Replies to 2nd round of reviews of *An HPSG account for verbal reduplication in Mandarin Chinese*

Dear editors,

Thank you very much again for the positive reviews. The following text is a repetition of the points the reviewers raised and an explanation of how we addressed open issues.

1 Reviewer 1

1. p. 2-3, ex. (3). Regarding the verb 来往 *lai-wang*, it actually refers to two different verbs: (1) 'come and go,' a coordinate verb, and (2) 'communicate.' In some dictionaries, the second syllable of the latter ('communicate') is marked as having a neutral tone. The first verb, which has a coordinate structure, reduplicates as AABB, while the second reduplicates as ABAB. In principle, the verb meaning 'communicate' should not reduplicate as AABB, just as the verb meaning 'come and go' should not reduplicate as ABAB.

   Answer: Example (3) in the manuscript only serves to illustrate the different forms of verbal reduplication in Mandarin Chinese without discussing their meaning. We included the translation to the examples to make the distinction in meaning clearer, as shown below in (1).

   (1)   for disyllabic verbs: *lái-wǎng* come-go 'come and go/communicate'

       a. lái-wǎng-lái-wǎng   ABAB
           come-go-come-go
           'communicate a little bit'

       b. lái-wǎng-le-lái-wǎng   AB-*le*-AB
           come-go-PFV-come-go
           'communicated a little bit'

       c. lái-lái-wǎng-wǎng   AABB
           come-come-go-go
           'coming and going'

2. p. 7, lines 29–31: "Finally, Sui & Hu (2016: 322) claim that a reduplicated verb cannot combine with a quantized object."

   This statement holds true only for accomplishments, not activities. With accomplishments, verbs become telic when followed by a quantized object (see Verkuyl 1972). This is not the case for activities. The examples provided in (15) do not contain accomplishment verbs, so their acceptability is expected. Please double-check the statement by Sui & Hu (2016: 322).

Answer: After double-checking, Sui & Hu (2016: 322) indeed argue that verbal reduplication cannot take a quantized object, claiming that the following example (2) is ungrammatical.

(2) wǒ *kàn-kàn* sān běn shū.   (Sui & Hu 2016: 322)
I   look-look three CLF book
'I will read three books a little bit.'

We can also find examples of reduplicated accomplishments followed by quantized objects in CCL and BCC, as shown in (3–4) below.

(3) qíshí   tā yìzhí xiǎng *xiě-xiě*   liǎng wèi lǎoshī ... (CCL)
actually he always want write-write two   CLF teacher
'Actually, he has always wanted to write a bit about two teachers.'

(4) nánrén gēn nánrén de gōutōng   bǐjiào   kuài, ... *hē-hē*
man   and man   DE communication relatively fast   drink-drink
liǎng bēi jiù xíng le.   (BCC)
two   cup just ok   PTC
'The communication between men is relatively fast, ... they just need to drink two cups together.'

3. p. 14, lines 11–14: "The reduplication does not seem to cancel the *telos* of achievement" and related answer to reviewer1's comment.

It appears the author(s) misunderstood the reviewer's comment. What the reviewer meant was that in certain contexts, achievements can act like activities (as if the *telos* is cancelled), allowing them to be reduplicated. The reviewer did not suggest that reduplication cancels the *telos*; on the contrary, reduplication sets a boundary for the event, which is why it is mainly compatible with activities. This explains why reduplicated verbs are not compatible with "for-X-time" expressions, as both reduplication and "for-X-time" expressions set boundaries on the event, making them incompatible together. In fact, while the base verb can appear with "for-X-time" expressions, such as 有一次，我看了一天的书，既累又困 (BCC corpus), but the reduplicated verb cannot: * 我看了看一天的书. The author(s) correctly state on p. 16, lines 21: "Reduplication is incompatible with expressions quantifying the duration or extent of the event expressed in the sentence (Li 1998: 83–84; L. Chen 2005: 114–115)". Indeed, both reduplication and duration expressions set boundaries on the event. The author(s) conclude in lines 37–38: "These tests suggest that reduplicated verbs are indeed achievements, rather than being used as activities." I fail to see why reduplicated verbs should be considered activities, given their semantics. Also, note that in example (26), the verb *mai* ('buy') is not an achievement but rather an accomplishment. As for example (26b), *liang tian hou* ('two days later') is not an "in X-time" expression. An "in X-time" expression would be something like *he read three books in two*

days. Therefore, (26b) is not a good example to illustrate the author(s)' point. This passage (from line 11 to line 38) must be revised or perhaps eliminated altogether.

Answer: This passage is removed.

4. p. 15, lines 25–28: "_Le_ is compatible with the reduplication, because its dynamicity can relate to not only the termination or instantiation of an event (a point of change), but also the process of the situation, just like that of the reduplication (see Section 2.3.1)". This passage is unclear. Please revise it for clarity.

Answer: This passage is revised as follows and moved before example (28) to directly follow the passage before: "As shown in Section 2.3.1, reduplication can also express dynamicity of both a time point and a time period, just like _le_ illustrated here. Therefore, _le_ is compatible with reduplication."

5. P. 16, lines 31–34: "A reviewer also notes that the reduplication appears frequently in imperative (example 25a) and conditional sentences (31) as well as causative sentences with ràng/jiào/shǐ 'let/let/make' (examples 21, 22, 25c)." This is not exactly what the reviewer stated. The reviewer was not referring to reduplicated verbs in general. Rather, s/he noted that, as described in various grammars, verbs depicting events not controlled by an agent (which normally cannot be reduplicated) sometimes undergo reduplication, especially in imperative, conditional, or causative sentences. I am not sure if reduplication, in general, tends to appear specifically in these sentence types. It seems to me that it appears frequently in other contexts as well. The claim "This explains the general tendency for reduplication to appear in conditional clauses, imperative, or causative contexts, frequently describing future situations" (p. 17, lines 4–6) should be reconsidered.

Answer: This passage is removed. Instead, a footnote is added to Section 2.3.2 at the discussion on the reduplication of non-volitional verbs in example (17): "A reviewer notes that verbs depicting events not controlled by an agent sometimes can undergo reduplication, especially in imperative, conditional, or causative sentences. It is worthwhile to delve into why such sentence structures enable reduplication for these verbs. It is also worth noting that the sentences in (17) are not imperative, conditional or causative sentences. This shows that non-volitional verbs can also be reduplicated outside of the aforementioned sentence structures".

6. p. 19, lines 29–31: "Tense inflections in English such as -ed change neither the category nor the valency of the input verb".

Since this is an inflectional affix, it is not appropriate to make this comparison. Inflectional affixes are obligatory, and they constitute a different phenomenon.

Answer: This example only serves to illustrate our argument that a morphological process does not necessarily change the category or the valency of the input verb, and inflection is a morphological process that does not change the category or the valency of the input verb. We do not claim reduplication to be either inflection or derivation.

7. p. 20, lines 23–27: "In any case, since reduplication is not compounding (Sui 2018: 149–150; Gao, Lyu & Lin 2021 provide psycholinguistic evidence), and the patterns discussed here constitute a different process than the AABB pattern (see the discussions above, also Deng 2013: Sec. 4.3, Sui & Hu 2016: Sec. 2, Sui 2018 and Wang 2023), it is not surprising that le occurs at a different position". However, le insertion represents a case of lexical integrity violation (meaning the reduplicated verb does not form a word), unless it is considered as an instance of infixation.

   Answer: It is considered an instance of infixation.

8. p. 21, examples in (44): It would be better to use a pronoun as the object in (44a), as it is undeniable that pronoun objects appear in that position.

   Answer: This part uses the example provided by Reviewer 2. We decided to keep (44a) as it is to maintain the consistency among other minimal pairs. Our native speaker informants consider (44a) to be grammatical, and we can also find similar sentences in corpora.

9. p. 21, lines 21–24: "Cross-linguistically, verbal reduplication in Mandarin Chinese patterns more with morphological reduplication (below as reduplication) in other languages than syntactic reduplication (below as repetition; Gil 2005: 31, Forza 2016: 1–2)."

   Be careful: stating that reduplication is a syntactic phenomenon does not mean it is an instance of repetition. Arguing that diminishing reduplication is a syntactic phenomenon affecting the vP domain and proposing a syntactic analysis (as in Arcodia, Basciano & Melloni 2014 and Basciano & Melloni 2017) does not imply that it is syntactic repetition; they are two different phenomena.

   Answer: We do not claim that the syntactic analyses consider reduplication to be repetition. We added a footnote to clarify this point.

10. p.23, lines 29–31: "Third, idioms (52a) lose their idiomatic meaning when used with verbal classifiers (52b) but maintain their idiomatic meaning with reduplications (52c) (Yang & Wei 2017: 230–231)." It would be useful to specify that this applies except when 一下 *yixia* is used, which indicates short duration.

    Answer: We modified footnote 11 as follows to make this point clearer: "This applies except when *yíxià* 'once' is used. Because of this, one reviewer suggests that the lost of the idiomatic interpretation may be attributed to the use of the numeral *sān* 'three' in (52b). We suggest that it is not *sān xià* 'three times' that is special, but it is *yí xià* 'once' that is

special. We can replace *sān* 'three' with any number above two, and the distinction still exist. But *yí xià* 'once' has acquired a duration reading 'for a little while' that is not available to the other event quantifiers formed by *xià*, which only have the 'for X times' interpretation (Deng 2013: 77, Zhang 2000: 16). We think *liǎng xià* 'twice' is following this tendency, too. In this case, it is easy to interpret *yí xià* and *liǎng xià* not as referring to the actual number of action taking place, but as duration adverbials as a whole, thus differing them from "actual" verbal classifier phrases with other numerals".

11. p. 25, lines 37–41: "This suggests that the reduced acceptability of reduplicated achievement and stative verbs is semantic rather than structural. Their use is possible in specific contexts and should not be ruled out syntactically. Consequently, this proposal does not seem to offer an appropriate account for reduplication."

This depends on whether such verbs can, in certain circumstances, behave differently, acquiring some aspectual properties of other verb classes. This can happen also with adjectives. For example, the adjective 高兴 'happy', which typically reduplicates as 高高兴兴 (AABB, adjectival increasing reduplication), can under certain conditions describe a process, acquiring verbal features, and reduplicate as ABAB: e.g., 让他高兴高兴 (BCC corpus). It is not the case that all adjectives can undergo diminishing ABAB reduplication.

Answer: As we explained in our previous reply, verb classes are determined solely based on the inherent features of the verb itself (Xiao & McEnery 2004: 52). This means that even though the same verb may express different aspectual properties in different contexts, its verb class remains the same. The change in aspectual properties can be attributable to other components at the sentential level, such as the use of reduplication. We also showed in Section 2.3.2 many examples of achievement and stative verbs being reduplicated. We argue that all verbs are *syntactically* compatible with reduplication, and therefore, this possibility should not be *syntactically* ruled out. We do recognize that reduplication requires specific situational information, namely a situation that is compatible with its deliminative meaning, but we believe this is a *semantic* constraint.

12. p. 26, line 26: *zhe* is durative rather than progressive.

Answer: We corrected this.

13. P. 26, lines 27–28: "He observes that *zhe* 'PROG', *le* 'PFV' and wán 'COMPL' necessarily occur with additional information about the event denoted by the sentence (53), while zài 'dur' and guò 'EXP' can occur without further information (54)."

This passage is not completely clear. Please revise and clarify it. Also, the aspect marker 过 *guo* should be toneless.

Answer: We modified the passage as follows and added more examples to make it clearer: "He observes that a minimal sentence, which only contains a verb marked by *zhe* 'DUR', *le* 'PFV or *wán* COMPL and its arguments, seems incomplete without further sentential elements such as the sentence final particle *le* or a temporal adverbial like *gāngcái* 'just now' (53). In contrast, a minimal sentence with a verb marked by *zài* 'prog' or *guò* 'EXP' and its arguments can stand alone (54)."

We changed the tone of *guo* to be toneless.

14. p. 27, lines 37–40: Please explain the mismatch more thoroughly.

Answer: This passage is modified as follows: "This analysis would result in a mismatch between syntax and semantics. Even though *le* and *guo* both mark perfective aspects (Section 2.3.3, Y. Dai 1997; Xiao & McEnery 2004), *guo* is situated under Asp_1 while *le* is under Asp_2, as can be seen from Figure 3. However, on the surface structure, both *le* and *guo* occur in the same position, directly following the verb. If we assume that the aspect markers are base-generated in different positions and then move to the same position following the verb, then there needs to be extra explanations given as to why *zài* occurs before the verb".

> YL to do: check

15. p. 29, line 29: Indeed, AAB reduplication is basically a reduplication of a monosyllabic verb followed by an object, so it is productive as AA.

Answer: Yes, and this is also addressed in our analysis in Section 4.

> YL to do: add page number

2   Reviewer 2

1. Example (11) is not entirely convincing in its attempt to challenge Sui & Hu's (2016) proposal. Sui and Hu suggest that verb reduplication can occur in relative clauses when licensed by modal verbs, as these verbs check the relevant features enabling reduplication. Furthermore, they note that certain verbs, such as 打算 *dǎsuàn* ('plan'), 让 *ràng* ('let'), and 叫 *jiào* ('ask') can also license verb reduplication. In example (11), the verb 苦留 *kǔliú* ('trying hard to make stay') appears to function in a similar licensing role. If this interpretation is accurate, the example does not effectively challenge Su and Hu' s argument. It may be helpful for the authors to clarify why 苦留 *kǔliú* is distinct from other licensing verbs or to provide additional examples that counter Sui and Hu's claims.

Answer: We modified this passage to include Sui & Hu's (2016) observation that reduplication is possible in relative clauses with verbs with modal or mood meanings as follows: "Sui & Hu (2016: 319, 332) claim that reduplication cannot appear in a relative clause without a modal verb

or a verb with a modal or mood meaning, such as *dǎsuàn* 'plan', *ràng* 'let' and *jiào* 'ask"'.

However, we also found examples such as the following ones in (5–6), where reduplication occurs in relative clauses without modal or mood verbs.

(5) [[nǐ *kàn-kan* de] zhèngwù-wēibó] ... zhuǎnfā-le jǐ
you look-look DE government.affairs-Weibo repost-PFV some
shí tiáo wēibó! (BCC)
ten CLF Weibo
'The government affairs Weibo account that you look at ... reposted dozens of Weibo posts.'

(6) tāmen shì [[guàng jìnlái *tīng-tīng* de] juéshìyuè-mí]. (BCC)
they be wander enter listen-listen DE jazz-fan
'They are jazz fans who wandered in to have a listen.'

2. Using example (14), the authors suggest that negation can modify verb reduplication and challenge prior studies that emphasize constraints on their co-occurrence. However, it is important to note that example (14b) is situated in an interrogative context. As Sui & Hu (2016) highlight, negation modifying verb reduplication is not acceptable in *affirmative* sentences. Similar constraints are reported in earlier literature, such as Shen (1995) and Liu (1983) (see Xie 2018 for a review). For instance, the sentence 你不复习复习功课 *Nǐ bù fùxí fùxí gōngkè* ('You do not review your lessons') is not acceptable, whereas 你不复习复习功课吗? *Nǐ bù fùxí fùxí gōngkè ma?* ('Aren't you going to review your lessons?') is acceptable. This suggests that reduplication with negation is permitted in certain contexts, such as interrogative or emphatic sentences, but not in other contexts, like affirmative statements. The authors should consider addressing these contextual nuances to strengthen their analysis.

In summary, while Section 2.2 effectively demonstrates that the distribution of reduplicated verbs is broader than previously reported, it is essential to acknowledge that some examples represent special cases.

Answer: We also found the following examples with reduplication embedded under negation in affirmative sentences (7–9).

(7) nǐ-men zhǐ zhīdào zébèi rénjiā, quán bù *xiǎng-xiǎng* zìjǐ. (CCL)
you-PL only know blame others at.all not think-think self
'You only blame others, not thinking about yourselves at all.'

(8) jiàoyuán ... bù *fān-fān* shū, jiù yǒuxiē wēixiǎn de jiù
lecturer not flip-flip book just somewhat dangerous DE just
shì. (CCL)
be
'If lecturers do not read books, then it is a bit dangerous.'

(9) huāerjiàng jiǎnzhí bù guǎn shì le, ... shénme dōngxi yě bù
florist at.all not care thing PTC what thing also not
shōushi-shōushi. (CCL)
tidy-tidy
'The florist did not care about anything at all, did not tidy up anything.'

We recognize these uses require specific context information.

3. On Page 20, the authors use the modification test (J. X.-L. Dai 1992) to argue that verb reduplication behaves like words rather than phrases. Example (43) illustrates that adverbs cannot be inserted within a verb reduplication. However, this argument could be strengthened by addressing the following point: The rationale for inserting the adverb within the reduplication is not very clear. Even for typical verb phrases like 开门 *kāi mén* ('open the door'), adverbs cannot be inserted between the verb and its object (e.g., 开偷偷地门 *kāi tōutōu de mén* 'open the door secretly' is ungrammatical). This suggests that the inability to insert an adverb is not unique to reduplication and may not prove its word-like property.

Answer: The rationale for inserting an adverb in-between the reduplication is that a verb can be modified by an adverb, hence the modification test. In Mandarin Chinese, almost all adverbials are obligatorily pre-verbal (Ernst 2014: 50), as illustrated in the example below (10).

(10) a. tā qiāoqiāode zǒu-le
he quietly go-PFV.
'He quietly went away.'

b. * tā zǒu-le qiāoqiāode.
he go-PFV quietly

Therefore, the general explanation for the ungrammaticality of *kāi tōutōude mén* 'open secretly door' is that the adverb cannot occur after the verb. This is not a problem for the test in (43), as the adverb can, in principle, be interpreted as modifying the second verb.

4. The application of MRS within the HPSG framework represents a central focus of this paper. It might be helpful to explicitly acknowledge that the integration of MRS into the HPSG framework has been explored in prior research, such as Copestake et al. (2005). Addressing this would situate the current analysis more clearly within the broader theoretical landscape and strengthen its overall credibility.

Answer:

Stefan, say something

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