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Specificity Effect: evidence from Persian*

The constraint known as the *Specificity Effect* has been discussed in the literature in terms of the semantic property of determiners classified as *weak* and *strong*, or the *presuppositionality* of the determiner phrase. These semantic properties have been suggested to lead to a syntactic explanation for the existence of this constraint. Modern Persian provides evidence indicating that the Specificity Effect cannot be explained solely on the basis of the semantic properties of the determiner or the determiner phrase. The data in this language show that a specific DP is subject to the Specificity Effect only if its SPEC is lexically filled. In that case, the DP becomes an island, blocking extraction. The analysis in this paper explains this phenomenon by justifying the existence of two distinct base positions for determiners depending on (a) their inherent property, and (b) the semantic status of the DP within the clause. Thus it provides an explanation as to why specific DPs containing weak determiners are subject to the Specificity Effect. It further predicts that Persian type languages that do not have a definite article equivalent to English *the* allow extraction out of a specific DP.

1. Introduction¹

The term *Specificity Effect* refers to a constraint on extraction out of specific noun phrases. At least in some languages, extraction out of a specific noun phrase is in general blocked, while this constraint does not hold for a non-specific NP. This phenomenon was first noticed by Chomsky (1973, 1977), and further discussed by a number of authors including Erteschik-Shir (1973), Oehrle (1974),

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¹. The data in this paper represent the Tehrani dialect, the standard dialect of Modern Persian spoken in Iran.

Fiengo and Higginbotham (1981), Bowers (1988), Karimi (1989), Enç (1991), Mahajan (1992), and Diesing (1992). Classic Examples are given in (1).²

- (1) a. Who did you see pictures of e?
b. Who did you see a picture of e?
c. Who did you see many/several/some picture(s) of e?
d. *Who did you see the/that/this/John's picture of e?
e. *Who did you see every/most/each/ picture(s) of e?

The sentences in (1) exhibit the contrast between specific and nonspecific noun phrases: those in (1a-c) are nonspecific, while the ones in (1d-e) are specific. These examples show that extraction is possible only out of nonspecific NPs.

Persian does not require overt Wh-movement in constructions such as those in (1). However, following Chomsky (1973), Huang (1982), Aoun, Hornstein, and Lightfoot (1987), among others, I assume that Wh-phrases are raised at LF. Keeping this fact in mind, consider the following examples³ which exhibit the same restriction as those in (1).⁴

2. Also consider the following contrasts with respect to quantifiers:

- (i) a. Titian painted [NP *a* portrait of someone].
b. *Titian painted [NP *the* portrait of someone].
(ii) a. John took [NP *a* picture of someone].
b. *John took [NP *the* picture of someone].

These examples are from Rudy Trouke (p.c.).

3. Persian, similar to German, is a language with a mixed structure: all phrases are head initial except for VP. Unlike German, however, Persian is verb final in the matrix clause as well as in the embedded clause.

4. Abbreviations:

sg	=	singular
hab	=	habitual

- (2) a. Kimea diruz [NP *ye she'r az ki*] xund
 Kimea yesterday a poem by who read
 'Who did Kimea read a poem by?'
- b. *Kimea [NP *in she'r az ki*] ro xund
 Kimea this poem by who râ read
 '*Who did Kimea read this poem by?'

The sentence in (2b), containing a direct object followed by the specificity marker *râ*, does not allow Wh-extraction at LF, while this restriction does not hold for the bare nonspecific direct object in (2a).⁵

Persian also allows the prepositional phrase to be scrambled out of the noun phrase in (2a), but not out of the NP in (2b). This is illustrated in (3).

- (3) a. *az ki* Kimea [NP *ye she'r e*] xund
 of whom Kimea a poem read
 'Of whom did Kimea read a poem?'
- b. **az ki* Kimea [NP *in she'r e*] ro xund
 of whom Kimea this poem râ read
 '*Of whom did Kimea read this poem.'

Noun phrases containing quantifiers exhibit the same restriction, as is shown in (4).

pl	=	plural
EZ	=	EZAFE particle

EZAFE construction is an NP consisting of the head (an element with the feature [+N] such as N or A), its modifier(s), an optional possessor NP, and the EZAFE particle *e* that is structurally utilized as a link between the head and its modifier (and the possessor NP). On a detailed analysis of EZAFE constructions see Samiian (1983), Karimi and Brame (1986), and Ghomeshi (1996).

⁵ The particle *râ* is a specificity marker that appears with a number of nominal elements that receive Accusative Case. In spoken language, it is employed as *ro* and *o*. See section 3.2 for a brief discussion regarding this element.

- (4) a. Kimea [NP *ye aks az hame*] tu albom-esh dâr-e
 Kimea a picture of all in album-her have-3sg
 'Kimea has a picture of everyone in her album.'
- b. *Kimea [NP *in aks az hama*] ro tu albom-esh dâr-e
 Kimea this picture of all râ in album-her have-3sg
 '*Kimea has this picture of everyone in her album.'

The prepositional phrase can be scrambled out of the noun phrase as in the case of NPs containing Wh-phrases.

- (5) a. *az hame* Kimea [NP *ye aks e*] tu albom-esh dâr-e
 of everyone Kimea a picture in album-her have-3sg
 'Of everyone, Kimea has a picture in her album.'
- b. **az hame* Kimea [NP *in aks e*] ro tu albom-esh dâr-e
 of everyone Kimea this picture râ in album-her have-3sg
 '*Of everyone, Kimea has this picture in her album.'

The difference between (4a) and (5a) is that the former is not ambiguous with respect to the scope of the quantifier: there is one picture and everyone is on that picture. The sentence in (5a), on the other hand, is ambiguous: a distributive as well as a collective reading is possible in this case, although the former is preferred.

Now consider a different class of data exemplified by the sentences in (6).

- (6) a. Kimea [NP *ketâb-e kodum nevisanda*] ro dust - dâr - e?
 Kimea book-EZ which writer râ friend-have-3sg
 'Which writer's book does Kimea like?'
 Lit: Kimea the book by which writer likes?
- b. Kimea [NP *ketâb-e yeknafar*] ro diruz tu kuche peydâ kard
 Kimea book-EZ someone râ yesterday in alley find did
 'Kimea found someone's book in the alley yesterday.'

Persian lacks a definite article comparable to English *the*. Therefore, the direct objects in (6a) and (6b), although definite, lack a determiner. The grammaticality of these sentences indicates that specificity alone does not block extraction out of an NP.

In this paper, I will try to provide a unified solution to the problem of extraction out of specific NPs. Accordingly, I will assume a Determiner Phrase structure for both specific and nonspecific noun phrases. On the basis of previous work (Karimi 1989), I will further suggest that definite and indefinite determiners occupy two different positions within the DP, and that the deviation of the illformed sentences in (1)-(5) follows from a structural difference between the two types of DPs, a syntactic difference that is driven by semantic properties of the determiner phrase. This difference is based on the inherent nature of the determiner, or the semantic interpretation of the indefinite DP within the sentence. I will show that extraction is possible only when the SPEC of DP is not lexically filled. Otherwise, the specific DP will become an island, blocking the extraction. The implication of this analysis is that the semantic property of a DP requires a structural specification in order to block the syntactic movement of a lexical element. The proposal outlined in this paper accounts for a class of Persian data which could not be explained by previous analyses.

The organization of this paper is as follows: in section 2, I briefly discuss three previous analyses on the issue of the *Specificity Effect*. Section 3 is devoted to a definition of *Specificity* as proposed by Enç (1991), and adopted in this paper. Due to the crucial role of the specificity marker *râ* for the analysis in this paper, a brief discussion of this element follows in the same section. My own proposal regarding the structure of DP and the position of different types of determiners is outlined in section 4. Section 5 provides an analysis of the English examples in (1) as well as the Persian data with respect to extraction and the Specificity Effect. Section 6 concludes this paper.

2. Literature

Milsark (1974) suggests that there are two types of determiners: *weak* and *strong*. The following examples illustrate these two types.

- (7) There is/are *a/some/a few/many/three* flower (flowers) in this garden.
- (8) *There is/are *the/every/all/most* flower (flowers) in this garden.

The determiners in (7) represent the *weak* type: they are ambiguous between a presuppositional and non-presuppositional reading. Those in (8) represent the *strong* type: they presuppose the existence of the entities they are applied to.

Following Milsark (1974), Bowers (1988) makes a distinction between *weak* and *strong* noun phrases based on their determiners: the noun phrases in (1b-c) are considered to be *weak*, whereas those in (1d-e) are classified as *strong*. He further argues that strong noun phrases are DPs, while the weak ones are NPs. This difference is shown in (9):

- (9) a. [DP *strong* DET [NP...Wh...]]
 b. [NP *weak* DETWh.....]

In (9a), the NP containing the Wh-phrase is embedded in the DP. According to Bowers, extraction out of an object DP is a violation of Subjacency since the contained NP is not L-marked by the verb, and therefore, it becomes a barrier. Consequently, the DP inherits the barrierhood. Extraction out of the NP, on the other hand, is unproblematic since it is directly L-marked by the verb.

The main problem with this analysis is that the *weak* determiner may behave like the *strong* one, depending on the semantic content of the noun phrase created by its relation to discourse.⁶ Consider the following examples:

- (10) a. *Who did you see a picture of e that I liked most ? (Fiengo 1987)
 b. *Kimea [NP *ye she'r az ki*] *ro* dust-dâr-e
 Kimea a poem by who râ friend-have-3sg
 'Who does Kimea love a poem by?'

In (10a), the noun phrase is specific due to the modifying clause *that I liked most*. In (10b), the verb *like*, an individual level verb in terms of Kratzer (1989) and Diesing (1992), requires a specific noun phrase. Therefore, the NP in this sentence, even though containing a *weak* determiner in terms of

⁶. See Diesing (1992) for a critical analysis of Bowers (1988).

Bowers, is specific. Moreover, the specificity marker *râ* in (10b) implies that the preceding NP is specific. Therefore, extraction is prohibited in these two cases in spite of the fact that the determiner is *weak* in both of them.

Diesing (1992) discusses this issue in terms of *presuppositionality* and *existentiality*. She argues that NPs are interpreted as *presuppositional* if they (a) contain a strong determiner (such as a definite/demonstrative determiner or a strong quantifier such as *every* and *each*), (b) are arguments of individual level verbs (such as *love* or *like*), or (c) are affected by modifiers that impose a presuppositional reading on them. She further suggests that presuppositional NPs undergo the rule of Quantifier Raising. This movement is overt in a language like German that allows scrambling, and is covert in English type languages. She further states that extraction is possible only out of an NP that is not required to undergo Quantifier Raising. Indefinite existential NPs fall into this class, and thus allow extraction. Indefinite presuppositional NPs, on the other hand, require Quantifier Raising and do not allow extraction. Within Diesing's framework, the NPs in (1a-c) are existential, and thus do not have to undergo Quantifier Raising. Consequently, they allow extraction. Those in (1d-e), on the other hand, are presuppositional/ quantificational (due to strong determiners in these cases), and therefore block extraction. In other words, Diesing's analysis is based on the semantic interpretation of NPs rather than a purely classificational analysis of determiners.

In order to provide a syntactic account for lack of extraction out of presuppositional/ quantificational NPs in German, Diesing (1992:129) states that "...since scrambling moves the NP to an ungoverned position, the generalization here is clearly reminiscent of Chomsky's (1986) reformulation of Huang's (1982) Condition on Extraction Domain (CED), which prohibits movement out of ungoverned

positions." She further states that extraction out of presuppositional NPs in English and German creates a representation that is subject to Subjacency: this representation is independent of the order of Wh-movement with respect to scrambling of the presuppositional NP at S-structure (in German) or its Quantifier Raising at LF (in English). The configuration in (11) illustrates this fact.

(11) Wh_j [IP [NP.....e_j.....]_i [VPe_j.....]

The string in (11) is a violation of Subjacency since the Wh-phrase is separated from its trace by two barriers: NP and IP.

Diesing's analysis accounts for the illformed sentences in (10): since the NPs there are presuppositional, they have moved out of the VP, creating a representation that violates Subjacency. However, the Persian examples in (6), repeated below for convenience, would be wrongly ruled out by Diesing's proposal:

- (6) a. Kimea [NP *ketâb-e kodum nevisanda*] ro dust - dâr - e?
 Kimea book-EZ which writer râ friend-have-3sg
 'Which writer's book does Kimea like?'
 Lit: Kimea the book by which writer likes?
- b. Kimea [NP *ketâb-e yeknafar*] ro diruz tu kuche peydâ kard
 Kimea book-EZ someone râ yesterday in alley find did
 'Kimea found someone's book in the alley yesterday.'

On the basis of Diesing's theory, the presuppositional determiner phrases *ketâb-e kodum nevisanda* 'the book by which writer' and *ketâb-e yeknafar* 'the book by someone' have moved out of the VP in these examples, and thus should not allow extraction. However, both sentences are perfectly well-formed.

Now compare the sentences in (6) to those in (12).

- (12) a. *Kimea [NP *in / ye ketâb-e kodum nevisanda*] ro dust - dâr - e ?
 Kimea this / a book-EZ which writer râ friend-have-3sg
 Lit: Kimea this/a book of which writer likes?

- b. *Kimea [NP *in / ye ketâb-e yeknafar*] *ro* diruz tu ketâbxune peydâ kard
 Kimea this / a book -EZ someone râ yesterday in bookstore find did
 '*Kimea found this/a book of someone in the bookstore yesterday.'

The only difference between the sentences in (6) and (12) is that the former lack a determiner while the latter contain the demonstrative *in* 'this' or the numeral *ye* 'a': both sets are specific/presuppositional, and hence violate Subjacency. However, only those in (12) are ungrammatical. Diesing's analysis cannot account for this contrast.

Finally, Mahajan (1992) argues that the specific direct object, unlike its nonspecific counterpart, has to move out of its theta position to receive Case and (in some languages) agreement, and hence, it will not allow extraction. He suggests, therefore, that the Specificity Effect be reduced to the Condition on Extraction Domain. He further states that languages that allow extraction out of the subject position violate the Condition on Extraction Domain as well. Therefore, these languages are not subject to the Specificity Effect either.

Mahajan's analysis poses the same problem as Diesing's in that it cannot account for the contrast between (6) and (12). Moreover, Persian, similar to Hindi, allows extraction out of the subject position, as in (13a). Extraction is blocked, however, in the presence of a determiner, as in (13b):

- (13) a. [NP *film - e ki*] *emsâl barande-ye festivâl shod* ?
 movie -EZ who this year winner-EZ festival became
 'Whose movie became the winner of the festival this year?'
 Lit. the movie of whom became the winner of the festival this year?
- b. *?[NP *ye/in film - e ki*] *emsâl barande-ye festivâl shod*
 a / this movie-EZ who this year winner-EZ festival became
 Lit. a/this movie of whom became the winner of the festival this year?

The subject DPs in (13) are of the type of *EZAFE construction* containing a possessor noun phrase.⁷ Constructions of this type are identical to English genitive DPs (e.g. *John's house*), and can only

⁷. See footnote (4) for a brief introduction to EZAFE constructions.

receive a definite/specific reading. In an object position, therefore, they *MUST* be followed by the specificity marker *râ*, as attested by the sentence in (14):⁸

- (14) pro [NP ketâb - e Kimea] *(ro) ru miz gozâsht-am
book -EZ Kimea râ on table put - 1sg
'I put Kimea's book on the table.'
Lit. I put the book of Kimea's on the table.

The contrast in (13) shows that

- (a) extraction out of the subject position, although possible, is restricted, and
- (b) there is a considerable parallelism between the contrast in (6)/(12) (regarding extraction out of an object DP) and the one in (13a)/(13b) (regarding extraction out of a subject DP).

This contrast is the subject of the discussion in sections 4 and 5.

3. Semantic background

This section is devoted to a brief definition of *Specificity* as discussed by Enç (1991) and an introduction to the specificity marker *râ* in 3.1 and 3.2, respectively.

3.1. Specificity

Enç (1991) defines definite and specific NPs in terms of their relation to previously established discourse referents. She states that definite NPs require *strong antecedents*. That is, there is an *identity* relation between them and their discourse referents. Specific NPs, on the other hand, are involved in a looser relation to already established discourse referents: their link to the discourse indicates an *inclusion* relation. Therefore, they require *weak antecedents*. Within the framework proposed by Enç, definite NPs are always specific,⁹ while indefinite NPs are ambiguous with respect to

⁸. Persian is a Null Subject language. Thus the presence of *pro* in (14) is justified.

⁹. Rapoport (1995) suggests that attributive definites are nonspecific, as in (i) and (ii):

(i) I consider John *the man for the job*.

specificity: they are specific if they denote a *partitive* or *inclusion* relation to previously established discourse, and nonspecific if they lack an antecedent in the discourse altogether.¹⁰ In sum, specific noun phrases, definite or indefinite, have one feature in common: they are linked to previously established discourse referents. It is only the type of linking that distinguishes between definites and specific indefinites. As for nonspecific NPs, they cannot be linked to the previous discourse, and hence denote novelty of reference. Proper names, pronouns, and noun phrases modified by a demonstrative or a definite article are definite, and thus specific. Certain indefinites are predicted to be specific, such as partitives and universal quantifiers.¹¹ In this paper, I employ Specificity in the sense of Enç's

(ii) *The man who murdered Smith* is insane.

The nonspecific interpretation of the noun phrase in (ii), for example, is that the speaker is asserting that whoever murdered Smith is insane, without having a particular individual in mind. I will not discuss these cases in this paper.

¹⁰. See Karimi (in preparation) for a criticism of Enç's definition of Specificity with respect to the notions *lack of antecedent* and *inclusion*. On the basis of Persian and English data it is shown in that work that (a) nonspecific DPs do not always lack existence, and (b) *inclusion* is not a necessary condition for specific interpretation.

¹¹. The semantics of universal quantifiers is controversial. However, they are sensitive to Specificity Effects, as in (1e). Furthermore, they cannot appear in an existential environment as in (i)-(iii):

- (i) *There is every hat on the table.
- (ii) *It was every French professor that I met at the party.
- (iii) *What I saw was every picture of Mary.

These examples are from Andrew Barss (p.c.).

In Persian, universal quantifiers behave like other specific NPs: they are followed by the specificity marker *râ* if [-NOM], and are sensitive to the Specificity Effect. A similar restriction holds in Turkish: specific objects are followed by the Accusative suffix *-I* in this language. Furthermore, universal quantifiers must be followed by this suffix in an object position.

definition. I also adopt Diesing's (1992) proposal which suggests that individual level verbs and certain modifiers impose a presuppositional/specific reading on the DP argument of the verb.

3.2. The specificity marker *râ*

Grammarians have traditionally considered *râ* to be an object marker with a secondary function of marking the NP for definiteness. Browne (1970) observes that *râ* follows indefinite objects as well, and hence cannot be merely a definite marker. He was the first to consider *râ* as a specificity marker. Karimi (1989, 1990) provides a detailed analysis regarding this element, and concludes that *râ* marks an NP for specificity as long as it does not receive nominative Case and is outside the governing category of a head.¹² These restrictions ensure that *râ* does not follow the subject of the clause, nor the object of a preposition. They further imply that this element can mark specific NPs other than thematic objects of the verb. The following examples illustrate these points:

- (15) a. Kimea be man [NP ketâb] dâd
 Kimea to me book gave
 'Kimea gave me book(s).'
- b. Kimea [NP in ketâb] *(*ro*) be man dâd
 Kimea this book *râ* to me gave
 'Kimea gave me this book.'
- (16) a. Kimea emruz barâ bachche-hâ [NP ye dâstân-e ghadimi] ta'rif kard
 Kimea today for child-pl a story-EZ old define did
 'Kimea told the children an old story today.'
 (some old story, not a particular one.)

(iv) Ali bUtUn kitaplar-*(I) okudu. 'Ali read all the books.'

(v) Ayshe her kitab-*(I) okudu. 'Ayshe read every book.'

The examples in (iv) and (v) are from Engin Sezer (p.c.).

¹². Karimi (1996) provides an analysis that accounts for all Persian data independent of the notion *government*.

b. Kimea emruz [NP ye dâstân-e xeyli ghadimi] *ro* barâ bachche-hâ ta'rif kard
 Kimea today a story-EZ very old *râ* for child-pl define did
 'Kimea told the children a (specific) very old story today.'
 (out of a set of stories, she chose a specific old one.)

(17) a. Kimea be dust-â-ye man mi-xand-e
 Kimea at friend-pl-EZ my hab-laugh-3sg
 'Kimea laughs at my friends.'

b. [NP dust-â-ye man] *(*ro*) Kimea be-h-eshun mi-xand-e
 friend-pl-EZ my *râ* Kimea at-them hab-laugh-3sg
 'My friends, Kimea laughs at them.'

(18) a. hafte-ye âyande esterâhat mi-kon-am
 week-EZ coming relax hab-do-1sg
 'I will relax next week.'

b. hafte-ye âyanda *ro* esterâhat mi-kon-am
 week-EZ coming *râ* relax hab-do-1sg
 'As for next week, I will relax.' (Karimi 1990:167)
 Meaning: I will use that specific period of time (the entire next week) to relax.

(15a) contains a bare NP in the object position. This NP receives a nonspecific reading. The definite object in (15b) is followed by the specificity marker *râ*. Lack of this element results in an illformed string. The object in (16a) is an indefinite NP without *râ*, and hence receives a nonspecific reading. The same object is followed by *râ* in (16b). Only a specific interpretation is available in this case.¹³

The sentences in (17b) and (18b) show that *râ* appears with NPs other than objects as well. The verb *xandidan* 'to laugh' in (17), for example, does not subcategorize for an object. However, the noun phrase followed by *râ* in (17b) is left-dislocated, corresponding to a clitic resumptive pronoun within the PP. The dislocated NP receives a specific reading, and must be followed by *râ*. Similarly, the adverbial *hafte-ye âyande* 'next week' in (18) is not the thematic internal argument of the verb. However, it can be followed by *râ* to indicate a specific period of time, as in (18b).

¹³. *Râ* in these cases has the same function as *-i* in Turkish (Enç 1991) and *-ko* in Hindi (Mahajan 1990, 1992).

4. Proposal: DP Hypothesis

In this section, I suggest that specific and nonspecific noun phrases both have a DP construction. I further propose that determiners are placed in two different positions within the DP, based on (a) their semantic nature (cf. *strong* vs *weak*), and (b) the semantic reading of the DP within the clause with respect to specificity. I start the discussion with a brief introduction to the DP Hypothesis and the semantics of NP specifiers.

Brame (1981) was the first to advocate the idea of determiners as heads. He states that since DET is the head of NP, and not N as customarily supposed, it would be better to abbreviate DET(N) as DP, not as NP.

Within the framework of Principles and Parameters theory, numerous authors have adopted the DP structure (Abney 1986, Fukui and Speas 1986, Hudson 1989, and Stowell 1989, among others). Stowell, for example, makes a distinction between the DP and NP on the basis of referentiality: the former is referential while the latter is not.

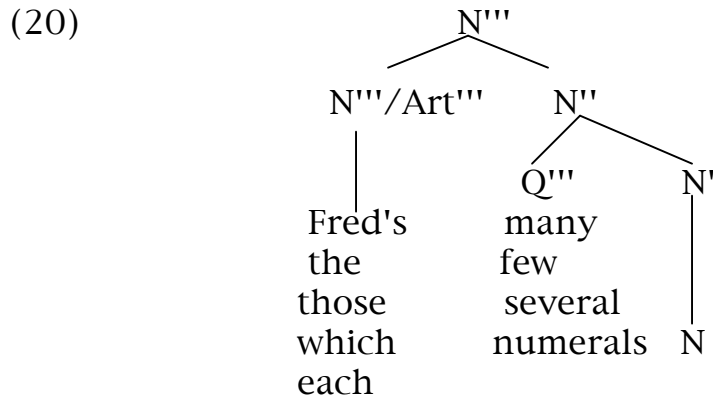
As for the semantic and syntactic properties of NP specifiers, Jackendoff (1977) provides an extensive discussion. He states that

there are three semantic sorts of NP specifiers: demonstratives, quantifiers, and numerals. They are divided up among two NP specified positions in N''' and in N'' , and are of the categories Art and Q, respectively. Demonstratives always appear in N''' , but some quantifiers appear in N''' and some in N'' . (Jackendoff 1977: 106)

Jackendoff recognizes the fact that genitive NPs and demonstratives may be followed by certain quantifiers, but not by others, as in (19).

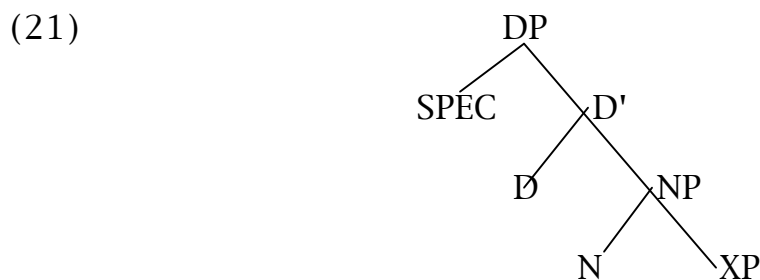
- (19) a. Fred's many friends
b. *Fred's each dwarf

He states that in order to account for this distribution, he will resort to dividing the class of semantic quantifiers into two syntactic categories. He assigns some of these quantifiers (such as *some*, *each*, *all*, etc.) to the category Art, and the others (such as *many*, *few*, *several*, etc.) to the category Q. Jackendoff also states that the N''' specifier is the position where genitive NPs occur in complementary distribution with demonstratives. The following configuration illustrates the two positions suggested by him.



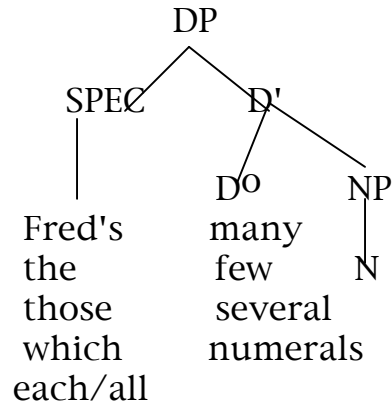
The genitive NP, in addition to the definite article, the demonstrative, some quantifiers, and *which* appears under the Art''' node while numerals and some other quantifiers are dominated by Q''' within N''.

In order to account for the information provided by Jackendoff in (20), and the data in section 1, I propose the structure in (21), where the determiner selects a noun phrase as its complement. I further suggest that this structure represents both specific and nonspecific noun phrases.



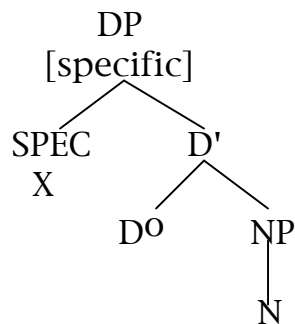
Assuming the structure in (21), Jackendoff's N'''/Art''' appears under the SPEC node, while his N''/Q''' will be base generated under the head node D⁰. This is illustrated in (22).

(22)



In the framework I am proposing, numerals and Nⁿ quantifiers are base-generated under D⁰ unless the DP receives a specific interpretation. In that case, they occupy the SPEC of DP. That is, numerals and Nⁿ quantifiers are not necessarily in the head position, but *MAY* appear in the SPEC position if the DP receives a specific reading in the clause. These properties are illustrated by (23).

(23)



Where X = lexical element or the feature [+Specific].

The configuration in (23) shows that the presence of a lexical element or a specific feature in the SPEC of DP implies specificity of the noun phrase.

The advantage of (23) over Jackendoff's proposal in (20) is that the former does not prohibit the presence of numerals and quantifiers in the SPEC position if the DP is specific. In addition, (23) is essentially motivated by entirely independent syntactic factors based on extraction.

I further suggest that a specific DP is an island *ONLY* if its SPEC is lexically filled. This is reminiscent of Wh-islands which block movement in a similar fashion. I call this constraint the *Lexical SPEC Constraint* (LSC).

(24) Lexical SPEC Constraint (LSC)

* α_i [DP SPEC_L [NPt_j.....]] where SPEC_L = Lexically filled

The Lexical SPEC Constraint in (24) states that extraction is blocked in a configuration where the SPEC of DP is lexically filled. The discussion in the following section shows that the illformedness of the English sentences in (1d-e) and (10a) as well as the ungrammaticality of Persian sentences in (2b), (3b), (4b), (5b), (10b), (12) and (13b) are accounted for by assuming the structure in (23) and *The Lexical SPEC Constraint* proposed in (24).¹⁴

5. Analysis

5.1. The Specificity Effect in English

Having (23) and (24) in mind, let us reconsider the data presented in the introductory section of this paper. I start with the English data.

In (1a-c), the determiner is in the head position, and the SPEC is empty. Therefore, the Wh-phrase can use the SPEC position to escape out of the DP. Subjacency is not violated in these cases since the object DP is L-marked by the verb. In (1d-e), on the other hand, the SPEC position is occupied by the determiner, and therefore, there is no escape hatch for the Wh-phrase to move out of the DP. Extraction out of these DPs violates Subjacency since the extracted element has to cross three barriers: NP, DP, and IP. This fact is shown in (25).¹⁵

(25) a. *[CP Who [C' did [IP you see [DP the/that/this/John's [NP picture of e]]]]]?

|_____|

e. *[CP Who [C' did [IP you see [DP every/most/each [NP picture(s) of e]]]]]?

|_____|

¹⁴. A version of this constraint was discussed in Karimi (1989).

¹⁵. Note that the sentences in (25) violate the Shortest Move Constraint (Chomsky 1995) as well: SPEC of DP is the closest position for the Wh-phrase to move to. This position is filled, however, provided the structure in (23).

The sentence in (10a) exemplifies the case of specific indefinites: although the determiner is a numeral, it is placed in the SPEC of DP due to the semantic interpretation of the determiner phrase. The result is illformed due to Subjacency, similar to the data in (25).

5.2. The Specificity Effect in Persian

Let us return now to the example in (10b). Again, in spite of the fact that the determiner is a numeral in this case, it has occupied the SPEC position, similar to its English counterpart in (10a). Thus movement out of this DP is blocked, as predicted by the Lexical SPEC Constraint in (24).

Now compare the sentences in (6a) and (12a), repeated below as (26) and (27), respectively:

- (26) a. Kimea [NP *ketâb-e kodum nevisanda*] ro dust - dêr - e?
 Kimea book-EZ which writer râ friend-have-3sg
 'Which writer's book does Kimea like?'
 Lit: Kimea the book by which writer likes?
- (27) a. *Kimea [NP *in / ye ketâb-e kodum nevisanda*] ro dust - dêr - e ?
 Kimea this / a book-EZ which writer râ friend-have-3sg
 Lit: Kimea this/a book of which writer likes?

The object DPs are specific in both sentences. The only difference between them is that there is no lexical element in the SPEC position of the grammatical sentence, and therefore, extraction is not blocked. The illformed sentence in (27) has a lexical element in the SPEC position of the object DP which prevents the movement of the Wh-phrase. The same argument holds for (6b) and (12b), repeated as (28) and (29), respectively.

- (28) Kimea [NP *ketâb-e yeknafar*] ro diruz tu kuche peydâ kard?
 Kimea book-EZ someone râ yesterday in alley find did
 'Kimea found someone's book in the alley yesterday.'
- (29) *Kimea [NP *in / ye ketâb-e yeknafar*] ro diruz tu ketâbxune peydâ kard
 Kimea this / a book-EZ someone râ yesterday in bookstore find did
 'Kimea found this/a book of someone in the bookstore yesterday.'

The quantifier in (28) can move out of the DP at LF. This is not possible in (29) due to the constraint in (24).¹⁶

6. Conclusion

The claim in this paper is that the Specificity Effect applies only if the SPEC of DP is lexically filled. In that case, DP will become an island, and blocks extraction. Consequently, languages that do not have a definite article allow extraction out of a specific DP since the SPEC is not filled¹⁷. I have further suggested that the position of determiners within the DP is determined by the semantic nature of the determiner or the interpretation of the determiner phrase within the clause. Therefore, Jackendoff's *Quantifier* determiners and Bowers' *weak* determiners have the choice to be in the head OR the SPEC position of DP, depending on the semantic interpretation of the DP with respect to specificity.

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¹⁶. Note that extraction out of the specific DPs in (6) (with no lexical element in the SPEC of DP) will still violate Subjacency since these DPs have to move out of their position at LF due to their specific interpretation (Kratzer 1989; Diesing 1992, 1996). They are, however, perfectly wellformed. It seems that the Shortest Move Constraint accounts more adequately for the contrast between the wellformed sentences in (6) and the ungrammatical examples (e.g. those in 10 and 12) than Subjacency does.

¹⁷. The following sentence provides a problem for the analysis presented in this paper:

- (i) Who did you see pictures of e

Although the DP *pictures* lacks a determiner, it can only receive a nonspecific reading. Karimi and Lobeck (1997) discuss this and similar cases, and propose a structural solution for them based on parametric differences between Persian type and English type languages.

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