

Claim

The typology of repairs in verbal fronting is accounted for by interaction of the **order of post-syntactic operations** Head Movement (HM) and Copy Deletion (CD) with the **size of the moved constituent**.

(1)	Order of post-syntactic operations		
	HM > CD	CD > HM	Surface
full VP	verb copy	dummy verb	VP fronting
remnant VP	verb copy	dummy verb	V fronting
bare V	verb copy	verb copy	V fronting

Two repairs in verbal fronting

Many languages allow the *displacement of a verbal constituent into the left periphery*. Often this displacement induces a focus or topic interpretation of the fronted constituent.

Observation 1: In the absence of auxiliaries or modals, verbal fronting triggers one of two strategies of gap avoidance: (i) a copy of the verb stays behind (2), or (ii) a semantically largely vacuous dummy verb is inserted (3).

Observation 2: Languages that allow both verb and verb phrase fronting symmetrically show the same strategy of gap avoidance in both cases.

(2) *Hebrew verb doubling* (Landau 2006: 37)

- a. **liknot**, hi **kanta** et ha-praxim
buy.INF she bought ACC the-flowers
'As for buying, she bought the flowers.'
- b. [**liknot** et ha-praxim], hi **kanta**.
buy.INF ACC the-flowers she bought
'As for buying the flowers, she bought (them).'

(3) *German dummy verb insertion* (Diedrichsen 2008: 221)

- a. **waschen tut** er das Auto nie
wash.INF does he the car never
'He never washes the car.'
- b. [das Auto **waschen**] **tut** er nie
the car wash.INF does he never
'Something that he never does is wash the car.'

Commonly, verbal fronting as presented above can be shown to be \bar{A} -movement as it is unbounded and shows island effects.

A new pattern and the typology

Asante Twi (Kwa, Niger-Congo) and Limbum (Grassfields Bantu, Niger-Congo) show an asymmetric pattern: A verb copy in verb fronting (4a) & (5a) but a dummy verb in verb phrase fronting (4b) & (5b).

- (4) a. **si**(-é) na Kofi á-**si**/*á-yó dán.
build-NMLZ FOC Kofi PRF-build/PRF-do house
'Kofi has built a house. (not e.g. bought one)'
- b. [dán **si**](**-é**) na Kofi *á-**si**/*á-yó
house build-NMLZ FOC Kofi PRF-build/PRF-do
'Kofi has built a house. (not e.g. bought a boat)' (Asante Twi)

- (5) a. á r-**yū** (cí) njǎwè fɛ bí **yū**/*gī msāŋ
FOC 5-buy (COMP) woman DET FUT1 buy/do rice
'The woman will buy rice.'
- b. á r-**[yū msāŋ]** (cí) njǎwè fɛ bí ***yū**/**gī**
FOC 5-buy rice (COMP) woman DET FUT1 buy/do
'The woman will buy rice.' (Limbum)

It can be shown for the two languages that verbal fronting involves \bar{A} -movement and that verb and verb phrase fronting largely behave alike with respect to other properties as well (e.g. whether they allow TAM-marker or adverbs in the fronted constituent).

Note: The reverse Asante Twi pattern, namely a dummy verb in verb fronting and a verb copy in verb phrase fronting could be determined to be unattested in a sample of 45 languages that have been reported and documented to exhibit verbal fronting and/or verb doubling.

⇒ There is a **systematic gap** in the typology of repair patterns.

Typology of repair patterns in verbal fronting

(6)	fronting		languages
	verb	verb phrase	
I	verb copy	verb copy	Hebrew, ...
II	dummy verb	dummy verb	German, ...
III	verb copy	dummy verb	Asante Twi, Limbum
IV	dummy verb	verb copy	—

Preliminaries to the analysis

- Copy Theory of Movement (Chomsky 1995) ⇒ Doubling is spell-out of multiple copies (Abels 2001, Nunes 2004)
- Head movement is a post-syntactic operation (Chomsky 1995, Schoorlemmer & Temmerman 2012) that does not leave any copies (Boeckx & Stjepanović 2001)
- \bar{A} -head movement into specifier position is possible in syntax (Koopman 1984, Vicente 2007, 2009)
- (Post-)syntactic operations apply in a sequential order (see Arregi & Nevins 2012, Schoorlemmer 2012)
- **Copy Deletion does not apply to the lowest copy of an \bar{A} -head movement chain**

Analysis

HM > CD & \bar{A} -head movement ⇒ Hebrew (Pattern I)

verb fronting	verb phrase fronting
(7) liknot , hi kanta et ha-praxim buy.INF she bought ACC the-flowers 'As for buying, she bought the flowers.'	(8) [liknot et ha-praxim], hi kanta . buy.INF ACC the-flowers she bought 'As for buying the flowers, she bought (them).'
Syntax [_{CP} V [_C C [_{TP} S ⁱ [_{TP} T [_{VP} S ⁱ [_v v [_{VP} V O]]]]]]]]]]	Syntax [_{CP} [_{VP} V O] [_C C [_{TP} S ⁱ [_{TP} T [_{VP} S ⁱ [_v v [_{VP} V O]]]]]]]]]]
Post-syntax HM: [_{CP} V [_C C [_{TP} S ⁱ [_{TP} T [_{VP} V +v+T [_{VP} S ⁱ [_v v [_{VP} O]]]]]]]]]]	Post-syntax HM: [_{CP} [_{VP} V O] [_C C [_{TP} S ⁱ [_{TP} T [_{VP} V +v+T [_{VP} S ⁱ [_v v [_{VP} O]]]]]]]]]]
CD: [_{CP} V [_C C [_{TP} S ⁱ [_{TP} T [_{VP} V +v+T [_{VP} S ⁱ [_v v [_{VP} O]]]]]]]]]]	CD: [_{CP} [_{VP} V O] [_C C [_{TP} S ⁱ [_{TP} T [_{VP} V +v+T [_{VP} S ⁱ [_v v [_{VP} O]]]]]]]]]]

HM > CD & remnant VP movement ⇒ Polish (Pattern I)

verb fronting	verb phrase fronting
(9) wypić (to) Marek wypije herbatę, ale... drink.INF TO Marek will.drink tea but 'As for drinking, Marek will drink tea, but...' (Polish, Bondaruk 2012: 55)	(10) [wypić herbatę] (to) Marek wypije , ale... drink.INF tea TO Marek will.drink but 'As for drinking tea, Marek will drink it, but...' (Polish, Bondaruk 2012: 55)
Syntax [_{CP} [_{VP} V O ⁱ] [_C C [_{TP} S ⁱ [_{TP} T [_{AspP} Asp [_v S ⁱ [_v O ⁱ] [_v v [_{VP} V O ⁱ]]]]]]]]]]]	Syntax [_{CP} [_{VP} V O] [_C C [_{TP} S ⁱ [_{TP} T [_{VP} S ⁱ [_v v [_{VP} V O]]]]]]]]]]
Post-syntax HM: [_{CP} [_{VP} V O ⁱ] [_C C [_{TP} S ⁱ [_{TP} T [_{AspP} V +v+Asp [_v S ⁱ [_v O ⁱ] [_v v [_{VP} O]]]]]]]]]]	Post-syntax HM: [_{CP} [_{VP} V O] [_C C [_{TP} S ⁱ [_{TP} T [_{AspP} V +v+Asp [_v S ⁱ [_v v [_{VP} O]]]]]]]]]]
CD: [_{CP} [_{VP} V O ⁱ] [_C C [_{TP} S ⁱ [_{TP} T [_{AspP} V +v+Asp [_v S ⁱ [_v O ⁱ] [_v v [_{VP} O]]]]]]]]]]	CD: [_{CP} [_{VP} V O] [_C C [_{TP} S ⁱ [_{TP} T [_{AspP} V +v+Asp [_v S ⁱ [_v v [_{VP} O]]]]]]]]]]

CD > HM & remnant VP movement ⇒ German (Pattern II)

verb fronting	verb phrase fronting
(11) waschen tut er das Auto nie wash.INF does he the car never 'He never washes the car.'	(12) [das Auto waschen] tut er nie the car wash.INF does he never 'Something that he never does is wash the car.'
Syntax [_{CP} [_{VP} O V] [_C C [_{TP} S [_v O ⁱ] [_v v [_{VP} O V] v]]] T]]]]	Syntax [_{CP} [_{VP} O V] [_C C [_{TP} S [_v v [_{VP} O V] v]]] T]]]]
Post-syntax CD: [_{CP} [_{VP} O V] [_C C [_{TP} S [_v O ⁱ] [_v v [_{VP} O V] v]]] T]]]]	Post-syntax CD: [_{CP} [_{VP} O V] [_C C [_{TP} S [_v v [_{VP} O V] v]]] T]]]]
HM: [_{CP} [_{VP} O V] [_C C [_{TP} S [_v v+T+C [_{TP} S [_v O ⁱ] [_v v [_{VP} O V]]]]]]]]	HM: [_{CP} [_{VP} O V] [_C C [_{TP} S [_v v+T+C [_{TP} S [_v O ⁱ] [_v v [_{VP} O V]]]]]]]]

CD > HM & \bar{A} -head movement ⇒ Asante Twi (Pattern III)

verb fronting	verb phrase fronting
(13) si (-é) na Kofi á- si /*á-yó dán. build-NMLZ FOC Kofi PRF-build/PRF-do house 'Kofi has built a house. (not e.g. bought one)'	(14) [dán si](-é) na Kofi *á- si /*á-yó house build-NMLZ FOC Kofi PRF-build/PRF-do 'Kofi has built a house. (not e.g. bought a boat)'
Syntax [_{CP} V [_C C [_{TP} S ⁱ [_{TP} T [_{VP} S ⁱ [_v v [_{VP} V O]]]]]]]]]]	Syntax [_{CP} [_{VP} V O] [_C C [_{TP} S ⁱ [_{TP} T [_{VP} S ⁱ [_v v [_{VP} V O]]]]]]]]]]
Post-syntax CD: [_{CP} V [_C C [_{TP} S ⁱ [_{TP} T [_{VP} S ⁱ [_v v [_{VP} V O]]]]]]]]]]	Post-syntax CD: [_{CP} [_{VP} V O] [_C C [_{TP} S ⁱ [_{TP} T [_{VP} S ⁱ [_v v [_{VP} V O]]]]]]]]]]
HM: [_{CP} V [_C C [_{TP} S ⁱ [_{TP} T [_{VP} V +v+T [_{VP} S ⁱ [_v v [_{VP} O]]]]]]]]]]	HM: [_{CP} [_{VP} V O] [_C C [_{TP} S ⁱ [_{TP} T [_{VP} V +v+T [_{VP} S ⁱ [_v v [_{VP} V O]]]]]]]]]]

Prediction

Copies of \bar{A} -head movement will surface even if a gap is allowed, i.e. when fronting strands an auxiliary or modal (Hebrew, Trinh 2011: 32).

- (15) [liknot et ha-sefer]₁ Dan **kiva** —
buy.INF ACC the-book Dan hoped
'As for buying the book, Dan hoped to (do it).'
- (16) **liknot** Dan **kiva** **liknot** et ha-sefer
buy.INF Dan hoped buy.INF ACC the-book
'As for buying, Dan hoped to buy the book.'

References