to me by Amos Teo, to whom I am most grateful.

provided in each case. The semantic changes hypothesized in this section either have attested parallels in other language families or are straightforward if paraphrased in English. All the intermediate stages of the chain of reanalysis proposed here are actually attested synchronically at least in specific contexts in our Japhug corpus. Since, as shown in the previous section, all constructions including the marker **ku** must be recent developments, it is important to limit the number of unattested stages to a minimum.

The ergative, instrumental, causal linker and manner functions of **ku** in Japhug, which are already present in Amdo Tibetan, do not need a separate grammaticalization hypothesis: it is safe to assume that Japhug borrowed the marker with all these additional functions from the donor language. Only the uses of **ku** in the distributive, degree and comparative constructions require specific explanations.

4.2.1 instrumental → distributive

Syncretism between agent marker and distributive is well-attested in Romance languages. For instance, in French, the preposition **par** is used to mark the instrument, the (optional) agent in passive constructions and also occurs with a distributive meaning. Yet, it is unlikely that the distributive meaning of this preposition originates from the instrumental function in the case of Romance; rather, it comes from its spatial and temporal use ‘through, along’ (see [von Wartburg 1958](#), 213). Thus, the Romance evidence does not support the existence grammaticalization path INSTRUMENTAL → DISTRIBUTIVE.

In the case of Japhug, the distributive use of **ku**, as we saw in section 2.2, is restricted to a very specific context: classifiers expressing a quantity, to indicate the price of a product per unit. This highly restricted function, illustrated by example 57 (reproduced from 14), is in itself a clue to the possible origin of this construction.

- (57) [tu-turpa] ku sqi jamar ju-ra.
 one-pound ? ten about SENS-have.to
 ‘You need ten (yuans) per pound (of Angelica).’ (17 ndZWnW, 22)

The transitive verb **syndu** ‘exchange’ can be used with adjuncts in **ku** containing a classifier, as in 58, to express the price of a product per unit of quantity. In this example, the postpositional phrase [tu-turpa ku] is clearly instrumental: ‘with one pound, one can exchange a hundred yuans’.

- (58) [tu-turpa] ku yurza jamar ju-wy-syndu
 one-pound ERG/INSTR hundred about IPFV-INV-exchange
 ju-k^hu
 SENS-be.possible
 ‘One can exchange (sell) one pound for a hundred (yuans).’ (elicited)

This use of **ku** with the verb **syndu** ‘exchange’ is also found in examples such as 59 without a classifier.

- (59) <yezi> **nu ku rɣul ɣɣ-syndu**
 coconut DEM ERG money IFR-exchange
 ‘He exchanged the coconuts for money.’ (Alibaba, 276)

The meaning of sentence 58 is slightly different from 57: the former is said by someone selling the product in question, while the latter is said by the buyer. However, the obvious parallelism between the two constructions suggests that the construction in 58 is the pivot construction in which **ku** could be reanalyzed as a restricted distributive marker when used with certain types of classifiers. After reanalysis, this type of postpositional phrase could be generalized to sentences with a meaning close to the construction in 58, but without the verb **syndu** ‘exchange’.

Thus, in the case of Japhug, unlike Romance, we do have evidence for the path INSTRUMENTAL → DISTRIBUTIVE.

4.2.2 cause → multiclausal degree construction

Multiclausal degree constructions present an intrinsic ambiguity between the attested degree interpretation (‘so X that Y’) and a potential causal interpretation (‘because of X, Y’). For instance, the sentence 60 would also make sense with a causal interpretation (‘She forgot it because of her being (so) happy’).

- (60) **ɣ-mu nu ku, [u-tu-rga] ku**
 INDEF.POSS-mother DEM ERG 3SG-NMLZ:DEGREE-be.happy ?
ɣ-nu-jmut q^he,
 IFR-AUTO-forget LNK
 ‘The old woman was so happy that she forgot (how to do).’ (The frog, 261)

Although the two meanings would appear to be entirely unrelated, the derivation from causal to degree is straightforward: for a property to be the cause of an event or a situation, this property must reach a sufficiently high degree to trigger a change of state or an action. Thus, the causal construction necessary entails high degree, and evolution from the former to the latter is simply a restriction of the semantics of the construction.

Therefore, the historical origin of the multiclausal degree construction in **ku** (section 2.4) can be hypothesized to be the causal use of **ku** with abstract nouns.

4.2.3 infinitival manner → monoclausal degree

The **ku** clitic marker, while obligatory in the multiclausal nominalized degree construction, is very rare in the monoclausal one. Sentence 61 (reproduced from 28) is the only such example in the whole corpus, but similar examples can be elicited.

- (61) [**tr-ɣnat** **tr-mtsur**] **ku**
 INDEF.POSS-be.tired INDEF.POSS-be.hungry ?
pu-saxar **zo** **ɲu-ɲu**
 PST.IPFV-be.extremely EMPH SENS-be
 ‘He was extremely tired and hungry.’ (Lobzang, 66)

One possible explanation for this is to suppose generalization from the multiclausal nominalized construction. Yet, the fact that the monoclausal nominalized degree construction commonly occurs with the infinitive of the verb ‘say’ **ky-ti** in combination with **ku** as in 62 suggests otherwise.

- (62) **tr-rzaβ** **ra** [**ɲu-tu-rga** **ky-ti**] **ku**
 INDEF.POSS-wife PL 3PL-NMLZ:DEGREE-be.glad INF-say ?
pu-saxar **ɲu-ɲu** **tɕe**
 PST.IMPF-be.extremely SENS-be LNK
 ‘The wives were extremely glad.’ (The brides, 7)

Example 62 from the point of view of syntactic structure is an example of **ku** in manner subordinate clauses (section 2.3.1). As for its syntactic function, the form **ky-ti ku** is a topicalizer, akin to English ‘speaking of ...’, and example 62 could be literally glossed as ‘speaking of the gladness of the wives, it was extreme’.

Thus, the marker **ku** in example 61 is more likely to reflect a topicalized construction such as that in 62 with elision of the infinitive **ky-ti**. It is perfectly grammatical to add **ky-ti** before **ku** in sentence 61.

Thus, the presence of the marker **ku** in monoclausal degree constructions is unrelated to that in multiclausal degree constructions, and derives from the use of **ku** in manner subordinate clauses.

4.2.4 finite manner → adversative or cause → adversative

The adversative use of **ku**, while treated separately in section 2.3.3, does not fundamentally differ from the finite manner linking. Rather, it represents one of its several possible interpretations. Thus, a sentence such as 63 can be construed either with adversative meaning (‘it cannot stay in place like other boulders; rather, it rocks around continuously’) or without it.

- (63) **mvzu rŋgu ci yzu ri, [u-zda ra**
again boulder INDEF exist:SENS but 3SG.POSS-companion PL
ku-fse ku-rzi múj-kʰu] ku tu-yzjɣɣɣ
INF:STAT-be.like IPFV-stay NEG:SENS-can ? IPFV-rock.around
ny tu-yzjɣɣɣ ju-ra tɕe,
LNK IPFV-rock.around SENS-have.to LNK
‘Then, there is this boulder, it cannot stay in place like other boulders
as it rocks around continuously.’ (Divination 56)

Direct evolution from causal to adversative without intermediate stage as a manner linking has been documented in the history of Italian for instance (the linker **però**, see [Mauri & Giacalone-Ramat 2012](#)). Thus, the adversative **ku** in Japhug can either be derived from the finite manner clause linking or from the causal use of **ku**, though the second possibility is less likely since **ku** in the causal construction is only used with abstract nouns or nominalized verbs.

4.2.5 adversative → comparee marker

As in most previous constructions, several hypotheses can be entertained to account for the origin of **ku** as an marker on the comparee as in example 64 (section 2.5).

- (64) [**tu-yli ku-dɣn u-stu**
INDEF.POSS-excrement NMLZ:S/A-be.many 3SG.POSS-place
qandze nu] ku ju-jpum.
earthworm DEM ? SENS-be.thick
‘Earthworms (that are) in places rich in manure are thicker (than
the other ones).’ (25 akWzgumba, 125)

First, it could be hypothesized that **ku** here derives from the topicalizer **ky-ti ku** as in the monoclausal degree construction (section 4.2.3). This hypothesis is very unlikely however in view of the fact that, unlike in the degree construction, the clitic **ku** in the comparative construction cannot be replaced by **ky-ti ku** and there is no evidence that it was ever possible in any Gyalrong language.

Second, an alternative possibility is derivation from the **ku** in adversative constructions (section 2.3.3). The derivation is straightforward, but requires three steps.

The first stage is attested in modern Japhug: an adversative construction with adjectives in both clauses, with the first adjective negated and the adverb **stʰuci** ‘as much’ in the first clause as in 65 and 66. This construction is a variant of Stassen’s (2011) ‘conjoined comparative’.

- (65) **mts^halɣnaɣ nu u-mdoɣ naɣ tsa**
 black.nettle DEM 3SG.POSS-colour be.black:FACT a.little
mts^halɣyrum nu nuw tɕe, [nu st^huɕi mɣ-naɣ] ku
 white.nettle DEM LNK DEM as.much neg-be.black:FACT ?
aqarɣurɕe ku-fse
 be.yellowish:FACT INF:STAT-be.like
 ‘The colour of the black nettle is black, and the white nettle, it is
 not as black but rather yellowish.’ (11 mtshalu 21-23)
- (66) **u-jwaɣ nu ra ɪzora ji-paɣɕi [st^huɕi**
 3SG.POSS-leaf DEM PL 1PL 1PL.POSS-apple so.much
mu-ɲu-ɣrtum] ku ɲu-rɲi tsa.
 NEG-SENS-be.round ? SENS-be.long little
 ‘Its leaves are not as round as those of the apple of our (country),
 but are rather a little long.’ (07 paXCi, 49)

In the case of a pair of adjectives in polar, or quasi-polar, opposition as ‘be round’ and ‘be long’ in 66, the information conveyed by them is redundant, and suppressing one of them does not entail loss of much information.

The surface form of an adversative construction derived from 66 with elision of the first clause would be 67 and its expected meaning would be * ‘Its leaves are rather a little long’. This meaning is not found, and 67 is instead a comparative construction whose meaning is ‘Its leaves are a little longer.’

- (67) **[u-jwaɣ nu ra] ku ɲu-rɲi tsa.**
 3SG.POSS-leaf DEM PL ? SENS-be.long little
 *‘Its leaves are rather a little long’ → ‘Its leaves are a little longer.’
 (Adapted from 66)

Yet, there is much semantic overlap between the expected (adversative) meaning and the attested comparative meaning, and 67 represents the ambiguous structure in which the use of **ku** in comparative constructions was introduced by reanalysis from an adversative. After deletion, **ku** is reinterpreted as having syntactic scope over the constituent directly preceding it, i.e. the noun phrase corresponding to the S of the verb in the next clause.

From there, after reanalysis of the marker **ku**, it could be generalized to the complete comparative construction with overt standard NP marked with the comparative marker, and could even be introduced in tropative constructions with a transitive predicate. The complete pathway from adversative to comparee NP marker can be summarized as follows:

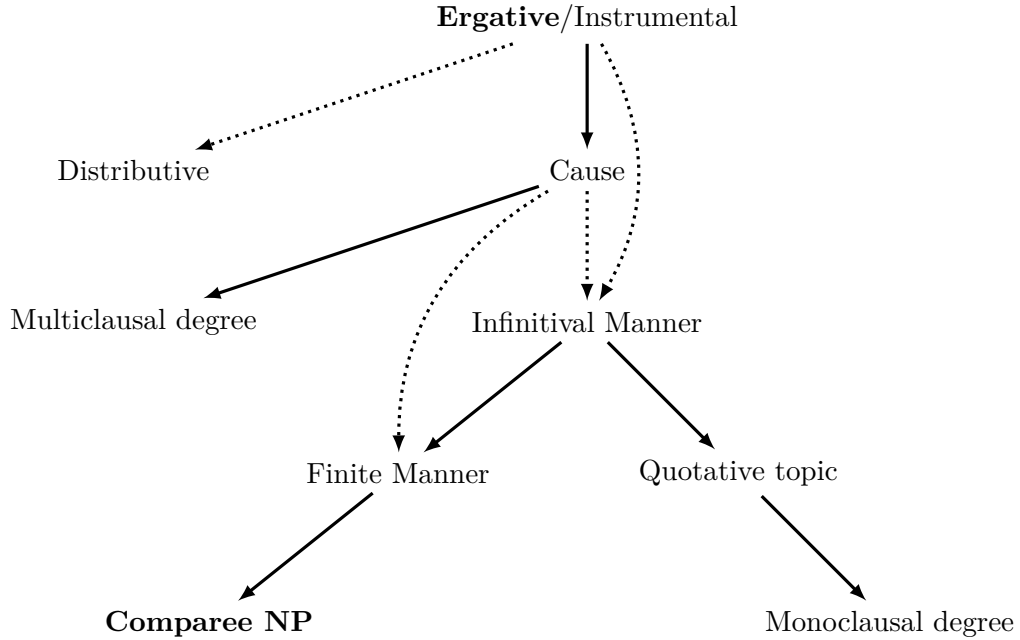
1. (a) S [not.long] **ku** long
- (b) ‘S is rather long than not long’

2. Elision of the verb phrase in the adversative construction and reanalysis of the S as being under the syntactic scope of **kuu**
 - (a) [S] **kuu** long
 - (b) *‘S is rather long’ (not attested)
3. Semantic change to a comparative construction (without overt standard of comparison)
 - (a) [S] **kuu** long
 - (b) ‘S is longer’
4. Introduction of the standard (S₂)
 - (a) S₂ **syz** [S] **kuu** long
 - (b) ‘S is longer than S₂’
5. Generalization to tropative construction
 - (a) [S] **kuu** long consider
 - (b) ‘consider S to be longer’

5 Conclusion

Despite the extreme polyfunctionality of the clitic **kuu** in Japhug Gyalrong, a series of historical scenarios can be proposed to account for most of its uses (all except the sentence final particle / complementizer). The grammaticalization pathways proposed in this paper are summarized in Figure 1. In particular, the evolution from ergative / instrumental to comparee NP marker involves no less than four steps: INSTRUMENTAL → INFINITIVAL MANNER linker → FINITE MANNER / ADVERSATIVE linker → marker on the comparee NP.

Figure 1: Pathways of development from Ergative / Instrumental to the other functions of **ku**



This case study also documents cases of ergative case borrowing that have taken place independently in several languages (Japhug, Zbu, Situ and Khroskyabs) from Amdo Tibetan.

In the absence of more detailed descriptions, it is difficult to ascertain whether the additional functions innovated in Japhug, those found in the distributive, degree and comparative constructions, are also attested in the other Gyalrongic languages which borrowed their ergative marker from Amdo Tibetan.

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