Head movement to specifier positions in Bulgarian participle fronting

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• Two central concerns in the study of movement: (Chomsky 1995a,b)
  1. Is movement (Internal Merge) of α independent of α?

For example, it still seems necessary to distinguish X-movement from XP-movement (as well as A- from A-movement within XP-movement).

2. How is movement (Internal Merge) to be constrained?

For example, it still seems necessary to posit conditions like Chain Uniformity (1) — a descendant of Emonds’s (1976) “structure-preserving hypothesis” (2).

(1) A chain is uniform with regard to phrase structure status. (Chomsky 1995b: 253)
(2) Only a maximal projection can move to a specifier position. (Chomsky 1986: 4)

• Testing ground: participle fronting in Bulgarian, which displaces a participle from its VP-internal thematic position to the immediate left of the finite (auxiliary) verb: (Lema and Rivero 1990, Embick and Izvorski 1997, Caink 1999, Lambova 2004a,b, Franks 2008)

(3) a. bjah pročel knigata  
was read the.book  
‘I had read the book’

b. pročel bjah knigata

(4) a. razbrah če e pročel knigata  
understood.1sg that is read the.book  
‘I understood that he has read the book’

b. razbrah če pročel e knigata

• Participle fronting is often taken not to obey the Head Movement Constraint (HMC):

(5) Head Movement Constraint (Travis 1984)

An X₀ may only move into the Y₀ which properly governs it.

• Hence, it has been considered an instance of Long Head Movement. (Lema and Rivero 1990, Rivero 1991, 1992, 1994, Roberts 1994, Wilder and Cavar 1994, among others)

Long Head Movement has been reported to exist at least in Romance (Romanian, Old Spanish, European Portuguese before the 20th century, Early Italian, Provençal, Catalan), Breton, West Slavic (Czech, Slovak, Polish), South Slavic (Bulgarian, Macedonian, Serbo-Croatian, Slovene).
Syntactic approaches to participle fronting

(6) V-movement (to Aux)  
(Lambova 2004a, Franks 2008, a.o.)

(7) VP-movement (to Spec)  
(Broekhuis and Migdalski 2003)

- Each of these approaches to participle fronting in Bulgarian can only account for some (but not all) of its mixed X- and XP-movement properties:
  - Head movement properties of participle fronting (§1)
    1. displacement of a single head, not a (remnant) phrase (§1.1);
    2. apparent participle-auxiliary adjacency (§1.2).
  - Phrasal movement properties of participle fronting (§2)
    1. (non-)complementarity with other phrasal movements (§2.1);
    2. locality, violations of the Head Movement Constraint (§2.2);
    3. discourse effects (§2.3).

(8) V-movement to Spec (§3)  

- A way to understand the mixed properties of participle fronting by
  - allowing Internal Merge to apply in the same way to both min and max elements;
  - avoiding the stipulation of a structure-preservation constraint on movement.

- This treatment of participle fronting raises (at least) the following pressing questions:
  - What conditions X-movement to a specifier as opposed to pied-piping of XP? (§3.1)
  - How are Head Movement Constraint effects to be accounted for? (§3.2)
  - What is the cost of giving up the structure-preserving hypothesis? (§4)

1Prosodic approaches to participle fronting in Bulgarian appear to be difficult to motivate (Embick and Izvorski 1997). See Appendix A for a list of arguments against a prosodic inversion-type approach, in particular.
1 Head movement properties

1.1 Displacement of a single head

- Participle fronting strands all other VP-internal material (i.e. Bulgarian lacks VP-fronting):
  
  
  \[(9) \quad \text{a. razkazvala beše često Marija tazi istorija} \]
  told was often Maria this story
  \`{Maria had often told this story’
  \b. * [vp razkazvala tazi istorija] beše često Marija
  told this story was often Maria

- Cf. putative remnant VP topicalization in German, after objects scramble out of the VP:
  \[(\text{Webelhuth and den Besten 1987, Müller 1998, Borsley and Kathol 2000, a.o.; but see Fanselow 2002})\]
  
  \[(10) \quad \text{a. [vp das Buch gestohlen] hat der Fritz sicher} \]
  the book stolen has the Fritz certainly
  \`{Fritz certainly stole the book’
  \b. [vp das Buch gestohlen] hat der Fritz das Buch sicher
  stolen has the Fritz the book certainly

- If participle fronting were VP fronting, everything but the participle must evacuate the VP. However, such movement cannot be easily motivated; e.g.:

  1. Objects don’t need to raise for Case; they follow VP-adjoined adverbs when stranded.
  2. Elements that don’t need Case or can’t scramble (PP and CP complements, secondary predicates, and adverbs) are routinely stranded under participle fronting:

  \[(11) \quad \text{a. videli bjaha Marija pijana} \]
  seen were Maria drunk
  \`{they had seen Maria drunk’
  \b. * videli Marija pijana bjaha
  seen Maria drunk were

  3. Non-specific indefinites (presumably VP-internal; Diesing 1992) can also be stranded:

  \[(12) \quad \text{pročel beše Georgi nešto (no ne znam kakvo točno)} \]
  read was Georgi something but not know.1.sg what exactly
  \`{Georgi had read something but I don’t know what exactly’

Summary of Section 1.1

- Participle fronting involves displacement of a single head, not a (remnant) phrase.
  (see also Lema and Rivero 1990, Embick and Izvorski 1997, Caink 1999, Lambova 2004a,b, Franks 2008)

- But the evidence does not actually settle the question about the nature of the landing site (e.g. the participle may have landed in the specifier of the auxiliary).
1.2 Participle-auxiliary adjacency

- Participle fronting usually results in strict participle-auxiliary adjacency; e.g. adverbs (speaker-oriented, aspectual, manner), subjects, objects, wh-phrases cannot intervene: (Caink 1999:20, Lambova 2004a:239, Franks 2008:126)

\[(13)\] *pročel \{ kăde / Georgi / verojatno / nabărzo } beše knigata*  
read where Georgi probably quickly was the book  
‘where had he read the book?’ / ‘Georgi had read the book’ /  
‘he had probably read the book’ / ‘he had quickly read the book’

- Although most (all?) work to date seems to assume strict participle-auxiliary adjacency, independent words can, in fact, intervene between the participle and the auxiliary:

\[(14)\] ... i văpreki vsičko mu dali maj bjaha 4 godini zatvor  
and despite everything to.him given apparently were 4 years prison  
‘... and despite everything they had apparently given him 4 years in prison’  

\[(15)\] precenil obače beše, če Kadilaka šte spre v avarijnoto platno  
determined however was that.the.Cadillac will stop in the.emergency lane  
‘however, he’d determined that the Cadillac would stop in the emergency lane’

Summary of Section 1.2

- Participle fronting does not involve head adjunction of the participle to the auxiliary. (contra Lambova 2004a and Franks 2008; see also Bošković 1997 on Serbo-Croatian)

Summary of Section 1

- Evidence from §1.1 (“displacement of a single head”):
  - an argument that a single head is moving (not a remnant VP);  
  - not an argument that the participle is adjoined to the auxiliary.

- Evidence from §1.2 (“participle-auxiliary adjacency”):
  - an argument that the participle moves “close” to the auxiliary;  
  - not an argument that the participle is adjoined to the auxiliary.

- Additional evidence from §1.2 (“disruption of participle-auxiliary adjacency”):
  - an argument that the participle is not adjoined to the auxiliary.

What is the landing site of participle fronting?
2  Phrasal movement properties

2.1  Participle fronting and the left periphery

• The structure of the left periphery in Bulgarian:
  

  (16) \[ [\text{CP} \text{wh-rel} \text{C} [\text{TP} \text{topic} [\text{TP} \text{focus} \text{T} [\text{Asp} \text{Asp} [\text{vP} \text{vP}]])])]\]

  o the finite verb does not move higher than T;
  o finite auxiliaries are base generate in or move to T (Krapova 1999);
  o focus (i.e. Spec,TP) is a unique position which hosts \textit{wh}-phrases, contrastive foci, quantified negative elements, or discourse-neutral subjects;
  o there can be multiple \textit{topics}, which are adjuncts to TP;
  o \textit{wh}-relative pronouns are in Spec,CP.

• Participle fronting is in complementary distribution with elements known to occupy Spec,TP: pre-verbal \textit{wh}-phrases, contrastive foci, negative quantified elements, subjects.
  (for independent evidence that these elements compete for the same position, see the references in (16))

  (17) a. \textit{k\'\'de} be\'\'\'s pro\'\'\'\'\'el Georgi knigata
        where was read Georgi the.book
        ‘where had Georgi read the book?’

     b. *\textit{k\'\'de} pro\'\'\'\'\'el be\'\'\'\'\' s Georgi knigata
        where read was Georgi the.book

     c. *pro\'\'\'\'\' el \textit{k\'\'de} be\'\'\'\'\' s Georgi knigata
        read where was Georgi the.book

• Although most work to date seems to assume the participle must be clause-initial
  (but see Embick and Izvorski 1997: fn. 13) this does not appear to be entirely true…

• The participle in participle fronting follows topics and TP adjoined adverbials:
  (BNC = Bulgarian National Corpus, http://search.dcl.bas.bg/)

  (18) a. gorkoto mom\'\'e, stanalo mu be\'\'\'e navik da e vse t\'\'\'\'\'\'\'\'n i bledo
        the.poor boy, become to.him was a.habit to be always sad and pale
        ‘the poor boy, it had become a habit for him to be always sad and pale’ (BNC)

     b. po nare\'\'\'\'\' dan na Kaligula pr\'\'\'\'\'udili gi bjaha da izkarvat prehranata si
        by the.order of Caligula forced them to make living REFL
        ‘by Caligula’s order, they had forced them to make their living’ (BNC)

  (19) a. verojatno minali bjaha ve\'\'e po ulicata
        probably passed were already on the.street
        ‘they had probably already passed on the street’

     b. vjarno, polu\'\'\'\'\'\'\'\'ila be svoja paj ot lo\'\'i vesti
        true received was her share of bad news
        ‘(it’s) true, she had received her share of bad news’ (BNC)
Participle fronting is available in embedded clauses, where the participle follows C:

(20)  
  a. kazah če privăršili bjahme rabotata 
  said.1.sg that finished were the.work

  ‘I said that we had finished the work’  
  (Lambova 2004b: 270)

  b. … i mi se struva, če izostanal beše umstveno 
  and to.me refl seems that fallen.behind was mentally

  ‘… and it seems to me that he had fallen behind mentally’  
  (BNC)

  c. ne znam dali pročela beše Marija knigata (ili samo ja beše kupila) 
  not know.1.sg whether read was Maria the.book or just it was bought

  ‘I don’t know whether Maria had read the book (or just bought it)’

  d. ne možeše da izključi vsički nabedeni, zaštoto nabedeni bjahme vsički 
  not could.1.sg to exclude all accused because accused were all

  ‘s/he couldn’t exclude everyone that was (falsely) accused because everyone 
  was (falsely) accused’  
  (BNC)

  e. ako pročel e knigata, …
  if read is the.book

  ‘If he has read the book, …’  
  (Embick and Izvorski 1997: (10))

Participle fronting is available in relative clauses, where the participle follows wh-relative pronouns:

(21)  
  a. mjasto, v koeto bi iskal da živeeš, v koeto poželal bi i decata 
  a.place in which would want to live, in which want would also children 
  ti života si da izživejat 
  your life refl to live

  ‘a place in which you’d want to live, in which you’d want your children to 
  live their life’  
  (BNC)

  b. četiri ot zadăržane lica, koito vărzani bjahme 
  four of the.arrested persons who tied were

  ‘four of the arrested persons who were tied’  
  (BNC)

  c. položenie, v koeto zapodozreni bjahme samo šepata hora ot domakinstvoto 
  situation, in which suspected were only handful people from the.household

  ‘a situation, in which only a handful people from the household were sus-
  pected, …’  
  (BNC)

Summary of Section 2.1

- Participle fronting is in complementary distribution with occupants of Spec,TP (pre-verbal wh-phrases, contrastive foci, negative quantified elements, subjects).
- The participle in participle fronting is preceded by elements higher than Spec,TP (topics and TP-adjoined adverbials, overt complementizers, wh-relative pronouns).
2.2 The locality of participle fronting

- Participle fronting can cross more than one auxiliary (it appears not to obey the HMC):
  
  (22)  
  a. **pročeš** šte sâm knigata
       read will be the.book
       ‘I’ll have read the book’  
       (Embick and Izvorski 1997, (30))
  b. **arestuvani** bihte bili ot policiata
       arrested would be by.the.police
       ‘you would be arrested by the police’  
       (Embick and Izvorski 1997, (32))
  c. e, v našija slučaj **nakazana** šte e dăržavata
       well, in our case punished will be the.country
       ‘well, in our case, the country will be punished’  
       (BNC)

- Participle fronting can escape both non-tensed and tensed clauses:
  
  (23)  
  a. **zagazil** može [da e ]
       gotten.in.trouble might to be
       ‘he might’ve gotten in trouble’
  b. **zaspali** si pomislil [če bjaha decata veče ]
       fallen.asleep refl l.thought that were the.children already
       ‘I thought the children had already fallen asleep’

- Participle fronting is subject to island constraints (adjunct islands, embedded wh- and polar questions, negative islands, among others):
  
  (24)  
  a. * **polučila** si trăgna [predi da e podarăka si ]
       received refl left.3.sg before to is the.gift refl
       ‘she left before she received her gift’
  b. * **podarili** se čudih [na kogo bjaha kolelo ]
       given refl wonder.1.sg to who were a.bike
       ‘I was wondering who they gave a bike to’
  c. * **svăršil** popitah Georgi [dali beše knižata ]
       finished asked.1.sg Georgi whether was the.book
       ‘I asked Georgi whether he had finished the book’
  d. * **pročeš** [ne beše novata kniža ]
       read not was the.new book
       ‘he had not read the new book’

Summary of Section 2.2

- Participle fronting exhibits the locality of $\overline{A}$-movement (e.g. wh-fronting, focalization, topicalization).
2.3 Discourse effects of participle fronting

- Participle fronting orders are usually not discourse-neutral:
  

  - fronted participles can be contrastively focused

  (25)  
  a.  
  Q: *pročel* *li* beše Georgi *knigata*?
  
  read  q was Georgi the  book
  
  ‘had Georgi read the book?’

  b.  
  A: *ne, kupil* *ja beše* (samo)
  
  no bought it was just
  
  ‘no, he had (just) bought it’

  - fronted participles can be new-information focus

  (26)  
  a.  
  Q: *kakvo bjaha* *pravili decata* *včera*?
  
  what were done  the.children yesterday
  
  ‘what had the children done yesterday?’

  b.  
  A: *gle融化* *bjaha* *televizija*
  
  watched were  television
  
  ‘they had watched TV’

  - fronted participles can be topicalized

  (27)  
  a.  
  Q: *koga* beše *pročel* Georgi *knigata*?
  
  when was read  Georgi the.book
  
  ‘when had Georgi read the book?’

  b.  
  A: *pročel* *ja beše včera*
  
  read  it was yesterday
  
  ‘he had read it yesterday’

  (28)  
  a.  
  *Toj beše iskal* *drugo, iskal* beše *tja da mu kaže* ...
  
  he was wanted else  wanted was she to to.him tell
  
  ‘He had wanted something else, he had wanted her to tell him ...’  (BNC)

  b.  
  *... i az* *gi bjah gledal. Gledal bjah filma za* *Treti ukrainski front*
  
  and I  them was seen  seen  was the.film about third Ukrainian front
  
  ‘... and I had seen them. I had seen the film about 3rd Ukrainian front’  (BNC)

Summary of Section 2.3

- Participle fronting exhibits discourse effects usually associated with $\Lambda$-movement.
3 Movement of heads to Spec

- The existing V-movement and remnant VP-movement approaches to participle fronting can only account for some of its mixed X- and XP-movement properties.
- Proposal: combine the virtues of these approaches by allowing head-to-spec movement.

(29)  

a. TP  

T  

[F\_EPP]  

AspP  

Asp  

vP  

V  

b. TP  

T  

[F\_EPP\_✓]  

AspP  

Asp  

vP  

V  

... V ...

- Towards an understanding of the mixed properties of participle fronting:
  - If it is triggered by a discourse-related feature F with the EPP property on T, (along with the assumptions in (16), independently motivated in the cited literature)
  - participle fronting is expected to
    1. affect a single head (§1.1) (on why T does not attract VP, see §3.1);
    2. usually, but not always, result in participle-auxiliary adjacency (§1.2);
    3. be in complementary distribution with other movements to Spec,TP (§2.1);
    4. place the participle to the right of TP-adjuncts, Cs, and relative pronouns (§2.1);
    5. be characterized by the locality of discourse related (A) movement (§2.2);
    6. have discourse effects (§2.3).

- This treatment of participle fronting raises (at least) the following pressing questions:
  - What conditions X-movement to a specifier as opposed to pied-piping of XP? (§3.1)
  - How are Head Movement Constraint effects to be accounted for? (§3.2)
  - What is the cost of giving up the structure-preserving hypothesis? (§4)
3.1 Head- vs. phrasal movement

- Why doesn’t/can’t VP move instead of just the participle (§1.1)?
- V-fronting and VP-fronting appear to be in complementary distribution…
  - crosslinguistically: languages that allow V-fronting (Icelandic) disallow VP-fronting; languages that allow VP-fronting (Mainland Scandinavian) disallow V-fronting. (Holmberg and Platzack 1995:222 and Holmberg 2005: fn. 15 on Stylistic Fronting)

(30) a. *citi cartea Maria poate
    read the.book Maria can
    ‘read the book, Maria can’ (poate does not allow V-fronting)

b. *citi cartea Maria a
    read the.book Maria has
    ‘read the book, Maria has’ (a allows V-fronting)

- Suppose VP-movement is possible only when V-movement is blocked, or more generally:

(31) Movement of XP is possible only if movement of X out of XP is blocked. (cf. Donati 2006, Matushansky 2006, Preminger 2015; but see Pesetsky and Torrego 2001)

- This can, perhaps, be viewed as an instance of the broader generalization:²

(32) Pied-piping of β by α is possible only if movement of α from β is blocked. (Heck 2008:117, Heck 2009:92, Cable 2012:821)

- In Romanian, Rivero (1992) and others suggest that
  1. “functional” auxiliaries (e.g. perfect a, future va) allow V-movement;
  2. “lexical” auxiliaries (e.g. modal putea) block V-movement.
- In Bulgarian, all relevant auxiliaries allow V-movement and, thus, disallow VP-movement.
- When max V-projections do move in Bulgarian, they are complements to lexical verbs:

(33) a. [da sa zaspali veče ] mi se iska
    to are fallen.asleep already to.me refl want
    ‘I wish the children had already fallen asleep’

b. [vnimatelno da pročetat statijata ] trjabva
    carefully to read.3.pl. the.article must
    ‘they must read the article carefully’ (cf. Lambova 2004b)

²X-movement presumably preempts XP-movement because of “an economy principle on movement which states that you merge just enough material for convergence” (Donati 2006:27).
3.2 The nature of head movement

- Approaches to the apparent complementarity between X- and XP-movement often tie it to the apparent complementarity in their locality conditions: X-movement is subject to the HMC, XP-movement is not. (e.g. Pesetsky and Torrego 2001, Matushansky 2006)
- But while participle fronting in Bulgarian is in complementary distribution with VP-fronting, it is also an instance of head movement that is not subject to the HMC. (see also Landau 2006 on Hebrew and Vicente 2006 on Spanish predicate fronting)
- What is the status of the HMC then? (cf. Fox and Pesetsky (2005):23, fn. 16)
- Two types of “head movement”: (Gribanova, Harizanov and McCloskey (in progress))
  1. syntactic movement
     - characterized by the locality of Internal Merge (i.e. not subject to the HMC);
     - the moving head does not grow morphologically;
     - does not necessarily form a head adjunction structure (e.g. movement to spec);
     - driven by non-morphological properties of the heads involved;
     - can have discourse and LF effects.
  2. morphological amalgamation
     - characterized by the locality of the HMC (i.e. structural or linear adjacency); (see also Lasnik 1981, Lema and Rivero 1990:345, and Phillips 1996:205)
     - the moving head grows morphologically (“the higher, the bigger”);
     - produces head-adjunction structures (that map to phonological words);
     - driven by morphological properties/requirements of the heads involved;
     - does not have LF effects.
- Participle fronting is an instance of type 1.
- Such an approach addresses issues with standard head movement in the syntax (e.g. that it does not target a c-commanding position or obey the Extension Condition) (for more discussion, see Fukui and Takano 1998, Toyoshima 2001, Matushansky 2006, Roberts 2010)

4 Consequences and residual questions

- Participle fronting in Bulgarian: a species of head movement that is analyzed as movement of a head to a specifier position (i.e. Internal Merge of a head with the root).
  1. Is movement (Internal Merge) of \( \alpha \) independent of \( \bar{\alpha} \)?
     Internal Merge applies in the same way to both min and max elements (the \( A/\bar{A} \) distinction presumably follows from the nature of the trigger).
  2. How is movement (Internal Merge) to be constrained?
     Standard structure-preservation constraints on movement appear to be too strong (the original reasons for positing structure preservation have to be re-evaluated).
Without structure preservation, the following may be predicted to be possible, depending on the pre- and post-movement status of the moving elements:

(34) a. pre-movement status: \textbf{min}, post-movement status: \textbf{max}
   - participle fronting in Bulgarian (and other Slavic languages?)
   - Stylistic fronting in Icelandic and Faroese?
   - long head movement in Breton?
   - predicate fronting in Russian and Spanish \cite{Vicente2006}?
   - bare-infinitive fronting in Hebrew \cite{Landau2006}?

b. pre-movement status: \textbf{max}, post-movement status: \textbf{max}
   - “standard” phrasal movement from a specifier/complement

c. pre-movement status: \textbf{min}, post-movement status: \textbf{min}
   - reprojective head movement (e.g. free relatives; \cite{Donati2006,Donati2006a})

d. pre-movement status: \textbf{max}, post-movement status: \textbf{min}
e.g. an ate too much headache, he I don’t cared his way out of the room

A  Non-syntactic approaches to participle fronting

One common non-syntactic approach to participle fronting involves \textit{prosodic inversion}:

\begin{equation}
\text{Aux Part Aux …}
\end{equation}

If prosodic inversion is triggered by the need of an enclitic auxiliary to find a host,

- it can be motivated in languages with uniformly enclitic auxiliaries;
- but would be difficult to motivate in Bulgarian:
  1. the participle can precede an auxiliary that is not an enclitic: (3);
     (this is also true in Breton \cite{Borsley2000} and Serbo-Croatian \cite{Bošković1995})
  2. the participle can precede an enclitic auxiliary that is already supported: (4);
     (this is also true in Macedonian, where verbal clitics can be clause-initial)
  3. the participle can appear in a higher clause: (24).

\footnote{\textit{Both Jónsson (1991) and Holmberg (2005) point out that a major obstacle to treating stylistic fronting as head movement to specifier position is the structure-preserving hypothesis: “In this paper I have argued for an analysis where Stylistic Inversion is a head adjunction to INFL and against the traditional analysis where SF is a movement to the subject position. In my opinion, the most important arguments here is a purely theoretical one, namely the prohibition against head movement to a specifier position”} \cite{Jónsson1991:35}.}
Abbreviations


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