BARE SINGULARS IN PERSIAN

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1.   Introduction

Persian bare singular nouns (henceforth BNs) appear in different positions, including subject, object and indirect object. Persian BNs may receive kind, generic, existential and definite reading. The goal of this research is to account for the polysemic behavior of BNs and find out conditions under which each reading is licensed. Factors that play major roles in the interpretation of BN in Persian include: 1) Information Structure, 2) Predicate Types[1] :(stage level/SLPs) versus Individual-level predicates/ILPs), 3) Aspect (habituality), and 4) the position of the BN in sentences (here object or subject position).
It will be shown that all these factors can be reduced to Information Structure; I will show:

a) BN subjects are interpreted as definite when they are topic and as existential when they are focused. The distinction between the two subjects (topic versus focus) is marked by changes in prosody.

b) BN objects are interpreted as existentially in their default position when they are under verb scope (narrowly focused) and as definite when they are outside VP as topic. The distinction between the two objects is indicated by whether they are marked with accusative marker –ra or not.

The comparison of Persian BN subjects versus BN objects, in terms of semantic features, prosody and syntactic structure leads us to map the syntactic LF representation *to a logical representation* on the one hand, using Diesing's

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[1]Example (1) demonstrates a BN with a stage level predicate (Geryek-kardan/crying):

(1)   *Bacheh*geryeh-mikoneh
        Bab   cry-do.pres.3SG
        ['the baby/some baby/ babies](often) cry.'   [definite/generic/existential]

        Example (2) shows Individual-level predicates (ILPs) like 'interesting/intelligent',
        allow for a definite or a generic interpretation of their subjects. But like most
        ILPs across world languages, existential reading is blocked with ILPs.

(2)   Meimoon   bahoosh   ast
        Monkey   intelligent   is.3SG
        'The Monkey is intelligent./ Monkeys are generally intelligent.'

Mapping Hypothesis (1992) and *to a prosodic structure* on the other hand, building up and adding to mapping hypothesis (The current study also shows that the same mapping can be carried out between syntax and prosody in Persian).

I propose that Information Structure (IS) determines the syntactic position at LF, which is mapped into a prosodic structure for BS subjects. Changes in the Information Structure (change from topic to focus) are correlated with changes in the syntactic structure at LF, changes in scope, changes in Prosody and consequently changes in the interpretation of Bare Nouns. Thus what causes the different readings for BNs depends on whether bare nouns at LF are mapped to a VP internal position or VP-external position, resulting in shift in the scope of BNs in any of these positions and thus shift in prosody.

2.   Different Readings of Bare Singulars in Persian

2.1   BS Subjects

2.1.1   Information Structure (IS)

In this section I will examine whether my main observation about the interpretation of BS subjects holds, namely that: *BS subjects are interpreted as definite* when they are *in Topic position* and *existential when they are focused.* Evidence to support the hypothesis that interpretation of BSs is reflected in Information Structure is discussed in the following sections.

2.1.1.1 Evidence from Prosody (Changes in Default Prosody)

If we change the prosody the interpretation of BN can change from definite to existential:

a) In a declarative format, with default intonation, which is a rising intonation stressing on the object 'food', the BN (sag/dog) receives a definite reading.

(1)   a.   Sag[Top]   ghaza ra   khord.
               Dog   food Obj-M   ate.3SG
               'the dog ate the food'

b) Varying intonation, with a lowering intonation and the focused BN accented with stress on the **BN   (Sag/'dog')**, the bare singular receives existential indefinite reading.

        b.   **Sag [F]**   ghaza ra   khord.
               Dog   food   Obj.M   ate.3SG
               '<u>some</u> dog ate the food'

2.1.1.2   Default word order

Evidently every position in sentences is mapped to a specific prosody and receives a distinct accentuation or pitch. If BN subjects are moved from their default position (topic) closer to the predicate, they occupy a place where a

specific 'focus prosody' (focus pitch accent) is obtained and thus their meaning changes. This shows that each syntactic constituent have a prosodic counterpart and they may map on to each other. Thus the overriding factor in interpretation of bare singular subjects appears to be prosody.

(2) a.   [Sag]Top   Ghaza ra   khor-d [Default word order]
           [dog] Top   food   ra   ate.3SG
           'the dog ate the food'

      b.   Ghaza ra   **sag [F]**   khor-d   [Changing word order]
           Food obj.m   dog[F]   ate.3SG
           'some dog ate the food'   (Existential)

(3) a.   [Toop] Top   roo   miz   ghel-khor-d [Def. w.o]
           [Ball] Top   on   table   roll-ate.3SG
           "The ball rolled on the table"   (Definite)

      b.   Roo   miz   **toop [F**]   ghel-khor-d   [Changing w.o]
           On   table   ball   roll-ate.3SG
           'some ball rolled on the table'

The focused reading of 'toop/ball' is existential and *number neutral*, referring to one or more ball (weak/strong positions).

2.1.1.3   **Definiteness in Focus position**

In focused position, if I want to obtain a definite reading either I need to resort to prosodic means, to word order or I obligatorily need to use overt markers such as demonstratives, colloquial definite marker (e) or possessives to obtain a definite reading.

(4) a.   Roo   miz   **[toop]**F   ghel-khor-d
           On   table   ball   roll-ate.3SG
           'Balls rolled on the table.'

In the following example a colloquial definite marker (e/'that specific one') or possessive (am/'my') is used:

      b.   Roo   miz   **[toop-e/am]**F   ghel-khor-d
           On   table   [ball-e/my]   roll-ate.3SG
           '(The/my) ball rolled on the table.'

So far I have shown that BNs in subject position are either *topic* and interpreted as **definite** or *focused* and interpreted as **existential**. The Information Structure is reflected in Prosody, either by moving bare singular subjects to positions where non-default prosody is obtained or by changing the intonation. Prosody is used as a major cue to distinguish each reading as well.

Default Prosody:

(5) a.   Police   amad.3SG
            policeman[Top]   came.3SG
            'The policeman   came' [Def]

Changing the default prosody:

(5) b.   **police [F]**   amad.
            policeman[F]   came.3SG
            'some policeman   came' [Ex]

Note: BN subjects can be interpreted as generic too with habitual readings of ILPs and SLPs.

2.2   BS objects

As shown in the previous section prosody organizes the IS for BN subjects. For bare singular objects in this section I will show that the object marker –ra organizes IS. The following points listed here, will be backed up by examples in the next sections:

- BN objects lack quantification force and cannot be QRed out of VP (It will be shown that BN objects are non-specific and non-referential, and carry no presupposition of existence) [weak/strong].

- BN objects (when they are not marked with object marker –ra) receive existential reading and are interpreted VP internally [weak/dominated by the verb].

- Non-ra marked BN objects appear with atelic verbs (Ghomeshi & Massam, 1994; Ganjavi, 2007)and undergo Quasi Noun Incorporation (Quasi-NI, Modarresi&Simonenko, 2007) and for a general overview of Noun Incorporation in other languages see Bittner 1994; Van Geenhoven 1998a; Dayal 2007; Farkas and de Swart 2003; Chung and Ladusaw 2004 among others).

- BN objects however can move out of VP when they are marked with object marker –ra [strong].

- -ra marked objects are either interpreted as definite or Generic.

To support the points mentioned above, I will give examples on the above-mentioned differences between non-ra marked BN objects versus ra-marked BN objects.

2.2.1   Scope

- Non-ra marked BN objects appear VP internally taking scope under VP

- ra-marked BN will take scope over VP.

With respect to quantifier 'everybody' in example (6), the BN *film* has narrow scope:

(6)   Hameh   *film*   didand
        Everybody   movie   watched.3SG
        'everybody watched movies'

With respect to negation in (7), BN takes narrow scope:

(7)   Ali   *film*   **ne**-mikharad
        Ali   movie   negation-buys.3SG
        'Ali does not buy movie'   (narrow)

Scope for BN in contrast with an indefinite marked noun:
Scope for an indefinite (-i-marked) object as shown in (8):

(8)   Hameh   film-**i**   didand   (narrow/ wide)
        Everybody   movie-**i**   watched.3PL
        'everybody watched a movie'

In (8) the noun is ambiguous between narrow and wide scope.

Scope for a ra-marked indefinite object as demonstrated in (9):

(9)   Hameh   film-i   *ra*   didand   (wide)
        Everybody   movie-i   -*ra*   watched.3PL
        'everybody watched a specific movie'

-*ra* changes the scope behavior of the indefinite nominal element and allows merely for wide scope reading.

(10)   Hameh   film   ra   didand
          Everybody film   ra   watched.3PL
          'Everybody watched the movie'

    The sentence here means that there is a definite movie that everybody watched.

2.2.2   Topicalization:

BN object are topicalized by ra-marking:

(12)   a.   Sag   ghaza   khord

                Dog   food   ate.3SG
                'The dog ate food'

versus:

    b.   ?ghaza   sag   khord
           food   dog   ate.3SG

In (12c) the ra-marked objects can be easily topicalized.

    c.   *ghaza-**ra***   sag   khord
           *food-**ra***   dog   ate
           'Some dog ate the food.'

 –ra is also used to topicalize indirect object or adverbs of time (Mahootian & Gebhardt, 1997).

2.2.3 -ra marked objects are interpreted as definite or generic:

In (13) generic reading is caused by the habituality aspect of the verb[2]:

(13)   Man *Kaghaz*   ra   pareh-mi-konam
      I   *paper*   ra   tear-DUR-do.1SG
       'I tear the paper/I tear any paper.'   (***Generic*** or ***definite*** reading)

In (14) we can have either generic or definite reading for either 'film' or 'concert' or both:

(14)   Man film   ra   be   concert   tarjih-mi-dam
        I   film   ra   to   concert   prefer.DUR.give.1SG
          'I prefer (the) film over (the) concert.'

2.2.4 Position/word order:

Default word order with default intonation results in the adjacency for the non-specific BN and the predicate, at the presence of indirect object (Karimi, 2003). In contrast ra-marked objects usually precedes indirect object in default word order with default intonation.

Default word order for non-ra marked BN object:

(15)   a.   Man <u>bara Ali</u>   *ketab kharidam*
            I   <u>for   Ali</u>   **book bought**.1SG
            'I bought books for Ali
versus

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[2] With a very limited number of psychological verbs or emotional experiencer verbs, such as 'doost-dashtan/love', 'parastidan/worship' (ILPs), BN objects receive generic reading despite being under verb scope. Perhaps since the spatio-temporal argument of the emotional experiencer verbs (ILPs) is bound by the life span of experiencer object, Gen can't bind event argument of the predicate without binding BS objects as well. Thus the experiencer object receives a generic reading as well and can't be detached from its life span, whether BS is –ra marked or not. So they may have to be QRed anyways.

Default word order for non-ra marked BN object:

(15) b.　　man *ketab ra*　　<u>bara　Ali</u>　*kharidam*
　　　　　I　**Book ra**　　<u>for　Ali</u>　**buy**.past.1sg
　　　　　'I bought the book for Ali'

2.2.5　Presupposition and Quantification Force:

Persian non-ra marked BN objects cannot be interpreted as definite. Therefore they cannot be interpreted as carrying a presupposition of the existence of some salient object. In the following context a BN would be ungrammatical. Accusative marker -ra should be present to make it referential instead, as illustrates (16).

(16)　Ali　dirooz　　　Ketab kharid.
　　　Ali　yesterday　　book　bought.3SG

　　　va　　ktab-*(**ra**)/ an-*(**ra**) bara-ye　　man　avard.
　　　and　book-DM/ that-DM for-Ez me　　brought.3SG

　　　'Ali bought books yesterday and brought the book/that for me'

- According to Diesing, 1992, Berman 1991, presupposition of a quantified sentence is represented in the restrictive clause. Therefore presuppositional nominals that are in the domain of VP must be QRed to IP out of VP domain.
- '-ra' marked BN objects carry a presupposition of existence that needs to be accommodated by updating the background (reflected in the restrictive clause), which is carried out by the rule of QR.

So far I have shown that definiteness is connected to topicality and that topic position is a specific position. I have demonstrated how subject and object move around to appear in this position. Now I am going to introduce a theory that maps these positions to syntactic positions. For BN subjects these movements are reflected in prosody. For BN objects these movements are organized with accusative marker –ra.

3. Diesing Mapping Hypothesis (MH)

As we have observed the information structure determines the interpretation of BN subjects and that prosody is the main criteria to organize IS. In object position the interpretation of BN objects depends on whether they are –ra marked or not. It was shown if they were not marked with –ra, they are interpreted as existential under Verb scope and if they were –ra marked they were taking scope over verb. –ra marked BN objects are interpreted either as definite or generic. At this point in order to unify these facts, I conclude that information structure is mapped from syntactic structure using Diesing MH.

Diesing deals with the syntax-semantics interface by proposing a mapping of the syntactic structure to a logical representation. Persian data shows the same mapping can be drawn for syntax-prosody for BS subjects as well.

The logical representation maximally consists of three parts: An operator + a restrictive clause + the nuclear scope:

Material from VP is mapped into the nuclear scope
Material from IP is mapped into a restrictive clause (Diesing 1992; 15)
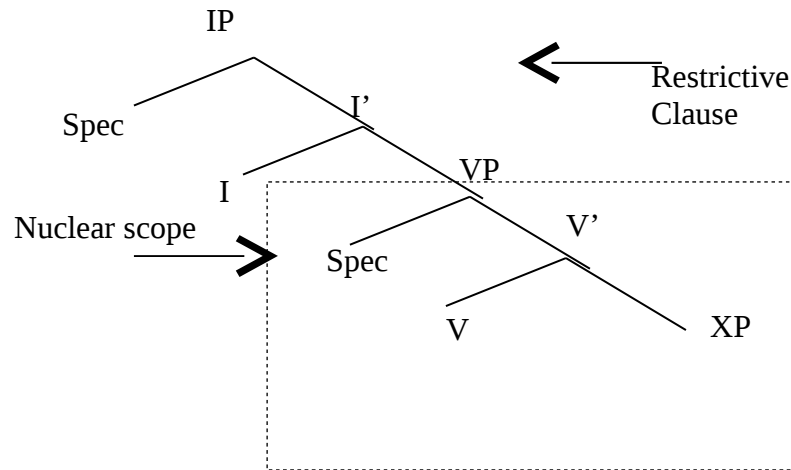
Focused **BN subjects** are interpreted in the nuclear scope (lowered at LF) subject to Existential Closure (EC), topic BN subjects are interpreted VP externally either as definite or as generic. This mapping is reflected in changes in prosody, signaling a VP internal subject from a VP external one.

For **BN objects**, if they are not marked with –ra they are interpreted as existential VP internally (under verb scope/nuclear scope) and when they are marked with –ra, BN objects are interpreted outside VP domain in the restrictive clause as definite or generic.

With –ra marked object:

(17)   Man   *kaghaz*   ra   pareh-mi-kon.am
         I   *paper*   -ra   tear-Dur-do.1SG
         'I tear the paper (definite)/ I tear anything that is paper (Generic)

With tripartite structure LF representation for (17) would be:
   ➢   *[IP Gen [paper+ra+event argument of the predicate] [VP I tear it]*

Versus

With Non-ra marked BN objects:

(18) Man *kaghaz*   pareh-mi-Kon.am
      I   *paper*   tear-Dur-do.1SG
      'I tear papers'

LF representation for (18) would be:

> *[IP Gen [event argument of the predicate (all events)] [VP I tear papers]*

So here in the habitual reading of the predicate the Gen operator only binds the event variables of [V+BN] and not just [V].

4.   Further Evidence showing BN objects are inside VP:

The following examples are further evidences that –ra marked BN objects are outside VP and non-ra marked BN objects form a unit with verb, restricting or modifying verb:

Verb and BN Movement : In this section we see that non-ra marked BN objects has to move with the verb, if verb moves higher up (Karimi, 2003a).

(19) a.   Sam   dirooz   dar   restaurant   **[ghaza   khord].**
            Sam   yesterday   in   restaurant   **food-ate**.3SG
            'Sam ate food in the restaurant yesterday'

      b. * Sam   dirooz **khord**   dar   restaurant   **ghaza**
            Sam   yesterday **ate.3SG** in   restaurant   **food**

      c.   Sam   dirooz [**ghaza-khord**]   dar   restaurant
            Sam   yesterday [**food-ate.3sg**] in   restaurant
            'Sam ate food in the restaurant'

      d.   Sam   dirooz **khord**   dar restauaran   **ghaza ra**
            Sam   yesterday **ate.3SG** in   restaurant   **food ra**
            'Same ate the food in the restaurant'

Stress: According to (Kahnemuyipour, 2003), the stress falls on the leftmost element in the phonological phrase and on the right most element in a phonological word. With respect to stress the 'BNs- + verb' complex behaves like one phonological phrase since the stress falls on the non-verbal element. The stress pattern of non-ra marked BN is similar to compounds *(complex predicates)* in Persian being included in the phonological phrase that contains the predicate and the BN. –ra marked BN objects have a stress pattern similar to a distinct phonological phrase.

(20) a.   Ket**á**b   kharid-**a**m
            book   buy.PAST-1SG
            'I bought a book.'

      b.   Ket**á**b-ra   kharid-**á**m
            book-objm   buy.PAST-1SG
            'I bought the book'

5. Chierchia Blocking Principle
Does Persian data pose a problem for Blocking Principle?

The availability of a definite reading for BNs in Persian could in principle be explained by Chierchia's Blocking Principle, which links the lack of definite marker (definite singular) to the extended interpretive range of the BN, to include definite interpretation. According to Chierchia (1998), if a language has an overt determiner that induces a particular type-shift meaning, that language will not license a covert option. However, note that in Persian definiteness is obtained for Information Structure reasons and in topic position via alternation of scope. This might be construed as a problem to the Blocking Principle. Moreover, the existential reading of BNs are obtained when they are focused and at the same time there exists two other indefinite markers, -i enclitic and 'yek/one', which is also a challenge to the Blocking Principle.

Blocking Principle ('Type Shifting as Last Resort') (Chierchia, 1995):
For any type shifting operation t and any X
*t(X) if there is a determiner D such that for any X in its domain,
D(X) = t(X)
Thus lack of definite marker makes iota type-shift available τ P= The maximal element in P (where defined).

Although Persian lacks a definite article, however there are no covert definiteness operators as Chierchia would have it, but rather definiteness comes from mapping to a VP external position (syntax-prosody mapping), which leads to scope alteration. The Blocking Principle is saved, if we consider the mapping between prosody and syntactic structure as overt options in preference to covert type-shifts in Persian. But then again why do we need covert type shifting at all?

Moreover, the existential reading of BNs are obtained when they are focused and at the same time there exists two other indefinite markers, -i enclitic and 'yek/one', which also seems to falsify the Blocking Principle. Thus, in Persian there are three options available to obtain existential reading: a) yek-marking, b) i-marking and c) narrow focus position for Bare Singular nominals, but each of these options has a different semantic effect and looking more closely, nothing is carried out via covert type shifting:

Yek or –i marked nouns can be referred back to, but focused bare nouns cannot be referred back to.

(21)

a. Man yek film did-am ke jaleb bood.
I one film saw.1SG. that interesting was.3SG.
"I saw a film that was interesting"

b. *man film did-am ke jaleb bood.
*I film saw.1SG that interesting was.
*'I saw film that was interesting'

Basically yek-marked and i-marked nouns have a referential property that non-ra marked BN objects lack. Besides BN object as shown earlier forms a fusion with the predicate becoming part of the event, modifying or restricting the predicate, rather than marking its end point.

Prosody is an overt option that can mark given-ness (old information) and focus (new information), which can have semantic consequences. Perhaps cross linguistically covert type shifts are equivalent to these overt options. In Russian no determiners are available and thus covert type shifts are licensed to operate. But there is evidence that even in Russian the definite or indefinite reading of bare nouns depend on Information structure of the clause (Brun, 2001).

6. Conclusions

In this research it has been shown that:

- Persian BNs (both subjects and objects) are interpreted as definite when they are topic and existential when they are focused.
- BN subjects interpretation is mainly determined by prosody.
- BN objects interpretation is determined whether it is inside VP or whether is QRed out of VP.
- –ra marked BN objects are interpreted outside VP domain, when they are either definite or generic (scope).
- I conclude that BN subjects are topic by default and are interpreted as definite. BN Objects are narrowly focused by default and are interpreted as existential. But subjects can be focused (existential reading) and objects can be topicalized or shifted by moving out of VP signaled by –ra marking (definite reading).
- Adopting Diesing mapping Hypothesis I have unified the findings for both object and subject position. Materials inside VP (focused material) are mapped into nuclear scope and materials outside VP (topic material) are mapped on to restrictive clause. It appears that both prosody and logical representation maybe mapped on to syntactic structure. The difference in argument structure of ILPs and SLPs can be reflected in IS as well.
- Information Structure is mapped to a syntactic structure and a correlated prosodic pattern but it is the latter structure that constrains the interpretation of bare singular nominal as demonstrated using Diesing's Mapping Hypothesis, in accordance with scope principles.

The paper has also discussed the consequence of the current analysis for Chierchia's Blocking Principle. It appears that:

- covert type shifts can be replaced by overt pragmatic means. I suggest that type shifting is handled by mapping from different syntactic positions (here VP internal versus VP external), which is reflected in changes in prosody, changes in scope and therefore changes in meaning.
- The existence of the three options of obtaining existential reading in Persian poses a challenge to Chierchia's Blocking Principle as well.

References

Bittner, Maria. 1994. *Case, scope and binding*, Kluwer Academic Publ., Dordrecht.Boston, London.

Brun, D. (2001). Information Structure and The Status of NP In Russian. Theoretical Linguistics. Volume 27, Issue 2-3, 109–136.

Carlson, G. (1977). Reference to Kinds in English. Ph.D. Dissertation. University of Massachusetts, Amherst.

Cohen, A. and Erteschik-Shir, N. 2002. " Topic, Focus, and the interpretation of bare plurals." Natural Language Semantics 10(2): 125-165.

Chung, S. and W. Ladusaw (2004). Restriction and Saturation. Cambridge, Mass.: MIT Press.

Chierchia, G. (1998). Reference to Kinds Across Languages. Natural Language Semantics 6:339–405.

Dayal, Veneeta (2004). Number Marking And (In)definiteness In Kind Terms. Linguistics and Philosophy **27:** 393–450, 2004.

Dayal, Veneeta (1999). Bare NPs, reference to kinds and incorporation. In Proceedings of SALT 9, Ithaca, NY: Cornell University Press.

Diesing, Molly (1992). Indefinites. Cambridge: MIT Press.

Ganjavi, S (2007). Direct Object in Persian, A Dissertation Presented to the faculty of the graducate school university of southern Californian.

Ghomeshi, Jila and Diane Massam (1994). Lexical/Syntactic Relations Without Projection. Linguistics Analysis 24: 175-212.

Karimi, Simin (2003a). On Object Positions, Specificity and Scrambling in Persian. In Word Order and Scrambling. Simin Karimi (ed.). Oxford: Blackwell.

Krifka, Manfred (2003). Bare NPs: Kind-referring, Indefinites, Both, or Neither? In *Proceedings of SALT 13, 2003*. Also published in this volume.

Modarresi, F. and Simonenko, A. (2007). Quasi noun incorporation in Persian. In Proceedings of LingO.

Van Geenhoven, V. (1998). Semantic incorporation and indefinite descriptions. Semantic and syntactic aspects of noun incorporation in West Greenlandic. CSLI Publications.