Areal perspectives on total reduplication of verbs in Sinitic

Giorgio Francesco Arcodia, Bianca Basciano and Chiara Melloni

University of Milan-Bicocca, Ca’ Foscari University of Venice and University of Verona

Abstract

*Earlier versions of this paper were presented at the workshop “Total Reduplication: Morphological, Pragmatical and Typological Issues” (Bruxelles, November 2012) and at the “Décembrettes 8” conference (Bordeaux, December 2012); the authors would like to thank the participants to the discussion, as well as two anonymous reviewers, for their insightful comments. Traditional characters have been used as a default for Chinese. The romanisation systems used for (Standard) Mandarin Chinese is *Hanyu Pinyin*, whereas for other Chinese varieties the transcriptions are given as provided by the sources. When no transcription is provided, we will use toneless SMALLCAPS *Pinyin* following Mandarin pronunciation. The glosses follow the general guidelines of the *Leipzig Glossing Rules*; additional glosses include ACT (active voice) and EMPH (emphasis). For academic purposes, Giorgio F. Arcodia is responsible for sections 2.3 and 3, Bianca Basciano is responsible for section 2.2 and 4, Chiara Melloni is responsible for sections 1, 2 and 2.1. Authors’ names are alphabetically listed.
The topic of reduplication in Sinitic languages has attracted much attention in the literature, but studies adopting a comparative and areal perspective are still lacking. This paper aims at analysing the correlations between form and function in reduplicating constructions in a sample of twenty Sinitic languages, representing eight branches of the family, comparing them to a set of fourteen non-Sinitic languages of the East- and Southeast Asian area. We will show that the various semantic nuances conveyed by reduplicated verbs could be argued to derive from the core meaning of verbal reduplication as iteration of an event, either over a bounded or an unbounded time-span. On the structural level, a pervasive feature of reduplication lies in its compliance to strict requirements on the morphological makeup of the base. This holds especially in the case of reduplication of disyllabic and bimorphemic verbs with increasing semantics, a consistent pattern across our sample.

1. Introduction

Total reduplication (TR) is a cross-linguistically widespread morphological technique (see Stolz, Stroh & Urdze 2011). Although it is not universal, its cross-linguistic attestation has been captured in terms of an implicational universal. It has been claimed
indeed that partial reduplication (PR) implies TR, i.e. any language making use of PR also has TR (Moravcsik 1978, Rubino 2013), although counterclaims have also been put forward (as several contributions to this special issue show). Both TR and PR are a common sight in East Asian languages, Chinese among them, and reduplication has attracted much attention in the literature on Sinitic (see e.g. Tang 1988, Zhu 2003, Tsao 2004, and the articles in Wang & Xie 2009 and Xu 2012, *inter alios*). As for most other topics in Chinese linguistics, Standard Mandarin (SM) has been researched in greater depth, with a dearth of comparative studies (see Chappell, Ming & Peyraube 2007). Moreover, to the best of our knowledge, no one has ever tackled the issue of reduplication in Sinitic languages (specifically, of the relation between form, structure and meaning in reduplication) adopting an areal perspective, i.e. taking into account also data from non-Sinitic languages of East and Southeast Asia.¹

In this paper, we will first propose an overview of verbal TR² in a convenience sample of twenty Sinitic languages, in order to highlight the connections between form, structure and function of reduplication. To this end, we will take into consideration not only

---

¹ However, as remarked by an anonymous reviewer, this has been done for other geographical areas (see e.g. Abbi 1992 on South Asia).
² Note that here the scope of TR is meant to include also cases in which the reduplicant undergoes tone change, i.e. ‘total’ holds at the segmental level only. Moreover, we will treat as TR also cases as e.g. Indonesian *apung* ‘to float’ > *ter-apung-apung* ‘to float (continued action)’, even though the addition of the ‘accidental’ prefix *ter-* is not repeated on each reduplicant, i.e. it is the verb root only which undergoes TR (Sneddon 1996:20; compare Rubino 2013).
lexical-semantics and aspectual (Aktionsart) features of the verbs, but also their morphological structure. We will show that for the reduplication of simple (monomorphemic/monosyllabic) verbs there is more variation within and across languages of the Sinitic group, whereas reduplicated complex (bimorphemic/disyllabic) verbs have a more consistent behaviour. We will also argue that the relation between form and meaning for reduplicated compound verbs applies even across word classes and, moreover, the input of different patterns of reduplication is conditioned by morphological factors, i.e. by the relation holding between the constituents of the base verb. The generalisations drawn for Sinitic will be tested against a small convenience sample of fourteen non-Sinitic languages of the East- and Southeast Asian area, which are known to share several prominent typological features with Sinitic (see Enfield 2005, Goddard 2005). Since the present research mainly wishes to achieve descriptive and empirical goals, no specific theoretical framework for reduplication is either discussed or adopted here (for a theoretical assessment of (part of) the phenomena at issue, the reader is referred to Arcodia, Basciano and Melloni forthcoming).

This paper is organised as follows. In section 2, we will provide an overview of TR in Sinitic, discussing the correspondence between form and function of the attested patterns, the constraints
on the input and output of processes of reduplication, and we will propose an analysis for these data. In section 3, we will describe the salient features of verbal reduplication in the non-Sinitic sample, highlighting similarities and differences among TR patterns in these languages, and discussing the relevance of our comparison in a broader typological perspective. In the last section of this paper, we will summarise our main conclusions and provide some hints for further research.

2. Verbal reduplication in Sinitic

Sinitic is the largest branch of the Sino-Tibetan family in terms of number of speakers, with a number of dialect groups varying from 7 to 10, according to different classifications; each group is then divided into a variable number of subgroups (e.g. Southern Min, Central Plains Mandarin, etc.) and clusters (see Kurpaska 2010). Northern and Western China are dominated by Mandarin dialects, from which SM originated, whereas most of the variation within Sinitic is found in Central and Southern China. Chinese ‘dialects’ are not varieties of SM but, rather, varieties related to SM, and should be seen as distinct objects for the purposes of comparison (Norman 2003).
However, SM is by far the best studied variety, although it is not always representative of the whole family from the typological point of view (see Yue 1993, Ansaldo & Lim 2004). Note, for instance, that in the WALS article on reduplication (Rubino 2013), SM is the only Sinitic language included in the sample\(^3\). Even though the past twenty years have seen an upsurge of interest in dialectal grammar by Chinese linguists, the vast majority of works in this field are written in Chinese, and are thus not readily accessible to non-specialists, who often must resort to the limited (but growing) scholarship in English and/or other European languages.

TR is a widespread feature in Sinitic and, also, in the (broadly defined) East- and Southeast Asian area; however, it is neither uniform, nor consistent throughout the Sinitic group, and even less in the area. In what follows, we will first provide an overview of verbal reduplication in SM, for which we have the greatest abundance of data and analyses, and we will then highlight the most salient similarities and differences of TR in a sample of nineteen more languages, representing eight branches of Sinitic. This is a convenience sample which is not meant to be a balanced representation of Sinitic but, rather, is aimed at providing a broad

\(^3\) Only ten Sinitic languages have been used in the WALS, five of which belong to the Min subgroup. Moreover, most importantly, only five of them, one of which is SM, are included in maps concerning grammatical topics, whereas the rest have been considered only for phonological (or lexical) features.
range of examples of different TR constructions within this
language group. Although we chose to focus on verb reduplication,
we will also make reference to TR involving other word classes,
when necessary for the purposes of our discussion.

In table 1, we provide a list of the varieties considered, together
with their affiliation and with the sources consulted.

In Table 1 Here

Unfortunately, since the descriptions for most dialects are less
detailed, we do not have data of the same quality for them as for
SM. Nevertheless, we will show that there are some clear
tendencies apparent even in our limited data.

Before starting our illustration, we must first briefly introduce
the relationship between syllables and morphemes in Sinitic
languages. In Chinese, the overwhelming majority of syllables
correspond to morphemes, and there are virtually no subsyllabic
morphemes (SM examples)⁴:

(1) a. 書
   b. 走
   shū    zǒu
   ‘book’  ‘walk’

⁴ This is not necessarily the case for all of Sinitic; in some varieties, tonal and ablaut
morphology is also attested.
Compounding is the most common word formation process, and compound words are mostly disyllabic (see Shi 2002):

(2) a. 書店 b. 走避
shū-diàn zǒu-bì
book-shop walk-avoid
‘bookshop’ ‘run away from’

However, a small number of polysyllabic monomorphemic (simplex) words is also attested:

(3) a. 馬達 b. 靦腆
mǎdá miǎntian
‘motor’ ‘shy’

As we will see below, this is relevant because reduplication works in a significantly different way for monosyllabic and disyllabic words, simplex and complex words, and also for different kinds of compound words.

Lastly, in table 2 we provide an overview of the key distinctions and variables on which our presentation and analysis are based.
We will elaborate on the distinctions introduced here and on their relevance in the course of the paper.

2.1 Reduplication of verbs in Standard Mandarin

Generally speaking, TR in SM has both iconic (4) and counter-iconic (5) semantics:

(4) 小 → 小小

xiǎo → xiāo~xiāo

small → small~small

‘small’ ‘very/really small’

(5) 教 → 教教

jiāo → jiāo~jiao

teach → teach~teach

‘teach’ ‘teach a little’

‘Increasing’ reduplication is the default function of TR of adjectives, indicating a higher degree of liveliness or intensity (see Tang 1988, among others). Verbal TR, on the other hand, is said to express diminishing meaning, marking the so-called ‘tentative’ or
‘delimitative’ aspect (Chao 1968, Li & Thompson 1981, Tsao 2004): to do something “a little bit/for a while”, to do something quickly, lightly, casually or just for a try (adapted from Li & Thompson 1981:29; characters added):

(6) 請你嚐嚐這個菜

qǐng nǐ cháng~chang zhè gé cài
please 2SG taste~taste this CLF dish
‘please taste this dish a little’

It also has the pragmatic function of marking a relaxed tone, casualness (Ding 2010), and thus reduplicated verbs are also used as mild imperatives (see Xiao & McEnery 2004). When a compound (disyllabic and bimorphemic) verb is reduplicated, the whole verb is iterated as such:

(7) 研究 → 研究研究

yán-jìū yán-jìū~yán-jìū
study-investigate study-investigate~study-investigate
‘research’ ‘do a bit of research’

The semantic effect is one of diminution; this is termed the ‘ABAB’ pattern. However, compare (8):
11

(8) 說笑 → 說說笑笑

\begin{align*}
\text{shuō-xiào} & \quad \text{shuō~shuō-xiào~xiào} \\
talk-laugh & \quad \text{talk~talk-laugh~laugh} \\
\text{‘talk and laugh’} & \quad \text{‘talk and laugh continuously’}
\end{align*}

If the reduplicated verb is complex and made of coordinate constituents, as in (8), TR actually has an increasing function, here describing two (related) actions being performed alternately, repeatedly. Structurally, TR follows the ‘AABB’ pattern in this case. Reduplicated coordinate compound verbs may thus express iteration (or pluriactionality), progressive aspect (Hu 2006, Ding 2010), and also express vividness (9), or other kinds of more abstract meanings (10), depending on the linguistic context (on the semantics of AABB verbal reduplication, see Hu 2006):

(9) 跑跳 → 跑跑跳跳

\begin{align*}
pǎo-tiào & \quad pǎo~pǎo-tiào~tiào \\
\text{run-jump} & \quad \text{run~run-jump~jump} \\
\text{‘run and jump’} & \quad \text{‘skip, run about, run and jump in a vivacious way’}
\end{align*}

(10) 偷摸 → 偷偷摸摸
Interestingly, TR of coordinate compound nouns, an unproductive process restricted to a few lexicalised items, also has increasing semantics, and the output is AABB (11). TR of compound adjectives also follows the AABB pattern, just as coordinate compound verbs and nouns, and has, again, increasing meaning (12):

(11) 子孫 → 子子孫孫

(12) 乾淨 → 乾乾淨淨

There is no consensus in the literature on tonal patterns in AABB reduplication. According to Li & Thompson (1981:33), the second syllable is unstressed, and thus has a neutral tone, whereas Tang (1988:282) claims that the second syllable is in the neutral tone, while the third and fourth syllable, or just the fourth syllable, are in the first tone. Furthermore, Tang observes that in Taiwan most speakers use the original tones, i.e. there is no tonal modification in this reduplication pattern (see also the examples in Paul 2010).
‘clean’ ‘very/totally clean’

Thus, there appears to be a fundamental difference between the diminishing ABAB pattern and the increasing AABB pattern of reduplication: the former is possible only for verbs, whereas the latter applies to all major word classes. However, AABB TR is not productive for nouns and is available only for a subset of verbs. What is interesting, in our perspective, is that the two patterns apply to different sets of verbs (and nouns), which are apparently defined on the basis of word structure\(^6\). This is noteworthy especially because many (if not most) languages do not exhibit such a clear correspondence between patterns and functions in reduplication (Mattes 2014).

Moreover, the semantic difference between the ABAB and the AABB patterns also concerns restrictions on the input and on the output of TR. Be it monosyllabic AA or disyllabic ABAB reduplication, diminishing TR only allows dynamic and volitional verbs (Li & Thompson 1981), with the [+controlled], [+dynamic], [+durative] features, as those in the examples seen above. This means that all inherently telic verbs, as 去 $qù$ ‘go’ or 弄壞 nòng-\(huài\) ‘make-bad, spoil’ cannot reduplicate (but cf. below, fn. 10):

---

\(^6\) Note that for verb-object compound verbs, TR involves the repetition of the verbal head only (AAB):

<table>
<thead>
<tr>
<th>Single Word (AA)</th>
<th>Reduplication (AAB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>唱歌（chàng-gē）</td>
<td>唱唱歌（chàng-chàng-gē）</td>
</tr>
<tr>
<td>‘sing’</td>
<td>‘sing a little’</td>
</tr>
</tbody>
</table>
(13)*我想去去北京

* wǒ xiǎng qù~qu Běijīng

1SG want go~go Beijing

‘I want to go a bit [≈ for a short while] to Beijing’

(14)*弄壞弄壞那樣東西

*nòng-huài~nòng-huài nà yàng dōngxi

make-bad~make-bad that CLF thing

‘spoil a bit that thing’

There appears to be an incompatibility between diminishing semantics and accomplishments/achievements: monosyllabic simplex verbs as 进 jìn ‘enter’ or 出 chū ‘exit’ cannot undergo TR.

Also, stative verbs, generally speaking, do not reduplicate (see Tsao 2004)⁷. Thus, we may conclude that diminishing TR is aspectually constrained. Compare the AABB pattern:

(15)进出 → 进进进出

jìn-chū jìn~jìn-chū~chū

enter-exit enter-enter-exit-exit

---

⁷ However, some stative verbs which express states of mind allowing a dynamic interpretation too, as e.g. 了解 liǎojiě ‘understand’, may actually be reduplicated (Ding 2010:283).
‘enter and exit’  ‘go in and out, shuttle in and out’

Example (15) shows that, differently from diminishing reduplication, increasing reduplication does not have any particular aspectual restrictions on the input. However, the base verbs must have specific structural properties: as said above, its constituents must be in a relation of coordination, as in (8). Increasing reduplication, moreover, is not restricted to attested compound verbs:

(16) *走停  →  走走停停

*zǒu-tíng  zǒu~zǒu-tíng~tíng
walk-stop  walk~walk-stop~stop
‘walk and stop’

Although both 走 zou ‘walk’ and 停 tíng ‘stop’ are attested as individual verbs, there is no compound *走停 zǒu-tíng, but 走走停停 zǒu~zǒu-tíng~tíng is attested anyway. The possibility that these are but two individual reduplicated monosyllabic verbs should be ruled out, in our opinion, since the reduplication of monosyllabic verbs always has diminishing semantics, as mentioned before. Moreover, reduplication of telic verbs such as 进 jìn ‘enter’ (cfr. ex. 15) is not allowed. The coordinands may also be synonymous;
however, many compounds of synonymous constituents, as e.g. 讨论 tōo-lùn ‘discuss-discuss = discuss’, are now lexicalised and opaque, and thus reduplicate as ABAB (diminishing).

Note that disyllabic adjectives with a hierarchic modifier-head structure, as 雪白 xué-bái ‘snow-white’, reduplicate as ABAB (雪白雪白 xué-bái–xué-bái), but with an increasing meaning. This constitutes the only exception to the otherwise perfect correspondence between ABAB and diminishing meaning, on the one hand, and between increasing meaning and the AABB pattern, on the other hand (but cf. Paul 2010:137, fn. 15).

As to the aspectual semantics of the output of verbal TR, we may remark that diminishing reduplication somehow adds a boundary to the predicate, i.e. it turns an unbounded dynamic event into a holistic / temporally bounded event. As a matter of fact, the progressive aspect marker (正)在 (zhèng)zài is incompatible with reduplicated (ABAB) verbs, but the perfective aspect marker -了 -le, indicating cessation or termination of an action, is perfectly acceptable (Xiao & McEnery 2004, Ding 2010):

(17) *她在看看電視
*tiā zài kàn–kan dǐanshì
3SG.F PROG watch~watch television
‘she is watching TV a bit’
(18) 她看了看電視

*tā kàn-le-kan dianshì*

3SG.F watch-PFV-watch television

‘she watched TV a bit’

To sum up, in SM the ‘default’ function of verbal TR is marking delimitative aspect, adding a boundary to the predicate. However, increasing TR is also possible for a subset of verbs, namely coordinate compound verbs, and the pattern of reduplication for those items (AABB) is the same as that for compound adjectives and some nouns. As an exception to this strong association between form and meaning in the reduplication of disyllabic items, compound adjectives with a modifier-head structure follow the ABAB pattern, despite increasing semantics. Let us now provide an overview of the most salient features of verb reduplication in the other Sinitic languages of our sample.

2.2 Reduplication of verbs in Chinese dialects

All the languages of our sample make use of verbal TR, with the exception of Xiangtan, in which only adjectives reduplicate. The
(near) absence of verbal reduplication is said to be a common feature of the Xiang group (Wu 2005:11-12).

In many dialects of our sample, we find verbal TR constructions characterised by the same form-function correspondence described above for SM, as can be seen from the following examples:

(19) Tiantai (Dai 2006:145)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>等</td>
<td></td>
</tr>
<tr>
<td>(təŋ^\text{25})</td>
<td>(təŋ^\text{25} \sim təŋ)</td>
</tr>
<tr>
<td>wait</td>
<td>wait~wait</td>
</tr>
<tr>
<td>‘wait’</td>
<td>‘wait a little’</td>
</tr>
</tbody>
</table>

(20) Shanghai (Zhu 2003:86)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>幫助</td>
<td></td>
</tr>
<tr>
<td>(pòng-zu)</td>
<td>(pòng-zu \sim pòng-\text{zu})</td>
</tr>
<tr>
<td>help-help</td>
<td>help-help~help-help</td>
</tr>
<tr>
<td>‘help’</td>
<td>‘help out a bit’</td>
</tr>
</tbody>
</table>

(21) Hong Kong Cantonese (Matthews & Yip 2011:40)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>上落</td>
<td></td>
</tr>
<tr>
<td>(séuhng-lohk)</td>
<td>(séuhng \sim séuhng-lohk \sim lohk)</td>
</tr>
<tr>
<td>rise-fall</td>
<td>rise-rise-fall~fall</td>
</tr>
<tr>
<td>‘rise and fall’</td>
<td>‘go up and down’</td>
</tr>
</tbody>
</table>
Aspectual features of the input and output of these constructions also seem to be largely the same as for SM, although we lack detailed information on this for most dialects. However, many other meanings and patterns of TR are attested in the dialects of our sample. Moreover, within one variety there may be considerable variation also among verbs with a different morphological makeup. For instance, in Xinyi, TR of verbs has delimiting semantics as in SM, but only simplex monosyllabic verbs are allowed in this construction.

In what follows, we will first discuss TR of verbs with a (broadly defined) progressive/iterative meaning, and then we will discuss the AABB pattern across dialects. Note that above we considered only bare reduplication, but there are several cases of TR constructions which include other items, as e.g.:

(22) Taiwanese Southern Min (Chuang 2007:4; characters added)

食食咧

$cia\text{h}^8$~$cia\text{h}^8\ le^0$

eat~eat \hspace{1cm} EMPH

‘eat for a little while’
Here the emphatic marker 喂 le⁰ is required in the construction. While these patterns fall out of the scope of TR proper, since they involve the addition of other morphemes, we will nevertheless mention some of them for the purposes of our discussion.

2.2.1 Reduplication with progressive semantics

In §2.1, we pointed out that TR of (non-coordinating) verbs seems to add a temporal boundary to the predicate. However, progressive/(iterative) semantics is also attested for reduplication of monosyllabic verbs in several Chinese dialects (see Wang H. 2005b, Fu & Hu 2012):

(23) Wenzhou (Chi & Wang 2004:250)

渠束见束见, 写写

‘He is reading and writing’

In Wenzhou, reduplication of monosyllabic verbs may mean ‘repetition/continuation over a short period of time’. In (23), ‘reading’ and ‘writing’ are two actions performed alternately for quite some time, although each instantiation of the individual
actions has a short duration. Delimitative aspect may also be marked by means of TR, just as in SM; the two functions of reduplication are distinguished by suprasegmental means, and obey different restrictions (see Wang F. 2011:53-62). In Suzhou, another dialect of the Wu group, TR of verbs has delimiting semantics, but apparently it can indicate continuation of an action in the background as well (Fu & Hu 2012: 145):

(24) 我打打球，小王來喊嘖

WO DA~DA QIU XIAO~WANG LAI HAN ZE

1SG play~play ball young-Wang come call PERF

‘I was playing [a ball game] when Young Wang came to call (me)’

As a matter of fact, Shi (2007) proposes that progressive/(iterative) verbal reduplication is a feature distinguishing Southern China from Northern China, and that it reflects the Middle Chinese pattern of verbal reduplication, whereas the diminishing pattern is an innovative feature (see also Shi 2007, 2009, Fu & Hu 2012). However, progressive TR is found also in Taonan, a Mandarin dialect of the Northeast (Wang H. 2005b:150):

---

8 Note that there is a pause between the two reduplicated verbs, indicated by a comma, which implies that we are not dealing with AABB reduplication here.
你看她吃吃奶睡著了

NI KAN TA CHI~CHI NAI SHUI-ZHAO LE
2SG see 3SG.F eat~eat milk sleep-fall PERF/PFV
‘Look, she fell asleep while drinking milk’

This construction allows only simplex monosyllabic action verbs, having the feature [+durative]. Moreover, these reduplicated verbs cannot build an independent clause: they rather serve as a background to the predicate of the main clause, i.e. 睡著 SHUI-ZHAO ‘fall asleep’ in (25).

Note that both Shi (2007) and Fu & Hu (2012) provide only examples of TR of monosyllabic verbs, and mention no cases of ABAB reduplicated compound verbs with increasing semantics. In our sample, if (bare) ABAB reduplication of verbs is possible, it mostly has a diminishing function, as in (20). One dubious case is that of Wenzhou, in which, according to Chi & Wang (2004) a limited number of disyllabic verbs can undergo TR with a progressive/iterative meaning. Nevertheless, Chi & Wang never mention explicitly if this subset of verbs reduplicate as ABAB or as AABB. Moreover, according to Wang F. (2011:83), disyllabic verbs are allowed only in the SM-like delimiting pattern.
A more puzzling case is that of Quanzhou. In this variety, ABAB reduplication of verbs reportedly has an increasing function, but only in a construction involving the particle 喂 LIE, just as 喂 le⁹ in Taiwanese (22), another Southern Min dialect (Li R. 2007:21; note that the functions of these two particles are not the same). Nevertheless, increasing reduplication without 喂 LIE is possible if an object is present:

(26) 煮無多齊，著食食伊了

ZHU WU ⁹ ZHAO SHI~SHI YI LE

cook not much eat 3SG PFV

‘I didn’t make a lot, you must eat it up’

Following Li R.’s analysis, here the reduplication of 食 SHI indicates that the act of eating is to be iterated several times, and whether this happens in a short or in a long time span is not relevant. We will get back to the analysis of progressive/iterative reduplication later, after having discussed a related topic, namely that of TR in resultative verb constructions.

2.2.2 Reduplication in resultative constructions

---

⁹ To the best of our knowledge, this character has no SM reading, hence the question mark.
In resultative verb constructions (RVCs), exemplified above (14) by SM 弄壞 nòng-huài ‘make-bad = spoil’, the first verb indicates an action leading to the state expressed by the second constituent. Since they describe an inherently telic process, they are normally excluded from delimitative reduplication in SM, as mentioned before ($§2.1$). However, in some dialects of our sample this does not seem to be the case:

(27) Wenzhou (Wang F. 2011:60)

a. 逮魚洗洗光生

DAI YU XI~XI-GUANGSHENG

OBJ fish wash~wash-clean

‘wash the fish clean’

Nanjing (Committee 1993:232)

b. 你去把地掃掃乾淨

NI QU BA DI SAO~SAO-GANJING

2SG go OBJ floor sweep~sweep-clean

‘sweep the floor clean’

---

10 However, as pointed out in Li Y. (1998; qtd. in Chi & Wang 2004:151), in SM one may also find examples like 洗洗乾淨 xi~xi-gânjing ‘wash~wash-clean’; these are said to be calques of dialectal patterns. As a matter of fact, examples of reduplication in resultative constructions are found in the works of writers such as Lu Xun and others coming from the Wu dialect area (see He 2007).
Taiwanese Southern Min (Chuang 2007:6; characters added)

c. 拍死 → 拍拍死

$phah^4$-si$^2$ $phah^4$-~$phah^4$-si$^2$

hit-die hit-hit-die

‘beat to death, kill’ ‘beat savagely, to death’

In Wenzhou, TR of the first verb in a resultative construction is often found in imperative sentences, making the request sound softer (Wang F. 2011). According to Chi & Wang, in a sentence such as (27a) the verb 洗 xi ‘wash’ indicates an action which has not yet eventuated. Fu & Hu (2012) suggest that here the focus is on the result state, whereas the reduplicated verb indicates that the action leading to the result state is carried on (or repeated) for some time. Wang F. (2011) adds that this pattern of TR, even when it is used in declarative sentences, expresses ‘dissatisfaction’ or ‘surprise’ on the part of the speaker. As to Nanjing, according to the description we consulted, the function and use of verbal TR in RVCs is somewhat close to that of Wenzhou: the reduplication of the verb emphasises the result state, and it is typically found in imperative sentences. Here, however, the verb leading to the result state is emphasised as well. Interestingly, in Wenzhou when a verb is followed by a directional complement, as e.g. 出 CHU ‘exit,
outwards’, TR reportedly indicates that the action occurred hastily, in a short time (Chi & Wang 2004:151):

(28)渠一聽到消息馬上沖沖出

\[ gr^2 \ YI \ \text{TING-DAO XIAOXI MASHANG CHONG-CHONG-CHU} \]

3SG.M once listen-arrive news right.away dash-dash-out

‘he dashed out as soon as he heard the news’

Opinions diverge on Taiwanese Southern Min: Tsao (2004) glosses as ‘rapid completion’ the function of TR in RVCs, arguing that this is consistent with the delimitative function (short duration > rapid completion). Chuang (2007), on the other hand, believes that reduplication in a construction such as (27c) adds to the intensity of the predicate, indicating “intensification on the action causing a change of state” (Chuang 2007:84). A ‘rapid completion’ account could actually apply to the use of TR in the Wenzhou constructions exemplified in (27a) and (28), in our opinion: in imperatives, if TR indicates ‘dissatisfaction’, it may imply that the requested action should be carried out quickly; haste and speed seem to be part also of the meaning conveyed by TR with directional complements. We will get back to this below.

In Quanzhou, a Southern Min variety closely related to Taiwanese, it has been argued that TR of verbs does not indicate
rapid completion, but rather iteration of the action, as seen in (26).

TR occurs also within RVCs, indicating that the action leading to the result state occurred several times. This is compatible with Chuang (2007)’s account, as ‘iteration’ may well entail ‘intensification’.

Another Southern Min dialect, namely Zhangzhou, also makes use of TR in RVCs (Chen 2001:232):

(29) 紙拆拆破

\text{ZHI CHAI~CHAI-PO}

\begin{itemize}
\item paper tear~tear-broken
\item ‘the paper was completely torn (into pieces)’
\end{itemize}

Here, according to Chen, TR conveys the meaning of ‘complete quantity’, i.e. that the object has been completely affected. Chen believes that verbal TR in Zhangzhou is connected with iteration, even when it has diminishing semantics. This analysis is in line with Li R.’s discussion of Quanzhou reduplication just seen above, although here the focus seems to be on the effects of the action, rather than on the action itself. Note that in Taiwanese Southern Min, in Quanzhou and in Zhangzhou this kind of RVCs with TR are commonly found in declarative sentences, as well as in imperatives.
In Taiwanese Hakka, TR of verbs in a resultative construction indicates that the action leading to the result state is performed quickly, in a rash, careless fashion (Ye 2011:27):

(30) 咬咬棉

YAO~YAO-MIAN
chew~chew-soft
‘chew until it is destroyed’

In Suzhou, TR of verbs in a resultative construction reportedly indicates completed action (Wang P. 2011: 332):

(31) 烧烧熟

SHAO~SHAO-SHU
cook~cook-cooked
‘cooked’

Just as in Wenzhou, the reduplicated resultative construction is often found in imperative sentences, judging from the examples provided in Wang P. (2011). Also, note that TR is used to indicate perfective aspect/completion of an action also in another Wu dialect, Yongkang (not included in our sample due to lack of adequate data; Huang B. 1996:175):
(32) 信寄寄就来
XIN  JI–JI  JIU  LAI
letter send–send then come
‘(I, she, etc.) will come after sending the letter’ / ‘(please)
come after sending the letter’

Since no context is provided, it is unclear whether (32) is to be understood as a declarative or as an imperative sentence.

Fu & Hu (2012), on the basis of their own cross-dialectal survey, propose that all monosyllabic patterns of verbal reduplication in Sinitic with a progressive/iterative meaning are found in background sentences. As such, they must be followed either by another clause, as in (24) and (25), or by a resultative complement, or by a directional or a quantifier. According to them, the function of these background clauses is to specify the manner, reason or circumstances of the occurrence of the predicate or result state; the result state thus serves as a boundary to the continuation of the action. In the light of the above, it seems that progressive/iterative verb reduplication differs from diminishing reduplication not only because of its meaning, but also because of its aspektual properties: in the former pattern, the boundary is provided by something else, be it another event, as in the case of progressive TR, or another
state, as in the case of reduplication in RVCs. On the other hand, in a pattern as that exemplified in (31) and (32), in which the reduplication of the first verb in the construction is said to indicate the completion of the event described by the predicate, the use of TR to indicate a completed action is akin to that of the perfective aspect marker $-\bar{e}-le$ in SM RVCs and imperative sentences:

(33) 土豆烧熟了, 再家牛肉

$tùdòu  \; shāo-shú-le  \; zài \; jiā \; niú-ròu$

earth-bean cook-cooked-PFV then add cow-meat

‘once potatoes are cooked, add the beef’

(34) 擦了它 (adapted from Li & Thompson 1981:208)

$cā-le  \; tā$

erase-PFV 3SG.N

‘get rid of it’

As pointed out by Li & Thompson, in (34) the presence of the perfective marker $-\bar{e}-le$ reinforces the imperative, as it suggests that the action must be completed.\(^\text{11}\) If reduplication of the verb in (31) indicates that the action has been completed, then its use in

\(^\text{11}\) But cf. Sybesma (1999:71), according to whom in this case $-\bar{e}-le$ would be a ‘phase marker’, i.e. a kind of resultative element, indicating that an action has been accomplished more or less successfully without specifying the result state (on phase markers or phase complements, see Chao 1968; Li & Thompson 1981).
imperatives may be explained in the same way as SM \( -\tilde{\text{e}} -\text{le}^{12} \).

The idea of rapid completion applied above to Wenzhou TR in RVCs and VPs with directional complements may have something in common with this as well, at least as far as imperative sentences are concerned.

Thus, in short, it appears that whereas diminishing reduplication alters the *Aktionsart* of the verb by providing a temporal boundary to the event, perfective TR operates on grammatical aspect. Note that in Wenzhou the reduplication of a monosyllabic verb, if followed by an aspectual(/modal) particle like  الفوركس, indicating perfective aspect, may mean ‘sudden change’ (Chi & Wang 2004: 151):

(35) 鸡都死死\( \text{فو} \)

<table>
<thead>
<tr>
<th>CH</th>
<th>Pinyin</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>JI</td>
<td>DOU</td>
<td>SI~SI (frames) forex</td>
</tr>
<tr>
<td></td>
<td></td>
<td>chicken already die~die PFV</td>
</tr>
<tr>
<td></td>
<td></td>
<td>‘The chicken has died already’</td>
</tr>
</tbody>
</table>

The reader may have noticed the use of a verb like 死 si ‘die’, which is not allowed in SM delimitative reduplication because of

---

12 Also, compare Russian пошли! pošli! ‘let’s go!’, lit. ‘we went (off)’, in which the use of a perfective past tense conveys a sense of urgency.
its inherent telicity\textsuperscript{13}. Wang F. suggests that \( \text{foo} \) is added only to those reduplicated verbs whose base form indicates [-controlled], [-durative] actions, and the construction indicates “suddenness, broad scope, gravity of the consequences, etc.” (2011:87; our translation). Needless to say, this is to be regarded as a different construction from the iterative/progressive constructions seen above, because of the presence of an aspectual particle.

2.2.3 Summary

Let us now summarise the patterns of TR introduced in the two preceding sections, to provide an overall picture. Whenever a relevant example has been quoted in the text, we will add a reference to it.

\begin{table}[h]
\centering
\caption{Example Table 3}
\end{table}

Let us now turn to the topic of the AABB pattern of verbal TR.

\textsuperscript{13} The cognate verb 死 话 in Taiwanese Southern Min may also reduplicate, and is normally followed by the “phase marker” 去 话, indicating completion (Tsao 2004: 302); here, however, reduplication involves the addition of causative meaning, as in the following example (Chuang 2007: 68; characters added):

\begin{verbatim}
死死去
话话 话
die~die finish
‘cause to become dead’
\end{verbatim}

Note that only monosyllabic verbs are allowed in this construction, further attesting to the relevance of word structure for reduplication (Chuang 2007: 68).
2.2.4 AABB reduplication

In the preceding sections, we stressed the fact that there appears to be much variation in TR constructions across Sinitic varieties. As to the AABB pattern of verbal TR, it mostly seems to behave just as in SM, as in the Hong Kong Cantonese example seen above (21); not all varieties in our sample use this construction, but in those dialects in which it is used, there appear to be no significant differences. Two main generalisations emerge:

a. AABB reduplication seems to be largely independent of the other patterns attested in a given variety;

b. AABB reduplicated verbs tend to have ‘adjective-like’ features: they are often used to depict situations, and typically behave as intransitives, regardless of the valency of the base verb(s).

The first generalisation may be exemplified by Meixian Hakka. In this dialect, there is neither bare reduplication of monosyllabic verbs, nor ABAB reduplication of disyllabic verbs. However,
AABB TR is productive, and appears to have the same function and restrictions on the input as in SM (Huang Y. 2006:18):

(36) 上上下下

soŋʰ³-sʊŋʰ³-haʰ³-haʰ³
ascend~ascend-descend~descend
‘go up and down’

A similar case is that of Taiwanese Southern Min. As said earlier, delimitative reduplication necessarily involves either a particle as the emphatic marker咧 le₀ (22), or a resultative complement (27c). Compound verbs reduplicate as ABB or BAA, depending on their structure (Chuang 2007:33; characters added):

(37) 修理 → 修理理咧

siuʰ¹-li² siuʰ¹-li²~li² le₀
fix-fix fix-fix~fix EMPH
‘fix’ ‘fix a little’

(38) 定票 → 票定定咧

ting³-phio⁵ phio⁵ ting³~ting³ le₀
‘book (tickets)’ ‘book the tickets for a little while’

34
Compound verbs reduplicating as ABB are often made of synonymous constituents, just as (37), and are arguably lexicalised (see above, §2.1). Verb-object compounds reduplicate only the verb, just as in SM (see above, fn. 6), but here the object is moved before the verb. However, AABB reduplication of coordinate verbs has increasing semantics and does not involve any other item (adapted from Chuang 2007:35):

(39) 來去 → 來來去去

\(\text{lai}^3\text{-khi}^3\)  \(\text{lai}^3\text{-lai}^3\text{-khi}^3\text{-khi}^3\)

come-go  come~come-go~go

‘come and go’  ‘coming and going’

As to our second generalisation, namely, that AABB reduplicated verbs tend to have adjective-like features, this is explicitly stated in some of the sources we consulted. For instance, in Xunxian, AABB reduplicated verbs are used to “depict a situation, and their pragmatic features, as well as their syntactic distribution, are about the same as adjectives” (Xin 2006:99; our translation). Moreover, they cannot be followed by aspect markers or complements:
(40) 那個人走路搖搖晃晃嘞，是不是喝醉了？
that CLF person walk-road shake~shake-sway~sway-DET

‘That person is tottering as s/he walks, isn’t s/he drunk?’

Here the main verb is 走路 ZOU-LU ‘walk’, whereas 搖搖晃晃 YAO~YAO-HUANG~HUANG has the function of indicating the manner of the action. This is apparent also in the SM example (10) seen above, in which the TR of the verb 偷摸 tōu-mō ‘pilfer’ yields 偷 偷 摸 摸 tōu~tōu-mō~mō ‘furtively’, i.e. an adverbial depicting how an action is carried out. Another case in point is Taiwanese Hakka, in which AABB reduplicated verbs and adjectives are actually lumped together as modifiers of actions/processes or (stative) situations (Chang 1998:111):

(41) 求求乞乞

kui²~kui²-k’iet⁵~k’iet⁵
request~request- plead.for~plead.for
‘(with) a begging attitude’

(42) 迷迷痴痴
Chang also points out that in TR of antonymic verbs, as 出入, 退出入, what is being depicted is two different actions occurring repeatedly, just as in SM and in the other varieties of our sample. In point of fact, pairs of antonym motion verbs seem to be the most common AABB reduplicated verbs in our sample, arguably because of their semantics and, also, for pragmatic reasons.

An interesting case is that of Chengdu, a Southwestern Mandarin dialect. According to Yang (2005), the AABB pattern of reduplication is available only for a limited set of verbs, which reduplicate as ABAB in SM, and reduplication has increasing semantics (Yang 2005:85):

(43)商量 → 商商量量

SHANG-LIANG → SHANG-SHANG-LIANG-LIANG
discuss-consider → discuss-discuss-consider-consider
‘discuss, consult’ → ‘discuss repeatedly/for a while’
Yang also claims that the verbs reduplicating as AABB in Chengdu, nearly all made of coordinate (often synonymous) constituents, correspond to ABAB reduplicates in SM, i.e. to highly lexicalised compound verbs (see above, §2.1). Nevertheless, with a cursory Google search, we actually found that e.g. both 商量商量 shāng-liang–shāng-liang (delimitative) and 商商量量 shāng–shāng-liang–liang (iterative) may be found in written Chinese\textsuperscript{14}, attesting not only to the differences in the perception of the structure of this word by different speakers\textsuperscript{15}, but also to the strong connection between the AABB pattern and increasing semantics, on the one hand, and the ABAB pattern and diminishing semantics, on the other hand.

2.3 Summary

In the preceding sections, we outlined the main features of TR in a representative sample of languages of the Sinitic group. Although a detailed description of these phenomena is lacking for most varieties at issue, the picture that emerged from our description is, at best, complex and heterogeneous. Nonetheless, it has been

\textsuperscript{14} 882,000 hits for the ABAB version and 609,000 hits for the AABB version (11/11/2013).

\textsuperscript{15} Compare Mandarin 来往 lǎi–wǎng ‘come and go’, which reduplicates as 来来往往 lǎi–lái–wǎng–wǎng ‘go back and forth, come and go in great numbers’, and 来来 lǎi–wang ‘have contacts with’, fully lexicalised (note the neutral tone of the second constituent), which reduplicates as 来来 lǎi–wang–lái–wang ‘have some contacts with’. 
possible to highlight some common features among the various semantic and morphological patterns of TR in Sinitic. Let us try to summarise the overall picture as follows, with a focus on verbal reduplication.

Based on SM, we identified two main patterns of TR, formally distinguished at the structural level for disyllabic bases, and showing a tight correspondence between form and function: i.e., AABB (increasing) and ABAB (diminishing) TR.

These semantic functions of TR crosscut lexical classes quite nicely in SM. While the diminishing pattern is found only among verbs (as input and output categories), the increasing pattern involves both verbs and adjectives (and nouns, though to a very limited extent). However, only a small subset of verbs are allowed in the increasing template: that is to say, only disyllabic coordinated verbs can be reduplicated within the AABB template, with the consequence that TR of a monosyllabic verb never conveys increasing semantics. This shows that a rigid division of labour applies to TR patterns of SM, in the very sense that there is virtually no chance of having instances of structural identity between the increasing and the diminishing functions.

As to the other Sinitic varieties under examination, a preliminary observation concerns the cross-linguistic attestation of verbal and adjectival TR, which seems to occur in all the dialects
considered. The only exception is Xiangtan, in which only adjectives reduplicate (allegedly, a gap that is found in all the dialects of the Xiang group according to Wu 2005).

A second major issue concerns the level of cross-linguistic uniformity for each pattern, which distinguishes the monosyllabic from the disyllabic templates in the verbal domain. In a nutshell, whereas the structural and semantic features of TR for disyllabic verbs are fairly consistent across dialects, monosyllabic verbs are found in several kinds of constructions, apparently expressing incompatible meanings. Therefore, there seems to be a general tendency for variation to occur in constructions involving the reduplication of monosyllabic, rather than disyllabic items.

Sinitic dialects also differ as to the morphological makeup of TR, since some dialects avoid what we dubbed here as ‘bare TR’ and require additional markers, as noticed for Taiwanese Southern Min (22). Another aspect of variation lies in the input and output constraints for TR: for instance, in Xinyi TR of verbs has delimiting semantics as in SM, but only simplex monosyllabic verbs are allowed in this construction.

The most striking deviation from SM, however, is found in the aspectual constraints on TR. As to the semantics of the output, reduplication can convey progressive aspect, arguably opposed to the delimiting semantics of the correspondent SM pattern. As to
the aspectual constraints on the input verbs, the ban on telic bases identified for SM clearly does not apply as such to other Sinitic varieties, where inherently telic predicates can be reduplicated. Specifically, RVCs are bases for TR in Wenzhou (27a.), Southern Min (27b.), Nanjing (27c.), Zhangzhou (29), Taiwanese Hakka (30), etc., uncontroversially pointing to the need for a different aspectual characterization of the verbal pattern of TR in these dialects. A detailed analysis of RVCs in the reduplication template clearly exceeds the limits of the present study. We remarked, however, that there is variation in the morphological makeup of these patterns and in the linguistic contexts of use, although for many varieties there appears to be a tendency to use them predominantly in imperative sentences. As to the semantics of TR in RVCs, some of its main features are ‘rapid completion’ or ‘repetition over a short period of time’, i.e. values tightly related to the core semantics of diminishing reduplication in SM.

Let us now turn to the AABB template, which targets adjectives and coordinated verbs in SM. Our cross-linguistic survey has disclosed two main properties of this pattern: it is structurally and semantically consistent across languages, independently of the other reduplication patterns attested in a given dialect (exx.36-39). Moreover, reduplicated verbs in the AABB template may dismiss their verbal features and approach manner adverbs instead. As a
consequence, AABB reduplicated verbs tend to avoid aspect markers and drop arguments and complements altogether, independently of the valency properties of the base (ex. 40). From the semantic and pragmatic points of view, AABB TR is often used to depict situations and, in particular, it can express the manner in which the action (described by the main verb in the sentence) is carried out (exx. 41-42).

To recapitulate, there is a major point of divergence among Sinitic varieties, which lies in the semantic characterization of verb reduplication. On the one hand, verbal TR indicates background open-ended events, as in Suzhou and Taonan; on the other, it may involve inherently telic predicates. Chinese scholars have attempted several explanations for the semantics of TR in these varieties, capitalising on the notion of ‘backgrounder’, ‘irrealis’, ‘rapid completion’, ‘suddenness’, ‘intensity’. This is partly a reflection of earlier uses of reduplication in the history of Chinese; more specifically, TR in SM exhibits innovations with respect to the older patterns, which are instead preserved to a greater extent in other Sinitic varieties. As to the semantic and structural characterization of AABB reduplication, this emerges as a more stable pattern across languages, being rather consistent in structural and semantic terms across dialects.
As a (tentative) conclusion, we may propose that there are two core semantic values for reduplication, both involving the notion of ‘iteration’: iteration over a long/undefined period of time and iteration over a short/defined period of time. The former should reflect the older use of reduplication, and the latter should reflect the ‘innovative’ uses, as e.g. those of SM. Iteration over a long/undefined period of time may easily be reanalysed as expressing progressive/unbounded semantics, as in Suzhou, whereas iteration over a short period of time may be reanalysed as indicating perfective-like meanings, as rapid completion and suddenness, and, also, tentativeness. These processes of reanalysis, needless to say, are construction-specific, i.e. they depend on the interaction between verb semantics and the other items, such as resultatives or aspect markers, if present. Thus, reduplication may add a temporal boundary, as in SM, but may also act to the contrary. In Suzhou, for instance, both effects of reduplication are attested (compare 24 and 31). However, more data taken from a broader variety of contexts is needed to provide a proper assessment of these phenomena.

3. An areal perspective
In this section, we will test the generalisations drawn for Sinitic on a small convenience sample of fourteen non-Sinitic languages of the East- and Southeast Asian area. The languages of our sample are shown in table 4, together with their affiliation, the country where they are (mainly) spoken and the sources consulted.

INSERT TABLE 4 HERE

All the languages in our sample display verbal reduplication. However, the meaning conveyed by verbal reduplication is generally increasing: TR is mainly used to express iterative or durative aspect, repeated action, emphasis, etc. The only languages that use verbal reduplication with a diminishing function, like in SM, are Vietnamese and Dong, as we will see. In what follows, we will first provide an overview of the patterns and functions of verbal TR in the languages at issue. Then, we will focus on the reduplication of disyllabic and bimorphemic verbs.

3.1 Verbal reduplication: an overview

As mentioned above, verbal TR in the non-Sinitic languages of our sample mainly has an increasing function. For example, according
to Khin Khin Aye (2005:354), in Singapore Bazaar Malay\textsuperscript{16} TR conveys iterative or durative aspect, expressing either repetition or continuity of the action or process expressed by the main verb:

(44) *Dia selalu di tengah jalan tipu-tipu sama orang.*

3SG always in middle road cheat~cheat with people 'He is always on the road, cheating people.'

In Khmer too verbal TR expresses repeated action (Haiman 2011:90):

(45) *papuh teuk pruac~pruac*

bubble water bubble.up~bubble.up 'water keeps bubbling and bubbling'

TR expresses repetition also in M’nong (46), Burmese (47), Zhuang (48) and Yongning Na (49):


(47) *lá-lá-sa ‘come-come-tease, keeps coming and teasing’* (Lay 1978:47)

\textsuperscript{16} Singapore Bazaar Malay is a Malay-lexified pidgin with a Sinitic substratum.
(48) bae~bae-dauq~dauq ‘go~come~go back and forth’ (Wei 1985:16)

(49) təɔ3ɔ33 ‘pull~pull, pull back and forth’ (Lidz 2010:372)

Note, however, that although Lay (1978) states that reduplication of monosyllabic verbs in Burmese can indicate that the action is frequently repeated, he nevertheless adds that the main verb in the reduplication pattern, such as sa ‘tease’ in (47), does not reduplicate. Thus, it is not clear whether this pattern can be considered as TR or not. Also, note that in Zhuang verbs generally do not reduplicate; the only verbs displaying reduplication are antonymous directional verbs, like (49) above.

In Jahai, verbal TR is said to convey continuative aspect, i.e. it is used to signal that a situation goes on for a period of time, often implying that it is carried out until completion (Burenhult 2005:101):

(50) ʔɔʔ ɡeʃ~ɡeʃ nasi? тон

3SG eat~eat rice that

‘He kept on eating that rice [until he was finished].’

---

17 According to Burenhult (2005), TR of “property verbs” does not express continuity but only intensity. However, we suggest here that these verbs are actually adjectives, prone to be used as predicates in specific contexts (see “verb-like adjectives”; Dixon 2004:14), as e.g.: lajin ‘to be different’ → lajin~laʃin ‘to be very different’; ʔhɔj ‘to be small’ → ʔhɔʃ~ʔhɔj ‘to be very small’ (Burenhult 2005:101).
In Indonesian, reduplication may indicate either an action done over an undefined time span or an action performed repeatedly (Sneddon 1996:20):

\[(51) \text{Bu Yem meng-urut-urut rambut anaknya.}\]

Mrs Yem ACT-stroke-stroke hair child

‘Mrs Yem stroked her child’s hair (a number of times).’

In Lao (52) and Thai (53), verbal TR expresses intensification or emphasis:

\[(52) \text{man2 jaak5-paj2-jaak5-paj3}^{18} \quad \text{Enfield 2007:255}\]

3SG want-go-want-go

‘He really wanted to go.’

\[(53) \text{ch\u00e6n ch\u00e6p-\u00e6p k\u00e6w}^{19} \quad \text{Sookgasem 1997:269}\]

I like-like her

‘I do like her.’

In Indonesian too, reduplicated verbs convey a sense of

---

18 This type of reduplication has the structure $\sigma^2$-\sigma, where $\sigma^2$ is a stressed and lengthened version of $\sigma$, with tone 2 overriding the original tone (Enfield 2007:255).

19 In this kind of reduplication in Thai, the non-high tone of a monosyllabic word or the last syllable of a polysyllabic word changes to high or extra high tone (Sookgasem 1997:260).
intensity, as e.g. \textit{men-jadi-jadi} ‘ACT-become\textasciitilde{become}, get worse’ (Sneddon 1996:20).

There are yet other functions of verbal TR in the languages of our sample. For example, in Bahnar verbal TR expresses consecutive actions (Banker 1964:124):

(54) \textit{sa\textasciitilde{sa}} ‘eat\textasciitilde{eat}, to eat first and then do something else immediately’

In Yongning Na, verbal TR may express reciprocal events (Lidz 2010:372)\textsuperscript{20}.

(55) \textit{t\textasciitilde{æ}l3\textasciitilde{æ}l3} ‘bite\textasciitilde{bite}, bite each other’

Verbal TR expressing reciprocal meaning is found in Qiang too (La Polla & Huang 2003:123):

(56) \textit{KU\textasciitilde{KU}} ‘curse\textasciitilde{curse}, curse each other’

Interestingly, diminishing verbal TR is quite rare. It is basically found only in Vietnamese (Goddard 2005:68):

\textsuperscript{20} Moreover, according to Lidz, reduplication of stative verbs conveys ‘added intensity’.
However, in Indonesian too some reduplicated verbs have a sort of diminishing meaning (Sneddon 1996:20), since they convey the semantic/pragmatic value of ‘action done in a casual or leisurely way’.

This pragmatic effect of TR can be considered an extension of the ‘short duration’ value, defined as the diminishing function of TR in SM.

In Dong, verbs generally cannot reduplicate. However, arguably because of the influence of Chinese, there is a tendency for some verbs to undergo reduplication with diminishing function, i.e. implying ‘short duration’ or ‘try out’ (Long & Zheng 1998:122).

Finally, in M’nong TR of a restricted class of verbs (basically, stative verbs, judging from the examples we found) expresses...
lightened meaning, as e.g. *bo~bo* ‘love~love, love less’ (Thu 1998:62).

3.2 AABB reduplication

In the non-Sinitic languages of our sample, the verbal AABB pattern of reduplication is found only in a few languages. For example, it is observed in Vietnamese, as shown in the examples below (Nguyen 1997:52). The meanings conveyed by this pattern are akin to those found in Sinitic.

(60) a. nói cười → nói~nói cười~cười

speak laugh speak~speak-laugh-laugh

‘speak and laugh’ ‘speaking and laughing at the same time’

b. đi lại → đi~đi lại~lái

go come go~go-come~come

‘go and come’ ‘go back and forth’

The AABB-type TR pattern is found in M’ñong too, where it indicates repetition, hence an intensifying value (Thu 1998:64):

(61) a. sa nhét → sa~sa-nhét~nhét

eat drink eat~eat-drink~drink
‘eat and drink’  ‘eat and drink again’

b. *gom ngoi* → *gom*~*gom-ngoi*~*ngoi*

laugh speak  laugh~laugh-speak~speak

‘laugh and speak’  ‘laugh and speak again’

In Dong, as said above, verbal reduplication is uncommon; here two antonymous verbs can reduplicate following the AABB pattern, conveying the meaning of repeated action (Long & Zheng 1998:122):

(62) a. *tha*⁴⁵³~*tha*⁴⁵³~*lui*³³~*lui*³³

go.up~go.up-go.down~go.down

‘go up and down, again and again’

b. *pai*⁵⁵~*pai*⁵⁵~*con*³³~*con*⁵³

go~go-turn~turn

‘keep going back and forth’

Note, however, that there are just a few examples of this kind of reduplication in Dong, and we may speculate that this pattern, just like diminishing reduplication (see ex. 59 above), is influenced by Sinitic.
In Zhuang, as we have seen, only antonymous directional verbs can reduplicate, following the AABB pattern, indicating repetition (see ex. 48 above).

Finally, in Burmese there are bimorphemic AB verbs, where neither A nor B exist independently, which nonetheless reduplicate as AABB and yield adverbs (63). The AB bases entering this pattern of reduplication seem to be stative verbs (including the so-called adjectival verbs; Lay 1978:57):

(63) sîn-sâ ‘think’ → sîn-sîn-sâ-sâ ‘thoughtfully’

This use of AABB reduplicated verbs as adverbs is hardly surprising. As a matter of fact, we have seen above that in Sinitic AABB verbs often drop their verbal status and tend to acquire adjectival-like features, often recurring as modifiers of the main verb in a given sentence.

On these empirical grounds, some interesting generalizations emerge, which specifically target the morphological makeup of the base verbs.

First and foremost, in the non-Sinitic languages of our sample, just as in SM, verbs that are allowed in the AABB TR construction must be disyllabic and bimorphemic. As a matter of fact, in languages which have disyllabic monomorphemic reduplication,
the TR pattern is ABAB, i.e. the verb reduplicates as a whole and ‘behaves’ as monosyllabic TR.

Furthermore, it is worth noting that the AB bases entering the AABB reduplication pattern must be formed by two lexical morphemes. For example, in Jahai derived forms such as imperfectives, iteratives and distributives can undergo reduplication. However, even though these verbs are bimorphemic, the reduplication pattern is ABAB, since one of the morphemes is derivational/functional, rather than lexical (Burenhult 2005:65, 101; our glosses):

(64) /ɟʔ-ɟɨʔ/ → /ɟʔ-ɟɨʔ~ɟʔ-ɟɨʔ/  
IPFV-burn  IPFV-burn~IPFV-burn  
‘to be burning’ ‘to be keeping on burning’

As to the grammatical relation between the constituents of the base, in all the languages at issue disyllabic bimorphemic bases undergoing the AABB type of TR are formed by coordinate compounds (including constituents in an antonymous relation), just as in Sinitic.

On a more general level, what seems to emerge from the above picture is that languages making use of the AABB pattern of TR tend to have a 1:1 correspondence between syllables and
morphemes. Related to this, the AABB pattern seems to be dependent on the occurrence in a given language of a specific compounding pattern, namely, bimorphemic and coordinate verbs. Table 5 summarizes the patterns and functions of verbal TR in the languages of our non-Sinitic sample; as for table 3, we added references to the relevant examples in the text.

INSERT TABLE 5 HERE

4. Concluding remarks

In this article we provided an illustration of the patterns of verbal (and, to a very limited extent, adjectival) reduplication in SM and in a convenience sample of nineteen Chinese dialects and fourteen non-Sinitic languages of the East- and Southeast Asian area. Starting from a quite detailed analysis of SM, for which a considerable amount of empirical and theoretical research is available, we aimed at highlighting some interesting correlations between structure and meaning in reduplication which cross-cut lexical classes. As to the relationship between form, function and aspectual and semantic features in reduplication, in table 6 we summarise the
main correlations which we found, focussing on the AA and AABB patterns:

**INSERT TABLE 6 HERE**

One of the most striking aspects of reduplication in Sinitic is that there appears to be a very tight correspondence between structure and meaning, in the very sense that word structure is able to determine the form and function of reduplication. This is apparent in Mandarin and in the Sinitic varieties where, for instance, the increasing AABB pattern targets only coordinative compound verbs, whilst the ‘unmarked’ option for verbs is the diminishing function, structurally realised as ABAB in the case of a disyllabic and bimorphemic base.

However, the present survey highlighted a considerable variety of semantic nuances and structural patterns for verbal TR. The peak of variation is probably to be found in the domain of monosyllabic and monomorphemic verbs, which exhibit a wide range of behaviour in the languages considered. Reduplicated monosyllabic verbs, in particular, may express meanings as different as delimitative aspect, tentativeness, rapid completion, suddenness, greater intensity, etc. We proposed that these functions are all somehow connected to two semantic (macro-
values, namely repetition over an unbounded time span, which
appears to be the earlier use for verb reduplication in the history of
Chinese, and repetition over a bounded time span, seemingly the
innovative usage. These meanings were extended to include the
disparate functions and values which reduplicative constructions
possess in modern Sinitic varieties.

As to disyllabic/bimorphemic reduplication, we showed that the
association between functions and patterns is much more stable
and consistent, both across word classes and across dialects. For
instance, we did not find a single instance of a disyllabic (non-
coordinate) verb reduplicating as ABAB and expressing increasing,
rather than diminishing semantics.

TR patterns in the non-Sinitic sample are less stable and
uniform than what is found in the Sinitic sample, but all in all a
general tendency emerges quite distinctly: i.e. TR mostly expresses
increasing semantics. While on the one hand a varied array of
semantic values are attested cross-linguistically, such as iterative
or progressive aspect, reciprocal meaning and other ‘pragmatic’
correlates (i.e. emphasis and/or intensity), on the other hand these
meanings can be more or less easily reconciled with one of the
core values of verb reduplication in Sinitic: repetition over an
unbounded time span. As to the diminishing value of verbal TR,
attested in SM and some of the Sinitic varieties at issue, this
emerges as quite rare across the non-Sinitic languages under examination. This cross-linguistic tendency could be interpreted as an indication that diminishing or delimitative semantics – an innovation of SM and some other Chinese dialects – might be derivative of a more iconic value of TR, i.e. increasing or intensifying semantics.

The areal approach adopted in this study allowed us to highlight the alleged influence of SM on the semantics of TR in Dong; it is not clear instead whether Vietnamese and Indonesian, which have a few instances of TR with diminishing value, exhibit the same effect or developed this pattern independently. Interestingly enough, the few languages having diminishing reduplication exhibit instances of the verbal AABB pattern too, with the expected increasing semantics. Even in these languages, thus, there seems to be a division of labour between the patterns of TR, which unambiguously associate structure and semantics in the verbal domain. In languages lacking diminishing reduplication, the AABB pattern tends to surface as a constructional schema, posing looser constraints on the input and, often, tending towards an adverbial/adjectival status of the output (independently on the input category). As a concluding remark on the AABB pattern, especially in the light of the observations on the morphological constraints in §3.2, we may speculate that the similarities with
Sinitic in this domain are dependent on language-specific morphological properties of the languages at issue, and that, if present, linguistic contact effects are most likely subordinate to these requirements.

Needless to say, the present survey is just a first and possibly coarse attempt to shed light on a heterogeneous class of phenomena, which would deserve a larger set of data and a finer-grained investigation. We hope however to have paved the way for a better assessment of the structural and semantic properties of TR across Sinitic and other non-Sinitic languages of the East- and Southeast Asian area, by raising original research questions, and suggesting some guidelines for further studies in a typological perspective.

References


Fu, Xinqing & Haijin Hu. 2012. 汉语方言单音节动词重叠式比较研究. *Nanchang Daxue Xuebao* 43.5. 143-150.


He, Weiguo. 2007. 浅谈《祝福》中的说说清楚. *Yuwen Jianshe* 3. 45.


Li, Bin. 2006. 闽东古田方言动词的重叠式. *Fujian Jiaoyu Xueyuan Xuebao* 7.7. 67-72.


Yang, Ling. 2005. 成都话动词重叠格式的句法和语义特征. Chengdu Daxue Xuebao 2. 84-86.


<table>
<thead>
<tr>
<th>Language</th>
<th>Group</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xunxian</td>
<td>Mandarin</td>
<td>Xin (2006)</td>
</tr>
<tr>
<td>Chengdu</td>
<td>Mandarin</td>
<td>Yang (2005)</td>
</tr>
<tr>
<td>Nanjing</td>
<td>Mandarin</td>
<td>Committee (1993)</td>
</tr>
<tr>
<td>Taonan</td>
<td>Mandarin</td>
<td>Wang H. (2005a)</td>
</tr>
<tr>
<td>Taiyuan</td>
<td>Jin</td>
<td>Hou &amp; Wen (1993)</td>
</tr>
<tr>
<td>Xiangtan</td>
<td>Xiang</td>
<td>Zeng (2001)</td>
</tr>
<tr>
<td>--------------------</td>
<td>-------</td>
<td>-------------</td>
</tr>
<tr>
<td>Southern Min</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quanzhou</td>
<td>Min</td>
<td>Li R. (2007)</td>
</tr>
<tr>
<td>Zhangzhou</td>
<td>Min</td>
<td>Ma (1995), Chen (2001)</td>
</tr>
<tr>
<td>Gutian</td>
<td>Min</td>
<td>Li B. (2006)</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>Yue</td>
<td>Matthews &amp; Yip (2011)</td>
</tr>
<tr>
<td>Cantonese</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Xinyi</td>
<td>Yue</td>
<td>Luo K. (1987)</td>
</tr>
<tr>
<td>(Siyen) Hakka</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hakka</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shanghai</td>
<td>Wu</td>
<td>Zhu (2003)</td>
</tr>
<tr>
<td>Wu</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tiantai</td>
<td>Wu</td>
<td>Dai (2006)</td>
</tr>
<tr>
<td>Yanshan</td>
<td>Gan</td>
<td>Hu &amp; Lin (2008)</td>
</tr>
</tbody>
</table>

Table 1: Our sample of Chinese dialects

<table>
<thead>
<tr>
<th>Distinction/variable</th>
<th>Description / comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structure of the verb/verbal construction</td>
<td></td>
</tr>
<tr>
<td>Monosyllabic</td>
<td>Simplex verbs made of one syllable/morpheme</td>
</tr>
<tr>
<td>Disyllabic</td>
<td></td>
</tr>
<tr>
<td>Non-coordinate</td>
<td>We distinguish between disyllabic/bimorphemic verbs whose constituents are in a relation of coordination and those in which the constituents are not in such a relationship</td>
</tr>
<tr>
<td>Coordinate</td>
<td></td>
</tr>
<tr>
<td>Verb-object compounds</td>
<td>Compounds in which the righthand constituent is the object of the lefthand verbal constituent</td>
</tr>
<tr>
<td>Di- or trisyllabic</td>
<td></td>
</tr>
<tr>
<td>Resultative verb construction (RVC)</td>
<td>A construction in which a verb indicates an action leading to the state expressed by the second constituent</td>
</tr>
<tr>
<td>Aktionsart and semantic features</td>
<td></td>
</tr>
<tr>
<td>Durativity</td>
<td>An action/event may take time or not (i.e. be punctual)</td>
</tr>
<tr>
<td>Dynamicity</td>
<td>An action/event may be dynamic or stative</td>
</tr>
<tr>
<td>------------------</td>
<td>------------------------------------------</td>
</tr>
<tr>
<td>Volitionality</td>
<td>An action/event may be controlled by the subject or not</td>
</tr>
<tr>
<td>Boundedness</td>
<td>A predicate may have a temporal endpoint or not</td>
</tr>
<tr>
<td><strong>Reduplication patterns</strong></td>
<td></td>
</tr>
<tr>
<td>AA</td>
<td>TR pattern for monosyllabic verbs</td>
</tr>
<tr>
<td>ABAB</td>
<td>Patterns of reduplication for disyllabic verbs (or trisyllabic RVCs); A stands for the first constituent and B for the second constituent</td>
</tr>
<tr>
<td>AABB</td>
<td></td>
</tr>
<tr>
<td>AAB</td>
<td></td>
</tr>
<tr>
<td>ABB</td>
<td></td>
</tr>
<tr>
<td>BAA</td>
<td></td>
</tr>
<tr>
<td><strong>Functions</strong></td>
<td></td>
</tr>
<tr>
<td>Increasing</td>
<td></td>
</tr>
<tr>
<td>Progressive/iterative</td>
<td>Indicating either progressive aspect or iteration of an action</td>
</tr>
<tr>
<td>Intensification/emphasis</td>
<td>Indicating intensification of an action or state, or emphasis</td>
</tr>
<tr>
<td>Complete affectedness</td>
<td>Indicating that the patient of the verb has been completely affected by the process</td>
</tr>
<tr>
<td>Diminishing</td>
<td></td>
</tr>
<tr>
<td>Delimitative</td>
<td>Indicating short duration or ‘tentativeness’ of an action (or lighter meaning for states)</td>
</tr>
<tr>
<td>Rapid completion</td>
<td>Indicating that an action is carried quickly to its completion</td>
</tr>
<tr>
<td>Action performed hastily / in a rush</td>
<td>Indicating that an action occurred hastily, in a short time</td>
</tr>
<tr>
<td>Others</td>
<td></td>
</tr>
<tr>
<td>Completed action</td>
<td>Indicating that an action has been completed</td>
</tr>
<tr>
<td>Consecutive actions</td>
<td>Indicating that some other action will occur immediately after</td>
</tr>
<tr>
<td>Reciprocal</td>
<td>Indicating that the action is performed</td>
</tr>
<tr>
<td>Variety</td>
<td>Bare TR allowed?</td>
</tr>
<tr>
<td>--------------</td>
<td>------------------</td>
</tr>
<tr>
<td>Wenzhou</td>
<td>Only if another verb is present (23)</td>
</tr>
<tr>
<td>Suzhou</td>
<td>Yes (24)</td>
</tr>
<tr>
<td>Taiwanese S. Min</td>
<td>No</td>
</tr>
<tr>
<td>Zhangzhou</td>
<td>Only delimitative</td>
</tr>
<tr>
<td>Quanzhou</td>
<td>Only if object is present (26)</td>
</tr>
<tr>
<td>Taiwanese Hakka</td>
<td>Only delimitative</td>
</tr>
<tr>
<td>Taonan</td>
<td>Yes (25)</td>
</tr>
<tr>
<td>Nanjing</td>
<td>Only delimitative</td>
</tr>
</tbody>
</table>

Table 3: Progressive/iterative TR and RVCs

<table>
<thead>
<tr>
<th>Language</th>
<th>Group</th>
<th>Country</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qiang</td>
<td>Sino-Tibetan, Tibeto-Burman, Tangut-Qiang</td>
<td>China</td>
<td>LaPolla &amp; Huang (2003)</td>
</tr>
<tr>
<td>Yongning Na (Mosuo)</td>
<td>Sino-Tibetan, Tibeto-Burman, Lolo-Burmese</td>
<td>China</td>
<td>Lidz (2010)</td>
</tr>
<tr>
<td>Language</td>
<td>Meaning of verbal TR</td>
<td>AABB pattern</td>
<td>AABB function</td>
</tr>
<tr>
<td>-------------</td>
<td>-----------------------------------------------</td>
<td>--------------</td>
<td>---------------------------------------------------</td>
</tr>
<tr>
<td>Qiang</td>
<td>Reciprocal (56)</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Yongning Na (Mosuo)</td>
<td>Reciprocal (55) Brack and forth action (49)</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Dong</td>
<td>Diminishing (short duration or 'try out') (59)</td>
<td>Yes</td>
<td>Repeated action (62)</td>
</tr>
<tr>
<td>Vietnamese</td>
<td>Diminishing (57)</td>
<td>Yes</td>
<td>Repeated action, simultaneous actions (60)</td>
</tr>
<tr>
<td>M’nong</td>
<td>Repetition and continuation (46) Lightened meaning (with stative verbs)</td>
<td>Yes</td>
<td>Repeated action (61)</td>
</tr>
<tr>
<td>Bahnar</td>
<td>Consecutive actions (54)</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Lao</td>
<td>Intensification ('really, very V') (52)</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Thai</td>
<td>Intensification or emphasis (53)</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Zhuang</td>
<td>No reduplication (with the exceptions of AABB directional verbs)</td>
<td>Yes</td>
<td>Repetition (only for antonymous directional verbs) (48)</td>
</tr>
<tr>
<td>Indonesian</td>
<td>Continued action, either an action done over a period of time or an action performed repeatedly (51)</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

Table 4: Our non-Sinitic sample
Action done in a casual or leisurely way (58)

<table>
<thead>
<tr>
<th>Khmer</th>
<th>Repeated action (45)</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jahai</td>
<td>Continuative aspect (50)</td>
<td>No</td>
</tr>
<tr>
<td>Burmese</td>
<td>Frequently repeated action (47)</td>
<td>Yes</td>
</tr>
<tr>
<td>Singapore Bazaar Malay</td>
<td>Iterative or durative aspect (44)</td>
<td>No</td>
</tr>
</tbody>
</table>

Table 5: Verbal TR in the non-Sinitic sample

<table>
<thead>
<tr>
<th>Pattern</th>
<th>Function</th>
<th>Aspectual / Aktionsart features</th>
<th>Restrictions on input</th>
<th>Other features</th>
</tr>
</thead>
<tbody>
<tr>
<td>AA</td>
<td>Delimitative</td>
<td>TR provides a temporal boundary to the predicate; compatible with perfective aspect marking</td>
<td>Typically, only [+controlled] [+dynamic] [+durative] verbs</td>
<td>Rarely used with stative verbs, indicates lightened meaning</td>
</tr>
<tr>
<td></td>
<td>Rapid completion</td>
<td>The boundary is provided by another state</td>
<td>Typically, [+dynamic] verbs</td>
<td>Often found within RVCs in imperative sentences</td>
</tr>
<tr>
<td></td>
<td>Action performed hastily / in a rush</td>
<td>The boundary is provided by another event</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Intensification / emphasis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete affectedness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Progressive / iterative</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Completed action</td>
<td>TR operates on grammatical aspect</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Consecutive actions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AABB</td>
<td>Progressive / iterative</td>
<td>Typically describes unbounded events, iterated over an undefined time span</td>
<td>Normally requires two coordinate lexical morphemes (no aspect / Aktionsart restrictions)</td>
<td>The output is mostly intransitive</td>
</tr>
</tbody>
</table>

Table 6: Main correlations between form, function and aspectual/semantic features of AA and AABB verbal TR in our sample