

## The timing of head movement: Evidence from predicate clefts

Nicholas LaCara – University of Toronto

Recent work on HEAD MOVEMENT (HM) proposes it is derived by an operation distinct from phrasal movement, but little attention has been paid to differences between alternative approaches to HM. I argue PREDICATE CLEFTS (PCS) provide evidence HM is not a post-syntactic operation; some portion of the phenomenon happens before Spell Out. Still, I argue HM is not derived by the process deriving phrasal movement. *A predictive theory of PCS requires a non-movement approach to head movement* (e.g., Conflation; Harley 2004) but not a post-syntactic one (e.g. Harizanov and Gribanova 2018).

**1. Predicate clefts** PCS are a verb (phrase) fronting phenomenon occurring in several languages in which the main verb appears twice, once in the fronted material, and once in an inflectional position. VERB PHRASE PCS (VPPCS) contain a fronted verbal phrase (1); BARE VERB PCS (BVPCS) have only a fronted verb (2). The examples here are adapted from Brazilian Portuguese (Bastos 2001).

- (1) [<sub>VP</sub> Lavar o carro]<sub>i</sub> o João lavou *t<sub>i</sub>*.                      (2) [<sub>v</sub> Lavar]<sub>i</sub> o João lavou [<sub>VP</sub> *t<sub>i</sub>* o carro].  
wash.INF the car João washed wash.INF João washed the car  
'As for washing the car, João washed it.'                      'As for washing, João washed the car.'

the verb must have matching roots but may differ to some degree in inflectional morphology. The standard analysis (Landau 2006, Vicente 2007), which I start from, proposes that each copy of the verb is generated by a different movement process: one by V-to-Infl HM, the other by topicalizing a verb phrase or verb (see Matushansky 2006 on movement of heads to specifiers). The head that topicalizes in BVPCS can be V, *v*, Asp, or T, depending on the language; the morphology on the topicalized verb matches the inflected copy up to the topicalized head (i.e., languages topicalizing *v* will have matching voice morphology, languages topicalizing T, matching tense morphology, etc.).

**2. An analysis of VPPCS** A central problem PCS raise is how two overt copies of a verb can be pronounced. Nunes (2004) proposes extra copies in a movement chain are deleted in order to avoid linearization problems at PF, assuming *two copies of the same element may not be linearized with respect to each other* (IRREFLEXIVITY). When two copies of the same element are pronounced, Nunes assumes one is MORPHOLOGICALLY REANALYZED (MR), rendering it invisible to linearization. However, there are no independent criteria for determining when MR occurs in complex heads (e.g., in V-to-Infl contexts in PCS); the evidence is often only that two copies of one element are pronounced.

In LaCara 2016, I show that if HM is generated without producing copies, one can predict when verb doubling will happen in VPPCS without *ad hoc* appeals to MR. There, I adopt Harley's (2004) version of CONFLATION, an operation *occurring at Merge* that transfers morphophonological features of a head to the immediately c-commanding head, replacing head-to-head movement. Conflation does not create copies; in VPPCS, the only new copy of the verb is generated by topicalizing a verb phrase. Combining Conflation with Nunes's assumptions about deleting copies correctly predicts the verb in fronted vPs will be pronounced, as will the morphophonological features of the verb in T.

**3. Expansion to BVPCS** My 2016 analysis supports the view that HM is not true movement, but BVPCS pose a challenge for it. These involve topicalization of a verb, but under Conflation this predicts that the morphophonological features of the verb should not be pronounced in Infl since a head c-commanded by another with matching features should not be pronounced. At first, this suggests that another non-movement approach to HM might be better; e.g., Harizanov and Gribanova's (2018) post-syntactic approach. This will not work: to explain the requirement that some inflectional morphology on the topicalized verb match the inflected copy, *it is necessary for HM to feed A'-movement*, ruling out post-syntactic HM. Additionally, the issues traditional approaches to HM pose for VPPCS

hold of BVPCs too. I argue the PC facts require us to be more precise about the requirements determining when features are pronounced under Conflation. I propose a head will not be pronounced if it contains a subset of the morphophonological features of a c-commanding head.

## References

- Bastos, Ana Cláudia Pinto. 2001. Fazer, eu faço! Topicalização de constituintes verbais em português brasileiro [Do, i do! topicalization of verbal constituents in Brazilian Portuguese]. Master's thesis, Universidade Estadual de Campinas.
- Harizanov, Boris, and Vera Griбанова. 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.
- LaCara, Nicholas. 2016. Verb phrase movement as a window into head movement. *Proceedings of the Linguistic Society of America* 1:17:1–14.
- Landau, Idan. 2006. Chain resolution in Hebrew V(P)-fronting. *Syntax* 9:32–66. URL <https://dx.doi.org/10.1111/j.1467-9612.2006.00084.x>.
- Matushansky, Ora. 2006. Head movement in linguistic theory. *Linguistic Inquiry* 37:69–109.
- Nunes, Jairo. 2004. *Linearization of chains and sideward movement*. Number 43 in *Linguistic Inquiry Monographs*. Cambridge, Mass: MIT Press.
- Vicente, Luis. 2007. The syntax of heads and phrases: A study of verb (phrase) fronting. Doctoral Dissertation, Universiteit Leiden.