

Quasi Noun Incorporation in Persian

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Abstract. This paper investigates the status of Persian bare nouns (BNs), which coexist in Persian with an indefinite marker *-i*, in the framework of Chierchia 1998. We claim that Persian BNs may undergo Quasi Noun Incorporation (Quasi-NI) in the object position, and propose that this process involves the semantic operation Restrict (introduced in Chung & Ladusaw 2004) followed by the Existential Closure (EC) in the domain of VP. We show that this mechanism accounts for the fact that the verb can compose with 1) another bare noun 2) an argument marked with the direct object suffix *-ro*.

1 BNs and an indefinite marker *-i*¹

Both BNs and nouns marked by *-i* can occur in direct object positions (Persian is an SOV language) and both allow for existential reading:

- (1) Ketab kharid-am
 Book buy.PAST-1SG

‘I bought books.’

- (2) Ketab-i kharid-am
 Book-IND buy.PAST-1SG

‘I bought a book.’

We analyze *-i* marker in (2) as an existential quantifier in line with the treatment of indefinite articles in Chierchia 1998. As a BN functions as an argument in (1) we might be tempted to conclude that there is a covert type-shifting operation of the type \exists creating generalized quantifiers out of properties (Chierchia 1998). Then the function of *-i* would be the same as that of null morphology on BNs: in both cases the application of \exists is enforced. In the following sections we will show why this is problematic for the semantic paradigm developed in Chierchia 1998 and how the contradiction can be resolved.

¹ Persian has yet another indefinite marker, *ye(k)* ‘one’, as another use for *-i*. The numeral *yek* ‘one’ is used as a marker of indefiniteness. *Yek* can also co-occur with *-i* or replace it. We are not concerned here with the differences between the two which is an interesting subject in itself.

2 Puzzle

Chierchia's 1998 Blocking Principle restricts the class of available type shifters in a language: if an overt type shifter exists, then the language must prefer it to the non-overt one.

- (3) Blocking Principle ('Type Shifting as Last Resort')
 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,
 $D(X) = t(X)$

So far we have seen that in Persian there are both: *-i* as an overt type-shifter of the type \exists and a covert type-shifting operation in the case of BNs, again of the type \exists .

3 Noun-*i* is not the same as BN: Quasi Noun Incorporation

We claim that Persian BNs are semantically different from *-i*-marked nouns and that they are not type-shifted to become generalized quantifiers by means of some covert type-shifting operation. Let us take a look at the difference.

Persian BNs in the direct object position demonstrate properties associated with NI in the literature, such as constituting one phonological word with the verb, focalizing the action rather than the object, narrow scope, inability to be modified by adjectives and inability to pick up a salient referent (Baker 1988, Borer 1999, Mathieu, forthcoming, among others for the discussion of NI properties). Below we are considering the most prominent NI properties of bare nouns comparing them to *i*-marked nominals.

Stress. With respect to stress the 'BNs- + verb' complex behaves like one phonological word, with secondary stress falling on the BN and the main stress on the verb, as in (4) a. Noun marked by *-i* keep their stress, as shown by (4) b.

- (4) a. Ketàb kharid-ám
 book-IND buy.PAST-1SG
 'I bought a book.'
- b. Ketáb-i kharid-ám
 book-IND buy.PAST-1SG
 'I bought books.'

Focus. A construction with a bare noun would be most felicitous as an answer to a question focalizing the action, as in (5a). A sentence with an *i*-marked noun would be an answer to a question focalizing the object, as (5b) illustrates.

- (5)
 a.Q: Sam dirooz chi kar kard?
 Sam yesterday what work do.PAST.3SG
 'What did Sam do yesterday?'
- A: Sam dirooz ketab kharid
 Sam yesterday book buy.PAST.3SG

lit. 'Sam book-bought yesterday.'

b.

Q: Sam dirooz che ketab-i kharid?
 Sam yesterday what book-IND buy.PAST.3SG
 'What kind of book did Sam buy yesterday?'

A: Sam ketab-i falsafi kharid
 Sam book-IND philosophical buy.PAST.3SG
 'Sam bought a philosophical book.'

Scope. BNs take narrow scope only whereas *-i* marked nouns may take either narrow or wide scope. This observation is consistent with Bittner 1994 and van Geenhoven 1998 who have demonstrated that incorporated nominals take obligatory narrow scope.

(6)

a. Hameh **ketab** mikhoondand (narrow)
 everybody book read.PAST.1PL
 'Everybody was reading a book.'

b. Hameh ye(k) ketab-I mikhoondand
 everybody IND ketab-IND read.PAST.3PL
 'Everybody was reading a book.'

In (6a) the interpretation 'there was a book such that everybody was reading it' is prohibited. (6b) could be interpreted in the following way: 'there was a book such that everybody was reading it.'

Adjectives. A bare noun in an object position cannot be modified by adjective. In the case of a BN an adjective gets interpreted as an adverb, as illustrated by (7a). Nouns marked with *-i* are modified by adjectives in a usual way, (7b).

(7)

a. Sam **khoob** ketab kharid
 Sam *good/well* book buy.PAST.3SG
 'Sam successfully bought books.'

b. Sam **khoob** ketab-i kharid
 Sam *good* book-IND buy.PAST.3SG
 'Sam bought a good book.'

Number neutrality. Bare nouns loose number contrast, a sentence in (8) can be interpreted as being about several pencils or just one.

(8) Bara-t medad avord-am
 for-you pencil bring.PAST.1SG
 'I brought you (one or more) pencils.'

Inability to pick up a salient referent. Similar to Bittner's observation for West Greenlandic, we notice that in Persian BNs 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. A definite marker *ro* should be present instead, as illustrates (9).

- (9) Ali dirooz ketab kharid.
 Ali yesterday book buy.PAST.3SG
- Oo ketab-*(**ro**) be man neshoon-dad.
 he book-DM to me mark-do.PAST.3SG

‘Ali bought a book yesterday. He showed me the book.’

Summarizing, properties of bare nouns in object positions illustrated in (4) - (9) suggest that they are not turned into generalized quantifiers by the application of \exists the way *-i* marked nouns are. They are rather subjects to some other operation, which does not provide them with properties which characterize nouns inside DPs such as ability to be modified by an adjective and to pick up a salient referent, as well as the number opposition.

4 What is Quasi-NI and why is it ‘quasi’?

We claim that a BN in the direct object position does not change its type as a result of some covert type-shifting operation, but gets incorporated as a property (as proposed by van Geenhoven 1998). *i*-marked nouns, being generalized quantifiers, are QRed out of VP, leaving the trace of type $\langle e \rangle$, and are interpreted higher up in the structure.

However, if we assume that no type change happens to a BN, a potential type-mismatch arises: a transitive verb of the type $\langle e, \langle e, t \rangle \rangle$ cannot take a property of the type $\langle e, t \rangle$ as an argument. One way we could resolve it is by means of a type-shift that applies to the verb (type of semantic NI proposed in van Geenhoven 1998 and Cohen & Erteschik-Shir 2002).

What is Quasi-NI? To avoid type-shifting of specific lexical categories, we argue that in the case of a type-mismatch a BN moves to V to adjoin the verb and then the function Restrict (Chung and Ladusaw 2004) applies followed by the operation of the Existential Closure (EC) as in (10). What motivates the existential closure is the principle that semantic completeness is necessary at the event level (Chung & Ladusaw 2004).

$$(10) \text{ EC (Restrict } (\lambda y \lambda x [\text{buy}'(y)(x)], \text{book}') = \lambda x \exists y [\text{buy}'(y)(x) \wedge \text{book}'(y)].$$

The function Restrict involves no type shifting operation. Hence there is no violation of the Blocking Principle in (3) as there is no covert (or overt) type-shifting operation taking place. The predicate is restricted by the property argument (restrictive modifier) but the argument slot of the predicate is not filled. It is semantically saturated by the EC after being restricted by its arguments. This is the essence of Quasi-NI.

Application of the EC reflects the fact that the argumental position gets closed off here. The adoption of the Restrict function has the advantage of leaving the argument position unsaturated which lets the verb take another argument. This is

an important point for our analysis of Persian since in Persian a verb can compose with two bare nouns, as will be discussed further.

We call this phenomenon Quasi Noun Incorporation as opposed to noun incorporation proper because there is another type of structures in Persian which demonstrates some syntactic properties associated in the literature with incorporation that Quasi-NI lacks. Most importantly, elements in such incorporating complexes are tightly syntactically adjacent, which is not the case with Quasi-NI, as illustrate (10) and (11) respectively.

- (10) *u in ketab-ro varaq **da'em** mizan-ad
 he this book-DM page always hit.PRES-3SG

'He always thumbs this book' (Выдрин 2006)

In (10) 'varaq + mizan-ad' constitutes an incorporating complex with a strong requirement of syntactic adjacency: it cannot be split by the adverb *da'em* ('always') which otherwise enjoys a high degree of syntactic freedom. In the following example a bare noun and a verb can be separated by an adverb. We consider this difference to be a reason for labeling these two phenomena differently.

- (11) Man ketab dirooz kharid-am
 I book yeasterday buy.PAST-1SG

'I bought books yesterday.'

Despite the difference in syntactic adjacency, we propose to treat both types of incorporation similarly with respect to the semantic operation involved. Namely, the function Restrict applies in both cases. This accounts for the fact that in both types of constructions the verb can take a direct definite object or incorporate another bare noun as illustrate (12)-(13). We tentatively propose that in the latter case the function Restrict applies once again.

- (12) Man **gol-(ro)** **ab** pashid-am
 I *flower* *water* spray-PAST.1SG

'I watered (the) flowers.' (Quasi-NI)

- (13) Man **gol-ha** ro **ab-pashi-kard-am**
 I flower.PL DM *water-spraying-do*-PAST.1SG

'I watered the flowers.' (NI proper)

In (12) a regular or 'heavy' verb 'to spray' incorporates a BN and then takes a direct object marked by *-ro* or incorporates another bare noun. In (13) there are the same two options: a complex predicate consisting of the 'light' verb *kardan* ('to do') plus another verbal form incorporate a nominal *ab* 'water' and then takes a direct object marked by *-ro* or another bare noun.

5 Conclusions

In this paper we showed that Persian BNs have some properties of NI and proposed that there is a special mechanism of semantic composition involved, Restrict, rather than some covert type-shifting operation. It allows us to avoid violation of the Chierchia's 1998 Blocking Principle. This approach also accounts for certain constructions demonstrating higher degree of syntactic unity that may be considered NI proper in Persian. An interesting question arises in which dimensions besides syntactic adjacency Quasi-NI is different from NI proper. We leave this problem for further research.

References

- Baker, M. (1988). *Incorporation: A Theory of Grammatical Function Changing*. Chicago: The University of Chicago press.
- Borer, H. (1999). Deconstructing the construct. In Johnson, K. and I. Roberts (Eds.), *Beyond Principles and Parameters*. Dordrecht: Kluwer publications.
- Chierchia, G. (1998). Reference to Kinds Across Languages. *Natural Language Semantics* 6:339–405.
- Ghomeshi, J. (2003). Plural marking, indefiniteness and the noun phrase. *Studia Linguistica* 57(2):47–74.
- Chung, S. and W. Ladusaw (2004). *Restriction and Saturation*. Cambridge, Mass.: MIT Press.
- Cohen, A. and N. Erteschik-Shir (2002). Topic, Focus, and the Interpretation of Bare Plurals. *Natural Language Semantics* 10: 125–165. Springer.
- Mathieu, É. Bare nouns and the status of determiners in the history of French (forthcoming).
- Van Geenhoven, V. (1998). Semantic incorporation and indefinite descriptions. *Semantic and syntactic aspects of noun incorporation in West Greenlandic*. CSLI Publications.
- Выдрин А.П. 2006. Прямое дополнение и сложные глаголы в современном персидском языке: грамматический и лексикографический аспекты. Магистерская дисс., СПбГУ, вост. фак.