

# The Study of Quantified Noun Phrase in Persian

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## Abstract

This paper focuses on the structural properties of quantified noun phrases in Persian language. Based on the Giusti's hypothesis, it will be argued that, first, quantified noun phrases are of category QP in Persian, namely that the quantifier (Q,) on a par with the determiner (D), is a functional head that always dominates a definite nominal (DP) and indefinite one (NP) or a prepositional phrase (PP),<sup>1</sup> and second, a certain number of quantifiers act as adjectives.

**Keywords:** Quantifier, Functional head, Quantifier phrase, Determiner phrase, Quantifier float, Noun phrase

## 1. Introduction

Quantifiers have often been the object of study of the interface between syntax and semantics. Recently a certain number of studies have raised the question of the structural position of quantifiers inside the noun phrase in their attempt to explain other related problems. The result is that only a portion of the relevant facts has been taken into account, and that certain properties of quantified noun phrases have remained unaccounted for. The main aim of this work is to provide a syntactic account of Persian quantified noun phrases that can explain phenomena such as the distribution of determiners in quantified noun phrases, the possibility for certain class of quantifiers to act as adjectives and the phenomenon of quantifier float in Persian. The rest of the paper is organized as follows: In section two first the traditional view will be dealt which treats Qs as a kind of adjectives and we will see that Persian Qs are morphologically different from adjectives [2.1]; another previous account will be in the recent framework of generative grammar, namely two level x-bar theory, which views Qs as a specifier of (NP) [2.2], three level x-bar theory (Jackendoff 1977) [2.3] and DP-hypothesis (Abney 1987) [2.4], which these last two accounts both provide (but in a different way) a second specifier position to accommodate the full range of nominal specifiers; and we'll see that all of these accounts are inadequate to account for the Persian quantifiers' syntactic position.

In section three, Giusti's (1991<sub>a</sub>) QP-hypothesis, which divides Qs in two major classes namely, heads and modifiers- according to their distributional status- will be introduced and adopted to account for Persian quantifier's distributional status [3.1]. In section four, based on this hypothesis, Persian data will be analyzed. In accounting for head status of Qs in Persian, by concerning the quantifier float phenomenon (QF), Qs will be examined in three different syntactic positions: 1- Specifier [4.1] 2- adjunct [4.2] and finally head position [4.3]. I will suggest that among these accounts only head analysis, with respect to QF, can account for syntactic position of Qs in Persian. In the rest of the paper [4.4] I'll deal with the second part of the QP-hypothesis – the modifier status of some quantifiers in Persian. Section 5 is conclusion.

## 2. Previous accounts

### 2.1 Traditional Grammar

In logic quantifiers are divided into two categories: universal quantifiers and existential quantifiers. Persian quantifiers such as *te?dadi* 'some'(for countable nouns), *meqdari* 'some'(for uncountable nouns), *barxi* 'some'(countable and uncountable nouns), *aksariyat*, *bishtar* 'most of' and etc, are of category existential one which can be followed by an (NP) or((PP) (in partitive constructions) as in (1), and quantifiers such as *hame- kol- tamam* 'all', *har* 'every' are of category universal one which can be followed by an (NP) or (DP) as in(2):

1.

(a) *Te?dadi ketab - meqdari berenj*

Some book - some rice

(b) Te?dadi az ketabha - meqdari az berenj- ha

Some of books - some of rice- (plural morpheme)

2.

(a) Hamey-e ketabha

all-ezafe (Note 1) books

kol-e in ketabha

(b) All-ezafe this books

In traditional grammar quantifiers generally have the categorical status of adjectives. But according to Abney (1987), Tallerman (1995), Radford (1997) and Giusti (1997), quantifiers, with respect to some morphological and syntactical criteria, behave differently from adjectives. As they argue any attempt to analyze quantifiers as adjectives in English runs up against a number of serious descriptive problems.

One reason for not subsuming quantifiers within the category of adjectives is that unlike adjectives quantifiers cannot be iteratively stacked in front of noun they modify. This will account for Persian data, as in (1) and (2):

1. bozorgtarin, pakizetarin, aramtarin shahr

The Biggest, cleanest calmest city

2. \*hameye chand ta ketabha

All some (classifier) books

The other reason is that morphological evidence distinguishes the two word classes, Persian quantifiers- on oppose to adjectives - never take 'tar' and 'tarin'(comparative(c) and superlative(s) markers) endings, as in (1) and (2):

1. ziba-tar /ziba-tarin

Beautiful -more/beautiful -the most

2. \*hame-tar/hame-tarin, meqdari-tar/meqdari-tarin, te?daditar/te?daditarin

All – C / all - S, some- C ,some -S, some-C, some-S

Moreover quantifiers seem to have different distribution ( and hence to be categorically distinct ) from adjectives in that ,in Persian all quantifiers precede nouns but adjectives are preceded by nouns<sup>2</sup>, as in (1) and (2):

1-doxtare xub

Girl good

2-hameye doxtarha/ meqdari berenj

All girls / some rice

Only do superlative adjectives precede nouns, in this case quantifiers and adjectives can be used together to modify a noun. This co-occurrence shows that they belong to different categories (in other words they are not in complementary distribution, and when they do so any quantifier modifying the noun has to precede any superlative adjective(s) modifying the noun as in (1) and (2):

1-teʔdadi az behtarin ketabha

Some of the best books

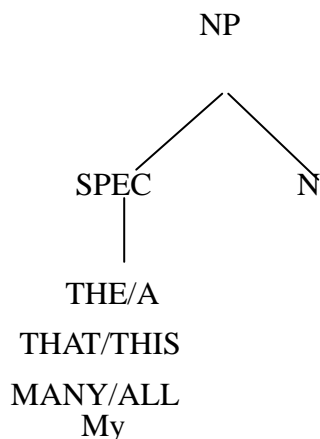
2-\* behtarin az teʔdadi ketabha

The best of some books

From the above discussion we can conclude that quantifiers and adjectives have a different morphological and syntactical behavior in Persian.

## 2.2 Two Level x-bar Theory

In standard analysis of x-bar theory quantifiers, articles, demonstratives and possessors occupy a single specifier position (Spec- position) in English noun phrases. The main reason for placing all these elements in a single slot is related to the fact that they are in complementary distribution. The structure for noun phrases in standard analysis is the following:



But as the following data indicate, in some languages like Italian and English the quantifier and the determiner can co-occur simultaneously.

1-the a few boys

2-I molti ragazzi

The many boys

In Persian also in some cases the quantifier and the demonstrative<sup>3</sup> can co-occur, as in (1), (2), (3)

1-hameye in mardom

All this people

2-in chand ta ketab

This some- classifier book

3- in nesf-e sib

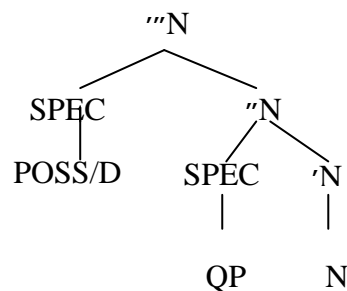
This half-ezafe apple

As it stands standard analysis doesn't provide enough distinct positions to accommodate quantifiers and other determiners in the noun phrase.

To accommodate these elements, Jackendoff (1977) and Abney (1987) assume (but in a different way) a second, lower specifier position in noun phrases. Both These analyses place quantifiers in the lower specifier position. At first, it appears that these approaches can account for the co-occurrence of the quantifier with the determiner but as it will be showed that it is not the case.

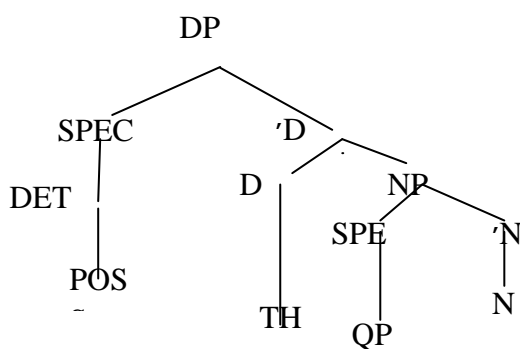
### 2.3 Three Level x-bar Theory

Jackendoff (1977) posited three level x-bar theory and assumed for two distinct specifier positions in a noun phrase. According to this analysis determiners and possessors are in higher spec- position and quantifiers are in the lower one. Following structure illustrates how the three- level analysis makes room for the extra position:



### 2.4 DP-hypothesis

Abney (1987) proposed that the head of an NP is not N but rather the determiner. NP reinterpreted as DP. This analysis has come to be known as the DP-hypothesis. By assuming a D as head with its own spec-position, this analysis provides more positions to accommodate quantifiers and determiners. The structure for noun phrases in DP-hypothesis is the following:



As it stands under this analysis, the determiner is a functional head of the noun phrase which has its own spec- position, possessors are in spec-DP, quantifiers are in spec-NP and articles and demonstratives are in head position. But these two analyses will only account for the data such as (1), (2)- in both Persian and English- in which the determiner precedes the quantifier:

1-in chand -ta ketab

This some- classifier book

2-these /the many books

In other words, these two analyses will predict that the quantifier never precedes the determiner. Of course, just the opposite is in fact the case. The following examples show that universal quantifiers can precede determiners in both Persian and English:

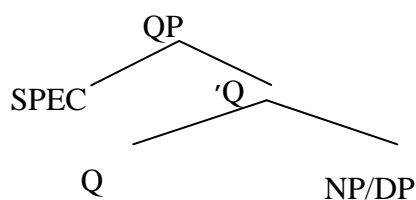
1-hamey in bacheha

All this children

2-all the/these boys

From the above discussion we can conclude that none of these three analyses can provide us with a comprehensive account relating to syntactic position of quantifiers in Persian.

Based on Abney's hypothesis, some linguists (Abney 1987) ,(Ritter 1991),(shlonsky1991),(Giusti-Cardinality1990),(Giusti1991),(Giusti-leko1995), argued that Q, on a par with D, is a functional head with its own specifier and complement (in other words , they view quantified nominals as a category of QP). Their structure for a quantified nominal is the following:



As it stands, Giusti has accomplished a thorough study relating to quantified nominals ( in different languages) and based on these studies, she proposes QP-hypothesis and argues that

this hypothesis has a universal validity. In the next section I'll adopt Giusti's approach and ,in section three, its validity in Persian will be examined.

### 3. QP-hypothesis

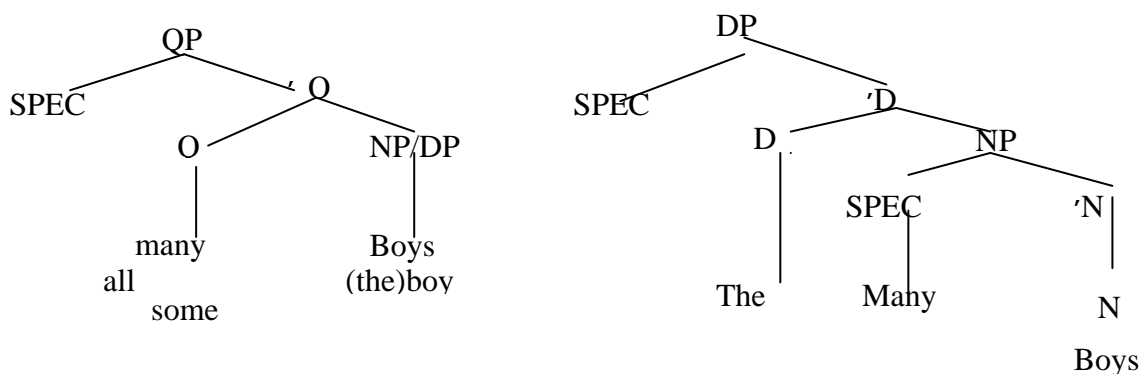
In this analysis quantifiers should be divided into three different classes at a descriptive level. Those that must precede a determiner, those that may follow a determiner and those that can neither precede nor follow a determiner, as in (1),(2), and (3) respectively:

1-all the children

2-the many/ few /two boys

3-\*some/any the boys

Giusti(1991a) argues that quantifiers that are not preceded by a determiner are heads (Q) selecting an NP/DP and projecting a QP as in (1) and (3), while a restricted class of quantifiers that are preceded by a determiner are adjectives and are in a specifier position of NPs, as in (2)<sup>4</sup>. The structures proposed for quantified nominals in QP-hypothesis are the following: (the structure (1) and (2) show the head and modifier status of quantifiers, respectively)



#### 3.1 Distributional status of Quantifiers in Persian

At a descriptive level, Persian quantifiers have the same distribution with determiners as Giusti's classification of quantifiers. As the following examples indicate universal Qs and some of the existential Qs (with *ezafe*) in the case of occurrence with the determiner (only demonstratives) always precede the determiner as in (1)(2), a restricted class of Qs such as *chand* 'some', compound Qs such as *yek zarre* 'a little', *yek kharvar* 'a lot of', *nesf* 'half' and numerals in the case of occurrence with the quantifier always precede Qs as in (3)(4)(5)(6) and some other Qs are in complementary distribution with the determiner (they can not co-occur with determiners) as in(7);

- 1-hamey-e                    in                    mardom
- All-ezafe                    this                    people
- 2-aksariyat-e                in                    mardom

Most- ezafe            this                    people

3-in    chand -ta            sib

This    some -classifier    apple

4-in    yek khavar        sib

This    many            apple

5- in    nesf-e            sib

This half-ezafe apple

6- an    do- ta            ketab

That two -classifier book

7-\*(in) teʔdadi (in) ketab/\* (in) meqdari (in) berenj/\* (in) chandin (in) ketab

(this) some (this) book/ (this) some (this) rice/    (this) some (this) book

In Persian and some other languages like French, English, Arabic and Hebrew quantifiers can be separated from the NP/DP which they modify and appear to the right (in English and French) or left (in Persian) of NP/DP. In Persian also Q can be separated from PP in partitive constructions (2).

Following examples illustrate this phenomenon in Persian:

1.

a) hameye    in            bacheha            be            madrese            miravand  
                  All                    this                    children                    to                    school  
 go

b) in    bacheha    hame    be    madrese            miravand  
           this    children    all    to    school                    go

2.

a) teʔdadi    az            ketabha                    gom shod  
                  Some                    of                    books                    got lost

b)    Az            ketabha            teʔdadi-shun                    gom shod  
           Of                    books                    some(clitic)                    got            lost

In the next section by concerning the phenomenon of quantifier float in Persian I will deal with the head status of the quantifier. In doing so I will investigate quantifiers in three different positions namely as, specifier, adjunct and head position. In the rest of the paper the modifier status of some quantifiers will be examined in Persian.

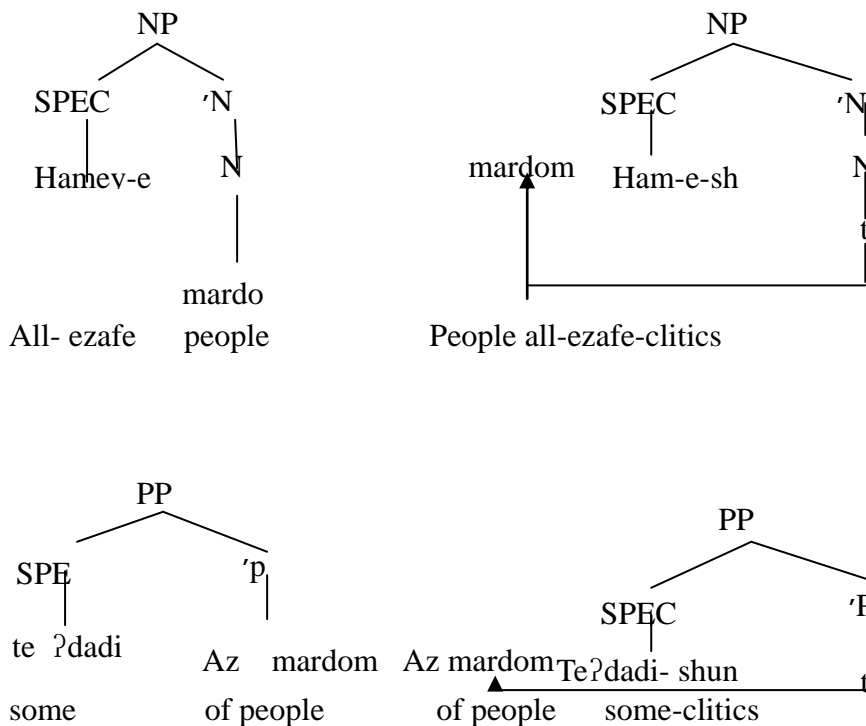


#### 4. Head and modifier status of Persian quantifiers

##### 4.1 Specifier Position

As it has been previously indicated according to standard x-bar theory and other modifications like three-level x-bar theory and DP-hypothesis Qs are in spec-position. In quantifier float phenomenon, as it was addressed, the quantifier is separated from NP/DP and surfaces somewhere else after NP/DP. Floating quantifier so called since the proposals took the quantifier to float rightwards, away from the NP/DP. But this view was gradually replaced by the view in which, the structure undergone movement, was NP/DP not Q (Bobaljik 2001). On the basis of second view (the complement movement) we can motivate the possibility for being the Q external to the noun phrase, since movement can not affect chunks of extended projection. In other words being Q in spec-position (internal to NP/DP) is incompatible with the well known Chomsky's (1986) restriction of movement to  $x^{\circ}$  and  $x$  categories<sup>5</sup>.

In the structures below the quantifier is suppose to be in the spec-NP and PP, when the movement applies<sup>6</sup>:



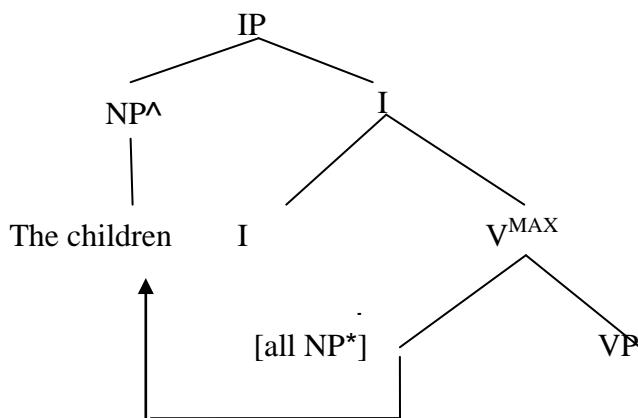
As it stands in these diagrams the construction which is affected by movement is an intermediate projection  $X'=N',P'$ . So with respect to quantifier float phenomenon in Persian we can say that any account that places Qs in spec-position is unsatisfactory in the framework which restricts movement to maximal and zero projections.

4.2 Adjunct Position

Sportiche (1988), in accounting for the phenomenon of floating quantifiers proposed that Qs, at least those that can float (basically universal and distributive all and each ) are generated adjoined to the NP/DP they modify and the quantifier float consist of moving an NP(DP) subject leftwards, from a D-structure VP-internal position. Sportiche utilizes his proposal as evidence for a theory developed by Koopman and Sportiche (1988) according to which subjects are generated at D-structure in a position internal to a projection of V. The s-structure of the floating construction in (1b), is derived from the D-structure (1a) from which NP\* has been moved leaving the Q dominated by NP^in place:

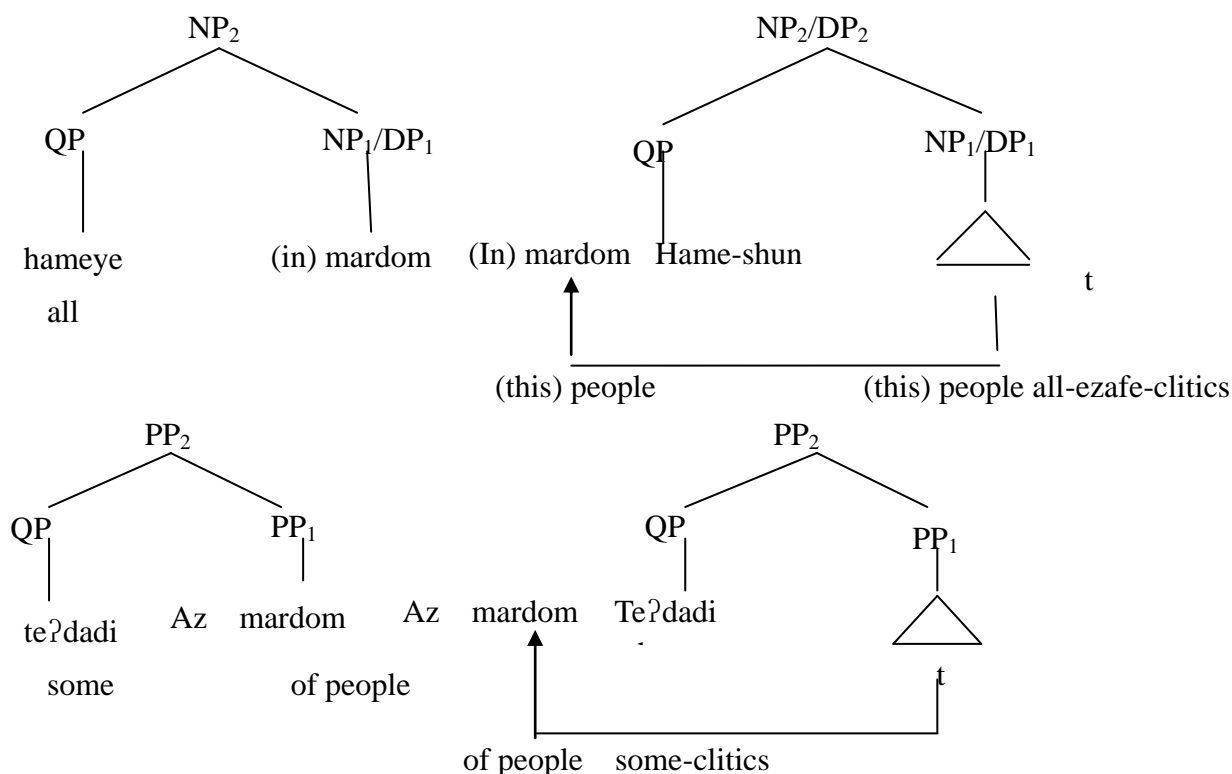
1-

- A) All the children have seen this film
- B) The children all have seen this film



But Sportiche remains vague about the mechanism of the extraction ( just how does a sub constituent NP/DP move out of the larger DP without violating conditions on extraction?)

Nevertheless, by supposing the universal Qs in adjunct position and generalizing it to the existential quantifiers in Persian, we can explain why Qs can remain in place in floating phenomenon, without violating the Chomsky's restriction of movement. In (1) and (2) -according to this theory- the Q supposed to be in adjunct position of NP and PP is stranded when movement applies;



As it stands Sportiche analysis is compatible with Chomsky's restriction of movement since the constituents which have been undergone movement are NP and PP, a maximal projection.

As it has been previously indicated Sportiche's proposal is considered to be compelling empirical support for the VP-internal subject hypothesis, in other words this analysis is restricted to verify quantifier float phenomenon in subject position so according to this analysis the first landing site for the quantifier's complement (NP/DP) is considered spec-IP(as structure (1) indicates).

But this reversal in order of the quantifier and its complement is not restricted to clausal subjects. (1) and (2) demonstrates that both direct objects of V and object of prepositions exhibit the same alternation in Persian:

1.

a) Ali hameye ketabha ra xarid.  
(direct object of V)

Ali all books (accusative marker) bought.

b) Ali ketabha hame ra xarid.

Ali books all (accusative marker) bought.

2.

a) Man be hameye golha ab dadam. (object of preposition)

- I to all flowers water gave.
- b) Man be golha hame ab dadam.
- I to flowers all water gave.

So one deficiency of Sportiche's analysis is that it doesn't provide the first landing site of the moved element from object positions. There is another problem related to occurrence of a pronominal clitic on the quantifier. In some languages such as Persian and Hebrew when the quantifier separates from its complement, it obligatory or optionally<sup>7</sup> hosts a clitic pronoun which must agree with quantified NP/DP in number and person and such a hypothesis doesn't provide a straight forward explanation for this fact. The following examples manifest the appearance of the clitic pronoun on the quantifier after its complement separation:

1.

- a) Hameye bacheha be madrese miravand.  
All children to school go.
- b) Bacheha hame-shun be madrese miravand.  
Children all-(clitic) to school go.

2.

- a) Te?dadi az ma be mosahebe da?vat shodim.  
Some of us to interview were invited.
- b) Az ma te?dadi-mun be mosahebe da?vat shodim.  
Of us some- (clitic) to interview were invited.

And in Hebrew;

3. katafti et kol ha- praxim bi-zhirut/ katafti et ha –praxim kull-am bi-zhirut.

(I) Picked all the flowers with care/ (I) picked the flowers all-[Agr] with care.

As it stands, Sportiche analysis doesn't provide any account for the appearance of the clitic pronoun on the quantifier.

#### 4.3 Head Position

Drawing on Hebrew data shelonsky (1991) offers an account (based on appearance of clitic pronoun on Q) which has advantages over an analysis such as that of Sportiche's(1988)-according to which the quantifier is adjoined to NP/DP in the base- in explaining both the mechanism of extraction and the occurrence of clitic pronoun on quantifier in floating phenomenon. She argues that the universal quantifier (kol) in modern

Hebrew is a functional head in the sense of Abney's (1987) and the related works, which selects a NP/DP complement.

Since in Persian, both universal quantifiers and existential ones—in partitive constructions - can potentially host a clitic pronoun in floating configurations, I generalized Shelonsky's proposal to universal Qs and existential ones.

As in Persian only heads (nouns, verbs and prepositions) can host pronominal clitics and form a natural class- with respect to their capacity to host clitics- assimilating Q to the class of heads allow us to capture the fact that they can host pronominal clitics without any additional assumptions.

Consider (1-3) which exemplifies pronominal clitics on verb, noun and preposition respectively:

1- Amadam ta bebina-met/esh/etan... .

(I) came to see you/him/you

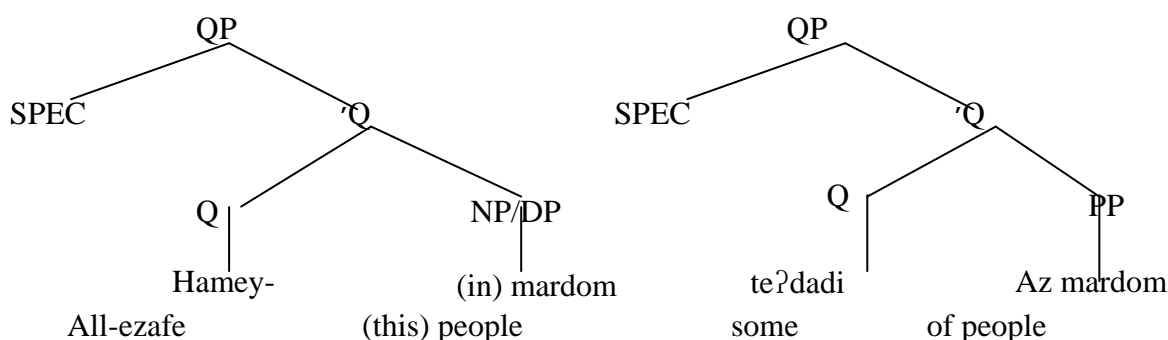
2- Amadam ta xahar-et/esh /shan... ra  
bebinam.

(I) came to sister your/his/their (accusative marker) see

3- Mixaham filmi darbare-ash /at/eshan besazam.

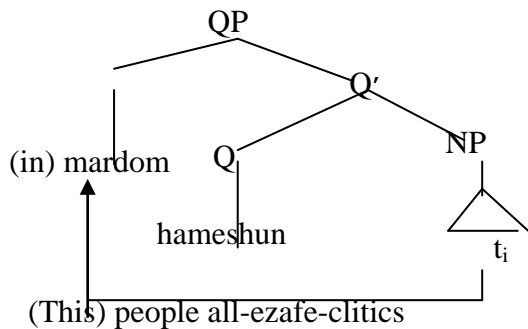
(I) want movie about-him/you/them make.

Suppose, then, that (1) and (2) both instantiate a structure in which the quantifier heads a QP and take an NP/DP /PP complement:

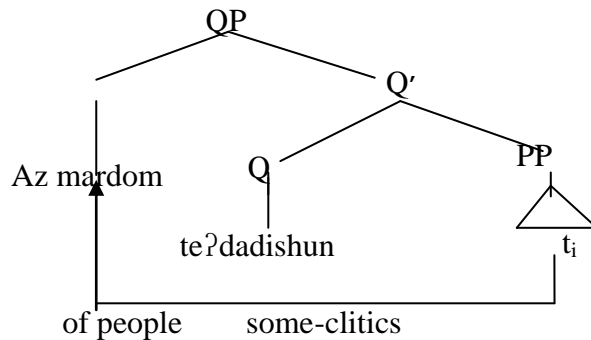


We can propose to analyze (3), (4) as having NP/DP/PP in spec-QP, in other words the movement transformation affects complement of Q and makes it move to spec-QP as a first landing site of the movement (the complement of the Q may be further extracted (for example to spec-topic phrase) but it's supposed that its first landing site is spec-QP:

3)



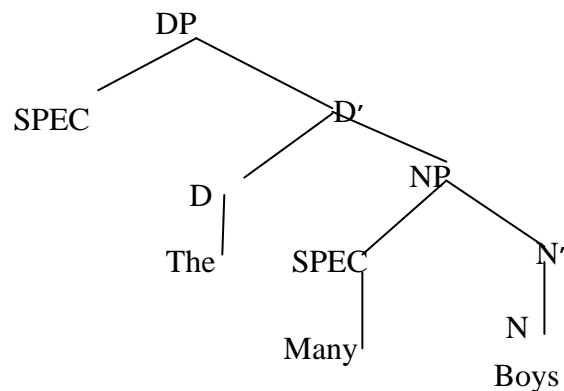
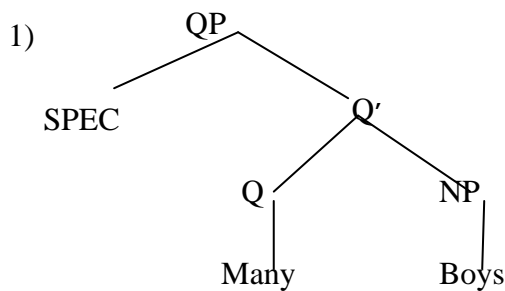
4)



In this configuration, the head of projection, namely the quantifier, must agree with its specifier, the agreement morpheme signals exactly this relation, in other words the occurrence of agreement clitic is interpreted as an instance of specifier - head agreement. As it stands the movement operation which affects complement of Q (NP/DP/PP) doesn't violate movement principle, since the moved constituent is a maximal projection (NP/DP/PP). Given that Qs are in head position in Persian noun phrase structures, they support the first part of Giusti's QP-hypothesis. In the following section, I deal with the next part of this hypothesis which treats some quantifiers as a kind of adjective.

#### 4.4 Quantitative Adjectives

Giusti argues that a restricted class of quantifiers such as many, few, a few, several and numerals and etc, have a double status of being a head or a modifier. As she proposed When they are preceded by a determiner, they function as a modifier and they are in spec- position but when they surface with no determiner they function as a head, the structures (1) and (2) show the head and modifier status of these quantifiers, respectively:



In Persian, also, quantifiers such as *chand ta* 'some', *nesf* 'half', (*yek+noun*)*yekzarre* 'a little', *yekxarvar* 'many'...etc and numerals, manifest the same distribution with determiners (demonstratives) as in English, as in (1-4):

1- In *chand ta ketab.*

This some (classifier) book.

2- In *do ta ketab.*

This two (classifier) book.

3- In *yek zarre berenj.*

This a little rice.

4- In *nesfe sib.*

This half-ezafe apple.

Giusti's first motivation for assuming these quantifiers as adjectives comes from the fact that, quantifiers never appear in predicative position while adjectives can. It turns out that only these quantifiers that are preceded by determiners behave as adjectives and appear in predicative position, as in (1), (2) and (3), many, few and numerals can function as predicative APs, on par with other adjectives and as opposed to other quantifiers:

1- The many/several/twenty/numerous boys I know.

The boys I know are many/several/twenty/numerous

2- The nice/intelligent boys I know

The boys I know are nice/intelligent

3- \*The all/each/some boys I know

\*The boys I know are all/each/some

The parallelism between (1), (2) and the contrast between (1) and (3) shows that many/few/numerals...etc, contrary to other quantifiers such as all/each/every/some can syntactically function as adjectives.

A parallel situation is found in Persian. Quantifiers such as *chand ta*, *nesf*, *yek xarvar*...etc that can be preceded by a determiner, as opposed to the other quantifiers can appear in predicative position, as in (1-5):

1- An *chand ta ketabi ke xaridam.*

That some (classifier) book that (I) bought.

An *ketabhaeei ke xaridam chand ta bud.*

That book that (I) bought some (classifier) was.

2- An nesf-e sibi ke xordam.

That half-ezafe apple that (I) ate.

An sibi ke xordam nesfe bud.

That apple that (I) ate half was.

3- An yek xarvar ketabhaee ke suxt.

That many book which burnt.

An ketabhaee ke suxt yek xarvar bud.

That books which burnt many was.

4- Hameye ketabhaee ke xaridam.

All books that (I) bought

\*Ketabhaee ke xaridam hame bud.

5- Teʔdadi ketab kharidam

\*ketabhaee ke xaridam teʔdadi bud.

Books that (I) bought some was.

Another argument in favor of this proposal is proposed by Cardinality – Giusti (1990). They notice that partitive PP introduced by “di” (of) in Italian is optionally selected by Q, in fact, it can not appear when no Quantifier is there. The same contrast can be reproduced in Persian, as in (1) and (2):

1- Man qablan chand ta ketab az an ketabhaee ra ke shoma be man

I already some book of that books (acc) you to  
me

moarefi kardid dide budam.

Introduced (aux) seen was.

2- \*Man qablan az an ketabhaee ra ke shoma be man moarefi



I already of that books (acc) that you to me  
introduced

Kardid dide budam.

(aux) seen was.

The PP introduced by az ‘of’ regularly appears when the quantifiers chand ta ,do ta ...etc, is not preceded by D, as in (3) ,this shows that in this case it behaves as a quantifier, but, it can not appear when it is preceded by D, as in (4), this shows that in this case it behaves like the adjectives :

3- In chand ta ketab ra xandam.

This some book (acc) (I) read.

4- \*In chand ta az ketabha ra xandam.

This some of books (acc) read.

Another motivation is provided by Giusti (1997). By assuming a different structural position for Qs and quantitative adjectives, she expects that they give different result whit respect to floating. Qs are expected to allow their complement to move out leaving them in place, much in the same way as Ns and Vs do. On the other hand, it is not expected this to be possible for quantitative adjectives, since they are internal to the DP and, as it is assumed; movement can not affect a chunk of an extended projection. It turns out to be right for Persian data:

1-

a) In chand ta ketab ra bardar.

This some (cl) book (acc) pick up.

b) \*Ketab in chand ta ra bardar.

Book this some (cl) (acc) pick up.

2-

a) Chand ta az ketabha ra bardar.

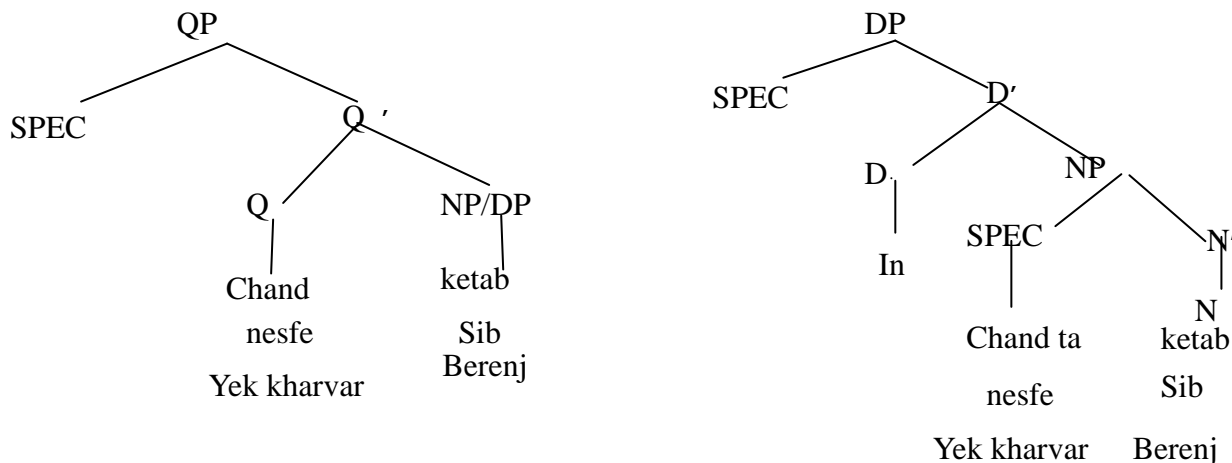
Some- classifier of books (acc) pick up.

b) Az ketabha chand ta -sh ro bardar.

Of books some- classifier-clitics acc pick up.

The contrast between (1) and (2) shows that in (1) quantifier is internal to the maximal projection, so NP movement violate movement principle, but in (2) quantifier is external to the maximal projection and it is expected to allow their complement to move out leaving it in

place, without violating movement principle. Following tree diagrams show the double status of these quantifiers in Persian:



## 5. Conclusions

This paper first, showed that quantifiers in Persian, contrary to the traditional view which considers them as a kind of adjective, are morphologically and syntactically different from adjectives. Second, the simple hypothesis that Q is a head which select an NP/DP or a PP has proven to have a number of welcome consequences in Persian: 1- It permits a straightforward account of the co-occurrence of quantifiers and determiners (previous accounts (Abney's and Jackendoff's) are deficient in doing so). 2- By considering the Q-float phenomenon, we have motivated the possibility for being the quantifier external to the maximal projection (in the other words, it cannot be in spec-positions at all). In this regard two other positions were considered: Adjunct and head position. With respect to the occurrence of clitic pronoun on the quantifier, I have suggested that the head theory has advantages over adjunction approach in which neither the mechanism of movement nor the occurrence of clitic pronoun has been accounted for. 3- Given the Q as a head, has proved one part of Giusti's QP-hypothesis, according to which Qs are head and only a restricted class of Qs have a double status of being the Q or the modifier. Persian data suggested that some Qs in Persian, when preceded by the determiner, behave as an adjective. According to these evidences, we can propose that Giusti's QP-Hypothesis is supported in Persian.

## Foot notes

1- In logic quantifiers are divided into two categories namely, universal and existential quantifiers. Persian quantifiers such as hame, kol, tamam and etc... are of category universal quantifiers (like All in English) which they can be followed by an NP or DP as in (1) and te?dadi=a few, meqdari = a little, aksariyat=most and etc... are of existential ones which they can be followed by an NP or PP as in 2(a,b):

1- Hameye (in) mardom.

All (this) people

2- (a) teʔdadi ketab

A few book

(b) teʔdadi az ketabha

A few of books

I argue that universal quantifiers and the existential quantifiers like teʔdadi, meqdari and etc... -only in partitive constructions like (2b) in which the Q is followed by a prepositional phrase (PP) -are head. The status of these quantifiers in simple construction like (3) needs further analysis:

3-teʔdadi ketab

A few book

2-In Persian only superlative adjectives can precede nouns as in (1) but some linguists like Abney (1987) considered them as a kind of quantifier:

1- Bolandtarin mard

3-There is no definite article before the noun in Persian.

Tallest man

4-She argues that these restricted classes of quantifiers have a double status of being a head or a modifier. When they occur without any determiner they are assumed as a head and when they preceded by a determiner they are assumed as a modifier.

5-Chomsky (1986) suggested that only maximal projections can move.

6- In Persian, existential quantifiers can float only in partitive constructions, as the examples shows:

1-teʔdadi az ketabha/ az ketabha teʔdadishun

A few of books / of books a few-cl

2-Teʔdadi ketab / ketab teʔdadi\*

A few book / book a few

7-In Hebrew the occurrence of pronominal clitics is obligatory but in Persian in some cases is optional and in the other cases is obligatory.

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## Notes

Note 1. Ezafe(unstressed vowel-e-) is a Persian grammatical construct(Clitics) which links two words and denotes certain relationship between Persian words, among them: possession, qualification(adjective-noun and ets,)