Head-adjunction is not Enough: Deriving Farsi Complex Predicates under Consistent Leftward Movements

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Abstract

In this paper, I address the verb phrase domain in Farsi and the Complex Verb domain, in particular, and highlight empirical data from verb-stranding *vP* ellipsis and from optional Topic/Focus verb fronting as pieces of evidence towards adopting Kayne (1994) and invariable leftward movements. I argue that head-final VP analyses such as Karimi (2005) and Rasekhi (2018) will have to rely on unmotivated excorporation operations, in addition to incorporation, to deal with ellipsis and verb cluster movement in sentences containing a complex predicate and the Future Tense Auxiliary verb *xaastan* 'to want/will'. By proposing an antisymmetric approach to deriving Farsi complex predicates, I show that verb clusters form phrasal constituents (as opposed to head constituents) in the derivation. I further analyze both ellipsis and verb fronting as instances of movement of these derived verbal constituents to left-peripheral XP projections, eliminating the need for excorporation while keeping movement consistently leftward.

Keywords: ellipsis, topic, fronting, scrambling, complex predicates, future auxiliary, verbal clusters, antisymmetry, predicate movement, left-peripheral positions

1 Background and introduction

Farsi has typically been described in the literature as a SOV language where VPs are head-final while other categories are head-initial (Folli, Harley, and Karimi 2005; Ghomeshi 1996; Hashemipour 1989; Karimi 1989, 2005; Mahootian 1993, among others). When it comes to simplex verbs, nominal (non-clausal) arguments and adjuncts canonically surface pre-verbally. This is shown in (1) where *pirhan* 'shirt' and *baraa Kimea* 'for Kimea' precede *xarid* 'bought'.

(1)　*Parviz baraa Kimea pirhan **xarid**.*
　　　Parviz for　　Kimea shirt　bought.3sg
　　　"Parviz bought shirt(s) for Kimea."

Clausal CP arguments of simplex verbs, on the other hand, surface post-verbally, as shown in the position of the CP *ke Kimea xune nist* 'that Kimea isn't home' with respect to *goft* 'said/told' in (2).

(2)   a.   *Parviz be Ali **goft***   [*ke Kimea xune nist*].
            Parviz to Ali said/told.3SG that Kimea home isnt.3SG

            "Parviz told Ali that Kimea isn't home."

      b.   * *Parviz be Ali* [*ke Kimea xune nist*]   ***goft***.
            Parviz to Ali that Kimea home isnt.3SG said/told.3SG

In addition to simplex verbs, Farsi has a wide range of complex predicates, which are verbs formed by a Non-Verbal (NV) predicate (Adj, N, P, Adv,...) and a Light Verb (LV). As (3) below shows, non-clausal arguments also precede complex verbs; in this case, the direct object *Kimea* precedes the predicate *bidaar kardan* 'to awaken'.

(3)   *Parviz Kimea-ro*   ***bidaar kard***.
        Parviz Kimea-DOM awake did.3SG

        "Parviz awakened Kimea."

Clausal arguments follow complex verbs as they do simplex verbs[1]. In (4), *ke in ketaab-o be-xune* 'to read this book' can only surface after the predicate *ghol daadan* 'to promise'.
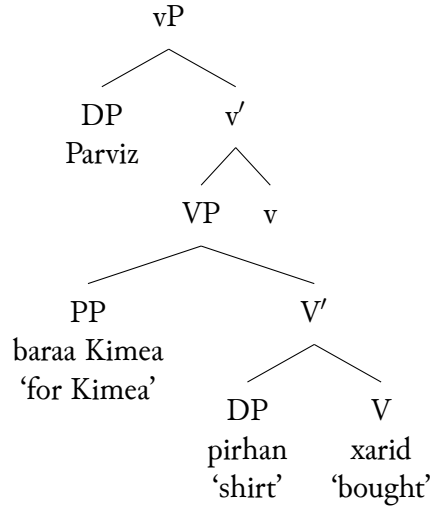
(4)   a.   *Parviz be Ali **ghol**   **daad***   [*ke in ketaab-o be-xune*].
            Parviz to Ali promise gave.3SG that this book-DOM SBJTV-read.3SG

            "Parviz promised Ali to read this book."

      b.   * *Parviz be Ali **ghol***   [*ke in ketaab-o be-xune*]   ***daad***.
            Parviz to Ali promise that this book-DOM SBJTV-read.3SG gave.3SG

            "Parviz promised Ali to read this book."

      c.   * *Parviz be Ali* [*ke in ketaab-o be-xune*]   ***ghol***   ***daad***.
            Parviz to Ali that this book-DOM SBJTV-read.3SG promise gave.3SG

Focusing on complex predicates, Folli, Harley, and Karimi (2005) build on the head-final VP structure in (5) and propose that non-verbal predicates head their own small clause projections and introduce the internal argument(s) (similar to V in VP) while light verbs occupy the *v* head, as shown in (6).
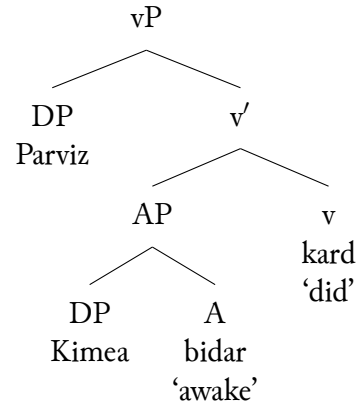
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[1]A further elaboration on the post-verbal position of clausal arguments is outside of the scope of this paper. However, see Aghaei 2006; Ahari 2023; Darzi 1996; Farudi 2007; Karimi 2001, 2005; Taleghani 2006; among others, for various accounts of this puzzle.
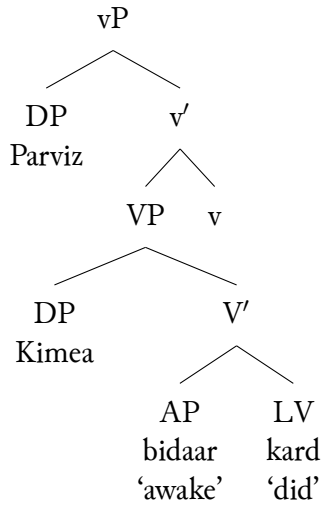
(5)

```
              vP
            /    \
          DP      v'
        Parviz    /\
                VP   v
               /  \
             PP    V'
         baraa Kimea  /\
         'for Kimea' DP    V
                  pirhan  xarid
                  'shirt' 'bought'
```

(6)

```
              vP
            /    \
          DP      v'
        Parviz   /  \
               AP     v
              /  \   kard
            DP    A  'did'
          Kimea  bidar
                'awake'
```

With a slight difference in the assumption for the base position of the NV and the LV, Rasekhi (2018) treats the two elements as a syntactic constituent that takes internal argument(s) like a V head does. So, extending Rasekhi's structure to (3) yields the following in (7):

(7)

```
              vP
            /    \
          DP      v'
        Parviz   /\
               VP   v
              /  \
            DP    V'
          Kimea  /  \
               AP     LV
              bidaar  kard
              'awake' 'did'
```

2   Some inconsistencies with head-final VP analyses

In this section, I point out some head-adjnction inconsistencies with head-final vP analyses that follow from Rasekhi (2018) and Karimi (2005). In 2.1.2, I discuss how extending Rasekhi's account of verb-stranding vP ellipsis to verbal clusters containing the Future Aux casts doubts on head-adjunction theories under a head-final verb phrase. In 2.2.2, I show that extending Karimi's data from Topic/Focus fronting of verbal elements also falls short in accounting for clusters involving the same Future Aux. Such theories must assume head-adjunction to both the left and the right of licensing heads, as well as resorting to excorporation out of complex heads. These assumptions impose inconsistencies that have also been raised by Zwart (1996) for West Germanic languages as problematic with respect to verb cluster formation.
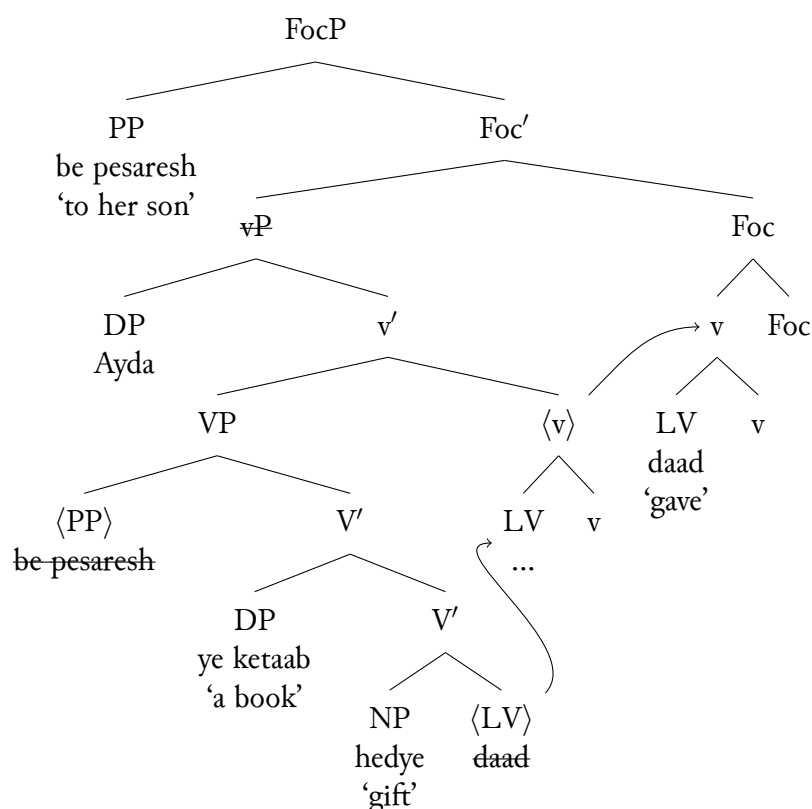
2.1 *v*-stranding *v*P ellipsis

2.1.1 Rasekhi's motivation

Rasekhi (2018) treats the NV and the LV as a syntactic unit as motivated by Farsi verb-stranding *v*P ellipsis data such as the following in (8). The sentence (8b) shows that in addition to the contrastive PP 'to her son' (contrastive with 'her daughter' in (8a)), the LV *daadan* 'give' alone can escape ellipsis. Additionally, it's also possible for the NV-LV complex verb *hedye daadan* 'gift giving' to escape ellipsis together in (8c).
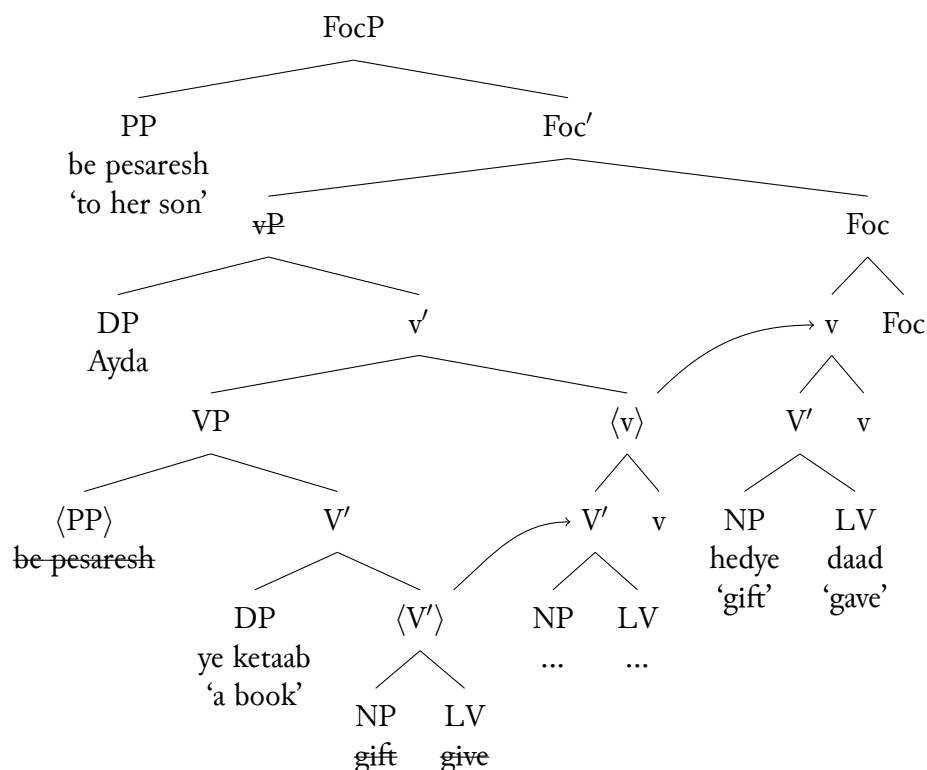
(8) a. *Aydaa be dokhtar-esh   ye ketaab **hedye** na-**daad**.*
     Aydaa to daughter-her a book   gift   NEG.give.3SG
     "Ayda didn't gift a book to her daughter."

   b. *Vali ~~Aydaa~~ be pesar-esh ~~ye ketab~~ **hedye daad**.*
     but ~~Aydaa~~ to son-her ~~a book gift~~   gave.3SG
     "But (she) gifted (a book) to her son."

   c. *Vali ~~Aydaa~~ be pesar-esh ~~ye ketab~~ **hedye daad**.*
     but ~~Aydaa~~ to son-her ~~a book~~ gift   gave.3SG

Rasekhi proposes that in such cases the *v*P is the ellipsis site and gets deleted, and the remnants must move out of the *v*P to a TP-internal FocP. Therefore, the PP raises to the specifier of the Foc.P and either the LV 'give' in (8b) or the [NV-LV] 'gift give' in (8c) raises to the *v* head and subsequently the head of FocP. These derivations are given below in (9) and (10), respectively.

(9) Raising the LV alone

(10) Raising the NP-LV complex

FocP
├── PP
│   be pesaresh
│   'to her son'
└── Foc′
     ├── vP
     │   ├── DP
     │   │   Ayda
     │   └── v′
     │   ├── VP
     │   │   ├── ⟨PP⟩
     │   │   │   b̶e̶ ̶p̶e̶s̶a̶r̶e̶s̶h̶
     │   │   └── V′
     │   │   ├── DP
     │   │   │   ye ketaab
     │   │   │   'a book'
     │   │   └── ⟨V′⟩
     │   │   ├── NP   LV
     │   │   │   g̶i̶f̶t̶   g̶i̶v̶e̶
     │   │   └── → V′   v
     │   │   NP   LV
     │   │   ... ...
     │   └── ⟨v⟩
     │   V′   v
     │   NP   LV
     │   ... ...
     └── Foc
          ├── → v   Foc
          └── V′   v
               NP   LV
   hedye   daad
               'gift'   'gave'

2.1.2   The ellipsis issue with the Future Auxiliary verb *xaastan* 'to want'

While simple cases like the one in (8c) seem to be straightforwardly accounted for by Rasekhi, sentences with a larger verbal cluster containing a complex verb and the Future Tense Aux *xaastan* 'to want' show that the NV+LV cannot consistently incorporate into higher heads as a unit. The following example in (11) shows that the negated Future Aux *na-xaahad* intervenes between the NV and LV elements of the complex predicate. When paired with ellipsis, the contrast in the verbal elements across the clauses must be captured by either the Aux+LV *xaahad dad* 'will give' together in (11b) or the whole cluster NV+Aux+LV *hedye xaahad dad* 'gift will give' in (11c) escaping the ellipsis site.

(11) a. *Aydaa be dokhtar-esh   ye ketaab **hedye** na-xaahad   daad.*
          Aydaa to daughter-her a book   gift   NEG.want.3SG give
          "Ayda will not gift a book to her daughter."

      b. *Vali A̶y̶d̶a̶a̶ be pesar-esh y̶e̶ ̶k̶e̶t̶a̶b̶ **hedye** xaahad   daad.*
          but A̶y̶d̶a̶a̶ to son-her a̶ ̶b̶o̶o̶k̶ ̶g̶i̶f̶t̶   want.3SG give
          "But (she) will gift (a book) to her son."

      c. *Vali A̶y̶d̶a̶a̶ be pesar-esh y̶e̶ ̶k̶e̶t̶a̶b̶ **hedye** xaahad   daad.*
          but A̶y̶d̶a̶a̶ to son-her a̶ ̶b̶o̶o̶k̶ gift   want.3SG give

To derive (11c), the NV(NP)-LV head would have to first incorporate into the *v* head. The complex *v* head should be able to further raise to the Foc head. To account for the position of

the Aux in the only possible NV-Aux-LV order, however, the LV would have to excorporate out of the complex Foc head to right-adjoin to the Aux as suggested in (12).

(12)
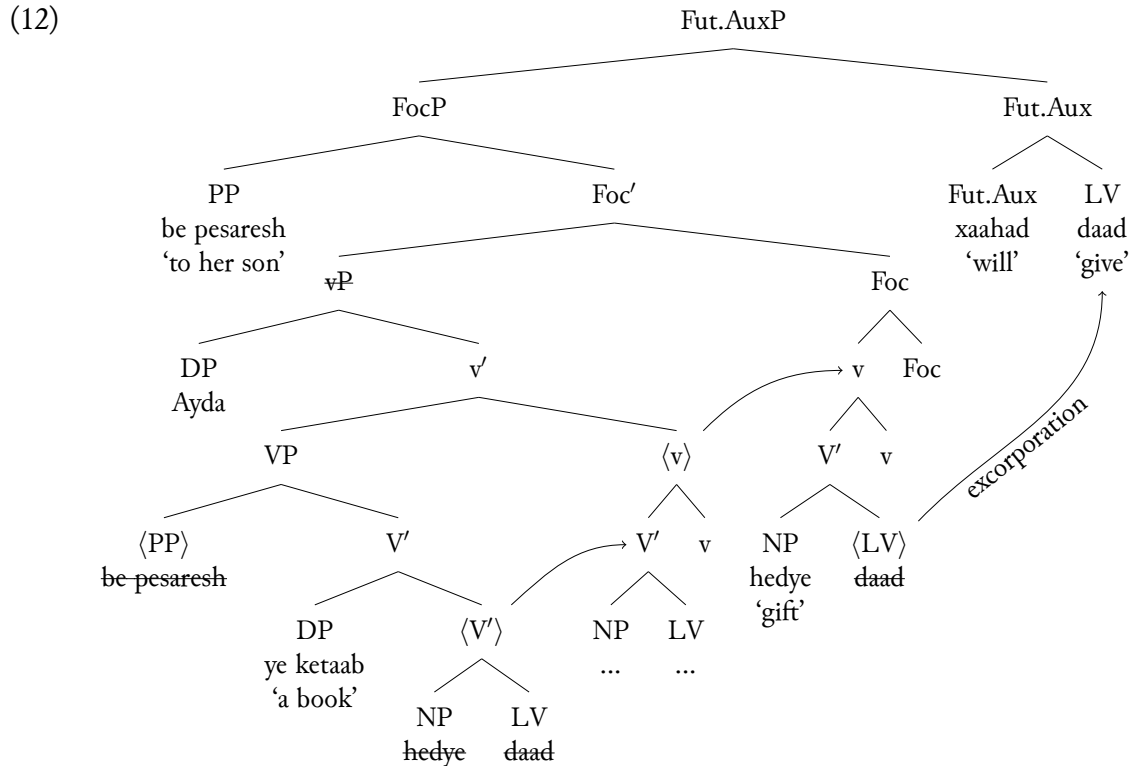
This is not desirable as the derivation would have to impose an excorporation requirement inconsistent with all other head movements as incorporation, which is not motivated beyond deriving the word order. Furthermore, such excorporation is not predicted by either Roberts (1991) or Koopman (1995) for head adjunction because the theories only allow either the incorporee (the *v* head that adjoins to the Foc head) or the host (the Foc head that *v* adjoins to) to excorporate. Alternatively, assuming Foc projects higher than the Aux, the LV would have to raise to the Aux head independent of the NV, which would strand the NV and derive (11b). However, it would leave the possibility of the three elements escaping the ellipsis site as a unit in (11c) unexplained. Therefore, I argue that the extended verb-stranding ellipsis data in (11) and the facts in (12) reveal clear theoretical inconsistencies for the head final accounts in the verb phrase and show that a simple head-adjunction account cannot straightforwardly explain the verb stranding facts. I take this as a piece of evidence for the need to propose an alternative account for the base VP structure. Additionally, I will show in the following section that a head-final VP analysis is also insufficient in explaining the extended data from the leftward movement of the verbal clusters.

2.2   Topic/Focus fronting and optional verb raising

2.2.1   Karimi's account

Karimi (2005) observes that in Farsi the scrambling of a contrastive nominal element to the left periphery allows what appears to be optional verb fronting. In (13), the simplex verb *didan* 'to see' can optionally front following the scrambling of the direct object 'Kimea'. In (14), the same

possibility exists for the verb *daadan* 'to give' following the scrambling of the subject 'Kimea'.

(13) *KIMEA-ro$_i$ **didam**$_j$ ⟨Kimea-ro⟩$_i$ tu xiaabun ⟨**didam**⟩$_j$*
       Kimea-DOM saw.1SG   in street
       "It was Kimea that I saw in the street."   (Karimi 2005, p. 160)

(14) *KIMEA$_i$ **daad**$_j$ ⟨Kimea⟩$_i$ ketaab-ro be dust-esh   ⟨**daad**⟩$_j$*
       K   gave.3SG   book-DOM to friend-her
       "It was Kimea who gave the book to her friend."   (Karimi 2005, p. 160)

Karimi (2005) proposes that such cases involve the optional head movement of the verb to a higher Focus position; in these examples, the DPs raise to the Spec of FocP and *v* has adjoined to Foc. The same sort of verb movement is triggered in topicalization as well, such as in (15), for which Karimi assumes direct object movement to the Spec of TP and verb movement to T.

(15) *un film-ro$_i$ **didan**$_j$ una ⟨un film-o⟩$_i$ ⟨**didan**⟩$_j$.*
       that movie-DOM saw.3SG they
       "They saw that movie."   (Karimi 2005, p. 159)

The interaction between verb raising and a complex predicate in the following example shows that the movement of both the NV and the LV elements *gharz daadan* 'loan giving' in (16b) is generally the only acceptable option for speakers.

(16) a. ?? *KIMEA$_i$ **daad**$_j$ ⟨Kimea⟩$_i$ ketaab-ro be dust-esh   **gharz** ⟨**daad**⟩$_j$*
           K   gave.3SG   book-DOM to friend-her loan
           "It was Kimea who loaned the book to her friend."

       b. *KIMEA$_i$ **gharz daad**$_j$ ⟨Kimea⟩$_i$ ketaab-ro be dust-esh   ⟨**gharz daad**⟩$_j$*
           K   loan gave.3SG   book-DOM to friend-her

Since Karimi treats the NV and the LV as syntactically independent in the base position, it would have to be stated as a requirement of left peripheral movement that all verbal elements must front together. This would mean that NV incorporates into the LV prior to fronting. So far, this doesn't seem to pose any serious problem for the head-adjunction under head-finality approach. However, head incorporation alone cannot explain the verb movement data when the Future Aux enters the picture yet again.

2.2.2 The verb movement issue with the Future Auxiliary

In data involving a complex verb and the Future Aux *xaastan* 'to want', all three elements NV-Aux-LV must move together suggesting they behave as unit. In (17a), it is ungrammatical to front the LV *daadan* 'to give' alone, stranding the NV *gharz* 'loan' and the Aux 'want'. Raising the Aux and the LV (stranding the NV) in (17b) doesn't make it any better. The fronting of the entire NV-Aux-LV cluster in (17c) is the only option for most speakers.

(17) a. * *KIMEA$_i$ **daad**$_j$ ⟨Kimea⟩$_i$ ketaab-ro be dust-esh   **gharz xaahad**   ⟨**daad**⟩$_j$*
           K   gave   book-DOM to friend-her loan   want.3SG
           "It is Kimea who will loan the book to her friend."

b. ?? *KIMEA_i **xaahad** **daad**_j ⟨Kimea⟩_i ketaab-ro be dust-esh* **gharz**
   K   want.3SG give   book-DOM to friend-her loan
   ⟨**xaahad daad**⟩_j

c. *KIMEA_i **gharz xaahad** **daad**_j ⟨Kimea⟩_i ketaab-ro be dust-esh*
   K   loan want.3SG give   book-DOM to friend-her
   ⟨**gharz xaahad daad**⟩_j

There is again no clear way of forming a complex head that contains both the complex verb elements and the Fut Aux through incorporation alone, and further fronting such a head. If the NV incorporates into the LV first, the successive adjunction of the NV-LV cluster to the Aux head would yield the ungrammatical sequences NV-LV-Aux or Aux-NV-LV. Alternatively, if the LV incorporates into the Aux head independent of NV and only the Aux-LV cluster fronts, (17b) is predicted to be grammatical. In any case, (17c) is unaccounted for due to there being no straightforward account of how the NV forms a head with the rest of the cluster. Therefore, some (remnant) phrasal movement of the projection containing all the verbal elements seems to be neccessary to account for the data. I take this observation as another argument against assuming a head-final *v*P and relying on head-adjunction as the source of movement. Whether one adopts (a) Karimi's independence for the NV and LV in the base position followed by incorporation through the course of the derivation or (b) Rasekhi's NV-LV dependence followed by excorporation, the behavior of larger verbal clusters that include the Future Aux remains unexplained for both ellipsis and verb cluster movement. In Section 3, I propose an alternative approach to deriving Farsi complex predicates that assumes a base head-initial structure for the VP (similar to other categories) following Kayne (1994) and derives the canonical word order through consistent leftward movements.

3 An XP movement analysis

In this section, I propose that the verbal clusters that escape ellipsis in (11c) and front in (17c) are not complex heads but derived XP constituents. More especifically, two types of constituents are formed in the derivation of complex predicates: (a) a *v*P/AuxP that contains the light verb (and the auxiliary verb, when present), and (b) a PredP that contains the non-verbal element, the light verb, and the auxiliary. In addition to eliminating the need for excorporation, this approach unifies ellipsis and fronting under XP movement to the left periphery; while ellipsis allows for either the *v*P/AuxP or the PredP to escape the ellipsis site, Topic/Focus fronting requires the highest verbal projection PredP to move.

3.1 Deriving the complex predicate

Without resorting to excorporation, I propose that the derivation of Farsi complex verbs (and all sentences) involves consistent leftward movements and conforms to Kayne (1994) Spec-Head-Comp configuration. I propose that all phrases are head initial and the SOV linear order of Farsi is due to a series of feature driven movements that license the arguments as well as the Non-verbal predicate in the Spec of designated FPs. The licensing positions that I propose for Farsi

follow from the analysis of Zwart (1993), according to which there is a functional projection triggering the movement of the direct object to a position higher than the verb cluster and below the subject. I propose that Farsi also has functional projections of this nature that attract the direct object and the indirect object and the preverbal position of the arguments is due to movement to specifiers of these projections. Another projection that I adopt from Zwart that is essential for the leftmost position of the non-verbal predicate in verb clusters is PredP. Zwart proposes PredP as the licensing position for small clause predicates and particles in Dutch, as a projection below the licensing position of the object(s) and higher than the position of the verb that the non-verbal predicate is related to.

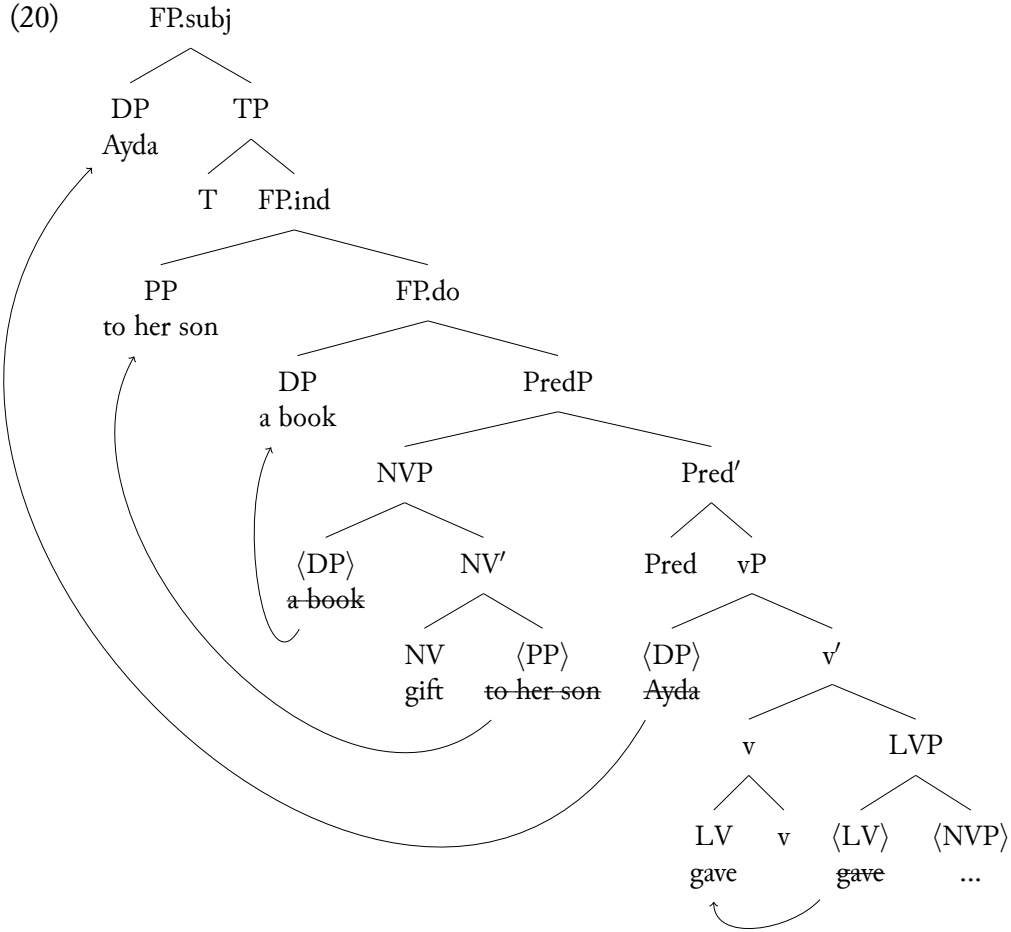### 3.1.1 Complex predicate derivation without auxiliaries

Starting with (18) (the non-ellipsis counterpart to (8c)), I propose that all verb phrases are head-initial and the non-verbal element *hedye* 'gift' acts as the head of a small clause NV Phrase (NVP) which introduces the internal arguments *ye ketaab* 'a book' and *be pesar-esh* 'to her son'. The light verb heads its own LVP projection above NVP. The external argument 'Aydaa' is further introduced in a *v*P, head of which attracts the LV head. These steps are shown in (19).

(18) *Aydaa be pesar-esh ye ketab **hedye daad.***
Aydaa to son-her a book gift   gave.3SG
"Aydaa gifted a book to her son."

(19)
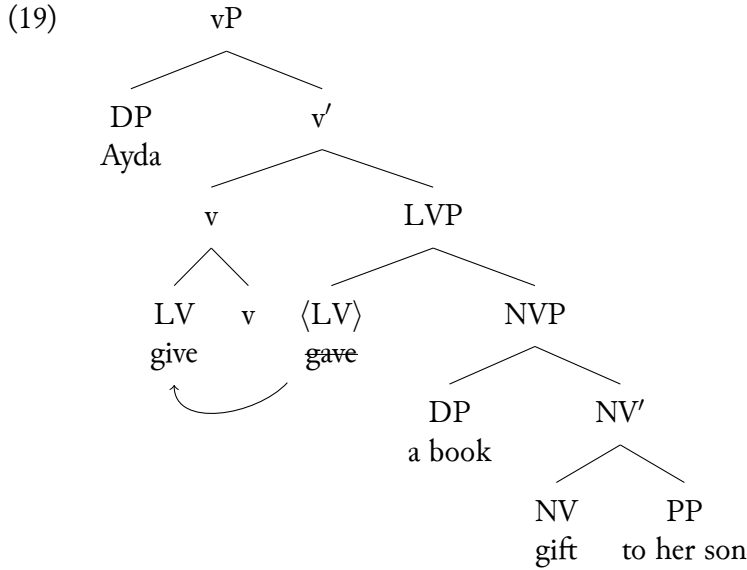
Adopting Zwart's hypothesis, I assume that a PredP functional projection merges above all other verbal items and below the derived position of the object. The specifier of the PredP ends up hosting the small clause non-verbal predicate. According to Zwart, one of the conditions for licensing this position is that this phrase can only project above the *v*P that hosts the non-verbal phrase's original licensor (the light verb). This turns out to be the case in (19) since the LV adjoins to *v*. In fact, all complex predicate derivations prepose the non-verbal projection through movement to [Spec,PredP]. I further make the rather radical assumption that the internal arguments inside [Spec,PredP] must move to specifiers of their licensing projections

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for EPP reasons (FP.do and FP.ind). The external argument must also raise to its designated licensing position FP.subj. The full derivation is given in (20) below:
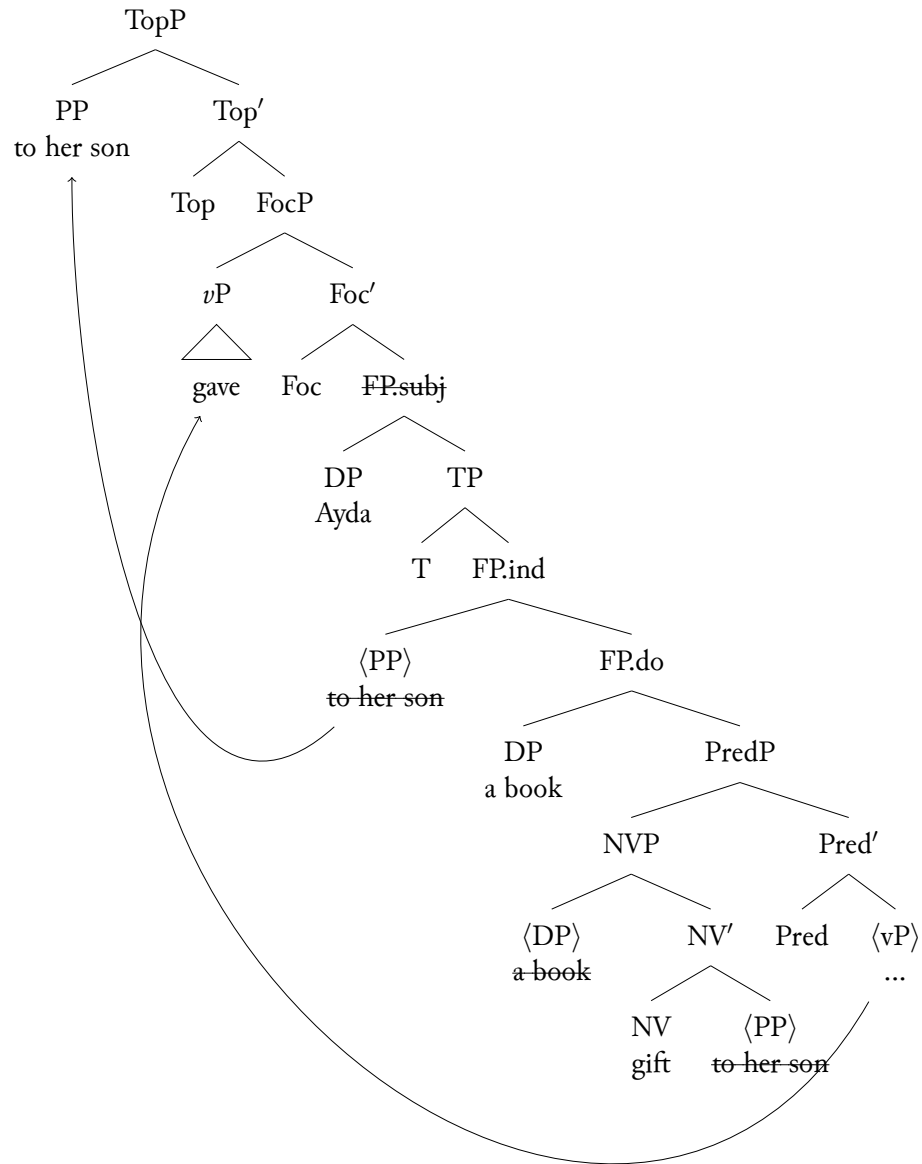
(20)

FP.subj
- DP Ayda
- TP
  - T
  - FP.ind
    - PP to her son
    - FP.do
      - DP a book
      - PredP
        - NVP
          - ⟨DP⟩ a̶ ̶b̶o̶o̶k̶
          - NV′
            - NV gift
            - ⟨PP⟩ t̶o̶ ̶h̶e̶r̶ ̶s̶o̶n̶
        - Pred′
          - Pred
          - vP
            - ⟨DP⟩ A̶y̶d̶a̶
            - v′
              - v
                - LV gave
                - v
              - LVP
                - ⟨LV⟩ g̶a̶v̶e̶
                - ⟨NVP⟩ ...

With this derivation in place, the *v*P below the PredP forms its own XP constituent that can escape ellipsis in (21b) below through (remnant) movement alongside another contrasted XP to a left-peripheral position outside of the ellipsis site. Alternatively, the PredP constituent can be targeted in the same way to account for (21c), where the non-verbal element also survives ellipsis. More specifically, I still adopt Rasekhi's assumption that Focus heads (bundled with features) can license the ellipsis of their complement, but instead take this Foc head to be above the entire FP.subj clause. This Foc head requires the movement of a verbal constituent which stands in contrastive relationship to the verb from the antecedent clause. Above this FocP, Farsi also makes use of Topic phrases or perhaps other specific functional phrases to which the contrasted internal and external arguments can move. The two verb cluser stranding options are shown in (22) and (23), respectively.

(21) a. *Aydaa be dokhtar-esh ye ketaab **hedye** na-**daad**.*
      Aydaa to daughter-her a book gift NEG.give.3SG
      "Ayda didn't gift a book to her daughter."
   b. *Vali ~~Aydaa~~ be pesar-esh ~~ye ketab~~ **hedye daad**.*
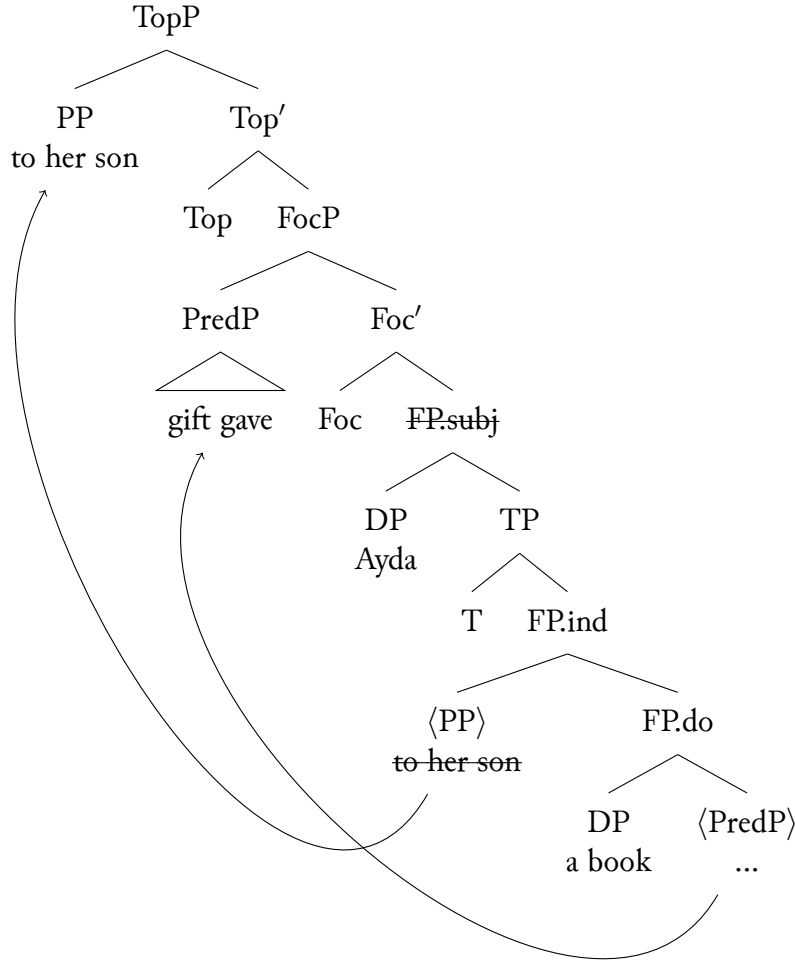   but ~~Aydaa~~ to son-her ~~a book gift~~ gave.3SG

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"But (she) gifted (a book) to her son."

c. *Vali ~~Aydaa~~ be pesar-esh ~~ye ketab~~ **hedye daad.**
but ~~Aydaa~~ to son-her ~~a book~~ gift gave.3sg

(22) The *v*P can move to satisfy the Focus head's V feature

TopP
- PP
  to her son
- Top′
  - Top
  - FocP
    - *v*P
      - gave
    - Foc′
      - Foc
      - ~~FP.subj~~
        - DP
          Ayda
        - TP
          - T
          - FP.ind
            - ⟨PP⟩
              ~~to her son~~
            - FP.do
              - DP
                a book
              - PredP
                - NVP
                  - ⟨DP⟩
                    ~~a book~~
                  - NV′
                    - NV
                      gift
                    - ⟨PP⟩
                      ~~to her son~~
                - Pred′
                  - Pred
                  - ⟨vP⟩
                    ...

(23) The PredP can move to satisfy the Focus head's V feature

TopP
├── PP — to her son
└── Top′
    ├── Top
    └── FocP
        ├── PredP
        │   └── gift gave
        └── Foc′
            ├── Foc
            └── ~~FP.subj~~
                ├── DP — Ayda
                └── TP
                    ├── T
                    └── FP.ind
                        ├── ⟨PP⟩ — ~~to her son~~
                        └── FP.do
                            ├── DP — a book
                            └── ⟨PredP⟩ — ...

3.1.2 Complex predicates with the Future Auxiliary

With the addition of the Future Aux *xaastan* 'to want' into the mix, I follow Zwart (1996) and Barbiers, Cornips, and Corrigan (2005) in assuming that all auxiliary verbs enter the syntax according to a hierarchical base structure and syntactic operations further follow a feature checking approach. Without having to commit to the idea that the Future Aux breaks up the cluster through excorporation, I assume that the Aux hierarchically projects higher and selects for the *v*P; this is evident from the subject agreement morphology on the Aux as the highest verbal head in (24). This agreement would otherwise show up on the *v* if it were the highest verb head below PredP, as is the case in (21). All that is required to account for (24) is to include an AuxP projection above the *v*P and below the PredP. The rest of the derivation follows as expected in (25); the NVP preposes to [Spec.PredP], the internal arguments raise to FP.do and FP.ind, and lastly the external argument is licensed in FP.subj.
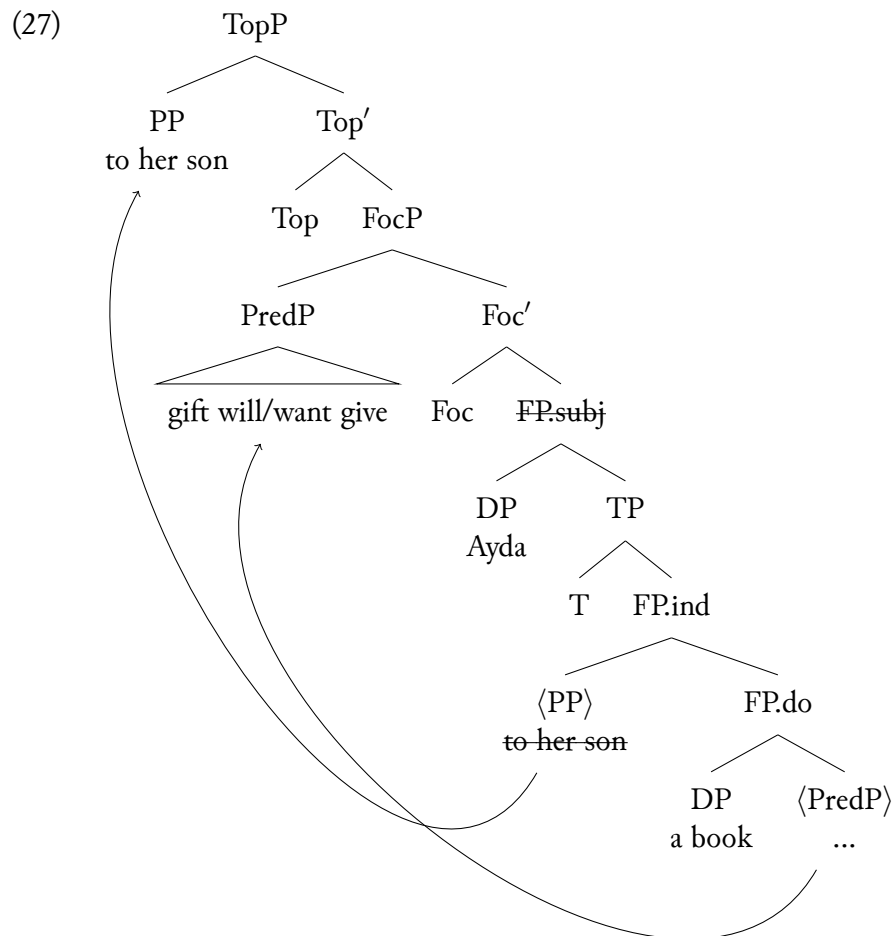
(24)   *Aydaa be pesar-esh ye ketaab **hedye** xaahad   **daad.***
       Aydaa to son-her a book gift   want.3sg give
       "Ayda will gift a book to her son."

(25)
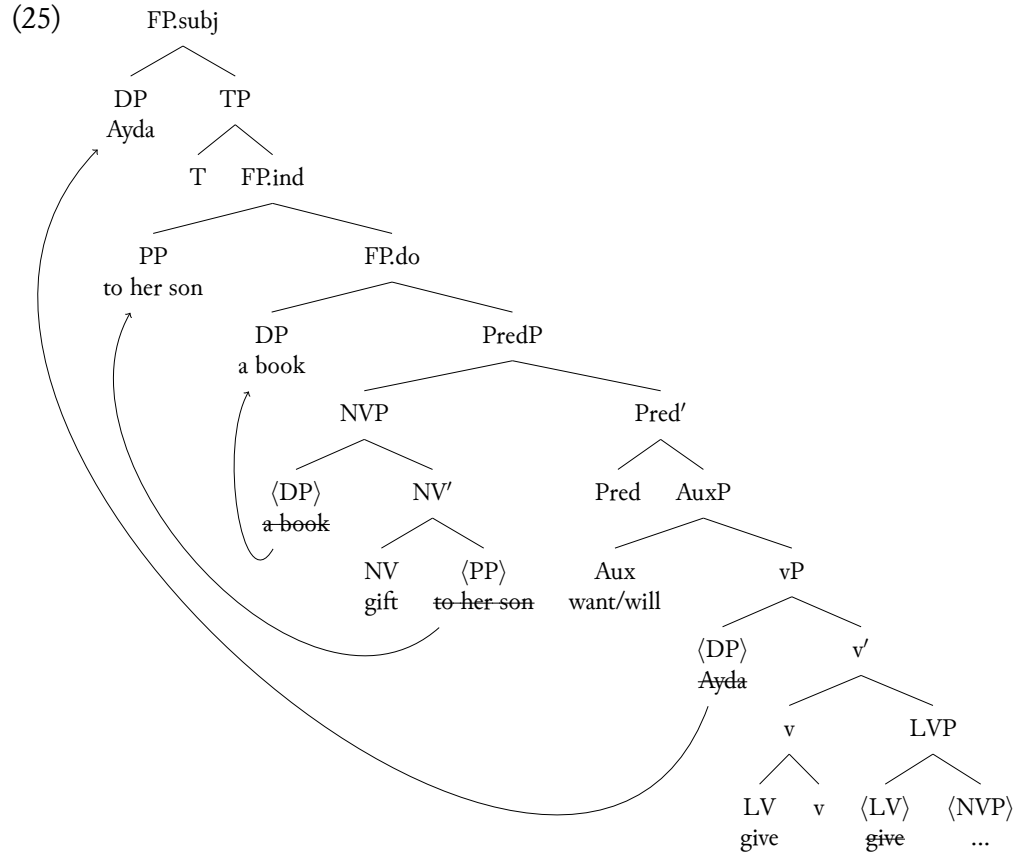
In addition to straightforwardly accounting for the canonical NV-Aux-LV order in Farsi data involving the Future Aux, the derivation in (25) is a desirable outcome for ellipsis cases discussed above in (11), repeated as (26).

(26) a. *Aydaa be dokhtar-esh   ye ketaab **hedye** na-xaahad   **daad.***
    Aydaa to daughter-her a   book   gift   NEG.want.3SG give

    "Ayda will not gift a book to her daughter."

b. *Vali ~~Aydaa~~ be pesar-esh ~~ye ketab~~ **hedye** xaahad   daad.*
    but ~~Aydaa~~ to son-her ~~a book gift~~   want.3SG give

    "But (she) will gift (a book) to her son."

c. *Vali ~~Aydaa~~ be pesar-esh ~~ye ketab~~ **hedye** xaahad   **daad.***
    but ~~Aydaa~~ to son-her ~~a book~~ gift   want.3SG give

Ultimately, the option for the entire complex cluster *hedye xaahad daad* 'gift will give' to escape ellipsis in (26c) is captured through the movement of PredP out of the ellipsis site, as shown in (27).

13

(27)

TopP
PP — to her son
Top′
Top   FocP
PredP
gift will/want give   Foc   FP.subj
DP Ayda   TP
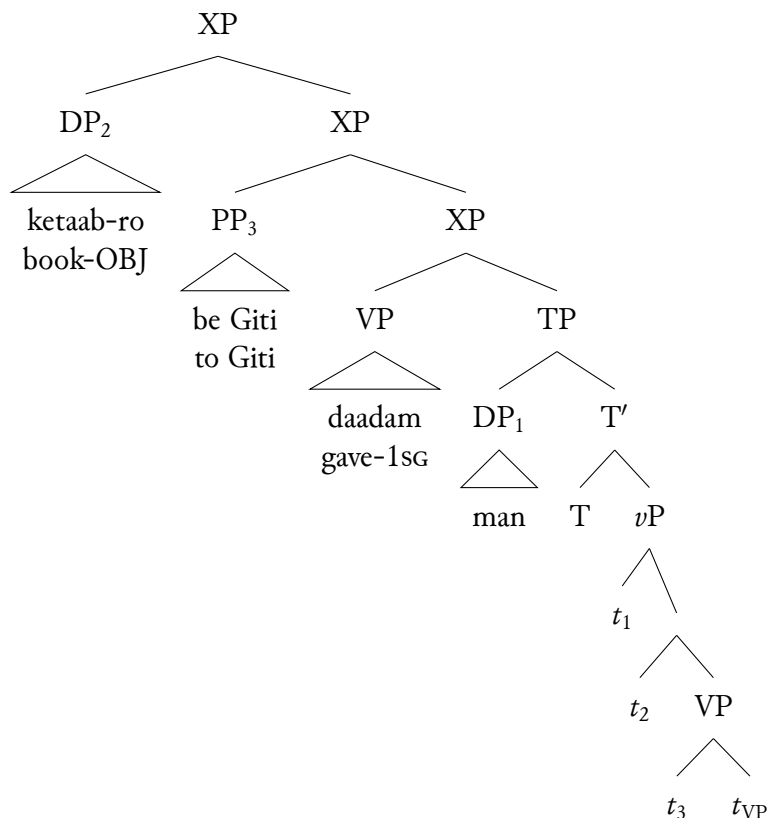T   FP.ind
⟨PP⟩ to her son   FP.do
DP a book   ⟨PredP⟩ ...

4 Complex predicate derivation and Topic/Focus fronting

In this section, I show that the proposed analysis of complex predicate derivation in Section 3 can naturally be extended to account for the topicalization data discussed in Section 2.2. We already have independent evidence from freely available leftward phrasal movement in Farsi that not only nominal arguments, but also the VP can be targeted for movement. Farudi (2013) considers the following example in (28b) an instance of verb phrase topicalization.

(28)   a.   *Man ketaab-ro   be Giti **daadam**.*
        I   book-DOM to Giti gave.1SG

        "I gave the book to Giti."

   b.   [*Ketaab-ro*]$_k$ [*be Giti*]$_j$ [***daadam***]$_i$ *man* ⟨*ketaab-ro*⟩$_k$ ⟨*be Giti*⟩$_j$ ⟨***daadam***⟩$_i$
        book-DOM   to Giti gave.1SG   I

        "I gave the book to Giti."

While Karimi (2005) would account for these scrambling facts as an instance of raising of the objects to specifier of Topic position followed by optional triggering of V movement, Farudi assumes a structure along the lines of the following in (29) for (28b).

(29)

```
                          XP
                 ┌─────────┴─────────┐
               DP₂                    XP
              ╱ ╲           ┌──────────┴──────────┐
        ketaab-ro         PP₃                      XP
        book-OBJ         ╱  ╲            ┌──────────┴──────────┐
                      be Giti           VP                     TP
                      to Giti          ╱ ╲            ┌─────────┴─────────┐
                                   daadam           DP₁                  T′
                                   gave-1SG        ╱ ╲               ┌────┴────┐
                                                  man               T        vP
                                                               ┌─────────────┴────┐
                                                              t₁                   
                                                                    ┌─────────────┴────┐
                                                                   t₂                  VP
                                                                              ┌────────┴────────┐
                                                                             t₃               t_VP
```

Given the independent evidence for the availability of phrases in the left periphery for leftward movement, I propose that just like the verb-stranding ellipsis cases discussed above, topic/focus fronting of verbal clusters involves maximal projection movements to clause external XP positions. Where fronting seems to diverge from ellipsis to some extent is the strong requirement for most Farsi speakers that all verbal elements move. This means that scrambling of verbal elements always targets the the maximal verbal projection (in this case PredP), a restriction that must be encoded in the grammar regardless of which base structure is assumed for the VP/*v*P. This restriction explains the facts in (16) and (17), repeated below as (30) and (31).

(30) a. ?? *KIMEA*ᵢ ***daad****ⱼ* ⟨*Kimea*⟩ᵢ *ketaab-ro be dust-esh* ***gharz*** ⟨***daad***⟩ⱼ
          K   gave.3SG   book-DOM to friend-her loan

          "It was Kimea who loaned the book to her friend."

      b. *KIMEA*ᵢ ***gharz daad****ⱼ*   ⟨*Kimea*⟩ᵢ *ketaab-ro be dust-esh*   ⟨***gharz daad***⟩ⱼ
          K   loan   gave.3SG   book-DOM to friend-her

(31) a. * *KIMEA*ᵢ ***daad****ⱼ* ⟨*Kimea*⟩ᵢ *ketaab-ro be dust-esh* ***gharz xaahad***   ⟨***daad***⟩ⱼ
          K   gave   book-DOM to friend-her loan   want.3SG

          "It is Kimea who will loan the book to her friend."

      b. ?? *KIMEA*ᵢ ***xaahad***   ***daad****ⱼ* ⟨*Kimea*⟩ᵢ *ketaab-ro be dust-esh*   ***gharz***
          K   want.3SG give   book-DOM to friend-her loan
          ⟨***xaahad daad***⟩ⱼ

15

c.   *KIMEA*$_i$ **gharz xaahad   daad**$_j$ ⟨*Kimea*⟩$_i$ *ketaab-ro   be dust-esh*
    K   loan   want.3SG give   book-DOM to friend-her
    ⟨***gharz xaahad daad***⟩$_j$

In (30b), the PredP that moves to the left periphery (in addition to 'Kimea') contains both the NV *gharz* 'loan' and the LV *daadan* 'to give'. In (31c), PredP that moves contains the NV 'loan', the Aux 'want/will' and the NV 'to give' in that strict order.

5   Conclusion

In this paper, I've argued that the widely adopted VP head final analyses for Farsi run into some theoretical inconsistencies. These inconsistencies were highlighted in the discussion of Rasekhi's (2018) verb-stranding *v*P ellipsis and Karimi's (2005) optional verb fronting/scrambling in sentences involving Farsi complex predicates and the Future Auxiliary verb. I've argued that relying on verb movement alone as the source behind ellipsis and fronting runs into problems, such as the need for excorporation of the sort that isn't predicted by the head-adjunction theory of excorporaion in the first place. I've proposed that all phrases in Farsi start from a base Spec-Head-Comp (S-H-C) (Kayne 1994) configuration and that the mixed word orders are derived from leftward syntactic movements that also confirm to S-H-C. By deriving complex predicates through consistent licensing of phrases in designated functional projections, I've shown that verbal elements become clusters contained under maximal XP projections through the course of the derivation. By analyzing both ellipsis and verb fronting as instances of verbal XP movements to left-peripheral Focus and Topic positions, I've unified the mechanisms that derive both operations while keeping movement consistently leftward.

Acknowledgements

Abbreviations

DOM - Differential Object Marking | 3SG - 3rd Person Singular | PL - Plural | NEG - Negation | 3PL - 3rd Person Plural

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