

RESEARCH

Head movement to specifier positions

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Syntactic movement of phrases, modeled in terms of Internal Merge, has traditionally been distinguished on empirical grounds from syntactic movement of heads, modeled by other means. I demonstrate that, once the class of head movements implicated in word formation is excluded from consideration (assumed to be, for example, post-syntactic, following Harizanov & Gribanova 2019), the residue of head movements, which are purely syntactic in nature, and phrasal movement can receive a unified treatment. Both phrasal and syntactic head movement are implemented here as instances of Internal Merge (following, for example, Fukui & Takano 1998; Toyoshima 2001; Matushansky 2006; Vicente 2007; 2009). This treatment of syntactic head movement renders long-standing stipulations about structure building such as the Chain Uniformity Condition superfluous. It also makes sense of the properties of syntactic head movement, as demonstrated in a case study of participle fronting in Bulgarian, which targets a specifier position, violates the Head Movement Constraint, can cross finite clause boundaries, and can have discourse effects.

Keywords: movement; (long) head movement; (Internal) Merge; participle fronting; Bulgarian

1 Introduction

Syntactic movement involves the pronunciation of a syntactic object in a position distinct from the position or positions in which it is interpreted. Early research achieved a substantial level of descriptive adequacy by identifying an array of movement phenomena (e.g. constituent questions, relative clauses, topicalization), which were modeled by a corresponding array of syntactic movement rules. In an attempt to reduce the space of possible grammars allowed by the theory, Chomsky (1977) identified a core set of properties shared by a wide range of syntactic movement phenomena and proposed that they are all instances of a single movement operation, Move α . This shift away from construction-specific syntactic movement rules was instrumental in a subsequent, major simplification of the theory (Chomsky 1995 et seq.) which involved the unification of the base and transformational components of previous models in terms of Merge, a single structure-building operation responsible for both “base generation” and movement.

However, the explanatory successes of the theory of syntactic movement are still in apparent conflict with the current empirical landscape. Certain phenomena—in particular, those that point to the existence of subtypes of movement, each with its own well defined properties—have been difficult to understand within the unified, Merge-based view of structure building. For example, it has seemed necessary to distinguish between movement of heads and phrases, and within phrasal movement, between A and A-bar movement. In this article, I argue that it is not necessary to maintain the head/phrase movement distinction and that, in fact, syntactic movement is independent of the nature of the element that undergoes movement. In particular, I suggest that syntactic head movement is formally indistinguishable from phrasal movement. I show that, like phrasal movement,

syntactic head movement can target specifiers, which leads to the abandonment of the Chain Uniformity Condition, itself a descendant of Emonds's (1976) Structure Preserving Constraint (see footnote 3 for a qualification).

Such a unified approach to the syntactic movement of heads and phrases is afforded in part by recent advances in the understanding of head displacement and, in particular, Harizanov & Gribanova's (2019) proposal that there are two distinct classes of head displacements. One involves head displacements that result in word formation, implemented by Harizanov & Gribanova (2019) as post-syntactic Amalgamation, a generalization of Embick & Noyer's (2001) Lowering. The other class of head displacements exhibits properties typically taken to characterize phrasal movement (e.g. landing site, locality, interpretive potential) and can be implemented as Internal Merge. Thus, as Harizanov & Gribanova (2019) note, once word formation head displacements are excluded from consideration, unification of syntactic head and phrasal movement in terms of Internal Merge becomes possible. In this article, I develop and elaborate the Internal Merge treatment of syntactic head movement, which is left underspecified in Harizanov & Gribanova (2019). I demonstrate that it allows both for a simpler and less stipulative theory of movement and for an understanding of the similarities between syntactic head and phrasal movement.

This approach builds on existing proposals to unify head and phrasal movement which likewise espouse head movement to specifier positions (e.g. Fukui & Takano 1998; Toyoshima 2001; Matushansky 2006; Vicente 2007; 2009). Important precursors to this general line of research can be found in work on A-bar head movement (Koopman 1984) and "substitution" head movement (Rizzi & Roberts 1989). Both conceptual and empirical arguments for these proposals have been developed in the context of a variety of phenomena crosslinguistically. Yet, it has been generally recognized that, if all head displacements are of the head-to-specifier variety, additional theoretical adjustments are required to handle the class of head displacements that result in word formation (e.g. Fukui & Takano 1998: 80; Toyoshima 2001: 132; Matushansky 2006; Vicente 2007: 44–46; Trinh 2009: Section 6). Following Harizanov & Gribanova (2019), I contend that earlier efforts to unify head and phrasal movement face such challenges due to the analytical conflation of the two distinct classes of head displacements identified by Harizanov & Gribanova (2019). Removing the word formation type from the purview of the theory of syntactic movement allows the purely syntactic type to be understood in terms of Internal Merge.

This article is organized as follows. In section 2, I review Harizanov & Gribanova's (2019), approach to head displacement and outline a proposal that unifies syntactic head and phrasal movement. In section 3, I motivate and illustrate the proposal through a detailed discussion of the properties of participle fronting in Bulgarian. I demonstrate that this phenomenon involves head movement which exhibits properties typically associated with phrasal A-bar movement and, consequently, can be implemented as an instance of Internal Merge. Section 4 summarizes the theoretical and empirical results and discusses some implications of the proposal as well as possible extensions.

2 Unifying syntactic head and phrasal movement

Harizanov & Gribanova (2019) argue that the traditional head movement operation, which involves head-to-head adjunction, has been used to model two distinct types of head displacement phenomena each characterized by a unique cluster of properties. One type results in the construction of complex heads, which are typically mapped to morphophonological words, and includes word formation phenomena such as affixation and compounding. This type of head displacement is driven by morphological properties of lexical items and does not yield interpretive effects; it obeys the Head Movement Constraint and is generally subject to more stringent locality constraints than phrasal movement.

The other type of head displacement results in movement of (potentially complex) heads to higher syntactic positions without the formation of a new complex head. This type of head displacement does not result in word formation but has the potential to affect word order and is implicated in verb-initial and verb-second orders and phenomena like “long” head movement. Harizanov & Gribanova (2019) show that this type of head displacement seems formally indistinguishable from phrasal movement: it is not driven by morphological properties of lexical items and is typically interpretively potent. It is also generally characterized by the locality characteristic of phrasal movement and can, at least in principle, apply across clausal boundaries.

The differences between the two types of head displacement lead Harizanov & Gribanova (2019) to treat them as distinct operations applying in distinct modules of the grammar: the word formation type is morphological while the type with effects on word order is syntactic. However, although Harizanov & Gribanova (2019) offer a detailed implementation of the former, the treatment of the latter is underspecified: while they suggest that, on the basis of its shared properties with phrasal movement, syntactic head displacement ought to be implemented as Internal Merge, the details and consequences of such an implementation are not elaborated on or explored. A major goal of the present article is to fill this gap.

A long-standing challenge for a unified approach to the syntactic movement of heads and phrases in terms of Internal Merge has been the behavior of head displacements that do not exhibit the properties of Internal Merge (e.g. Fukui & Takano 1998: 80; Toyoshima 2001: 132; Vicente 2007: 44–46). For example, Matushansky’s (2006) approach, incorporating the additional M-Merger operation, is specifically designed to address this challenge as it arises for what she calls “paradigm instances of head movement (e.g., French V⁰-to-T⁰ movement).” Thus, Harizanov & Gribanova’s (2019) exclusion of the word formation cases of head displacement from the purview of the theory of syntactic movement is crucial in setting the stage for the unification of syntactic head and phrasal movement in terms of Internal Merge.

I propose that Internal Merge applies in the same way to both heads and phrases, combining the displaced element with the root in both cases, in accordance with the Extension Condition. In section 2.1, I show that this treatment has beneficial theoretical consequences in that it allows for further simplification of the grammar by maintaining that Internal Merge of a syntactic object is independent of the nature of that syntactic object, as suggested in Chomsky (1995; 2013). In section 2.2, I demonstrate that the Internal Merge treatment of syntactic head movement is empirically supported by the existence of head displacements characterized by properties typically attributed to phrasal movement.¹

2.1 Theoretical consequences

An implementation of Internal Merge that applies in the same way to both heads and phrases is, in fact, a direct consequence of central minimalist assumptions governing structure building. First, the distinction between minimal and maximal projections has successfully been reduced to contextual relations, i.e. to the structural configuration in which a given syntactic object appears (Chomsky 1995; cf. Muysken 1982).² Thus, depending on

¹ The focus here is on Internal Merge of a head which becomes a specifier in its derived position. The potential availability of Internal Merge of a head which projects in its derived position rather than becoming a specifier is compatible with the current proposal and is briefly discussed in section 4 and footnote 7. It is, for example, plausible that finite V movement in verb-second clauses or in “subject-auxiliary inversion” contexts is of this kind.

² This result is independent of whether projection (i.e. labeling) is accomplished by Merge itself, as in the Bare Phrase Structure approach of Chomsky (1995), or by an independent labeling procedure, as in the Merge + Label approach of Chomsky (2013; 2015).

the structural context in which it is found, a syntactic object can be strictly maximal (if it is projected but does not itself project), strictly minimal (if it projects but is not itself projected), both maximal and minimal (if it is not projected and does not project), or neither maximal nor minimal (if it both projects and is projected):

- (1) Maximal and minimal projections (e.g. Chomsky 1995: 242; Fukui & Takano 1998: 39)
 - a. X is *maximal* if it is not dominated by another X.
 - b. X is *minimal* if it does not dominate another X.

Without imposing any stipulations on the input of Internal Merge, the operation must be able to apply to any syntactic object regardless of its phrase structural status. In this, Internal Merge is no different from External Merge, as expected, given that Internal and External Merge are the same operation, differing only in whether one of its arguments is drawn from the already constructed structure or not.

Second, structure building is assumed to be monotonic in the sense that new structure is created without modifying (deleting, inserting, or otherwise changing) already built structures. This monotonicity—essentially encoded by the No Tampering Condition of Chomsky (1995; 2005; 2008)—entails, among other things, the Extension Condition:

- (2) Extension Condition (e.g. Chomsky 1995: 190–191)
One of the arguments of Merge is a root syntactic object.

Without imposing any additional stipulations on the output of Merge, the Extension Condition ensures that Merge produces the same kind of structure for any kind of input: both Internal and External Merge would thus target a root syntactic object (i.e. a syntactic object not dominated by another syntactic object). Internal Merge, specifically, combines a syntactic object from the already built structure with the root regardless of this syntactic object's phrase structural status. Taken together, the relational definitions of head and phrase and the Extension Condition ensure that Merge, both Internal and External, applies to all syntactic objects in the same way and produces the same kind of structures.

The Internal Merge approach to syntactic head movement requires no additional assumptions or novel derivational/representational devices which may be otherwise necessary in alternative approaches. For example, the traditional head-to-head adjunction analysis of head movement requires relaxation of the Extension Condition or other ways of accommodating head-to-head adjunction. In addition, accounts of syntactic head movement which rely on head-to-head adjunction commonly incorporate the Chain Uniformity Condition (CUC) in (3) to ensure that moved phrases become specifiers and moved heads become adjuncts to other heads.³

- (3) Chain Uniformity Condition (Chomsky 1995: 253)
A chain is uniform with regard to phrase structure status.

This condition explicitly restricts the types of structures that Internal Merge can produce: it requires a particular type of landing site on the basis of the phrase structural status that the moved element has in its base position. However, the CUC is not only theoretically problematic (e.g. Fukui & Takano 1998; Nunes 1998; Toyoshima 2001; Matushansky 2006;

³ While, in a certain sense, the CUC descends from Emonds's (1976) Structure Preserving Constraint, it is distinct from it. The original constraint was that movements are “substitutions” for types of constituents which can be generated at the landing site *independently of this movement*” (Emonds 2004: 32, emphasis in the original).

Vicente 2007; 2009; Trinh 2009; Ott 2010; Cecchetto & Donati 2018) but also empirically unmotivated because, as it will be shown, syntactic head movement into specifier positions is actually attested.⁴

2.2 Empirical consequences

The unified treatment of head and phrasal movement in terms of Internal Merge is empirically supported by the existence of head movements which are formally indistinguishable from phrasal movements, namely the class of syntactic head movements in Harizanov & Gribanova (2019). I demonstrate, following Harizanov & Gribanova's (2019) suggestion, that participle fronting in Bulgarian belongs to this class of head movements and exhibits the hallmark properties of Internal Merge. Past (active) participles in Bulgarian are canonically pronounced to the right of the finite (auxiliary) verb, as in the (a) examples below. The phenomenon of participle fronting involves the alternative participle-auxiliary order in the (b) examples (e.g. Lema & Rivero 1990; Embick & Izvorski 1997; Caink 1999; Lambova 2004b; c; Franks 2008).^{5,6}

- (4) a. Bjah **pročel** knigata.
 be.1S.PST read the.book
 'I had read the book.'
- b. **Pročel** bjah knigata.
- (5) Embick & Izvorski (1997)
- a. Šte sām **pročel** knigata.
 will be.1S.PRS read the.book
 'I'll have read the book.'
- b. **Pročel** šte sām knigata.
- (6) a. Razbrah če e **pročel** knigata.
 understand.1S.PST that be.3S.PRS read the.book
 'I understood that he has read the book.'
- b. Razbrah če **pročel** e knigata.
- (7) a. Može da e **zagazil**.
 might DA be.3S.PRS gotten.in.trouble
 'He might've gotten in trouble.'
- b. **Zagazil** može da e.

While participle fronting in Bulgarian displaces a head, it exhibits properties typical of phrasal (A-bar) movement: it obeys the Extension Condition and does not involve head-to-head adjunction; the displaced participle, instead, becomes a specifier of a functional

⁴ Fukui & Takano (1998) point out that head movement to specifier positions is consistent with a weaker version of the CUC in which "uniform" in (3) is taken to mean *noncontradictory* rather than *nondistinct*. However, it is unclear whether such a weaker version of the CUC is necessary either.

⁵ Passive participles appear to exhibit a different set of behaviors in Bulgarian (Lambova 2004a). While they are able to occur in the participle-auxiliary order, they are also able to pied pipe other VP-internal material (e.g. verbal arguments, adverbs). In this, passive participles seem to pattern with the heads of adjectival and nominal predicates in Bulgarian (footnote 43). In contrast, active participles cannot pied pipe any VP-internal material (section 3.2). This may suggest that, when a passive participle precedes the finite auxiliary, it reaches that position via (remnant) VP movement rather than head movement.

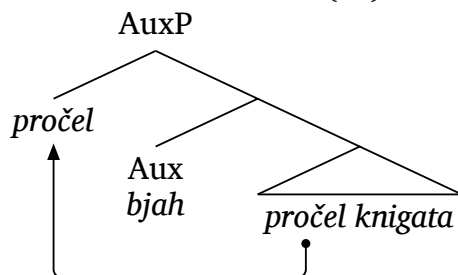
⁶ Bulgarian examples come from the literature or are naturally occurring (corpus) examples. Where no source is given, the status of examples has been confirmed with at least two speakers of Bulgarian (other than the author).

head in the extended clausal projection. Participle fronting is characterized by the locality of A-bar movement (e.g. it can apply across clausal boundaries and is island sensitive) and can have interpretive consequences (e.g. certain discourse effects). It is worth noting that a range of head movements crosslinguistically, such as stylistic fronting, predicate clefting, and “long” head movement, have been argued to exhibit similar A-bar movement properties as well (see section 4.3). As an instance of A-bar movement of a head, participle fronting in Bulgarian—like these other phenomena—is characterized by a set of properties that are contradictory from the perspective of a theory in which head movement is distinct from phrasal movement and involves head-to-head adjunction.

As discussed in section 2.1, this apparently paradoxical state of affairs is largely the result of assumptions (like the CUC) which ensure that the pre-movement phrase structural status of a displaced element (head vs. phrase) completely and unambiguously determines the nature of the movement, including its landing site as well as its locality and interpretive potential. Specifically, it is generally assumed that the movement of a head to a “head position” (becoming an adjunct to another head) is an instance of movement that obeys the Head Movement Constraint and does not typically have interpretive consequences. On the other hand, phrases are typically assumed to move to “phrasal positions” (becoming specifiers to heads) via phrasal movement, which can potentially be long-distance and have discourse effects. Such a theory leaves little room for the syntactic head movement involved in participle fronting in Bulgarian, which is characterized by properties typically attributed to phrasal movement.

A model that eschews this set of assumptions (including the CUC), as the one proposed in this article, allows (Internal) Merge to apply in the same way to heads and phrases. One consequence is that such a model predicts movement of a head to a specifier position (i.e. Internal Merge of a head with the root), as in (8), to be possible. In the derivation of (4b), the participle *pročel* ‘read’ is initially merged with the direct object *knigata* ‘the book’ and the resulting unit is subsequently merged with the auxiliary *bjah* ‘was’. At this point, the participle undergoes Internal Merge with the root, becoming the specifier of the projection headed by the auxiliary, as diagrammed in (8).⁷ Various details of the structure are further elaborated on as the discussion progresses in subsequent sections.⁸

(8) Schematic derivation of (4b)



Since the mechanism involved in participle fronting in Bulgarian is Internal Merge, the A-bar properties of this movement can be understood in the way they are in the case of phrasal movement. For example, it is independently known that Internal Merge can apply across clausal boundaries and that it can have discourse effects. In addition, since Internal Merge targets the root, the participle in participle fronting lands in a specifier position rather than a

⁷ As mentioned in footnote 1, the focus here is on cases where a head undergoes Internal Merge with the root and the root projects (i.e. the moved head becomes a specifier). However, within the present theoretical context, it is at least in principle possible for the moved head itself to project. See section 4.1 for further discussion.

⁸ For expository reasons, I do not represent here the two instances of Amalgamation that build the finite verbal complex (out of the auxiliary and tense and agreement features) and the participle (out of the verbal root and aspectual, voice, and agreement features).

head adjoined position. Finally, participle fronting displaces a head, which is expected to be possible, given that the difference among the bar levels of X-bar theory is reduced to contextual relations in current approaches to phrase structure. Thus, dissociating the nature of the landing site of movement from the phrase structural status of the moving element, as in the unified treatment of syntactic head and phrasal movement proposed in this article, allows for an understanding of the apparently conflicting properties of participle fronting, whereby movement affects a head but is characterized by A-bar movement properties.

3 Participle fronting in Bulgarian

The Internal Merge analysis of syntactic head movement outlined in section 2 is empirically supported by the existence of a class of phenomena crosslinguistically which involve A-bar head movement. Participle fronting in Bulgarian is discussed in this section as a particularly clear example of such a phenomenon (e.g. Lema & Rivero 1990; Embick & Izvorski 1997; Caink 1999; Lambova 2004b; c; Franks 2008). It involves syntactic, rather than prosodic, movement (section 3.1); it displaces a head rather than a phrase (section 3.2); it targets a specifier position rather than a head-adjoined position (section 3.3); it is subject to locality constraints on A-bar movement rather than the Head Movement Constraint (section 3.4); it can have discourse effects (section 3.5).

3.1 *The syntactic nature of participle fronting*

An intuition that runs through much of the literature on participle-auxiliary orders in languages with canonical auxiliary-participle order is that the non-canonical participle-auxiliary order is the result of pressures on prosodic well formedness. In many of the languages that feature this alternation, auxiliaries are prosodically weak and the participle-auxiliary order has been thought to arise under pressure from constraints against prosodically weak elements in clause initial positions (e.g. STRONGSTART in the sense of Selkirk 2011; Elfner 2012; Bennett et al. 2016, among others). One implementation of this idea involves upward syntactic movement (of the participle across the auxiliary) which is sensitive to prosody (e.g. Lema & Rivero 1990 on Old Spanish and European Portuguese). Another common implementation involves rightward prosodic movement of the phonologically weak auxiliary across the participle and relies on mechanisms such as Prosodic Inversion (Halpern 1995; King 1996) or “lower copy pronunciation” (Bošković 2001).

The prosodic approach to participle-auxiliary orders may be well supported in languages with prosodically weak auxiliaries but is difficult to motivate in languages like Bulgarian for a number of reasons. First, the Bulgarian auxiliaries *bjah* ‘was’ in (4) and *šte* ‘will’ in (5) are not enclitics, as demonstrated by their ability to appear in the clause-initial position in those examples. Yet, they can be preceded by a participle. In addition, a participle can precede an enclitic auxiliary, such as *e* ‘is’ in (6), which is already prosodically supported. Therefore, the prosodic needs of weak elements cannot be the driving force behind participle-auxiliary orders in Bulgarian.⁹ To maintain the prosodic approach, one might suggest that each of the relevant auxiliaries has two phonological exponents—one enclitic and one non-clitic—and that the enclitic exponent participates in the participle-auxiliary order while the corresponding non-clitic exponent participates in the auxiliary-participle order.

However, this approach requires both independent evidence for the existence of two phonological exponents of each of the relevant auxiliaries—unavailable to the best of my knowledge—and additional assumptions to accommodate cross-clausal participle fronting in Bulgarian. Specifically, a participle can appear in a clause higher than the smallest one

⁹ See also Embick & Izvorski (1997) for additional arguments to this effect as well as Borsley & Kathol (2000) and Schafer (1997) for similar arguments in Breton and Bošković (1995) for discussion of participle fronting with non-clitic auxiliaries in Serbo-Croatian.

that contains its base position, as in (7). Such cross-clausal participle movement cannot be motivated by the prosodically weak nature of the auxiliary in the embedded clause (*e* ‘is’ in (7), which is also prosodically supported). These considerations strongly suggest that the participle-auxiliary order in Bulgarian is the result not of prosodic factors, but of participle raising that is syntactic in nature—i.e. Internal Merge in the present proposal.¹⁰

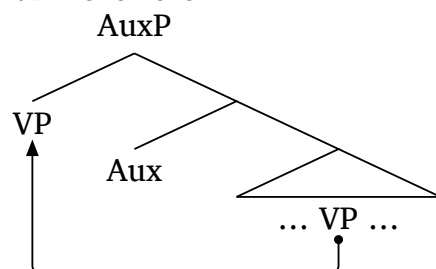
3.2 The target of participle fronting

It is well established that participle fronting in Bulgarian strands all VP-internal material (e.g. Lema & Rivero 1990: 341; Rivero 1991: 322–323; Wilder & Ćavar 1994: 5; Lambova 2004b: 237). In the acceptable example of participle fronting (9a), the verbal complement *tazi istorija* ‘this story’, the predicate-internal subject *Marija* ‘Maria’ and the adverb *često* ‘often’ must follow the finite auxiliary.

- (9)
- a. **Razkazvala** beše često Marija тази istorija.
told be.3S.PST often Maria this story
‘Maria had often told this story.’
 - b. ***Razkazvala** тази istorija beše često Marija.
told this story be.3S.PST often Maria
 - c. *Često **razkazvala** beše Marija тази istorija.
often told be.3S.PST Maria this story
 - d. *Često **razkazvala** тази istorija beše Marija.
often told this story be.3S.PST Maria
 - e. ***Razkazvala** Marija тази istorija beše često.
told Maria this story be.3S.PST often

This is the expected state of affairs if participle fronting is an instance of Internal Merge that targets the participle, as in the present proposal (see (8)). As with other phenomena where a single head appears to be displaced, the question is whether movement targets just that head or a larger phase that contains the head (see e.g. Holmberg 2017 for discussion of this question in the context of stylistic fronting in Icelandic). Could participle fronting in Bulgarian involve movement of the verb phrase that contains the participle (Broekhuis & Migdalski 2003 and Migdalski 2006), as shown in (10)?¹¹

- (10) VP movement



¹⁰ This is not to say that all cases of participle-auxiliary orders are derived in this way even within Bulgarian. As Embick & Izvorski (1997) show, there is a class of participle-auxiliary orders that are, in fact, sensitive to prosody (see also Lambova 2004b). However, the prosody-sensitive configurations are characterized by very different properties: they involve only enclitic auxiliaries, the apparent participle movement is subject to stricter locality conditions, and it does not have detectable discourse effects. In this article, I avoid this class of participle-auxiliary orders by using uniformly non-clitic auxiliaries, which unambiguously give rise to what I analyze as syntactic participle fronting.

¹¹ The constituent that undergoes movement according to the VP movement hypothesis must be large enough to include, for example, (lexical) aspect and voice, which are expressed by the participle (see footnote 8). I continue to refer to the relevant verbal projection as “VP” for clarity.

The VP movement analysis is consistent with the observation that participle fronting strands all other VP-internal material. It may, for example, be the case that the stranded material moves out of the VP prior to the fronting of the remnant VP (or is base generated outside the VP). According to this analysis, the VP-internal subject and any objects move out of the VP, as in (11a), and subsequently, the VP fronts, as in (11b).

- (11) a. beše Marija₁ тази история₂ [_{VP} t₁ **razkazvala** t₂]
 be.3S.PST Maria this story told
- b. [_{VP} t₁ **razkazvala** t₂] beše Marija₁ тази история₂ t_{VP}
 told be.3S.PST Maria this story
 ‘Maria had told this story.’

The remnant VP movement analysis has been particularly successful in languages like German, where VP movement and VP evacuating movements (e.g. scrambling) are available independently of one another (for discussion, see e.g. Webelhuth & den Besten 1987; Borsley & Kathol 2000; Ott 2009; 2018). However, well known empirical challenges arise in languages in which the required VP movement and VP evacuating movements are not independently found such as Hebrew (Landau 2006), Spanish (Vicente 2007; 2009), and Vietnamese (Trinh 2009).¹² The required VP movement is not available in Bulgarian either: a VP complement to a finite auxiliary in Bulgarian cannot undergo movement to a position preceding the auxiliary (see (9) and, for example, Lema & Rivero 1990; Rivero 1991; Wilder & Ćavar 1994; Lambova 2004b). There is also no evidence that all required VP evacuating movements are available: for example, DP objects follow VP-adjoined adverbs when stranded under participle fronting, as illustrated in (9a) (see Wilder & Ćavar 1994 for a similar argument that DP objects in general are not pied piped under participle fronting in Bulgarian and Bošković 2004 on the lack of scrambling in Bulgarian). Thus, in languages like Bulgarian, the remnant VP movement approach requires additional assumptions to ensure that VP movement and all VP evacuating movements apply jointly but are unable to apply independently of one another.

Further evidence that participle fronting in Bulgarian involves movement of just the participle is that it strands VP-internal elements that either are unable to move out of the VP in general or can be shown not to move out of the VP when participle fronting has taken place. For example, secondary predicates like the one in (12) cannot move to a VP-external position, as in (12b). Yet, they are routinely stranded under participle fronting, as in (12c), and cannot be pied piped, as in (12d) or (12e). Non-specific indefinite DP objects, which must presumably remain VP-internal (Diesing 1992), can likewise be stranded under participle fronting, as in (13).

- (12) a. Bjaha **videli** Marija pijana.
 be.3P.PST seen Maria drunk
 ‘They had seen Maria drunk.’
- b. *Bjaha pijana **videli** Marija.
 c. **Videli** bjaha Marija pijana.
 d. ***Videli** Marija pijana bjaha.
 e. ***Videli** pijana bjaha Marija.
- (13) a. **Pročel** beše Georgi nešto (no ne znam kakvo tačno).
 read be.3S.PST Georgi something but not know.1S.PRS what exactly
 ‘Georgi had read something (but I don’t know what exactly).’

¹² See also Jenks (2014) for related discussion regarding long-distance N movement in Moro.

- b. **Videli** bjaha njakakäv čovek.
 seen be.3P.PST some person
 ‘They had seen some (kind of) person.’

To handle these cases, the remnant VP movement analysis needs to ensure that moving VP-internal material out of the VP becomes obligatory when accompanied by VP movement even in languages in which such movement is not independently available.¹³ In fact, Fanselow (2002) offers a similar critique of the remnant VP movement analysis even for German (see also Ott 2010). The arguments are based on the observation that, as in Bulgarian, VP movement in German strands elements that do not typically move out of the VP (e.g. negative quantifiers, secondary predicates, adverbs). Similar results have also been established for Breton (Borsley & Kathol 2000), Hebrew (Landau 2006), Spanish (Vicente 2007; 2009), and Vietnamese (Trinh 2009).

Finally, these empirical challenges to the remnant VP movement approach can be supplemented by a theoretical consideration. As discussed in section 2 and by Landau (2006); Vicente (2007; 2009); Ott (2010), the conceptual arguments against verb movement of the type found in Bulgarian, Hebrew, and Spanish, which prompted the development of the remnant VP movement approach, no longer are problematic in the current theoretical landscape. In particular, one of the strongest arguments for a VP movement analysis of phenomena like participle fronting in Bulgarian has been that the movement lands in a specifier. This theory-internal argument, however, loses force in the context of a theory that allows head movement to specifier positions and which predicts the existence of head movement with phrasal (A-bar) movement properties. Thus, in the remainder of the article, I adopt the hypothesis that participle fronting targets a head (even though remnant movement may receive empirical support in the analysis of other phenomena crosslinguistically).¹⁴

3.3 *The landing site of participle fronting*

In the literature on participle fronting in Bulgarian, the finding that it involves the movement of a single head has typically led to the conclusion that head movement is implicated. However, since the distinction between a head and a phrase is no longer a

¹³ An alternative is to claim that the material stranded under participle fronting in Bulgarian is not, in fact, VP-internal but base generated outside the VP. As a reviewer points out, following the approach proposed by Haider (1990), Fanselow (2002) maintains a VP movement analysis of verb fronting in German by assuming that the thematic arguments of the verb can (but do not have to) be introduced outside of the VP projection of the verb. Instead, they can be introduced as part of the projection of the finite auxiliary (for discussion of how theta role assignment needs to work under this proposal and other necessary assumptions, see Fanselow 2002). Given this, it can be claimed that what undergoes fronting is the VP projection which is the complement to the auxiliary and which only contains V. If verbal arguments are to be base generated as part of the projection of the auxiliary in Bulgarian, they must be introduced either as rightward specifiers to the auxiliary (because the order is “Aux V arguments”) or as sisters to Aux in a non-binary branching structure. A related suggestion by Migdalski (2006) is that PP arguments are base generated outside the VP in Bulgarian and that this is the reason they are not pied pied along with the VP in participle fronting. It is unclear, however, if any independent evidence for base generating PP arguments to V outside the VP can be provided in Bulgarian, and if this approach generalizes to other kinds of arguments.

¹⁴ Another way to maintain the VP movement approach to participle fronting invokes scattered deletion (e.g. Wilder 1995; Nunes 1999; 2004; Bošković 2001; Fanselow & Ćavar 2002; see Lambova 2004b; c and Tasseva-Kurkchieva & Dubinsky 2009 on Bulgarian). According to the scattered deletion analysis, the derivation of participle fronting involves movement of the whole VP (without prior VP evacuating movements) and subsequent deletion of all VP-internal material within the fronted occurrence of the VP except for the participle and deletion of just the participle in the base occurrence of the VP. This analysis faces familiar issues. First, scattered deletion requires additional assumptions to rule out unattested patterns of fronting such as pronunciation of more than just the participle in the pre-auxiliary position. Second, the pattern of scattered deletion required to derive participle fronting in Bulgarian does not appear to be available in the language more generally: if it were, the language is expected to exhibit left branch extraction. Yet, to the best of my knowledge, Bulgarian does not exhibit left branch extraction (e.g. Bošković 2005). For further discussion of the difficulties with scattered deletion, see Bošković (2005: 14–15) on left branch extraction in Serbo-Croatian and Vicente (2007; 2009) on predicate clefting in Spanish.

theoretical primitive, being statable instead in terms of contextual relations, there is no necessary connection in the theory between the phrase structural status of an element and the types of movement it may undergo. Section 3.3.1 presents evidence that participle fronting, in fact, lands in a specifier position and section 3.3.2 identifies this position as the specifier of the finite auxiliary.

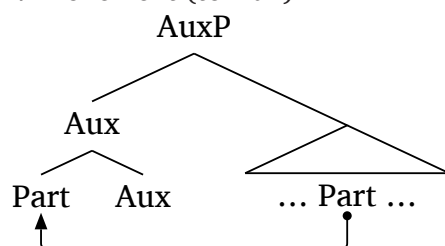
3.3.1 The fronted participle lands in a specifier

It has been observed that participle fronting in Bulgarian usually results in strict participle-auxiliary adjacency. For example, the finite auxiliary and a fronted participle cannot be separated by an adverb, a *wh*-phrase, or a subject (Caink 1999: 20; Lambova 2004b: 239; Franks 2008: 126):

- (14) Aspectual adverbs (Franks 2008: (58))
- (Vinagi) beše **čela** ljubovni istorii.
always be.3S.PST read love stories
'She had (always) read love stories.'
 - Čela** (* vinagi) beše ljubovni istorii.
read always be.3S.PST love stories
- (15) Wh-phrases (Caink 1999: (20))
- Kāde beše **pročel** knjigata?
where be.3S.PST read the.book
'Where had he read the book?'
 - ***Pročel** kāde beše knjigata?
read where be.3S.PST the.book
 - Pročel** beše knjigata.
read be.3S.PST the.book
'He had read the book.'
- (16) Subjects (Caink 1999: (20))
- (Georgi) beše **pročel** knjigata.
Georgi be.3S.PST read the.book
'Georgi had read the book.'
 - Pročel** (* Georgi) beše knjigata.
read Georgi be.3S.PST the.book

The apparently required adjacency between the fronted participle and the finite auxiliary has been taken as evidence that participle fronting is derived via head movement qua adjunction (Bošković 1997; Lambova 2004b; Franks 2008):

- (17) V-movement (to Aux)



However, the analysis of participle fronting in terms of the traditional head movement operation faces two challenges. First, it cannot account for the phrasal movement properties of

participle fronting discussed throughout section 3 and, second, it cannot account for the novel data introduced just below, which shows that the adjacency between a fronted participle and the finite auxiliary in participle fronting can be disrupted.

Although most, if not all, work to date appears to assume that strict participle-auxiliary adjacency is required, naturally occurring data reveal that morphosyntactically and prosodically independent words can, in fact, intervene between the participle and the auxiliary:

- (18) ... i vāpreki vsičko mu dali maj bjaha 4 godini zatvor.
and despite everything to.him given probably be.3P.PST 4 years prison
'... and despite everything they had probably given him 4 years in prison.'¹⁵

In this example, the phonologically independent *maj* 'probably' disrupts the participle-auxiliary adjacency typically observed under participle fronting. Parentheticals like *izgležda* 'it seems' below, also appear to be able to intervene between the auxiliary and a fronted participle in examples like the following:

- (19) ... i stanal, izgležda, bjah geroj ne samo za mladežite
and become seem.3S.PRS be.1S.PST hero not only for the.young.men
ot klasata na voinite , ...
from the.class of the.warriors
'... and it seems I had become a hero not only for the young men of the warrior class, ...'¹⁶

These facts indicate that participle fronting in Bulgarian does not involve head adjunction of the participle to the auxiliary (contra Lambova 2004b and Franks 2008; for related discussion, see also Bošković 1997 on Serbo-Croatian and Borsley et al. 1996 on Breton). If it did, and the participle and auxiliary formed a complex head, it would be unclear how morphosyntactically and phonologically/prosodically independent elements can break up this complex head. The present approach instead involves movement of the participle to a specifier position; in principle, this allows for an element to be merged in the structure prior to the merger of the participle. On the surface, an element introduced in this way would intervene between the auxiliary and the fronted participle. Thus, while the traditional head-to-head movement approach leaves no room for such intervention, the present approach allows for the disruption of the participle-auxiliary adjacency by morphosyntactically and phonologically/prosodically independent elements, as in (18)–(19).¹⁷ In addition, the observed tendency towards adjacency is still consistent with movement of the participle to a specifier position, especially if the participle lands in the specifier of the auxiliary: since a head and its specifier tend to be linearized next to one another, the apparent surface adjacency between a fronted participle and the finite auxiliary is unsurprising. The following section demonstrates that participle fronting indeed lands in the specifier of the finite auxiliary.

3.3.2 The fronted participle lands in the specifier of the finite auxiliary

Evidence for the hypothesis that participle fronting involves movement of the participle to the specifier of the finite auxiliary comes from the relative order of the fronted participle and other elements in the left periphery of the clause. For example, as discussed below,

¹⁵ Source: <http://forums.data.bg/index.php?showtopic=2090480&st=20> (accessed October 8, 2019).

¹⁶ Based on a naturally occurring example from the Bulgarian National Corpus (<http://search.dcl.bas.bg/>). One consultant reports that (19) sounds "poetic".

¹⁷ Pronominal clitics, which immediately precede the finite verb (unless this makes them clause-initial), can also intervene between the auxiliary and a fronted participle. However, this observation is less revealing since these clitics are not independent words and presumably form a complex morphosyntactic unit with the finite verb.

elements that are independently known to occupy the specifier of the finite auxiliary are unable to appear in that position in the presence of a fronted participle, and elements that are independently known to precede the specifier of the finite auxiliary also precede the fronted participle.

The relative order of the relevant left peripheral positions in Bulgarian is given in (20), which represents the consensus that has largely emerged in the literature on the left periphery of the language (e.g. Rudin 1986; 1988; 1990; Izvorski 1995; King 1995; Krapova 2002; Arnaudova 2003; Lambova 2004a; Krapova & Cinque 2005).¹⁸

(20) C — Topic(s) — Focus — finite verb/auxiliary

Example (21) shows that focused phrases immediately precede the finite verb (or auxiliary). This focus position is itself immediately preceded by any topicalized phrases, while the overt declarative complementizer immediately precedes the topicalized phrases.

(21) Mislja če toj knigata na Marija beše dal.
 think.1S.PRS that he_{TOP} the.book_{TOP} to Maria_{FOC} be.3S.PST given
 'I think that it was Maria that he had given the book to.'

It has further been demonstrated that (interrogative) *wh*-movement targets the position immediately preceding the finite verb (or auxiliary), i.e. the position otherwise occupied by focused phrases, as in (22) (e.g. Izvorski 1995; Bošković 1998; 1999; 2002; Lambova 2001; 2004a).¹⁹

(22) C — Topic(s) — Focus/WH — finite verb/auxiliary

This can be seen in examples like (23), which shows that, like focused phrases, interrogative *wh*-phrases immediately follow topics and precede the finite verb (or auxiliary):

(23) Az ne znam knjigata toj na kogo beše dal.
 I not know the.book_{TOP} he_{TOP} to whom be.3S.PST given
 'I don't know whom he had given the book to.'

It is furthermore impossible for interrogative *wh*-phrases to precede topicalized phrases, as Izvorski (1995) and Lambova (2004a) demonstrate. This finding is inconsistent with *wh*-movement to a position higher than the declarative complementizer C in (22) (Rudin 1986; 1988).²⁰

¹⁸ The list of elements in (20) is not exhaustive. For example, C in (20) represents the declarative complementizer *če* 'that' but not the interrogative complementizer *dali* 'whether', which is lower in the structure (Krapova 2002). It has also been argued that there is an additional topic position above the declarative C at least in some dialects of Bulgarian (Rudin 1986). However, for present purposes focusing on the elements in (20) will be sufficient.

¹⁹ There are certain nuances as far as the behavior of *wh*-phrases goes that do not need to concern us for present purposes. For example, the position designated as WH in (22) is likely the position targeted by non-D-linked *wh*-phrases, while other *wh*-phrases, including *wh*-relative pronouns, target higher positions (Izvorski 1995; Krapova & Cinque 2005).

²⁰ Rudin's (1986; 1988) claim that *wh*-movement in Bulgarian targets Spec,C (or COMP in her terminology) is tightly connected to certain assumptions concerning the position of the question particle *li* and how far the finite verb moves in questions, which have been reevaluated since then (e.g. Izvorski 1995). It is, however, worth pointing out that there is agreement in the literature that *wh*-phrases immediately precede the finite verb (or auxiliary), presumably because they occupy the specifier of the head that hosts the finite element. In addition, even if *wh*-movement targets a position lower than the declarative complementizer, this does not affect central insights of e.g. Rudin (1988), such as the existence of two types of multiple *wh*-fronting languages. On how to incorporate this insight into a system where *wh*-movement targets a lower position than Spec,C, see Lambova (2004a: 45–47) and Boeckx & Stjepanović (1999).

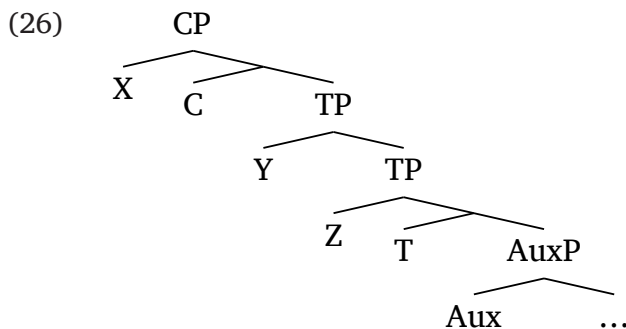
- (24) a. Popitah go novata si kniga na kogo šte posveti.
 asked.1S.PST him the.new REFL book_{TOP} to whom will dedicate
 ‘I asked him to whom he will dedicate his new book.’
- b. *Popitah go na kogo novata si kniga šte posveti.
 asked.1S.PST him to whom the.new REFL book_{TOP} will dedicate

Finally, as expected if interrogative wh-phrases and focused phrases compete for the same position, the two types of phrases do not cooccur (i.e. they have complementary distributions). In the following examples (Rudin 1986: 95–96), the external argument *Ivan* can either precede the wh-phrase, in which case it is interpreted as a topic (25b), or can appear postverbally, where it receives a discourse neutral interpretation (25a). However, *Ivan* cannot be interpreted as focused in the immediately preverbal position in the presence of a wh-phrase, which must itself immediately precede the finite element (25c).²¹

- (25) a. Kakvo pravi **Ivan**? (neutral)
 what do.3S.PRS Ivan
 ‘What is Ivan doing?’
- b. **Ivan** kakvo pravi? (topic)
- c. *Kakvo **Ivan** pravi? (focus)

In sum, as indicated in (22), interrogative wh-phrases and focused phrases target the same position. For additional arguments to this effect based on the placement and interpretation of adverbs as well as word order in compound tenses, see Izvorski (1995).

Given the relative ordering in (22) of the relevant left peripheral elements in Bulgarian, I use the labels in (26) for the relevant head and phrasal positions. The surface position of the finite verb/auxiliary is T (see Krapova 1999 on the Bulgarian auxiliary system). Spec,T in Bulgarian can then be occupied by one or more wh-phrases or a focused constituent (or one or more quantified negative elements, or a non-topical subject, as noted in footnote 21).²² Adjunction to TP is available for constituents that are interpreted as topics as well as for certain adverbials. C is the position of the declarative complementizer *če* ‘that’.

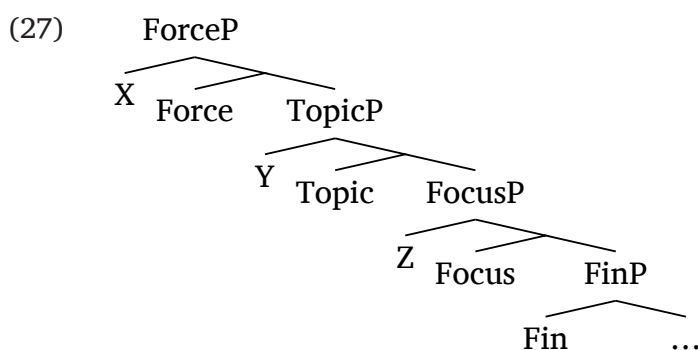


²¹ In (25a), the subject stays in its base generated vP/VP-internal position, while the finite verb raises over it (Rudin 1986: Section 2.5.2; Izvorski 1995: Section 3.2). The fact that the subject in these example cannot appear in the immediately preverbal position even with a discourse neutral interpretation suggests that the discourse neutral subject competes for the same position as focused and wh-phrases. Izvorski (1995) also observes that this is the position occupied by quantified negative elements (see also Krapova 2002).

²² Bulgarian allows multiple wh-phrases and quantified negative elements to precede the finite verb. Presumably, they are accommodated in the structure as multiple specifiers of T (Rudin 1988; Richards 1997). While T can have multiple specifiers in those cases, the relevant phrases must all be elements of the same “type”: e.g. all wh-phrases or all quantified negative elements. T cannot have multiple specifiers of different types: e.g. a wh-phrase and a focused element which is not a wh-phrase.

It is important to note that, while there is largely consensus in the literature about the relative positions of these left peripheral elements, the relevant positions have been labeled in many different ways. For example, the surface position occupied by the finite verb/auxiliary, whose specifier is occupied by interrogative *wh*- and focused phrases, has been called I (Rudin 1990; Boeckx & Stjepanović 1999), F(ocus) (Izvorski 1995), Agr (Krapova 1999), and Δ (Lambova 2004a, following Koizumi 1994 where it is called Pol), among others.

Crucially, it is the fact that interrogative *wh*- and focused phrases occupy the specifier of the finite auxiliary that matters for present purposes, not the label of the relevant projection(s). In this connection, it is worth noting that this structure can be translated into Rizzi's (1997) "split CP" type of structure as long as the relative positions of the relevant elements are maintained. Thus, Force in (27) would plausibly correspond to C in (26), Focus to T, and Fin to Aux:



One difference between (26) and (27) concerns the position of topicalized phrases, which are adjuncts in the former but specifiers of a dedicated Topic head in the latter. In addition, as discussed in Lambova (2004a: 44–47), the word order facts of Bulgarian do not require an additional Topic head below Focus, as originally proposed by Rizzi (1997).

It is furthermore worth pointing out that the relative order of the relevant left peripheral elements in Bulgarian is robustly attested crosslinguistically in genetically and geographically unrelated languages. For example, Bhatt (1999) uncovers the same order among declarative complementizer (subordinator), topic, *wh*- or focused phrase and finite verb in Kashmiri.²³

- (28) *Kashmiri* (Bhatt:1999: 165)
 Me chi patah ki batI kemyi khyav.
 I.DAT AUX know that rice who eat.PST
 'I know (that), as for food, who ate it.'

Bhatt (1999) assumes that the finite verb is in a M(ood) head and that the *wh*- or focused phrase moves to its specifier while topics adjoin to MP.

The hypothesis that the fronted participle in Bulgarian is in Spec,T in (26) can now be tested by determining the relative order of the participle and the relevant left peripheral elements described above. As predicted, fronted participles in Bulgarian are in complementary distribution with elements independently known to occupy Spec,T: immediately pre-verbal interrogative *wh*-phrases (e.g. Borsley et al. 1996) and focused constituents (exemplified below) as well as negative quantified elements, and non-topical subjects (not shown). For example, (29a) and (30a) do not involve participle fronting and Spec,T in

²³ It is also possible for *wh*-phrases to precede topics as in languages like Icelandic and Yiddish.

them is occupied by a wh-phrase (*kāde* ‘where’) and a focused phrase (*film* ‘movie’), respectively. Examples (b) and (c) show that, if the participle precedes the finite auxiliary as the result of participle fronting, the wh- or focused phrase cannot also precede the auxiliary. This is expected if participle fronting targets Spec,T. A similar type of movement is posited by Koopman (1984), who argues that predicate clefts in Vata involve A-bar movement of a verb into the position targeted by wh-movement.²⁴

- (29) a. *Kāde beše pročel Georgi knigata?*
 where be.3S.PST read Georgi the.book
 ‘Where had Georgi read the book?’
- b. **Kāde pročel beše Georgi knigata?*
 where read be.3S.PST Georgi the.book
- c. **Pročel kāde beše Georgi knigata?*
 read where be.3S.PST Georgi the.book
- (30) a. *Decata film bjaha gledali.*
 the.kids_{TOP} movie_{FOC} be.3P.PST watched
 ‘The children had watched a movie.’
- b. **Decata film gledali bjaha.*
 the.kids_{TOP} movie_{FOC} watched be.3P.PST
- c. **Decata gledali film bjaha.*
 the.kids_{TOP} watched movie_{FOC} be.3P.PST

As mentioned above, Bulgarian allows multiple specifiers of T (e.g. multiple wh-phrases in constituent questions) but requires all such specifiers to be of the same type (e.g. all wh-phrases). This requirement presumably causes the unacceptability of examples (b) and (c) in (29) and (30), which involve a participle and a wh-/focused phrase: a participle and a wh-/focused phrase are not of the same type in the relevant sense. This requirement can be implemented as a set of constraints that T imposes on (the type or category of) its specifier(s). Suppose, in particular, that distinct flavors of T are available, each compatible with some type of specifier but not others. For example, the wh-flavor of T is only compatible with wh-phrases occupying its specifier(s) and is not able to host a fronted participle because it is not a wh-element.²⁵ This requirement, imposed by T on its specifier(s), is independent of the property of T that ensures that all relevant phrases of a particular type are attracted to (multiple specifiers of) T. This property can be implemented in terms of Multiple Agree (Ura 1996 et seq.) or an Attract-All feature (Bošković 1999), as has been done for Bulgarian and other multiple wh-fronting languages.

Furthermore, if the fronted participle occupies Spec,T, elements that precede Spec,T should be able to precede a fronted participle. Although most work to date appears to assume the participle must be clause-initial (though see Embick & Izvorski 1997: Footnote 13), a fronted participle in Bulgarian appears to be able to follow adverbials adjoined to TP, as predicted. In (31a), the fronted participle follows the adverb *verojatno* ‘probably’ and in (31b) it follows the PP *po nareždane na Kaligula* ‘by Caligula’s order’.

²⁴ As pointed out in footnote 8, the participle in Bulgarian is formed via inflection driven, word forming raising (Amalgamation, according to Harizanov & Gribanova 2019) of the verbal root to pick up aspectual, voice and agreement features. As a result, the participle precedes the external argument in examples like (29a). Here, the external argument stays in its base generated vP/VP-internal position because Spec,T is occupied by a wh-phrase (Izvorski 1995: 58–59; see also footnote 21).

²⁵ This is essentially Bhatt’s (1999) approach to the left periphery of Kashmiri, according to which the head M that hosts the finite verb triggers different kinds of “operator movement” depending on the feature(s) it carries (e.g. focus, wh, or topic).

The last clause of (31c) involves topicalization of *i ti* ‘you also’ (lit. ‘and you’), presumably via adjunction to TP. As a result, the *i ti* phrase immediately precedes the fronted participle *otvārnal* ‘responded’ within the relative clause which modifies *sāštoto* ‘the same’.

- (31) a. Verojatno **minali** bjaha večē po ulicata.
probably passed be.3P.PST already on the.street
‘They had probably already passed on the street.’
- b. Po nareždane na Kaligula **prinudili** gi bjaha da izkarvat
by order of Caligula forced them be.3P.PST DA make.3P.PRS
prehranata si ...
the.living REFL
‘By Caligula’s order, they had forced them to make their living ...’²⁶
- c. Ti kakvo otvārna? — reče Pavljo. — Sāštoto, kakvoto i
you what respond.2S.PST say.3S.PST Pavljo the.same what and
ti **otvārnal** bi.
you responded be.2S.PST
‘‘How did you respond?’’ asked Pavljo. ‘‘The same way you would have responded.’’²⁷

As mentioned above, adjuncts to TP can be interpreted as topics. It is therefore expected for a fronted participle to be able to follow such a topic, adjoined to TP. While Embick & Izvorski (1997) observe that fronted participles can only marginally follow subjects, examples like (31c) show that, given an appropriate context, it is possible to find elements adjoined to TP that are immediately followed by a fronted participle

Finally, despite early claims that participle fronting in Bulgarian is ‘‘restricted to root contexts, just like Germanic V2 and English subject-aux inversion’’ (Lema & Rivero 1990: 336), later research has established that participle fronting is available in a variety of embedded clauses in the language. As predicted by the movement to Spec,T analysis, in embedded contexts, the fronted participle follows overt complementizers in a variety of embedded contexts:

- (32) a. Lambova (2004c: 270)
Kazah če **privāršili** bjahme rabotata.
say.1S.PST that finished be.1P.PST the.work
‘I said that we had finished the work.’
- b. Embick & Izvorski (1997: (10))
Ako **pročel** e knjigata, ...
if read be.3S.PRS the.book
‘If he has read the book, ...’
- c. Izmāčvaše se carjat ne tolkoz ot uplaha za svojta smārt,
torment.3S.PST REFL the.tsar not so.much by fear for the.own death
a deto **obidil** be monaha.
but that offended be.3S.PST the.monk
‘The tsar wasn’t tormented so much by fear for his own life but because he had offended the monk.’²⁸

In sum, fronted participles are in complementary distribution with occupants of Spec,T (e.g. pre-verbal interrogative wh-phrases and focused constituents) and they follow

²⁶ Source: Bulgarian National Corpus (<http://search.dcl.bas.bg/>).

²⁷ Source: Bulgarian National Corpus (<http://search.dcl.bas.bg/>).

²⁸ Source: Bulgarian National Corpus (<http://search.dcl.bas.bg/>).

elements independently known to occupy higher positions than Spec,T (e.g. topics, adverbial adjuncts to TP, overt complementizers). The relative placement of fronted participles with respect to these left peripheral elements supports the hypothesis that participle fronting targets Spec,T. The attraction of participles and other elements to Spec,T can be modeled within a probe-goal conception of Internal Merge, by the postulation of a feature [F] on T that needs to be valued by a goal in its c-command domain; this feature has the EPP property (Chomsky 2000) and, as a result, attracts the goal (e.g. a participle) to Spec,T.²⁹

3.4 The locality of participle fronting

Participle fronting in Bulgarian is subject to the locality constraints that govern phrasal movement (i.e. Internal Merge), rather than traditional head movement qua adjunction. One way in which participle fronting behaves like phrasal movement with respect to locality is that it violates the Head Movement Constraint (HMC):³⁰

- (33) Head Movement Constraint (Travis 1984)
An X^0 may only move into the Y^0 which properly governs it.

In the following two examples, the participle *pročel* ‘read’ moves across the finite auxiliaries *bjah* ‘was’ and *e* ‘is’, which are themselves assumed to be heads in the clausal spine:

- (34) a. *Bjah pročel knigata.*
be.1S.PST read the.book
‘I had read the book.’
b. **Pročel** *bjah knigata.*
- (35) a. *Razbrah če e pročel knigata.*
understand.1S.PST that be.3S.PRS read the.book
‘I understood that he has read the book.’
b. *Razbrah če pročel e knigata.*

Whether this kind of movement constitutes a violation of the HMC depends on the analysis of the construction. It does if participle fronting involves movement of the participle to the specifier of the auxiliary but it does not if participle fronting involves the traditional head movement operation and adjunction of the participle to the auxiliary. According to the latter analysis, the surface participle-auxiliary order is due not to the participle moving past the auxiliary but to linearizing the participle to the left of the auxiliary within the complex head formed by head movement qua adjunction. However, participle fronting in Bulgarian can cross more than one auxiliary. In (36), the participle *pročel* ‘read’ moves over the auxiliaries *šte* ‘will’ and *săm* ‘am’. In (37), the participle *gledali* ‘watched’ moves over the finite ‘be’ auxiliary as well as the participle of the second ‘be’ auxiliary.

- (36) a. *Šte săm pročel knigata.*
will be.1S.PRS read the.book
‘I’ll have read the book.’
b. **Pročel** *šte săm knigata.*

²⁹ The content of the [F] feature is not entirely clear, given the large class of elements that can be attracted to Spec,T. For example, it seems difficult to equate [F] with (some subset of) ϕ because a variety of elements are attracted to Spec,T that do not obviously carry ϕ -features. It is plausible, as an alternative, that [F] is just an EPP feature—or an OCC(urrence) feature, as in (Chomsky 2004: 24)—that does not discriminate among categories (like the feature on C that triggers movement to Spec,C in verb-second clauses in Germanic).

³⁰ This is the reason participle fronting in Bulgarian has been viewed as an instance of “long” head movement (e.g. Lema & Rivero 1990; Rivero 1991; 1992; 1994; Roberts 1994; Wilder & Čavar 1994).

- (37) a. Decata biha bili **gledali** film.
 the.kids be.3P.PST be.P.PST.PRT watched movie
 ‘The kids would have watched a movie.’
- b. **Gledali** biha bili decata film.

If the traditional HMC obeying head movement analysis is to be maintained in cases of participle fronting crossing multiple auxiliaries, it would have to be posited that the participle first adjoins to the lower auxiliary and the resulting unit subsequently adjoins to the higher auxiliary. Such an account would require additional stipulations to account for why the order of the participle and the two auxiliaries does not comply with the Mirror Generalization (Baker 1988). Alternatively, it could be posited that the participle first adjoins to the lower auxiliary and then excorporates to adjoin to the higher auxiliary. This approach requires the Ban on Excorporation to be abandoned in the absence of independent evidence that its abandonment is desirable in Bulgarian or crosslinguistically. In addition to these conceptual objections to employing the HMC-obeying head movement operation here, there is also the empirical argument discussed in section 3.3.1: the head-to-head adjunction analysis predicts strict participle-auxiliary adjacency, contrary to fact. Instead, I assume that the examples above involve true violations of the HMC (Harizanov & Gribanova 2019). Such violations are expected if participle fronting is an instance of Internal Merge, not governed by the HMC. This analysis also accounts for the observed participle-auxiliary order without the need for additional stipulations (having to do with the Mirror Generalization, the Ban on Excorporation, or anything else).

If there is more than one participle in a clause, as in the examples above, where one is the participle of an auxiliary verb and one is the participle of a non-auxiliary (“lexical”) verb, it has been claimed that only the latter can undergo participle fronting (Embick & Izvorski 1997: (30)):

- (38) a. Šte si **bila** **pročela** knjigata.
 will be.2S.PRS be.S.F.PST.PRT read the.book
 ‘You will have had read the book.’
- b. **Pročela** šte si **bila** knjigata.
 read will be.2S.PRS be.S.F.PST.PRT the.book
- c. ***Bila** šte si **pročela** knjigata.
 be.S.F.PST.PRT will be.2S.PRS read the.book

The participle of an auxiliary has been claimed to be unable to undergo participle fronting even though it is higher than the participle of the lexical verb and thus closer to the landing site. This state of affairs does not conform to Relativized Minimality, which may lead us to expect that, all else equal, it would be the higher participle that moves in a configuration with multiple participles. Here, I essentially follow Embick & Izvorski 1997 in assuming that “participle fronting produces a discourse effect involving the participle, and in cases like [(38)] the fronting of the non-thematic participle is degraded because it applies to an element without semantic content, and which is therefore not likely to be affected by discourse factors.” In the present theoretical context, this means that Internal Merge of the auxiliary participle is possible (i.e. the syntactic derivation produces an output) and that the unacceptability of (38c) is due to the association of a particular discourse effect with non-lexical material (presumably, an interface effect).³¹

³¹ Jónsson (1991) takes this approach to a similar constraint on stylistic fronting in Icelandic: “only elements that carry semantic/lexical meaning can be stylistically fronted.” A reviewer remarks that German likewise bans movement of an intermediate auxiliary even if that auxiliary is, for example, *können* ‘can/be able’, which plausibly carries richer semantic/lexical meaning. This may indicate that verb fronting in German really is the result of phrasal movement rather than head movement or that there is an independent constraint that bans movement of an intermediate auxiliary like *können*.

Another way in which participle fronting in Bulgarian behaves like phrasal (A-bar) movement with respect to locality is that it can escape both non-tensed and tensed clauses, as shown by Harizanov & Gribanova (2019):

- (39) a. **Zagazil** može da e.
gotten.in.trouble might DA be.3S.PRS
'He might've gotten in trouble.'
- b. **Pročeli** mi kazaha če bili tri knigi.
read to.me say.3P.PST that be.3P.PST.DUB three books
'They told me that they had read three books.'
- c. **Zaspali** si pomislih če bjaha decata veče.
fallen.asleep REFL think.1S.PST that be.3P.PST the.kids already
'I thought the children had already fallen asleep.'

The participle *zagazil* 'gotten in trouble' is extracted out of the non-tensed *da*-clause (traditionally designated as "subjunctive"), where it heads the complement of the auxiliary *e* 'is'. In the other two examples above, each of the participles moves out of a finite tensed clause headed by the complementizer *če* 'that'. Similar cross-clausal head movement, with the key characteristics of A-bar movement, has been observed in other languages as well (see e.g. Landau 2006 on Hebrew and Trinh 2009 on Vietnamese).

Another phrasal movement behavior that characterizes participle fronting in Bulgarian is that it is subject to island constraints. The examples in (40) show that participle fronting cannot take place across the boundary of an array of domains that are opaque for extraction in Bulgarian: adjunct islands, complex "NPs", and relative clauses, respectively.

- (40) a. ***Polučila** si trāgna predi da e podarāka si.
received REFL leave.3S.PST before DA be.3S.PRS the.gift REFL
'She left before she received her gift.'
- b. ****Kupil** čuh novinata če e knjigata.
bought hear.1S.PST the.news that be.3S.PRS the.book
'I heard the news that he bought the book.'
- c. ***Vidjal** e tova čovekāt kogoto e Ivan.
seen be.3S.PRS this the.person whom be.3S.PRS Ivan
'This is the person whom Ivan has seen.'

The unacceptability of the following examples shows that adjuncts, complex "NPs" and relative clauses are indeed islands for A-bar movement (interrogative wh-movement):

- (41) ***Kakvo** si trāgna predi da e polučila?
what REFL leave.3S.PST before DA be.3S.PRS received
'What did she leave before she received?'

(42) Rudin (1986: 32, 158)

- a. ***Kakvo** čuh novinata če e kupil?
what hear.1S.PST the.news that be.3S.PRS bought
'What did I hear the news that he bought?'
- b. ***Koj** e tova čoverkāt kogoto e vidjal?
who be.3S.PRS this the.person whom be.3S.PRS seen
'Who is this the person whom he saw?'

Furthermore, participle fronting—like V-fronting in Hebrew (Landau 2006) and Vietnamese (Trinh 2009) and like the movement of non-arguments more generally—is subject to weak islands (e.g. negative islands):

- (43) ***Pročel** ne beše novata kniga.
 read not be.3S.PST the.new book
 ‘He had not read the new book.’

In sum, participle fronting in Bulgarian exhibits the locality of A-bar movement (e.g. wh-fronting, focalization, topicalization).

3.5 The discourse contribution of participle fronting

Participle-auxiliary orders are usually not discourse neutral (e.g. Embick & Izvorski 1997: Section 3.2; Lambova 2004b: 243; Lambova 2004c: 270; Franks 2008: 125) and a fronted participle can, in fact, be associated with an array of discourse functions. Since the focus of investigation in this article is the syntactic properties of participle fronting, the following remarks about its discourse contribution are brief and simply list a few discourse contexts in which a fronted participle can be found. A fronted participle can be used in an answer to a question as in (44), where the participle in the answer is originally part of the VP that corresponds to the wh-phrase in the question. A fronted participle can also be interpreted as contrastive in question/answer contexts like (45). Fronted participles can also appear in an out-of-the-blue context like (46), where the participle presumably introduces a new topic of discourse, and in a context like (47) in which the discourse already contains a previous mention of the participle.

- (44) a. Q: Kakvo bjaha pravili decata včera?
 what be.3P.PST done the.kids yesterday
 ‘What had the children done yesterday?’

- b. A: **Gledali** bjaha televizija.
 watched be.3P.PST television
 ‘They had watched TV.’

- (45) a. Q: Pročel li beše Georgi knigata?
 read Q be.3S.PST Georgi the.book
 ‘Had Georgi read the book?’

- b. A: Ne, **kupil** ja beše (samo).
 no bought it be.3S.PST only
 ‘No, he had (only) bought it.’

- (46) **Valjalo** beše cjal den.
 rained be.3S.PST all day
 ‘It had rained all day.’

- (47) Toj beše iskal drugo, **iskal** beše tja da mu kaže ...
 he be.3S.PST wanted else wanted be.3S.PST she DA to.him tell.3S.PRS
 ‘He had wanted something else, he had wanted her to tell him ...’³²

In sum, participle fronting exhibits discourse effects that, in Bulgarian and crosslinguistically, are typically associated with A-bar movement (e.g. phrasal A-bar movement, in

³² Source: Bulgarian National Corpus (<http://search.dcl.bas.bg/>).

particular).³³ This is expected if, like phrasal movement, participle fronting involves Internal Merge; the discourse contribution of participle fronting can thus be understood in the same way that the discourse contribution of phrasal A-bar movement is understood. While it is not within the scope of this article to settle on a specific proposal about the relationship between (A-bar) movement and information structure, I assume for concreteness that the discourse contribution of any instance of Internal Merge, including in the case of participle fronting, can be derived from the principles that govern the mapping from syntax to information structure (e.g. Diesing 1992; Rizzi 1997; Neeleman & van de Koot 2008) and no special marking on the moved constituents themselves is necessary in the syntax (Chomsky 2008: 151). That is, the fronted participle is associated with its discourse function at the interface on the basis of the structural position it occupies and does not need to bear any special discourse related features in the syntax.

3.6 Summary

The properties of participle fronting in Bulgarian described in this section are all hallmark properties of syntactic A-bar movement and follow from the assumption that participle fronting is derived via Internal Merge of the participle to a specifier position. It is expected that prosodic factors do not affect the nature and distribution of participle fronting given that the phenomenon involves Internal Merge in the syntax (section 3.1). That participle fronting displaces a head rather than a phrase follows from the assumption that Internal Merge applies to the participle directly (section 3.2). In addition, given that Internal Merge obeys the Extension Condition and targets the root node, the fronted participle lands in a specifier position (section 3.3.1). Assuming that the relevant specifier is that of T accounts for the distribution of the fronted participle with respect to a range of left peripheral elements in the T and C layers of the clause (section 3.3.2). Finally, the treatment of participle fronting in terms of Internal Merge explains why it is subject to locality constraints on A-bar movement, rather than the Head Movement Constraint (section 3.4), and why it can have discourse effects (section 3.5).

4 Consequences and extensions

4.1 The typology of available movements

Allowing Internal Merge to apply in the same way to heads and phrases is a direct consequence of a minimal set of assumptions about structure building (Bare Phrase Structure or Merge + Label, and the Extension Condition) and is empirically supported by the existence of participle fronting in Bulgarian and similar phenomena in other languages.³⁴ It also avoids additional stipulations such as amendments to the Extension Condition in (2) or ancillary conditions like the Chain Uniformity Condition (CUC) in (3). In addition to allowing head-to-specifier movement, as observed in participle fronting in Bulgarian, abandoning the CUC also allows phrases to undergo movement and project from their derived positions. While this derivational scenario is admittedly not a standardly assumed possibility, certain kinds of relativization have, in fact, been analyzed as involving movement of a phrase which projects in its derived position (e.g. Larson 1987; Izvorski 2000; Iatridou et al. 2001; Bhatt 2002; Donati 2006; Donati & Cecchetto 2011; Cecchetto & Donati 2018). It remains to be seen if other phenomena can also be insightfully understood in terms of projecting phrasal movement.

³³ In its discourse contribution, participle fronting in Bulgarian is not unlike “long” head movement in Breton (Borsley & Kathol 2000: 67; see also Schafer 1997) and stylistic fronting in Icelandic (Holmberg 2017).

³⁴ The focus here has been on syntactic head movements with A-bar properties. However, the Internal Merge analysis of syntactic head movement leads to the expectation that A-movement of heads may also exist. The long-distance movement of N in Moro out of DP and into a subject position, described by Jenks (2014), may be an example of such movement.

As discussed in the literature on this type of projecting phrasal movement, for it to be allowed, we also need to abandon the stipulation that the target of movement—i.e. the root node—always projects:³⁵

- (48) Target of movement projects (e.g. Chomsky 1995: 260)
The target of movement projects (not the moving item).

An additional consequence of abandoning the “Target of movement projects” stipulation is that it allows heads to undergo movement and project from their derived positions.³⁶ The existence of such reprojecting head movement has been independently argued for on the basis of certain V and N movements, such as what are traditionally called V-to-C and N-to-D movement (e.g. Ackema et al. 1993; Koenenman 2000; Bury 2003; Fanselow 2003; 2009; Chomsky 2008; Georgi & Müller 2010).

The end result of abandoning both the CUC and the “Target of movement projects” is that movement of both heads and phrases targets the root node and both the moving element and the target of movement can in principle contribute to the label of the newly created syntactic object. This predicts that we should find, using descriptive terms, both head/phrase movement to specifier positions and “(re)projecting” head/phrase movement. An initial survey of the available case studies (see the references above) indicates that the predicted derivational scenarios are indeed attested crosslinguistically. If so, however, a broader question arises: why have constraints like the CUC and the “Target of movement projects” seemed empirically necessary in the first place? The answer suggested in section 4.2 is that many derivational scenarios that are in principle possible are ruled out or rendered deviant in particular languages and configurations by a confluence of independent factors.

4.2 *Ways of restricting Internal Merge*

The proposed unified analysis of syntactic head and phrasal movement posits that Internal Merge can in principle target both heads and phrases. Yet, it is generally recognized that not all conceivable movements are attested crosslinguistically, and that many movements yield deviant interpretations at the interfaces. For example, while movement of a participle (V head of VP) is available in Bulgarian, movement of the VP headed by such a participle is not (section 3.2).³⁷ Why is this the case in Bulgarian and, more generally, what governs whether a head or a phrase (or both/neither) can undergo Internal Merge in any given instance? The availability of syntactic head movement to specifier positions calls for a systematic investigation of how to appropriately restrict the power of the grammar so that it accurately reflects the empirical reality. In this section, I take an initial step in this investigation in the context of participle fronting in Bulgarian, and suggest some general directions for future inquiry.

In principle, Internal Merge may be subject to both interface conditions and narrow syntactic constraints. The former presumably do not constrain the application of Internal Merge directly; instead, they are conditions on the semantic and phonological representations

³⁵ This stipulation was proposed for implementations in which Merge itself incorporates a labeling step (e.g. Chomsky 1995) but it survives in implementations in which Merge and Label are independent (e.g. Chomsky 2008; 2013; 2015), although its effects may be achieved in different ways.

³⁶ This is also why the “Target of movement projects” is an independent stipulation from the CUC. They differ in whether they (dis)allow reprojecting head movement: such movement is allowed by the CUC but disallowed by the “Target of movement projects”.

³⁷ As noted in footnote 11, the labels “V” and “VP” are used here for expository reasons. “V” is the participle, which contains the verbal root as well as aspectual, voice, and agreement morphology; the relevant “VP” constituent is then the verbal projection headed by the participle, which contains the smaller projections associated with the verbal root, aspect, voice and agreement.

created on the basis of the structures generated by (Internal) Merge, and can thus lead to deviant pairings of semantic and phonological representations. In contrast, narrow syntactic constraints (e.g. anti-locality, certain island constraints, etc.) directly restrict the application of Internal Merge within narrow syntax. Given this much, while Internal Merge can in principle apply to both heads and phrases, independent constraints of these two varieties may rule out certain movements in certain configurations (either directly or as the result of generating deviant outputs). Below I review some proposals for blocking movement of a phrase XP while allowing movement of its head X. At least some of these proposals are consistent with the theoretical assumptions made so far and with the available empirical facts of participle fronting in Bulgarian. However, due to the scope of the issues involved, I leave the choice among the possibilities described below for future work.

The issue of determining whether head or phrasal movement takes place in a given configuration has been recognized before (e.g. Matushansky 2006; Harizanov & Gribanova 2019; Preminger 2019), although in slightly different contexts. In the case of participle fronting in Bulgarian, the issue is to allow V movement while disallowing VP movement. This issue is particularly pressing, given that within Bare Phrase Structure (Chomsky 1995), as well as within the Merge + Label approach to phrase structure (Chomsky 2013; 2015), the label of the VP is the same as the label of the V: the V is identified as the label of both V and VP. Thus, a probe searching for some feature, e.g. [F] in the case of participle fronting in Bulgarian, would enter into a relation with VP rather than with V because VP is closer to the probe (Rizzi 2016: 106; Preminger 2019: 24).³⁸ Given this, how can the theory make room for syntactic head movement? One solution is to allow the probe to search for the phrase structural status of the goal. This amounts to allowing the phrase structural status of a syntactic object to be a possible search criterion along with features like [person], [number], [gender], [wh], etc. However, this essentially accounts for the distribution of head vs. phrase movements by stipulation and is particularly undesirable if there are deeper generalizations about their distribution. For these reasons, it is commonly assumed—e.g. explicitly by Preminger (2019) and implicitly in much other work—that probes search for their goals using a criterion that is strictly featural. Such considerations rule out any solution that relies on probing directly for phrase structural status.

A possible response to this objection may be to posit an independently grounded feature that encodes the relevant phrase structural distinction between heads and phrases. Matushansky (2006) adopts a version of this approach by positing “different triggering mechanisms” for phrasal and head movement: “whereas phrasal movement is based on Agree, head movement is triggered by the independently motivated mechanism of C-Select” (Matushansky 2006: 79). However, within the present set of assumptions and, in particular, having relegated the word forming head displacements to PF, there may be little motivation for proposing two separate triggering mechanisms. Given that both head and phrasal syntactic movement are assumed to be Internal Merge, it must be triggered in the same way in both cases. Another version of this general approach is adopted in Rizzi (2016), which relies on a feature *Lex* which marks lexical items as such and differentiates phrasal projections of lexical items from the lexical items themselves. However, introducing such a diacritic seems to reintroduce primitive X-bar theoretic distinctions into the Merge-based conception of phrase structure building. In addition, this approach has to grapple with the question of why the relevant *Lex* feature on a head X is not projected up to the phrasal level XP like any other feature of X (see Rizzi 2016 for discussion of this issue).

³⁸ The discussion in this section assumes for concreteness that Merge is a triggered operation (e.g. Chomsky 1995; 2000; 2001). However, the issue of determining whether Internal Merge applies to a phrase XP or its head X also arises if Merge is “free” (e.g. Chomsky 2004; 2008; Boeckx 2010; Ott 2010; Chomsky et al. 2017).

Another way to allow for head movement to apply in a limited set of contexts, within a triggered Merge theory, makes crucial reference to the nature of the feature that triggers Merge. In particular, if movement is triggered by a discourse related (criterial/A-bar) feature such as Q, Top, or Foc on a probe, the moving head X must bear a matching feature. Yet, for XP movement to be prevented in this case, XP must not bear this feature, meaning that the relevant feature fails to percolate from X to XP as the result of projection. This can be accomplished by relaxing the assumption that the label of XP is the same as the label of X and allowing X and XP to have distinct labels. Vicente (2007) and Harizanov & Gribanova (2019) propose that some features, such as discourse related features, do not have to percolate, with such percolation perhaps subject to crosslinguistic variation. However, the proposal in section 3.5 assumes that discourse related features are not present in the syntax and cannot trigger Internal Merge.³⁹

Preminger (2019) offers a different characterization of how and when X movement is licensed instead of XP movement. Following essentially the same reasoning laid out above, Preminger observes that a probe would encounter a phrase XP in its c-command domain before it encounters the head, X. As a result of this A-over-A-like condition, head movement of X is blocked. Preminger's approach allows head movement to take place by incorporating the assumption that, like other locality conditions on movement, this A-over-A-like condition is subject to the Principle of Minimal Compliance (PMC):

(49) Principle of Minimal Compliance (Preminger 2019: 27; see Richards 1998 for the original formulation):

Once a probe P has successfully targeted a goal G, any other goal G that meets the same featural search criterion, and is dominated or c-commanded by G (= dominated by the mother of G), is accessible to subsequent probing by P irrespective of locality conditions.

In other words, the A-over-A-like condition needs to be satisfied only once with respect to a given probe. Thus, if a relation is established between a probe and a goal XP which satisfies the condition, “subsequent relations between the same probe and (some projection of) [X] are [...] exempt from it” (Preminger 2019: 28). Head movement of X should therefore be possible as long as the relevant probe first enters into a relation with some projection of X. Finally, Preminger assumes that if it is possible for less material—e.g. the head of a phrase as opposed to the phrase itself—to undergo movement, then it will:

(50) Minimal Rmerge (Preminger 2019: 28):
If X^0/X_{\min} is movable, move only X^0/X_{\min} .

Given this much, the theory allows local head movement (for Preminger, the kind that obeys the Head Movement Constraint) of X since (c-)selection of XP trivially satisfies the A-over-A-like condition for the purposes of the PMC. In turn, non-local head movement of X to Y (such as participle fronting in Bulgarian) also requires a prior syntactic relationship between Y and XP but (c-)selection cannot be the relevant relation here (because Y and XP are not sisters). Preminger suggests that the relevant relation is instead agreement. In the case of Bulgarian participle fronting, the ϕ -features on the finite verb (in T) can be viewed

³⁹ In addition, if discourse related features are assumed to be present in syntax, they do appear to percolate from a head to its phrase in Bulgarian: e.g. with appropriate intonation, a focused D (such as a demonstrative) obligatorily pied pipes the whole DP to the left-peripheral focus position (i.e. the language does not allow left branch extraction whereby D is fronted on its own, stranding the rest of the DP).

as a reflex of this agreement relation (rather than of direct agreement with the subject). Namely, the participle V agrees with the external argument and the ϕ -features V acquires percolate to VP; then T agrees with VP in ϕ -features, rather than with the external argument (in an example like (9a)).⁴⁰

Yet another way to allow head movement of X in a restricted set of circumstances is to consider it a sort of a “last resort” movement taking place just in case movement of XP is not available. That is, in the relevant cases, an apparently less local goal (the head) is able to satisfy the probe’s requirements but only if no apparently more local goal (the phrase) is able to. In the case of participle fronting, the probe T searches for the feature [F] and encounters the VP first; if VP is unable to move for an independent reason (one such reason is suggested below), the probe continues its search until it finds a goal that can undergo movement. In this case, it finds V next, which results in the attraction of V to the probe’s specifier. There may, in principle, be a number of possible reasons why XP movement is not available in such a configuration. In the case of Bulgarian, I suggest that VP may be immobile because it is not a complete extended projection.

This approach rests on two assumptions: (i) that the relevant verbal projection is not a complete extended projection (at least in Bulgarian) and (ii) that incomplete extended projections are immobile. Given Bošković’s (2014) contextual approach to phasehood whereby “the highest phrase in the extended projection of all lexical categories [...] functions as a phase” (and supposing that no other phrases function as phases), assumption (ii) is equivalent to saying that non-phasal constituents are immobile. This assumption has been adopted and defended independently (see e.g. Chomsky 2000; 2001; 2008; Holmberg 2001; Roberts 2010; Bošković 2018).⁴¹

A piece of evidence can be adduced which is consistent with assumption (i), that the VP headed by the participle is not a phase in Bulgarian (and therefore that it is not a complete extended projection). It relies on the argument, from Bošković (2014) and Harwood (2013; 2015) (and van Urk 2018 in a different context), that the phasehood of a phrase determines its elidability: “only phases and complements of phase heads can in principle undergo ellipsis; phrases that are neither phases nor complements of phase heads cannot undergo ellipsis” (Bošković 2014: 57). Thus, finding that a given phrase cannot be elided can, in principle, be explained by it not being a phase.⁴²

Consistent with the conjecture that they are not phases, active participial VP complements to the aspectual ‘be’ auxiliary cannot be elided in Bulgarian (see Lambova 2004a: 178–179 for additional examples):

- (51) a. *Marija beše često [razkazvala тази istorija] i Ivan beše sašto.
 Maria be.3S.PST often told this story and Ivan be.3S.PST too
 ‘Maria had often told this story and Ivan had too.’

⁴⁰ When there are two participles, both of which carry the external argument’s ϕ -features, as in (38), T must be able to Agree with the VP headed by the low (lexical verb) participle, skipping the higher one (because it is the participle of the lower, lexical verb that undergoes participle fronting).

⁴¹ Banning movement of incomplete extended projections correctly allows movement of both complete extended projections and heads such as the participle in Bulgarian, which is not an incomplete extended projection (because it is not an extended projection, following Grimshaw 2005: 4–6).

⁴² Of course, while non-phasehood is one of the reasons a phrase may be unelidable, there may be other, independent factors that can, in principle, prevent ellipsis of a constituent even if it happens to be a phase (Bošković 2014). It is, thus, an important task for future research to identify independent evidence for or against the phasal status of the relevant verbal projection in Bulgarian. Many of the diagnostics for phasehood—such as reconstruction and Quantifier Raising in Antecedent Contained Deletion (e.g. Fox 1998; Legate 2003) as well as subextraction possibilities (e.g. Abels 2003; Bošković 2014)—cannot be used conclusively in the language in general or in the specific case of VPs.

- b. *Te ne se bjaha [setili za nego], no nie se bjahme.
 they not REFL be.3P.PST remembered about him but we REFL be.1P.PST
 ‘They did not remember him but we did.’

In contrast, ellipsis is possible of AP and DP complements to the copula ‘be’ as well as of verbal projections that are larger than participial VPs such as the *da*-phrase complement of (modal) verbs like *može* ‘might/can/be able’ and *trjabva* ‘must’:⁴³

- (52) a. Trjabvashe da sme [svobodni], a nie ne bjahme.
 must.3S.PST DA be.1P.PRS free but we not be.1P.PST
 ‘We had to be free but we weren’t.’
- b. Te vse ošte ne bjaha [doktori], a nie veče bjahme.
 they yet not be.3P.PST doctors but we already be.1P.PST
 ‘They weren’t doctors yet but we were.’
- c. Lambova (2004a: 186)
 Ivan može [da pročete knjigata], a Ana trjabva.
 Ivan might.3S.PRS DA read.3S.PRS the.book but Ana must
 ‘Ivan might read the book but Ana must.’

If complements to the copula and modals are phases, we are in a position to understand why they are elidable. In addition, we also expect that they must be movable as well; this prediction is borne out (see also Rudin 1990: 434; Lambova 2004c: 282):

- (53) a. [Svobodni], trjabvashe da sme.
 free must.3S.PST to be.1P.PRS
 ‘We had to be free.’
- b. [Vnimatelno da pročetat statijata] trjabva.
 carefully DA read.3P.PRS the.article must.3S.PRS
 ‘They must read the article carefully.’
- c. Lambova (2004a: 177)
 [Da izprati pismoto] Ivan može.
 DA send.3S.PRS the.letter Ivan can.3S.PRS
 ‘Ivan can send the letter.’

The generalization that emerges is that complements to the copula and to modals can undergo movement, presumably, because these complements are phases (either DPs or APs or verbal projections that are larger than participial VPs, as indicated by the presence of the *da* particle). In contrast, the active participial VP complement of the aspectual ‘be’ auxiliary cannot undergo movement, which is expected if it is not a phase. As a result, the head of such complements becomes an eligible target for movement.

Given Bošković’s (2014) theory of contextually determined phasehood, where the maximal extended projection of a lexical item is a phase, the reason the active participial VP complement of the aspectual ‘be’ auxiliary is not a phase must be that it is not the maximal extended projection of the participle. In other words, the aspectual auxiliary must be a functional head (in the terminology of Grimshaw 2005) that is itself part of the extended projection of the participle. In contrast, since DP and AP complements to the copula are phases, they must be maximal extended projections of their respective lexical heads, N

⁴³ In this, VPs headed by a passive participle seem able to behave like complements to the copula and modals, suggesting that at least in some cases passive participial VPs are phases, unlike active participial VPs (see also footnote 5).

and A, while the copula is itself a lexical (rather than a functional) item anchoring its own extended projection (the clause). Likewise, the *da*-phrase complements to modals exemplified above must be maximal extended projections and the modals, like the copula, are lexical and project their own extended projections.⁴⁴

This conclusion is in line with the generalization that, in languages that in principle allow fronting of both V and VP, auxiliaries that allow V-fronting disallow VP-fronting and ones that allow VP-fronting disallow V-fronting (Lema & Rivero 1990: 341; 1992: 324; Rivero 1992: 369; Wilder & Ćavar 1994: 13). Rivero (1992), in particular, observes that auxiliaries which she characterizes as “functional” (such as aspectual auxiliaries) allow (“long”) V movement and block VP movement; on the other hand, auxiliaries which she characterizes as “lexical” (such as modals) block (“long”) V movement but allow VP movement. Rivero’s (1992) analysis of this dichotomy is couched in terms of proper government: a functional auxiliary cannot properly govern a VP trace while a lexical auxiliary behaves like a theta-marking verb and can thus properly govern the trace of its complement.⁴⁵

Because, in the general approach described here, movement of a head X is licensed only when movement of its phrase XP is not, we expect that movement of a phrase XP and movement of its head X are always in complementary distribution (in the absence, of course, of other interfering factors): either one or the other can apply in any given instance but not both (see Preminger 2019 for related discussion). While careful research into the crosslinguistic distribution of head and phrasal movement is needed, it seems that such complementarity is typically observed. For example, V- and VP-fronting have been reported to be in complementary distribution both crosslinguistically and within a single language. Languages that allow V-fronting (such as Icelandic) disallow VP-fronting, while languages that allow VP-fronting (such as the Mainland Scandinavian languages) disallow V-fronting (Holmberg & Platzack 1995: 222–223; Holmberg 2000: 470 on Stylistic Fronting). Additionally, as mentioned above, in languages where both V- and VP-fronting are possible (such as Romanian, Czech, and Breton; see Borsley et al. 1996), it has been reported that auxiliaries that allow fronting of their VP complements do not allow fronting of their complement’s head V, and vice versa.⁴⁶

⁴⁴ A further prediction of Bošković’s (2014) theory of phasehood is that the active participial VP will be a phase in a context where it happens to be the maximal extended projection of the verb. This is presumably the case when it appears as a nominal modifier, without the aspectual auxiliary or any other additional functional material, as in (i). As expected if the participial VP is indeed a phase in this case, it is able to undergo movement, as in (ii):

(i) Vojnicite, **svurshili rabotata rano**, uspjaha da se priberat predi zalez.
the.soldiers finished the.work early, manage.3P.PST DA REFL get.back.3P.PRS before sunset
‘The soldiers, having finished work early, managed to get back before sunset.’

(ii) **Svurshili rabotata rano**, vojnicate uspjaha da se priberat predi zalez.

⁴⁵ In languages in which VP movement seems to be generally available and (“long”) V movement generally unavailable, the head that takes VP as its complement (e.g. T or Aux) must be uniformly lexical in the relevant sense. The complement of such a head must be a phase (given, for example, the approach to phasehood in Bošković 2014) and therefore both movable and elidable. For example, in English the complement to modals like *can* and *might* is able to be fronted and elided (Samko 2016):

(i) Nobody thinks Jones can win the election, but [win it] he can.

(ii) Nobody thinks Jones can win the election, but he might.

The fronted/elided verbal projection in (i) is presumably a *vP* (e.g. Landau 2007; Samko 2016) with V amalgamating into *v* (e.g. Larson 1988; Harley 2009). If *vP* is a phase in English, as is generally assumed, it is predicted to be mobile and elidable (see Harwood 2015 for an elaboration of these and related ideas).

⁴⁶ There are some cases where it looks like the complementarity breaks down (e.g. Hebrew), where both V and VP can move. However, as Landau (2006) shows, at least in Hebrew, head movement targets V while phrasal movement targets *vP* rather than VP.

In sum, the proposed unified treatment of head and phrasal movement in terms of Internal Merge predicts that, in principle, both a phrase and its head should be able to undergo syntactic movement. This is not always true, as in the case of participle fronting in Bulgarian, where only the participle moves but not the verbal projection that it is the head of. In this section, I have reviewed a number of approaches to restricting the space of possible outputs of the grammar. Teasing out which of them are, in principle, viable in any given case, and in general, seems to me to be an important task for future research.

4.3 Extensions to other phenomena

Participle fronting in Bulgarian belongs to a large class of phenomena which involve A-bar head movement. While careful research into the nature of each such phenomenon is required, the current understanding of many of them seems to at least suggest that they may be amenable to a head-to-specifier movement analysis.⁴⁷ For example, in addition to Bulgarian, “long” head movement has been reported to exist at least in Romance (Early Italian, pre-20th century European Portuguese, Old Spanish, Catalan, Provençal, Romanian), Breton, West Slavic (Czech, Slovak, Polish), and South Slavic (Bulgarian, Macedonian, Serbo-Croatian, Slovene) (e.g. Lema & Rivero 1990; Rivero 1991; 1992; 1994; 2001; Roberts 1994; Wilder & Ćavar 1994; Borsley et al. 1996; Borsley & Kathol 2000). In at least some of these languages, such as Macedonian, Serbo-Croatian and Breton (Borsley et al. 1996; Borsley & Kathol 2000), the participle-auxiliary orders cannot be derived prosodically and require a syntactic head movement analysis.

Certain verb topicalization and predicate cleft constructions have likewise been reported to involve head movements with similar properties to participle fronting in Bulgarian. For example, the fronting of bare infinitives has been shown to behave like A-bar movement in all relevant respects in Vata (Koopman 1984), Hebrew (Landau 2006), Vietnamese (Trinh 2009), Spanish and Hungarian (Vicente 2009), Mandarin Chinese (Cheng & Vicente 2013). In the majority of these cases, a remnant VP movement analysis can be independently ruled out. Another potential candidate is stylistic fronting in Icelandic and Faroese (e.g. Maling 1980; Barnes 1987; Platzack 1987; Jónsson 1991; for an overview, see Holmberg 2017). If it can be conclusively established that stylistic fronting can target a single V head (e.g. Holmberg 2000) rather than a remnant VP (e.g. Ott 2018), the movement involved is a particularly good candidate for head-to-specifier movement as discussed in Jónsson (1991: 35) and Holmberg (2000: 453).

Overall, it seems to me that the unified treatment of syntactic head and phrasal movement developed here opens up a few potentially quite productive lines of inquiry having to do with the typology of possible syntactic movements predicted by the abandonment of the CUC and the “Target of movement projects” (section 4.1) and the related tasks of appropriately restricting the theory (section 4.2) and identifying additional cases of head-to-specifier movement (section 4.3).

Abbreviations

1 = first person, 2 = second person, 3 = third person, AUX = auxiliary verb, DA = *da* particle, DAT = dative case, DUB = dubitative mood, F = feminine, FOC = focus, MOD = modal verb, P = plural, PRS = present tense, PRT = participle, PST = past tense, Q = question particle, REFL = reflexive pronoun, S = singular, TOP = topic.

⁴⁷ This should also be true of head movements that exhibit A-movement properties such as the long-distance movement of N in Moro described by Jenks (2014).

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Competing Interests

The author has no competing interests to declare.

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