Reduplication in Tibetan

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Abstract. Reduplication in Tibetan is a mainly lexical operation, but there are also some inflectional functions (intensity of action, distributive, numeral formation). Additionally, lexical – not 'lexicalized' – reduplication plays a much bigger role in Tibetan grammar than is generally assumed. It forms part of the wide range of possibilities of endo- and exocentric compounding and clipping of words; i.e., reduplication, just like all other compounds and derivatives, always remains open to subtractive operations as part of further morphological treatment of the word. This can be exemplified with the comparative of a reduplicative adjective: nyung nyung 'few' – nyung ba 'fewer'.

Keywords. Tibetan, morphology, reduplication, word formation, clipping

1. Introduction

Reduplication is usually defined as a morphological process which repeats the morphological base entirely or only partially (cf. Haspelmath 2002: 274), e.g. Indonesian kanak kanak 'children' (full reduplication), or Latin te-tig-i 'I have touched' (partial reduplication from √ta[n][g- 'touch']). Nonetheless, reduplication is often a word formation device which makes it also a lexical phenomenon, often (but not always) leading to lexicalized forms, e.g. Tibetan chung chung 'small' (lexicalized), as opposed to snying pa snying pa 'very old' (elative).

Additionally, repetition of elements is observed in other parts of grammar as well. For syntactic repetitions, e.g. in German "Reiten, reiten, reiten, durch den Tag, durch die Nacht, durch den Tag. Reiten, reiten, reiten." (Rilke 1899), or Tibetan hthung hthung" ['tun tun], 'Drink, drink!'. At the text level, partial recurrence (cf. de Beaugrande & Dressler 1981: 60f.) is a frequent cohesive pattern, as in German "Sie wanderten viele Stunden [...]. Von der langen Wanderei ermüdet [...]", or in English "He caught many fish [...] Tired from fish-catching [...]". Recurrence is even more acceptable and more used in other languages, such as in Maltese and other semitic languages (cf. Maas 2005), but also in Tibetan, cf. chos kyi hkor lo skor ba ['tö-ki k'o-lo korwa] 'turn the wheel of dharma') (lit. 'dharma-wheel-turn'), bskor ra bskor [kora kor] 'encircle' (lit. 'turn(n)-turn(v)').

It will be shown that reduplication in Tibetan is neither merely a lexical phenomenon nor unrelated to these repetitive constructions. On the other hand, reduplication will be compared to other morphological devices for word formation in Tibetan.

1 Throughout this paper, transliteration (close to Wylie 1959) is used for Tibetan examples, with the exception of dialect forms which 'cannot' be put into written form.
which are equally difficult to separate from grammatical operations, such as various forms of exocentric compounding. In other words, Tibetan word formation, including lexical reduplication, will be shown to be very close to inflection and syntax in Tibetan, in accordance with its typological (Sino-Tibetan) and areal (Indo-Tibetan) characteristics.

2. Formal types of reduplication in Tibetan

Reduplication in Tibetan has been described so far extensively in Uray 1954 (Written Tibetan, WT), but also in Vittrant & Robin 2007 (Modern Tibetan, MT), and partly in Vollmann 2001a, 2006a, Vollmann & Wagner 2006 (both WT and MT); it is also mentioned in various other publications, such as Volkart 2003 (as a word formation type), or Zeisler (2004: 315). As will be shown later, lexical reduplication plays in important and interesting role.

2.1. Overview

According to Uray's (1954) descriptive approach, we find the following types of reduplication in Tibetan:

1. stem duplication, e.g. thib thib 'very dark'
2. word duplication, e.g. ge ru ge ru hgro ba 'grow old'
3. stem gemination with alternating vowels, e.g. khrag khrug 'confused' < 'khrug' 'bedisturbed'
4. word gemination with alternating vowels, e.g. ya nge ye nge 'doing anything uncertainly' < g.yeng ba 'disturb the mind'
5. gemination with alternating initials, e.g. car mar 'always, continually' < car 'at once'; cf. holiday schmoliday
6. triplication, in onomatopoetic words only, e.g. hu ru ru 'a whizzing sound' < hur 'noise'
7. other forms of repetition
   7.1. Coordinative structures, e.g. mjes kyang mjes 'very beautiful' (kyang 'CONC'); lo dang lo 'yearly' (dang 'SOC')
   7.2. Positive/negative oppositions, e.g. chos dang chos med 'doctrine and non-doctrine'; gya ma gyu 'quiet, calm'; hdra mi hdra 'like and unlike'
   7.3. Epenthetic –e–, e.g. shigs se shigs 'rocking'; mal le mal 'resting [in a specific way]'
   7.4. here and there, e.g. phar slob tsur slob 'who are mutually scholars of each other' (lit. 'hence and forth learning')
   7.5. Ablative – illative sequences, e.g. gong nas gong du 'higher and higher, more and more'; zhag nas zhag du 'from day to day'
   7.6. N+V (?), e.g. phung po spungs nas 'zu Häuf en aufgehäu ft'; chibs la chibs pa 'riding on a horse'; mchog gi mchog 'the most excellent, the best of best' (with varying particles: NS, ABL, DAT, GEN).
   7.7. Other types, e.g. res ... res ... 'at one time, ..., at another time, ...'; yang ... yang 'both ... and ...'; cf. French ni ... ni ..., etc.
This list already gives structures which are by definition considered reduplications or repetitions, respectively.

01. **lexical reduplication**
   (a) lexicalized: *chung chung* ‘small’
   (b) with change in meaning: *myur ba myur ba* ‘very quick’ (elative)

02. **grammatical reduplication**
   (a) distributive meaning: *gnyis gnyis* ‘two by two’
   (b) with verbs: modal function (?)

03. **repetition**
   *yin dang yin* ‘Surely!’ (lit. ‘Is and is’), *hthung hthung* ‘(Please) drink!’

04. **recurrences, etc.**
   *za ma za* ‘eat [food]’; syntactic patterns

In the following sections, semantic, formal, and typological aspects will be discussed.

### 2.2. Lexical reduplication – stem vs. word

The most frequent form of reduplication in Tibetan are those of stems and words, whereby originally (and in WT), only stems were reduplicated, e.g. *thib thib* ‘very dark’ < *thib* ‘dark’. As Uray puts it, “the suffix of the reduplicated word disappears, that is, the stem alone is repeated and the phonetic form of both parts is identical. This description is, however, incomplete and needs further specification” (Uray 1954: 180). The repetition of entire words, without deletion of suffixes, usually has an elative meaning, e.g. *snying pa snying pa* ‘very old’ < *snying pa* ‘old’; this type of reduplication is identified as an ‘earlier development’ (cf. Uray 1954: 220).

Most reduplicated forms in Tibetan are lexical reduplications. The formation of adjectives by reduplication is unproductive, but they often share a semantic feature – denoting some kind of smallness, cf. *chung chung* [ṭʰrgyi] ‘small’, *thung thung* [ṭʰur] ‘short’, *snyung snyung* [pʰrni] ‘few’, *leb leb* [lebleb] ‘flat’, *bsdus bsdus* [d’yɛː] ‘briefly’, etc. Nonetheless, there is a productive formation with intensive meaning (elative), e.g., *dgon pa snying pa snying pa zhiig* [g’ʊŋba miŋba miŋba ṭik] ‘a very old monastery’; *bsos pa bsos pa* [sɔchɔsaŋa] ‘very fresh’ (“fonction qualifiante”, cf. Vittrant & Robin 2007: 82); this function is reported for various dialects, e.g., Dege (Kham): [ribo ribo] ‘very long’, beside an elative suffixation [ribo:ma] (Hässler 1999; WT *ring po*). Formally, we find a difference here: unproductive lexical reduplication concerns single syllables, whereas elative meaning seems to coincide with (bisyllabic) word reduplication. Another pattern involving adjectives and reduplication is the following: *che ru che ru* [ṭʰerut’eru] ‘become stronger’ (lit. ‘big-ILL big-ILL’), *mang ru mang ru* [məŋrumrnu] ‘become more’ (lit. ‘much-ILL much-ILL’), again involving bisyllabic bases. Uray mentions the (Western Tibetan) form *maŋ-na maŋ-na* ‘little more (every day)’ < *maŋ-na* ‘much/many’ < CT *mang ba* ‘more’ < *mang po* ‘much / many’ (Uray 1954: 217).

To sum up, stem-based reduplication is usually lexicalized, whereas word-based reduplication produces new derivatives, usually with a pragmatic meaning such as elative.
2.3. Other types

Other types of reduplication are variants of stem-based reduplication (see 3., 5.) or treat words in a syllabic way (see 4., 6.). Contrary to these rare forms, repetitive patterns play a larger role in Tibetan (see 7.); these patterns often involve the repetition of semantic elements with changing grammatical elements (particles), both inflectional and derivative (7.1., 7.2., 7.4., 7.5.); sometimes, epenthetic, but otherwise unmotivated material is added, such as in (4.) and (7.3.) or 'similar' syllables in the case of number formation (explained below). Finally, similar or identical N/V pairs are used (7.6.).

Additionally to Uray's classes, we may add cardinal number formation and a few reduplicative syntactic patterns (usually) with a pragmatic meaning, as well as (stem-based) verb reduplication. Some loanwords, such as *mog mog* 'Momo' < chin. 饃饃 mo2m(mo2) 'small loaf of steamed bread'; *tsha tsha* 'small clay buddha figures' [cf. *phyag tsha* 'HON', *tsha khang* 'place where *tsha tsha* are kept'] < skt. *sacchaya = sad 'gut, heilig' (good, holy) + *chaya *'Abbild' (image) (Tucci 1932: 54f.; quoted in Uray 1954: 184).

2.4. Cardinal number formation

A very specific type of reduplication is found in cardinal number formation (cf. Vollmann & Wagner 2006); all numerals based on 30, 40, and so forth contain a dissimilative reduplicated form (the 'numerical connector particle', *NCP*, Vollmann & Wagner 2006) of the decadic base, cf. (9).

(1) sum cu '30' sum cu so geig^3 sum-tʃu-so-tʃik '31' (etc.)
    zhi bcu '40' bzhi bcu zhe geig ʒi-tʃu-ʒe-tʃik '41' (etc.)
    lnga bcu '50' lnga bcu nge geig ɲa-tʃu-ɲe-tʃik '51' (etc.)
    dgu bcu '90' dgu bcu go geig ku-tʃu-kɔ-tʃik '91'

Since these forms are somewhat redundant, it comes as no surprise that they can be abbreviated ('clipping', see section 6.3.), cf.

(2) so geig so-tʃik '31' zhe geig ʒe-tʃik '41'
    nge geig ɲe-tʃik '51' go geig ko-tʃik '91'

Thus, counting of numbers has been recorded like that: "sum-tʃu-so-tʃik so-pi: so-sã: ...", i.e., with the omission of '30' after the first number. Higher cardinal numbers allow one more degree of partial reduplication with distributive meaning; in this case, only the last part of the numeral is reduplicated (cf. Jäschke 1865: §21, Uray 1954: 182), cf.

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^2 This term shall replace the somewhat vague terminology 'connecting syllable' (Francke 1972 [1929]: 124, 1979 [1901: 19]) and 'grammatical morpheme' (Partionovich 1982: 86).

^1 literally: '3-10-NCP-one', and so on.
(3) mi re-re la sgor mo suM cu so bzhi so bzhi sprod/
    mi re-re-la kormo sum[t[u-so-pfi]-so-pfi  tšo:
    man each-ALL money 30-NCP-4-NCP-4 give
    'Give each man 34 rupees.' (Bell 1977 [1919]: 87)

2.5. A-NS A-CONC, NEG-X 9-X, and similar patterns

Furthermore, Tibetan has many expressions which might be considered as a kind of ‘word play’, such as gang byung mang byung (byed) 'do unrestrained (speech)' (lit. 'whatever-get much-get'), or ci mgyogs gang mgyogs 'as fast as possible' (Vittrant & Robin 2007: 95; ci and gang being wh-words - 'what'), i.e., these are not reduplications. More regularly, mi V dgu V (lit. 'not-V 9-V') expresses that the process took place in an "unorderly" manner ("que le procès est fait n'importe comment", Vittrant & Robin 2007: 90) (pejoratively), cf. (12).

(4) mi 'di: mi-drê: dgu dran byed kyi yod pa red/
    mi dî: mi-drê: ku-drê: tje-ki-jo.e.re:
    man DEM:ERG NEG-think 9-think make-VC-EX:GEN
    'This man thinks too much [= in an unordered way].' (Vittrant & Robin 2007: 90)

A productive pattern of reduplication (or repetition) has the pattern A-NS A-CONC, such as ikugs pa ikugs rkyang [kuk-pa kuk-k'anj] 'completely idiotic' (Vittrant & Robin 2007: 96). Another frequent pattern is X-ABL X-ILL (7.5.).

2.6. Frequency

In order to estimate the amount of (lexical) reduplication in Tibetan, a digital dictionary of Written Tibetan was searched, namely an older version of the Rangjung Yeshe Dictionary with 55,788 entries (at the moment of the analysis); this digital dictionary is a compilation of the important dictionaries of Written Tibetan (Jäschke 1881, Das 1902, etc.) and is thus quite representative for the Written language. Few examples for reduplications had been added from textbooks as well.

This digital dictionary contains (approx.) 844 doubling forms (1.51%), of which 767 tokens can be considered reduplicated forms (1.37%), with 125 echo words (16.29% of the reduplicated forms), and 642 'proper' reduplications (83.7%).

Furthermore, a Tibetan book (Pabongka Rinpoche 1921) was searched for reduplications (cf. Fessl 2006); it revealed 488 reduplications among 782 Tibetan bookpages with estimated 55,000 words, which is 0.88% of all words in this text.

Finally, an ongoing analysis of a Northern Kham dialect shows that reduplication seems to be as frequent in this spoken variant as we can see from the written sources.

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4 Programmer: Dieter Schicker, University of Graz.
5 This comparison was performed earlier, additions and changes to the dictionary are constantly made, therefore, numbers may slightly diverge from the CD version.
3. Full vs. partial reduplication

3.1. 'Syllabic' reduplication

Except for cardinal number formation, all Tibetan examples seem to be full reduplications; cf. chung chung 'small', from WT chung '(be) small', thung thung 'short', from WT thung '(be) short'; the base forms appear in other words, such as che chung 'size' (lit. 'big-small') and go shung 'shirt' (lit. 'short clothes'). Furthermore, reduplicated adjectives have unreduplicated comparatives and superlatives, such as chung ba 'smaller', chung shos 'smallest' and thung ba 'shorter', thung shos 'shortest'. In other words, although the reduplicated form is lexicalized, the base stem is still the basis for other morphological operations (for inflection and word formation).

If a word is bisyllabic, reduplication is working on a syllabic basis, cf. ngam ngam shugs shugs, 'spontaneously', from ngam shugs, 'reluctantly'; yam yam shig shig tu g.yu 'swirl' (ADV+V). The counterexamples to this pattern are the above-mentioned elative forms: nying pa nying pa 'very old', ring po ring po 'very long'.

This syllable-based reduplication of bisyllabic words is shared with Chinese, where we find similar forms, e.g., 讨 讨 論 論 tao tao lun lun 'discuss a little', from 論 tao lun 'discuss' (Paris 2007: 63).

This has to do with the typological characteristic which poses some problems to the concepts of 'word' and 'base of morphological operations'; Tibetan (together with Burmese or Chinese) often deals with seemingly autonomous syllables and a somewhat underspecified notion of 'words' (cf. Vollmann 2006a).

3.2. Morpheme-based reduplications

Beside cardinal number formation, possible candidates for partial reduplication in the dictionary always involve the full reduplication of one morpheme of a multi-morphemic word; this clearly is one aspect derived from the 'syllable-based approach' of Tibetan morphology, cf. blo blo mang [lo lo man] 'many ideas' (intellect:REDUP:many), phar phebs + phebs [p'ha: p'ep' p'ep'] 'coming and going' (going there + going), yer yer po [je je bo] 'scattering' (only + NS), phung phung po [p'un' p'un' bo] 'heap' (phung po 'heap', skandha'), che che snyan snyan [t'eo t'eo pen pen] great & famous (che = big, snyan = hear). In Tibetan morphology, it is common that grammatical particles remain independent entities and therefore do not participate in reduplication as well – with the exception of the above-mentioned elatives, however.

Further candidates found in the dictionary are not (partial) reduplications, but morpheme-based reduplications, and of the above-mentioned plurisyllabic type, cf. bya byelu [t'ha t'i:u] 'all kinds of birds' (lit. bird-bird:DIM, or 'hen-sparrow'), rjes rjes la [t'eo t'eo la] 'well after' (from rjes la 'after'; la=LOC), bde bde ldan ldan [te te

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Vittrant & Robin (2007: 82), however, do not make a functional distinction between syllable-based and word-based reduplications.
3.3. Dialect data

In spoken variants of Tibetan, however, dissimilation processes (for vowels) are found; consider these examples from Nangchen (Northern Kham; cf. Causemann 1989: 97ff.): dze 'speak' > dzebdzā 'constant speaking'; dān 'fly, swim' > dindān 'constant flying around'; thāik 'drop' > thikthāik 'constant dropping'; ssn 'go' > ssn 'constant running around'. In Western Tibetan variants (i.e., Ladakhi, Purik, Balti), under the influence of Indian languages (Dey 1975), there are partial reduplications in which the reduplicated element gets a labial plosive or nasal onset, cf. kharji 'food', yos-mos 'roasted barley', and a labial fricative, if the original onset is labial (dissimilation), cf. palang-walang 'cow' (< tib. ba glang 'cow-cow'); furthermore, the syllable mi is sometimes replaced with khi, cf. mipsat khipsat 'murderer' (< tib. mi 'man', bsad 'kill'), milak khilak 'helper' (mi 'man', lag pa 'hand') (Bettina Zeisler, pers. comm.). There are no systematic studies so far on reduplication in Tibetan varieties.

3.4. Morpheme-based reduplications 2

ADV:RED+V constructions can be explained by the autonomy of the adverb: phyogs phyogs su phebs [f'ok-t]'ok-su p'eb'] 'wandering from place to place' (phyogs 'direction'), etc.; sib sib thib 'vanish' ('slowly' + 'obscure'), sib sib thim, 'dissolve' ('slowly' + 'dissolve'); gzab gzab byed 'be careful' (lit. 'careful:RED+do'); gya gyu hgro 'serpentine-motion' (lit. 'gya-gyu going').

Whether N+ADJ~ADJ constructions are words or word groups may be answered differently in dependence from a morphosyntactic theory: blo chung chung 'narrow-minded' (lit. 'mind-small:RED'; cf. [bsam [blo [chung chung]]] 'childish, timid', with bsam 'thought'), sna khug thung thung 'short-tempered' (nose short:RED), so sgra tog tog 'chattering teeth' (lit. 'tooth sound tok-tok') (cf. also snying tag tag 'heartbeating' as a further onomatopoietic example).

3.5. Echo words and other cases

Tibetan also knows a number of echo words; many of these are vowel changing echo words, such as yam yom byed 'waver, flicker', rgan rgon 'old man + woman' (from rgan po 'old'). With bisyllabic morphemes, there are some recurrent patterns, such as ha re hu re 'careless'; cha(b) be cho(b) be 'mixed up food' (no taste) — in short, there...

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7 This is the transcription used by Causemann.
8 The 'b-' (and 'n-') is an interfix in compounds; it reflects diachronically lost sounds, but is inserted also in new compounds.
9 e.g., of a frog, snake, smoke, river.
are several types with -se-, -be-, -re-; f.ex. *Idem se Idem* 'swing from one side to another'; *chag se nyag se* 'just anything'; *ya se yo se* 'careless', etc. Finally, reduplication occurs in a number of onomatopoeic words and exclamations (*A tsa tsa* 'ouch', *hu ru ru* 'a sound').

4. Recurrences

4.1. N+V

There are quite a few constructions of the type N+V in which the noun and the verb express the same meaning; these kinds of 'pleonasms' are normatively dispreferred in European rhetoric studies ('flumen fluit', etc.), but are also quite 'normal' in Arabic, Hebrew, or Maltese (Maas 2007: 13, 23). Consider these Tibetan examples: *za ma za eat* (lit. 'food-eat'), *khur po khur ba* 'carry a burden' (lit. 'burden-carry'), *chos kyi hkkhor lo skor ba* [tʃʰʰɨ-kʰ oːlo korwa] 'turn the wheel of dharma' (lit. 'dharma-wheel-turn'), *bskor ra bskor* [kora kor] 'encircle' (lit. 'turn(n)-turn(v)'). These examples are more or less leaving the range of reduplication stricto sensu.

4.2. Repetition of verbs

The patterns mentioned earlier (2.3., 2.5.) are actually used widely on a syntactic level, cf. (see Vittrant & Robin 2007: 92 for more similar cases)

(5) \( \text{ngas khr gsd la ma gsd byas nas kho shi la} \)
\( \text{1:ERG 3 kill-ALL NEG-kill done-ABL 3 die-ALL} \)
\( \text{ma shi byas song/} \)
\( \text{ma-fi tʃʰ-son} \)
\( \text{NEG-die done-PFV} \)

'I failed to kill him, and he failed to die.' (Vittrant & Robin 2007: 91)

4.3. Recurrence of CAUS/RES verb pairs

Still a bit farther away from reduplication is the equally frequent construction with two morphologically different verb pairs, namely a causative (AGA-oriented) and a resultative (PAT-oriented) verb form, in one sentence (Vollmann 2006b), cf. (14) for Central Tibetan and (15) for Amdo Tibetan.

(6a) \( \text{ngas dkar yol bca mg pa yin te chag ma song/} \)
\( \text{1:ERG cup break-NS-CJ-VC break-NEG-PFV-DJ} \)

'I [tried to] break the cup, but [it] did not break.' (Tournadre 1996: 204)\(^{10}\)

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\(^{10}\) cf. also Kelzang Gyurme 1992: 255: *ngas dkar yol bca mg pa yin/ yin na'ang chag ma song/ ('J'ai cassé la tasse, mais elle ne s’est pas cassée').
(6b) štamdʒənŋa karu ptcāḵ-tʰa-ra, ma-teḵ-tʰa.
rtag rgyis dkar yol bcag thal ra ma chag thal/
'Tamdrin [tried to] break the cup, but [it] did not break.' (602b) (Haller 2004: 129)

5. Semantics of reduplication

5.1. Analysis of the dictionary data

A semantic classification of the dictionary entries (see section 2.6.) leads to the following categories:

<table>
<thead>
<tr>
<th>Category</th>
<th>tokens</th>
<th>%</th>
<th>Category</th>
<th>tokens</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>movement, iterative</td>
<td>130</td>
<td>17.24</td>
<td>small</td>
<td>34</td>
<td>4.51</td>
</tr>
<tr>
<td>distributive</td>
<td>88</td>
<td>11.67</td>
<td>plural</td>
<td>28</td>
<td>3.71</td>
</tr>
<tr>
<td>sound and speech</td>
<td>78</td>
<td>10.34</td>
<td>exact, complete</td>
<td>20</td>
<td>2.65</td>
</tr>
<tr>
<td>pejorative (or sg. negative)</td>
<td>74</td>
<td>9.81</td>
<td>thinking, etc.</td>
<td>19</td>
<td>2.52</td>
</tr>
<tr>
<td>light, brilliant, colour, vivid</td>
<td>67</td>
<td>8.89</td>
<td>continuative</td>
<td>14</td>
<td>1.86</td>
</tr>
<tr>
<td>shape</td>
<td>55</td>
<td>7.29</td>
<td>other categ.</td>
<td>45</td>
<td>5.97</td>
</tr>
<tr>
<td>intensive</td>
<td>47</td>
<td>6.23</td>
<td>unclassified</td>
<td>55</td>
<td>7.29</td>
</tr>
</tbody>
</table>

Many of these categories can be seen as specific forms of plurality; therefore, a condensed classification is proposed which shows that lexical reduplication in Tibetan has to do mainly with multiplicity/plurality:

<table>
<thead>
<tr>
<th>Category</th>
<th>tokens</th>
<th>%</th>
<th>Category</th>
<th>tokens</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLURALITY</td>
<td>471</td>
<td>62.47</td>
<td>smallness</td>
<td>99</td>
<td>13.13</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>exactitude</td>
<td>55</td>
<td>7.29</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>pejorative</td>
<td>55</td>
<td>7.29</td>
</tr>
</tbody>
</table>

Vittrant & Robin (2007: 82) conclude on their data (see also below) that for nouns and verb bases, the most frequent meaning of reduplication is "quantifying" ("de type quantifiant"), namely plurality of things or events, while for adjectival and adverbial bases, it has a "qualifying" meaning, namely intensive meaning.

5.2. Elative

As mentioned in section 2.2., word-based reduplication of adjectives is a productive elative formation pattern.
5.3. Distributive

Reduplication in pronouns occurs only for the distributive pronoun re re [rere] 'each' (cf. also so so 'each and every', 'ordinary person', 'whoever', 'mister so-and-so'); similarly, distributive numerals are formed by reduplication: gsum gsum 'three each', 'trois par trois'; cf. (8)–(11).\(^{12}\)

(9 a) khang mig re la sge'u khung gnyis gnyis yog red/
  kʰaŋmik' re-la gek'unŋ piː-piː jo.e.re:
  room each-ALL window two-two EX-GEN
  'In each room there are two windows.' (Losang Thonden 1984: 70)

(9 b) dos po hkhyer mkhan gyi mi re re la traM ka
  tʰwpo-kʰe-gičːgi mi rere-la ḥšanka
  kuli each-ALL trangka
  gnyis gnyis sprod
  piː-piː ḥšo:
  2-2 give-IMP
  'Give each kuli two trangkas!' (Bell 1977 [1919]: 86f.)\(^{13}\)

The grammaticalized phrase byas nas is described as having distributive meaning, although it seems to have a more general meaning (see section 4.1.), cf.

(10 a) gsum gsum byas nas 'gro ba
  sum sum tʃeː-neː ḥšo-wa
  three-three DIST\(^{16}\) go-NS
  'marcher trois par trois' (Bacot 1946: 36f.) (lit. 'walk after making three-
  three')

(10 b) khong tsho ngahi rtsa la gnyis gnyis byas nas hhrid shog/
  kʰoŋ-tšo o nhː tsa-la piː-piː tʃeː-neː tʃʰiː-fok'
  3-PL 1-GEN-toward 2-2 DISTR bring-IMP
  'Bring them to me two by two.' (Bell 1977 [1919]: 86)

As mentioned earlier (section 2.4.), complex distributive numerals are formed by the repetition of only the last element, cf. sum cu tsa\(^{15}\) gnyis gnyis 'each time 32' (lit. '3-10-NCP-2-2'); phed dang drug drug '5½ each' (lit. 'half-SOC-6-6') (cf. Vollmann & Wagner 2006).

\(^{11}\) There does not seem to be a simplex 'so', but one finds written 're' (see (08)).
\(^{12}\) In Chinese, distributive meaning can often be encoded in reduplicated classifiers (cf. Paris 2007: 68f.).
\(^{13}\) Cf. Vittrant & Robin (2007: 80) for a similar example.
\(^{14}\) 'byas nas', lit. 'done-ABL', i.e. 'after having done'.
\(^{15}\) tsa is an older NCP, so would be possible here, according to section 2.4.
5.4. Reduplication and parts of speech

The distinction of parts of speech in Tibetan is not always clear; in Old Tibetan, the base syllable (root) may be seen as the nominal form, while any added inflection makes it a verb form, similar to German 'Lug' and 'lügen' ('a/to lie'). In CT/WT, nouns are usually bisyllabic by compounding or the addition of nominalizing particles (e.g., pa, ma, po, mo, ka, kha, cha); some of these particles can also produce adjectives which are formally not clearly distinguished, e.g. che ba 'bigness/bigger', chen po 'big', rin po che 'precious one', etc.; verbs are recognizable partly by an old verb inflection, and the more so by modern verb inflections which vary from dialect to dialect. Since, due to typological characteristics, word formation does not necessarily lead to impenetrable lexicon entries (cf. Vollmann 2006a), one could say that parts of speech distinctions are not stored lexically, but are added by morphological operations (word formation and inflection) and actual syntactic use.

Interestingly, reduplication often serves the function of adjective formation; the majority (66.6%) of the reduplicated forms in the dictionary have a meaning which is usually expressed in adjectival or adverbial form; 22% are nouns, while only 5% are verbs.

\[
\begin{array}{|c|c|c|c|c|c|}
\hline
\text{PS} & \text{tokens} & \% & \text{PS} & \text{tokens} & \% \\
\hline
\text{adj/adv} & 510 & 66,58 & \text{interjections} & 22 & 2,87 \\
\text{n} & 168 & 21,93 & \text{other} & 16 & 2,09 \\
\text{v} & 40 & 5,22 & \text{not classified} & 10 & 1,31 \\
\hline
\end{array}
\]

The relation of lexical reduplication with adjectives seems to exist also in Chinese; among the 74 reduplications found in an online dictionary of Chinese, 50 are adjectives or adverbs; cf. 暗暗 (an4 an4) 'secretly, inwardly'; 草草 (cao3 cao3) 'careless, hasty'; 每每 (mei3 mei3) 'often'; 渐渐 (jian4 jian4) 'gradually'; 牢牢 (lao2 lao2) 'firmly', etc.\(^{16}\)

Adverbs are nominal constructions recognized only by their adherence to the verb and sometimes by the use of ILL case; in other words, they look like NPs; reduplication is also frequent in adverbial phrases, such as gtam shob shob smra ba 'speak falsehood' (Das 1902: 1246) < gtam 'speech', [g]shob 'falsehood, lie', smra 'speak' (Uray 1954: 183).

5.5. Reduplication of verbs

The absence of reduplicated lexical verb forms in Tibetan has to do with two factors; firstly, all word formation, including reduplication, leads to nouns (and adjectives), while only noun incorporation forms new verbs; simple verbs are a closed class of approximately (slightly more than) 1200 forms. Secondly, verb reduplication, although rarely (or never) mentioned in the grammars, is not lexical, but grammatical. Even in CT/WT, we find reduplicated verbs, cf. the following example from translation literature (’rgyal mishtan rtses mo’ Sutra):

\(^{16}\) Chinese has, of course, more instances of non-lexical reduplication (cf. Paris 2007).
According to Zeisler (2004: 315), "[r]eduplication of the verb stem indicates that the action is performed very intensively and thus may have long duration or may be repeated many times." Vittrant & Robin (2007: 81f., 92f.) show that the reduplication of verbs has aspectual meanings such as iteration, habitual, continuous, cf. (MT)

6. Lexical reduplication and other types of word formation

6.1. Introduction

It may be useful to discuss reduplication in terms of Tibetan word formation; this field is discussed in Jäschke 1865, Francke & Simon (1929: 119ff.), Parfionovich 1982, Goldstein & Narkyid (1984: xi), Beyer (1992: 103ff.), Volkart 2003, and Vollmann.
2001a, 2006a. Although Tibetan is traditionally considered a ‘monosyllabic language’, the language follows 2 principles; it is syllabic and it prefers 2-syllable words (cf. Beyer 1992: 92ff.); in order to achieve this, Tibetan uses derivative affixes and compounding in combination with subtraction or clipping. As far as inflection is concerned, there is a highly opaque (older) inflectional system for verbs, and a more transparent particle system for verbs and nouns. Nominal and verbal particles somewhat overlap in clause chaining, i.e., what could be considered syntactic subordination (i.e. case markers can subordinate clauses).

Tibetan word formation plays a crucial role in grammar, because Tibetan is largely based on the concept of (lexical and grammatical) syllables forming phrases, thereby being sometimes less clear with the distinction of words. In other words, Tibetan derivatives and compounds remain accessible to further inflectional and syntactic operations (see sections 3.1., 6.3.). This mixing of inflection and word formation is shortly exposed in the following sections.

6.2. Compounds with inflected verbs


6.3. Clipping/subtraction

In Tibetan (as in other Asian languages such as Chinese or Japanese), clipping/subtraction is a regular morphological operation shortening words according to the needs (in general, or in poetry). There seems to be a tendency to get 2-syllable words. Clipping often deletes grammatical particles, e.g., skar rtsis [kar-tsi:] ‘astrology’ (< skar ma ‘star’ + rtsis pa ‘counting’); sgon rtsis [ṣen-tsi:] ‘budget, estimation’ (< inflected form sgon du rtsis pa [ṣen-du tsi-pa] ‘calculate in advance’). This is another indicator of the underspecification of parts of speech classes at the lexical level:

A characteristic feature of Tibetan word formation is that the suffix of the basis vanishes in compounds or secondary formations, hence, very often we have no criteria to tell which member of the word family should be taken for the basis of the derivative in question. Even the meaning of the derivative is sometimes insufficient to decide the question. (Uray 1954: 187)

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18 This refers to the afore-mentioned ‘old’ inflection of verbs and not to the ‘newer’ particle morphology.
19 The terminology PRS and FUT is inadequate; both forms have imperfective meaning, here, they stand in a causative/resultative opposition.
In the case of honorific formation (cf. Feurer 1996, DeLancey 1998), the bisyllabic word is clipped to the monosyllabic stem (base), thus conforming to the 2-syllable template for nouns, cf.

(14) deb [tʰep] (European) book book
phyag deb [tʰaytʰep] (European) book (hon.) HON-book
lam kha [lamkʰa] road road-NS
phebs lam [pʰeblam] road (hon.) HON-road
zhwa mo [ʒamo] hat hat-NS
dbu zhwa [ʔuʔa] hat (hon.) HON-hat

With these examples, the second part of the word, usually a particle, are deleted. The honorific formation of loanwords sometimes creates apparent problems for this system. With Chinese words, the clipped element can still be a Chinese particle, but in the English/Hindi example, the first syllable mo resembles a nominalizing particle and therefore cannot represent the word 'car'; therefore, the first syllable is deleted:

(15) lcog tse [tʰok'tse] table lw. Chin. 桌子 zhuo¹ zi¹
gsol lcog [sø'tok'] table (hon.) HON-table(?)
mo To [mo'ou] car lw. 'motor (vehicle)'
phebs To [pʰeβto] car (hon.) (HON-[c]ar)

This behavior with respect to subtraction of word parts is also known from Chinese: e.g. 坦克 (che' tank) 'tank (vehicle)' (from English 'tank' (+ 車 che' vehicle'), transforms into 反坦 fan³-tan³ 'anti-tank' through a process of clipping.

Long words, mostly terminological loan translations or loanwords derived from Sanskrit, English, and Chinese, can usually be shortened as well, cf. byang chub kyi sems [tʰan'[tʰup kʰi sem] 'bodhicitta' (lit. 'perfect-mastered-GEN-mind') which can be shortened to byang sems [tʰan sem] 'bodhicitta'; or bod rang skyong ljong [pʰw: ran kʰon dgon] 'Autonomous region of Tibet' (lit. 'Tibet-self-govern-region') (loan transl. of chin. 西藏自治區 xi¹ zang' zi¹ zhi¹ qu') which is shortened to bod ljong [pʰw: dgon] (chin. 西藏 xi¹ zang').

The process of clipping can create new words or syllables with less obvious morphological relationships:

(16) rgya nag China lit. 'plain-black' (diachr.)
rgya nag gi mi man from China lit. 'China-GEN-man'
rgya mi a Chinese person lit. 'Chi(na)-man'
rgya mi'i skad language of the Chinese< 'Ch.'-GEN + 'language'
rgya skad Chinese language '*Chi(naman)s' + 'language'
rgya mihi lam kha road of the Chinese (road to China)
rgya lam chinese road
⇒ rgya 'Chinese' (?) ??new stem??
With reduplication, the same clipping rule applies – if not specified otherwise, and this explains the prevalence of ‘stem-based’ reduplication as well as why an adjective such as chung chung has a comparative chung ba (see section 3.1).

6.4. Exocentric compounds

Tibetan compounding involves not only so-called endocentric compounds, but (to a high degree) also copulative compounds, i.e., dvandva, synonymic, antonymic, enumerative, and reduplicative compounds, cf. dvandva rkang lag [k'aŋ-lak] ‘arms & legs’ (rkang ‘foot/leg’, lag pa ‘hand/arm’); pha ma [pʰa-ma] ‘parents’ (A pha ‘father’, A ma ‘mother’); bzo zhing [zo-zhing] ‘workers & farmers’ (bzo pa ‘worker’, zhing pa ‘farmer’); furthermore, synonymic compounds (cf. ‘redundant compounds’ in Hindi (Singh 1982, 2005); cf. Lezgian (Haspelmath 1993: 108)) and antonymic compounds (cf. also Hindi (Singh 1982, 2005)): tshogs ‘du [tsʰo-ndu] ‘assembly’ (tshogs ‘assemble’y’; ‘du ‘assemble’), (antonymic) ‘jig skrag [dʒi-skʰaɾ] ‘terror’ (jig = skrag ‘fear’), bde sdu[g-de-duk] ‘life situation’ (bde ‘luck’, sdu[g ‘suffering’), yang nyes [jak-ne:] ‘quality’ (yang ‘good’, nyes ‘bad’). The following phrase is one example involving two antonymic compounds in one phrase:

(17) kho rang gi bde sdu[g yag nyes ga 'dras 'dug/ k'orang-gi de-duk ja-ne: k'aand[e: duk
3-GEN luck-suffering good-bad how EX:DJ

‘How is his/her life situation?’

As one special form of dvandva or synonymic formation, the enumeration of a list of entities in the form of enumerative compounds is also popular (cf. ‘etcetera’ compounds in Hindi (Singh 2005) and in Abkhaz (Chirikba 2003: 28)), such as skye nga na hchi [k'e-ga-na-tʃi] ‘the sufferings of human existence’ (lit. ‘birth old-age sickness death’), dal hbyor [dal-dʃor] ‘precious human birth’ (lit. ‘[8] lib[erties] + [10] coll[ections]’).  

Lexical reduplication often plays a similar role in that it can be understood as an exocentric ‘synonymic’ compound, cf. ril ril [rɪl-ːtʃi:] round (‘ril, but cf. ril bu, ‘pill’), khra khra [tʃa-tʃa] multicolored (khra ‘multicolored’).  

7. Conclusions

Reduplication and repetition is a frequent pattern in Tibetan. Firstly, we find a few examples of inflectional reduplication in verbs with aspectual meanings, as well as elative and intensive formation with adjectives.

20 Or, slightly more complicated pha gcig ma gcig ‘same-parents sibling’ (lit. ‘one father, one mother’).
21 18 conditions in a human life for being ‘precious’; freedom from 8 and possession of 10 qualities (cf. Gampopa 1996: 31ff.).
22 They are not possibly endocentric like English ‘a salad-salad’ (meaning ‘a salad made of green salad’), however.
Secondly, we find a wealth of lexical reduplication, more than half of which form adjectives. All forms are to be considered full reduplications, if a specific model of Tibetan morphology as being ‘syllable-based’ is accepted, i.e., that Tibetan assumes morphological independence of each ‘syllable’ – and not a ‘word’. Any morphological process can reverse earlier morphological operations (by clipping), and this holds true also for reduplicated forms. The ‘monosyllabic’ type is thus not isolating, but in fact highly polysynthetic by giving high prominence to morpheme combinations (cf. Kasevič 1981: 2). Therefore, one can speak of ‘lexical reduplication’ as being a productive word formation device which is close to other forms of exocentric compounding. There is one kind of word-based reduplication, however, which involves adjectives and gives an elative meaning; on the other hand, one kind of partial reduplication is involved in cardinal and distributive number formation.

First, there exists a clear semantic motivation for many lexical reduplications, a fact which has already been described for other languages as well, cf. Bikol (Austro-Nesian) (Mates 2007), Arabic (Procházka 1995), Salish (Hess 1966), Portuguese (Kröl 1991). Then, by and large, there is only full reduplication of roots (stems), or monosyllabic morphemes, ‘word’ being a somewhat fluid category in Tibetan. Finally, Tibetan belongs to a language type in which lexical processes such as word formation play a role in grammar (polysynthesis; cf. Bauer 2002 [1988]: 167; cf.; cf. Chinese, or Lehman 1973a,b for Burmese). To conclude, reduplication is not a ‘marginal’ or ‘extragrammatical’ morphological operation (cf. Dressler 2000), but it is one of various word formation processes which help to create words and phrases, mostly with a meaning of plurality, distributivity, quantity, intensity, or few other derived meanings.

On the other side of the scale, repetition of syntactic elements and textual recurrence are equally frequent, and so do echo words, word games, and onomatopoeics. For these reasons, the difference between (morphological) reduplication and (syntactic) repetition (cf. Gil 2005, and others) is probably more difficult to draw.

8. References


9. Abbreviations

<p>| 1,2,3 | 1st 2nd 3rd person pronoun | ILL | illative |
| A. ADJ | adjective | IMP | imperative (or &quot;modal&quot;) |
| ABL | Ablative | LOC | locative |
| ADV | adverb | lw. | loanword |
| AG | agent | MT | Modern Tibetan |
| ALL | allative-dative | N | noun |
| chin. | Chinese | NCP | numerical connector particle |
| CJ | conjunct | NEG | negation |
| CONC | concessive | NS | nominalization |
| CT | Classical Tibetan | NV:EV | nonvolitional-evidential |
| DAT | Dative | PAT | patient |</p>
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<th>Abbreviation</th>
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<td>DEM</td>
<td>demonstrative</td>
<td>PFV</td>
<td>perfective</td>
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<td>diminutive</td>
<td>PL</td>
<td>plural</td>
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<tr>
<td>DISTR</td>
<td>distributive</td>
<td>PRS</td>
<td>present tense (= IPV)</td>
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<td>DJ</td>
<td>disjunct</td>
<td>PS</td>
<td>part of speech</td>
</tr>
<tr>
<td>EQ</td>
<td>equative ('is')</td>
<td>RED(UP)</td>
<td>reduplication</td>
</tr>
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<td>ERG</td>
<td>ergative</td>
<td>SG</td>
<td>singular</td>
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<td>exist-verb</td>
<td>skt.</td>
<td>Sanskrit</td>
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