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A Note on Parasitic Gaps and Specificity*

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1. Data

The following data, taken from Modern Persian, exhibit a sharp contrast between specific and nonspecific objects licensing a parasitic gap (PG, henceforth). The objects in (a) sentences are NPs followed by the specificity marker râ. Those in (b) are nonspecific. Only the former license a PG.

(1) a. Kimea [ NP in ketâb ro ] i [ CP ghablaz inke pro eı be-xun-e ] be man dâd

   Kimea                  this book    râ    before    that    SUBJ-read-3SG to me gave

   'Kimea gave me this book before reading (it).'

   b. *Kimea [ NP ketâb ] i [ CP ghablaz inke pro eı be-xun-e ] be man dâd

(2) a. Kimea [ NP xânanda ro ] i [ CP ghablaz inke pro eı mo'arrefi be-kon-e ]

   Kimea          singer    râ    before    that    introduction    SUBJ-do-3SG

   ru-ye sahne ferestâd

   on-EZ stage    sent

   'Kimea sent the singer to the stage before introducing (her).'

   b. *Kimea [ NP xânande ] i [ CP ghablaz inke pro eı mo'arrefi be-kon-e ]

   ru-ye sahne ferestâd

(3) a. Kimea [ NP ye kârgar ro ] i [ CP ghablaz inke pro eı estexdâm be-kon-e ]

   Kimea          a worker    râ    before    that    hiring    SUBJ-do-3SG

   be kâr vâdâsht

   to work forced
'Kimea forced a (specific) worker to work before hiring (her).'

b. *Kimea [ NP ye kârgar ] i [ CP ghablaz inke pro ej estexdâm be-kon-e] be kâr vâdâsht

The object NPs in (1a) and (2a) are definite noun phrases. The one in (3a) is a specific indefinite followed by the specificity marker râ. I am employing *specificity* in the following terms:

(4) I A Specific NP is either *Definite* or *Indefinite*.

   (i) A Definite NP denotes a given discourse referent,
   
   (ii) A Specific Indefinite NP either
         
         (a) denotes inclusion, or
         
         (b) is singled out in discourse (e.g. by a relative clause).

II A Nonspecific NP either

   (i) lacks a referent (=kind-level), or
   
   (ii) denotes existence (=indefinite).

The specific NP, definite or indefinite, is always followed by râ in Persian. Its nonspecific counterpart lacks this element. The statements in I(i)-(iia) and II(i) represent a reformulation of Enç's (1991) definition of specificity. Those in I(iiib) and II(ii) are not part of her definition. Relevant to our discussion is the distinction between the two types of nonspecific NPs. According to Enç, nonspecific NPs lack a referent altogether. The following examples show that only kind-level NPs are compatible with her definition:

(5) Kimea tunest mâhi be-gir-e. *un xeyli châgh-e.

    Kimea managed fish subj-catch-3SG it very fat-be3SG

    'Kimea managed to catch fish.' *It is very fat.'
(What Kimea was able to do was *fish catching*)

(6) Kimea tunest ye âpârtemân peydâ kon-e. un xeyli ghashang-e.

Kimea managed an apartment find do-3SG it very pretty - be3SG

'Kimea managed to find an apartment.' 'It is very pretty.'

The bare NP in (5) is a kind-level noun phrase, lacking a discourse referent. The indefinite NP in (6), although nonspecific, denotes *existence*: ‘Kimea has found an apartment, not a particular one, but it exists’. Enç's definition of nonspecific NPs is compatible only with the one in (5), but not (6).

Crucial to my analysis is that nonspecific NPs, kind-level or existential, do not license a PG, as the 'b' examples in (1)-(3) indicate.

Persian is an SOV language in which the specific object precedes the indirect object, while its nonspecific counterpart is adjacent to the verb in an unmarked word order, as illustrated by (7) and (8), respectively.

(7) Kimea un ketâb ro barâ man xarid.

Kimea that book râ for me bought.

'Kimea bought that book for me.'

(8) Kimea barâ man (ye) ketâb xarid.

Kimea for me (a) book bought

'Kimea bought (a) book for me.'

Moreover, all phrasal categories are subject to scrambling that is motivated by the rules of scope assignment, topicalization, focus, and contrast. Finally, sentential adverbs and PG constructions mark the VP boundary in this language. Thus all object NPs in (1)-(3), specific or nonspecific, are outside the VP, creating an A'-chain, and c-commanding the
That nonspecific objects can appear in a position external to VP is evidenced by the following example, where it receives a contrastive topic interpretation:

(9) Kimea film-e xâreji hichvaght negâh ne-mi-kon-e.

Kimea movie-EZ foreign never look NEG-HAB-do-3SG

'Kimea never watches foreign movies.' (She watches domestic movies.)

Thus the ill-formedness of 'b' sentences in (1)-(3) cannot be attributed to the surface position of the nonspecific objects in these sentences.

As the data in (1)-(3) indicate, only the specific noun phrase can license the gap. How does the grammar account for this fact?

2. Previous analyses

Chomsky (1982) suggests that PG is a pronominal element at D-structure, while it becomes a variable bound by the operator of the real gap at S-structure. Cinque (1990) partially agrees with Chomsky, arguing that PG is an empty resumptive pronoun (pro) not only at D-structure, but also at S-structure, and is A'-bound by a base generated operator in the Specifier position of CP at both levels. Cinque further states that “whereas in ordinary wh-constructions wh-movement applies in principle to any maximal projection, in parasitic gap constructions, ..., wh-movement appears to be strictly limited to NPs.” (Cinque 1990:102)

Therefore, PG constructions of a category other than NP are quite generally impossible:

(10) *[AP Quanto importanti ] j si puo diventare tî [senza sentirsi eî ]

    how      important      can one become      without feeling

    (Cinque 1990:102)
This is a position that has been taken by other authors as well (Emonds 1985, Aoun and Clark 1985, Koster 1987, and Postal 1993, among others). Consider the following data:

(11) *How_i sick did John look t_i without actually feeling e_i \ (Emonds 1985:91)

(12) *Sick_i though Frank was t_i without looking e_i, he didn't visit a physician. \ (Postal 1993:736)

Cinque's suggestion rests on the referential property of the antecedent. That is, the element licensing a PG must be an NP since only these elements can be referential, as the ungrammaticality of the examples in (10)-(12) indicates.

Previous analyses show that only an NP can license a PG. The contrast in (1)-(3) further indicates that only a specific NP counts as the antecedent of a PG, a fact that partially follows from Cinque's insight since nonspecific kind-level NPs are nonreferential. However, nonspecific indefinite NPs reveal existence, and are thus referential.

Since pronouns are specific, could we argue that the pronominal nature of PG is responsible for the contrast in (1)-(3)? In other words, does this contrast merely rest on the semantic clash between the nonspecific object and the PG?

Chomsky (1986a) provides a compositional rule to account for the interpretation of PG. This rule, which is suggested to apply at S-structure, is restated in (13):

(13) **The Operation of Chain Composition**

If \( S = (\alpha_1, \ldots, \alpha_n) \) is the chain of the real gap and \( S' = (\beta_1, \ldots, \beta_m) \) is the chain of the parasitic gap, then the "composed chain" \( (S, S') = (\alpha_1, \ldots, \alpha_n, \beta_1, \ldots, \beta_m) \) is the chain associated with the parasitic gap construction and yields its interpretation. \ (Chomsky 1986a: 56)
Given Cinque's argument, \((\beta_1, \ldots, \beta_m)\) in (13) is the PG chain consisting of the empty resumptive pronominal in an argument position and the empty operator that binds it from an A'-position. In order for this rule to work, the licensing chain and the PG chain must be semantically compatible, as evidenced by the following examples: the sentence in (14) can only receive the interpretation in (15), not the one in (16).

(14) \([ \text{which books about himself}_i \text{j did John}_i \text{file t} \text{j [ CP before Bill}_k \text{ read e} \text{j]} \]

(15) \text{which books about himself}_i \text{ did John}_i \text{ file [ which books about himself}_i \text{ ] before Bill}_k \text{ read [ which books about himself}_i \text{ ]}

(16) *\text{which books about himself}_i \text{ did John}_i \text{ file [ which books about himself}_i \text{ ] before Bill}_k \text{ read [ which books about himself}_k \text{ ]}

The discussion so far suggests that the ill-formedness of the 'b' sentences in (1)-(3) is due to a semantic clash, namely the specificity factor: the nonspecific NP cannot license the PG since it is semantically not compatible with the inherently specific pronominal. In fact, the nonspecific kind-level NP does not allow coreferentiality with a pronoun, as in (5). The examples in (18) illustrate the same restriction in English.\(^9\)

(18) a. *I was grocery shopping so I could eat them.

b. *I was house hunting for my mother so that I could buy it for her.

The following example, as the one in (6), contradicts this conclusion, indicating that a nonspecific indefinite NP does allow coreferentiality with a pronoun.

(19) I was looking for a pencil so that I could draw some pictures with it.

The noun phrase a pencil in (19) receives either a nonspecific or a specific reading. On both readings, however, it can be referred to by the pronominal it in a lower clause. This example indicates that a pronominal can in fact be coreferential with at least one
type of nonspecific NP. Nevertheless, nonspecific NPs, kind-level or indefinite, fail to license a PG, as in 'b' examples in (1)-(3). What, then, accounts for this fact?

3. Specific vs Nonspecific Objects in Persian

A closer look at the syntactic and semantic properties of the nonspecific object in Persian opens up the door to the recognition of another crucial distinction between the nonspecific and specific objects. There is evidence indicating that the nonspecific object, kind-level or indefinite, is semantically closer to the verb than its specific counterpart. That is, the nonspecific kind-level object forms a unified event with the verb, and thus is part of the event. The nonspecific indefinite object is a new entity introduced to the discourse by the verb. Thus its presence asserts the existence of an object. In both cases, the event, rather than the participants in the event, is the focus of attention. The specific object, on the other hand, is a particular individual that is singled out, and undergoes the event described by the verb (see also Ghomeshi and Massam (1992)). In this case, the object, rather than the event, is the focus of attention. These differences suggest a tight semantic bond between the verb and its nonspecific object, a relationship that does not hold between the verb and its specific object. The following observations support these claims. They also exhibit a close syntactic relation between the verb and its nonspecific object, reflecting the semantic bond between these two.

First, the nonspecific kind-level object constitutes a semantic unit with the verb, as in (20a). The specific object is external to the verbal concept, as in (20b).

(20)  a. Kimea be bachche-hâ ghazâ dâd.
      Kimea to child-pl food gave
      'Kimea fed the children.' (What she did was food giving)
b. Kimea ghazâ ro be bachche-hâ dâd.

Kimea food râ to child-PL gave

'Kimea gave the food to children'.

The sentences in 'a' and 'b' can, respectively, be the answers to questions like: ‘what did Kimea do for the children’? and ‘what did Kimea give the children’?

Second, Persian exhibits a growing set of complex verbs consisting of a nonverbal element and a light verb (Mohammad and Karimi 1992, Karimi 1997). Although these constructions are different, in many ways, from predicates that consist of a nonspecific object and a real verb, they share a number of similar properties. One of these similarities is the surface position of the nominal element with respect to the verb in both types of constructions. That is, the nonverbal element of a complex verb, being part of the semantic construction of the predicate, can never follow the verb, as evidenced by (21b).

(21) a. Kimea mehmun-â ro [Complex \( \triangledown \) da'vat kard].

Kimea guest-PL râ invitation did

'Kimea invited the guests.'


Similarly, the nonspecific object, kind-level or indefinite, may not follow the verb. This restriction, however, does not hold for the specific object. This fact indicates a tight semantic and syntactic relation between the verb and its nonspecific object:

(22) to da'vat kard-i mehmun-â ro/*mehmun/*ye mehmun?

you invitation did-2SG guest-PL râ/ *guest/ *a guest

'Did you invite the guests/*guest/*a guest?'
Third, the nonverbal element and the nominalized light verb can constitute a compound noun. The same is true of the nonspecific object and the verb. The underlined elements in (23) and (24) represent a nonverbal element plus a nominalized light verb and a nonspecific object plus a nominalized heavy verb, respectively.

(23)\[ da^\nu\nuat\] kardan-e Kimea dorost na-bud.
    \[
    \text{invitation doing-EZ Kimea right NEG-was}
    \]
    'Inviting Kimea was not right.'

(24) (se-tâ) nâme neveshtan engadr vaght ne-mi-gir-e.
    \[
    \text{(three-PART) letter writing this much time NEG-HAB-take-3SG}
    \]
    Lit. (Three) letter writing does not take that much time.

Furthermore, binding relations clearly indicate an asymmetry between the specific and nonspecific object, and the inability of the nonspecific object to bind an anaphor:

(25) a. se-tâ bachche-hâ ro be hamdige mo'arrefi kard-am.
    \[
    \text{three-PART child-PL râ to each other introduction did-1SG}
    \]
    'I introduced the three children to each other.'

b. *se-tâ bachche be hamdige mo'arrefi kard-am

Finally, the specific object can bind a clitic possessor in the same simple clause. The nonspecific object, kind-level or indefinite, cannot:

(26) a. Ostâd [ ye dâneshju-ye tâza ro ] î be hamkelâsi-hâ-shî mo'arrefi kard
    \[
    \text{professor a student-EZ new râ to classmate-PL-her/his introduced did}
    \]
    'The professor introduced a new student to her/his classmates.'

b. *Ostâd [ (ye) dâneshju-ye tâze ] î be hamkelâsi-hâ-shî mo'arrefi kard
The indefinite noun phrase ye dâneshju-ye tâza 'a new student' is followed by râ in (26a), and therefore is specific. Its counterpart in (26b) lacks râ, and hence is nonspecific. Only the former can bind the clitic possessor esh as the ill-formedness of the latter attests.

In Karimi (1998) I have proposed that the contrast between the specific and nonspecific object is structurally expressed by two distinct phrase structures, restated in (27). The specific object is base generated in the Specifier position of VP in (27a) while its nonspecific counterpart is base-generated as a sister to the verb, as in (27b).  

(27) a. \[v^\text{max} [v' \ [v' \ [\text{VP} \ NP_[+\text{Specific}] \ [v' \ PP \ V]]]]\]

b. \[v^\text{max} [v' \ [\text{VP} \ [v' \ PP \ [v^{\text{PRED}} \ NP_[-\text{Specific}] \ V]]]]\]

The specific object is the subject of VP in (27a). The nonspecific object is part of the lower predicate due to its close syntactic and semantic connection with the verb.  

The phrase structures in (27) violate Baker's (1988) Uniformity of Theta Assignment since the two noun phrases that represent the theta role THEME are base generated in two different positions in these structures. Persian nonspecific objects, however, have a tight syntactic and semantic relationship with the verb, as indicated by the data presented in (20) and (22)-(26). Following Hale and Keyser (1993), I assume that structures that express the relations among the arguments of the verb are characterized by the operation of two fundamental principles. These principles, which they have borrowed from Kayne (1984) and Chomsky (1986b), are restated in (28a) and (28b), respectively.  

(28) Lexical Relational Structure  (Hale and Keyser 1993:77)

a. Unambiguous Projections       b. Full Interpretation
The principle in (28a) states that lexical syntactic projections must be unambiguous. The one in (28b) requires that linguistic structures be fully interpretable. The phrase structures in (27) satisfy both requirements. They express the semantic and syntactic differences between the specific and nonspecific object, which in turn justify the incapability of the nonspecific object to license a PG. That is, the nonspecific object is part of the lower predicate. PG, on the other hand, is the subject of the VP due to its specific property. Therefore, the former cannot license the latter since they occupy different syntactic positions based on their different semantic connection with the verb. The specific object and the PG are compatible, however, since each one of them is the subject of its own VP. In other words, the phrase structures in (27) provide a syntactic explanation for the contrast in (1)-(3). That is, they offer a structural explanation that is triggered by the semantic distinctions between the specific and nonspecific objects in this language.¹²

Cinque's insight has lead us to recognize that only an NP can license a PG, due to its referential property. The contrast in (1)-(3) further indicates that only specific NPs are able to do so. The analysis of Persian nonspecific objects takes us one step further, showing that the nonspecific NP is part of the lower predicate, and thus fails to be coreferential with the PG, since it denotes a different semantic role, and occupies a distinct syntactic position. Thus the analysis in this paper shows that the licenser of a PG has to be in the same structural position as the PG in order to serve as an antecedent. This requirement is fulfilled by the specific object since it is the subject of VP, as the PG. The nonspecific object does not satisfy this requirement since it is in a lower position, and therefore structurally distinct from the PG.¹³
References


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1The dialect under discussion in this squib is the standard Tehrani dialect spoken in Iran.

2The particle râ appears as o and ro in the colloquial language, and marks an NP for specificity (Karimi 1990). It is suggested to be the head of a functional projection that takes an NP as its complement (Karimi 1996). This analysis concerns the internal structure of the specific object, and does not affect the phrase structure rules provided in (27).

3Abbreviations: SG = singular SUBJ = subjunctive HAB = habitual PART = particle PL = plural NEG = negation PRED = predicate EZ = Ezafe Particle Ezafe construction is an NP consisting of the head (an element with the feature [+N]), its modifier(s), an optional possessive NP, and the Ezafe particle e that is structurally utilized as a link between the head and its modifier(s). See Samiian (1983, 1994), Karimi and Brame (1986), and Ghomeshi (1997) for discussion.
Persian does not have a definite article equivalent to *the* in English. The bare object NP in (2a) receives a definite interpretation only when followed by *râ*. Note that the change of past tense to present tense does not affect the patterns provided in (1)-(3) with respect to specificity.

5See Karimi (in preparation) for a discussion of specificity. See also Ghomeshi and Massam (1994) for a similar classification of specific/nonspecific NPs in Persian.

6Karttunen (1976) provides an elaborated discussion regarding the two types of nonspecific NPs.

7See Karimi (in preparation) for a detailed discussion regarding scrambling in Persian.

8The licensing chain in (1)-(3) consists of the scrambled object and the real gap it creates.

9The example in (18a) was provided by one of the *LI* reviewers. The one in (18b) was suggested by Rudy Troike (personal communication).

10Rapoport (1995) takes a similar position by discussing nonspecific objects in other languages, including Hebrew. Mohammad and Karimi (1992) propose two distinct object positions in Persian. Ghomeshi and Massam (1994:190) suggest that the nonspecific object is a sister to V0 under V0, while the specific object is dominated by V'.

11The projection V^pred in (27b) is licensed by the presence of a nonspecific object. Thus its presence is independent of the indirect object. Note also that (27b) explains the ungrammaticality of (25b) since the nonspecific object is not in an A-position in this case, and thus cannot bind an anaphor from that position. The case of (26b) is different, however, since clitic pronouns, including clitic possessors, can be bound by an element
preceding them as in (I)

Kimea be Rahjou$_1$ ketâb-esh$_1$ ro pas-dâd

Kimea to Rahjou book-his râ return-gave 'Kimea returned to Rahjou his book.'

Thus (26b) is ill-formed for a semantic clash since the nonspecific object cannot license a pronominal (specific NP) within the same clause.

An *LI* reviewer has suggested that the distinction between the specific and nonspecific objects would be more convincingly argued for if the specificity distinction was correlated with distinct functional positions in order to provide the interface to the semantic interpretation. It seems to me that the two distinct base positions in (27) do in fact reflect the inherent semantic differences between these two elements, and provide the necessary interface to their semantic interpretation. Furthermore, they independently account for anaphoric binding relations and anti-weak crossover effects in Persian and similar languages without the need to resort to a functional projection. See Karimi (1998) for an elaborated discussion.

Postal (1993) shows that Predicate Nominals (PN) cannot license a PG, as in (i):

(i) *What$_1$ he became t$_1$ without wanting to become e$_1$ was a traitor. (Postal 1993:746)

It seems to me that (i) is ruled out by the same arguments advanced in the text: PNs are part of the predicate, and therefore, cannot be coreferential with a pronominal, namely the PG. This claim is supported by the fact that PN can neither be passivized nor pronominalized, as discussed by Postal.