

## Some bare nouns are more equal than others

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### 1 Introduction

- Most previous work has focused on bare plurals, but singular bare nouns are common in many languages.

- (1) zuotian wo mai le **shu** (Mandarin Chinese; Rullmann & You 2003)  
yesterday I buy ASP book  
'Yesterday, I bought one or more books.'
- (2) Minsu-neun **sagwa** meog-go iss-eo (Korean; Kwon & Zribi-Hertz 2006)  
Minsu-TOP apple eat PROG DEC  
'Minsu, he is eating apple(s).'
- (3) Ara-n **votavor** a kartum (Eastern Armenian)  
Ara-NOM poem is reading  
'Ara is reading a poem/poems.'
- (4) **kitap** al-di-m (Turkish; Bliss 2003)  
book buy-PAST-1S  
'I bought a book/books.'
- (5) anu **bacca** sambhaal rahii hai (Hindi; Dayal 2003)  
Anu child is-looking-after  
'Anu is looking after children (one or more).'
- (6) raam-na **gruhapaaTh** ke-l-aa (Marathi; Pardeshi 2001)  
ram-ERG homework.M do-PF-M  
'Ram did his homework.'
- (7) bæčče-ha **ketab** mi-xund-æn (Persian)  
child-PL book PROG-read-3PL  
'The children were reading a book/books.'

- Singular bare nouns are also used in Complex Predicates in languages with a productive complex predication formation process.

- (8) **geob** meogda (Korean; Kwon & Zribi-Hertz 2006)  
 fear eat  
 ‘be afraid’
- (9) entrutyun-ner-um **dzayn** tv-ets-ink (Eastern Armenian)  
 election-PL-LOC voice give-PAST-1PL  
 ‘We voted in the elections.’
- (10) kimi eđitime **devam** etmek (Turkish)  
 some-of-them towards-education continuation make  
 ‘Some want to continue their education.’
- (11) Pulis (waalaa)coor-kii **talaash** kar-eegaa (Hindi; Davison 2005)  
 police (man) thief-GEN-FS search-FS do-FUT-3MS  
 ‘The policeman will search for the thief.’
- (12) raam-na tyaa-tsaa **apmaan** ke-l-aa (Marathi; Pardeshi 2001)  
 ram-ERG he.GEN insult do-PF-M  
 ‘Ram insulted him.’
- (13) mærdom **færib** xord-æn (Persian)  
 people deceit ate-3PL  
 ‘(The) people were deceived.’

### Questions:

1. What are the properties of these bare singular nouns?
2. Are the bare nouns in (1-7) the same as the bare nouns in (8-13)?
3. Do bare nouns undergo incorporation in these languages?

⇒ Focus on Persian in this talk

### The Proposal:

- Bare nouns in (1-7) are direct object arguments of the verb while bare nouns in (8-13) are nonverbal components of complex predicates (NV), and they occupy distinct positions in the predicate.
- Bare object nouns do not incorporate into the verb, not even Pseudo Noun Incorporation.
- The distinct properties of various preverbal nominal categories in Persian can be

captured by (i) the structural complexity of the noun, and (ii) the structural position occupied by the nominal with respect to the verbal domain.

## 2 Bare nouns as direct objects

- Nouns in direct object position can be specific (with overt object marker *ra/ro/o*), non-specific indefinite, or bare:

- (14) a. **ketab-o** xund-æm  
 book-OM read.PAST-1SG  
 ‘I read the book.’  
 b. **ketab-i-ro** xund-æm  
 book-IND-OM read.PAST-1SG  
 ‘I read a (specific) book.’  
 c. **ketab-a-ro** xund-æm  
 book-PL-OM read.PAST-1SG  
 ‘I read the books.’
- (15) a. **do ta ketab** xund-æm  
 two CL book read.PAST-1SG  
 ‘I read two books.’  
 b. **ye ketab** xund-æm  
 one book read.PAST-1SG  
 ‘I read a book.’
- (16) **ketab** xund-æm  
 book read.PAST-1SG  
 ‘I read books/a book.’

- Previous work has distinguished the specific objects in (14) from the non-specific object nouns in (15) and (16) based on their behavior, concluding that the non-specifics are inside the vP domain whereas the specifics are external to the vP (cf. Karimi 2003, Kahnemuyipour 2002, Ganjavi 2007).

- Bare nominal takes main stress, but not the specific object

- (17) nima [<sub>vP</sub> **ketáb** xund ]  
 Nima book read-3SG  
 ‘Nima read a book/books.’
- (18) nima **ketab-o** [<sub>vP</sub> xúnd ]  
 Nima book-OM read-3SG  
 ‘Nima read the book.’

- Bare nominal takes scope under negation

- (19) *nima ketab* ne-mi-xun-e  
 Nima book NEG-PROG-read-3SG  
 ‘Nima doesn’t read books / Nima is not reading a book.’ [Neg > a book]
- (20) *nima ketab-o* ne-mi-xun-e  
 Nima book-OM NEG-PROG-read-3SG  
 ‘Nima is not reading the book.’ [the book > Neg]

- Bare nouns do not support pronominal discourse anaphora (from Ganjavi 2007)

- (21) \**æli ketab<sub>i</sub>* xund væ belafasele ba nevisændæ-*sh<sub>i</sub>* tæmas gereft  
 ali book read and immediately with author- CLIT.3SG contact got  
 ‘\*Ali read books/a book<sub>i</sub> and contacted its<sub>i</sub> author immediately.’
- (22) *æli ketab-o<sub>i</sub>* xund væ belafasele ba nevisændæ-*sh<sub>i</sub>* tæmas gereft  
 ali book-OM read and immediately with author- CLIT.3SG contact got  
 ‘Ali read the book<sub>i</sub> and contacted its<sub>i</sub> author immediately.’

	NON-SPECIFIC BARE NOUNS	NON-SPECIFIC NP	NON-SPECIFIC NUMBER PHRASE	SPECIFIC OBJECTS
	<i>ketab</i> ‘book’	<i>ketab-e no</i> ‘new book’	<i>ye ketab</i> ‘one/a book’	<i>ketab-ra/o</i> ‘the book’
overt object (case) marker ‘ra’	No	No	No	Yes
specific interpretation	No	No	No	Yes
has to be adjacent to the verb	Yes	Yes	Yes	No
takes main phrasal stress	Yes	Yes	Yes	No
takes narrow scope	Yes	Yes	Yes	No
number neutral interpretation	Yes	Yes	No	No
supports discourse anaphora	No	No	Yes	Yes
bounded verbal predicate	No	No	Yes	Yes

Table 1: Relative characteristics of object nouns in Persian

### 3 Properties of preverbal bare nouns

- (23) *færib xordæn* deceit eat ‘to be deceived’  
*ab dadæn* water give ‘to water’ (transitive)  
*jæshn gereftæn* feast catch ‘to celebrate’  
*shane zædæn* comb hit ‘to comb’

(24)	<i>qæza xordæn</i>	food eat	‘to eat (food)’
	<i>zæhr dadaæn</i>	poison give	‘to poison’
	<i>mahi gereftæn</i>	fish catch	‘to fish’
	<i>ketab foruxtæn</i>	book sell	‘to sell books’

### Past analyses for Persian

- Both bare nouns are arguments of the verb  
(Barjasteh 1983, Ghomeshi and Massam 1994, Vahedi-Langrudi 1996, Dabir-Moghaddam 1997)
- These bare nouns represent two distinct categories: (21) is a complex predicate and (22) is an object+noun construction.  
(Moyne 1970, Khanlari 1986, Karimi 1989/1997)
  - The two types of preverbal nominals, *bare object nouns* and *nominal NV elements* display a number of identical properties: they are claimed to both be number neutral, not salient in the discourse, appear immediately to the left of the verb, receive the main VP stress, and both give rise to unbounded readings (cf. Ghomeshi and Massam 1994).
  - But I will show that the distribution and properties of the two bare nominal types show that they are distinct categories, and their similarities can be captured from the structural representation.

### LIGHT VERB VS. THEMATIC VERB

- Difference in interpretation: (cf. Megerdooian 2002, Folli et al 2005)
  - Light verbs contribute aspect and event information (e.g., causation)
  - Thematic verbs contribute both event/aspect and core verbal meaning
- Nouns in (23) are arguments selected by the thematic verb, while NVs in (24) are part of the verbal predicate and their choice is much more restricted.

(25)	<i>qæza xordæn</i>	food eat	‘to eat (food)’
	<i>xyar xordæn</i>	cucumber eat	‘to eat cucumber’
	<i>sham xordæn</i>	dinner eat	‘to eat dinner’
(26)	<i>kotæk xordæn</i>	beating eat	‘to be beaten’
	<i>færib xordæn</i>	deceit eat	‘to be deceived’
	<i>shekæst xordæn</i>	defeat eat	‘to be defeated’

- Only verbs with a light verb counterpart appear with the NV (do/make, become, fall, come, bring, throw, take, give, have, see, go, hit, pull, put, catch, find, eat/collide)

## REFERENTIALITY:

### (I) QUESTION FORMATION

- Bare object nouns can be questioned, but not NV nouns

- (27) a. bæčče-ha **kæbab** xord-æn  
 child-PL kabob ate-3PL  
 ‘The kids ate (some) kabob.’  
 b. - bæčče-ha chi xord-æn?  
 child-PL what ate-3PL  
 ‘What did the kids eat?’  
 - kæbab  
 ‘kabob’
- (28) a. mærdom **færib** xord-æn  
 people deceit ate-3PL  
 ‘(The) people were deceived.’  
 b. - mærdom chi xord-æn?  
 people what ate-3PL  
 ‘What did people eat?’  
 - \* færib  
 ‘deceit’

### (II) NUMBER NEUTRALITY

- Bare object nouns are number neutral (i.e., can be either singular or plural), but NV nouns do not display any number implicature at all.

- (29) ostad-a **ænar** mi-xord-æn  
 professor-PL pomegranate PROG-ate-3PL  
 ‘The professors were eating a pomegranate/pomegranates.’
- (30) nærges mu-ha-sh-o **shune** zæd  
 Narges hair-PL-POSS.3SG-OM comb hit-3SG  
 ‘Narges combed her hair.’

- Bare object nouns can receive a numeral reading by becoming a Number Phrase, but NV nouns cannot appear with a number or classifier head.

(31) ma diruz     **do-ta**     **mæjælle**     xærid-im  
 we yesterday two-CL     magazine     bought-1PL  
 ‘Yesterday, we bought two magazines.’

(32) ?\*mærdom     **čæn-ta**     **færib**     xord-æn  
 people     few-CL     deceit     ate-3PL  
 ‘\*Lit: (The) people ate a few deceits.’

### SPECIFIC OBJECT COUNTERPARTS

- Bare object nouns can become a specific argument (i.e., become a DP), but the specific reading is not available to the NV (except in particular constructions as in 35).

(33) a. doktor     be mæriz     **dæva**     dad  
 doctor     to patient     medication     gave-3SG  
 ‘The doctor gave the patient some medication.’

b. doktor     **dæva-ro**     be mæriz     dad  
 doctor     medication-OM to patient     gave-3SG  
 ‘The doctor gave the medication to the patient.’

(34) a. doktor     mæriz-ra     **shæfa**     dad  
 doctor     patient-OM     cure     gave-3SG  
 ‘The doctor cured the patient.’

b.\*doktor     **shæfa-ro**     be mæriz     dad  
 doctor     cure-OM     to patient     gave-3SG  
 ‘\*The doctor gave the cure to the patient.’

(35) a. mæn     hæta     æz     bæčče-ha     **in kotæk-ro**     xord-æm  
 I     even     from child-PL     this beating-OM     ate-1SG  
 ‘I got beaten like that even by children.’

b. in     tæsmim     **bozorgtærin lætme-ra**     be jimnastik-e     iran     zæd  
 this     decision     biggest     damage-OM to gymnastics-EZ     Iran     hit-3SG  
 ‘This decision caused the biggest damage to Iranian gymnastics.’

c. **in kæshf-i-ra**     ke     kærd-æm     mædyun-e     shoma     hæst-æm  
 this     discovery-REL-OM     that did-1SG     indebted-EZ     you     be-1SG  
 ‘This discovery that I made, I owe it to you.’

## PREDICATE MODIFICATION

- Adjectives modify the noun with object nouns but they modify the ‘event’ with NVs.

- (36) a. **ghæza-ye bæd-i** xord-im  
 food-EZ bad-IND ate-1PL  
 ‘We ate some bad food.’
- b. **ræft-im ye vyolon-e hesabi** xærid-im  
 went-1PL one violin-EZ awesome bought-1PL  
 ‘We went and bought an awesome violin.’
- (37) a. **kotæk-e bæd-i** xord-im  
 beating-EZ bad-IND ate-1PL  
 ‘We were beaten badly.’ (Lit. We got a bad beating)
- b. **che otu-ye bæd-i** kærd-e  
 what iron-EZ bad-IND did-PERF.3SG  
 ‘He has ironed (it) so badly.’ (Lit. He has done such a bad iron)
- c. **dishæb ye vyolon-e hesabi** zæd-im  
 last night one violin-EZ awesome hit-1PL  
 ‘We played some great violin last night.’
- d. **boz-e shax-e mohkæm-i** zæd be lashe  
 goat-DEF horn-EZ hard-IND hit-3SG to cadaver  
 ‘The goat hit the cadaver with force.’  
 (Lit. The goat hit a hard horn to the cadaver)
- Similar contrasts are obtained when the preverbal nouns are pluralized or when they appear with an indefinite marker.
- (38) **ostad-a dowr-e hæm jæm’ shode ænar-i** mi-xord-æn  
 professor-PL around-EZ together collect became-PART pomegranate-IND PROG-ate-3PL  
 ‘Gathered together, the professors were eating a pomegranate.’
- (39) **nærges mu-ha-sho shune-i** zæd o ræft  
 Narges hair-PL-POSS.3SG comb-IND hit-3SG and went-3SG  
 ‘Narges combed her hair and left / Narges gave her hair a quick comb and left.’  
 ≈ French: elle s’est donnée un coup de peigne.

### CASE ASSIGNMENT

- Bare object nouns and NVs have distinct case-assignment properties, which shows that the noun in (40a) is acting as the internal argument, but not the noun in (40b).

- (40) a. doktor      **be æli**      dæva      dad  
          doctor      to Ali      medication      gave-3SG  
          ‘The doctor gave some medication to Ali.’
- b. doktor      **æli-ro**      shæfa      dad  
          doctor      Ali-OM      cure      gave-3SG  
          ‘The doctor cured Ali.’

- The NV doesn’t always appear in transitive constructions:  
   A light verb can be combined with various NVs to form verbs that are unergative (*sut zædæn* ‘whistle hit’; *chækosh zædæn* ‘hammer hit’), transitive (*shune zædæn* ‘comb hit’), causative/transitive (*gul zædæn* ‘trick hit’).  
   Compare to the thematic verb *zædæn* ‘hit’ that is a transitive verb.

### CO-OCCURRENCE OF BARE NOUNS

- Bare object nouns and NVs can co-occur in the sentence, showing that they do not occupy the same structural position.  
   Note: the nominal closest to the light verb has to be the NV (in italics).

- (41) a. chæn      bar      **bæčče**      *kotæk*      zæd-i?  
          how many      time      child      *beating*      hit-2SG  
          ‘How many times have you beaten a child?’
- b. ma      tæmam-e      ruz      **otaq**      *jaru*      kærd-im  
          we      all-EZ      day      room      *broom*      did-1PL  
          ‘We swept rooms all day.’

- Note that two bare object nouns cannot co-occur.

- (42) \*doktor      **mæriz**      **dæva**      dad  
          doctor      patient      medication      gave-3SG  
          ‘\*The doctor gave patient medication.’

## Summary

- NV and bare object noun can co-occur
- bare object nouns can be questioned but not the NVs
- bare object nouns have a DP (specific) and NumP counterpart but not NVs
- adjectives and number modify the noun with bare objects but the event with NVs
- distinct case-assignment contexts

NV and bare object noun do not occupy the same structural position

- Nominal NV is a component of the verbal predicate and combines with the light verb to form a single predicate, which is in effect equivalent in meaning and structure to the thematic verb
- Bare object nouns are internal arguments of the full verb (i.e., a thematic verb or a NV+LV) and not part of the predicate.

*Note:* NVs and bare object nouns have similar properties in verb phrase stress and aspect... we will return to that in the next section.

## 4 Analysis

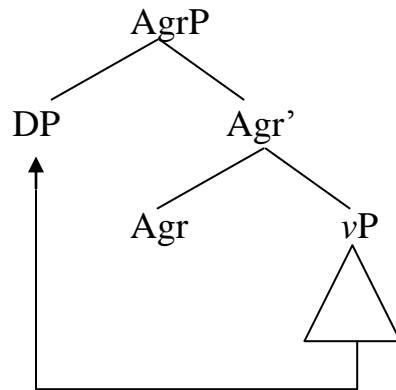
### 4.1 Parallel nominal and verbal projections

- Researchers have argued to project nominal features into distinct nodes in parallel to the decomposition of the verbal element (e.g., Abney 1987, Tang 1990, Valois 1991, Ritter 1992, Travis 1992, Bhattacharya 1999, Borer 2000/2005).
  - i. mass/count distinction correlates with aspect (vP boundedness)  
→ Number  $\approx$  Aspect
  - ii. D (representing definiteness/specificity) correlates with either tense or agreement  
→ D head  $\approx$  T or Agr
  - iii. nP correlates with vP-shell
- Parallel structures have been proposed for the nominal phrase and the verb phrase. But the connection between the nominal features and the verbal domain has always been established thorough a Spec-Head relation where the whole noun phrase appears in the specifier position of the relevant verbal head, and the inner nodes or

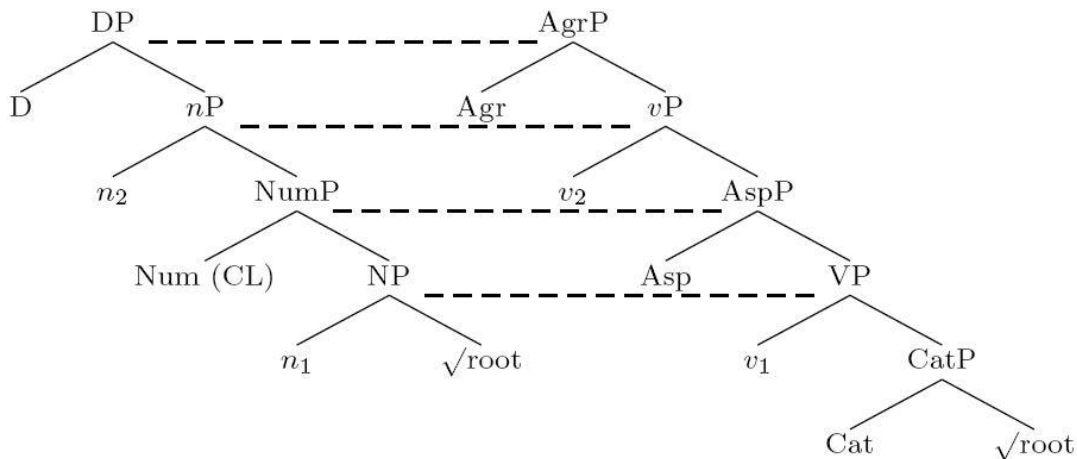
features of the NP play absolutely no role.

- **Proposal:** To capture the close relations between the nominal and verbal features (for case, agreement, aspect) the relevant corresponding features of the two nominal and verbal domains appear in a direct one-to-one relationship (cf. Megerdooimian to appear).

(43)



(44)



(45) *Prinzhorn's Law:* (from Vergnaud 2001)

The “height” to which a nominal category will scramble within the verbal category is equal to the “height” of the highest specified feature within N.

## 4.2 Primitive assemblies of constituent structure

- Syntactic structure consists of right-branching trees which consist of a fixed set of primitive features, that are same for all categories (Vergnaud 2000, Vergnaud and Zubizarreta 2001)

(46)  $F_n F_{n-1} \dots F_2 F_1$

- For instance:  $F_1 = \text{root}$ ,  $F_2 = \text{category of } n \text{ or } v$ ,  $F_3 = \text{aspect/classifier feature}$  (“boundedness”),  $F_n = \text{determiner/tense or agr}$  (“instantiation”)

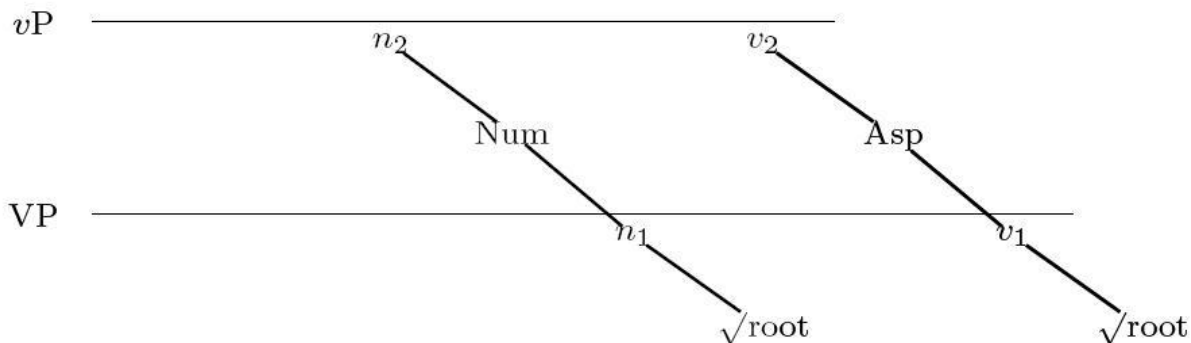
(47) *Extended X-bar Principle:*

Every cognitive (semantic) category is analyzed in terms of a fixed set of features common to all categories.

### In this framework

- nominal and verbal predicates are composed of a fixed set of primitive elements consisting of a root, a category feature, and features denoting *boundedness* and *instantiation*.
- feature representing boundedness corresponds to aspect in the temporal or verbal domain and to the classifier or count system in the physical or nominal domain.
- $n$  represents an entity and  $v$  denotes eventive information

(48) *Uniformly branching trees:*

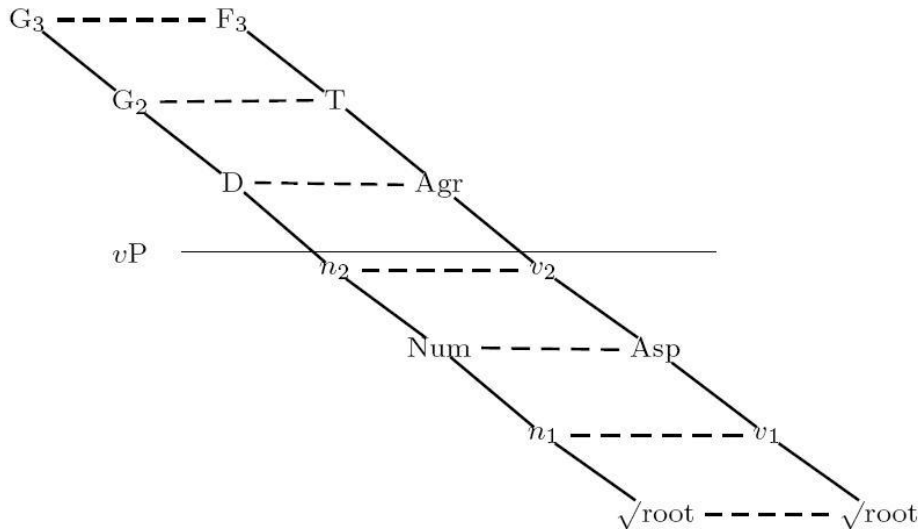


- Both uni-branching assemblies may undergo a “direct product” to form an *extended assembly*.

TP phase: agreement, tense, higher aspectual features within the verbal domain and e.g., specificity within the nominal domain.

CP phase: Complementizer category (‘proposition’) in the verbal domain or Pronominal category (‘point of view’) in the nominal domain.

(49) *Matching relations between uniformly branching trees:*



### Checking relations

- The noun phrase becomes an argument of the verb when the primitive elements in the nominal structure form a *specifier-of* relation with their verbal counterparts.
- The resulting interpretation and case-marking depend on the level in the structure at which the checking relation is formed.

***Nominal Structure:***  
 Number specification: if a Num is projected  
 Specificity: if a D head is projected

***Relation to Verb:***  
 Boundedness: vP aspect is bounded only when there is a Num-Asp relation  
 Stress: vP stress is assigned to the “leftmost” element (edge) in the vP phase →if nominal element is outside vP, it will not get main stress

	Highest NP structure	Highest checking relation	Number neutral	Specific	Bounded vP aspect	Overt object marker	Adjacent to verb	vP stress
<b>Bare N</b>	$n_I$	$n_I-v_I$	yes	no	no	no	yes	yes
<b>NP</b>	$n_I$ (+modifier)	$n_I-v_I$	yes	no	no	no	yes	yes
<b>NumP</b>	Num	Num-Asp	no	no	yes	no	yes	yes
<b>DP</b>	D	D-Agr	no	yes	yes	yes	no	no

Table 2: Deriving generalizations from syntactic structure

- **NV nominal:** it's not in the nominal projection at all but forms the lower F features of the verbal projection.
  - not an internal argument of the verb
  - no number implicature / non-referential
  - no DP counterpart
  - NP and NumP okay, but Num/Adj are modifiers of event only
  - Case-marking/transitivity determined via NV+LV combination

### CAPTURING VP ASPECT

- Ghomeshi and Massam (1994) argue for a uniform treatment of the NV and bare object noun categories because both give rise to unbounded vP aspect

- (50) a. (mæn) \*dær do dæghighe / saætha      **ghosse**      xord-æm  
 I            in two minute / hours            worry            ate-1SG  
 'I worried \*in two minutes / for hours.'
- b. (mæn) \*dær do dæghighe / saætha      **sib**            xord-æm  
 I            in two minute / hours            apple            ate-1SG  
 'I ate apples \*in two minutes / for hours.'

- However, certain eventive NVs can give rise to bounded predicates:  
 ex. *shekæst xordæn* 'defeat eat' = be defeated (Folli et al 2005)
- Certain light verbs only allow bounded predicates:  
 ex. *dærd kærðæn* 'pain do' = to hurt (atelic)  
       *dærd gereftæn* 'pain catch' = to start to hurt (telic)

⇒ the reason the bare object noun gives rise to unbounded aspect is different from the reason that some NV nouns give rise to unbounded interpretation.

## CAPTURING STRESS

- Ghomeshi and Massam (1994) also argue for a uniform treatment of the NV and bare object noun categories because both receive the main vP stress.
- However, phrasal stress in Persian falls on the left edge within a specific stress domain (Kahnemuyipour 2004)
  - nonspecific objects that remain within the vP will get main stress (51)
  - NVs will get main stress if there is no other element inside vP
  - if any other element appears to the left of the bare object, the latter will receive main stress (e.g., manner adverb in (52)) and we can't argue that they occupy the same position as the bare noun

- (51) a. mitra [vP [N **mæjællé**] xærid-e ]  
 Mitra magazine bought-PERF.3SG  
 'Mitra has bought a magazine/magazines.'
- b. mitra [vP [NP **mæjælle-ye jaléb-i**] xærid-e ]  
 Mitra magazine-EZ interesting-IND bought-PERF.3SG  
 'Mitra has bought an interesting magazine.'
- c. mitra [vP [NumP **dó-ta mæjælle**] xærid-e ]  
 Mitra two-CL magazine bought-PERF.3SG  
 'Mitra has bought two magazines.'
- (52) a. mani [vP **xúb** xabid ]  
 Mani good slept-3SG  
 'Mani slept well.'
- b. mani ghæza-sh-o [vP **xúb** xord]  
 Mani food-POSS.3SG-OM good ate-3SG  
 'Mani ate his food well.'
- c. ma tæmam-e ruz [vP **otágh** jaru kærd-im]  
 we complete-EZ day room broom did-1PL  
 'We swept rooms all day.'

## 5 On incorporation

### 5.1 Past analyses

- Past analyses have suggested some form of incorporation for Persian

**Noun Incorporation (NI):** (e.g., Dabir-Moghaddam 1997)

- Direct object incorporates into the verb and creates "an intransitive compound verb

which is a conceptual whole”

**Juxtaposition:** (e.g., Ghomeshi and Massam 1994)

- N loses its argument status and is juxtaposed with the host V
- Although N and V remain separate words phonologically, they form a single syntactic unit

**Pseudo Noun Incorporation (PNI):** (Ganjavi 2007)

- NP objects are phrasal elements that merge with the verb as its complement but do not radically incorporate into it to create a new head.

Incorporation analyses:  $[_v \text{ N+V}]$  or  $[_v \text{ N V}]$  or  $[_v, \text{ NP V}]$

## 5.2 Identifying noun incorporation

*Incorporation:* constructions in which a verb and one of its arguments form a particularly tight unit (Farkas and de Swart 2003)

- NI has been used to describe a process of word formation where the N+V form a single morphological unit

(53) *Tongan* (Churchward 1953)

- a. *Na'e inu 'a e kavá é Sione*  
 PAST drink ABS CONN kava ERG John  
 ‘John drank the kava.’ [subj. of transitive →ergative case]
- b. *Na'e inu kavá 'a Sione*  
 PAST drink kava ABS John  
 ‘John kava-drank.’ [subj. of intransitive →absolute case]

(54) *Ponapean* (Rehg 1981)

- a. *I kanga-la wini-o*  
 I eat-COMP medicine-that  
 ‘I took all the medicine.’ [→ completion of medicine]
- b. *I kanga-winih-la*  
 I eat-medicine-COMP  
 ‘I completed my medicine-taking.’ [→ completion of activity]

- There are many types of NI with varying characteristics (cf. Mithun 1984)
- Common features of NI across languages:
  - N is generally an internal argument of transitive and intransitive verbs, or marks an instrument or location relation to the host V
  - Bare stem N<sup>0</sup> (no determiner, case, plurality or modification)
  - Loss of transitivity:
    - N and V stems combine to form an intransitive V denoting a unitary activity
    - N loses its individual salience and syntactic role and becomes a component of V
  - Significantly affects case distribution
  - Number neutrality on N: no singularity or plurality implicature
  - N takes narrow scope: non-referential, non-specific, takes scope under operators such as negation
  - Productive process: combines two open class stems not a stem and a limited affix set (as in word-formation processes such as nominalization or causativization)
  - Difficult for acquisition/susceptible to decay: NI is one of the last operations to be learned by children, only advanced L2 learners can use NI well, and NI among the first processes to undergo language loss

### 5.3 Against noun incorporation in Persian

Bare object Noun+V constructions in Persian lack a number of important NI properties: (also see Karimi 1997, Samvelian 2001, Ganjavi 2007)

- *N is not a bare stem:*
  - it can be modified or conjoined
  - but the presence of a determiner forces the ‘ra’ morpheme → it is a NP but not a DP.

- (55) a. *kia qæza-ye taylændi mi-xor-e*  
 Kia food-EZ thai PROG-eat-3SG  
 ‘Kia eats/is eating Thai food.’
- b. *bæchche-ha ketab o dæftærche xærid-æn*  
 child-PL book and notebook bought-3PL  
 ‘The children bought books and notebooks.’

- *Bare N is not completely non-referential*  
- Recall that it can be questioned for example

- *Loss of transitivity is questionable:*

- Preverbal noun is a nonspecific argument, but it always has a specific counterpart: the argument structure and case distribution don't change at all in (50a) vs. (50b)  
→ *dæva* acts as the direct object of the verb; it does not lose its syntactic role.

- (56) a. doktor      *dæva-ro*      **be mæriz**      dad  
 doctor      medication-OM to patient      gave-3SG  
 'The doctor gave the medication to the patient.'  
 b. doktor      **be mæriz**      *dæva*      dad  
 doctor      to patient      medication      gave-3SG  
 'The doctor gave the patient some medication.'

- Preverbal nouns can become the subject of a passive (Samvelian 2001)

- (57) mæryæm      dær      aseman      setare      did  
 Maryam      in      sky      star      saw-3SG  
 'Maryam saw a star/stars in the sky.'  
 (58) dær aseman      setare      dide      shod  
 in sky      star      seen      became-3SG  
 'A star was seen in the sky/Stars were seen in the sky.'

- *N is not always adjacent to the verb*

- Incorporated nouns cannot be scrambled

(59) *Tongan* (Ball 2005)

- a. *Na'e*      *tō*      *manioke*      *kano lelei*      'a      *Sione*  
 PAST      plant      cassava      good      ABS      Sione  
 'Sione planted a good cassava.'  
 b. \**Na'e*      *tō*      'a      *Sione*      *manioke*      *kano lelei*  
 PAST      plant      ABS      Sione      cassava      good

- The bare noun in Persian can be scrambled in certain conditions (focus, topicalization)

- (60) a. *kia*      **qæza**      *tond*      *mi-xor-e*  
 Kia      food      quick      PROG-eat-3SG

‘Kia eats (food) quickly.’

- b. mi-gæn      **zæhr**      be      bæch-æsh      dad-e  
 they-say      poison      to      child-POSS.3SG      gave-PERF.3SG  
 ‘They say that it’s poison that he/she has given to his/her child.’

- *N+V construction does not show word-level stress:*

- (61) a. salon-e      **qæza-xor-í**  
 hall-EZ      food-eat-NOM/ADJ  
 ‘dining room’  
 b. kia      **qæzá**      xord  
 Kia      food      ate-3SG  
 ‘Kia ate.’

### Summary

	Noun Incorporation	Persian N+V
✓	N = internal argument	N = internal argument
✓	N is non-specific	N is non-specific
✓	N takes narrow scope	N takes narrow scope
✓	Productive	Very productive
✓	Unbounded reading	Unbounded reading
?	Incorporated N must be verb adjacent	N can be scrambled (if focus, topic)
?	Loss of transitivity; case modified	No modification in case-assignment
✗	N = bare stem	N or NP (but not DP)
✗	N loses its syntactic role	N visible as syntactic object
✗	N is non-referential	N can be questioned, so some level of referentiality
✗	N has no number implicature (no singular or plural)	N is number neutral (can be singular or plural)
✗	Construction is difficult for acquisition and is subject to decay	Construction not problematic for acquisition and no evidence of decay
✗	Word-level stress pattern	Phrasal stress pattern

**Table 3: NI vs. Persian N+V constructions**

- The results suggest that Persian is a Pseudo Noun Incorporation language: (per Massam 2001, Dayal 2003; also see Ganjavi 2007 for Persian)
- Nominal can be NP (may include modifying phrase, conjunction) but not DP (no relative clause or functional elements such as case, number, specificity marker,

possessor)

- Nominal is visible to syntactic processes and behaves as internal argument
- Very productive: occurs with an open class of verbs, so any verb that has an internal argument can appear in PNI construction.
- Unbounded event: there is a habitual or frequentative meaning and event is unbounded
- Nonspecific and restricted referentiality (limited to the incorporated domain)
- Adjacency: Noun or NP and verb are adjacent; particles and adverbials don't intervene.
- Loss of transitivity: in the sense that the internal argument has a closer relation with the verb and the predicate-argument distinction seems to break down.

Massam argues that PNI cannot be treated by lexical compounding or head movement. So the N+V construction is not a  $X^0$  head or morphological word since there is no lexical or syntactic incorporation of N into V, but it is instead a phrasal construction.

- **BUT** we do not need to posit a process such as PNI to explain the Persian facts!
- PNI is used to explain why there are mixed lexical and phrasal properties (closer to verb, less transitivity perception, but visible to syntax and not a N head)
- But we can already derive all the characteristics from the structure on independent grounds  $\Rightarrow$  we don't need to posit PNI

NP structure	Relation to vP: internal argument low in vP
Number neutral (NumP)	Object properties visible in syntax
Non-specific (no D)	No change in case-marking
Unbounded event (Num node)	Very productive
	Unbounded event
	Phrasal stress pattern
	Not difficult for acquisition / no decay

## 5.4 PNI in Hindi

- Singular bare nouns in Hindi display similar properties to Persian bare nouns

Dayal (2003):

“... there is clear empirical evidence that incorporation in Hindi involves a normal

transitive structure with a syntactically visible complement, that the complement is an NP not an N<sup>o</sup> and, finally, that it is allowed the same freedom of movement that other arguments in Hindi enjoy.”

- NOTE: all these properties counter traditional NI  
Dayal argues for PNI in Hindi instead to explain the mixed characteristics observed

⇒No PNI in Hindi it seems; can derive properties from syntactic structure already

## 6 Subjects

- Analysis predicts that bare N subjects that are vP-internal should have same properties as bare N objects – this is borne out.
- Internal subjects are number neutral, non-specific, are adjacent to the verb, take main stress.

- (62) a. dær-o      be-bænd    **mægæs**      mi-ad      tu  
          door-OM    IMP-close   fly            PROG-come   in  
          ‘Close the door, flies are getting in.’
- b. dær-o      be-bænd    **mægæs-e**    mi-ad      tu  
          door-OM    IMP-close   fly-DEF      PROG-come   in  
          ‘Close the door, the fly is coming in.’

- (63) a. **barán**      amæd  
          rain          came-3SG  
          ‘It rained.’
- b. **baran**      amæd  
          Baran        came-3SG  
          ‘Baran came.’ (where Baran is a person’s name)

- Only difference seems to be vP aspect: internal subjects appear with unaccusative (i.e., telic) verbs.

## 7 Conclusion

- Investigated properties of two categories of bare singular nouns and showed that they display very distinct behavior in terms of degree of referentiality, interdependence with the verbal element, modification, and case-assignment possibilities.
- Presented evidence that NI does not hold for Persian bare noun + V constructions and PNI is not needed (reject on economy principles)
- Argued for a framework where the nominal and verbal domains are projected in parallel
- Derived characteristics observed of N+V constructions from the structure of
  - i. Nominal element, and
  - ii. Structural relation of nominal to the vP domain

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