

Verb copying in Chinese: A unified analysis

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Background: In much of the literature on Chinese syntax, manner phrases and duration/frequency phrases are analyzed as complements of the verb. When such a phrase is selected by the verb in addition to an NP object complement, verb copying generally arises, as in (1). An alternative to verb copying is to drop the object, yielding (2). Object fronting may in some cases be allowed, as in (3). Crucially however, (4) is illicit.

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| (1) | ta pao bu pao de hen kuai
he run step run DE very fast
'He runs very fast' | (2) | ta pao de hen kuai
he run DE very fast
'He runs very fast' |
| (3) | ta ge chang de hen hao
he song sing DE very good
'He sings very well' | (4) | *ta pao bu de hen kuai
he run step DE very fast
'He runs very fast' |

Proposal/Analysis: In this paper, I suggest that the four sentences in (1) through (4) are instances of the same underlying structure; the only difference is which verb and object copies are spelled out at PF, as shown in (6)-(9):

- (6)≈(1) [_{VP} [_{VP} <run> step][_{VP} <run> de very fast]] (7)≈(2) [_{VP} [_{VP} <run> ∅][_{VP} <run> de very fast]]
(8)≈(3) [_{VP} [_{VP} <sing> t_{song}][_{VP} <sing> de very fast]] (9)≈(4)*[_{VP} [_{VP} <run> step][_{VP} <run> de very fast]]

I adopt Cheng's (2007) copy theory account for (1) and extend it to account for (2) through (4). Cheng appeals to sideward movement to analyze Chinese verb copying constructions involving *de*-resultatives. Her analysis can be applied to sentences like (1) in the following manner. The verb *pao* 'run' has two complements with which to merge: its NP object complement *bu* 'step' and its manner phrase complement *de hen kuai* 'very fast'. The verb is first merged with its adverbial complement. The verb then copies via sideward movement to merge with *bu* 'step', checking its theta-feature. The newly formed VP then re-merges back into the original structure, giving the surface form in (1). Because Copy is via sideward movement, neither verb copy c-commands the other; the verb chain does not undergo Chain Reduction (Nunes 2004) and both copies are spelled out. In the case of the null object variant in (2), I suggest that there are underlyingly two verb copies; the verb first merges with the manner complement, as in the case of (1). The verb copies via sideward movement to merge with a null generic object, checking its theta-feature. The newly formed VP re-merges with the original structure, yielding the PF representation in (5).

- (5) [_{VP} [_{VP} <run> ∅] [_{VP} <run> de very fast]]

I appeal to Richards' (2001) Distinctness constraint on linearization that acts at the syntax-phonology interface to prevent the linearization of syntactically adjacent categories with the same label. Pronouncing both verb copies is ruled out on the basis of adjacent identical category; moreover, the lexical material inserted in both V heads is nondistinct. Linearization of the two copies cannot occur, and one copy must be deleted at PF. Formal feature elimination (Nunes 2004) determines which copy is privileged at PF, i.e., which copy has fewer unchecked features. In (5), it is the non-base-generated copy which has its theta-feature checked, and which gets pronounced at PF. The sentence in (3) can be analyzed similarly, with the exception that after sideward movement and Merge of the verb copy and its NP object, the object is extracted (perhaps for topicalization), resulting in the two verb copies being adjacent, as was the case in (5). Again, one copy is privileged at PF and we get the surface form in (3). As for the illicit sentence in (4), I suggest that it has the same structure as (1), but that only one verb copy is spelled out. Cheng proposes that the *de* particle incorporates into the lower copy of the verb, resulting in a V-*de* complex that is treated by the LCA as distinct from the non-fused verb copy. The verb chain should therefore not be subject to Chain Reduction, and both copies should be pronounced. Crucially, this fusion must take place *after* Distinctness applies; Distinctness thus rules out the spellout of both copies in (2) and (3), regardless of whether fusion subsequently occurs. Moreover, in (4), if we treat the *de* particle as an enclitic, we see that if only one copy of the verb is pronounced, *de* must encliticize across a prosodic boundary, which gives rise to a prosodically ill-formed sentence. The same problem does not arise in (1) and (3), since the object intervenes between the two verb copies in (1) and (3); as for (2), the null object is empty for PF purposes, so there is no prosodic boundary crossed when *de* encliticizes to the verb.

Conclusion: The sideward movement analysis for verb copying allows a unified account of (1)-(4), which have always been analyzed as having exactly the same meaning, but different surface forms. By appealing to constraints on distinctness and the phonetic realization of verb copies at PF, we are able to account for the distinctive spellout patterns of what is actually underlyingly a single construction.

References: Cheng, Lisa L.-S. 2007. Verb copying in Mandarin Chinese. In Norbert Corver and Jairo Nunes (eds.) *The Copy Theory of Movement/Linguistics today no. 107*: 151-174. Amsterdam: John Benjamins Publishers. Nunes, Jairo. 2004. *Linearization of Chains and Sideward Movement. Linguistic Inquiry Monograph 43*, ed. Samuel Jay Keyser. Cambridge: MIT Press. Richards, Norvin. 2001. A distinctness condition on linearization. *Proceedings of the 20th West Coast Conference on Formal Linguistics*, ed. by Karine Megerdooian and Leora Anne Bar-el, 470-483.