Ideophones in Japhug (Rgyalrong)

Guillaume Jacques

Anthropological Linguistics, Volume 55, Number 3, Fall 2013, pp. 256-287
(Article)

Published by University of Nebraska Press
DOI: 10.1353/anl.2013.0014

For additional information about this article
http://muse.jhu.edu/journals/anl/summary/v055/55.3.jacques.html
Ideophones in Japhug (Rgyalrong)

GUILLAUME JACQUES

Centre national de la recherche scientifique, France

Abstract. This article provides a description of the main phonological and morphosyntactic features that characterize ideophones in Japhug (Rgyalrong, Sino-Tibetan). Ideophones are among the few words that can occur postverbally, even in relative clauses. Also discussed are the morphological patterns of ideophones, verbs derived from ideophones and their relationship to denominal verbs, and other phonologically marked parts of speech such as interjections and calling sounds and their differences from ideophones.

1. Introduction. Of all areas of grammar, the study of ideophones is perhaps the one where an integrative approach taking into account phonology, prosody, morphosyntax, discourse usage, and even extralinguistic factors such as iconic gesture (Dingemanse 2011b) is most relevant. From the point of view of grammar writing, ideophones present a challenge in all subdomains of language description. They often fill gaps in phonotactics and display distinctive prosody. They may exhibit distinctive morphology and occur in highly unusual morphological or syntactic constructions. Their semantics displays extremely subtle and intricate nuances that are difficult to translate appropriately.

Rgyalrong languages, a group of Sino-Tibetan (Trans-Himalayan) languages otherwise known for their polysynthetic verbal morphology (Jacques 2012), present a system of ideophones that is unmatched among the languages of the family. Yet only two publications have briefly touched upon the subject, namely Sun and Shidanlua (2004) on Tshobdun and Jacques (2008:305–17) on Japhug.

This article presents an account of Japhug ideophones on the basis of a corpus of traditional stories and conversation of about thirty hours, supplemented by elicitation. Given the absence of video data, no study of accompanying gestures could be undertaken.

Section 2 proposes a language-specific definition of ideophones based on morphology, and presents an account of morphological derivations applying to ideophones in Japhug. Section 3 describes the phonological properties of ideophonic roots, in particular their markedness and iconicity. In section 4, the syntactic constructions where ideophones appear are analyzed; it is shown that, unlike almost all other parts of speech, they can occur postverbally without right dislocation. Sections 5 and 6 discuss verbs derived from ideophones (“deideophonic verbs”) and their relationship with ideophonic patterns, as well as deideophonic nouns. Finally, section 7 discusses three parts of speech that share the markedness and iconicity of ideophones: onomatopoeia, interjections, and calling sounds.
2. Ideophonic stem morphology. Crosslinguistic definitions have been proposed for ideophones; for instance, according to Dingemanse, they are “marked words that depict sensory imagery” (forthcoming:2). While Japhug ideophones do indeed fit this description, it is more convenient for a case study such as that presented here to adopt a language-particular definition. Ideophones often have specific morphology distinct from the rest of the lexicon (see Diffloth 1976 and Zwicky 1987), and in the particular case of Rgyalrong languages, this highly productive and regular “expressive” morphology is the best criterion to objectively define whether a particular word is an ideophone or not.

Ideophones are defined here as words derived from monosyllabic ideophonic roots that can undergo the morphological derivations described in this section. This definition excludes other types of phonologically and syntactically marked words such as interjections and animal calls, which are discussed in section 7, as well as nonideophonic adverbs such as *saґndunґd* ‘everywhere’ or *thamґct* ‘all, completely’, which do not present any stem alternation and which cannot be used in the same syntactic constructions as ideophones.

In Tshobdun, the closest relative of Japhug, Sun and Shidanluo (2004:3–4) describe nine distinct complex ideophonic forms based on the root, as indicated in table 1. R represents the ideophonic root, C its onset, and C its coda.

Table 1. Ideophonic Morphology in Tshobdun

<table>
<thead>
<tr>
<th>Pattern</th>
<th>Form</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>R</td>
<td>[+dynamic, +semelfactive]</td>
</tr>
<tr>
<td>2</td>
<td>RR servant</td>
<td>[-dynamic]</td>
</tr>
<tr>
<td>3</td>
<td>nɔ-RR servant</td>
<td>[+dynamic, +continuous, +speed]</td>
</tr>
<tr>
<td>4</td>
<td>R-ŋ-R</td>
<td>[+dynamic, +continuous]</td>
</tr>
<tr>
<td>5</td>
<td>R-nɔ-R</td>
<td>[+dynamic, -continuous]</td>
</tr>
<tr>
<td>6</td>
<td>C VC, aC, a</td>
<td>[+dynamic, +continuous, +close-up, -speed]</td>
</tr>
<tr>
<td>7</td>
<td>pɔpɔ-RR</td>
<td>[+dynamic, +continuous, +plural, -order]</td>
</tr>
<tr>
<td>8</td>
<td>C opɛ, C, olɛ servant</td>
<td>[+plural, -order]</td>
</tr>
<tr>
<td>9</td>
<td>C, ov-C, e</td>
<td>[+plural, -order]</td>
</tr>
</tbody>
</table>

Japhug presents a very similar system, although only five patterns are shared between the two languages. Patterns 1, 2, 3, 4, and 7 in Japhug (see table 2), respectively, correspond to patterns 1, 2, 5, 8/9, and 6 in Tshobdun. Patterns 5 and 6 in Japhug express an intensive meaning in comparison with the corresponding semelfactive (pattern 1) and stative (pattern 2), and no equivalent is described in Tshobdun. All patterns are illustrated with an example using the root *vʒjan* ‘tall’ (example sentences for each of these forms are provided in section 2.1).
Table 2. Ideophonic Morphology in Japhug

<table>
<thead>
<tr>
<th>PATTERN</th>
<th>FORM</th>
<th>EXAMPLE</th>
<th>MEANING</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>R</td>
<td>zjaŋ</td>
<td>semelfactive</td>
</tr>
<tr>
<td>2</td>
<td>R.R</td>
<td>zjaŋ.zjaŋ</td>
<td>stative</td>
</tr>
<tr>
<td>3</td>
<td>R.n.C.R</td>
<td>zjaŋ.n.C.zjaŋ</td>
<td>action with rhythm, motion, or both</td>
</tr>
<tr>
<td>4</td>
<td>R.n.C.iVC</td>
<td>zjaŋ.n.C.i.i</td>
<td>action in disorderly fashion</td>
</tr>
<tr>
<td>5</td>
<td>p^n.u.R</td>
<td>p^n.u.zjaŋ</td>
<td>semelfactive, intensive</td>
</tr>
<tr>
<td>6</td>
<td>m.V.l.R</td>
<td>m.V.l.zjaŋ</td>
<td>stative, intensive</td>
</tr>
<tr>
<td>7</td>
<td>C.V.C.w.C.i</td>
<td>zaŋu.w.ŋi</td>
<td>progressive change of state</td>
</tr>
<tr>
<td>8</td>
<td>C.V.C.w.C.aC.i</td>
<td>zaŋuŋu.zjaŋi</td>
<td>stative, in quantity, in disorder</td>
</tr>
<tr>
<td>9</td>
<td>R.n.y.Ri</td>
<td>zjaŋi.n.y.zjaŋi</td>
<td>action with fast motion</td>
</tr>
</tbody>
</table>

In Japhug, in cases where the ideophonic root has no coda, the consonant \( w \) replaces \( C_i \) in patterns 7 and 8. For instance, \( \sqrt{zxi} \) ‘with big holes, with big nostrils’ has the pattern 8 form \( \sqrt{zxiwuzxiw}ziawi \) ‘full of holes everywhere’.

Pattern 3 also allows a variant \( RR^n-RR \) with double reduplication of the ideophonic root.

The reduplicated form in pattern 2 is in most cases a complete reduplication. Not only the onset, but also the vowel as well as the final consonant are copied, even in the case of initial clusters, e.g., \( \sqrt{vzr} \rightarrow vzrnzr \) ‘bulging, swollen’. Nevertheless, we do observe some phonetic attrition in the case of the codas \( -t, -y, \) and \( -\beta \). Final \( -t \) is generally deleted in the reduplicated syllable regardless of the following consonant, e.g., \( \sqrt{vzr}y \rightarrow vzrnzry \) ‘long, thin and flexible’. (An exception, which involves an ideophone without initial cluster, is \( cotcot \) ‘small and cute’.) Final \( -\beta \) disappears in the reduplicated syllable when the onset of the ideophonic root contains a labial, e.g., \( \sqrt{vby} \rightarrow vbyby \) ‘stubborn, bulky’. Final \( -y \) is deleted when the onset contains a velar, e.g., \( \sqrt{vy} \rightarrow vyvy \) ‘moving with difficulty, unstable on its feet’.

An additional pattern of derivation involving phonetic reduction, not represented in table 2, appears with a few ideophones with open rhymes in \(-i\) and an initial cluster with medial \( -l- \) or \( -r- \). The medial is deleted and the rhyme is replaced by \( -u \), following the regular process of partial reduplication common in verbal morphology (see Jacques 2004:26–60). Examples of this phenomenon include, for instance, \( \sqrt{vy}ri \rightarrow vyu vyri \) ‘fat and soft’ and \( \sqrt{v}qli \rightarrow quvqli \) ‘staring at’.

2.1. Regular derivations. Although all nine ideophonic patterns are attested in our text corpus, it is difficult to find real examples of all regular derivations from one particular root. For ease of presentation, we cite example sentences with complex ideophones based on a single root, \( \sqrt{vz}nia \) ‘tall’, and thus most of these examples are elicited. However, they were rechecked with two speakers and their usage was deemed natural.

The basic meaning of the ideophonic root \( \sqrt{vz}nia \) ‘tall’ was glossed by our main informant as (1).
Pattern 1, which consists of the bare ideophonic root, is combined with predicates in the perfective or evidential to express an action occurring suddenly, as in (2). The form \textit{zjaŋ} means that the action of the sentence resulted in the main referent becoming taller than its surrounding.

(2) \textit{zjaŋ} \textit{zo ty-ndzur}

IDEO:SEMEL:tall EMPH PFV-stand

‘He stood up suddenly and [appeared to be] very tall.’ (elicited)

Pattern 2, with plain reduplication (e.g., \textit{zjaŋ-zjaŋ}), indicates a state. It is by far the most common ideophonic pattern in texts and it is attested for almost all ideophonic roots. If an ideophone in pattern 2 is used with a lexical verb, this verb can either describe a state, as in (3), or depict the action whose result is the state described by the ideophone, with both transitive or intransitive verbs, as in (4) and (5), respectively.

(3) \textit{tvei nunu ku-smi tce tu-puy ŋu tce tu-puy tce}

barley TOP PFV-be.cooked LNK IPFV-swell FACT:be LNK PFV-swell LNK

tu-\textit{wγ-ndza tce dzuññydzuñ} ku-\textit{ti zo a-t\textit{y-\textit{wγ-\textit{β2u}}}


tce tu-\textit{pe ŋu tce nu\textit{reri tce w-ci maka}}

LNK IPFV-be.good FACT:be LNK there LNK 3SG.POSS-water at.all

\textit{nu-me zo ġti tce tu-omurmbw \textit{zjaŋzjaŋ}}

IPFV-not.exist EMPH FACT:be:ASSERT LNK IPFV-be.piled.up IDEOGRAPH:STAT:tall

\textit{zo ŋu}

EMPH FACT:be

‘When the barley is cooked, it soaks with water and swells, and when it has become swollen, when it tastes soft, it is good. There is no water anymore at all there (in the pot) and [the swollen barley grains] are stacked very high.’ (Alcohol 41)

(4) \textit{zjaŋzjaŋ} \textit{zo to-rmbw}

IDEO:STAT:tall EMPH EVD-pile.up

‘He piled it up very high.’ (elicited)

(5) \textit{mbro \textit{w-tak} zjaŋzjaŋ to-\textit{će}}

horse 3SG-on IDEOGRAPH:STAT:tall EVD:UP-go

‘He climbed onto the horse and [while sitting on it] appeared to be very tall.’ (elicited)

Pattern 3, comprising the reduplicated ideophonic root with the element \textit{ŋr} inserted in between (e.g., \textit{zjan-ŋr-zjan}), depicts a rhythmic action or a constant motion, as in (6), depending on the semantics of the root.
(6) mbro w-tas to-če tce zjaŋŋrjaŋ i'y-ari-ndzi
type: horse 3SG-on EVD:UP-go LNK IDEO:DYN:tall PFV-go\II-DU
'The mounted the horse, and they went there, very tall.' (elicited)

Pattern 4 is formed by combining with the ideophonic root, the element nγγ, and a partial copy of the root in which the onset is replaced by l- (e.g., zjaŋ-ny-\lan). It describes an action involving motion occurring in disorderly fashion with intermittent changes of state. In (7), the form zjaŋγ\lan can be used to depict a drunk person who stumbles from time to time while walking, so that he seems taller at one time and shorter at another time.

(7) zjaŋγ\lan

ideophonic root, disordered: tall
'There is walking unsteadily, very tall.' (elicited)

Pattern 5, made of the ideophonic root prefixed with the element p°w- (e.g., p°w-zjaŋ), as in (8), is similar to pattern 1 semantically, but it is more rarely used. It indicates a more sudden action, one carried out to a higher degree, or both.

(8) p°wzjaŋ

ideophonic root, int: tall EMPH PFV-stand
'The stood up suddenly and [appeared to be] very tall.' (elicited)

Pattern 6, with the root prefixed by mγl- (e.g., mγl-zjaŋ), describes a state like pattern 2, but differs from it in that it expresses a higher degree. In addition, it can be used to express the result of a change of state with the verb aβzu 'become', as in (9).

(9) a-γe mγlzjaŋ

1SG.POSS-grandson IDEO:STAT:int: tall EMPH PFV-become
'My grandson has become very tall.' (elicited)

To convey the same meaning with pattern 2, it is necessary to add the infinitive kγpa of the auxiliary pa as a manner adjunct, as in (10).

(10) zjaŋzjaŋ kγpa t°w-aβzu

ideophonic root, tall EMPH INF:STAT-LIGHT: verb PFV-become
'My grandson has become very tall.' (elicited)

Pattern 7 shows reduplication of the coda (\C\) of the root following the formula C\VC_i\uC_j (e.g., zjaŋ-\γ-\γ-i). It expresses a progressive change of state, involving in some cases slow motion, as in (11).

(11) zjaŋγ\γni

ideophonic root, pro: change: tall EMPH PFV-go\II
'The went away slowly, being taller than (the others).' (elicited)
Pattern 8 depicts a state in which there are a lot of referents having the property described by the ideophone, but spread out spatially in a disorderly fashion. The formula $C_i VC_f uC_i aC_i$ in table 2 applies to ideophonic roots that do not have $a$ as their main vowel; for instance, $vzjan$ (whose meaning is almost identical to that of $vzjan$) has the form $zjan$. When the main vowel is $a$, the formula is $uC_i uC_i aC_i$: thus, pattern 8 for $vzjan$ is $zjan$. This form means that in a group of unique entities, some are tall and some are short, but they are unevenly spread.\(^3\)

(12) \textit{zjan}\textsc{n}zjan\textsc{i} $\text{nuw-xcat}$  
\hspace{1em} IDEO:PL:DISORDER:STAT:tall TESTIM:be.many  
‘There are many (people), some taller and some shorter.’ (elicited)

Pattern 9 is formally similar to pattern 3, except that $i$ is added after each reduplicant of the ideophonic root (e.g., $zjan-i-n\gamma-zjan-i$). Semantically, it indicates that the entity presenting the property described by the ideophonic root undergoes rapid motion.

(13) \textit{mbro} ta-numb\textsc{ry}pu tce \textit{zjan}\textsc{ny}zjan\textsc{i} zo $jy-\text{q}q^{3}\text{lyt}$  
\hspace{1em} horse FFV:3->3’-ride LNK IDEO:DYN:FAST:tall EMP'H PFV:disappear  
‘He mounted the horse and disappeared quickly (over the horizon), very tall.’ (elicited)

Of these nine patterns, we observe that semelfactive patterns (1 and 5) are not reduplicated, while dynamic nonsemelfactive ones (3, 4, 7, 9) always are. This correlation between reduplication and aspect is a clear case of what Dingemanse calls “Gestalt iconicity,” namely, a correlation between “word structure and the spatial-temporal structure of the perceived event” (2011a:47).

2.2. Irregularities. In practice, very few ideophonic roots allow the application of all the nine patterns exemplified in table 2 and section 2.1. In many cases, a particular pattern is not attested because there is no imaginable context where the situation could exist. The meaning of some ideophonic roots can be incompatible with stative patterns (2, 6, and 8), as with $\gamma\text{sn}w\gamma$ ‘throb (of pain)’, which is only attested in patterns 1 and 3. Other ideophonic roots require a stative pattern, such as $\gamma\text{nc}^{3}\text{yr}$ ‘too diluted’, which only appears in pattern 2.

Even in the case of ideophonic roots that allow several different patterns, the semantics of a particular pattern cannot always be predicted from that of the other ones. In other words, not all ideophonic roots have a basic meaning from which the semantics of all patterns can be regularly derived. In this section, we provide two examples with such unpredictable semantics.

First, the pattern 3 form $ru\beta n\nu \nu \beta$ means ‘dripping continuously’, as in (14).
The form $ruβnvrwβ$ implies a root $\sqrt{ruβ}$ from which the pattern 8 form $ruwurawi$ can be regularly derived. However, the meaning of $ruwurawi$ is apparently unrelated; it means 'upset and confused' and requires the noun *-sum 'mind', as in (15). Although it could originally have been a metaphorical extension of the concrete meaning of this root, the exact pathway of semantic change is not recoverable.

Second, the pattern 2 ideophone $dzogdzon$ means 'having bristling hair', as illustrated by (16).

Thus, a comprehensive description of ideophones (especially in a dictionary) must clearly indicate which patterns are attested for which ideophonic roots, and specify in each case whether the semantics are predictable or not. The two cases presented above are by no means exceptional.
Nevertheless, even in cases when such semantic discrepancies are observed between different ideophonic patterns based on the same root, the basic semantic feature of the pattern in question is always present. For instance, a pattern 2 ideophone will always be stative, even if its meaning is not clearly related to the corresponding pattern 3 form.

2.3. Semantic categories. Japhug ideophones are used to describe various features, including sound, color, shape, texture, attitude or mood, and some ideophones are multimodal—they refer to combinations of several types of sensory information.

Dingemanse (2012:663) proposes the implicational hierarchy in (18), according to which, if a particular language possesses ideophones belonging to a particular class in this hierarchy, it will also have ideophones for all the classes to its left (if it has ideophones for visual patterns, it will also have ideophones for motion and sound, and so on).

(18) sound < motion < visual patterns < other sensory perceptions < inner feelings and cognitive states

Since all categories are exemplified in Japhug, this language clearly is not a counterexample to the hierarchy. The category ‘motion’ is entirely covered by the ideophonic patterns studied above; all patterns except 2, 6, and 8 will imply motion in the case of visual (and sometimes auditory) ideophones.

Ideophones of an onomatopoeic nature are very common and include, for instance, \( \sqrt{rq\text{\textasciitilde}}\text{\textacutecakh} \) ‘gunshot’, \( \sqrt{pc\text{\textacutecuy}} \) ‘water thrown down’, and \( \sqrt{q\text{\textacutecuhuy}} \) ‘metal clinking’. Many ideophones, however, can have an auditory interpretation competing with many other ones. Thus, \( \sqrt{br\text{\textacutef}h} \) in its pattern 2 form can designate many objects in bulk (like mushrooms), a stubborn person, or a heavy and cumbersome object, depending on the context. With a dynamic pattern, it can be interpreted as designating the noise made by a heavy object falling from a high place; here there is an obvious semantic derivation from nonauditory to auditory interpretation.

Ideophones are used in Japhug to describe colors or shapes (see, e.g., table 6) and even both at the same time as \( \sqrt{g\text{\textacutef}a\text{\textacutef}} \) ‘sharp and shiny (of fangs)’.

Apart from vision and audition, we find several ideophones related to various senses, including touch (e.g., \( \sqrt{br\text{\textacutef}uy} \) ‘rough, as if covered by little pimples’), pain (e.g., \( \sqrt{p\text{\textacutef}uy} \) ‘feeling of intense pain’), temperature (e.g., \( \sqrt{x\text{\textacutef}uy} \) ‘warm’), and even taste (e.g., \( \sqrt{zu\text{\textacutef}uy} \) ‘numb feeling caused by Sichuan pepper in the mouth’). Ideophones specifically describing cognitive states like \( \sqrt{ru\text{\textacutewaruwi}} \) ‘upset and confused’ seen in (15) are very rare. In most cases, they are metaphoric extensions of more concrete meanings. For instance, \( \sqrt{\chi\text{\textacutef}ul} \) can be used with the possessed noun -\( \text{\textacutef}um \) ‘mind’ to mean ‘be relieved’, but its most common meaning is either ‘disappear completely’ or the feeling one experiences when being released after having been tied up.
In addition, aside from shape, size, and texture, some ideophones also encode quantity (e.g., \(\sqrt{\text{bo} \beta}\) ‘as a group’), and can be specific to a particular type of referent (e.g., \(\sqrt{j\text{wu} \beta}\) ‘a lot of animals standing’).

The exact translation of Japhug ideophones into Chinese and English is a major challenge, given the subtle and complex semantic content conveyed by each ideophonic form, especially when its morphology is taken into account. One way to circumvent the translation problem is to ask the speakers for a gloss in the language itself (a folk definition) rather than a translation, and to collect as many varied example sentences as possible.

3. Phonological properties of ideophonic roots. The markedness and iconicity of ideophones is particularly conspicuous in phonology. In this section, we discuss only the ideophonic roots from which actual ideophones are created using specific morphological patterns (see section 2).

3.1. Markedness. The phonological markedness of Japhug ideophones is relatively easy to assess, as ideophonic roots (and all the form derived from them) present uncommon features in both onsets and codas.

3.1.1. Onsets. Japhug is a language with complex initial clusters. It has a relatively rich consonant inventory with forty-nine simple distinct phonemes that can all serve as simple onsets. In addition, there are 305 two-consonant clusters and ninety-two three-consonant clusters; there are no clusters with more than three consonant phonemes. In total, there are 446 possible onsets.

The clusters involve three distinct slots. First, we find the main consonant \(C\), which can be filled by any of the forty-nine consonantal phonemes; it is the only compulsory slot in clusters. Second, one medial consonant \(C_m\) can occur between the main consonant and the main vowel of the syllable. It can be any of \(j, w, l, r, y\), and more marginally \(\kappa\). Third, one or two preinitial consonants \(C_p\) appear to the left of the main consonant; the preinitial consonants comprise \(n, m, j, w, l, r, y, \kappa, z, \overline{z}\), the unvoiced fricatives and sonorants \(s, x, x, s, c\), and the homorganic nasal archiphoneme \(N\). The stops \(p\) and \(k\) are also attested in a few isolated nouns and numerals as \(C_p\), as in \(mpc\tau r\) ‘beautiful’.

Two-consonant clusters can be either \(CC_m\) or \(C_pC\), and three-consonant clusters \(C_pCC_m\) or \(C_pC_pC\). Clusters of the type \(C_pC_pC\) are uncommon and almost entirely restricted to Tibetan loanwords. They are not found in ideophones.

Of the 446 known onsets in Japhug, forty-five clusters (including thirty-five two-consonant and eleven three-consonant clusters) are exclusively attested in ideophones or ideophonic verbs. Tables 3 and 4 list these clusters with examples. Note that affricates and prenasalized voiced stops count as single phonemes.
Table 3. Japhug Two-Consonant Clusters Only Attested in Ideophones

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Example</th>
<th>Meaning</th>
<th>Cluster</th>
<th>Example</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>bj</td>
<td>bjũγ</td>
<td>'soft and hanging'</td>
<td>ltc&lt;sup&gt;h&lt;/sup&gt;</td>
<td>ltc&lt;sup&gt;h&lt;/sup&gt;γt</td>
<td>'long objects hanging'</td>
</tr>
<tr>
<td>br</td>
<td>bruẑ</td>
<td>'with a rough surface'</td>
<td>lx</td>
<td>lxγβ</td>
<td>'with thick clothes'</td>
</tr>
<tr>
<td>c&lt;sup&gt;r&lt;/sup&gt;r</td>
<td>c&lt;sup&gt;r&lt;/sup&gt;γβ</td>
<td>'dirty and messy'</td>
<td>ndj</td>
<td>ndjγt</td>
<td>'tall and graceful' (woman)</td>
</tr>
<tr>
<td>cl</td>
<td>clanγ</td>
<td>'round and well-polished'</td>
<td>q&lt;sup&gt;j&lt;/sup&gt;j</td>
<td>q&lt;sup&gt;j&lt;/sup&gt;ji</td>
<td>'dull (color)'</td>
</tr>
<tr>
<td>cr</td>
<td>crũγ</td>
<td>'messy'</td>
<td>sγ</td>
<td>sγ&lt;sup&gt;r&lt;/sup&gt;l</td>
<td>'bright and transparent'</td>
</tr>
<tr>
<td>dγ</td>
<td>dγ&lt;sup&gt;r&lt;/sup&gt;r</td>
<td>'stupid'</td>
<td>lts&lt;sup&gt;b&lt;/sup&gt;</td>
<td>lts&lt;sup&gt;b&lt;/sup&gt;γt</td>
<td>'lean and weak'</td>
</tr>
<tr>
<td>dj</td>
<td>dj&lt;sup&gt;r&lt;/sup&gt;k</td>
<td>'evenly (homogeneously) mixed'</td>
<td>sγ</td>
<td>sγ&lt;sup&gt;r&lt;/sup&gt;k</td>
<td>'tall and slender'</td>
</tr>
<tr>
<td>dr</td>
<td>drõγ</td>
<td>'big and dirty'</td>
<td>sχ</td>
<td>sχi</td>
<td>'with big nostrils'</td>
</tr>
<tr>
<td>dw</td>
<td>dw&lt;sup&gt;r&lt;/sup&gt;ำ</td>
<td>'with impaired consciousness'</td>
<td>t&lt;sup&gt;r&lt;/sup&gt;γ</td>
<td>t&lt;sup&gt;r&lt;/sup&gt;γ&lt;sup&gt;r&lt;/sup&gt;ำ</td>
<td>'in a clear way, without damage'</td>
</tr>
<tr>
<td>Fr</td>
<td>Frũγ</td>
<td>'gurgle'</td>
<td>t&lt;sup&gt;r&lt;/sup&gt;γ</td>
<td>t&lt;sup&gt;r&lt;/sup&gt;γ&lt;sup&gt;r&lt;/sup&gt;ำ</td>
<td>'crunching'</td>
</tr>
<tr>
<td>ndγ</td>
<td>ndγ&lt;sup&gt;r&lt;/sup&gt;t</td>
<td>'tremor'</td>
<td>t&lt;sup&gt;γ&lt;/sup&gt;γ</td>
<td>t&lt;sup&gt;γ&lt;/sup&gt;γ&lt;sup&gt;r&lt;/sup&gt;ำ</td>
<td>'thin (clothes)'</td>
</tr>
<tr>
<td>nγ</td>
<td>nγ&lt;sup&gt;r&lt;/sup&gt;r</td>
<td>'long and unstable'</td>
<td>t&lt;sup&gt;r&lt;/sup&gt;γ</td>
<td>t&lt;sup&gt;r&lt;/sup&gt;γ&lt;sup&gt;r&lt;/sup&gt;ำ</td>
<td>'enormous'</td>
</tr>
<tr>
<td>gl</td>
<td>glγγ</td>
<td>'hitting noise'</td>
<td>x&lt;sup&gt;s&lt;/sup&gt;</td>
<td>x&lt;sup&gt;s&lt;/sup&gt;γt</td>
<td>'long, thin, and flexible'</td>
</tr>
<tr>
<td>lc&lt;sup&gt;b&lt;/sup&gt;</td>
<td>lc&lt;sup&gt;b&lt;/sup&gt;γγ</td>
<td>'not full'</td>
<td>z&lt;sup&gt;j&lt;/sup&gt;</td>
<td>zγang</td>
<td>'tall'</td>
</tr>
<tr>
<td>ld&lt;sup&gt;z&lt;/sup&gt;</td>
<td>ld&lt;sup&gt;z&lt;/sup&gt;αγ</td>
<td>'hanging'</td>
<td>x&lt;sup&gt;s&lt;/sup&gt;</td>
<td>x&lt;sup&gt;s&lt;/sup&gt;γ&lt;sup&gt;r&lt;/sup&gt;t</td>
<td>'thin (clothes)'</td>
</tr>
<tr>
<td>ln</td>
<td>lnγt</td>
<td>'huge object; many objects hanging'</td>
<td>x&lt;sup&gt;t&lt;/sup&gt;s&lt;sup&gt;b&lt;/sup&gt;</td>
<td>x&lt;sup&gt;t&lt;/sup&gt;s&lt;sup&gt;b&lt;/sup&gt;γt</td>
<td>'small and active'</td>
</tr>
</tbody>
</table>

Table 4. Japhug Three-Consonant Clusters Only Attested in Ideophones

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Example</th>
<th>Meaning</th>
<th>Cluster</th>
<th>Example</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>cãl</td>
<td>cãl&lt;sup&gt;b&lt;/sup&gt;αβ</td>
<td>'sound of an object thrown in water'</td>
<td>scr</td>
<td>sc&lt;sup&gt;r&lt;/sup&gt;αγ</td>
<td>'short and small'</td>
</tr>
<tr>
<td>lbj</td>
<td>lbjũγ</td>
<td>'soft and hanging'</td>
<td>zdr</td>
<td>z&lt;sup&gt;r&lt;/sup&gt;γanγ</td>
<td>'long and soft'</td>
</tr>
<tr>
<td>lt&lt;sup&gt;b&lt;/sup&gt;j</td>
<td>lt&lt;sup&gt;b&lt;/sup&gt;γt</td>
<td>'clean and soft (clothes)'</td>
<td>zγr</td>
<td>zγrang</td>
<td>'soft and swollen'</td>
</tr>
<tr>
<td>κŋ&lt;sup&gt;l&lt;/sup&gt;l</td>
<td>κŋ&lt;sup&gt;l&lt;/sup&gt;li</td>
<td>'enormous'</td>
<td>x&lt;sup&gt;c&lt;/sup&gt;r</td>
<td>x&lt;sup&gt;c&lt;/sup&gt;rγi</td>
<td>'diluted, liquid'</td>
</tr>
<tr>
<td>κγ&lt;sup&gt;r&lt;/sup&gt;r</td>
<td>κγ&lt;sup&gt;r&lt;/sup&gt;ri</td>
<td>'fat and soft'</td>
<td>x&lt;sup&gt;p&lt;/sup&gt;λ</td>
<td>x&lt;sup&gt;p&lt;/sup&gt;λ&lt;sup&gt;γ&lt;/sup&gt;γ</td>
<td>'spheric'</td>
</tr>
<tr>
<td>scl</td>
<td>sclγγ</td>
<td>'bald'</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

These onsets present four types of unusual combinations that are completely absent both from the native vocabulary and from Tibetan borrowings.

First, we find clusters of palatal stop + r, l: cr<sup>r</sup>-, c<sup>r</sup>r-, fr<sup>r</sup>-, cl-, and pl<sup>r</sup>-.<sup>4</sup> The only medial consonant compatible with palatal stops in the nonideophonic lexicon is γ (as in qac<sup>b</sup>γ<sup>r</sup>a ‘fox’).

Second, these tables contain clusters of dental stop + r, j, w, such as dr, dj, dw, and fβ. In the nonideophonic lexicon, the only attested medial after dental stops is γ (as in tu()-γa ‘one span’).<sup>5</sup> There is evidence that Proto-Rgyalrong clusters *tr-, *<sup>b</sup>r-, and *nd<sup>r</sup>- became retroflex affricates t<sup>s</sup>-, t<sup>b</sup>s<sup>r</sup>- and ndγ; in
particular, note the alternation between k\textipa{-t\textipa{s}r\textipa{\gamma}} 'six’ and sq\textipa{r\textipa{\gamma}}-r\textipa{\gamma} ‘sixteen’, where the cluster in -t\textipa{s}r\textipa{\gamma} comes from *tr-\textipa{-}. Thus, ideophones have filled a gap in the phonological system created by sound changes; this is a commonplace phenomenon crosslinguistically (see, e.g., Diffloth 1979).

Third, the unvoiced fricatives s and \textipa{\chi} occur as preinitial consonants in clusters with voiced main consonants, such as s\textipa{-}, s\textipa{n-} and \textipa{\chi}n-\textipa{-}. In the nonideophonic vocabulary, [s] and [\textipa{\chi}] only occur as allophones of r and  before unvoiced obstruents (e.g., the cluster rt- is realized as [st]).

Fourth, l is almost never found as a preinitial in Japhug. Comparison with other Rgyalrongic languages (Jacques 2004:271–72) reveals that l preinitial has changed to j in the nonideophonic vocabulary (e.g., Japhug jm\textipa{\mu}t corresponds to Zbu l\textipa{\mit} ‘forget’). Here again, a quasi-gap in the system has been filled by ideophones.

Another conspicuous phonological feature in ideophones is the very high relative frequency of nonprenasalized voiced stops. In nouns and verbs, the simple stops b and g are extremely rare; for instance, the simple onset b- is found in only two of about eighteen hundred verbs not derived from ideophones: bu\textipa{\nu}\textipa{\wa} ‘carry on the back (as a child)’ and bu\textipa{\nu}y ‘miss home’. By contrast, out of 248 ideophonic roots, five present the single onset b and have the clusters bj and br.

The onsets d- and j- are more common in the nonideophonic vocabulary, but almost all originate from clusters containing laterals (see Jacques 2004:313–34). Although ideophones in Japhug do not contain independent phonemes that are not found in the nonideophonic vocabulary, they enrich the complexity of the phonological system by filling phonotactic gaps that have resulted from sound changes, and they favor rare sounds like simple voiced obstruents.

3.1.2. Rhymes. Japhug rhymes allow only a main vowel and a coda; there are no complex codas. The main vowel can be any of a, e, i, o, u, \textipa{\v}, \textipa{\u}, and y, and codas include -w, -j, -\textipa{\gamma}, -\textipa{\kappa}, -\textipa{\z}, -t, -m, -n, -\textipa{\eta}, -r, and -l. Note that -t is the only final stop. Other final stops from Proto-Rgyalrongic have shifted to voiced fricatives or approximants: *-p \rightarrow -\textipa{\beta}, *-k \rightarrow -\textipa{\gamma}, and *-q \rightarrow -\textipa{\kappa}. Final -\textipa{\gamma} is generally realized as unvoiced [x] before a pause or when the following word or syllable begins with an unvoiced obstruent. The realization of final -\textipa{\kappa} varies from pharyngealization of the preceding vowel to the unvoiced obstruent [\textipa{\chi}].

Some ideophones have a final stop -p instead of -\textipa{\beta}. There is considerable variation across speakers as to which ideophones allow this pronunciation. For instance, in the speech of our main informant Chenzhen, final -p is optionally found with six ideophones, always with the main vowel u, including ts\textipa{\u}p ‘feeling of humidity in the air’, tc\textipa{\u}p ‘with water drops’, z\textipa{\u}p ‘many objects or persons standing upright’, c\textipa{\u}p ‘filthy’, rs\textipa{\u}p ‘very hairy’, and rk\textipa{\u}p ‘noise of hitting wood’.

Another remarkable property of ideophones is the frequency of final -\textipa{\eta} (forty-three of 246 ideophonic roots). In Japhug, final -\textipa{\eta} is only found in Tibetan
loanwords and ideophones—Proto-Rgyalrongic final *-ŋ has disappeared, merging with the main vowels in complex ways (for instance, Proto-Rgyalrong *- añ became Japhug –o, even in early Tibetan borrowings such as mtçhvrkło, from mtç′od.klovak ‘shrine room’; see Jacques 2004:228). It appears only with the main vowels a, o, and u. While –añ and –on are common in Tibetan loanwords, the rhyme –unŋ is only attested in ideophones.

In the native vocabulary, due to a series of sound changes, there are considerable restrictions on the distribution of the vowels and codas. Before the codas –β, –t, and –r, only three vowels are attested: a, α, and u. The rhymes –or and –ot only appear in the recent layer of Tibetan loanwords (e.g., ḍot ‘sunlight’ from Tibetan ōdol) and in ideophones such as ṭot ‘small and cute’. Here, as in the case of initial clusters, ideophones fill gaps in the distribution of segments within rhymes that have been caused by sound changes.

3.2. Consonant gradation and iconicity. Dingemanse (2011a:47) proposes distinguishing three types of iconicity: imagic, Gestalt, and relative iconicity. Gestalt iconicity is observed in Japhug in ideophonic morphological alternations (see the discussion in section 2.1) and does not occur within ideophonic roots.

This section focuses on relative iconicity, namely, the correlation between a more or less gradient phonological feature and a semantic dimension, a phenomenon also known as sound symbolism (Boas and Deloria 1941:16) or synesthesia (Gerner 2004:186–87).

In Lakota, for instance, one observes a very regular consonant gradation between alveolar, palatoalveolar, and uvular fricatives, s ~ f ~ χ and z ~ ž ~ κ, expressing three stages of intensity for a particular feature (Boas and Deloria 1941:16–18). The nature of the gradation is particularly clear in the case of color terms, where the alveolar fricative designates a bright color and the uvular fricative a darker one (e.g., the series sóta ‘clean’, ḟóta ‘muddy’, χóta ‘grey’). There is thus in this particular case a correlation between color brightness and the frequency of the peak of energy of the fricative (higher for alveolar than for uvulars).

In Japhug, consonant gradation is less regular than in Lakota, but we do observe a similar case involving alveolar, retroflex, velar, and uvular fricatives (s ~ ŝ ~ x ~ χ), as illustrated by table 5. The “Example” column indicates the referents to which particular ideophones are applied in our data.

Table 5. Consonant Gradation in Japhug Ideophones

<table>
<thead>
<tr>
<th>ROOT</th>
<th>MEANING</th>
<th>EXAMPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>swnŋ</td>
<td>‘white’</td>
<td>hair of old people</td>
</tr>
<tr>
<td>zwŋ</td>
<td>‘white’</td>
<td>hair of old people</td>
</tr>
<tr>
<td>śwnŋ</td>
<td>‘clear’</td>
<td>the sky, a glance</td>
</tr>
<tr>
<td>xwnŋ</td>
<td>‘clear’</td>
<td>the sky, the color of dead skin</td>
</tr>
<tr>
<td>ɔnŋ</td>
<td>‘slightly orange’</td>
<td>the sky at daybreak</td>
</tr>
</tbody>
</table>
Ideophones with dental fricatives, such as $sun$ and its variant $zun$, indicate bright white color, while $sun$ and $xun$ designate whitish color, and $xan$ the reddish-orange color of daybreak and twilight. Here, as in Lakota, there is a correlation between the frequency of the peak of energy of the fricative and the brightness of the color depicted by the ideophone. This particular gradation is, however, limited to this particular series of ideophones in Japhug, and cannot be regularly applied to create new ideophonic roots.

Table 6 illustrates a different type of phonological alternation in Japhug. The main consonant alternates between $j$, $w$, and $l$, the vowel between $a$ and $o$, the preinitial between $r$ and $χ$, and the final consonant between voiced fricative and nasal.

<table>
<thead>
<tr>
<th>ROOT</th>
<th>MEANING</th>
<th>EXAMPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>$rwos$</td>
<td>‘little, in great number spherical’</td>
<td>peas</td>
</tr>
<tr>
<td>$rjos$</td>
<td>‘cylindrical and with a smooth surface’</td>
<td>mushroom, hat</td>
</tr>
<tr>
<td>$χplos$</td>
<td>‘small, spherical’</td>
<td>mushroom, hat</td>
</tr>
<tr>
<td>$rlos$</td>
<td>‘average size, spherical’</td>
<td>the head of a small child</td>
</tr>
<tr>
<td>$rla$</td>
<td>‘average size, spherical’</td>
<td>the moon</td>
</tr>
<tr>
<td>$rla$</td>
<td>‘average size, spherical’</td>
<td>the moon</td>
</tr>
<tr>
<td>$rla$</td>
<td>‘huge, bulky, vaguely spherical’</td>
<td>a yak</td>
</tr>
</tbody>
</table>

In this series of ideophones, three semantic features vary: size (from as small as a pea to larger than a man), shape (spherical vs. cylindrical), and number of elements. However, it is not possible to clearly associate any of these semantic changes with a particular phonological feature, unlike the stridency of the fricative in the case in table 5. Phonological alternations such as fricative vs. nasal coda (in particular $-β$ and $-η$, on the one hand, and $-m$ and $-η$, on the other hand), voicing alternation of the onset, or vowel changes are very common between ideophonic roots, but the semantic effect of these alternations is generally unpredictable and specific to each particular series of ideophones.

Another type of phonological alternation observed among ideophonic roots is the addition of preinitial consonants—only coronals, and most commonly $r$-, $l$-, $χ$-, and $d$-,. The semantic distinction between augmented vs. nonaugmented roots is not predictable. Table 7 provides a sample of pairs of ideophones with addition of preinitial consonants.

<table>
<thead>
<tr>
<th>SIMPLE ROOT</th>
<th>AUGMENTED ROOT</th>
<th>MEANING</th>
</tr>
</thead>
<tbody>
<tr>
<td>$bjuy$</td>
<td>$lbjuy$</td>
<td>‘soft and hanging’</td>
</tr>
<tr>
<td>$qluβ$</td>
<td>$cqluβ$</td>
<td>‘sound of an object thrown in water’</td>
</tr>
<tr>
<td>$γγγ$</td>
<td>$dγγγ$</td>
<td>‘stupid’</td>
</tr>
<tr>
<td>$swβ$</td>
<td>$rsuβ$</td>
<td>‘with hairs’</td>
</tr>
</tbody>
</table>
No clear semantic difference could be ascertained between the simple vs. augmented roots in table 7. Given the absence of regularity and of clear semantic content for these alternations, they cannot be treated on a par with the morphological patterns discussed in section 2.

3.3. Intonation. A detailed study of the intonation associated with ideophones is beyond the scope of this article, but some preliminary remarks can be offered. Ideophones can either be pronounced as normal words, or receive special emphasis that combines F0 effects and voice quality.

It is impossible to elicit ideophones with the emphatic pronunciation, but we were fortunate to find a near minimal pair in our corpus, two almost identical sentences with the pattern 2 ideophone *zjanzjan* ‘tall’ within the same narrative, one with an emphatic pronunciation (the clause at the end of example (3) above; its F0 contour is shown in figure 1), another with plain intonation (example (19); its F0 contour is shown in figure 2). Figures 1 and 2 were drawn using Praat (Boersma and Weenink 2013).

![](Guillaume Jacques - figure1.mp3)

**Figure 1.** F0 of the sentence with emphatic pronunciation (the last clause in example (3)).

![](Guillaume Jacques - figure2.mp3)

**Figure 2.** F0 of the sentence with plain pronunciation (example (19)).

(19) *tu-omurmbu zjanzjan zo nw-ŋu*

IPFV-be.piled.up IDEO:STAT:tall EMPH .TESTIM-be

‘[The swollen barley grains] are stacked very high.’ (Alcohol 44)
There are three conspicuous acoustic differences between the two utterances. First, in the emphatic pronunciation in figure 1 there is a 0.15 second pause between the verb *tu-om urmbu* and the ideophone *zjanzjan*, whereas in the plain pronunciation in figure 2 the whole sentence is pronounced in one breath with a much faster speech rate. Second, in figure 1 there is a 80 Hz drop in F0 between the first *zjan* and the second one. In figure 2, on the other hand, no such pitch contour is observed. Third, the ideophone has a special voice quality that appears to involve pharyngealization or uvularization in the clause shown in figure 1, but has the clause shown in figure 2. It is difficult to determine the precise nature of this voice quality just on the basis of the acoustic signal, and we defer the investigation of this particular topic to further research. Still, these data do not appear to be exceptional; similar voice quality and F0 effects have been reported in emphatic pronunciation of ideophones in other languages (see, e.g., Pellard [2009:109] on Ogami Ryukyuan).

Data is lacking for a detailed account of the discourse function of the emphatic pronunciation of ideophones. Only two observations can be proposed at this stage concerning the distribution of emphatic ideophones (which are rare in comparison with nonemphatic ones). First, when the same ideophone occurs more than once in the same narrative, the emphatic variant will be restricted to its first occurrence, as is the case in the example at hand. Second, highly lexicalized and conventional uses of ideophones (e.g., the color ideophone *zuqzuq* when applied to the hair of an old man) are not attested with emphatic pronunciation in our corpus.

4. **Syntactic properties of ideophones.** As pointed out by Dingemanse (2012:660), the markedness of ideophones is not limited to their phonology, but is also manifested in their syntactic behavior. Ideophones nearly always occur as verb adjuncts in Japhug. They can be used with a series of light verbs or as adjuncts of any lexical verb in either nominalized or finite form. A few examples of ideophones as noun modifiers are also attested. As an indication of the relative frequency of each of these three constructions, in a portion of the corpus comprising 125 ideophones, sixty-one occurred with light verbs, sixty-two with lexical verbs, and two occurred without a verb.

4.1. **Light verb constructions.** Four light verbs can be used with ideophones in Japhug: the semantically empty stative verb *pa*, the transitive speech verb *ti* ‘say’, the manner deixis verb *stu* ‘do like . . .’, and its reflexive form *zyγ-stu* ‘act like . . .’. (In examples below, light verbs are underlined and ideophones are written in bold.) While *pa* and *zyγ-stu* are restricted to ideophonic constructions, *ti* ‘say’ is the most common speech verb and takes as its P reported speech complement clauses. Likewise, *stu* ‘do like . . .’ is often used with nouns or complement clauses expressing the manner in which a particular action takes place. Thus, Japhug data confirm the well-known tendency of ideophones to occur in
quotative or manner deixis constructions (Güldemann 2008:280–88). The emphatic linker zo can be inserted between the ideophone and the light verb, as in examples (20), (23), and (24).

The verb pa is a stative intransitive verb etymologically related to the transitive pa 'close, do'. It is exclusively attested as a light verb and requires the presence of an ideophone. It can appear either as an inflected form, as in (20), or as the nominalized form kwu-pa, as in (21). It is used with ideophones describing color, shape, or spatial disposition.

(20) u-phonbu nu rcanu ēŋliŋli zo nu-pa
3SG.POSS-body TOP TOP IDEO:STAT:huge EMPH TESTIM-LIGHT.VERB

'It is enormous.' (Lion 17)

(21) azo gru族群 w-flsa nu tv-kw-qawyr ma
1SG matsutake 3SG.POSS-nephew TOP PFV-NMLZ:S/A-open.cap apart.from
nu ma ʒploŋploŋ kwu-pa
DEM apart.from IDEO:STAT:round NMLZ:S/A-LIGHT.VERB
muu-pu-mto-t-a
NEG-PFV-see-PST:TR-1SG

'The (mushroom called the) 'matsutake’s nephew’, I have seen ones with opened caps, but never seen one in ball shape (before the cap opens).’ (gr族群tsa 5)

In both the imperfective form tu-pa and the perfective form tv-pa, the light verb pa acquires the meaning of entering into the state depicted by the ideophone, as in (22).

(22) u-ru nu ra nuu-rom tøe ɂvβrɂβ tu-pa
3SG.POSS-stalk TOP PL PFV-dry LNK IDEO:STAT:rough IPFV-LIGHT.VERB
nu-ŋu
TESTIM-be

'Once it has dried, its stalk becomes very rough.' (sunguŋu 21)

In the text corpus, the light verb pa is almost exclusively attested with pattern 2 (RR) ideophones. The only example with an ideophone from a different pattern is (23), but it is not isolated; similar constructions can be elicited with other pattern 3 (R-n-R) ideophones.

(23) turme kw-dw-dyn zo tu-he-nu tøe, nu w-taŋ people NMLZ:S/A-REDP-be.many EMPH IPFV-walk-PL LNK DEM 3SG-on ri w-rpas çoŋtas nuu tu-nu-šoš tøe, LOC 3SG.POSS-shoulder over TOP IPFV:UP-AUTO-come.out LNK ɂvβrɂβrɂβ zo nuw-pa ma nuunu IDEO:DYN:tall.and.slender EMPH PST.IPFV-LIGHT.VERB LNK DEM
As many people were walking on the street, his shoulder was taller than their heads, and he looked very tall and slender as he was walking. He was a very tall man, he was a doctor.’ (Leprosy 68)

The verb *ti* ‘say’ is used as a light verb with ideophones expressing sound, as in (24), and sensations, especially itching or pain, as in (25). Its function as a light verb for sound ideophones parallels its use with onomatopoeic forms, which are not ideophones in the proper sense (see the discussion in section 7).

(24) $\text{tu} \text{-} \text{ok}$ $\text{pu} \text{-} \text{nu}$ $\text{zju}$
3SG.POSS-ground TOP LOC IDEO:SEMEL:heavy.object.falling.from.a.high.place

$\text{zo} \quad \text{ti} \quad \text{pu} \text{-} \text{nu}$
EMPH FACT:say TESTIM-be

‘[The stone] made a loud noise (as it fell) on the ground.’ (Demon 76)

(25) $\text{tu} \text{-} \text{kw} \text{-} \text{ti}$ $\text{kuny}$ $\text{qmu}$
IPPFV:GENR:A-say also IDEO:SEMEL:intense.pain EMPH IPPFV-say

$\text{tu} \text{-} \text{mnu}$ $\text{nu}$
IPPFV-hurt FACT:be

‘One feels intense pain even when one talks.’ (krýr 35)

This peculiar use of *ti* for nonauditive perception is reminiscent of the uses of the perception verbs *mts* and *snger*. Although these verbs are generally translated as auditory perception verbs (respectively, ‘hear’ and ‘listen’), in fact they can be used for almost all nonvisual sensory perception (including touch, pain, and taste, and also smell in the case of *mts*), as in (26).\(^{11}\)

(26) $\text{pu} \text{-} \text{kw} \text{-} \text{snger}$ $\text{tce}$, $\text{nu}$ $\text{nu} \text{-} \text{tse}$ $\text{tce}$, zwrzwrzwr $\text{tu} \text{-} \text{ti}$
IPPFV:GENR:S/P-listen LNK DEM PFV:come.out LNK itchy.feeling IPPFV-say

$\text{qie}$ $\text{tce}$ $\text{tdx}$ $\text{tce}$ $\text{nu} \text{-} \text{tse}$ $\text{qti}$
LNK LNK pimple IPPFV:come.out N.PST:be:AFFIRM

‘When it appears, one has an itchy feeling, and a pimple appears.’ (khrrum 4)

The transitive manner deixis verb *stu* ‘do like . . . ’ most commonly appears with the nonstative ideophonic patterns 3 and 4, as in (27) and (28). It always indicates a volitive action, unlike *pa* and *ti*. Depending on the ideophone, the verb can either have no semantic patient, as in (27), or a definite P, like *u-kw* ‘his head’ in (28).
(27) \textit{wu-}\textit{spyro} \textit{lu-}\textit{bst} \textit{te} \textit{\textsubscript{twyn}rlwy}.  
\textit{3SG.FOSS-breath IFPV:UPSTREAM-throw LNK IDEO:DYN:breathing,movement}  
\textit{\textsubscript{twyn}rlwy} \textit{tu-st} \textit{nu-}\textit{mu}  
\textit{IDEO:DYN:breathing,movement IFPV:do.like[III] TESTIM:be}  
‘When it breathes, [one can see its body] expanding and contracting with each breath.’ (Frog 3)

(28) \textit{wu-}\textit{ku} ra \textit{pjw-}\textit{nuw-}\textit{\textsubscript{r}trci} \textit{tu-}\textit{ce} \textit{wu-}\textit{ku} ra  
\textit{3SG.FOSS-head PL IFPV-AUTO-wash LNK 3SG.FOSS-head PL}  
\textit{\textsubscript{ro}g\textsubscript{en}tr\textsubscript{lo}g} \textit{tu-st} \textit{nu-}\textit{mu}  
\textit{IDEO:DYN:round.and.average.size IFPV:do.like[III] TESTIM:be}  
‘When it cleans its head, it moves it with rhythm.’ (Fly 49)

The intransitive verb \textit{\textsubscript{z}y\textsubscript{y}}\textit{-stu} ‘act like . . .’ is derived from \textit{stu} ‘do like . . .’ by adding the reflexive prefix \textit{\textsubscript{z}y\textsubscript{y}-} (on this prefix, see Jacques 2010). Like \textit{stu} and unlike \textit{pa}, it describes a volitional activity. It is compatible with any ideophonic pattern. With pattern 2 ideophones it means ‘to have a look of . . .’, as in (29).

(29) \textit{spy\textsubscript{i}} \textit{wu-}\textit{nuw} \textit{lu-}\textit{nuw-te} \textit{ndy\textsubscript{v}re}, \textit{ry\textsubscript{v}lp\textsubscript{u} tu-}\textit{ce}  
\textit{attic 3SG-inside IFPV:UPSTREAM-AUTO-put[III] LNK king IFPV:UP-go}  
\textit{rc\textsubscript{an}nu}, \textit{tu-r\textsubscript{vy}jo\textsubscript{sz}ur \textsubscript{kw-}fse} \textit{rc\textsubscript{an}nu}, \textit{\textsubscript{x}t\textsubscript{s}k\textsubscript{tr}\textsubscript{st-r}yt}  
\textit{TOP:EMPH IFPV:clean.up INF:STAT:be.like TOP:EMPH IDEO:STAT:active.small}  
\textit{zo tu-}\textit{\textsubscript{z}y\textsubscript{y}-stu} \textit{t\textsubscript{ce} ku-}\textit{ry\textsubscript{z}i \textsubscript{pu-}nu,} \textit{\textsubscript{bd}a\textsubscript{vm}u tu-}\textit{ce}  
\textit{EMPH IFPV:REFL-do.like LNK IFPV:stay PST:IFPV:be lady IFPV:UP-go}  
\textit{rc\textsubscript{an}nu}, \textit{p\textsuperscript{b-}\textsubscript{tv}c\textsuperscript{w}z\textsubscript{tr}z\textsubscript{rr} zo \textit{pjw-te} t\textit{ce}, \textit{quw\textsubscript{l}w}  
\textit{zo tu-}\textit{\textsubscript{z}y\textsubscript{y}-stu} \textit{t\textsubscript{ce} ku-}\textit{ry\textsubscript{z}i \textsubscript{pu-}nu \textsubscript{nu-}nu}  
\textit{EMPH IFPV:REFL-do.like LNK IFPV:stay PST:IFPV:be TESTIM:be}  
‘[The king] put [the bird] in the attic. When the king would go up there, [the bird] would clean everything up and would be lively; when the lady would go up there, it would make a mess and have a hangdog look.’ (Kunbzang 30 2—4)

Two main syntactic constructions are attested with the four light verbs presented above. In one, the light verb is the main predicate of the clause, and the ideophone appears directly before it, as in (21), (22), (27), and (28) above. In the other, the light verb occurs in finite form before a lexical verb, as in (25), (29), and (30). The light verb and the following verb share the same tense-aspect-mode categories and are either in direct contact, as in (25) and (30), or have a linker such as \textit{tu-}\textit{ce} between them, as in (29).

(30) \textit{t\textsubscript{ce} r\textsubscript{\textsuperscript{gy}f\textsubscript{r}k\textsubscript{r}\textsubscript{b}} \textit{nu-}\textit{pa} \textit{nu-}\textit{ru\textsubscript{m}} \textit{t\textsubscript{ce} t\textsubscript{ce} tu\textsubscript{t}w\textsubscript{b}u}  
\textit{LNK IDEO:STAT:rough TESTIM-LIGHT.VERB TESTIM:be.rough LNK LNK pan}  
\textit{wu-}\textit{tar} k\textit{y-}ku-\textit{k\textsubscript{\textsuperscript{b}ru}} \textit{nu ra nu-}\textit{q\textsubscript{t}ru\textsubscript{t} nu-}\textit{c\textsubscript{\textsuperscript{b}a}}  
\textit{3SG-on IFPV-NMLZ:S/A-dry TOP PL IFPV-scratch TESTIM:can}  
‘It is very rough and can scratch off the dry things on the pan.’ (sung\textsubscript{w}ju 107)
4.2. Lexical verbs. Ideophones can appear as adjuncts of lexical verbs with compatible meanings. This construction is almost as common as the light verb construction, and there are no restrictions on the syntactic properties of ideophone-bearing verbs: stative verbs, intransitive dynamic verbs, and transitive dynamic verbs can all be used with ideophone adjuncts.

Verbs like \( \text{βzu} \) ‘make’ and \( \text{lt} \) ‘throw’, which are used in many periphrastic constructions, are also included in this category. In (31), for instance, the verb \( \text{βzu} \) ‘make’ serves as a light verb (it is used in the same construction for several other meteorological phenomena). Although morphologically transitive (as can be seen thanks to its stem 3 alternation[^2]), it requires an overt \( \text{P qale} \) ‘wind’ and an expletive (zero) A. However, in this sentence the ideophone can be removed without changing anything else. Thus, although \( \text{βzu} \) here does have light verb properties, they are not specific to ideophones and it cannot be put in the same class as the light verbs studied in section 4.1.

(31) \( \text{tue qale ci } \text{oumoum} \) \( \text{tu-βze} \)  
\( \text{LNK wind INDEF IDEO:STAT:drizzle IPFV-make\III} \)  
‘when there is a nice little wind’ (Swallow 35)

Ideophones appear with stative verbs, as in (32), but are also commonly found with dynamic verbs, whether intransitive, as in (33), or transitive, as in (34).

(32) \( \text{wum} \) \( \text{wuma nu γu w-κu w ra nu-γurni,} \)  
\( \text{3SG.POSS-eye really TOP GEN 3SG.POSS-side TOP PL TESTIM-be.red} \)  
\( \text{nu-γurni } \text{tsaγtasγar} )z  \)  
\( \text{TESTIM-be.red IDEO:STAT:brilliant.red EMPH} \)  
‘The sides of its eye proper are red, brilliant red.’ (Crossoptilon, 52)

(33) \( \text{nu} \) \( \text{w-myn} \) w-ra \( \text{su-κu-ŋhe} \) \( \text{q}^{3} \text{e, } \text{tw-ŋga} \)  
\( \text{DEM 3SG.POSS-gap TRANSLOC-IPFV-GENR:S/P-walk LNK INDEF.POSS-clothes} \)  
\( \text{w-ταs ra w-mat } \text{brβββ} )z  \)  
\( \text{3SG-on PL 3SG.POSS-fruit IDEO:STAT:clumping.together EMPH} \)  
\( \text{ku-ndzov} \)  
\( \text{IPFV-ANTICAUS:attach} \)  
‘When one walks among [these plants] their fruit attaches to one’s clothes in clumps.’ (NGorna 164)

(34) \( \text{rt]chuaŋwu } \) \( \text{γu w-rme } \) \( \text{nu ku nu-κu-z-r} \)  
\( \text{caterpillar GEN 3SG.POSS-hair TOP ERG IPFV-GENR:S/P-CAUS-itch} \)  
\( \text{nu tu-κa a-μυ-nu-γtυγ } \) \( \text{ra ma tυνdυγ } \)  
\( \text{TOP INDEF.POSS-flesh IRR-NEG-IPFV-touch FACT:have.to LNK pimple} \)  
\( \text{brw} \text{b} \text{r} \text{w} \text{γ} \text{r} )z  \) \( \text{tu-t} \text{γt } \text{nu} \text{-μ} \)  
\( \text{IDEO:STAT:covered.with.little.pimples EMPH IPFV-take.out TESTIM-be} \)  
‘The caterpillar’s hair makes people itch, it should not touch one’s flesh, otherwise it will cause a lot of little pimples to appear.’ (Caterpillar 85)
As in light verb constructions, the ideophones can appear before the verb; this is seen in (33) and (34). However, unlike light verbs, lexical verbs allow ideophones to appear to their right, as in (32) and (35). Postverbal ideophones are more common with lexical verbs than are preverbal ones; out of sixty-two examples in the portion of the corpus on which word counts were made, forty-eight are postverbal and only fourteen preverbal.

(35) cvndzi piw-χtsʁβ-nu pʰɔʁpʰɔʁ 20
musk.deer.skin IPFV-rub-PL IDEO:STAT:nice.and.tight EMPH
'They rub the musk deer skin very tightly.' (teakury 8)

In combination with stative verbs, ideophones only occur postverbally. In the corpus, there are no examples of a stative verb preceded by an ideophone.

Rgyalrong languages have extremely strict verb final syntax, and ideophones are among the very few elements that can appear postverbally without right dislocation. Only a few adverbs, such as ntsu 'always, each time', and sentence-final particles are normally allowed after the main verb. Moreover, unlike the sentence-final adverbs and particles, ideophones can also occur postverbally in head-internal relative clauses, as in (36). This type of example is not uncommon with ideophones, but no other part of speech allows this syntactic behavior.

(36) [pyi₅w kɐ-wu-na₃-ylo₃ pʰɔɾpʰɔɾ]
bird PFV-NMLZ:S-AUTO-make.a.nest IDEO:STAT:nice.and.tight
nu ɡw ɯ-lo₃ nɯ-ŋgɯ nɯ ra. u₃o q-tu-ndze
DEM GEN 3SG.POSS-nest 3PL.POSS:inside TOP PL he CISLOC-IPFV-eat[III]
'He goes into the nests of birds that have made nice nests, and eats them.'
(Buzzard 3)

In such relatives, the indefinite determiner ci ‘a, one’ can be placed either after the postverbal ideophone, as in (37), or before it, as in (38).

(37) ku-γrɛji ku-fse qʰʲiɪqʰjɪ ci
NMLZ:S/A-be.green INF:STAT-be.like IDEO:STAT:dull.color INDEF
γɛzu ɩe
exist:SENSORY LNK
'There is one which is a little green.' (gruʃɡruʃftsa 44)

(38) ku-jpum ci xtʃbxtʃb 20 nɯ-ŋɯ
NMLZ:S/A-be.thick INDEF IDEO:STAT:thick.and.round EMPH TESTIM-be
'Its stalk] is thick and round.' (gruʃɡruʃftsa 52)

While postverbal ideophones are not found in most languages with strict subject-object-verb constituent order, such as Lakota, Japanese, or Korean, they
have been described in some verb-final languages such as Udihe (Nikolaeva and Tolskaya 2001:381–82) where they reportedly have almost free word order.

With preverbal ideophones, the emphatic linker zo can appear optionally between the ideophone and the verb, as in (33) and (34). In the case of postverbal ideophones, two positions of zo are possible, either after the ideophone, as in (35) and (39), or before it (and thus between the verb and the ideophone), as in (40). There is no discernible semantic difference between the two positions, as shown by the minimal pair in (39) and (40).

(39) uzo mu-wyrum swü̲̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈̊̈"
This is the only example in our corpus of an ideophone occurring before a post-position. It is possible to rephrase it with a light verb, as in (43).

\[
\text{(43)} \quad z\text{ít}z\text{ít} \quad \text{zo} \quad k\text{u}-p\text{a} \quad \text{tu}-\text{ldzà}
\]
\[
\text{IDEO:STAT:short.and.thick} \quad \text{EMPH} \quad \text{NMLZ:S/A-LIGHT.VERB} \quad \text{one-CL:long.thing}
\]
\[
\text{ma} \quad \text{me} \quad k\text{îi}
\]
\[
\text{apart.from} \quad \text{FACT:not exist} \quad \text{HEARSAY}
\]

‘It has one (horn), short and thick.’ (elicited)

When sentence (42) was rechecked, speakers did not consider it to be incorrect. Still, it is not possible to construct comparable sentences with other postpositions, in particular the ergative \textit{k}\text{u}.

The existence of a sentence like (42) has implications for the analysis of examples such as (44).

\[
\text{(44)} \quad w\text{-}jw\text{à}s \quad n\text{u} \quad w\text{-}q\text{û} \quad r\text{i} \quad w\text{-}r\text{më} \quad k\text{u}-\text{fse}
\]
\[
\text{3SG.POSS-leaf} \quad \text{TOP} \quad \text{3SG-behind} \quad \text{LOC} \quad \text{3SG.POSS-hair} \quad \text{NMLZ:S/A-be.like}
\]
\[
\text{s\text{û}b\text{û}s\text{û}b} \quad \text{tu}
\]
\[
\text{IDEO:STAT:hairy} \quad \text{FACT:exist}
\]

‘On the other side of its leaves, there are hairs.’ (mydympym 44)

In this sentence, the ideophone \textit{s\text{û}b\text{û}s\text{û}b} ‘with hair’ can be analyzed as an adjunct of the verb \textit{tu} ‘exist’, but it could also be viewed as a postnominal modifier of \textit{w\text{-}r\text{më}} ‘its hair’. However, in light of the rarity of unambiguous examples like (42), it is preferable to favor the first analysis until additional data become available.

Japhug ideophones, while they occur in positions that are specific to them (such as postverbally), are restricted in their syntactic uses in comparison with those of other languages. For instance, in Siwu, Dingemanse (forthcoming) reports at least five constructions where ideophones can be used: adverbial, complement, holophrase, adjectival, and predicative. Of these five types of construction, only two have an equivalent in Japhug: adverbial and very marginally adjectival.

This is, however, compensated for in Japhug by the existence of a rich deideophonic verbal morphology, examined in section 5, that allows ideophones to be used as full predicates.

\subsection*{4.4. Discourse function.}

Ideophones are nonessential to communication in that for any sentence with an ideophone, it is possible to build another sentence of identical truth value without an ideophone. The frequency of ideophones varies considerably in discourse. It is possible to have more than ten minutes of stories, procedural texts, or conversations without a single ideophone. It is equally possible to find multiple sentences in a row each containing an ideophone or a deideophonic verb.
Ideophones convey rich and intricate meanings in a succinct way. In traditional stories, appropriate use of ideophones contributes greatly to the vividness of the description. For instance, in (45), the ideophones ndundred 'huge and imposing' and ncyrnycznt 'loud and moving around' evoke a much more expressive picture than the translation provided here in plain language. Speakers report, upon hearing such a sentence, imagining huge trees and flocks of birds flying around, twittering and chirping.

(45) nuw ra ty-stu-t-a tce, sungwnaxcwin ndundred zo
DEM PL PFV-do.like-PST-1SG LNK deep.forest IDEO:STAT:huge EMPH

nuw-stu-t-a, w-tak, pya ncyrnycznt zo nuw-mbri tce
PFV-do.like-PST-1SG 3SG-on birds IDEO:DYN:loud EMPH TESTIM-call LNK

'I acted this way, I created a huge and deep forest on the top of whose trees birds are twittering.' (Smanmi metog koshana4 218–19)

In conversations, at least in the corpus drawn on here, ideophones are much rarer than in stories or procedural texts, and data are lacking to provide a detailed description.

5. Deideophonic verbs. Japhug has a very rich and productive system of denominal prefixes deriving verbs from nouns (see Jacques 2012, 2014). Some of these denominal prefixes can be used to derive verbs from ideophones: γγ-, sv-, and nuw-.

The denominal prefix γγ- derives intransitive and transitive verbs from possessed nouns. As can be seen in table 8, verbs in γγ- have varied semantics. We find stative verbs expressing a property linked to the base noun, intransitive dynamic verbs describing the coming into existence of the entity designated by the base noun, or verbs (transitive or intransitive) designating an activity linked with the base noun (Jacques 2012:1218).

<table>
<thead>
<tr>
<th>NOUN</th>
<th>MEANING</th>
<th>DENOMINAL VERB</th>
<th>MEANING</th>
</tr>
</thead>
<tbody>
<tr>
<td>-mdzu</td>
<td>‘thorn’</td>
<td>γγ-mdzu</td>
<td>‘to have thorns’</td>
</tr>
<tr>
<td>tv-mbyo</td>
<td>‘deaf person’</td>
<td>γγ-mbyo</td>
<td>‘to be deaf’</td>
</tr>
<tr>
<td>-tsru</td>
<td>‘sprout’</td>
<td>γγ-tsru</td>
<td>‘to sprout’</td>
</tr>
<tr>
<td>-k’w</td>
<td>‘smoke’</td>
<td>γγ-k’w</td>
<td>‘to be smoked, to have smoke’</td>
</tr>
<tr>
<td>-rask</td>
<td>‘hunt’ (n)</td>
<td>γγ-rask</td>
<td>‘to hunt’ (intransitive)</td>
</tr>
<tr>
<td>-jmo</td>
<td>‘dream’ (n)</td>
<td>γγ-jmo</td>
<td>‘to dream of’ (transitive)</td>
</tr>
</tbody>
</table>

With ideophones, γγ- exclusively derives intransitive dynamic verbs, whose semantics correspond to ideophones of patterns 3 (R-ny-R) or 4 (R-ny-IVC). Unlike denominal derivation in γγ-, which does not appear to be productive anymore, deideophonic verbs in γγ- can potentially be created from any ideophone allowing dynamic semantics.
Ideophonic verbs in γγ- allow two distinct derivational forms, which are correlated with pattern 3 (R-γγ-R) or and pattern 4 (R-γγ-lVC), respectively. The first pattern has full reduplication of the ideophonic root and the same semantics as pattern 3 ideophones. As a result, (46) and (47), for instance, are semantically equivalent.

(46) puwu-γγ-žjanzjan zo jv-ari  
  CONST-IDEOPH:INTR-IDEO:tall EMPH PFV-go[II]  
  ‘He went [there], very tall.’ (elicited)

(47) žjanzjanzjan zo jv-ari  
  IDEO:DYN:tall EMPH PFV-go[II]  
  ‘He went [there], very tall.’ (elicited)

The second pattern involves partial reduplication, where the onset of the second syllable is replaced by l, as in pattern 4 ideophones. Its semantics are also similar to pattern 4, as shown by examples derived from the root ñcryt ‘loud, intensely burning’. Here, both the pattern 4 ideophone ñcryt in (48) and the deideophonic verb puwu-γγ-ñcryt-nuw in (49) indicate loud voices from different people speaking in disorderly fashion.

(48) tsevo  pytmmawondyn jv-azgwt rca ma kha  
  these.days (name) PFV-arrive TOP LNK house  
  puwu-γγ-ñcryt-nuw  
  CONST-IDEOPH:INTR-IDEO:DISORDER:loud/burning-PL  
  ‘Panma ÑOd.ldan has returned these days, as one can hear loud voices in his house.’  
  (Slob.dpon 298)

(49) ñcryt  zo puwu-nyma-nuw  
  IDEO:DYN:DISORDER:loud/burning EMPH PST.IPV-AUTO-work-PL  
  ‘They were speaking loudly while working.’ (Slob.dpon 356)

With ideophonic roots designating concrete shapes such as žjγγ ‘tall’ in (50), this derivation implies an irregular motion without direction.

(50) rnyw  nu w-zda  rnyw ra ku-fse ku-rvzi  
  boulder TOP 3SG.POSS-companion boulder PL NMLZ:S/A-be.like IPV-stay  
  my-kw-kw  ci,  ñeqen eyre tu-γγ-žjγγlγγ  
  NEG-NMLZ:S/A-be.able INDEF LNK IPV-DEIDEOPH:INTR-IDEO:DISORDER:tall  
  nγ  tu-γγ-žjγγlγγ  ku-ra  ci  
  LNK IPV-DEIDEOPH:INTR-IDEO:DISORDER:tall NMLZ:S/A-have.to INDEF  
  pγγ-γγ  EVN.IPV-be  
  ‘This boulder could not stay in place like the other boulders, it was always moving around, very huge.’ (Divination 23–24)
Derivation with sγ- instead of γγ- creates a transitive verb with comparable semantics. We do find some examples of sγ- as a denominal prefix deriving transitive action verbs. The most interesting example with this derivation is sγ-κβw ‘to smoke out, to fill with smoke’ (transitive), which derives from the possessed noun -κβw ‘smoke’ like its intransitive counterpart γγ-κβw ‘to be smoked’. The pairing of intransitive γγ-κβw with transitive sγ-κβw is unique among denominal verbs, but formally identical to deideophonic verb pairs such as intransitive γγ-ζjγ/κγ ‘move around in disorder, in all directions (of a tall or large object)’ and transitive sγ-ζjγ/κγ ‘shake in disorder, in all directions (a long object like a stick)’.

While with γγ- derivation the characteristic described by the ideophonic root is interpreted with respect to the S of the verb, in the case of sγ- derivation it applies to the P, and implies the existence of an external agent.

As with intransitive deideophonic verbs in γγ-, there are two possible derivations. First, sγ- appears with complete reduplication and semantics identical to pattern 3 (R-nγ-R) ideophones (compare (51) with example (6)).

(51) mbro nw-sγ-ζjanζjan  zo  nw-γβ-numbrrwpw
horse CONST-DEIDEO:TR-IDEO:tall  EMPH  CONST-PROG-ride

‘He looks very tall riding his horse.’ (elicited)

Second, sγ- can be combined with partial reduplication in l implying a disorderly action, as in (52), with the same semantics as pattern 4 ideophones.

(52) lasjwγ nw-sγ-ζjanζlan
staff  CONST-DEIDEO:TR-IDEO:DISORDER:tall

‘He sways the staff in all directions.’ (elicited)

The third derivational prefix that forms deideophonic verbs, nw-, is used without reduplication. These (dynamic) transitive verbs express an action resulting in a state whose semantics corresponds to pattern 2 ideophones. Thus, example (53) has the same meaning as (4).

(53) uz0 ku  ta-nw-ζjan  zo  ta-rmbw
he  ERG  PFV:3→3′-DEIDEO:STATIVE-IDEO:tall  EMPH  PFV:3→3′-pile.up

‘He piled it up very high.’ (elicited)

Example (54) shows the same use with a verb derived from the ideophonic root `κkrγγ, which means ‘lying on a hard and cold surface’.

(54) tγ-azuzu-ndsai  tce,  w-zda
PFV-wrestle-DU  LNK  3SG.POSS-companion
pa-nw-`κkrγγ
PFV:3→3′-DEIDEO:STATIVE-IDEO:lying.on.a.hard.surface  EMPH
Deideophonic verbs, whether transitive or intransitive, can be used as predicates in their own right, as in (48), (50), and (52) above, or together with a non-ideophonic verb, as in (46). In the latter case, the emphatic linker zo often appears between the deideophonic verb and the other one. The two verbs share the same person and number and often (but not always; see (46)) the same tense-aspect-mood forms, as in (54) and (55).

(55) qʰyeŋwu tw-ci \textit{tr-sy-donu}-a
gutter INDEF.POSS-water PFV-DEIDEO:TR-IDEO:flowing.noisily-1SG
pu-lat-a
PFV:DOWN-throw-1SG
'I dumped the water in the gutter (causing it to make a lot of noise).'</em>

Just like ideophones, deideophonic verbs can appear before or after the other verb. Thus, example (51) can be rephrased as (56).

(56) mbro pu-\textit{yr}-nuh\textit{mbry} pu-sy-zjanzjaŋ zo
horse CONST-PROG-ride CONST-DEIDEO:TR-IDEO:tall EMPH
'He looks very tall riding his horse.'

For impersonal meteorological phenomena, we find in Japhug morphologically transitive verbs that do not allow any agent in the ergative. The verbs in question are βzu ‘make’ and lṛt ‘throw’. When a deideophonic verb occurs in these constructions, both the transitive \textit{s}y- or the intransitive \textit{γ}r- can be used interchangeably. Thus, while (57) has transitive \textit{pu-sy-\textit{qum}}cuŋ\textit{um}, intransitive \textit{pu-γr-\textit{qum}}cuŋ\textit{um} would also be possible.

(57) t\textit{umu pu-sy-\textit{qum}}cuŋ\textit{um} zo \textit{pu-γr-\textit{sw}}-lr\textit{t}
sky CONST-DEIDEO:TR-IDEO:drizzle EMPH CONST-PROG-throw
'It is drizzling.'

Some deideophonic verbs are used in idiomatic expressions whose meaning cannot be predicted. The most common such example is (58), which appears as the conclusion of most traditional stories and would correspond to English \textit{They lived happily ever after}.

(58) tu\textit{rma} tw\textit{blu}
NMLZ:ACTION-live.at NMLZ:ACTION-burn
cʰγ-\textit{nu-sy-\textit{n}}cy\textit{n}cy\textit{r}t-n\textit{u}
EVD-AUTO-DEIDEO:TR-IDEO:loud/burning-PL NMLZ:P-say TESTIM-be
'\textit{They lived a prosperous and thriving (lit., ‘burning’) life, it is said.}’

\textit{(many examples)}
Aside from deideophonic verbs in γv-, sv-, and nw-, we also find isolated examples derived with the prefix a-. All such examples are stative verbs depicting shape or spatial distribution, and can present either complete or partial reduplication of the ideophonic root. For instance, from the ideophonic roots vbrvl ‘sparse and scattered (as of trees)’ and vlju ‘cylindrical’ it is possible to derive the verbs abrvlbvrl ‘to be sparse’ and alulju ‘to be cylindrical’ with reduplication of the root.

6. Deideophonic nouns. While Japhug has deideophonic verbs, there is no corresponding regular derivation producing nouns. Yet we do find ideophonic elements in the formation of some nouns and classifiers.

First, ideophones appear in compound nouns, for which the best example is jasmνzdνzdν ‘bird sp.’. The first element of this compound jasmν- is the status constructus form of the possessed -jasmu ‘thumb’, itself derived from -jαr ‘hand’ and -μu ‘mother’ (see Jacques [2012] for more detail on vowel alternations in nominal compounds). The second element, zdνzdν, is a pattern 2 ideophone meaning ‘small and active’.

Second, we find classifiers that appear to be derived from ideophones. For instance, tu-bo ‘one group (people, animals)’ is clearly related to the ideophone vbo ‘as a group’. Here, the absence of obvious etymology and the presence of a voiced initial b suggests that the direction of derivation is indeed from ideophone to classifier rather than the other way round.

Another such case is the classifier tu-tvxr ‘one round, one circle (e.g., around a field)’, whose root is related to the ideophone tvxr ‘round, rotating’. Here, the derivation took place in two steps, first from tvxr to the unattested noun *tv-xur, then from this noun to the classifier tu-tvxr.

7. What ideophones are not. Three classes of words share properties with, but are distinct from, real ideophones: onomatopoeia, interjections, and calling sounds. Although all three also present phonological markedness and some degree of iconicity, they are not subject to ideophonic morphology as described in section 2 and do not share the same syntactic properties.

7.1. Onomatopoeia. While many ideophones are clearly of onomatopoeic nature, not all onomatopoeic forms are ideophones in Japhug. In particular, imitation of animal calls, as in (59), may not always be subject to ideophonic morphology as described in section 2. Besides, they are generally reduplicated three or more times and thus their forms cannot be compared with any of the nine ideophonic patterns.

(59) nw-xtci tsa, tu-mbri nu ra cut cut cut so tu-ti

\text{TESTIM-be.small} \text{a.little} \text{IPFV-call} \text{TOP} \text{PL} \text{onomatopoiea} \text{EMPH} \text{IPFV-say}

nw-νu

\text{TESTIM-be}

‘It is small and when it calls it goes “cut cut cut.”’ (qmbrupγa 8)
Like ideophones, this type of onomatopoeia is compatible with the light verbs *ti* ‘say’ and *pa* ‘auxiliary’, but onomatopoeic forms have not fully entered the ideophonic morphological system and cannot serve as verb adjuncts. Onomatopoeic forms are commonly triplicated (like *cut cut cut* in (59)) or even reduplicated more than three times, unlike real ideophones. In Japhug, unlike languages such as Chintang (Rai et al. 2005), triplication is not part of the regular ideophonic morphology.

### 7.2. Interjections.

Interjections are marked words expressing a feeling or an emotion like ideophones, but unlike them, they are typically involuntary responses to stimuli (Dingemanse 2011b). In Japhug, they cannot serve as verb adjuncts, cannot receive ideophonic morphology, and are used either in isolation, in their own clause, as in (60), or as the P of verbs of speaking like *ti* ‘say’, as in (61).

(60) *acʻi!*  
INTERJECTION:correction TESTIM-2-be.right  
‘Of course (I take back what I said)! You are right.’ (The demon, 44)

(61) *tv-γyndza tçe wutće utće tu ti, tv-sy-ƞke tçe*  
PFV-be.cold LNK INTERJECTION:cold NEG:IMP-2-say PFV-DEEXP-burn LNK  
*atsatsa ma-tu-ti, ku-mŋym tv-tu tçe*  
INTERJECTION:pain NEG:IMP-2-say NMLZ:S/A-hurt PFV-exist LNK  
*atsatsa ma-tu-ti ra*  
INTERJECTION:pain NEG:IMP-2-say FACT:have.to  
‘When you will feel cold, don’t say “ah,” when you will feel hot, don’t say “ouch,” when you will feel pain, don’t say “ouch,”’ (Flood 3 64)

Interjections in Japhug include *wudz w̱di* ‘expressing fear’, *ama* ‘expressing surprise’, *xuc̱ uc̱o* ‘expressing tiredness’, *atsatsa* ‘expressing pain’, *wutće utće tu* ‘expressing cold’, and *acʻi* ‘taking back the words one has just said’.

Phonologically, these words are unusual in different ways from ideophones. They do not contain rare phonemes or clusters, but almost all start in *a*- or *wu*-.

### 7.3 Calling and chasing sounds.

Calling and chasing sounds are sounds used by people to interact with animals. They are used to attract animals to come toward the speaker (calling sounds) or to drive them away from the
speaker (chasing sounds). In Japhug, nearly all domestic animals, whether mammals or birds, have distinctive calling sounds, a list of which is provided in table 9. Given the rudimentary nature of man-animal interactions, it is not surprising that these sounds cannot be subjected to any morphological operation other than reduplication. They cannot be used with any light verbs or occur as adjuncts.

Phonologically, these words contain very unusual sounds. Unlike ideophones, which contain unusual clusters or rare phonemes, calling sounds make use of consonants and vowel that are not found at all in the standard lexicon: the dental click /, the glottal stop in a cluster [ʔw] or as a coda, and breathy voice.

Only one of these words appears to have an identifiable etymology: son ‘chasing sound for dogs’ is possibly related to the past tense son of the verb ‘to go’ in Tibetan.

### Table 9. Calling and Chasing Sounds in Japhug

<table>
<thead>
<tr>
<th>SOUND</th>
<th>ANIMAL</th>
<th>FUNCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>té³a</td>
<td>cat</td>
<td>chasing</td>
</tr>
<tr>
<td>té³i té³i</td>
<td>cat</td>
<td>calling</td>
</tr>
<tr>
<td>wule</td>
<td>cow</td>
<td>chasing</td>
</tr>
<tr>
<td>afleble</td>
<td>cow</td>
<td>calling</td>
</tr>
<tr>
<td>son</td>
<td>dog</td>
<td>chasing</td>
</tr>
<tr>
<td>tsa? tsa?</td>
<td>dog</td>
<td>calling</td>
</tr>
<tr>
<td>kcut</td>
<td>fowl</td>
<td>chasing</td>
</tr>
<tr>
<td>tšutšutšutšutšutšu</td>
<td>fowl</td>
<td>calling</td>
</tr>
<tr>
<td>kʰuću</td>
<td>goat, sheep</td>
<td>chasing</td>
</tr>
<tr>
<td>tititi</td>
<td>goat</td>
<td>calling</td>
</tr>
<tr>
<td>čiřji</td>
<td>horse</td>
<td>chasing</td>
</tr>
<tr>
<td>a ø ø ø</td>
<td>horse</td>
<td>calling</td>
</tr>
<tr>
<td>zhozhozhozho</td>
<td>hybrid yak (female)</td>
<td>calling</td>
</tr>
<tr>
<td>ac³oe³o</td>
<td>hybrid yak (male)</td>
<td>calling</td>
</tr>
<tr>
<td>buwo</td>
<td>ox</td>
<td>chasing</td>
</tr>
<tr>
<td>té³y</td>
<td>pig</td>
<td>chasing</td>
</tr>
<tr>
<td>anininini, ĭwan, ĭwan ĭwan</td>
<td>pig (adult)</td>
<td>calling</td>
</tr>
<tr>
<td>aninini /////</td>
<td>pig (little)</td>
<td>calling</td>
</tr>
<tr>
<td>alolo</td>
<td>sheep</td>
<td>calling</td>
</tr>
</tbody>
</table>

### 8. Conclusion.

Japhug ideophones are an exceptionally rich topic, and the present work only scratches the surface. Directions for future research are to provide as complete as possible a list of ideophones with clear indications as to which morphological patterns are attested for each particular ideophone and with example sentences for each of them, and to investigate in more detail their uses in discourse.

Another area for future research is comparison with other Rgyalrong languages. Preliminary work on Situ and Zbu Rgyalrong, as well as comparison...
with Sun and Shidanluo (2004) indicate that some ideophones are shared between several varieties; the question of whether some ideophones are inherited from Proto-Rgyalrong (if they present the regular sound laws) and how they are diffused across dialects will only be possible when comparable work, including comprehensive lists of ideophones, is undertaken on as many dialects as possible.

Notes

Acknowledgments. I would like to thank Mark Dingemanse, Aimée Lahaussois, and two anonymous reviewers for their insightful comments and corrections. This research was funded by the HimalCo project (ANR-12-CORP-0006) and is related to the Labex EFL (funded by the ANR/CGI).

Abbreviations. The following grammatical abbreviations are used: 1 = first person; 3 = third person; 3→3’ = third person acting on third person; A = agent-like argument of transitive verb; AFFIRM = affirmative; ANTICAUS = anticausative; AUTO = autobenefactive/spontaneous; AUX = auxiliary; CAUS = causative; CISLOC = cislocative; COMP = complementizer; CONST = constative; DEIDEOPH = deideophonic; DEM = demonstrative; DU = dual; DYN = dynamic; EMPH = emphatic; ERG = ergative; EVD = evidential; FACT = factual; GEN = genitive; GENR = generic; IDEO = ideophone; II = stem form 2; III = stem form 3; IMP = imperative; INDEF = indefinite; INTENS = intensive; INV = inverse; IPFV = imperfective; IRR = irrealis; LNK = linker; LOC = locative; NEG = negative; NMLZ = nominalizer; P = patient-like argument of transitive verb; PFV = perfective; PL = plural; POSS = possessor; PROG = progressive; PST = past; R = root; REDP = reduplication; S = single argument of intransitive verb; SEMEL = semelfactive; SG = singular; STAT = stative; TESTIM = testimonial; TOP = topic; TR = transitive; TRANSLOC = translocative. Conventions for glossing largely follow the Leipzig Glossing Rules (http://www.eva.mpg.de/lingua/resources/glossing-rules.php).

Transcription. IPA symbols are used. The symbol  for marks ideophonic roots. Chinese borrowings are indicated in pinyin (rather than IPA) between angle brackets ( ).

1. There are four or five Rgyalrong languages: Tshobdun, Zbu, Japhug, and Situ (the last perhaps two distinct languages), spoken in Rngaba prefecture, Sichuan, China. The exact number of speakers for Japhug is difficult to ascertain, but probably under ten thousand. All four languages are subsumed under the single Ethnologue code jia, but intelligibility is quite low (it requires months of daily exposure for speakers of one Rgyalrong language to learn another one). Each of the languages displays considerable dialectal diversity, especially Zbu and Situ.

2. Examples from the recorded corpus are accompanied by the short title of the text and a line number. Some of the texts are available on the Pangloss archive (http://lacito.vjf.cnrs.fr/archivage/tools/list_rsc.php?lg=Japhug&aff=japhug).

3. Sentence (12) was explained in plain language as in (i).

(i) tsuku ku-mbro tsuku ku-mbyr ku-fse
some NMLZ:S/A-be.tall some NMLZ:S/A-be.short NMLZ:S/A-be.like
‘som tall and some short’ (elicited)

4. The actual phonetic realization of these clusters involves an ultrashort svara-bhakti vowel; thus, for instance, sras is actually realized as [sras’].

5. There is only one exception, the noun gomndron ‘wild goose’, but an onomatopoeic or ideophonic interpretation of the second syllable is not impossible; compare the Tibetan name of the same bird, kʰ′runj’kʰ′runj.
7. This count does not include clusters with preinitial + g and g + medial, which are more commonly found in Tibetan loanwords. Clusters such as b + medial, on the other hand, are not found outside of ideophones.
8. The phonetic realization of this coda, which is transcribed as -β although it is phonologically an allophone of w, depends on the speakers. Some always pronounce it as [w], while for others there is free variation between [w], [β], [p], and [g].
10. Audio files for figures 1 and 2 are available in the electronic version of this article on Project MUSE.
11. Note that zurzurzur is not an ideophone in the sense in which that term is used here (see section 7).
12. Stem forms involving ablaut and suppletion mark various verbal categories of tense, aspect, number, and person. Stem 3 (noted as “III” in the gloss of (31)) only appears in the transitive conjugation; it is restricted to direct forms with third person patient and singular agent (1SG>3, 2SG>3, 3SG>3) (Jacques 2004:351—57).
13. Right dislocation does occur in Japhug (see Jacques 2013:207—8) and allows any adjunct, noun phrase, postpositional phrase, or verb complement to occur postverbally. However, it is rare and has a distinctive intonation not found with postverbal ideophones.
15. This word, borrowed from English ‘American’ through Tibetan, was translated to me into Chinese as meaning ‘Albanian’, a curious confusion which no doubt occurred during the Cultural Revolution before 1971.

References

Boas, Franz, and Ella Deloria

Boersma, Paul, and David Weenink

Bradley, David

Diffloth, Gérard

Dingemanse, Mark
forthcoming Expressiveness and System Integration: On the Typology of Ideaphones, with Special Emphasis on Siwu. Sprachtypologie und Universalienfor-}

schung: STUF.

Gerner, Matthias

Güldemann, Tom

Jacques, Guillaume

Jacques, Guillaume, and Zhen Chen

Nikolaeva, Irina, and Maria Tolskaya

Pellard, Thomas


Sun, Jackson T.-S., and Shidanlua
2004 Căođàng Jiüróngyú de zhuàngmàocí [The Ideophones in Tshobdun Rgyal-}

rong]. Mínxú yùwén 5:1–11.

Zwicky, Arnold M., and Geoffrey K. Pullum