Leaving v Behind:
Ellipsis in Farsi Complex Predicates

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1 Introduction

English was long considered the only language to possess Verb Phrase Ellipsis (VPE), a process in which a verb phrase, or vP, goes missing under identity with the verb phrase of a preceding clause.

(1) Jasper likes pecans and Mona does [like pecans] too.

Recent research has shown that some verb-raising languages, in particular Hebrew, Irish, and Swahili, also possess a type of VPE, called V-Stranding VPE (Goldberg 2005). In these languages, however, the main verb raises into a higher functional projection before the vP is deleted.

(3) Sohrab didn’t iron the shirts but Rostam did (iron the shirts).

⇒ Assuming Folli, Harley, and Karimi’s (2005) analysis of the Farsi complex predicate construction, I propose that sentences like (4) are the result of eliding the complement of an overtly-realized v head.

(5) Unlike English, Hebrew, Swahili, or Irish, this type of ellipsis, which I call v-Stranding Ellipsis, elides something smaller than the vP.

⇒ Despite this difference, v-Stranding Ellipsis is constrained by the same licensing requirements as VPE and V-Stranding VPE, namely the presence of an overt, tense-inflecting head (Lobeck 1995) and the e-givenness identity constraint (Merchant 2001).

2 Farsi Phrase Structure

Complex predicates are comprised of two parts, a light verb (LV) and a nonverbal element (NVE). All LVs are homophonous with a simplex verb that carries a full, lexical meaning (the so-called ‘heavy’ meaning, in small caps).

(6) a. kardan ‘do’
 b. dādan ‘GIVE’
 c. zadān ‘hit’
 d. gereftān ‘take’
 e. kēsidān ‘pull’
 f. raftān ‘go’
 g. ūvardān ‘bring’
 h. bordān ‘take’
 i. ŝudān ‘become’
 j. xordan ‘EAT’

⇒ In this talk I will examine a potential ellipsis construction in another language, Farsi (Persian). I will argue that Farsi has a closely related type of ellipsis that targets part of a complex predicate.
Possible NVEs include nouns, adjectives, and prepositions. The meaning of the complex predicate as a whole is not always predictable.

(7) Noun
a. otu zadan
   iron HIT
   ‘to iron’

b. edämne dīdan
   continuation GIVE
   ‘to continue’

(8) Adjective
a. bāz kardan
   open DO
   ‘to open’

b. bidār šodan
   awake BECOME
   ‘to wake up’

(9) Prepositional Phrase
a. be kār bordan
   to work TAKE
   ‘to use’

b. az dast dīdan
   from hand GIVE
   ‘to lose’

The argument structure of the complex predicate is predictable, however. The LV primarily determines whether it selects for an Agent or not.

(10) a. rostam sohrāb-rā laqat zad
    Rostam Sohrab-acc kick HIT:past:3sg
    ‘Rostam kicked Sohrab.’ [transitive]

b. sohrāb(-rā) laqat xord
    Sohrab(-acc) kick EAT:past:3sg
    ‘Sohrab got kicked.’ [unaccusative]

c. * rostam sohrāb(-rā) laqat xord
    Rostam Sohrab(-acc) kick EAT:past:3sg

The NVE selects for the complex predicate’s internal arguments. Keeping the LV constant, it can be made to alternate between unergative and transitive structures depending on the NVE chosen.

(11) a. rāmin gerye kard
    Ramin crying DO:past:3sg
    ‘Ramin cried.’ [unergative]

b. rāmin fari-rā jāru kard
    Ramin carpet-acc broom DO:past:3sg
    ‘Ramin swept the carpet.’ [monotransitive]

c. rāmin vis-rā be mehmānī davat kard
    Ramin Vis-acc to party invitation DO:past:3sg
    ‘Ramin invited Vis to the party.’ [ditransitive]

I assume the structure in (12) for Farsi complex predicates, following Folli, Harley, and Karimi (2005), who analyze the complex predicate in Farsi as an unconfuted Hale and Keyser-style structure (1993 and subsequent work), in which movement of the NVE to v does not occur, unlike in English, and v is realized coverbally as a LV. The structure of the complex predicate in (4), otu zadan ‘iron (lit. iron+hit)’, is given in (12).

\[
\begin{array}{c}
{\text{rostam}} \\
{\text{v}} \\
{\text{zad}} \\
{\text{HIT}} \\
{\text{DP}} \\
{\text{NP}} \\
{\text{otu}} \\
{\text{iron}} \\
\end{array}
\]

Notice that v and the NVE are right-headed since Farsi is SOV. Karimi (2005:8–10) argues, however, that T and other functional projections are left-headed on the basis of the position of sentential complements, which must appear after the verb. I further assume that Farsi does not have obligatory raising of v to T, since the verb appears to the right of left-edge adverbs.

The subject does not necessarily raise to Spec-TP either; it receives nominative case in situ, in Spec-vP. Nonspecific subjects of unaccusative verbs do not need to raise out of the VP or phrase headed by the NVE (§5.2). Instead, the T domain is reserved for what Karimi (2005:70–104) calls ‘background topics’

⇒ Given these assumptions, we can understand (4) as deletion of the phrase headed by the NVE, the complement of v.

Since all of the complex predicate’s internal arguments are contained within the NVE’s maximal projection, they must all go missing with the NVE.

(13) rostam hamīse harf mizān-e vali sohrāb hičvaxt [NP had] ne-mizān-e
    Rostam always speech HIT-pres:3sg but Sohrab never speech neg-HIT-pres:3sg
    ‘Rostam always talks but Sohrab never does (talk).’

(14) sohrāb píranhā-rā otu na-zad
    Sohrab shirts-acc iron neg-HIT:past:3sg but Rostam didn’t iron the shirts.
    ‘Sohrab didn’t iron the shirts but Rostam did (iron the shirts).’

(15) rostam māˇsin-eˇs-rā be sohrāb neˇsˇan dād vali rāmin
    Rostam car-his-acc iron neg-HIT:past:3sg but Rostam didn’t iron the shirts.
    ‘Rostam showed his car to Sohrab but Ramin didn’t (show his car to Sohrab).’
3 An Alternate Analysis: Null Object

Null Object, a process in which an internal argument goes missing, is a potential contender as an analysis for v-Stranding Ellipsis.

(16) rostam šīrini-rā ru ye miz gozāst va sohrāb toxmenorq-rā gozāst Rostam sweets-acc on table put:past:3sg and Sohrab egg-acc on table put:past:3sg

‘Rostam put the sweets on the table and Sohrab put the eggs on the table.’

(17) rostam kādo-š-rā ru ye miz gozāst va sohrāb |otu| gozāst televizyon Rostam present-his-acc on table put:past:3sg and Sohrab present-his-acc on television gozāst put:past:3sg

‘Rostam put his present on the table and Sohrab put his present on the television.

(18) rostam kādo-š-rā ru ye miz gozāst va sohrāb |otu| gozāst table Rostam present-his-acc on table put:past:3sg but Sohrab present-his-acc on table gozāst neg put:past:3sg

‘Rostam put his present on the table but Sohrab didn’t put his present on the table.’

The internal argument of a complex predicate can also go missing.

(19) rostam sohrāb-ra kotak mizane va I man kotak ne-mizanam Rostam Sohrab-acc beating HIT-pres:3sg but I DP carrot-ne-mizanam

‘Rostam beats Sohrab but I don’t beat Sohrab.

Initial evidence suggests, however, that v-Stranding Ellipsis should be maintained as a process distinct from Null Object.

• First, the phrases targeted by Null Object are DPs and PPs, as shown in (16–18). In contrast, v-Stranding Ellipsis targets NPs and APs, in addition to PPs.

• Second, Null Object is ambiguous between two readings. As in (19), the gap can be interpreted as identical to the object of the preceding clause. Or, as in (20), the object of the target clause may be interpreted as nonspecific.

(20) rostam sohrāb-ra kotak mizane va I I man kotak ne-mizanam Rostam Sohrab-acc beating HIT-pres:3sg but I DP carrot-ne-mizanam

‘Rostam beats Sohrab but I don’t beat anyone/anything.’

In contrast, v-Stranding Ellipsis only allows an interpretation ‘identical’ to its antecedent.

(21) sohrāb piranhā-rā otu mizane va rostam |otu| ne-mizanam Sohrab shirts-acc iron HIT-pres:3sg and Rostam |otu| DP shirt-ne-mizanam

‘Sohrab irons the shirts and Rostam doesn’t iron the shirts.’

(22) * sohrāb piranhā-rā otu mizane va rostam |otu| ne-mizanam Sohrab shirts-acc iron HIT-pres:3sg and Rostam |otu| DP shirt-ne-mizanam

‘Sohrab irons the shirts and Rostam doesn’t iron the pants.’

(23) * sohrāb piranhā-rā otu mizane va rostam |otu| ne-mizanam Sohrab shirts-acc iron HIT-pres:3sg and Rostam |otu| DP shirt-ne-mizanam

‘Sohrab irons the shirts and Rostam doesn’t iron anything.’

A formal definition of identity in v-Stranding Ellipsis will be given in §4.4.

• Third, Null Object can take a non-linguistic antecedent. It allows what Hankamer and Sag (1976) call ‘pragmatic control’. An example of this will be given in §4.1.

⇒ While the correct analysis of Null Object remains unclear, it is relatively clear that it is distinct from v-Stranding Ellipsis.

4 More Like Ellipsis

4.1 Pragmatic Control

Like VPE, the null anaphora in Farsi complex predicates does not allow pragmatic control (Hankamer and Sag 1976), requiring a linguistic antecedent.

(24) [Observing Hankamer attempting to stuff 12th ball through 6th hoop] Sag;

a. I don’t see why you even try.

b. # I don’t see why you even try to.

(Hankamer and Sag 1976:414)

(25) [Child picks up broom to sweep the carpet] Mother:

a. motma‘eyn bāi xub farš-rā jāru be-zani sure imper:be:2sg well carpet-acc broom subj-HIT-pres:2sg

‘Be sure to sweep the carpet well.’

b. # motma‘eyn bāi xub be-zani sure imper:be:2sg well carpet-acc broom subj-HIT-pres:2sg

The example in (25) forms a minimal pair with (26), which shows that Null Object can be pragmatically controlled.
(26) [Cat comes into house and girl rushes to pick up broom]

Mother:

a. motma’eyn biā gorba-rā xub be-zan-i
sure imper:be:2sg cat-acc well subj-hit-2sg
‘Be sure to hit the cat well!’

b. motma’eyn biā [NP xub be-zan-i]
sure imper:be:2sg cat-acc well subj-hit-2sg
‘Be sure to hit (the cat) well!’

Another example of the ungrammaticality of v-Stranding Ellipsis under pragmatic control is given in (27).

(27) [Sohrab is getting ready to take a shower]

Rostam (to Sohrab):

a. ne-mituni duš be-giri čun āb nist
neg-can:pres:2sg shower subj-TAKE:2sg since water neg:be:pres:3sg
‘You can’t take a shower since there isn’t any water.’

b. # ne-mituni [NP be-giri čun āb nist]
neg-can:pres:2sg shower subj-TAKE:2sg since water neg:be:pres:3sg

4.2 Missing Antecedent Phenomenon

v-Stranding Ellipsis also exhibits the Missing Antecedent Phenomenon (Grinder and Postal 1971; Hankamer and Sag 1976). A pronoun can corefer with a full DP contained within the elided constituent.

(28) a. I’ve never ridden a camel, but Ivan’s ridden a camel, and he says it, stank horribly.

b. I’ve never ridden a camel, but Ivan has ridden a camel, and he says it, stank horribly.

(Hankamer and Sag 1976:403)

(29) a. * rostam hiˇc ˇsotor-i-rā šune na-zade va migōft ke ān, buye bad-i
Rostam no camel-indef-acc comb neg-HIT:past:3sg and say:past:3sg that it smell bad-indef did
give:past:3sg
‘Rostam has never combed a camel, and he said that it, smelt bad.’

b. rostam hiˇc ˇsotor-i-rā šune na-zade amma sohrāb
Rostam no camel-indef-acc comb neg-HIT:past:3sg but Sohrab camel-indef-acc comb
zade va migōft ke ān, buye bad-i did
hit:past:3sg and say:past:3sg that it smell bad-indef give:past:3sg
‘Rostam has never combed a camel but Sohrab has (combed a camel,) and he says that it, smelt bad.’

4.3 Inflectional Licensing

Ellipsis may only occur in the presence of an inflection-bearing head (as shown in research starting with Zagona 1982; Lobeck 1986). For VP Ellipsis, the relevant type of inflection is tense, which appears in English on an auxiliary. For Sluicing, it is the [wh] feature on C. In V-Stranding VPE, it is the tense-inflecting main verb itself, having raised out of the vP, that licenses deletion of its complement (Goldberg 2005:33–34). Lobeck (1995), who argued that the null element in ellipsis is a null pro-form, formalized this generalization in a licensing requirement on the occurrence of pro:

(30) Licensing and Identification of pro. (Lobeck 1995:41)

An empty, non-arbitrary pronominal must be properly head-governed, and governed by an X-0 specified for strong agreement.

Merchant’s (2001:60) reformulation of this constraint posits a feature, E, which, for VPE, triggers nonpronunciation of the vP at PF and must be local to a tense-inflecting head. The E feature either originates on the tense-inflecting auxiliary or originates on the tense-inflecting auxiliary itself.

⇒ For Farsi v-Stranding Ellipsis, the same inflectional licensing requirement is satisfied. An overt v bearing tense features, which is sister to the elided phrase headed by the NVE, is left behind.

(31) nilufar be mehmānī dānešju da’vat na-kard vali man [XP be mehmānī dānešju da’vat]
Nilufar to party student invitation neg-do:past:3sg but I to party student invitation
do:past:1sg
‘Nilufar didn’t invite students to the party, but I did (invite students to the party).’

(32) * nilufar be mehmānī dānešju da’vat na-kard vali man [XP be mehmānī dānešju da’vat]
Nilufar to party student invitation neg-do:past:3sg but I to party student invitation
do:past:1sg

4.4 Identity

The occurrence of licit ellipses in English is also constrained by the requirement that an elided phrase be identical, in some sense, to its antecedent. A prominent recent approach to identity has been that of Merchant (2001), who argues that it is semantic identity that is relevant in English ellipsis.

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In this latter case, the locality of the E feature to tense is ensured not by feature checking of course but by a feature compatibility rule (Merchant 2001:60, fn. 12).
The E feature that we saw above, which must be checked by a local tense-inflecting head and signals nonpronunciation of its complement, has a meaning that imposes an antecedence condition, which he calls e-givenness, on ellipsis.

(34) \[ [E] = \lambda \rho : p \in e\text{-given} \cdot p \]

(35) e-givenness. (Merchant 2001:26)

An expression E counts as e-given iff E has a salient antecedent A and, modulo \(3\)-type shifting,

- A entails \(\text{F-clo}(E)\), and
- E entails \(\text{F-clo}(A)\).

Assuming Kratzer’s (1996) composition of the vP, we can apply the e-givenness check to a grammatical example of e-Stranding Ellipsis to see whether it is sufficient to account for when ellipsis may occur. Take the sentences in (36) in which the NVE phrase is an AP.

(36) Q: sohrab \([Ap\)

\[\text{leb\-ash\-a-\-r\-a xo\-s\-k} \]

kard?

‘Has Sohrab dried the clothes?’

A: * na, vali rostam al\-an raft \([Ap\)

\[\text{xo\-s\-k} \]

bo-kon-e

‘No, but Rostam just went to (dry them).’

In order to calculate entailment, the target and antecedent phrases must be of type \(t\). But since the antecedent AP leb\-ash\-a-\-r\-a xo\-s\-k is of type \(<s, t>\), the open event variable must be closed off through \(3\)-type shifting, yielding (37). The first part of the definition of e-givenness now requires that the antecedent AP entail the F-closure of the elided AP, which also must have its event variable \(3\)-bound, as in (38). Computing (37) to (38), \(AP_A\) clearly entails \(\text{F-clo}(AP_A)\).

(37) \(AP_A = \exists e.\text{dry the clothes}(e)\)

(38) \(\text{F-clo}(AP_A) = \exists e.\text{dry the clothes}(e)\)

Note that F-closure applies vacuously in these examples, since nothing is F-marked to be replaced by an \(3\)-bound variable.

The second part of the definition for e-givenness requires that \(AP_E\) entail \(\text{F-clo}(AP_A)\), which it does, as shown in (39)-(40). Mutual entailment is satisfied and so the ellipsis is good.

(39) \(\text{F-clo}(AP_A) = \exists e.\text{dry the clothes}(e)\)

(40) \(\text{AP}_E = \exists e.\text{dry the clothes}(e)\)

4.5 Light Verb Alternations

Switching the LV of the complex predicate between the target and antecedent clauses results in ungrammaticality.\(^4\) At first glance, this is somewhat surprising as the LV is not contained within the ellipsis site

\(^4\)F-closure. The F-closure of \(a\), written \(\text{F-clo}(a)\), is the result of replacing F-marked parts of \(a\) with \(3\)-bound variables of the appropriate type (modulo \(3\)-type shifting) (Merchant 2001:14).

\(^7\)The grammaticality judgments for these data were somewhat variable. All speakers consulted agreed that ellipsis examples in which LV’s were different were significantly more degraded than their nonalternating counterparts. Some speakers, however, and so is not subject to the mutual entailment check.\(^5\)

(41) Q: leb\-ash\-a xo\-s\-k \(\text{\-sod-an}\)?

‘Have the clothes been dried yet?’

A: * na, vali rostam al\-an raft \([Ap\)

\[\text{leb\-a xo\-s\-k} \]

bo-kon-e

‘No, but Rostam just went to (dry them).’

The solution to this puzzle lies in the fact that the LV kardan ‘do’ introduces an Agent, rostam, while the accusative LV sodan ‘become’ does not. The specific internal argument DP, leb\-ash\-a ‘the clothes’, raises out of the AP to subject position.

(42) Q: leb\-ash\-a xo\-s\-k \(\text{\-sod-an}\)?

‘Has Sohrab dried the clothes?’

A: * na, vali rostam al\-an raft \([Ap\)

\[\text{leb\-a xo\-s\-k} \]

bo-kon-e

‘No, but Rostam just went to (dry them).’

Assuming that reconstruction of A-movement does not take place, when the e-givenness check applies, the trace of the raised internal argument must be \(3\)-bound. When considering the second part of the definition of e-givenness (\(E\) entails \(\text{F-clo}(A)\)), everything works out. An event in which clothes were dried entails that something was dried.

(43) \(\text{F-clo}(AP_A) = \exists x.\exists e.\text{dry}(x)(e)\)

(44) \(AP_E = \exists e.\text{dry the clothes}(e)\)

The ellipsis fails, however, on the first part (\(A\) entails \(\text{F-clo}(E)\)). \(AP_A\) does not entail \(\text{F-clo}(AP_E)\), since an event in which something is dried does not entail that clothes were dried, and consequently the ellipsis is illicit.

(45) \(AP_A = \exists x.\exists e.\text{dry}(x)(e)\)

(46) \(\text{F-clo}(AP_E) = \exists e.\text{dry the clothes}(e)\)

\(\Rightarrow\) Even though the LV is never located inside the elided constituent, since it selects for the external argument, alternations in the LV can result in the NVE phrase having different entailments, modulo \(3\)-type shifting.

\(^5\)did find some LV alternations, such as (41), to be marginally acceptable, in particular those involving the LVs kardan ‘do’, sodan ‘become’, and zadan ‘eat’. Alternations involving other LV’s were judged to be extremely ungrammatical almost universally. This variability remains to be explained.

\(^7\)This effect recalls the Verbal Identity Requirement shown to hold of V-Stranding Ellipsis in Hebrew and Irish (and perhaps Swahili as well) by Goldberg (2005:187). For Hebrew, varying the root or derivational morphology (binyan) of the verb (v-V complex) that has raised out of the elided vP results in an illicit occurrence of ellipsis. V-stranding VPE in Hebrew, however, differs significantly from e-Stranding Ellipsis in one respect. Substituting one root for another in the stranded V does not necessarily change argument structure in Hebrew.
This analysis makes the prediction that LV alternations that do not result in an alternation in argument structure should be good under ellipsis. And indeed this is what we find with otu kardan and otu zadan ‘to iron, lit. iron + DO/HIT’, two variants of the same transitive verb.

(47) Q: piran-ɔ ra otu kardi?  
shirt-acc iron do:past:2sg  
‘Have you ironed the shirt?’

A: ɛere, diruz  [piran-ɔ ra] zadam  
yes, yesterday shirt-acc iron hit:past:1sg  
‘Yes, I did (iron the shirt) yesterday.’

⇒ e-givenness correctly rules out ellipsis with an LV alternations that change argument structure, while allowing it with LV alternations that do not.

4.6 Conclusion

⇒ I have argued that Farsi e-Stranding Ellipsis patterns closely with VPE in English; it cannot be pragmatically controlled and it exhibits the missing antecedent phenomenon.
⇒ I have also argued that e-Stranding Ellipsis deletes a constituent smaller than the vP, namely the phrase headed by the nonverbal element of a complex predicate.
⇒ This is an outcome that falls out from a combination of language-specific facts and universal requirements on ellipsis. Namely, the v in the complex predicate construction is realized as an independent, overt LV with tense inflection. This licenses the nonpronunciation of v’s complement, so long as this phrase is identical to its antecedent (e-givenness).

5 Appendix

Karimi (2005) proposes that, while Agent DPs in Farsi do not raise to Spec-TP, specific internal arguments undergo raising to a specifier of vP. This creates a problem for the analysis argued for here (§5.1). It also makes a prediction that is borne out (§5.2).

5.1 Specific Objects

Karimi (2005) argues that specific objects originate internal to the VP and then raise, past any Goal PPs, to an inner specifier of vP in order to get case-marked with the –ɔra accusative suffix. In contrast, nonspecific objects remain in their base-generated position and do not receive case.

(48) vis be ramin ɡol ɗid  
Vis to Ramin flower give:past:3sg  
‘Vis gave flowers to Ramin.’

(49) vis ɡol-ɔra  be ramin ɗid  
Vis flower-acc to Ramin give:past:3sg  
‘Vis gave the flower to Ramin.’

5.2 Specific Unaccusative Subjects

Since Farsi does not have obligatory subject-raising to Spec-TP, the nonspecific subject of an unaccusative verb stays in situ, inside the VP or NVE phrase. If it is specific, it behaves in a manner parallel to specific direct objects, raising past any PP arguments and left-edge adverbs to Spec-vP.

(50)  
\[ \text{vP} \rightarrow \text{DP} \]  
\[ \text{DP}_A \]\n
This analysis predicts that specific –ɔra marked objects will always be stranded by ellipsis, but this is not the case.

(51) sohrab piran-hɔra otu na-zad  
vali rostam [vP piran-hɔra otu] zad  
Sohrab shirts-acc iron neg-HIT:past:3sg but Rostam shirts-acc iron hit:past:3sg  
‘Sohrab didn’t iron the shirts but Rostam did (iron the shirts).’
In addition, this analysis predicts that transitivity alternations should be acceptable so long as both the object of the transitive complex predicate and the subject of the unaccusative complex predicate are nonspecific. This is shown to be true in (56).

(56) man hıçvaxt [bačče kotak] ne-mizanam vali az daste yeh nafare dige momken-e

'I never beat children but it’s possible that because of somebody else children might be *(beaten).*'

References


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