Focus fronting and sluicing in Farsi

Maziar Toosarvandani
University of California, Berkeley
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1 Introduction

- Sluicing is the elliptical operation that results in everything in a constituent question going missing except for the interrogative phrase (Ross 1969, Merchant 2001, 2004).

(1) Tobey met someone at the party, but he won’t say who.

- Under Merchant’s movement plus deletion analysis, sluicing is derived by wh-movement plus PF deletion of TP.

(2) …but he won’t say [CP who [TP Tobey met (who) at the party]].

- My purpose here is to explore sluicing in a wh-in situ language, Farsi, in which interrogative phrases do not raise obligatorily to a left peripheral position.

(3) a. sohrāb moz-o xorid.
Sohrab banana-obj eat.3SG
‘Sohrab ate the banana.’

b. sohrāb chi-o xorid?
Sohrab what-obj eat.3SG
‘What did Sohrab eat?’

- Yet, Farsi has a sluicing construction that looks just like its English counterpart.

(4) rāmīn ye chiz-i xarid amma ne-mige chi.
Ramin one-thing-IND bought.3SG but NEG-say.3SG what
‘Ramin bought something, but he won’t say what.’

⇒ I will argue that sluicing in Farsi, as in English, is derived by movement of the interrogative phrase to a position outside of TP, which is then deleted.
⇒ The movement operation responsible is a kind of scrambling that I call focus fronting.

- In the rest of this talk, I will
  - first, set aside a nonmovement analysis of sluicing involving clefting,
  - then, show that focus fronting is responsible for moving the wh-phrase out of TP, and
  - finally, deal with a class of seeming counterexamples to this analysis.

2 Basic data and terminology

(5) Tobey met someone at the party, but he won’t say [CP who [TP Tobey met (who) at the party]].

- REMNANT = the interrogative phrase that is stranded where a constituent question is expected
- TARGET CLAUSE = the deleted TP (struck through)
- SLUICE = the remnant plus the target clause
- ANTECEDENT CLAUSE = the TP that the target clause is identical to
- CORRELATE = the element (optionally present) in the antecedent clause that ‘corresponds’ to the remnant

- A variety of remnants are possible in Farsi, licensed by a number of different question embedding predicates.

(6) kesi man-o bol dād vali ne-midunam ki.
someone me-obj push gave.3SG but NEG-know.1SG who
‘Someone pushed me but I don’t know who.’

(7) mahn ye chiz-i xarid vali be sohrab ne-mige chi.
mahin one-thing-IND bought.3SG but to Sohrab NEG-say.3SG what
‘Mahin bought something but she didn’t tell Sohrab what.’

(8) emruz ye film-i-ro didam. hads bezan che film-i-ro.
today one movie-IND-OBJ saw.1SG guess hit.2SG what movie-IND-OBJ
‘I saw a movie today. Guess what movie.’

(9) mixāstam ye-ki shun-o bexaram vali ne-midunestam kudum-esh-o.
wanted.1SG one-them-obj buy.1SG but NEG-know.1SG which-them-obj
‘I wanted to buy one of them but I didn’t know which.’

(10) rostam māshīn-o taamir karde vali maalam nist kojā.
Rostam car-obj repair did.3SG but clear NEG.is where
‘Rostam repaired the car but it’s not clear where.’

(11) rostam māshīn-esh-o furukt. yād-esh nist kei.
Rostam car-his-obj sold memory-his NEG.is when
‘Rostam sold his car; he doesn’t remember when.’

(12) navid javāhēr-o dozd ide vali na-goft chetor.
navid jewels-obj stole.3SG but NEG-said.3SG how
‘Navid stole the jewels but he didn’t say how.’

(13) unā ham ajale darānd. ne-midunam chērā.
they also rush have.3PL NEG-know.1SG why
‘They, too, are in a rush. I don’t know why.’

2.1 Is Farsi sluicing actually clefting?

- Sluicing-like constructions have long been known to exist in other wh-in situ languages, e.g. Japanese (Merchant 1998), Korean (Nishiyama et al. 1996), and Mandarin Chinese (Adams 2004).
• The source for this pseudoslicing construction is not an ordinary constituent question but rather a clefted question in which the expletive subject, copula, and cleft clause are null.

q know:not  
'Someone read that book, but I don’t know who it is.'  
(Japanese (Merchant 1998: ex. 17)

• Farsi has productive full and truncated clefting strategies (see Mikkelsen 2007 for discussion of differences between the two constructions).

(15) Q: che kesi dar zad? what someone door hit3sg 'Who knocked?'  
A1: pro rostam-e ke dar zad. Rostam-is that door hit3sg 'It’s Rostam who knocked.'  
A2: pro rostam-e. Rostam-is 'It’s Rostam.'  
full cleft truncated cleft

• Constituent questions can be formed from either of the two types of clefts.

(16) kesi in ketāb-o xunde vali ne-midunam pro ki buď ke ketāb-o someone this book-obj read3sg but NEG-know-1sg who was that book-obj xund. read3sg 'Someone read this book but I don’t know who it was that read the book.' full cleft  
(17) kesi in ketāb-o xunde vali ne-midunam pro ki buď. someone this book-obj read3sg but NEG-know-1sg who was  
'Someone read this book but I don’t know who it was.' truncated cleft

• There are four reasons sluicing in Farsi should not be assimilated to a truncated cleft structure (drawn from Merchant 2001:115–127):

1. The copula in Farsi cannot go missing. A special process of copula deletion that would apply only in truncated clefts would be stipulatric.

(18) māshīne sohrāb ghermez-*e).  
car Sohrab red-is  
Intended: ‘Sohrab’s car is red.’

2. Clefts do not allow wh-adjuncts in pivot position. They are fine as the remnant of a sluice.

(19) navīd ye jur-i javāhēr-o deadside. ne-midunam chetor (*bud). Navid one way-IND jewels-obj stole3sg NEG-know-1sg who was  
'Navid somehow stole the jewels. I don’t know how.' manner adjunct

3. The pivot of a cleft cannot bear the differential object marker nā.

(20) vis māshīn-o baraye ye dalīl-i taamir karde vali ne-midunam chetor Vis car-obj for one reason-IND repair did3sg but NEG-know-1sg who (*bud). was  
'Vis repaired the car for some reason but I don’t know why.' reason adjunct  
(21) rostam māshīn-o ye moqe-yi taamir karde vali ne-midunam kei (*bud). Rostam car-obj one time-IND repair did3sg but NEG-know-1sg when was  
'Rostam repaired the car some time but I don’t know when.' temporal adjunct  
(22) royā javāhēr-o ye jā-i qāyem karde vali ne-midunam kojā (*bud). Roya jewels-obj one place-IND hiding did3sg but NEG-know-1sg where was  
'Roya hid the jewels somewhere but I don’t know where.' locative adjunct

3. The pivot of a cleft cannot bear the differential object marker nā.

(23) Q: mahīn ki-o daavat kard? Mahīn who-obj invitation did3sg  
'Who did Mahīn invite?'  
A: sohrāb(*-o) bud. Sohrab-obj was  
Intended: ‘It was Sohrab.’

In contrast, the remnant of a sluice can be nā-marked.

(24) mahīn ye nafar-i ro daavat karde vali be sohrāb ne-mīgē ki-ro. Mahīn one person-IND-obj invitation did3sg but to Sohrab NEG-say-1sg who-obj  
'Mahīn invited someone but she won’t tell Sohrab who.'

4. Pivots of clefts are restricted to DPs. A PP is ungrammatical.

(25) Q: gibī bā ki dāshīt sohbat mikard? Giti with who had 3sg speaking did3sg  
'Who was Giti speaking with?'  
A: * bā sirūs bud. with Cyrus was  
Intended: ‘It was with Cyrus that she was speaking.’

But PPs very easily serve as the remnant in sluicing.

(26) gibī bā kesi dāshīt sohbat mikard vali na-goft bā ki. Giti with someone had 3sg speaking did3sg but NEG-said-3sg with who  
'Giti was talking with someone but she didn’t say who.'

⇒ Sluicing in Farsi cannot be derived from a cleft structure. If the remnant arrives at its position outside of the deletion site by movement, what kind of movement is it?

3 Focus fronting

3.1 The syntax of focus fronting

• One type of scrambling, Focus Fronting, moves a phrase to the specifier of a focus projection, Spec-FF, where it receives a pitch accent.
giti midune ke pesTE sohrab (peste) xarid.
Giti knows:3SG that pistachio Sohrab bought:3SG
‘Giti knows that Sohrab bought pistachios.’

The position of the focus fronted element is to the left of the subject but to the right of the complementizer ke.

3.2 The semantics of focus fronting

- I focus on the semantics of interrogative phrases in Spec-FP, since only these are relevant to sluicing (see Karimi 1999, 2003, 2005:132, Karimi and Taleghani 2007 for discussion of non-interrogative phrases).

- Intuitively, fronted interrogative phrases are interpreted as standing in a contrastive relationship with another phrase in the preceding clause:

midunam ke sohrab ye ketab xarid vali ne-midunam CHE ketab-i-ro
know:1SG that Sohrab one book bought:3SG but NEG-know:1SG what book-IND-OBJ
sohrab (che ketab-i-ro) xarid.
Sohrab bought:3SG
‘I know that Sohrab bought a book but I don’t know what book he bought.’

A: ne-midunam sohrab che roman-i-ro dust dare.
NEG-know:1SG Sohrab what novel-IND-OBJ friend have:3SG
‘I know don’t know what novel Sohrab likes.
B: na, man az shomá porside budam che FILM-i-ro sohrab
no I from you asked what movie-IND-OBJ Sohrab
(che film-i-ro) dust dare.
friend have:3SG
‘No, I had asked you what movie he likes.’

midunam sohrab vis-o kojá mixád shám bebare vali yád-am nist
know:1SG Sohrab Vis-OBJ where want:3SG dinner take:3SG but memory-my int.NEG
KEI mixád vis-o (kei) bersusne xune.
want:3SG Vis-OBJ make.arrive:3SG home
‘I know where Sohrab wants to take Vis to dinner but I don’t remember when Sohrab wants to bring Vis home.

- We can derive this property of focus fronting if Spec-FP forms its own focus domain and always has one of Rooth’s (1992) focus interpretation operators, ~, adjoined to the element it contains.

- In Rooth’s (1985, 1992) ALTERNATIVE SEMANTICS, all expressions have an ordinary semantic value, given by the interpretation function [.] ̃, and a focus semantic value, given by [.] ̃.

- Focus semantic values are derive by making a substitution in the place marked by focus. For the sentence ʃArly likes Sue, the focus semantic value is [ʃArly likes Sue] ̃ = \{p | ∃x[p = like(sue)](x) ∧ x ∈ D_i\}, or the set of propositions of the form x likes Sue, where x is in the domain of entities.

- Focus semantic values are used by a focus interpretation operator, ~, that takes two arguments, a free variable constrained by the presupposition in (32) and a constituent containing a focus.

ϕ ~ γ presupposes that γ is an element of the focus semantic value for ϕ distinct from the ordinary semantic value of ϕ.
(Rooth 1992:35)

- This means that the element in Spec-FP must have an antecedent whose ordinary semantic value is in its focus semantic value:
• I leave the types for these variables unspecified since I am agnostic as to what the denotations of the interrogative phrase and determiner are. For present purposes, it is enough that ye ketāb ‘a book’ and che ketāb-īro ‘what book’ be alternatives to one another and therefore of the same type.

1. Romero (1998:29–36) gives denotations for which and how many in the domain of determiners, \(((e,s), (e,s), (s, s)))\), such that their alternatives include one another as well as an existential option.

2. Another possibility is to adopt the proposal of Kratzer and Shimoyama (2002) and Kratzer (2003) that indefinites and interrogative phrases both denote just sets of individuals. Defining the focus semantic of a wh-phrase like CHE ketābīro ‘what book’ under this approach would seem to be greatly simplified, but the details remain to be worked out.

3.3 Farsi sluicing = focus fronting + TP-deletion

(35) FP
wh
F

(36) rāmin ye chīz-i xaride. hads bezan [FP chi [rāmin (ch)-i xaride]].
Ramin one thing-las bought.3sg guess hit.2sg what Ramin bought.3sg
‘Ramin bought something. Guess what.’

• There are two pieces of evidence that the remnant sits in Spec-FP:

  - If the remnant in sluicing sits in Spec-FP—above TP but below CP—then we expect that the complementizer ke should be able to appear in a sluice:

    (37) mahīn mixāt ye chīz-i bexarē vali yād-esh ne-mīyād ke chi.
Mahn one thing-las buy.3sg but memory-her NEG-lose.3sg what
‘Mahn wants to buy something but she doesn’t remember what.’

  - If a ~ operator is adjoined to the element in Spec-FP, then the remnant should bear a pitch accent and contrast with another phrase of the same type:

    (39) midunam ke sohrāb ye ketāb xaride va rāmin midunā CHE
know.1sg that Sohrab one book bought.3sg and Ramin know.1sg what
ketābī-īro.
book-las-obj
‘I know that Sohrab bought a book and Ramin know what book.’

(40) sohrāb be man goft che ketābī-īro dust dārē vali na-goft
Sohrab to me said.3sg what book-las-obj friend have.3sg but NEG-said.3sg
che FILM-ı-ıro.
what movie-las-obj
‘Sohrab told me what book he likes but he didn’t say which movie.’

(41) faqat midunam kojā sohrāb dustdoxtar-es̲h-o di; ne-midunam kei.
only know.1sg where Sohrab girlfriend-his-o]b j saw.3sg NEG-know.1sg when
‘I only know where Sohrab saw his girlfriend; I don’t know when.’

⇒ I conclude that focus fronting is the movement process that is responsible for moving the remnant to a position where it can escape deletion of TP.

4 Second occurrence focus

• If Farsi sluicing is derived by movement of the remnant to Spec-FP, we might expect that the remnant would always bear a pitch accent.

(42) mā midunim sohrāb chandītā ketābī xaride vali rāMIN hanuz ne-midunē
we know.1pl Sohrab how.many book bought.3sg but Ramin not.yet NEG-know.3sg
chandītā.
how.many
‘We know how many books Sohrab bought but Ramin doesn’t yet know how many.’

(43) midunim che ketābī-ı-ıro sohrāb xaride va rāMIN ham midunē che
know.1pl what book.pl-las-obj Sohrab bought.3sg and Ramin also know.3sg what
ketābī-ı-ıro.
book-las-ı
‘We know what books Sohrab bought and Ramin also knows what books.’

• Even though the remnants in these examples do not bear pitch accents, they are perceptually distinct from surrounding material. They are louder (indicated with italics).

• In certain contexts, foci do not receive a canonical phonological realization with a pitch accent. These are instances of SECOND OCCURRENCE FOCUS (Partee 1991, 1999, Rooth 1996, and much subsequent work).

(44) Our grad students only quote the Facultys. No, the UNdergrads only quote the faculty.s.
(modified from Büring 2006:7)

• In the first sentence, only is associated with the faculty, which bears a pitch accent. In the second sentence, only occurs again, associating with the faculty. This is the second occurrence focus, which is not realized with a pitch accent like a canonical focus, but increased energy and duration.

• Building on a proposal by Rooth (1996), Büring (2006) argues that whether or not a focus will be realized as a second occurrence focus is determined by the size of its domain.

(45) Domain theory of primacy. Among two foci in a sentence, the primary focus is the focus whose domain contains the domain of the other.

(Büring 2006:8)

(46) [No, the UNdergrads only [quote the faculty]] }~₃ ~₃.
The free focus on *the undergrads* is associated with a root-level focus operator, \~3, that assigns a focus to all nongiven material (in the sense of Schwarzschild 1999).

Since the domain of \~3 contains the domain of \~4, the focus on *the faculty* is realized as a second occurrence focus.

Under this account, a single focus can sometimes be associated with multiple \~ operators. This happens whenever the focus of a smaller domain is the primary accent.

(47)  [Our grad students only quote [the Faculty\~1,2] \~3  \~1.

The sluicing example in (42) has a parallel focus structure. chandā 'how many' in Spec-FP forms its own focus domain. But the subject rāmin 'Ramin' also bears a free focus, which I assume is interpreted by a root-level focus operator.

(48)  mā midunam sohrāb chandā ketāb xaride vali rāmin\~1,2 hanuz ne-midune we know.1pl Sohrab how many book bought.3sg but Ramin yet neg-know.3sg [chandās\~2] \~2  \~1.

how many

'We know how many books Sohrab bought but Ramin doesn’t yet know how many.'

⇒ Instead of being a counterexample to my proposal, sentences like (48) actually constitute a strong argument for it. Büring’s account of second occurrence focus can only be extended to these examples if the remnant sits in Spec-FP and forms its own focus domain.

5 Conclusion

⇒ Sluicing in Farsi is derived by a combination of focus fronting and TP-deletion.

⇒ Mysterious cases of sluicing where the remnant does not bear a pitch accent are actually secondary occurrence foci, providing additional support that sluicing involves focus fronting.

A Farsi sluicing is not stripping

- Stripping (a.k.a. bare argument ellipsis) is seriously degraded or ungrammatical in embedded contexts, while sluicing (as well as verb phrase ellipsis) is fine in this environment.

(49)  * Suzanne plays cello, and I think that Michael too.

(50)  Suzanne plays something, but I don’t think she ever told me what.

(51)  in ketāb tu ganre zunzda neveshte shode va fekr mikonam ke this book in century nineteen written became.3sg and thought did.1sg that midunam tavasote ki. know.1sg by who

‘This book was written in the nineteenth century and I think that I know by whom.’

- Stripping cannot occur before its antecedent, while sluicing can (as long as it obeys Hankamer and Sag’s (1976:424) Backwards Anaphora Constraint).

(52)  * Michael too, and Suzanne plays cello.

(53)  I don’t know what, but I’m sure Suzanne plays something.

(54)  ne-midunam chi-ro amma midunam ke sohrāb ye chiz-i-ro xaride. neg-know.1sg what-obj but know.1sg that Sohrab one thing-ind-obj bought.3sg

‘I don’t know what, but I know that Sohrab bought something.’

B Further evidence that Farsi sluicing is derived by movement

- Positive evidence for movement in Farsi sluicing comes from what Merchant calls FORM-IDENTITY GENERALIZATIONS. If the remnant in sluicing arrives at its position by movement then it should obey the usual constraints on movement (with the exception of island constraints).

- In English, since prepositions can either be stranded by wh-movement or piedpied, then either should be grammatical in sluicing:

(55)  Peter was talking with someone, but I don’t know (with) who.

(Merchant 2001:92)

⇒ Since Farsi does not allow preposition stranding, we predict it will not allow it under sluicing.

(56)  a.  bā ki ali (bā ki) harf mizad?

with who Ali speech hit.3sg

‘Who was Ali talking with?’

b.  * ki ali bā (ki) harf mizad?

who Ali with speech hit.3sg

(57)  ali bā kesī harf mizad, ammā ne-midunam *bā) ki.

Ali with someone speech hit.3sg but neg-know.1sg with who

‘Ali was speaking with someone but I don’t know who.’

(Merchant 2001:96)

Abbreviations

The abbreviations I use are: acc, accusative; ind, indefinite; neg, negation; nom, nominative; obj, Farsi differential object marker; pres, present; rel, relativizer; top, topic; q, question particle. Native speaker judgments were obtained from four speakers residing in Tehran, Iran and the United States.

References


University of California, Berkeley
Department of Linguistics
1203 Dwinelle Hall
Berkeley, CA 94720
mtoosarvandani@berkeley.edu
http://socrates.berkeley.edu/~maziart/