N-to-VP Copying in Hani: A remnant movement approach

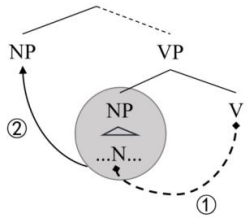
In Hani, a Tibeto-Burman language (SOV) spoken primarily in Southwest China, light verbs (LVs) are formed by partially copying their nominal complements rather than originating from full verbs. The derivational rule entails doubling the second syllable of a disyllabic entity noun, e.g. *'flower(s)'* [a^{55} jɛ̰^{33}] in (1a), or copying the verbal root of an event noun, e.g. *'teeth-grinding'* [s^{h}ɤ^{21} gi̱^{33}] in (1b)[1].

(1) a. ma^{55} mo^{33} a^{55} po^{55} [a^{55} jɛ̰^{33}] **jɛ̰^{33}**
mango tree [flower] **LV**
'The mango tree blooms (flowers).'

b. ŋa^{55} [s^{h}ɤ^{21} gi̱^{33}] **gi̱^{33}**
1SG [teeth grind] **LV**
'I grind my teeth (do a teeth-grinding).'

This phenomenon has received limited attention in previous research and has often been analyzed as reduplication or cognate object constructions (Li and Wang 1986, Dai & Duan 1995, Li 2020). However, as illustrated in (2), various syntactic constituents can intervene between the base noun and LV, posing challenges in retrieving the non-local nominal base if "reduplication" occurs post-syntactically.

(2) ma^{55} mo^{33} a^{55} po^{55} [a^{55} jɛ̰^{33}] ŋi̱^{21} mo^{55} ŋi̱^{21} t^{h}a^{55} ma^{21} **jɛ̰^{33}**
mango tree [flower] two CL$_{entity}$ two CL$_{event}$ NEG **LV**
'The mango tree doesn't bloom two flowers twice.'

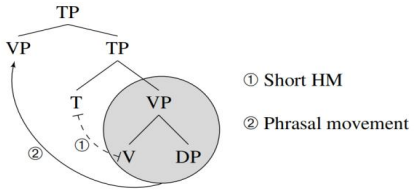
(3)


This paper proposes an **N-to-VP Copying (NVC)** approach to elucidate the patterns of light verb constructions in Hani. NVC involves the creation of VPs through **partial copying of the base noun, as a result of double spellout arising in a remnant-movement configuration**. Specifically, these doubling patterns emerge from the interaction between ① N-to-V Head Movement (HM and ② Phrasal Movement of NP, as demonstrated in (3). Consequently, the base noun is pronounced in two positions: one within the complex V head and the other in the fronted NP. Notably, NP fronting is independently motivated, as all NP-complements of transitive verbs move out of VPs.

Interestingly, the derivation of NVC aligns with that of V(P)-fronting observed in other languages like Polish (Hein 2018, Arregi and Pietraszko 2021a & b, Saab 2022). As discussed at length in Arregi and Pietraszko (2021a & b), in (4), due to the combination of ① V-to-T Head Movement and ② Phrasal Movement of VP, two copies of the verb *'to watch'* end up surfacing in T and the fronted VP.

(4) VP-fronting in Polish (Arregi & Pietraszko 2021b: 24-25)

[$_{VP}$ **oglądać** mecz] **ogląda-łam** <VP>
[$_{VP}$ **watch.INF** game] **watch-PST.1SG**
'Watch the game, I did.'

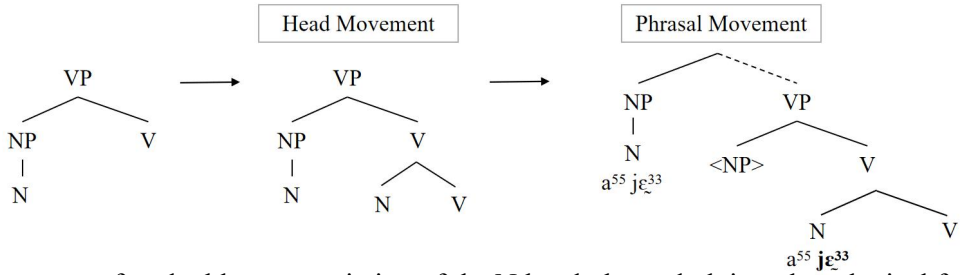


In brief, remnant movements involving Head Movement and Phrasal Movement can trigger the double pronunciation of extracted heads. This mechanism can extend beyond predicate clefting and can also be applied to nominal domains such as NVC in Hani. The following parts will delve into the derivations of two NVC patterns, (1a) entity NVC and (1b) event NVC, based on different types of base nouns, and will discuss the landing site of NP movement.

Entity NVC is derived from a disyllabic entity noun by duplicating its second syllable, e.g. *'flower(s)'* [a^{55} jɛ̰^{33}] → *'to bloom flower(s)'* [a^{55} jɛ̰^{33} jɛ̰^{33}]. After N-to-V Head Movement and the non-local movement of NP, the two copies of N are spelled out in the raised NP and the V head, respectively. According to the Q-deletion model for ellipsis (Saab 2008, 2022), in (5), the head-moved copy of N is not c-commanded by the higher N copy in the fronted NP, and is thus not deleted.

[1] Given the absence of a widely adopted writing system for Hani, the examples are transcribed in IPA. Tense phonation is indicated by tildes below vowels, and lexical tones are represented using a numeral system, ranging from 1 (lowest) to 5 (highest).

(5)



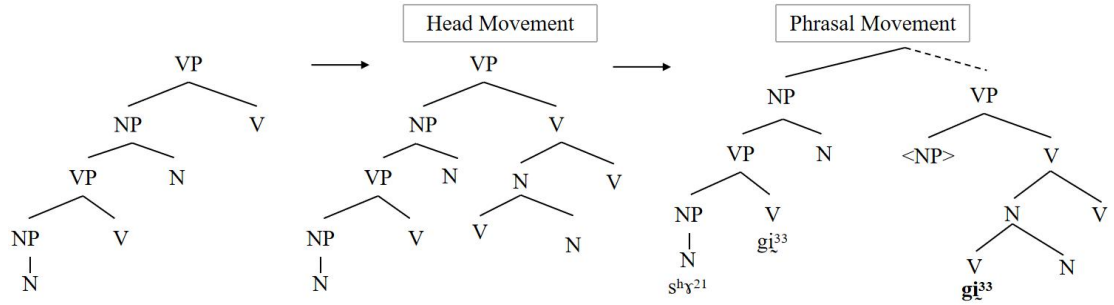
However, after double pronunciation of the N head, the underlying phonological form is /a^{55} jɛ̃^{33} a^{55} jɛ̃^{33}/. To obtain the expected representation [a^{55} jɛ̃^{33} jɛ̃^{33}], morphologically-driven phonological constraints are posited to preserve only the rightmost syllable of light verbs.

Event NVC involves duplicating the verbal root within an event noun base rather than its second syllable. Loanwords from Chinese (SVO) typically follow the pattern $A_VB_NA_V$ instead of $A_VB_NB_N$. For instance, in (6), *'to skate'* is adapted as [xu̱ą̃^{21} piɛn^{33} xu̱ą̃^{21}], not *[xu̱ą̃^{21} piɛn^{33} piɛn^{33}].

(6) Chinese: *'to slide'* [xua^{35}] + *'ice'* [pi^{ə}ŋ^{55}] → *'to skate/ice-skating'* [xua^{35} pi^{ə}ŋ^{55}] ([$_{VP/N}$ A_VB_N])
Hani: *'to skate'* [xu̱ą̃^{21} piɛn^{33} xu̱ą̃^{21}] ([$_{VP}$ $A_VB_NA_V$])
'ice-skating' [xu̱ą̃^{21} piɛn^{33}] ([$_{N}$ A_VB_N])

Regarding the internal structure of Event NVC depicted in (7), the nominal root *'tooth/teeth'* [s^{h}ɤ^{21}] initially merges with the verbal root *'to grind'* [gi̱^{33}], forming an eventive NP *'teeth-grinding'* [s^{h}ɤ^{21} gi̱^{33}], which thereafter combines with an unspecified light verb. The derivational procedure is identical to that of Entity NVC, except that the lowest N head does not participate in Head Movement. It is stipulated that only light verbs trigger the movement of the closest N they c-command. As a result, the nominal root has solely one copy pronounced in the raised NP, with its lower copy deleted after Phrasal Movement. Therefore, in event NVC, it is consistently the verbal root that is doubled.

(7)



Where is the **landing site of NP movement**? Direct objects generally raise in Hani, which is not restricted to NVC configurations. For example, in negation constructions, the negator [ma^{21}] consistently appears between the direct object and the verb in transitive VPs, as presented in both (7a) NVC and (7b) non-NVC structures. Hence, NP movement lands higher than NegP.

(6) a. ma^{55} mo^{33} a^{55} po^{55} [a^{55} jɛ̃^{33}] [$_{NegP}$ ma^{21} [$_{VP}$ <NP> jɛ̃^{33}]]
mango tree flower Neg LV
'The mango tree doesn't bloom (a flower).'

b. ŋa^{55} [a^{55} ho^{21}] [$_{NegP}$ ma^{21} [$_{VP}$ $^{<NP>}$ tsa^{21}]]
1SG meal Neg eat
'I don't eat (a meal).'

Taking other interacting structures into consideration, such as causatives and applicatives, the landing site of direct objects is positioned above NegP, yet below TP, $VoiceP_{CAUS}$, vP_{CAUS}, and ApplP.

Summary: The remnant movement approach to doubling can extend beyond V(P)-fronting to the nominal domain. Light verb constructions in Hani are generated via N-to-VP Copying, arising from the interaction between Head Movement and Phrasal Movement. Direct objects in Hani tend to raise, which provides solid evidence for Phrasal Movement of NP in NVC.