

MAIN CONCLUSIONS:

1. Verb doubling in predicate clefts falls out from non-copying approaches to head-to-head movement.
2. Predicate clefts targeting bare verbs require head “movement” to feed A'-movement.
3. Heads are displaced as the result of a narrow syntactic operation that does not produce copies.

Predicate clefts cross-linguistically

Verb-fronting **PREDICATE CLEFTS** occur in a wide range of unrelated languages:

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| <p>(1) Modern Hebrew (Landau 2006) lirkod, Gil lo yirkod ba-xayim. dance.INF Gil not will.dance in-the.life 'As for dancing, Gil will never dance.'</p> <p>(2) Portuguese (Bastos 2001) Vend-er, o João só vend-e livros usados. sell-INF the João only sell-PRES books used 'As for selling, João only sells used books.'</p> | <p>(3) Mandarin (Cheng and Vicente 2013) mǎi, tā shì mǎi-le nà-běn shū. buy he COP buy-PERF that-CL book 'As for buying, he bought that book.'</p> <p>(4) Gungbe (Aboh and Dyakonova 2009) ḍù wè séné ḍù blédì ló eat FOC Sena eat bread DET 'Sena ATE the bread.'</p> |
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Clefting bare verbs

General pattern: **Two surface copies** of the verb.

» [CP **VERB** ... [IP SUB] ... **VERB**+INFL [VP OBJ] ...]]

» One in inflectional position, one in left periphery.

Following Landau (2006) and Vicente (2007):

» One copy of verb made by moving to T⁰/Infl.

» Second copy made by topicalizing verbal head.

Evidence (not shown here) is morphological:

» Morphology on the verb must match morphology associated with specific syntactic heads.

At least **two chains** produced!

Chain Reduction (Nunes 2004)

It is necessary under the Copy Theory of Movement to delete extra copies. I assume **CHAIN REDUCTION**:

- (5) **CHAIN REDUCTION**: Delete the minimal number of constituents of a nontrivial chain CH that suffices for CH to be mapped into a linear order in accordance with the LCA.

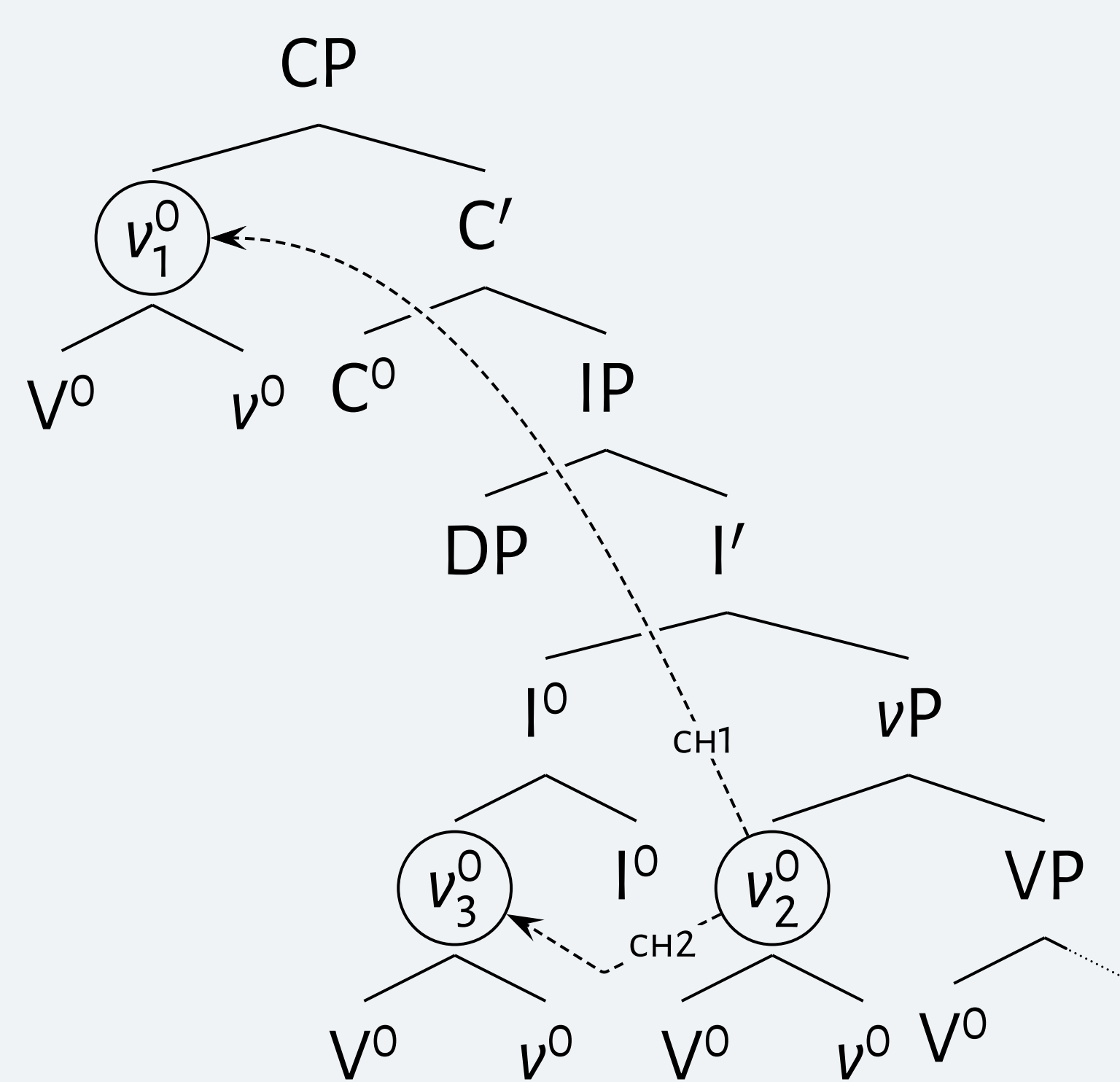
Copies of the same element are non-distinct and cannot be linearized relative to one another:

- (6) **IRREFLEXIVITY**: If α precedes β , then $\alpha \neq \beta$.

Result: Chain Reduction deletes (lower) copies in movement chains to satisfy Irreflexivity.

» **Only one copy of an element may remain at PF.**

Predicate clefts with head movement under the Copy Theory of Movement



Three copies of the verb (v^0): Which copies will be pronounced?

» v_2^0 will (correctly) be deleted (tail of CH1 and CH2).

But v_1^0 and v_3^0 are not in the same chain.

» Neither can be deleted by Chain Reduction!

Nunes claims that v_1^0 is **MORPHOLOGICALLY REANALYZED**.

» Renders v_1^0 and its subparts invisible to linearization/Irreflexivity.

» Chain Reduction is unnecessary. v_1^0 and v_3^0 will be pronounced.

Problem: There is **no independent evidence** reanalysis occurs.

» Bastos (2001) suggests it has to do with morphophonological distinctness of copies (addition of infinitival morphology).

» But copies are not distinct in every language – see (3) and (4)!

» Landau (2006): Prosody on topicalized verb and stray affix filter?

Head displacement without movement

Chomsky (2001: 37) suggests ‘a substantial core of head raising processes [...] may fall within the phonological component’.

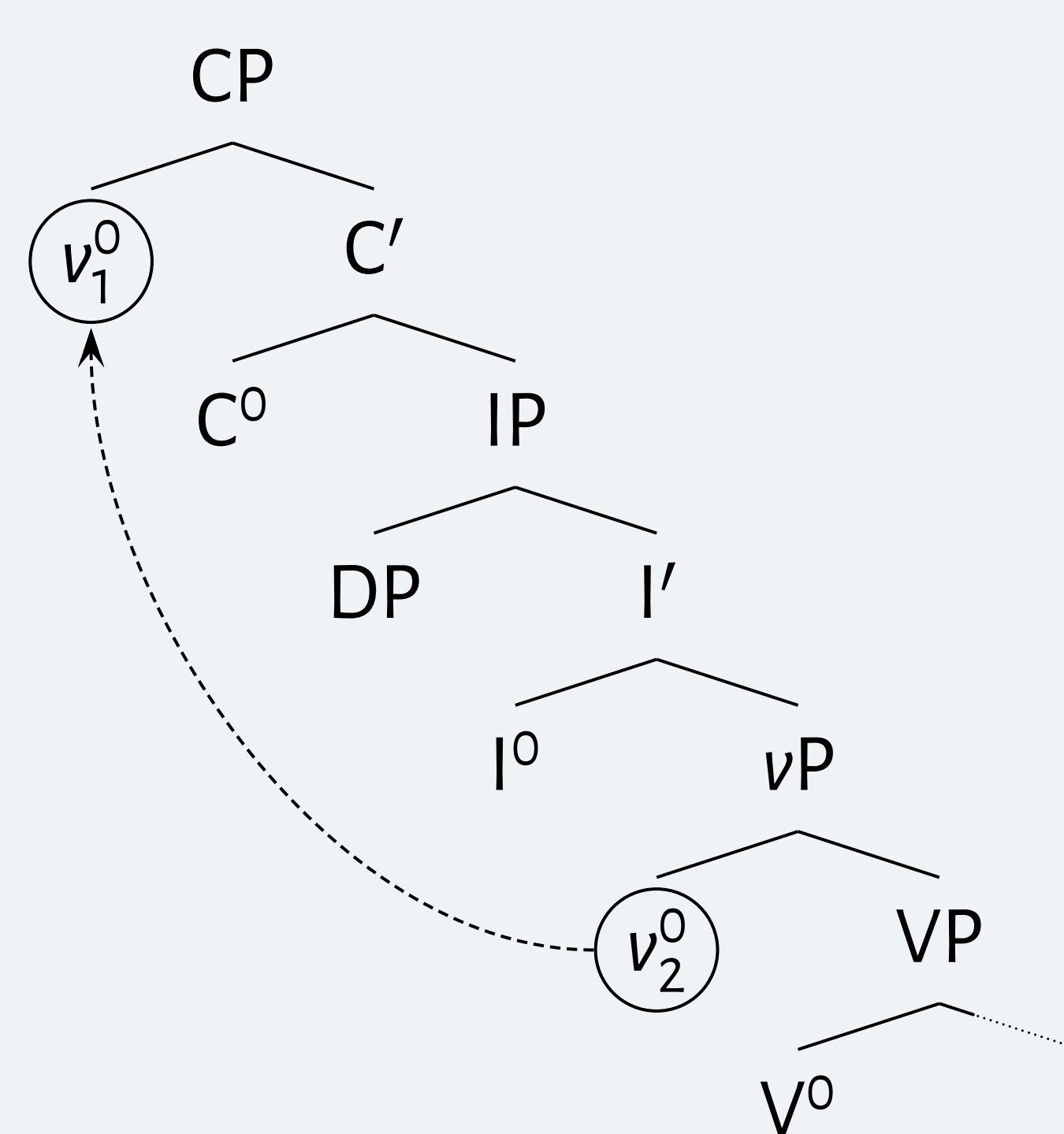
» This has led to the proposal there is **no true head-to-head movement** in the narrow syntax.

If there's no head “movement”, *per se*, then **fewer copies of the verb are generated** in predicate clefts.

» By removing copy-theoretic head movement from the syntax, there will be fewer copies to reduce.

» This will require us to adopt an alternative approach to apparent head displacement.

Predicate clefts without copy-theoretic head movement



Not subject to above problems for copy-theoretic head movement.

» **Only one additional copy** of the verb is generated.

» Therefore, there is only one chain!

» v_2 will be deleted; v_1 will be pronounced!

» No need for Morphological Reanalysis (nothing to reanalyze).

This leaves a couple **open questions**:

(i) If v_2^0 undergoes Chain Reduction, how is V^0+v^0 pronounced in I^0 ?

(ii) How is V^0 pronounced in SpecCP if V^0 doesn't move to v_2^0 ?

We need **an operation that displaces heads and interacts with A'-movement** to allow the verb to be pronounced in I^0 and SpecCP.

The timing of head displacement: Before Spell-Out!

Questions (i) and (ii) are answered if **head displacement derivationally feeds A'-movement**.

V^0 must be displaced to v^0 before topicalization.

» If v^0 moves first, there's no way for V^0 to be pronounced with v_1^0 .

V^0/v^0 must be displaced to I^0 before v_2^0 is reduced.

» It might need to occur before Chain Reduction targets v_2^0 .

Conclusion: Head displacement must occur in the narrow syntax.

» Head displacement is not part of the phonological component.

» This limits possible theoretical alternatives to head movement!

Two broad classes of alternative approaches to head displacement:

a. **AT SPELL-OUT/POST-SYNTACTIC**:

Amalgamation (Harizanov and Gribanova 2018), Mirror Theory (Brody 2000), Spanning (Svenonius 2012)

b. **NARROW SYNTACTIC, NON-MOVEMENT**:

Generalized Head Movement (Arregi and Pietraszko 2019), Conflation (Harley 2004), Agree (Platzack 2013)

Purely post-syntactic/Spell-Out accounts (a) are ruled out!

» These do not allow head displacement to feed A'-movement.

Aboh, Enoch O., and Marina Dyakonova. 2009. Predicate doubling and parallel chains. *Lingua* 119:1035–1065.
 Arregi, Karlos, and Asia Pietraszko. 2019. The ups and downs of head displacement. Manuscript, University of Chicago & University of Connecticut.
 Bastos, Ana Claudia Pinto. 2001. Fazer, eu faço! Topicalização de constituintes verbais em português brasileiro. Master's thesis, Universidade Estadual de Campinas.
 Brody, Michael. 2000. Mirror theory: Syntactic representation in perfect syntax. *Linguistic Inquiry* 31:29–56.
 Cheng, Lisa Lai-Shen, and Luis Vicente. 2013. Verb doubling in Mandarin Chinese. *Journal of East Asian Linguistics* 22:1–37.
 Chomsky, Noam. 2001. Derivation by phase. In Ken Hale: A life in language, (ed.) Michael Kenstowicz, 1–52. Cambridge, Mass: MIT Press.
 Harizanov, Boris, and Vera Gribanova. 2018. Whither head movement? *Natural Language & Linguistic Theory*.
 Harley, Heidi. 2004. Merge, conflation and head movement: The first sister principle revisited. In *Proceedings of the North East Linguistic Society 34*, (ed.) Keir Moulton and Matthew Wolf, Amherst, Mass.: GLSA Publications.
 Landau, Idan. 2006. Chain resolution in Hebrew V/P-Fronting. *Syntax* 9:32–66.
 Nunes, Jairo. 2004. *Linearization of chains and headward movement*. Number 43 in *Linguistic Inquiry Monographs*. Cambridge, Mass: MIT Press.
 Platzack, Christer. 2013. Head movement as a phonological operation. In *Diagnosing syntax*, (ed.) Lisa Lai-Shen Cheng and Norbert Corver, 21–43. Oxford: Oxford University Press.
 Svenonius, Peter. 2012. *Spanning*. Manuscript, University of Tromsø.
 Vicente, Luis. 2007. *The syntax of heads and phrases: A study of verb (phrase) fronting*. Doctoral Dissertation, Universiteit Leiden.

