Mandarin Verb Copying: Linearization and Interpretation

Introduction: Verb copying in Mandarin is a phenomenon where one single verb is pronounced twice in a sentence. Its general form is $\text{DP}_{\text{sub}} \ V_i \ \text{DP}_{\text{obj}} \ V_i \ \text{de/ASP \ XP}$, with the two instances of $V$ being non-distinctive. The construction raises two interesting questions: (i) why are multiple copies of the same verb phonetically realized, superficially a violation of Kayne’s LCA, and (ii) how does the construction associate with both subject- and object-oriented readings (1). No previous analysis (Huang 1984, Li 1990, Cheng 2007) provides a satisfactory unified analysis of the two questions. Cheng (2007), e.g. proposed that the subject-oriented reading is derived from merging the verb with $\text{DP}_{\text{obj}}$ via sideward movement (Nunes 2001); and the object-oriented reading is derived through standard movement of the $\text{DP}_{\text{obj}}$ from the lower SpecXP to SpecVP followed by $V \rightarrow v$ movement. Cheng’s treatment of the two readings as associated with differing movement strategies lack empirical or theoretical justification. Her analogy of the object-oriented reading with the $\text{ba}$-construction ignores their differences, e.g. regarding VP-level adverbial phrases (2). In addition, her analysis leaves some complexities of the construction unexplained, e.g. optional presence of the subject of lower XP and obligatory concurrent phonetic variation (3).

Our analysis: We treat VC as sentence-internal topicalization/focalization (Paul 2002, Hsu 2008). Evidence for such a treatment includes: (i) the dependency between the two verb copies shows typical characteristics of $A'$-movement, e.g., w.r.t. crossing finite clause boundaries (4) and strong island sensitivity (5). We analyze this $A'$-movement as topic/focus-driven (Landau 2006). (ii) within Rizzi’s (1997) fine structure of the left periphery, the $V+\text{DP}_{\text{obj}}$ constituent shows properties of either topic or focus, depending on the linguistic context in which it occurs. For instance, the $V+\text{DP}_{\text{obj}}$ constituent usually can precede a canonical focused phrase (6) and is most naturally interpreted as topic; meanwhile, the same constituent can be modified by an overt focus sensitive operator (like the emphatic $\text{shi}$ ‘be’ in (7) as well, suggesting that it can serve as a focus phrase (Hsu 2008). (iii) Our analysis is consistent with Landau’s (2006) generalization that cross-linguistically there are two types of VC: topicalization and predicate cleft. For the sake of simplicity, in this paper we use topicalization as a cover term for topicalization and focalization.

We posit that in VC a $[+\text{TOPIC}]$ feature (Och 1997) exists in the projection immediately above the lower copy of the verb which has to be checked off. The choice of the subject- vs. object-oriented readings depends on how the $[+\text{TOPIC}]$ feature is checked off by $\text{DP}_{\text{obj}}$, and the phonetic realization of multiple copies of the same verb follows from the PF requirement of topic and from morphological re-analysis of the verb. If $\text{DP}_{\text{obj}}$ is topicalized via copy and merge, the object-oriented reading results in. The derivation of object-oriented reading for ((1)), for example, goes as in (8). The derivation of subject-oriented reading is illustrated as in (9). In this latter case $\text{DP}_{\text{obj}}$ is topicalized via ‘pure’ merge. In either derivation, the verb copies and merges to the topicalized $\text{DP}_{\text{obj}}$ and undergoes reanalysis into the TOPIC proper. The $V+\text{DP}_{\text{obj}}$ constituent gets pronounced due to the phonological requirements imposed by TOPIC (Landau 2006). Meanwhile, in either derivation the lower copy of $qi$ ‘ride’ undergoes morphological re-analysis with $de$ due to the clitic nature of the latter. The LCA does not ‘look inside’ the fused $V-de$ and treats $V$ and $V-de$ as distinct, so the lower copy of the verb does not delete. By contrast, unless associated with extra ‘phonetic content’ (like being stressed/de-stressed), the agent/experiencer phrase (either $\text{DP}_{\text{sub}}$ or $\text{DP}_{\text{obj}}$) in the embedded XP has to be deleted in PF, avoiding problems with the LCA.

Our analysis correctly allows for the possibility of the subject of the embedded XP being different from the matrix $\text{DP}_{\text{sub}}$ (10). Only quasi subject-oriented reading is predicted to be available, because in such cases $\text{DP}_{\text{obj}}$ can only be topicalized via pure merge. Our analysis also explains the non-occurrence of negation (11) and VP-level adverbials (2b) before the higher copy of verb: topic VPs are incompatible with such modification. Similarly for the absence of aspect markers after the higher copy of verb (12) or after the whole topic VP. Our analysis allows for the generally null agent/experiencer phrase in the embedded XP to be overtly spelled out when it carries extra ‘phonetic content’. With such extra ‘phonetic content’, the agent/experiencer phrase in the embedded XP is distinct from the higher ‘copy’, thus posing no violation of the LCA (3b-c).
Data:
(1) zhangsan1 qi [na pi ma]2 qi de e\(\frac{1}{2}\) hen lei.
   John ride that CL horse ride DE very tired
   ‘John rode that horse and as a result John/that horse got very tired.’

(2) a. zhangsan hen kuai de ba kafei he de yidian bu sheng.
    John very fast DE BA coffee drink DE a bit not left
    ‘John drank the coffee very fast and as a result not a bit of it was left.’

   (Pragmatics ruled out the potential subject-oriented reading of (2b))

(3) a. ?*ta1 qi [na pi ma]2 qi de ta1 hen lei. (ta is neither stressed nor de-stressed)
    he ride that CL horse ride DE he very tired

   b. ta1 qi [na pi ma]2 qi de TA1 hen lei. (ta is stressed for contrastive purpose)

   c. ta1 qi [na pi ma]2 qi de te1 hen lei. (te is the de-stressed form of ta)

(4) (?) [zuo zuoye], zhangsan he wo dadu lisi ti zuo de jingpilijin.
    do homework John with me bet Lee do DE exhausted
    ‘As for doing homework, John bet with me that Lee got exhausted from doing it.’

(5) a.*lisi qi ma, zhangsan renwei qi de hen lei zhe-ge shuofa meicuo.
    Lee ride horse, John believe ride DE very tired this -CL claim not-wrong

   b. zhangsan renwei lisi qi ma qi de hen lei zhe-ge shuofa meicuo.
    ‘John believed the claim that Lee rode a horse and as a result Lee/ the horse got very tired was not wrong.’

(6) zhangsan zuo shuxue ti lian [zui nan de na dao]Foc dou zuo le chulai.
    John do math problem even most difficult MOD that CL all do ASP out
    ‘As for doing math problems, John has even worked out the most difficult one.’

(7) zhangsan shi chi wanfan chi le san ge xiaoshi, bu shi (chi) wufan.
    John be eat dinner eat ASP three CL hour not BE eat lunch
    ‘It was (eating) the dinner that John spent three hours eating, not (eating) the lunch.’

(8) a. qi de na pi ma hen lei. (some point in derivation)

   b. [na pi ma] qi de [na pi ma] hen lei (topicalization of DP\(_{obj}\): copy+merge)

   c. [qi] [na pi ma] [qi] de [na pi ma] hen lei (copy and merge qi)

   d. zhangsan q\(i\) [na pi ma] q\(i\) de [na pi ma] hen lei (merge zhangsan)

(9) a. qi de zhangsan hen lei (some point in derivation)

   b. na pi ma qi de zhangsan hen lei (‘pure merge’ of topic na pi ma)

   c. [qi] na pi ma [qi] de zhangsan hen lei (copy and merge qi)

   d. [zhangsan] [qi] na pi ma [qi] de [zhangsan] hen lei (copy and merge zhangsan)

(10) zhangsan qi na pi ma qi de xiezi diao le.
    John ride that CL horse ride DE shoe fall ASP.
    ‘John rode the horse and as a result his shoes fell off.’

(11) zhangsan (*mei) qi na pi ma qi de hen lei. (mei =’not’, glosses same as in (1)).

(12) zhangsan qi (*le) na pi ma qi de hen lei. (le = perfective marker, glosses same as in (1))