

Subject-Object Asymmetries in Persian Argument Ellipsis and the Anti-Agreement Theory

Abstract: In this article, we investigate the distribution of argument ellipsis in Persian in the context of the recent debate concerning the syntactic derivation of null arguments. Using sloppy/quantificational interpretations of elided arguments (Oku 1998; Takahashi 2008a, b), we provide novel examples showing that Persian exhibits subject-object elliptical asymmetries. We develop various arguments, based on verb-identity effects, specificity-governed positions of direct objects, VP-internal trapping effects caused by PP-scrambling and anaphor binding, and the relative order of a verb with respect to its nominal complement, against the Verb-Stranding VP-ellipsis analysis of the subject-object asymmetry (Huang 1987, 1991; Otani and Whitman 1991). We argue instead that the asymmetry in question is straightforwardly captured by the anti-agreement theory of Saito (2007) to the effect that ϕ -feature agreement blocks LF-Copy underlying argument ellipsis. Our analysis predicts that the logical subject in Persian should be able to permit argument ellipsis when it is not in the position associated with ϕ -feature agreement. We show that this prediction is indeed borne out in locative/experiencer constructions as well as passive constructions whose inanimate plural subjects do not enter into agreement relation with any functional head. We also briefly explore one significant consequence of our analysis for the proper treatment of the so-called differential object marker *-râ* and conclude that this marker is the default morphological case in the technical sense of Marantz (1991).

Keywords: argument ellipsis, verb-stranding VP-ellipsis, sloppy/quantificational interpretation, LF-copy, ϕ -agreement, *-râ*

25 **1. Introduction**

26 There has been considerable debate in the last three decades or so over the nature of
27 mechanism(s) responsible for the ellipsis of grammatically required arguments such as
28 subjects and objects within the framework of generative grammar. The most authoritative
29 hypothesis in the field until the 1980s had it that the missing arguments are not literally
30 “empty” in the syntactic structure, but rather occupied by *pro*’s, the null counterpart to
31 regular overt pronouns. The extensive research on null subjects in languages like Italian
32 (Perlmutter 1971; Taraldsen 1978; Chomsky 1981; Jaeggli 1982; Rizzi 1982, 1986) has
33 yielded the well-known generalization that the availability of the *pro*-subject in a
34 language is conditioned by rich agreement under T because the latter, by hypothesis,
35 recovers the ϕ -features of the missing subject, thereby circumventing the need for overt
36 subjects, unlike in languages with relatively impoverished agreement inflections, such as
37 Modern English. The general validity of this generalization – which later came to be
38 known as *Taraldsen’s Generalization* – was soon called into question, however, by
39 parallel investigations into the range and depth of permissible *pro*-drop patterns in
40 Japanese, Korean and Chinese (Kuroda 1965; Ohso 1976; Hoji 1985; Saito 1985; Huang
41 1982, 1984), which showed that these languages allow *pro* drop even more freely than null-
42 subject languages such as Italian even though they uniformly lack any system of ϕ -
43 agreement – a pattern now widely recognized as *radical pro drop*. A rather typologically
44 conflicting generalization has thus emerged that *pro* occurs in the context of very rich
45 agreement, as in Italian, or no agreement at all, as in Chinese, Korean and Japanese (see
46 Huang 1982, 1984, Jaeggli and Safir 1989 and Speas 2006 for more detailed discussion).

47 Alongside the debate concerning the licensing conditions on the distribution of null
48 pronouns, some researchers such as Huang (1987, 1991) and Otani and Whitman (1991)

49 had raised an important theoretical question whether *pro* is the only analytical possibility
50 for null arguments in radical pro drop languages. They showed that there are certain
51 instances of null arguments in the East Asian languages whose referential and interpretive
52 properties cannot be wholly explained by the uniform *pro*-theory, but instead must be
53 analyzed in terms of VP-ellipsis – now commonly named *Verb-Stranding VP-Ellipsis*
54 (Goldberg 2005). This line of research has since been extended beyond the East Asian
55 languages to many typologically different languages, including Irish (McCloskey 1991,
56 2007, 2010), Hebrew (Doron 1999), Swahili (Ngonyani 1996), Egyptian Arabic (Tucker
57 2011), European/Brazilian Portuguese (Cyrino and Matos 2002; Santos 2009), and
58 Russian (Gribanova 2012, 2013). The new approach pursued by Huang and Otani and
59 Whitman, of course, also sparked a renewed interest in the exact identity of elliptic
60 arguments in the East Asian languages. Subsequent research, particularly, Oku (1998),
61 Kim (1999), Saito (2007), and Takahashi (2008a, b, 2013a, b, 2014), amassed convincing
62 arguments that Japanese, for example, possesses argument ellipsis as a distinct
63 grammatical phenomenon responsible for the generation of elliptic arguments which
64 exhibit sloppy/quantificational interpretations.

65 The most important research question in the current comparative syntax of elliptic
66 arguments, thus, boils down to which language(s) employ which syntactic mechanism(s)
67 (e.g., *pro*, VP-ellipsis, or argument ellipsis) for which null argument(s) (e.g., null subject
68 or null object), as well as why a particular mixture of these combinations, not others, is
69 attested. The objective of this article is to compare the competing theories of null
70 arguments put forth in the literature from the perspective of Persian, a language which has
71 heretofore never been studied with respect to the phenomenon of argument ellipsis. As we
72 will see shortly, one of the most intriguing grammatical features of Persian is that it

73 exhibits significant variability in the surface word order of syntactic constituents strictly
74 governed by discourse-configurational notions such as specificity and topic/focus, thereby
75 providing us with various testing grounds to empirically distinguish among the competing
76 hypotheses regarding the origin of elliptic arguments in this language.

77 The present article is organized as follows. In section 2, using sloppy/quantificational
78 interpretations of null arguments as diagnostic tests for argument ellipsis (Oku 1998;
79 Takahashi 2008a, b), we show that Persian exhibits a curious subject-object asymmetry;
80 null objects, but not null subjects, allow sloppy/quantificational interpretations. At first
81 blush, this asymmetry may invite the Verb-Stranding VP-Ellipsis analysis, according to
82 which a main verb undergoes V-to-T raising, followed by VP-ellipsis. However, we
83 introduce a wide range of arguments, some based on the previous work and others based
84 on language-specific properties of Persian, against this analysis. The arguments include
85 the lack of verb-identity effects, the relative order of specific vs. non-specific direct
86 objects vis-à-vis low adverbs, VP-internal trapping effects created by PP-scrambling and
87 anaphor binding, and the fixed order between verbs and their nominal complements
88 (Karimi 2005). We also point out empirical problems which face other alternative
89 analyses of elliptic arguments in Persian which do not resort to argument ellipsis,
90 including Hoji's (1998) indefinite *pro*-analysis developed on Japanese null object
91 constructions. In section 3, we propose that the core subject-object ellipsis asymmetry is
92 correctly predicted by the anti-agreement theory (Saito 2007) to the effect that the
93 application of LF-Copy underlying argument ellipsis is blocked by the presence of ϕ -
94 feature agreement under functional heads (Ts and *v*'s). The present analysis further
95 predicts that the empty subject in principle should allow argument ellipsis as long as it
96 stays in a position not associated with ϕ -feature agreement. We show that this prediction

is indeed borne out in locative/experiencer constructions as well as in passive constructions in which inanimate plural subjects do not enter into an agreement relation with any functional head. Our analysis also allows us to narrow down the analytic search space for the identity of the so-called differential object marker *-râ*, which has been vigorously contested in the literature on Persian syntax. We put forth a new analysis of this marker as a default morphological case in the technical sense of Marantz (1991)/Bobaljik (2006), a new analysis which is consistent with the anti-agreement analysis of Persian argument ellipsis. Section 4 is the conclusion of the paper.

105

2. Subject-Object Asymmetries in Persian Argument Ellipsis

Persian is an Iranian language of the Indo-Iranian sub-branch of the Indo-European family. It is a head-initial language except for the VP-level at which verbs occur in the final position (Karimi 2005). Persian is widely known for its large, open-ended list of complex predicates, consisting of a non-verbal element within the complement of *v* and a semantically bleached light verb generated under *v* (Karimi 1997; Folli et al. 2005; Toosarvandani 2009; Megerdooian 2012). The number of simplex verbs is extremely limited, with some estimated 120 verbs remaining in current use (Mohammad and Karimi 1992: 195), and most verbal concepts are expressed instead by increased reliance on complex predicates. Persian exhibits subject-verb agreement, but not object-agreement. For example, the verb *xun* ‘to read’ in Persian exhibits overt morphological agreement in person and number with the subject, not with the direct object, as attested by the following full conjugation paradigm associated with the verb.¹

¹ The following abbreviations are used in the data section of this paper: ACC, accusative; AOR, aorist; ASP, aspect; CL, classifier; COMP, complementizer; DAT, dative; EZ, ezafe; FUT, future; GEN, genitive; IND, indicative; INTERR, interrogative; NEG, negation; NOM, nominative; PASS, passive; PAST, past

119 (1) Subject-Verb Agreement in Number and Person with the Persian Verb *xun* ‘to read’

	Singular	plural
First person	Man ketâb mi-xun- am . I book ASP-read-1SG ‘I read books.’	Mâ ketâb mi-xun- im . we book ASP-read-1PL ‘We read books.’
Second person	To ketâb mi-xun- i . you book ASP-read-2SG ‘You read books.’	shomâ ketâb mi-xun- in . you book ASP-read-2PL ‘You read books.’
Third person	Un ketâb mi-xun- e . he/she book ASP-read-3SG ‘He/she reads books.’	Unâ ketâb mi-xun- in . they book ASP-read-3PL ‘They read books.’

120

121 Persian is also a radical pro drop language with frequent use of null arguments in both
122 subject and object positions. In the rest of this section, we investigate the range of
123 possible interpretations available to elliptic arguments in this language.

124

125 2.1. *Subject-Object Elliptical Asymmetry in Persian: Evidence from Sloppy Interpretations*

126 Let us first consider an example of the null object construction. (2b) is a case in point.
127 The clitic *esh* in (2a) is a gender-neutral pronoun. The particle *ham* in (2b–c) has two
128 different functions: it can be used either as a focus particle meaning ‘also’ or as a topic
129 particle meaning ‘as for’. We will simply gloss *-râ* as RÂ until section 3.3 when the
130 precise identity of this marker becomes relevant for our discussion.

131

tense; PL, plural; PRES, present tense; SG, singular; SUBJ, subjunctive; TOP, topic; 1/2/3, first/second/third persons.

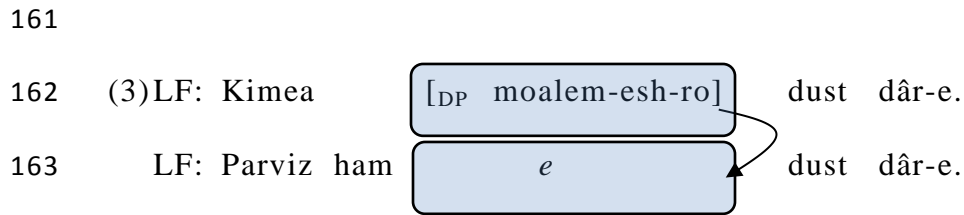
- 132 (2)a. Kimea moalem-esh-ro dust dêr-e.
 133 Kimea teacher-her-RÂ friend have-3SG
 134 ‘Kimea loves her teacher.’
- 135 b. Parviz ham *e* dust dêr-e. (?strict/sloppy)
 136 Parviz also friend have-3SG
 137 ‘*Lit.* Parviz also loves *e*.’
- 138 c. Parviz ham un-o dust dêr-e. (strict/*sloppy)
 139 Parviz also him-RÂ friend have-3SG
 140 ‘Parviz also loves him.’

141

142 In (2b), the direct object, designated here as *e*, goes missing due to the fact that the null
 143 object is more or less anaphoric to the overt direct object *moalem-esh-ro* ‘her/his teacher’
 144 in (2a). The missing argument here allows both strict and sloppy interpretations. In other
 145 words, the sentence in (2b) means either that Parviz also loves Kimea’s teacher (the
 146 strict interpretation) or that Parviz also loves Parviz’s own teacher (the sloppy
 147 interpretation). Suppose that the identity of the null object here is *pro*. Given the
 148 plausible heuristic assumption that the syntax and semantics of empty pronouns closely
 149 mirrors that of their overt counterparts, the sloppy interpretation for the null object in
 150 (2b) would be mysterious. This is because the example in (2c), with the overt pronominal
 151 *un-o* ‘him’ in direct object position, can only yield the strict interpretation.

152 The argument ellipsis theory, on the other hand, provides a straightforward account
 153 for the sloppy interpretation obtained in the null object construction. Here and
 154 throughout this paper, we follow Oku’s (1998) technical execution of this phenomenon
 155 in terms of LF-Copy (see section 2.5 for a detailed discussion on Oku’s theory which

156 relates the availability of argument ellipsis to the availability of Japanese-style
 157 scrambling). Oku proposes that in Japanese, an empty argument with sloppy
 158 interpretations arises when the argument in question is recovered at LF by copying the
 159 overt argument into the ellipsis site. Transporting this LF-Copy analysis to Persian, the
 160 null object construction in (2b) is analyzed as shown in (3).



165 In this representation, the overt object *moalem-esh-ro* ‘her/his teacher’ in (2a) is copied
 166 at LF onto the corresponding empty object position in (2b) to yield the sloppy
 167 interpretation for the null object. Indeed, the example in (4), with the direct object from
 168 (2a) repeated in direct object position in (2b), does exhibit the sloppy interpretation.

169

170 (4) Parviz ham **moalem-esh-ro** dust dêr-e. (*strict/sloppy)

171 Parviz also teacher-his-RÂ friend have-3SG

172 ‘Parviz also loves his teacher.’

173

174 We assume throughout this paper that the strict interpretation is derived uniformly by the
 175 *pro*, following the traditional *pro*-theory, and focus instead on the availability of the
 176 sloppy interpretation, which is the relevant diagnostic test for argument ellipsis.

177 Turning now to elliptic subjects, the example in (5b) illustrates a null subject
 178 construction in which the embedded empty subject is somehow anaphoric to the overt subject
 179 in the full-fledged antecedent clause in (5a). Unlike null objects, however, null subjects

180 disallow the sloppy interpretation; (5b) can mean that Parviz said that Kimea's friend knows
 181 French, but cannot mean that Parviz said that Parviz's own friend knows French.

182

183 (5)a. Kimea goft [_{CP} ke dust-esh farsi balad-e].

184 Kimea said COMP friend-her Farsi know-3SG

185 'Kimea said that her friend knows Farsi.'

186 b. Parviz goft [_{CP} ke *e* farânse balad-e]. (strict/*sloppy)

187 Parviz said French know-3SG

188 '*Lit.* Parviz said that *e* knows French.'

189 c. Parviz goft [_{CP} ke un farânse balad-e]. (strict/*sloppy)

190 Parviz said COMP he French know-3SG

191 '*Lit.* Parviz said that he knows French.'

192

193 In this regard, it is conceivable that the null subject in Persian must be realized as *pro*, for
 194 the overt third-person pronoun *un* only allows the strict interpretation, as shown in (5c).

195 As our current concern lies in the availability of argument ellipsis in Persian as an
 196 independently available grammatical process, it is important to check whether Persian also
 197 allows other non-nominal arguments such as PPs and CPs to manifest this phenomenon.²
 198 The answer is positive, as shown in (6) and (7).

199

200 (6) Parviz be xâhar-esh ye ketâb dâd va Azita ham *e*_{PP} ye ghalam dâd. (strict/sloppy)

201 Parviz to sister-his a book gave.3SG and Azita also a pen gave.3SG

202 'Parviz gave a book to his sister, and Azita also gave a pen (to her sister).'

² We would like to thank an anonymous reviewer for encouraging us to check whether Persian allows ellipsis of selected PPs/CPs as well as ellipsis of adjuncts.

203 (7) Parviz *fekr* mi-kon-e ke xâhar-esh bâhushtar az xod-esh-e
 204 Parviz thought ASP-do-3SG COMP sister-his smarter of self-his-is
 205 ammâ Kimea *fekr* ne-mi-kon-e *e*_{CP}. (strict/sloppy)
 206 but Kimea thought NEG-ASP-do-3SG
 207 ‘Parviz thinks that his sister is smarter than him. But Kimea doesn’t think that his/her
 208 (=Parviz’s/Kimea’s) sister is smarter than Parviz/Kimea.’

209

210 The example in (6) involves the argument ellipsis of the goal argument of the ditransitive
 211 verb *dâd* ‘give’, as attested by the fact that the elliptical clause allows for the sloppy
 212 interpretation that Azita also gave a pen to Azita’s sister. Similarly, the example in (7)
 213 involves the ellipsis of the CP complement of the verb *fekr* ‘to think’. Again, the elided CP
 214 permits the sloppy interpretation that Kimea does not think that Kimea’s sister is smarter
 215 than Kimea. Furthermore, if the phenomenon under our investigation is argument ellipsis,
 216 we further expect that adjunct expressions, being a non-argument, should not be able to
 217 undergo this process. Example (8) shows that this expectation is indeed borne out.

218

219 (8) Kimea mâshin-esh-o bâ degghat shost, va Arezu *e* xoshk kard. (strict/?sloppy)
 220 Kimea car-her-RÂ with precision washed.3SG and Arezu dry did.3SG
 221 ‘Kimea washed her car carefully, and Arezu dried (her car).’

222

223 The elliptical clause in (8) allows for the sloppy interpretation where Arezu dried her own
 224 car. Importantly, however, the second clause cannot include the adverbial to be
 225 interpreted together with the elliptical object. That is, it cannot mean that Arezu dried her
 226 own car carefully; it is just that Arezu dried it. The inability of the adverbial to be

227 included in the interpretation of the ellipsis site thus further proves the availability of
228 argument ellipsis in Persian as an independently available grammatical phenomenon.

229

230 2.2. *Further Evidence for the Subject-Object Asymmetry: Quantificational Interpretations*

231 We introduce further evidence for the subject-object asymmetry in Persian argument
232 ellipsis from the E-type/quantificational ambiguity exhibited by empty arguments in
233 Persian. Takahashi (2008a) proposes the availability of quantificational interpretations
234 as another diagnostic test for argument ellipsis together with sloppy interpretations.
235 Consider first the null object construction in (9b) to illustrate how this test plays out in
236 Persian.

237

238 (9)a. Kimea se-tâ mo'alem-ro davat kard.

239 Kimea three-CL teacher-RÂ invitation did.3SG

240 'Kimea invited three teachers.'

241 b. Parviz ham *e* davat kard. (E-type/quantificational)

242 Parviz also invitation did.3SG

243 '*Lit.* Parviz also invited *e*.'

244 c. Parviz ham un-â-ro davat kard. (E-type/*quantificational)

245 Parviz also them-PL-RÂ invitation did.3SG

246 '*Lit.* Parviz also invited them.'

247

248 The null object in (9b) allows two interpretations. One interpretation – the *E-type*
249 interpretation (Evans 1980) – is that the set of three teachers that Parviz invited is
250 identical to the set of three teachers that Kimea invited. The other interpretation – the

251 *quantificational* interpretation – is that the set of three teachers that Parviz invited may
 252 be different from the set of three teachers that Kimea invited. The latter interpretation
 253 cannot be explained by the *pro*-theory, for the example in (9c) with the overt plural
 254 pronoun *unâ* ‘them’ blocks the quantificational interpretation. Again, this interpretation
 255 is correctly accounted for under the argument ellipsis theory, according to which the LF-
 256 representation for (9b) will be as in (10).

257

258 (10) LF: Kimea [DP_{SE}-tâ mo’alem-ro] davat kard.
 259 LF: Parviz ham [e] davat kard.

260

261 In this representation, the quantified object *se-tâ mo’alem-ro* ‘three teachers’ is copied
 262 from the preceding clause onto the empty object position in the elliptical clause. The
 263 quantificational interpretation obtains because the copied object then can behave
 264 independently of its antecedent in terms of quantification.

265 Example (11b) illustrates the null subject construction. Interestingly, the null subject
 266 here only permits E-type interpretations, on a par with overt pronouns, suggesting again
 267 that Persian employs *pro*-strategy uniformly for the null subject argument.

268

269 (11) a. Kimea goft [_{CP} ke se-tâ dâneshtu mi-tun-an ingilisi harf be-zan-an].
 270 Kimea said COMP three-CL student ASP-can-3PL English talk SUBJ-hit-3PL
 271 ‘Kimea said that three students can speak English.’
 272 b. Parviz goft [_{CP} ke e mi-tun-an farânse harf be-zan-an].(E-type/*quantificational)
 273 Parviz said COMP ASP-can-3PL French talk SUBJ-hit-3PL
 274 ‘*Lit.* Parviz said that *e* can speak French.’

275 c. Parviz goft [_{CP} ke unâ mi-tun-an farânse harf be-zan-an]. (E-type/*quantificational)
 276 Parviz said COMP they ASP-can-3PL French talk SUBJ-hit-3PL
 277 ‘‘*Lit.* Parviz said that they can speak French.’

278

279 One may suggest that the interpretive restriction imposed on the null subject in
 280 Persian can be attributed to the definiteness restriction observed in other languages such
 281 as Chinese. More specifically, the obligatory E-type interpretation in (11b) may well be
 282 attributed to this restriction so that the antecedent argument in (11a) must be interpreted
 283 as definite (i.e., *the three students*) rather than indefinite (i.e., *three students*).³ We
 284 believe that this alternative analysis is easy to dismiss, for the subject position in Persian
 285 is not subject to the relevant restriction in the first place. Thus, in (12), the subject can
 286 be interpreted as a non-specific DP without any loss of grammaticality.

287

288 (12) tu un otâgh ye doxtar dêr-e mi-raghs-e. (non-specific)
 289 in that room a girl have-3SG ASP-dance-3SG
 290 ‘In that room, a girl is dancing.’

291

292 The empirical question that we would like to address in the rest of this section,
 293 then, is what lies behind the interpretive asymmetry between null subjects and null
 294 objects in Persian. We discuss one influential analysis of such an asymmetry in the
 295 following subsection.

296

297

³ We thank an anonymous reviewer for suggesting this alternative possibility.

298 2.3. *The Verb-Stranding VP-Ellipsis Theory of Null Arguments in Persian*

299 The V-Stranding VP-Ellipsis (henceforth VVPE) Theory, originally proposed for
300 Japanese/Chinese elliptic arguments by Huang (1987, 1991) and Otani and Whitman
301 (1991), maintains that the empty argument in direct object position arises when the
302 main verb is left as a remnant due to overt V-to-T raising followed by VP-ellipsis,
303 thereby giving the surface appearance of elliptic objects. It is well known (Sag 1976;
304 Williams 1977) that in languages with VP-ellipsis such as English, sloppy
305 interpretation for the missing direct object can arise as the result of VP-ellipsis, as
306 shown in (13).

307

308 (13) David scratched his arm, and Bob did [_{VP} Ø], too. (strict/sloppy)

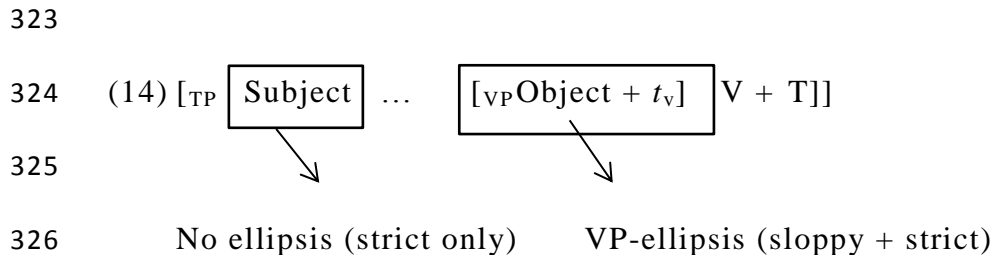
309 a. David [_{VP} $\lambda x(x \text{ scratch his arm})$] \rightarrow Bob did [_{VP} $\lambda x(x \text{ scratch his arm})$] \rightarrow strict

310 b. David [_{VP} $\lambda x(x \text{ scratch } x\text{'s arm})$] \rightarrow Bob did [_{VP} $\lambda x(x \text{ scratch } x\text{'s arm})$] \rightarrow sloppy

311

312 Within William's (1977) system of LF-reconstruction, the strict reading for (13) (i.e.,
313 "Bob scratched David's arm too.") obtains when the antecedent VP shown in (13a) is
314 copied onto the empty VP, where *his* is taken as a referential pronoun referring to *David*.
315 The sloppy reading for (13) is derived, on the other hand, by copying the antecedent VP
316 shown in (13b) onto the VP-ellipsis site, where *his* is taken as a variable bound by a
317 lambda operator so that *his* can be bound instead by *Bob*. The point here, of course, is
318 that the ambiguity between sloppy and strict readings is contingent on the prior
319 application of VP-ellipsis. Consequently, then, it may well be that the subject-object
320 asymmetry in Persian could be similarly explained away through VVPE; that is to say, in

321 Persian, the null object, but not the null subject, allows sloppy readings because only the
 322 former is within the VP, as schematically illustrated in (14).



327

328 At first blush, then, the VVPE might look quite feasible for the ellipsis of arguments
 329 in Persian. This expectation is further reinforced by Toosarvandani (2009), who shows
 330 that Persian independently possesses what he calls v -Stranding VP-Ellipsis where the
 331 non-verbal element of a complex predicate (as well as its internal arguments) is deleted,
 332 leaving behind just the light verb under v head. One example of v -Stranding VP-Ellipsis
 333 is given in (15).

334

335 (15) Sohrâb piranâ-ro otuout na-zad vali Rostam ~~[NP piranâ-ro otu]~~ zad.

336 Sohrab shirt.PL-RÂ iron NEG-hit.PAST.3SG but Rostam shirt.PL-RÂ iron hit.PAST.3SG

337 ‘Sohrab didn’t iron the shirts, but Rostam did.’ (Toosarvandani (2009:61))

338

339 Toosarvandani proposes that this ellipsis be analyzed as deletion of the complement of
 340 the stranded v , a pattern strongly reminiscent of the VVPE approach introduced above.

341 Tempting as the VVPE analysis might be, we introduce below four arguments showing
 342 that this analysis cannot be transported to argument ellipsis in Persian. Our first argument
 343 against the VVPE analysis concerns the (lack of) verbal-identity requirement imposed on
 344 the application of VP-ellipsis. McCloskey (1991, 2007, 2010), Doron (1999), and Goldberg

345 (2005) observe that, for VP-ellipsis to occur, the main verb within the VP-ellipsis site must
 346 be identical to the main verb of the full-fledged antecedent clause. This verb-identity
 347 requirement is illustrated in Irish in (16a, b). See also Doron (1999) and Goldberg (2005)
 348 for examples in Hebrew and Swahili illustrating the same requirement.

349

350 (16) a. Ar **cheannaigh** siad teach? - Creidim gur **cheannaigh**.

351 COMP.INTERR buy.PAST they house believe.PRES.1SG COMP buy.PAST

352 ‘Did they buy a house?’ ‘I believe they did.’

353 b.* Níor **cheannaigh** siad ariamh teach ach **dhíol**.

354 NEG buy.PAST they ever house but sell.PAST

355 ‘Intended: They never bought a house, but they sold (a house).

356 ((16a) from McCloskey (1991: 274); (16b) from McCloskey (2007: 22))

357

358 (16a) is fine because the verbs in the antecedent and elliptical clauses are identical.

359 (16b) is ill-formed, on the other hand, because the stranded verb is not identical to its

360 correlate. Bearing this verbal identity requirement in mind, if the VP-ellipsis is indeed

361 responsible for the origin of a null object with sloppy readings in Persian, then we

362 predict that the null object construction in this language should exhibit the verbal-

363 identity requirement, just like Irish. The grammaticality of the example in (17b) shows,

364 however, that this prediction is incorrect. Here, the verbs in the two otherwise parallel

365 sentences can be different – *nevesht* ‘wrote’ vs. *xund* ‘read’ – but nonetheless the null

366 object can still exhibit the sloppy (as well as strict) interpretation.

367

368

369 (17) a. Kimea nâma-sh-ro **xund**
 370 Kimea letter-her-RÂ read.3SG
 371 ‘Kimea read her letter.’

372 b. Parviz ham *e* **nevesht.** (?strict/sloppy)
 373 Parviz also wrote.3SG
 374 ‘*Lit.* Parviz wrote *e*.’

375

376 Our second argument against the VVPE analysis comes from the relative order of
 377 the specific/non-specific direct object vis-à-vis VP-level adverbials. Consider (18–19).

378

379 (18) Kimea [_{DP} mâshi-esh-o] [_{PP} bâ degghat] mi-shost amma Ali *e*_{DP}
 380 Kimea car-her-RÂ with precision ASP-washed.3SG but Ali
 381 [_{PP} bâ bideghghati] khoshk mi-kard. (Specific object > Adjunct PP)
 382 with imprecision dry ASP-did.3SG
 383 ‘Kimea washed her car carefully, but Ali dried (her car) carelessly.’

384

385 (19) Kimea [_{PP} bâ degghat] [_{NP} mâshin] mi-shost amma Ali
 386 Kimea with precision car ASP-washed.3SG but Ali
 387 [_{PP} bâ bideghghati] *e*_{NP} khoshk mi-kard. (Adjunct PP > Non-Specific Object)
 388 with imprecision dry ASP-did.3SG
 389 ‘Kimea washed cars carefully, but Ali dried cars carelessly.’

390

391 The example in (18) illustrates that the specific object *mâshi-esh-o* ‘her car’ precedes the
 392 VP-level manner adverb *bâ degghat* ‘carefully’ (Cinque 1999). The example in (19)

393 illustrates that this order is reversed when the object is non-specific. Let us assume then,
 394 following Karimi (2003a, b, 2005), that the specific object is outside the VP and moves
 395 into the [Spec, ν P] whereas its non-specific variant remains within the VP. Under this
 396 assumption, the only structural position for the manner adverbials in (18) and (19) would
 397 be within the VP. The VVPE analysis, then, could not derive the elliptical patterns
 398 exhibited in (18) and (19), for it would have no way of deleting the specific or non-
 399 specific objects without also deleting *bâ bideghghati* ‘carelessly’ contained within the
 400 VP domain.⁴ Note, further, that the ellipsis pattern in these examples cannot be
 401 accommodated by the *pro*-analysis, for the elliptical objects there permit the sloppy
 402 interpretation and thereby independently exclude such an analysis (see also section 2.4
 403 for independent evidence against the indefinite *pro*-analysis of Persian argument ellipsis).

404 Our third argument against the VVPE analysis is based on what we might call trapping
 405 effects created by scrambling in Persian. The essence of this argument owes itself to Şener
 406 and Takahashi’s (2010) argument from Turkish, which is in turn constructed on the model
 407 of an argument originally developed by Oku (1998) for Japanese argument ellipsis. Consider
 408 first examples of PP-scrambling in Persian, shown in (20a, b).

409
 410
 411

⁴ An anonymous reviewer points out that the present argument against the V-Stranding VP-Ellipsis analysis is valid only if such adverbial PPs are stuck in some VP-internal position and cannot undergo scrambling further up in the structure in Persian. Note, first, that we are arguing against the analysis outlined in (14), which involves V-to-T raising and VP-ellipsis. Therefore, we believe that our current argument holds as long as the specific object in Persian is in [Spec, ν P], a rather standard assumption in Persian syntax (Karimi 2005). This assumption thus ensures that the adverbial PPs in (18–19) are within the verbal projection, be it ν P or VP. Second, it is true that adverbial PPs can scramble in Persian. However, it is to be noted that scrambling in this language is a discourse-sensitive operation so that such movement requires clear discourse-motivations such as contrastive focalization or topicalization, with special intonational contour. The point here is that the PPs in (18–19) cannot scramble in a neutral, out-of-the-blue context. See also note 12 for relevant discussion.


- 412 (20) a. Kimea_i [DP ketâb-esh_{i/*j}-ro] [PP bâ Arezu_j] xund.
 413 Kimea book-her-RÂ with Arezu read.3SG
 414 ‘Kimea read her book with Arezu.’
- 415 b. Kimea_i [PP bâ Arezu_j]_k [DP ketâb-esh_{i/j}-ro] *t_k* xund.
 416 Kimea with Arezu book-her-RÂ read.3SG
 417 ‘Kimea read her book with Arezu.’
 418

419 In (20a), the anaphoric third-person pronoun *esh* can refer to *Kimea*, but not to *Arezu*.
 420 Once we scramble the PP across the direct object DP, however, the pronoun can refer
 421 either to *Kimea* or *Arezu*. This effect brought about by scrambling is illustrated in (20b).
 422 For the sake of argument, we adopt the analysis proposed by Karimi (1999, 2003a, b,
 423 2005), according to which scrambling in Persian is driven by topic or focus, and assume
 424 that the scrambling of the PP in (20b) targets [Spec, FocP] above the TP; the surface
 425 subject is then located in [Spec, TopP]. Bearing this observation in mind, let us now
 426 consider the example of an empty object construction shown in (21b).

- 427
- 428 (21) a. Kimea_i [DP ketâb-esh_{i/*j}-ro] [PP bâ Arezu_j] xund. (= (20a))
 429 Kimea book-her-RÂ with Arezu read.3SG
 430 ‘Kimea read her book with Arezu.’
- 431 b. ... ammâ Parviz *e*_{DP} [PP bâ Azita_j] na-xund.
 432 but Parviz with Azita NEG-read.3SG
 433 ‘*Lit.* ... but Parviz didn’t read *e* with Azita.’
 434

435 The example in (21b) allows the sloppy interpretation whereby Parviz didn't read Parviz's
 436 book with Azita. The crucial fact to note here is that in (21b), the anaphoric pronoun can
 437 refer to *Parviz*, but not to *Azita*. This means that the PP *bâ Azita* 'from Azita' has not
 438 undergone scrambling; recall the contrast between (20a) and (20b). The only structure for
 439 (21b), then, which meets this requirement under the VVPE ellipsis, would be something
 440 like (22). The element to be deleted is indicated by double strikethroughs.⁵

441

442 (22) [_{TopP} Parviz_i ... [_{vP} ~~~~ketâb-esh-ro~~~~ [_{PP} bâ Azita_j] *t_v*] na-xund.
 443 Parviz book-his-RÂ with Azita NEG-read.3SG
 444 
 445 Overt V-to-T Raising

446

447 As can be seen in (22), the VVPE analysis would not be able to delete just the specific
 448 direct object DP in [_{Spec}, _{vP}] without also deleting the following adjunct PP because
 449 both phrases are contained with the VP-ellipsis site. Accordingly, the sloppy
 450 interpretation in (21b) would remain mysterious under the VVPE theory.

451 Finally, we would like to note that the VVPE analysis for null arguments in
 452 Persian has an empirical problem independently of the ellipsis paradigms discussed so
 453 far. Recall that this analysis presupposes that main verbs in Persian undergo overt head
 454 movement to Ts so that only the internal arguments of the verbs are subject to ellipsis
 455 due to subsequent application of VP-ellipsis. However, there is reason to believe that
 456 Persian has no overt V-to-T raising. It is true that, as we have mentioned at the

⁵ Below, we will provide independent evidence against overt V-to-T raising in Persian, which the VVPE analysis resorts to for the derivation of the null object construction, based on the relative order of a verb with respect to its nominal complement. Hence, the representation shown in (22) should be taken to simply illustrate the derivation of the example in (21b) under the VVPE-analysis.

457 beginning of section 2, Persian is a verb-final language like Japanese. As such, it is
 458 difficult to tell whether there is overt V-to-T raising in Persian since the word order
 459 effects of such movement are string-vacuous. However, we can develop a solid
 460 empirical argument against V-to-T raising in Persian based on the relative order of
 461 main verbs with respect to their DP complements.⁶ Let us follow Karimi (2005:7–9) and
 462 assume that VP and *v*P levels are head-final whereas TP and CP levels are head-initial.
 463 Under this assumption, V-to-T raising would end up creating an SVO order shown in
 464 (23a), since the T position, which would host the verb, should precede the direct object
 465 (both specific and non-specific); as such, the grammatical SOV order shown in (23b)
 466 would be underivable as long as we assume overt V-to-T movement in Persian.⁷

467

468 (23) a. *Kimea [_T [_V xund]] ketâb-ro/ketâb *t_V*.

469 Kimea read.3SG book-RÂ/book

470 ‘Kimea read the book/book.’

471 b. Kimea ketâb-ro/ketâb xund.

472 Kimea book-RÂ/book read.3SG

473 ‘Kimea read the book/book.’

474

⁶ See also Toosarvandani (2009: 74–78) for another potential argument against overt V-to-T raising in Persian based on the availability of the so-called repetitive/restitutive readings induced by the modifier *dobāre* ‘again’ under *v*-Stranding VP-Ellipsis (Johnson 2004; von Stechow 1996; Rapp and von Stechow 1999). We won’t discuss Toosarvandani’s argument here since his analysis is founded on a different set of assumptions from ours regarding the structural position of specific vs. non-specific objects in Persian whose justifications would go far beyond the scope of this paper.

⁷ The specific object can follow the verb in Persian. However, in such a marked order, the verb must bear focal stress, indicating that the verb has moved into the head of FocP.

475 The grammatical order shown in (23b) is correctly predicted, on the other hand, if Persian
476 does not have V-to-T movement. The lack of V-to-T movement, therefore, poses an
477 independent empirical challenge to the VVPE approach to Persian argument ellipsis which
478 must resort to such movement as its central analytical premise.

479 To conclude our arguments against the VVPE theory discussed in this subsection, let
480 us make sure that the argument ellipsis theory can accommodate the examples discussed
481 in this subsection. Firstly, the lack of the verbal identity requirement is correctly
482 predicted by this theory because the null object there is simply the by-product of copying
483 the overt direct object onto the corresponding null object slot, in the manner already
484 shown in (3). The deletion of the specific/non-specific object to the exclusion of the VP-
485 internal PP-adverbs also makes sense since argument ellipsis, by hypothesis, applies
486 directly to arguments themselves. The examples illustrating VP-internal trapping effects
487 created by PP-scrambling and anaphor binding are accommodated in the same way.
488 Finally, the evidence against V-to-T raising in Persian is consistent with the argument
489 ellipsis theory, for the application of LF-Copy is independent of such a process, unlike in
490 the VVPE theory.

491

492 2.4. *Hoji's (1998) Indefinite Pro-Theory*

493 There is an interesting alternative theory of null arguments developed extensively in
494 Hoji (1998), who suggests that the sloppy interpretation of the null object in Japanese
495 has nothing to do with whether or not it undergoes ellipsis, be it argument ellipsis or
496 VP-ellipsis. Hoji argues instead that what null objects exhibit is merely “sloppy-like”
497 readings which are derived by the indefinite use of *pro* (i.e., *pro_{NP}*) on a par with

498 indefinite bare nominals. This indefinite *pro* theory is illustrated in Japanese examples
499 below.

500

501 (24) a. Subete-no itinensei_i-ga soitu_i-no booru-o ketta.
502 all-GEN first-year student-NOM that guy-GEN ball-ACC kicked
503 ‘Every first-year student kicked his/her ball.’

504 b. Subete-no ninensei-mo *e* ketta. (sloppy)
505 all-GEN second-year student-NOM kicked
506 ‘*Lit.* Every second-year student also kicked *e*.’

507 c. Subete-no ninensei-mo booru-o ketta.
508 all-GEN second-year student-also ball-ACC kicked
509 ‘Every second-year student also kicked a ball.’ (Hoji (1998: 141))

510

511 The null object in (24b) allows the sloppy interpretation that every second-year student
512 kicked his/her own ball. Hoji observes that the real-world situation described by this
513 interpretation can be truthfully expressed by the sentence in (24c), which has the bare
514 indefinite nominal argument *booru* ‘ball’ in direct object position. Accordingly, he
515 concludes that the sloppy interpretation can be accommodated by the null variant of the
516 indefinite bare noun, namely, *pro*_{NP}.

517 It is clear that this analysis works nicely for the derivation of the sloppy
518 interpretation for null objects, but it makes wrong empirical predictions when it is
519 tested against sentences within quantificational contexts, another diagnostic we have
520 introduced in section 2.2 for argument ellipsis. Examples (25) are a case in point.

521

522 (25) a. Kimea bishtar az panj mehmun davat kard.
 523 Kimea more than five guest invitation did.3SG
 524 ‘Kimea invited more than five guests.’
 525 b. Parviz ham *e* davat kard. (E-type/quantificational)
 526 Parviz also invitation did.3SG
 527 ‘*Lit.* Parviz also invited *e*.’
 528 c. Parviz ham *mehmun* davat kard.
 529 Parviz also guest invitation did.3SG
 530 ‘Parviz also invited guests.’
 531

532 The example in (25b) permits both E-type and quantificational interpretations according
 533 to which the set of five guests Kimea invited are identical to, or may be different from,
 534 the set of five guests that Parviz invited. We have shown in section 2.2 that the
 535 quantificational interpretation results from argument ellipsis/LF-Copy. The interesting
 536 point about (25b) is that these two are the only interpretations available for the null
 537 object. Importantly, our native speaker consultants of Persian unanimously agree that
 538 this example cannot mean that Parviz invited (an indefinite number of) guests. Hoji’s
 539 analysis predicts, however, that this interpretation should be available in (25b), because
 540 the overt counterpart of the indefinite *pro*, *mehmun* ‘guest’, allows this interpretation in
 541 (25c).

542 The Persian examples in (26), which we constructed on the model of the Japanese
 543 examples developed by Saito (2007) against Hoji’s analysis, also make the same point.
 544
 545

- 546 (26) a. Kimea gozâsht [_{CP}ke kelâs avvali-yâ ketâb-e xod-eshun-o be-xun-an].
 547 Kimea let COMP class first-PL book-EZ self-their-RÂ SUBJ-read-3PL
 548 ‘Kimea let the first graders read their own book.’
- 549 b. ammâ *e* na-zâsht [_{CP}ke kelâs dovvomi-yâ *e* be-xun-an]. (sloppy)
 550 but NEG-let COMP class second-PL SUBJ-read-3PL
 551 ‘*Lit...* but (she) didn’t let the second graders read *e*.’
- 552 c. ammâ *e* na-zâsht [_{CP}ke kelâs dovvomi-yâ ketâb be-xun-an].
 553 but NEG-let COMP class second-PL book SUBJ-read-3PL
 554 ‘... but (she) didn’t let the second graders read books.’

555

556 The null object example in (26b) permits the sloppy interpretation that the second graders
 557 were not allowed to read their own books. Interestingly, this sentence can be used in a
 558 situation where they were allowed to read some books, say, books owned by first graders
 559 or their teachers; it is just that Kimea did not let them read their own books. This reading
 560 should not be possible under Hoji’s indefinite *pro* analysis, however, because the example
 561 in (26c), which has the overt indefinite bare noun *ketâb* ‘book’ in direct object position,
 562 cannot be used to describe the context alluded to above; that is, (26c) means that the
 563 second graders were not allowed to read any books in the first place. We conclude then
 564 that Persian possesses argument ellipsis as a distinct grammatical option.

565

566 2.5. Oku’s (1998) Scrambling Hypothesis and Persian Argument Ellipsis

567 One of the most intriguing questions in the comparative study of argument ellipsis is what
 568 grammatical property enables the option of argument ellipsis in a particular language. In
 569 his pioneering work on this topic, Oku (1998) puts forth an explicit hypothesis which

570 links the availability of argument ellipsis to the availability of Japanese-style scrambling.
 571 This hypothesis builds on Bošković and Takahashi's (1998) theory of Japanese
 572 scrambling. Bošković and Takahashi (pp. 349) assume that θ -roles are formal features
 573 capable of driving syntactic movement (see also Hornstein 1999). Based on this
 574 theoretical assumption, they propose that so-called "scrambled" phrases in Japanese are
 575 base-generated at their surface position and undergo obligatory LF-lowering to a θ -
 576 position to check a θ -feature of the predicate. To illustrate this theory, *sono-hon* 'that
 577 book' in (27a) is directly merged at its surface position in overt syntax and later lowers to
 578 the θ -position of the embedded verb *watasita* 'handed' to check its undischarged internal
 579 θ -feature at LF, as shown in (27b).

580

581 (27) a. Sono hon-o Bill-ga [_{CP}Mary-ga John-ni watasita-to] omotteiru.

582 that book-ACC Bill-NOM Mary-NOM John-DAT handed-COMP think

583 'That book, Bill thinks that Mary handed to John.'

584 b. Bill-ga [_{CP}Mary-ga John-ni sono-hon-o watasita-to] omotteiru.

585  **LF-lowering for θ -feature checking**

586

587 Bošković and Takahashi argue that this base-generation approach to scrambling is
 588 possible in Japanese because θ -features in this language are weak in the sense of
 589 Chomsky (1995). According to Chomsky (1995), weak features must be checked before
 590 the syntactic derivation reaches LF and hence can be tolerated in overt syntax whereas
 591 strong features must be checked in overt syntax before they reach PF. A "lowering"
 592 derivation like the one shown in (27b) is legitimate in Japanese as long as the "scrambled"
 593 phrase checks the θ -feature of the embedded predicate by means of lowering before the

594 derivation reaches LF. Bošković and Takahashi suggest that such a derivation is
595 illegitimate in English, on the other hand, because θ -features are strong in this language.

596 Oku (1998) proposes that this weakness of θ -features in Japanese also makes it
597 possible for LF-Copy of an overt argument in the antecedent clause onto the
598 corresponding elliptic site in the target clause. To illustrate this theory using a null object
599 construction, a transitive verb in Japanese may occur without its direct object argument in
600 overt syntax, as shown in (28a), since its θ -feature is weak and hence does not have to be
601 checked until LF. An overt argument is then countercyclically merged at LF with the verb
602 to check the weak θ -feature of the verb for the derivation to converge, as shown in (28b).
603 Since LF-objects, by definition, lack phonetic content, we get the null object construction.

604

605 (28) a. Overt Syntax: [_{VP} V]

606 b. LF: [_{VP} V DP]

607

608 Oku's hypothesis straightforwardly derives the observation that Japanese allows argument
609 ellipsis in any grammatical position, including subjects and objects, as shown in (29–32).

610

611 (29) a. John-wa zibun-no tegami-o sute-ta.

612 John-TOP self-GEN letter-ACC discard-PAST

613 'John threw out his letter.'

614 b. Mary-mo *e* sute-ta. (strict/sloppy)

615 Mary-also discard-PAST

616 'Lit. Mary also threw *e* out.' (Otani and Whitman (1991:346–347))

617

618 (30) a. Mary-wa [_{CP} zibun-no teian-ga saiyou-sare-ru-to] omotteiru.
 619 Mary-TOP self-GEN proposal-NOM accept-PASS-PRES-COMP think
 620 ‘Mary thinks that her proposal will be accepted.’
 621 b. John-mo [_{CP} *e* saiyou-sare-ru-to] omotteiru. (strict/sloppy)
 622 John-also accept-PASS-PRES-COMP think
 623 ‘*Lit.* John also thinks that *e* will be accepted.’ (Oku (1998: 165))

624
 625 (31) a. Taro-wa sannin-no sensei-o sonkesiteiru.
 626 Taro-TOP three-GEN teacher-ACC respect
 627 ‘Taro respects three teachers.’
 628 b. Hanako-mo *e* sonkeisiteiru. (E-type/quantificational)
 629 Hanako-also respect
 630 ‘*Lit.* Hanako also respects *e*.’ (Şener and Takahashi (2010:81–82))

631
 632 (32) a. Sannin-no onnanoko-ga Taro-ni ai-ni kita.
 633 three-GEN girl-TOP Taro-DAT see-to came
 634 ‘Three girls came to see Taro.’
 635 b. *e* Ken-ni-mo ai-ni kita. (E-type/quantificational)
 636 Ken-TOP-also see-to came
 637 ‘*Lit.* *e* also came to see Ken.’ (Şener and Takahashi (2010:84))

638
 639 The examples in (29b) and (31b) show that the null object argument permits
 640 sloppy/quantificational interpretations. The examples in (30b) and (32b) show that the
 641 same interpretations are available for the null subject arguments. The symmetric argument

642 ellipsis pattern is available in Japanese because these positions can be reconstructed by
643 countercyclic LF-merger thanks to the weak specification of θ -features in this language.

644 It is important to check whether Oku's (1998) scrambling hypothesis correctly
645 circumscribes the behavior of Persian with respect to scrambling and argument ellipsis
646 because Persian allows scrambling and argument ellipsis alike. Two considerations, however,
647 reveal that the answer is negative. First, Oku's hypothesis makes the typological prediction
648 that the availability of argument ellipsis in a language correlates with the availability of
649 Japanese-style scrambling and vice versa (see also Bošković 2004). This prediction is shown
650 in (33a, b).⁸

651
652 (33) Oku's (1998) Scrambling Hypothesis and Its Predictions

- 653 a. If a language L has Japanese-style scrambling, L has argument ellipsis.
654 b. If a language L has argument ellipsis, then L has Japanese-style scrambling.

655
656 Specifically, Oku's hypothesis predicts that Persian, being an argument ellipsis language,
657 should have Japanese-style scrambling. A large body of work on Japanese scrambling
658 (Fukui 1993; Saito 1989, 1992; Saito and Fukui 1998) takes the defining characteristic of
659 Japanese-style scrambling to be its undoing property, or *radical reconstruction* in Saito's
660 (1989) terms. This property manifests itself in the obligatory narrow scope of the
661 scrambled phrase, as illustrated in (34).

662

⁸ An anonymous reviewer points out that, under Oku's hypothesis, the presence of scrambling is merely a necessary condition for the availability of argument ellipsis. We have a different interpretation of the implications of Oku's hypothesis than the reviewer's. Under Oku's theory, Japanese scrambling and argument ellipsis are nothing but two different surface manifestations of countercyclic merger, a syntactic option made available by the weak specification of θ -features. Accordingly, the presence/absence of one phenomenon must entail the presence/absence of the other. For this reason, we continue to assume that Oku's theory makes the predictions shown in (33a, b).

663 (34) Daremo-ni dareka-ga [_{CP} Mary-ga *e* atta-to] omotteiru. ($\exists > \forall; * \forall > \exists$)
 664 everyone-DAT someone-NOM Mary-NOM met-COMP think
 665 ‘*Lit.* Everyone, someone thinks that Mary met.’

666 (Bošković and Takahashi (1998: 354))

667

668 The reason that the scrambled universal quantifier *daremo-ni* ‘everyone-DAT’ cannot take
 669 scope over the existential quantifier *dareka-ga* ‘someone-NOM’ in its surface position is
 670 that the former must undergo obligatory LF reconstruction, or LF lowering in Bošković and
 671 Takahashi’s terms, to the complement position of the embedded verb to check the
 672 undischarged θ -feature of the verb. Turning to the corresponding case in Persian, Example
 673 (35) shows that the “scrambling” of the universally quantified DP *har pesar-i-ro* ‘every boy’
 674 to the sentence-initial position yields the wide scope reading with respect to the
 675 existentially quantified matrix subject *ye dāneshju-yi tu in kelâs* ‘one student in this class’.
 676 Note that the derived scope is not available when the universally quantified DP stays in its
 677 base-generated thematic position, as shown in (36).

678

679 (35) [_{DP}Har pesar-i-ro]_i ye dāneshju-yi tu in kelâs fekr mi-kon-e
 680 every boy-IND-RÂ one student-IND in this class thought ASP-do-3SG
 681 [_{CP}ke Kimea *t_i* dâst dâr-e]. ($\forall > \exists; \exists > \forall$)
 682 COMP Kimea friend have-3SG
 683 ‘One student in this class thinks that Kimea loves every boy.’

684

685

686

687 (36) ye dâneshtu-yi tu in kelâs fekr mi-kon-e [CP ke Kimea
688 one student-IND in this class thought ASP-do-3SG COMP Kimea
689 [DP har pesar-i-ro] dust dâr-e]. (* $\forall > \exists$; $\exists > \forall$)
690 every boy-IND-RÂ friend have-3SG
691 ‘One student in this class thinks that Kimea loves every boy.’
692

693 In this regard, then, the long-distance “scrambling” in Persian behaves on a par with
694 topicalization in English, illustrated in the examples in (37a, b), which show that the
695 topicalized DP *everyone* can have wide scope only in its derived position.
696

697 (37) a. Everyone, someone thinks that Mary met. ($\exists > \forall$; $\forall > \exists$)

698 b. Someone thinks that Mary met everyone. ($\exists > \forall$; * $\forall > \exists$)

699 ((37a) adopted from Bošković (2004: 618))
700

701 The above discussion, thus, disproves the second prediction of Oku’s hypothesis in (33b)
702 because Persian exhibits argument ellipsis, but lacks Japanese-style scrambling as defined
703 by radical reconstruction. See also Li (2007), Aoun and Li (2008), and Cheng (2012) for
704 supporting arguments that Mandarin is another argument ellipsis language which does not
705 possess Japanese-style scrambling; see Stjepanović (1999) and Bošković (2009), who
706 show that the other prediction of Oku’s theory in (33a) is disproved by Serbo-Croatian,
707 which has Japanese-style scrambling, but lacks argument ellipsis entirely.

708 Second, recall that Oku’s hypothesis derives the fact that Japanese allows argument
709 ellipsis in both subject and object positions by the assumption that θ -features are weak in
710 this language. The possibility of object argument ellipsis in Persian, then, means that θ -

711 features are weak in this language as well. Obviously, this result contradicts with our
712 earlier observation in section 2 that Persian exhibits the robust asymmetric distribution
713 between subject and object positions with respect to argument ellipsis.

714

715 **3. The Agreement-Based Analysis of the Subject-Object Ellipsis Asymmetry in Persian**

716 The central question of our ongoing quest into argument ellipsis in Persian is how the
717 subject-object asymmetry is derived. We argue in this section that LF-Copy is blocked in
718 the subject position in Persian by ϕ -feature agreement, adopting the Anti-Agreement
719 Hypothesis originally developed by Saito (2007), as further extended to other languages
720 such as Chinese and Malayalam by subsequent work by Şener and Takahashi (2010) and
721 Takahashi (2013a, b, 2014) and Miyagawa (2013).

722

723 *3.1. Saito's (2007) Anti-Agreement Hypothesis*

724 Adopting Oku's (1998) LF-Copy theory of argument ellipsis without its θ -theoretic
725 implementation, Saito (2007) proposes that this process can only apply to the syntactic
726 positions which do not enter into ϕ -feature agreement with functional heads – Ts and v 's
727 – and derives this restriction from Chomsky's (2000) *Activation Condition*. Within the
728 Probe-Goal-Agree system of Chomsky (2000), the uninterpretable/unvalued ϕ -features of
729 the probe T or v search for a goal DP with the matching interpretable ϕ -features. The
730 matching of the ϕ -feature sets induces the deletion/valuation of the uninterpretable ϕ -
731 features of the probe through the mechanism of Agree. The crucial assumption Chomsky
732 adopts in this system is that the Agree operation is triggered by an
733 uninterpretable/unvalued Case feature of the goal. The Case feature is hypothesized to be
734 deleted together with the uninterpretable ϕ -feature of the probe as the reflex of the Agree

735 relation that takes place between the probe and goal. In this system, no Case
 736 checking/valuation on a DP would exist without it entering in an agreement relationship
 737 with an appropriate functional head; the Case feature on the DP will be realized/valued
 738 as nominative if it Agrees with the T head but as accusative if it Agrees with the
 739 transitive *v* head.

740 Saito shows that this system effectively blocks LF-Copy from targeting the syntactic
 741 positions associated with Ts or *v*'s with uninterpretable ϕ -features. To see how this is so,
 742 consider the following steps of the syntactic derivation required for argument ellipsis
 743 under the LF-copy analysis, where Ts or *v*'s have the uninterpretable ϕ -features and *e*
 744 stands for an empty argument position

745

746 (38) a. $F_1 \{\phi\text{-features}\} \dots DP_1 \{\phi\text{-features}, \text{Case}\}$

747 b. $F_2 \{\phi\text{-features}\} \dots e \dots$

748 c. $F_2 \{*\phi\text{-features}\} \dots DP_1 \{\phi\text{-features}, \text{Case}\} \dots$

749

750 In (38a), the probe F_1 with the uninterpretable/unvalued ϕ -features searches for the goal
 751 DP_1 with the matching interpretable ϕ -features. Agree then results in the deletion of the
 752 uninterpretable ϕ -features of the probe and of the uninterpretable Case feature of the
 753 goal. Suppose now that we copy the DP_1 from (38a) onto the empty argument position
 754 designated as *e* in (38b). The result of this copying operation is shown in (38c). Recall
 755 that the Agree operation can only be triggered by the presence of an
 756 uninterpretable/unvalued Case feature of the goal. Note that the uninterpretable Case
 757 feature of the goal DP_1 has already been checked and erased before it undergoes LF-
 758 copying. Hence, the goal cannot participate in Agree with any other probe. Consequently,

759 the uninterpretable/unvalued ϕ -features of the new probe F_2 in (38c) remain unchecked,
760 causing the syntactic derivation to crash.⁹

761 This Anti-Agreement Hypothesis correctly predicts that English, for example, does
762 not allow argument ellipsis in subject or object position, as illustrated in (39a, b).

763

764 (39) a.* John brought his wife to the party. He also brought *e* to the concert. (*e* = his wife)

765 b.* John thinks his son speaks English. Bill thinks that *e* speaks French. (*e* = his son)

766

767 Under Chomsky's (2000) system, which links Case invariably to ϕ -feature agreement,
768 English exhibits ϕ -agreement both under T and v heads, as evident from Case inflections
769 in both subject and object positions (though they only manifest themselves in pronouns).

770 The LF-Copy process then is blocked in both subject and object positions by ϕ -
771 agreement. To put it differently, LF-Copy can target the empty argument position in
772 (38b) *as long as* there is no uninterpretable ϕ -agreement associated with Ts or v 's.

773 Saito (2007) argues that this situation is precisely what happens in Japanese, which
774 has been standardly assumed to lack any system of agreement (Kuroda 1988; Fukui
775 1986). Indeed, we have already seen in section 2.5 (see the examples in (29–32)) that

⁹ An anonymous reviewer raises two theoretical questions regarding Saito's (2007) agreement analysis of argument ellipsis illustrated in (38). One question is how this analysis ensures that the feature checking in the antecedent clause precedes LF-copying of a DP onto the elliptic clause. The other question is whether LF-copying is possible at all in the more recent single cycle syntax (Chomsky 2000, 2001, 2004, 2007, 2008). The answer to the first question falls out from the nature of LF-copying. Saito proposes that LF-Copy may only target LF-interpretable objects as its input. It is commonly assumed since Chomsky (1995) that the Case feature of the goal DP is an uninterpretable at LF so that it must be eliminated before it reaches the component. It follows then that the required ordering between feature checking and LF-copying is intrinsically motivated. As for the second question, LF-copying can be maintained even within the single cycle model if we adopt the proposal (see Bobaljik 1995 and Nissenbaum 2000) that so-called overt and covert operations are interwoven, boiling down to whether the head or tail of a chain is pronounced. Under this view, the DP_1 in (38a) can be merged "covertly" in the empty argument position in (38b), leaving its phonetic feature in the antecedent clause, without incurring any ordering issue.

776 this language allows sloppy/quantificational interpretations for both empty subject
777 and empty objects.

778 Şener and Takahashi (2010) show that the anti-agreement hypothesis is further
779 confirmed by the range of permissible ellipsis patterns in Turkish; see also Takahashi
780 (2013a, b, 2014) and Miyagawa (2013) for further extensions of the same hypothesis to
781 Chinese, Malayalam and Portuguese, which allow the same asymmetric distribution of
782 argument ellipsis as Persian. Şener and Takahashi observe that Turkish allows null
783 subjects and null objects, but only null objects allow sloppy/quantificational
784 interpretations. This observation is shown in (40–43).

785

786 (40) a. Can [*pro* anne-si]-ni eleştir-di.

787 John his mother-3SG-ACC criticize-PAST

788 ‘John criticized his mother.’

789 b. Mete-yse *e* öv-dü. (strict/sloppy)

790 Mete-however praise-PAST

791 ‘*Lit.* Meter, however, praised *e*.’ (Şener and Takahashi (2010: 87))

792

793 (41) a. Can [[*pro* oğl-u] İngilizce öğren-iyor diye] bil-iyor.

794 John his son-3SG English learn-PRES COMP know-PRES

795 ‘John knows that his son learns English.’

796 b. Filiz-se [*e* Fransızca öğren-iyor diye] bil-iyor. (strict/*sloppy)

797 Phylis-however French learn-PRES COMP know-PRES

798 ‘*Lit.* Phylis, however, knows that *e* learns French.’

799 (Şener and Takahashi (2010: 91))

800 (42) a. Can üç hırsız yakala-dı.
 801 John three burglars catch-PAST
 802 ‘John caught three burglars.’
 803 b. Filiz-se e sorgula-dı. (E-type/quantificational)
 804 Phylis-however interrogate-PAST
 805 ‘*Lit.* Phylis, however, interrogated *e*.’ (Şener and Takahashi (2010: 88))
 806

807 (43) a. Üç öğretmen Can-ı eleştir-di.
 808 three teacher John-ACC criticize-PAST
 809 ‘Three teachers criticized John.’
 810 b. e Filiz-i-yse öv-dü. (E-type/*quantificational)
 811 Phylis-ACC-however praise-PAST
 812 ‘*Lit.* *e* praised Phylis, however.’ (Şener and Takahashi (2010: 91))
 813

814 Şener and Takahashi propose that the subject-object asymmetry in (40–43) follows from
 815 the agreement-based theory because Turkish exhibits subject-verb agreement, not object-
 816 verb agreement, as shown in (44).

817
 818 (44) a. (Ben) bu makale-yi yavaşyavaş oku-yacağ-ım.
 819 (I) this article-ACC slowly read-FUT-1SG
 820 ‘I will read this article slowly.’
 821 b. (Biz) her hafta sinema-ya gid-er-iz.
 822 (we) every week movie-DAT go-AOR-1PL
 823 ‘We go to the movies every week.’ (Şener and Takahashi (2010: 91))

824 Building on the empirical success of the anti-agreement theory established in other
 825 languages such as Japanese, Turkish, Chinese, and Malayalam, we propose that the Anti-
 826 Agreement hypothesis be extended to derive the subject-object asymmetry in Persian as
 827 well. As we saw in the beginning of section 2 (see (1)), Persian exhibits subject-verb
 828 agreement, but not object-verb agreement, in number and person. It follows then that
 829 null objects, not null subjects, allow argument ellipsis because LF-copy of the empty
 830 subject in Persian is blocked by the presence of the uninterpretable ϕ -features on Ts.

831

832 3.2. *New Predictions of the Anti-Agreement Theory of Persian Argument Ellipsis*

833 In this section, we explore one important prediction of the anti-agreement theory of
 834 argument ellipsis in Persian which can be tested due to its language-specific restriction
 835 imposed on ϕ -feature agreement. As we saw in the beginning of section 1, in Persian, only
 836 person and number have morphological exponents in subject-verb agreement. It is well-
 837 known, however, that animate external arguments must induce number agreement on the
 838 verb whereas plural inanimate subjects may appear with singular agreement morphology
 839 (Karimi 2005; Sedighi 2005). In the examples in (45a, b), the subjects are plural, but the
 840 verb can be optionally marked as singular or plural.

841

842 (45) a. ketâb-â ru miz **bud/bud-an.**

843 book-PL on table be.3SG/be.3PL

844 ‘The books was/were on the table.’

845 b. deraxt-â sabz shod-**e/an.**

846 tree-PL green became-3SG/3PL

847 ‘The trees has/have become green. ((45b) from Karimi (2005:97))

848 The Persian-specific property illustrated above is of critical importance for our current
 849 investigation of the argument ellipsis in Persian. If inanimate plural subjects have an
 850 option not to enter into an agreement relationship with a functional head, the anti-
 851 agreement approach advocated here predicts that the syntactic position occupied by such
 852 subjects should be able to undergo argument ellipsis. We provide three sets of examples
 853 below to prove that this prediction is indeed borne out. Consider first (46).

854

855 (46) a. Tu in bâgh_i [_{DP} derxt-â-sh_i] hamishe xub roshd mi-kon-e/an.

856 in this garden, tree-PL-its always well grow ASP-do-3SG/3PL

857 ‘In this garden, its trees grow well.’

858 b. Tu un bâgh, _{eDP} hamishe xub roshd ne-mi-kon-e/an. (sloppy)

859 in that garden, always well grow NEG-ASP-do-3SG/3PL

860 ‘In that garden, its (=that garden’s) trees don’t grow well.’

861

862 The examples in (46) are structurally parallel to the examples in (45) in that the logical
 863 subject of the sentence, *derxt-â-sh* ‘its trees’, represents an inanimate plural DP, which,
 864 by hypothesis, does not need to enter into the agreement relation with a functional head.
 865 Notably, the null subject in the example in (46b) allows the sloppy interpretation. This
 866 way, our current analysis correctly predicts the rather “exceptional” availability of
 867 argument ellipsis manifested with the null variant of the inanimate plural subject.

868 The examples in (47) support the same conclusion. In these examples, the logical
 869 subject of the sentence, *kâr-â-esh* ‘her works’, is a plural inanimate DP. As a result, the
 870 null subject in (47b) permits the sloppy interpretation, just as predicted by our theory.

871

- 872 (47) a. Barâ Kimea_i, [_{DP} kâr-â-esh_i] hamishe natije mi-d-e/an.
 873 for Kimea, work-PL-her always result ASP-give-3SG/3PL
 874 ‘As for Kimea, her works always provide results.’
- 875 b. ammâ barâ Sepide, _{eDP} hamishe natije ne-mi-d-e//an. (sloppy)
 876 but for Sepide always result NEG-ASP-give-3SG/3PL
 877 ‘... but for Sepide, her (=Sepide’s) works always provide no results.’

878

879 Finally, it has been a matter of considerable controversy whether Persian has the passive
 880 construction akin to English. Some linguists such as Palmer (1971), Soheil-Isfahani (1976),
 881 Hajatti (1977), and Dabir-Moghaddam (1985) argue that there is a structural passive
 882 construction of the English kind whereas other linguists such as Moyne (1974) suggest that
 883 there is no such construction in Modern Persian. Independently of this debate, we may note
 884 that, under the analysis of the complex predicate put forth by Folli et al. (2005) (see section
 885 2), the “passive construction” like the ones in (48a, b) can be characterized as nothing but
 886 an ordinary complex predicate consisting of the adjectival particle use of the non-verbal
 887 predicate *dâde* ‘given’ followed by the light verb *shodan* ‘to become’.

888

- 889 (48) a. be Parviz gol dâde shod. (non-specific subject)
 890 to Parviz flower given became
 891 ‘Flowers were given to Parviz.’
- 892 b. un gol-â be Parviz dâde shod. (specific subject)
 893 that flower-PL to Parviz given became
 894 ‘Those flowers were given to Parviz.’

895 (Karimi (2005: 74), with a minor modification)

896 In (48a), the underlying theme argument of the adjectival predicate follows the PP
 897 because it remains within the VP when it is non-specific. In (48b), on the other hand, the
 898 argument in question precedes the PP because it vacates the domain when it is specific.
 899 The agreement-based theory of argument ellipsis, thus, leads us to predict that the
 900 inanimate plural subject of the passive construction, when elided, should allow argument
 901 ellipsis, as it does not need to enter into any ϕ -agreement relation with a functional probe.
 902 Again, this prediction is indeed verified. Suppose that two advanced graduate students of
 903 theoretical syntax are talking about the journal outlets for the latest papers written by
 904 Chomsky and Lasnik. Under this context, the null subject in the passive construction in
 905 (49b) readily allows the sloppy interpretation that Lasnik's articles will be published in
 906 *Lingua*.¹⁰

907

908 (49) a. Chomsky, [_{DP} maghâl-â-ash] tu LI châp mi-sh-e/an.
 909 Chomsky article-PL-his in LI publication ASP-become-3SG/3PL
 910 'As for Chomsky, his articles will be published in LI.'

911 b. (?) Lasnik, *e*_{DP} tu *Lingua* châp mi-sh-e/an.
 912 Lasnik in *Lingua* publication ASP-become-3SG/3PL
 913 'As for Lasnik, his (= Lasnik's) articles will be published in *Lingua*.'

914

915 An important question arises under our current agreement-based analysis of subject
 916 ellipsis in Persian. The examples in (46b), (47b), and (49b) illustrate that subject arguments

¹⁰ We would like to add that we found significant variation on the acceptability of the null subject example in (49b) among our native speaker consultants. Some speakers, including the second author of the present paper, do not accept the example whereas other speakers, such as Arsalan Kahnemuyipour (personal communication, June 2105) and Safieh Moghaddam (personal communication, June 2015), find it completely acceptable. We leave a detailed investigation of this interesting intra-linguistic variation for another occasion.

917 can undergo argument ellipsis when the T head takes the third-person singular or plural
 918 agreement morphology. In other words, these examples indicate that singular/plural
 919 agreement with inanimate plural subjects is not a genuine instance of ϕ -feature
 920 agreement/Agree, but instead the default third-person morphology on T. What is necessary
 921 here, then, is to make sure that T cannot have this default value when an agreeing subject
 922 undergoes argument ellipsis so that only inanimate plural subjects have this special
 923 valuation option. We would like to implement this requirement as follows. Chomsky (2000,
 924 2001, 2004) proposes that Agree is a composite operation consisting of Match and
 925 Valuation; Match is featural identity between a probe-goal pair, namely, the identity of the
 926 choice of feature, not of value, whereas Valuation is to assign a particular value to the
 927 otherwise unvalued feature such as Case and ϕ -feature. Let us hypothesize that Match
 928 prevents the assignment of the default values to T heads and that inanimate plurals do not
 929 need to participate in Match, but all other DPs must. Since inanimate plural subjects do not
 930 Match and hence do not Agree, T can assume default singular/plural values with this type of
 931 subject. The availability of subject ellipsis in this particular context thus obtains. In the
 932 case of all other DPs, on the other hand, T must have its ϕ -feature valued through
 933 Match/Agree with them so that the agreement morphology may appear on T as a genuine
 934 instance of ϕ -feature agreement. Consequently, the ϕ -feature agreement blocks argument
 935 ellipsis in this case, as desired.¹¹

936

937 3.3. *Consequences of the Anti-Agreement Theory of Persian Ellipsis for the Nature of –râ*

938 Before concluding this paper, we shall point out one of the significant theoretical
 939 consequences of the anti-agreement theory of Persian argument ellipsis for the Persian

¹¹ We thank an anonymous reviewer for suggesting this line of analysis to default agreement.

940 morpheme $-râ$, whose grammatical identity we have been intentionally vague about thus
 941 far in this paper. This morpheme has attracted the attention of many linguists working on
 942 Persian, including Windfuhr (1979), Karimi (1989), Dabir-Moghaddam (1990), and
 943 Ghomeshi (1997). Karimi (1989) takes $-râ$ as the accusative Case marker. Windfuhr
 944 (1979) and Ghomeshi (1997) suggests that this morpheme marks the DP it is attached to
 945 as VP-level topics whereas Dabir-Moghaddam (1990) analyzes it as a secondary topic
 946 marker. Our proposed analysis allows us to narrow down the analytical space to
 947 characterize this morpheme. We have included many examples in section 2 where the
 948 object argument, marked by $-râ$, may undergo argument ellipsis/LF-copy. The examples
 949 in (2a, b), repeated here as (50a, b), illustrate this pattern.

950

951 (50) a. Kimea **moalem-esh-ro** dust dêr-e.

952 Kimea teacher-her-RÂ friend have-3SG

953 ‘Kimea loves her teacher.’

954 b. Parviz ham *e* dust dêr-e. (?strict/sloppy)

955 Parviz also friend have-3SG

956 ‘*Lit.* Parviz also loves *e*.’

957

958 Our proposed analysis of the subject-object asymmetry in Persian ellipsis crucially
 959 builds on Chomsky’s (2000) system which links checking/valuation of the Case feature
 960 of the goal DP with its ϕ -feature agreement with an appropriate functional probe (T/ ν).
 961 The example in (50b) then means that the specific direct object in Persian does not have
 962 Case linked to ϕ -feature agreement. It follows then that $-râ$ cannot be the morphological
 963 manifestation of Accusative Case in Persian, contrary to what has been suggested by

964 Karimi (1989). In the rest of this section, we outline one plausible alternative analysis of
965 the morpheme which is consistent with this consequence of the anti-agreement approach
966 pursued here.

967 It is well-known in the Persian literature that the marker *-râ* appears attached to
968 specific direct objects, but not to non-specific direct objects. This contrast is evidenced
969 from the examples in (51–52). In (51), the direct object is non-specific and remains within
970 the VP domain, as evidenced by its position after the indirect object PP. In (52), by
971 contrast, the direct object is specific and precedes the same PP, showing that it vacates
972 the VP domain.¹² It is well-known in the Persian literature that this marker never appears
973 on subjects even when they are specific, as shown by the ungrammaticality of the example
974 in (53).

975

976 (51) Kimea be man **ketâb** dâd.
977 Kimea to me book gave.3SG
978 ‘Kimea gave me a book.’

979

980 (52) Kimea **in ketâb-*(ro)** be man dâd.
981 Kimea this book-RÂ to me gave.3SG
982 ‘Kimea gave me this book.’

983

984

985

¹² An anonymous reviewer asks whether the PP can precede the *râ*-marked object in (52). The PP can precede the object, but that order is derived by scrambling of the PP into a focus or topic position. The discussion in the text here assumes an out-of-the-blue neutral discourse context to control for the discourse-sensitive nature of Persian scrambling. See also note 4 for relevant discussion on Persian scrambling as a discourse-sensitive syntactic operation.

986 (53) **Kimea-(*ro)** ketâb xund.

987 Kimea-RÂ book read.3SG

988 ‘Intended: Kimea read a book.’

989

990 Karimi and Smith (2015) draws on a wide range of examples from Modern Classical
991 Persian and Modern Persian to show that there is no structurally circumscribed common
992 thread within the environments in which *–râ* may appear on specific DPs. For example, *–*
993 *râ* may appear with specific DPs to express oblique or possession relations, as shown in
994 (54) and (55), respectively.

995

996 (54) amir-râ zakhm-i zad-am.

997 king-RÂ wound-IND hit-1SG

998 ‘As for the king, I wounded him.’

999 (Classical Modern Persian: Karimi and Smith (2015:3))

1000

1001 (55) xalgh-râ xun be-rixt-and.

1002 people-RÂ blood SUBJ-shed-3PL

1003 ‘As for people, they shed their blood.’

1004 (Classical Modern Persian: Karimi and Smith (2015:4))

1005

1006 One might suspect, of course, that *–râ* simply marks the topic DP, along the lines of
1007 the analysis put forth by Windfuhr (1979), Dabir-Moghaddam (1990), and Ghomeshi
1008 (1997), because the DP it attaches to has the topic flavor to it, and the topic DP, by
1009 definition, is always a specific DP. This characterization, however, is hard to sustain, in

light of the example in (56), which shows that the specific object receives *-râ* even when it may be interpreted as a contrastively focused expression instead of the topic of the sentence.

1013

(56) ketâ-e Parviz-ro man dêr-am. (contrastive focalization)

book-EZ Parviz-RÂ I have-3SG

‘It is Parviz’s book that I have.’

1017

The topic-based analysis also misses the important observation that subject DPs can never be marked with *-râ* even when they are topicalized. Example (57) illustrates this observation; see Karimi (2005:ch4) for arguments that [Spec, TP] counts as a topic position hosting the background topic, which can be occupied by any element, regardless of its grammatical function.

1023

(57) [_{TP} Kimea-(**ro*)_i xoshbaxtâne [_{vP} *t_i* ketâb-â-ro [_{PredP} be ketâbxune pas dâd-e]]]

Kimea-RÂ luckily book-PL-RÂ to library returngave-3SG

‘As for Kimea, luckily (she) has returned the books to the library.’

(adopted from Karimi (2005: 126), with a minor modification)

1028

Karimi and Smith (2015) propose that the apparently disparate contexts for *-râ* to appear attached to specific DPs can receive a unified characterization if this morpheme is the default morphological case in the technical sense of Marantz (1991) (see also Bobabjik 2006) which is inserted as the elsewhere form in the post-syntactic morphological component. Marantz (1991) argues that Case realization is subject to the disjunctive

1034 hierarchy governed by the Elsewhere principle to the effect that a more specific form
1035 blocks the more general forms. The specific hierarchy he proposes is shown in (58).

1036

1037 (58) Case Realization Disjunctive Hierarchy

1038 i. lexically governed case

1039 ii. “dependent case” (accusative and ergative case)

1040 iii. unmarked case (environment-sensitive)

1041 iv. default case (Marantz (1991:24))

1042

1043 The Elsewhere Principle states that each type of case realization option is more specific than
1044 the option below it and takes preference. The lexically governed case represents the case
1045 assigned by specific verbs such as quirky case in Icelandic. The “dependent” case refers to
1046 cases whose realization hinges on the presence of some higher functional projection such as
1047 accusative Case for nominative-accusative languages or ergative Case for ergative-
1048 absolutive languages. The unmarked case option is exemplified by cases such as nominative
1049 Case and genitive Case that are assigned when a DP appears in a certain structural
1050 configuration such as within DPs or in [Spec, TP]. Finally, the default case is the case that is
1051 assigned only when no other case realization on the list is applicable. The morpheme *-râ*
1052 clearly instantiates the default case realization in Persian, for 1) it is not lexically governed
1053 by any particular set of verb classes, 2) its appearance does not depend on any higher case
1054 such as nominative Case, 3) it never appears in a uniquely identified syntactic configuration
1055 such as [Spec, TP] or within nominative projections.

1056 Note, furthermore, that this analysis correctly derives the generalization that subjects in
1057 Persian can never be marked with *-râ* as an automatic architectural consequence of the

1058 Elsewhere Principle. Since specific DPs enter into ϕ -feature agreement with a functional
1059 head and have their Case feature checked/evaluated as the unmarked nominative Case in
1060 Marantz's system, this case realization blocks the use of the default case realization *-râ*
1061 lower on the hierarchy shown in (58).¹³

1062 We would like to conclude this section by pointing out an important implication of our
1063 proposed analysis of *-râ*-marking for the cross-linguistic investigation of Case marking
1064 within the context of latest syntactic theorizing within the Minimalist Program. As stated in
1065 section 3.1, it has been commonly assumed since Chomsky (2000) that Case valuation goes
1066 in tandem with ϕ -feature agreement through the operation of Agree. Our case study on
1067 Persian argument ellipsis conducted thus far, however, indicates that the picture is much
1068 more complicated than meets the eye on two empirical grounds. First, direct objects in
1069 Persian must not be associated with ϕ -feature agreement, as attested by the availability of
1070 sloppy/quantificational interpretations. Second, non-agreeing inanimate plural subjects do
1071 not have ϕ -feature agreement, either. It is reasonable to assume, however, that both types of
1072 DPs must have some sort of Case. This observation, therefore, necessitates an alternative
1073 understanding of the Case-agreement relation where Case assignment could be entirely
1074 divorced from ϕ -feature agreement/Agree, contrary to Chomsky's latest conjecture.

1075 Indeed, Chomsky's assumption that Case is invariably tied to ϕ -feature agreement has
1076 been questioned on independent grounds by Japanese linguists, based on the traditional

¹³ One question which we have left unresolved in this section is the relevance of specificity to the nature of *-râ* as the default morphological case; why does this marker appear on direct objects only when they are specific? There are several solutions to this problem, only one of which we will outline here. Suppose that non-specific objects receive an unmarked case from *v* along the lines of Marantz's Case Realization Disjunctive Hierarchy shown in (58). Since the unmarked case option preempts the default morphological case, it follows that non-specific objects cannot receive *-râ* marking. On the other hand, specific objects receive *râ*-marking as the elsewhere default morphological case. Note that this analysis suggests that specificity is actually not a condition on *-râ* marking, as is commonly assumed, but rather a consequence of the grammatical competition between the default case option and other more specific modes of case assignment at the syntax-morphology interface. We would like to investigate this intriguing question further in our future work. We thank an anonymous reviewer for this question.

consensus that Japanese lacks ϕ -agreement system altogether (Fukui 1986; Kuroda 1988). Thus, Kikuchi and Takahashi (1991) and Fukui and Takano (1998) propose that dative and accusative cases are inherent cases linked to the argument structure of verbs involved whereas Saito (1985) claims that nominative case is assigned to any element immediately dominated by TP. This line of research, thus, already indicates that the Case system in a language may have nothing to do with agreement system, contrary to Chomsky's (2000) theory of Agree/Case. Our study in this subsection on *-râ* marking in Persian, therefore, should be understood as an initial step toward resolving the issue of how Case valuation/assignment works without the accompanying system of ϕ -feature agreement, thereby further sharpening our understanding of the mechanism of Case in natural language syntax.

1088

1089 **4. Conclusions**

This paper has brought a wide range of examples from Persian to bear on the competing theories of elliptic arguments developed on the basis of other languages such as Japanese. Using the sloppy/quantificational interpretations of null arguments as diagnostic tools for argument ellipsis, we have first shown that Persian exhibits the asymmetric distribution of argument ellipsis. We have then presented various arguments based on scrambling, binding, verb-identity effects, and specificity-driven object placement against the VVPE-analysis (Huang 1987, 1991; Otani and Whitman 1991) of the subject-object asymmetry as well as for the indefinite *pro* analysis of sloppy interpretations which do not resort to ellipsis (Hoji 1998). We have proposed that the asymmetry in question is best captured by the anti-agreement hypothesis originally put forth by Saito (2007) and further extended and elaborated in recent years by Şener and Takahashi (2010), Takahashi (2013a, b, 2014) and

1101 Miyagawa (2013) for Chinese, Malayalam and Turkish. Our analysis predicts that the
 1102 subject argument, in principle, should be able to undergo argument ellipsis as long as it
 1103 does not need to possess ϕ -feature agreement. We have shown that this prediction is indeed
 1104 borne out by the sloppy interpretation exhibited by the ellipsis of inanimate plural subjects
 1105 in the locative/experiencer construction and the passive construction, wherein they do not
 1106 participate in any agreement relation with any functional head such as T. One of the
 1107 important theoretical consequences of our proposed analysis of Persian ellipsis is that *-râ*
 1108 cannot be the instantiation of the structural accusative Case; otherwise, the specific object
 1109 should not be able to undergo argument ellipsis. Finally, we have suggested preliminary
 1110 evidence drawing on data from Modern Classical Persian in favor of the new analysis of
 1111 this marker as the default case realization in the post-syntactic morphological component in
 1112 the sense of Marantz (1991).

1113

1114

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1115

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