Repetition and reduplication in Jinghpaw

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Abstract: The purpose of this paper, as a case study of the distinction between repetition and reduplication, is to investigate whether iterative phenomena in Jinghpaw, a Tibeto-Burman language of northern Burma, can be clearly characterized as either repetition or reduplication by applying the criteria for these two iterative phenomena developed by Gil (2005) to a range of Jinghpaw data collected by the author. This paper reports that Jinghpaw, along with prototypical examples of repetition and reduplication, also has non-prototypical cases of reduplication, including reduplication involving more than two copies, reduplication involving discontinuous copies, and reduplication beyond the scope of morphology. Our data also suggest the existence of copying constructions that cannot be classified as either repetition or reduplication, posing difficulties for the binary distinction of iterative phenomena.*

Keywords: iteration, repetition, reduplication, Jinghpaw, Tibeto-Burman

1 Introduction

The iteration of linguistic materials is probably a cross-linguistically universal phenomenon. Iterative phenomena are characterized as either repetition or reduplication: two superficially similar but distinct phenomena manifested as iteration of linguistic materials, where the former is subsumed under syntax or discourse in contrast to the

^{*} A version of this paper was presented at a workshop on repetition and reduplication held at the 39th Annual Meeting of Kansai Linguistic Society, Osaka University, Japan, June 15, 2014. I have greatly benefited from helpful and constructive discussions with Shuichiro Nakao, Yuya Saito, and Yuma Ito, who participated in and presented at the workshop. I would also like to thank two anonymous reviewers with *KULR* for their invaluable comments that improved this paper considerably. All remaining errors are of course my responsibility. My fieldwork in northern Burma was supported by Grants-in-Aid for JSPS Fellows (Nos. 24-2938 and 26-2254).

Abbreviations in this paper are as follows: 1: 1st person; 2: 2nd person; 3: 3rd person; pl: plural; sg: singular; ABL: ablative; ACC: accusative; COM: comitative; CON: conative; CONT: continuous; CONTR: contrastive; COP: copula; CSM: change-of-state marker; DECL: declarative; DESID: desiderative; GEN: genitive; HORT: hortative; HS: hearsay; IMP: imperative; INTJ: interjection; IRR: irrealis; KIN: kinship prefix; LOC: locative; NEG: negative; NMLZ: nominalization; PL: plural; PROH: prohibitive; PSN: person name; Q: question; RED: reduplicant; RES: resultative; SEQ: sequential; SFP: sentence-final particle; TOP: topic; VEN: venitive.

latter, which is morphological in scope. The aim of this paper, as a case study of the distinction between repetition and reduplication, is to investigate whether iterative phenomena in Jinghpaw (ISO 639-3: kac), a Tibeto-Burman language mainly spoken in northern Burma, can be clearly characterized as involving either repetition or reduplication by applying the diagnostic criteria developed by Gil (2005) to a range of iteration data drawn, unless otherwise noted, from a non-elicited Jinghpaw corpus compiled by the author. This paper reports that Jinghpaw, along with prototypical examples of both repetition and reduplication, offers less typical examples of reduplication that diverge from the prototypical case. These atypical examples suggest the existence of reduplication involving more than two copies, reduplication involving discontinuous copies, and reduplication beyond the scope of morphology. This paper also points out the existence of constructions involving iteration that are not classifiable as either repetition or reduplication, posing difficulties for the binary distinction of iterative phenomena.

This paper is organized as follows: Section 2 reviews the literature on the distinction between repetition and reduplication and the diagnostic criteria proposed by Gil (2005) on which the present paper is based. By applying the criteria to an array of iteration data from Jinghpaw, Section 3 and Section 4 provide several cases of prototypical repetition and reduplication in the language, respectively. Section 5 offers further data on iteration, reporting atypical cases of reduplication. Further problematic cases that resist reduction to the binary distinction are provided in Section 6. Building upon data in Sections 3 to 6, Section 7 provides a summary and conclusion.

2 Previous studies and diagnostic criteria

No previous studies of Jinghpaw have investigated the distinction between repetition and reduplication. Onishi (2011) as well as almost all descriptive grammars of the language (Hanson 1896, Liu ed. 1984, Dai and Xu 1992, Dai 2012), as will be mentioned below, treat reduplication to a certain extent, but no studies have paid attention to repetition.

Gil (2005), discussing repetition and reduplication in Riau Indonesian, provides six criteria for prototypical repetition and reduplication, as given in Table 1. Applying them to Riau Indonesian data, Gil (2005) shows that the language has clear-cut examples of

¹ The Jinghpaw data treated in this paper were collected by the author in Myitkyina, Kachin State, Burma, between 2009 and 2017 as part of fieldwork on the language. These data were digitized into a machine-readable format and analyzed with AntConc, a concordance program developed by Laurence Anthony: http://www.laurenceanthony.net/software.html (Accessed 2017-07-30).

both repetition and reduplication, as well as problematic examples located between them.

	criterion	repetition	reduplication
1	unit of output	greater than word	smaller than or equal to word
2	communicative	present	
	reinforcement		
3	interpretation	absent	arbitrary
4	intonational domain	within more than one	
	of output	intonation group	
5	contiguity of copies	disjoint	
6	number of copies	more than two copies	

Table 1 Diagnostics for repetition and reduplication (Gil 2005: 37)

The first criterion, which is essentially definitional, means that when the unit of output (i.e., the structure comprising the multiple copies) is greater than a single word, we are dealing with repetition, and when it is smaller than (partial reduplication) or equal to (total reduplication) a word, we are dealing with reduplication. The second criterion, the presence of which is a sufficient condition for repetition, is concerned with communicative reinforcement, i.e., repetition "in order to make sure that their message has been transmitted successfully," which is "necessary to overcome background noise, to achieve turn-taking in a conversation, to ensure the hearers' attention, or for many other reasons" (p. 34). It should be noted that both repetition and reduplication may lack communicative reinforcement, in which case the criterion makes no distinction. The third criterion, which is semantic in nature, says that when the example in question has no meanings (meanings in the sense of linguistic semantics), it can be characterized as involving repetition, and when it has arbitrary and idiosyncratic meanings like those of substantive grammatical morphemes, it can be characterized as involving reduplication. When iconic meanings (e.g., habituality, plurality) are involved, however, this criterion fails to suffice to discriminate between repetition and reduplication because iconicity is a property associated with both repetition and reduplication. The fourth criterion, concerning intonation, provides a sufficient condition for repetition, which may have more than one intonation group, in contrast to reduplication, which, as a single word, never straddles more than one intonation group. The fifth criterion is concerned with contiguity, i.e., when the input and output are disjoint, the example is sufficient to show that repetition is involved. It should be also noted that both repetition and reduplication may be manifested with contiguous copies, in which case the criterion remains neutral. The sixth criterion is associated with the number of copies, i.e., repetition has no clear upper limit in contrast with reduplication, for which the number of copies is overwhelmingly two, as the term reduplication implies.

3 Repetition

This section offers prototypical examples of repetition that satisfy all or almost all of the diagnostic criteria for repetition.

3.1 Vendor cries

Vendor cries, as in other languages, often involve iteration, as illustrated by the following non-elicited example.

(1) bàpa-thù dùt ?ay. bàpa bàpa bàpa ?è bàpa.
rice.cake-pound sell DECL rice.cake rice.cake rice.cake INTJ rice.cake
'Selling pounded rice cakes. Rice cakes, rice cakes, rice cakes, yes, rice cakes.'

Example (1), like similar examples in Riau Indonesian (Gil 2005: 39–40), represents a clear-cut example of repetition, satisfying all the diagnostic criteria of repetition given in Section 2. That is, the unit of output is greater than a word;² it reinforces communication to attract customers; it does not contribute to interpretation; it straddles more than one intonational boundary;³ the copies are disjoint, separated by an interjection; and the number of copies is more than two. Conversely, the example satisfies none of the criteria for reduplication: the unit of output is not smaller than or equal to one word; and the iteration adds no arbitrary meaning to the example. The diagnostic criteria thus clearly

² A word in Jinghpaw, as with many other languages, is not always readily definable. Haspelmath (2011), based on previous work, summarizes ten criteria of morphosyntactic wordhood, i.e., potential pauses, free occurrence, mobility, uninterruptibility, non-selectivity, non-coordinatability, anaphoric islandhood, nonextractability, morphophonological idiosyncrasies, and deviations from biuniqueness, although he also shows that "none of them is necessary and sufficient for wordhood" (p. 38). This paper regards a given unit as a word when it shows these properties. The unit *bàpa* 'rice cake' in (1), for example, cannot be interposed by a potential pause; can occur on its own as a complete utterance; can be moved around within a clause; cannot be interrupted by a free form; is not selective with respect to adjacent elements; can be involved in coordination; can be referred to by anaphoric pronouns; and can be extractable from phrases. It thus qualifies as a word. Because *bàpa* 'rice cake' is a single word, its iterated unit (i.e., *bàpa bàpa bàpa...*) is a multi-word. It can thus be separated by a potential pause, can be interrupted by a free form, etc.

³ In this paper, we use separability by a potential pause in identifying an intonation group: a pause can occur before or after an intonation group but cannot be interposed within an intonation group.

characterize the example as involving repetition.

3.2 Reinforcing repetition

The iteration in (2), by repeating the command to ensure the hearer's attention, performs the function of reinforcing communication.

(2) sa wà rìt, sa wà rìt, ?è, sa wà rìt, sa wà rìt, ráy s-ay, ráy go VEN IMP go VEN IMP INTJ go VEN IMP go VEN IMP COP CSM-DECL COP s-á?, sa wà rìt, ŋú khəlúm cəgá s-ay dà?.

CSM-DECL go VEN IMP say receive call CSM-DECL HS
'He called (the king), saying "Come here, come here, yes, come here, come here, OK, OK, come here," it's said.'

The example, as with similar examples in Riau Indonesian (Gil 2005: 43–4), can be characterized as repetition, satisfying all six diagnostic criteria for repetition: the unit of output is greater than a word; it performs communicative reinforcement; it contributes no interpretation to the example; the intonational domain of the output includes more than one group; the copies are disjoint; and the number of copies is more than two. Again, the example satisfies none of the criteria for reduplication.

3.3 The ABA construction

The ABA construction, as Gil (2005: 42) terms it, is a construction where "the first word of an utterance, often a vocative expression, recurs at the end of the utterance." This construction, as in Riau Indonesian, is of great frequency in Jinghpaw ordinary speech. For example:

(3) *?ó-brâŋ*, pha məni ?ay ?mâ, *?ó-brâŋ*.

KIN-PSN what laugh DECL Q KIN-PSN

'Abrang, what are you laughing about, Abrang?'

This discontinuous iteration is a clear example of repetition, satisfying five of the diagnostic criteria of repetition and none for reduplication: the unit of output is multi-word; communicative reinforcement, attracting the attention of the addressee, is present; the repetition does not contribute to the meaning of the construction; the intonational break occurs before the copy; and the repetitions are disjoint.

3.4 Iconic repetition

The iteration in (4) contributes an iconic meaning associated with concepts such as iterativity and durativity.

(4) gəlo, gəlo, gəlo, gəlo, gəlo, ?è, gəlo, rê çè? çi ?əsàk məli-ci-nin do INTJ do COP then 3sg age do do four-ten-year about thè? gò dù wà ?av kó? ná ci day ńtâ məyu ?ay arrive VEN NMLZ COM TOP 3sg that house LOC ABL go.out DESID NMLZ mind ron wà ?ay dà?.

have VEN DECL HS

'(At that house) he worked, worked, worked, worked, worked, yes, worked, and when he turned about 40 years old, he became eager to leave the house, it's said.'

As with similar examples in Riau Indonesian (Gil 2005: 44–6), Example (4), although it does not reinforce communication and does contribute iconic meanings to the example, satisfies the remaining four diagnostic criteria of repetition, and thus represents an example of repetition: the unit of output is greater than a word; the intonational domain of output is more than one group; the copies are disjoint; and the number of copies is more than two. Conversely, it does not satisfy any criteria of reduplication.

4 Reduplication

This section provides examples of canonical reduplication based on the diagnostic criteria outlined in Section 2. All examples in this section are prototypical examples of reduplication in that they fulfill the criteria of reduplication but none of the criteria of repetition.

4.1 Reduplication to form adverbs

The first class of prototypical reduplication includes examples like (5), where the iteration is employed to derive an adverb from a verbal base (Hanson 1896: 69, Dai and Xu 1992: 92, Dai 2012: 112–3).

(5) cəlóy cè? cəro mùn ləwan-wan mai məyu rà ná pha mùn ń-myít yu when then tiger also hurry-RED heal DESID need SEQ what also NEG-think CON ?ay cè?...

NMLZ then

'Then, the tiger also wanted to get well quickly and without thinking about it...'

Example (5), satisfying all the diagnostic criteria of reduplication, illustrates prototypical examples of reduplication. The unit of output is smaller than a word, as the iteration is manifested as partial reduplication copying the meaningless last syllable of the base from left to right. In terms of the criteria for a word given in Footnote 2, the unit of output does not show any properties of a word: it cannot constitute a complete utterance on its own; it cannot be moved around; it is selective with respect to its base; it cannot be coordinated and extracted, etc. This iteration, being exploited to derive an adverb, is also associated with an arbitrary meaning. Conversely, the example satisfies none of the diagnostics for repetition: the unit of output is not greater than a word; communicative reinforcement is not present; interpretation is not absent; the intonational domain of the output does not include more than one intonation group; the copy is not disjoint; and the number of copies cannot be more than two, e.g., *lowan-wan-wan. Our diagnostic criteria thus suggest that (5) is a clear-cut case of reduplication.

4.2 Reduplication marking habituality

Iteration, when it applies to verbs, also conveys the meaning of habituality (Liu ed. 1984: 34–5, 45, Dai and Xu 1992: 81–3, 90, Dai 2012: 105–6, 113–4). Verbs to which habituality reduplication applies can be any type of verb in terms of lexical aspect and volitionality. Example:

(6) ŋay gò lam məkaw ná çàt?máy ni çá yàŋ kan məcí?-cí? re məjò...

1sg TOP road beside GEN food PL eat when stomach ache-RED COP because 'Because I frequently get a stomach ache when I eat street food...'

Iteration marking habituality, as shown in (6), usually co-occurs with light verbs, such as re 'COP', di 'do', and ŋà 'be.' Note also that, as pointed out by Onishi (2011), the iterated construction is not directly negated by the negative prefix, an important property of Jinghpaw verbs. Onishi (2011), based on this fact, suggests that habitual iteration turns a verb into a noun. This paper, as suggested by Dai and Xu (1992: 81), considers habitual iteration as turning a verb into an adverb, as in the example given in (5) above, which is a simpler and more economical analysis.

Example (6), where the iterated unit of output is smaller than a single word, satisfies the unit of output criterion. The fact that iteration changes word classes is also arbitrary, although the semantics signaled by iteration are iconic. These facts characterize (6) as involving reduplication. Conversely, the example satisfies none of the diagnostic criteria of repetition.

4.3 Reduplication marking concessivity

Iteration is also exploited to form indefinite concessive adverbial clauses. Verbs involved in this reduplication can be any type of verb. For instance:

(7) nday bùŋli gəlóy gəlo-lo ŋút lòy ?ay. this work when do-RED finish be.easy DECL 'This work is easily finished whenever you do it.'

Example (7) can be characterized as involving reduplication in that it fulfills the criteria of reduplication: the unit of output is smaller than a single word; and the interpretation, marking concessivity and forming an adverbial clause, is arbitrary. Again, the example does not satisfy any of the diagnostic criteria of repetition. These facts suggest that Example (7) involves reduplication but not repetition.

4.4 Reduplication marking distributivity

Iteration of numerals encodes either distributivity, as in (8), or indefiniteness, as in (9) in Section 4.5 (Liu ed. 1984: 31–2, Dai and Xu 1992: 106–8, Dai 2012: 115, 127–8).

(8) dày-ní ná càt-jàm gò məsum-sum pón ná gyìt dá ?ay. this-day GEN food-mixed TOP three-RED sum.up SEQ tie RES DECL 'I have tied bundles of mixed rice (wrapped in banana leaves) for (dinner) today, combined three each together.'

Example (8) can be characterized as involving reduplication in that the unit of output is smaller than a single word. The interpretation, however, is not arbitrary, as it involves the iconic meaning of distributivity, one of the most common concepts expressed by reduplication (Moravcsik 1978, Rubino 2005, and others). This diagnostic criterion is thus neutral, failing to characterize (8) as either repetition or reduplication. Conversely, Example (8) fulfills none of the diagnostics for repetition.

4.5 Reduplication marking indefiniteness

Iteration of numerals, as noted in Section 4.4, also signals indefiniteness, as in (9). This is obtained only when iteration is applied to the numeral $l \ni \eta \hat{a} y$ 'one.' The expression $m \ni c \hat{a}$ $l \ni \eta \hat{a} y \cdot \eta \hat{a} y$ (person-one-RED) is thus ambiguous between 'one person each' and 'someone.'

(9) ləŋây-ŋày gò kó?si ŋà ?ay. one-RED TOP hungry CONT DECL 'Someone is hungry.'

Some place nouns, when iterated, also assume an indefinite meaning, as in:

(10) nday gùmphrò cərà-rà kó? may lan na rê. this money place-RED LOC be.okay use IRR COP 'You can use this money somewhere.'

Examples such as (9) and (10) can be regarded as involving reduplication in that the unit of output is smaller than a single word. Again, the interpretation criteria do not characterize them as either repetition or reduplication because the indefinite meaning encoded by iteration is not fully arbitrary. Conversely, the examples satisfy none of the diagnostics for repetition.

4.6 Reduplication marking plurality

Iteration is also exploited to mark plurality (Dai and Xu 1992: 58–9, Dai 2012: 81–2).

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(11) gəday-day phé? thèt ?ay ráy.
who-RED ACC order DECL Q
'Who (pl.) did you order to do it?'
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Example (11) can also be characterized as involving reduplication in that its unit of output is smaller than a single word. The interpretation criterion does not classify the example as either repetition or reduplication because the meaning encoded by iteration is not fully arbitrary. Again, the example satisfies none of the criteria of repetition.

5 Less prototypical reduplication

This section offers less prototypical cases of reduplication whose unit of output is smaller than or equal to a word, thus qualifying as reduplication, but which exhibit some properties of repetition, such as an unbounded number of copies (5.1), discontinuity (5.2), or properties that lie beyond the scope of morphology (5.3).

5.1 Reduplication of interjections

Interjections are often iterated, as illustrated by the following examples:

- (12) ʔàgá-gá, ń-lôy ʔay. ń-lôy ʔay. INTJ-RED NEG-be.easy DECL NEG-be.easy DECL 'Oh my! It's not easy. It's not easy.'
- (13) ?àya-ya, ?nû, naŋ khùm khùt ?ay grày məcí? ?ay.

 INTJ-RED mother 2sg body rub NMLZ very hurt DECL

 'Ouch! Mother, your rubbing my body hurts.'

These examples are characterized as involving reduplication given that, manifesting as partial reduplication, their units of output are smaller than one word. However, they do not contribute any meaning to the example. Reduplication of interjections is atypical in that the number of copies can be more than two, as illustrated by the elicited examples below. This type of unbounded iteration, as illustrated in Section 3, is one property of repetition, although these examples lack other properties of repetition: communicative reinforcement is absent; the intonational domain of output is always within one group; and the copy is never disjoint.

- (14) a. ?àgá-gá-gá
 - b. ?àgá-gá-gá-gá
 - c. ?àgá-gá-gá-gá-gá
 - d. ?àgá-gá-gá-gá-gá...
- (15) a. ?əya-ya-ya
 - b. ?əya-ya-ya-ya
 - c. ?əya-ya-ya-ya
 - d. ?əya-ya-ya-ya-ya...

It should be noted that interjections can also be fully iterated, in which case they exhibit almost all characteristics of repetition. Consider:

(16) ?əya lô, ?əya, ?əya, khùm gəwá lô.

INTJ SFP INTJ INTJ PROH bite SFP
'Ouch! Ouch! Ouch! Don't bite me.'

Example (16), although lacking communicative reinforcement, can be shown to be prototypical examples of repetition in that: the unit of output is greater than one word; it contributes no meaning; the intonational domain of output can be more than one group; the copies can be separated; and the number of copies can potentially be more than two.

Conversely, they satisfy none of the diagnostics of reduplication: the unit of output is not smaller than or equal to one word; and they convey no arbitrary meanings.

As shown above, although expressive interjections lack the function of reinforcing communication, conative interjections directed to the addressee, having the function of communicative reinforcement, satisfy all the criteria of repetition. Thus:

(17) gây, gây, mənaw-tèn dù s-ay. gây, ləwan çè? çàŋ kà dàt INTJ INTJ dance-time arrive CSM-DECL INTJ hurry then enter dance away sə-gà?.

CSM-HORT

'Now, now, it's time to dance. Now, let's hurry and participate in dancing.'

5.2 Expansive nominalization

The prefix $m\acute{a}$ - (reduced to $m\acute{a}$ - before a monosyllabic base) is productively added to verbal bases to yield nouns that convey the sense of 'everything that' (Hanson 1896: 32, Dai and Xu 1992: 86, 93–4, 429, Dai 2012: 109, 115–6, 263). This expansive prefix, as pointed out by Hanson (1896: 32), has its diachronic source in the lexical verb $m\acute{a}$? 'be exhausted.' The prefix is differentiated from other affixes in that it triggers iteration,⁴ as illustrated by the following example.⁵

(18) mù-mó-mû nà-mó-nâ khùm sa tsun. see-NMLZ-RED hear-NMLZ-RED PROH go say 'Don't go and talk about everything that you saw and heard.'

The iteration here, together with the prefix $m\acute{a}$ -, exhibits iconic meanings, i.e., large size and quantity. The semantic criterion thus fails to characterize it as either repetition or reduplication. The unit of output criterion suggests that the example is reduplication where the unit of output is equal to a word. The example, however, is an atypical example of reduplication in that the copies are not contiguous to each other, which is one property of repetition. Aside from this, it lacks the remaining five properties of reduplication: the unit of output is not greater than one word; the iteration does not function to rein-

⁴ This type of reduplication in combination with affixes is termed "automatic reduplication," being also found in other genetically unrelated languages (Rubino 2005: 18), as in *singpet* 'behave' → *aginsi-singpet* 'to pretend to behave' in Ilocano and *tóhon* 'leggings' → *titohónot* 'without leggings' in Nez Perce.

⁵ Although Dai and Xu (1992: 429) and Dai (2012: 263) treat the prefix *má*- as an "infix," it is not a genuine infix in that it is not inserted inside the base.

force communication; it contributes an iconic meaning; it does not straddle intonational boundaries; and the number of copies is exactly two.

5.3 Cognate NV construction

Cognate noun-verb constructions such as (19) and (20) also illustrate atypical cases of reduplication. The verbal part does not usually occur in the absence of the nominal part.

- (19) mà ?è, nday khyép*din din* yu ?ù?. çàŋ na kún. child SFP this shoes wear CON IMP enter IRR Q 'Boy, try these shoes on. I will see if they fit your feet.'
- (20) dəmyà? myà? khrúm yàŋ cánthe phé? pha khùm sa gəlo. robber rob receive when 3pl ACC what PROH go do 'If you are robbed, don't go and do anything to them (robbers).'

In these examples, the verbal parts are derived from the nominal parts by means of partial reduplication. The direction of derivation can be evidenced by the fact that (a) the nominal parts are loanwords from neighboring languages (i.e., Shan kvp^2tin^1 'sandal' and Burmese $d\breve{a}my\hat{a}$ 'robber'), and (b) the donor languages do not have corresponding verbs. Because they are manifested as partial reduplication, just like other prototypical examples of reduplication in the language (Section 4), the unit of output is originally smaller than one word. Note also that the reduplication is exploited for a grammatical purpose, being thus arbitrary. Although these are two properties of reduplication, the cognate noun-verb constructions are beyond the scope of morphology, unlike prototypical reduplication, as reflected in the fact that fully syntactic elements, such as adverbs, can be interposed between the base and its copy. As such, these examples share the following properties with repetition: they straddle intonational boundaries; and the copies are not contiguous to each other. Consider:

⁶ Similar examples are identified by Diehl (1988) and Dai and Xu (1995: 249–50), including: gát gát 'to open, as a market' (< Sh. kaat² 'market'); jàwgòŋ gòŋ 'to hunt' (< Sh. tsaw³kɔŋ³ 'gunner'); soŋkhun khun 'to be infected with cholera' (< Sh. sʰɔŋ¹ hon¹ 'cholera'); jàwkhyèn khyèn 'to fence' (< Sh. tsaw³kʰɛn¹ 'martial artist'); cáŋgyen gyen 'to celebrate the Burmese New Year' (< Bur. θínjàn 'New Year'); gonèn nèn 'to celebrate the Chinese New Year' (< Ch. guònián 'Next Year'); candaw daw 'to rob' (< Ch. qiángdào 'robber'); thùkhu khu 'be a butcher' (< Ch. túfū 'butcher'); lərù rù 'to salt bacon' (< Ch. làròu 'bacon'); tsàwkhay khay 'wear straw sandals' (< Ch. cǎoxié 'straw shoes'); hòdzòce ce 'to run a cooperative' (< Ch. hèzuŏshè 'cooperative'); hùdzudzu dzu 'to run a mutual aid group' (< Ch. hùzhùzǔ 'mutual aid group'); bàpa pa 'to cook a sticky bread made from steamed rice (< Ch. bābā 'round flat cake').

- (21) khyép*din* ?ətsôm n-ce *din* ?ay məçà phé? maw ?ay. shoes well NEG-be.able wear NMLZ person ACC be.surprised DECL 'I'm surprised at the man who cannot wear shoes well.'
- (22) day ?əmyú ni mòy kó? ná dəmyà? grày myà? ?ay ?ərù?ərát ni rê. that race PL long.ago LOC ABL robber very rob NMLZ descendant PL COP 'These people are descendants of those who have robbed a lot since long ago.'

Jinghpaw lexicon is also rife with similar cognate noun-verb constructions consisting of native words, as given in (23).

- (23) Cognate noun-verb constructions
 - a. ǹsà? 'breath' > ǹsà? sà? 'to breathe'
 - b. mədim 'dam' > mədim dim 'to dam'
 - c. ləru 'storm' > ləru ru 'for a storm to blow'
 - d. məgàp 'lid' > məgàp gàp 'to cover with a lid'
 - e. ləyìt 'fan' > ləyìt yìt 'to fan with a fan'
 - f. ləphyó 'whistling' > ləphyó phyó 'to whistle'
 - g. gəthòn 'village' > gəthòn thòn 'to build a village'
 - h. hbà 'small pox' > hbà bà 'to be infected with smallpox'
 - i. ləsu 'funeral' > ləsu su 'to call to a funeral'
 - j. məkhray 'bridge' > məkhray khray 'to build a bridge'
 - k. dìnyé 'broom' > dìnyé yé 'to sweep with a broom'
 - 1. jìηkhù? 'friend' > jìηkhù? khù? 'to make friends with'
 - m. hnannon 'earthquake' > hnannon non 'an earthquake occurs'

The direction of derivation of these examples is less clear than that of examples involving loanwords, but the fact that the verbal part does not usually occur in the absence of the nominal part indicates that the verbal part is not a full-fledged verb due to its secondary nature (Diehl 1988). This is reflected in the incompleteness of the elicited example (24b) as opposed to the completeness of the elicited example (24a). This fact would qualify the examples in (23) as being derived by means of denominal verb-forming reduplication.

(24) a. nday mə*khray khray* ?ay ni gò grày ram ?ay. this bridge build.bridge NMLZ PL TOP very skilled DECL 'Those who built this bridge are skilled.'

b. ?nday khray ?ay ni gò grày ram ?ay. this build.bridge NMLZ PL TOP very skilled DECL 'Those who built this bridge are skilled.'

6 Verb-copying constructions

This section reports three constructions involving copying of verbs. These examples superficially resemble repetition and reduplication, involving iteration of linguistic materials. They are clearly distinguished from reduplication in that they are subsumed under syntax or discourse, but they are not like repetition in that they have arbitrary meanings or pragmatic functions other than communicative reinforcement. These examples suggest the existence of iterative constructions that cannot be classified as either repetition or reduplication, posing difficulties for the binary distinction of iterative phenomena.

6.1 Uncertainty subordination

The conditional subordinator $y \grave{a} y$, before and after which verbs and verb complexes are repeated, is used to convey the meaning of uncertainty. Examples:

- (25) phòtní məraŋ thù? yàŋ thù? na. tomorrow rain rain if rain IRR 'It may rain tomorrow.'
- (26) çi dày-ná? *lù sa wà* yàŋ *lù sa wà* na rê.

 3sg this-night can go VEN if can go VEN IRR COP

 'He may be able to come tonight.'

Although syntactic in scope, the construction in question is not like repetition by being associated with a non-iconic interpretation, i.e., uncertainty. The diagnostic criteria also show mixed properties: the unit of output is greater than a single word, as in repetition; communicative reinforcement is absent, remaining neutral; the interpretation contributes to an arbitrary meaning, as with reduplication; the iterated construction straddles intonational boundaries, as in repetition; with the intonational break occurring after the subordinator, as in repetition; the iterated elements are not contiguous with each other, as in repetition; and the number of copies is always two, remaining neutral. This construction suggests the existence of copying constructions that are not unambiguously classifiable as repetition or reduplication, posing a difficulty for the binary distinction between repetition and reduplication.

6.2 Disjunctive questions

Jinghpaw, as with Chinese and other Tibeto-Burman languages (Hayashi 2010), has grammaticalized means of forming disjunctive questions (A-not-A questions), which are manifested by repeating verb phrases, one affirmative and one negative. Unlike Chinese, disjunctive questions occur only as indirect questions.⁷ Elicited examples follow:

- (27) ŋay gò [ci sa n-sa] (phé?) sán ?ay.

 1sg TOP 3sg go NEG-go ACC ask DECL

 'I asked whether he went or not.'
- (28) ŋay gò [ci càt cá càt ń-cá] sán ʔay.

 1sg TOP 3sg food eat food NEG-eat ask DECL

 'I asked whether he ate a meal or not.'

Although subsumed under syntax, the disjunctive question is not like repetition, being associated with a non-iconic meaning, i.e., interrogativity. The diagnostic criteria also show mixed properties: the unit of output is greater than a single word; communicative reinforcement is absent; the interpretation contributes an arbitrary meaning to the construction; the construction straddles intonational boundaries; the iterated elements are not contiguous with each other; and the number of copies is always two.

6.3 Topic/focus constructions

As with many other Tibeto-Burman and genetically unrelated languages (Oserov and Daudey 2017), Jinghpaw has constructions that extract a verb from the main verb phrase chiefly in order to assign a topical or focal status to the copied verb as a separately markable element. The copied verb is marked by particles associated with information structure, such as $g\grave{o}$ 'TOP', $c\acute{o}m$ 'CONTR', $c\grave{a}$ 'only', khray 'only', pyi 'even', and others.

- (29) ŋay má dù gò dù məyu ʔay rê.

 1sg also arrive TOP arrive DESID NMLZ COP
 'As for going, I also want to go there.'
- (30) bùm *lùŋ* khray *lùŋ* yàŋ cè? ntâ dù ?ay.

 mountain climb only climb when then house arrive DECL

 'It was not until he climbed the mountain that he arrived at his house.'

⁷ The same holds for Youle Jino (Hayashi 2010: 10).

Although clearly subsumed under syntax or discourse, the construction is not like repetition, having pragmatic functions other than communicative reinforcement. The diagnostic criteria also show mixed properties: the unit of output is greater than a single word; communicative reinforcement is absent; the construction does not contribute to the interpretation; the construction straddles intonational boundaries; the iterated elements are not contiguous with each other; and the number of copies is always two.

7 Conclusion

This paper investigated an array of iterative phenomena in Jinghpaw in order to examine whether they can be clearly characterized as either repetition or reduplication by applying the diagnostic criteria developed by Gil (2005). Table 2, based on the criteria of Gil (2005), summarizes the properties of various types of iteration we observed in the preceding sections, where the first two are criteria for reduplication (a-b) and the remaining six are for repetition (c-h): (a) the unit of output is smaller than or equal to a word; (b) the interpretation is arbitrary; (c) the unit of output is greater than a word; (d) communicative reinforcement is present; (e) interpretation is absent; (f) the intonational domain of output is more than one group; (g) the copies are disjoint; (h) the number of copies is more than two.

Our data show that Jinghpaw has clear-cut examples of both repetition and reduplication that satisfy all or almost all the diagnostic criteria of the two iterative phenomena (Sections 3 and 4). This paper also points out the existence of non-prototypical cases of reduplication. They are examples of reduplication in that their unit of output is smaller than or equal to a single word, but they also exhibit some properties of repetition or are beyond the scope of morphology. These include reduplication involving more than two copies, reduplication involving discontinuous copies, and denominal verb-forming reduplication (Section 5). Our data also suggest the existence of copying constructions that cannot be classified as either repetition or reduplication, posing difficulties for the binary distinction of iterative phenomena. Although these constructions are subsumed under syntax or discourse, they are not like repetition, having non-iconic meanings and/or functions other than communicative reinforcement (Section 6).

Table 2 Application of diagnostic criteria to various iterative phenomena

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
Prototypical repetition								
vendor cries	no	no	yes	yes	yes	yes	yes	yes
reinforcing repetition	no	no	yes	yes	yes	yes	yes	yes
ABA construction	no	no	yes	yes	yes	yes	yes	no
iconic repetition	no	no	yes	no	no	yes	yes	yes
interjections (total)	no	no	yes	y/n	yes	yes	yes	yes
Prototypical reduplication								
adverb formation	yes	yes	no	no	no	no	no	no
habitual reduplication	yes	yes	no	no	no	no	no	no
concessive reduplication	yes	yes	no	no	no	no	no	no
distributive reduplication	yes	no						
indefinite reduplication	yes	no						
plural reduplication	yes	no						
Non-prototypical reduplication								
interjections (partial)	yes	no	no	no	yes	no	no	yes
expansive nominalization	yes	no	no	no	no	no	yes	no
cognate NV construction	yes	yes	no	no	no	yes	yes	no
Verb-copying construction								
uncertainty subordination	no	yes	yes	no	no	yes	yes	no
disjunctive question	no	yes	yes	no	no	yes	yes	no
topic/focus construction	no	no	yes	no	yes	yes	yes	no

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ジンポー語の反復と重複

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要旨

言語要素の繰り返し (iteration) は言語普遍的な現象であり、それらは一般的に反復 (repetition) と重複 (reduplication) に分類される。重複は形態論における繰り返しである一方、反復は統語論・談話における繰り返しである。本稿の目的は、Gil (2005) で提案された反復と重複の峻別基準をジンポー語 (シナ・チベット語族:北部ビルマ)の種々の繰り返し現象に適用し、この言語の繰り返し現象が反復と重複に分類可能であるか一事例研究を提示することにある。結論として、この言語の繰り返し現象には峻別基準をすべてまたは多く満たす点において典型的な例が、反復と重複ともに数多く観察されることを示す。一方で、反復の峻別基準を部分的に満たす非典型的な重複が存在することを指摘する。例えば、出力が3つ以上の重複、出力が不連続な重複、形態論を越える重複などである。さらに、統語論・談話における繰り返しであるにも関わらず、反復と見なすことができない繰り返し構文の存在を報告し、繰り返し現象を反復と重複の2つに分割することの問題を指摘する。

受領日2017年9月30日 受理日2017年12月27日