Nominal Phrases and Language Variation

1. The General Issues

1.1 What this talk is about

The structure and the interpretation of nominal phrases (NPs) in classifier languages

1.2 Languages investigated

(i) Verb Medial Languages (SVO): Mandarin, Cantonese, Min, Vietnamese
(ii) Verb Final Languages (SOV): Yi, Bengali, Japanese, Korean

(Language family: Mandarin, Cantonese, Min, Yi—Sino-Tibetan; Vietnamese—Austro-Asiatic; Bengali—Indo-Aryan; Japanese, Korean—Altaic)

1.3 Three issues:

ISSUE ONE: The structure of NPs

(1) a. I saw the/a dog.
    b. * I saw dog.

➔ English has article determiners ‘a/an/the’, and count nouns in English cannot be used in a bare form.

(2) wo kan-jian le gou (Mandarin Chinese)
    I see Past dog

➔ Mandarin does not have articles, and all nouns can be used in bare forms.

★ Q: Is the category ‘determiners’ absent in all classifier languages\(^1\)?

ISSUE TWO: The interpretations of NPs

(3) I saw the dogs. (definite)
(4) I saw a dog. (Indefinite)
(5) Dogs bark. (Generic)

➔ The ‘D(eterminer)’ and the plural marker have been viewed as the source of different interpretations.

★ Q: For languages without determiners and plural marking, where do different interpretations come from?

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\(^1\) Bošković (2010) makes the generalization that if a language has an obligatory classifier system, it does not have determiners.
ISSUE THREE: What is a classifier?

(6)  a. one cup of water       b. one person
(7)  a. two loaves of bread    b. three books

→ In English, mass nouns require a measure phrase in order to be countable, but count nouns don’t.

However, in classifier languages, ALL nouns are like mass nouns in needing a measure word.

(8)  a. yi ge ren             (Mandarin Chinese)
     one Cl^2 person
     ‘one person’
  b. yi bei shui
     one cup water
     ‘one cup of water’

→ The obligatory measure words, such as ge and bei in (3), are classifiers.

★ Q: Why are classifiers obligatory in languages such as Chinese?

1.4 What is at stake?

(i) The structure of nominal phrases

Question: Do nominal phrases in all languages have the same structure of [Determiner + Noun]

(ii) The source of different interpretations

Question: Do these interpretations (definite, indefinite, generic) come about in similar ways across languages?

(iii) Language specific and language universal

Question: What is language specific and what is language universal in the nominal phrase domain?

★ My proposal seeks to move away from a Eurocentric view of grammar, while still adhering to the view that there is a universal core to all languages.

2. Typological Properties of NPs in Classifier Languages

2.1 The goal of this talk
To investigate NPs in classifier languages and to understand the correlation between various structures and different interpretations of NPs in classifier languages.

^2 Cl—Classifiers. Other abbreviations: Det—Determiner. p.c.—personal communication
TERMINOLOGY: *Predicates* and *Arguments*

★ Nouns play two roles: a. As arguments: denoting entities
   b. As predicates (in copular sentences): denoting properties

(9) a. Entities                                              b. Properties

- particular
- generic (kind)                                           - the quality/attribute
- of objects

(10) Firemen are brave.
    Argument: ‘firemen’ (denoting generic entities)
    Predicate: ‘brave’ (denoting properties)

(11) Bill and John are firemen.
    Argument: ‘Bill and John’ (denoting particular entities)
    Predicate: ‘firemen’ (denoting properties)

★ This talk investigates nominal phrases in argument positions.

2.2 The range of structures examined
   ⇒ From the simplest structures to complex ones.

i. Bare Nouns [N]:
   (12) wo mai le    shu.                                  (Mandarin Chinese)
        I    buy Past book
        ‘I bought a book/books.’

ii. Bare Classifier Phrases [Cl N]/ [N Cl]:
    (13) wo mai le    ben shu.                              (Mandarin Chinese)
         I    buy Past Cl   book
         ‘I bought a book.’

iii. Bare Numeral Phrases [Num Cl N]/ [N Num Cl]:
    (14) wo mai le    san     ben shu.                    (Mandarin Chinese)
         I    buy Past three  Cl   book
         ‘I bought three books.’

iv. Noun Phrases with overt determiners
    ⇒ Typologically, it is rare for classifier languages to have overt determiners.
Yi, a Tibeto-Burman verb final language, spoken in the southwest of China with 7.76 million population (2000 census), does have an overt definite determiner—Su and classifiers. (Jiang and Hu 2010)

(15)  
\[ \text{mu sɔ ma su li ndo o.} \]  
\( \text{Horse three Cl Det lose Past} \)  
The three horses got lost.’  
(Jiang and Hu 2010)

→ For evidence that shows that Su is a determiner, see Jiang and Hu (2010).

### 2.3 The Interpretations of Nominal Phrases

Let us use Mandarin Chinese as the baseline here

i. Definite reading
   a. situational definite  
   b. anaphoric definite

(16)  
\[ \text{gou yao guo malu.} \]  
dog want cross road  
‘The dog wants to cross the road.’  
(Cheng and Sybesma 1999)

→ ‘the dog’ refers to something salient in the situation/context.

ii. Indefinite reading
   a. existential,  
   b. specific indefinite and non-specific indefinite

(17)  
\[ \text{Zhuo shang you pingguo.} \]  
desk top have apple  
‘There are apples on the desk’

→ ‘apples’ refer to some apples that the speaker saw when was uttering this sentence.

iii. Generic reading
   a. kind,  
   b. quantificational generic

(18)  
\[ \text{konglong mie jue le} \]  
dinosaur extinct Past  
‘Dinosaurs are extinct.’

→ ‘dinosaurs’ refers to a kind of animals.

### 2.4 Generalizations and Summaries of NPs in Classifier languages

i. Bare Nouns

(19)  
<table>
<thead>
<tr>
<th>Verb Medial</th>
<th>Verb Final</th>
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<tbody>
<tr>
<td>Mandarin</td>
<td>Min</td>
</tr>
<tr>
<td>Def</td>
<td>√</td>
</tr>
<tr>
<td>Indef</td>
<td>(✓)</td>
</tr>
<tr>
<td>Gen</td>
<td>√</td>
</tr>
</tbody>
</table>

4 / 12
Generalizations:

All languages have generic and indefinite interpretations of bare nouns.
Not all languages have definite interpretations of bare nouns (21a).

(20)  a. *gau soeng gwo maalou (Cantonese)

dog want cross road

Intended reading: ‘The dog wants to cross the road.’

b. gou yao guo malu. (Mandarin Chinese)

dog want cross road

‘The dog wants to cross the road.’

(Cheng and Sybesma 1999)

ii. Bare Classifier Phrases (CLPs)

(21)

<table>
<thead>
<tr>
<th>Bare Classifier Phrases</th>
<th>Verb Medial</th>
<th>Verb Final</th>
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<tbody>
<tr>
<td></td>
<td>Mandarin</td>
<td>Min</td>
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<tr>
<td>Def</td>
<td>*</td>
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<td>Indef</td>
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<td>*</td>
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<tr>
<td>Gen</td>
<td>*</td>
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</tbody>
</table>

Generalizations:

Not all languages allow bare CLPs (22).
Some languages allow bare CLPs only in one position with only one interpretation (23).
Some languages allow bare CLPs in both subject and object positions with different interpretations (24).

(22)  *Watashi-wa hon satsu-o katta (Japanese)

I Top book Cl -Obj bought

(23)  a. wo mai le ben shu. (Mandarin Chinese)

I buy Past Cl book

‘I bought a book.’

b. *zhi gou xi-huan chi rou

Cl dog like eat meat

(24)  a. zek gau zungji sek juk. (Cantonese)

CL dog like eat meat

‘The dog likes to eat meat.’

b. ngo soeng maai bun syu lei taai.

I want buy CL book come read

‘I want to buy a book to read.’

c. ngo zungji tong zek gau waan.

I like with CL dog play

‘I like to play with the dog.’

(Cheng and Sybesma 1999)
iii. Bare Numeral Phrases (NumPs)

(26)  

<table>
<thead>
<tr>
<th>Bare Num Phrase Phrases</th>
<th>Verb Medial</th>
<th>Verb Final</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Man</td>
<td>Min</td>
</tr>
<tr>
<td>Man</td>
<td># CL NP</td>
<td>NP # CL</td>
</tr>
<tr>
<td>Indef</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Def</td>
<td>*</td>
<td>*</td>
</tr>
</tbody>
</table>

Generalizations:

All languages have indefinite use of bare numeral phrases. Only some languages have both definite and indefinite bare numeral phrases (28–30).

(27)  wo zuo-tian yu-jian liang ge nv-hai. (Mandarin)
   I yesterday meet two Cl girl
   ‘I met two girls yesterday.’

(28)  toi gap hai dua con-gai hom-qua (Vietnamese)
   I meet two Cl girl yesterday
   (i) ‘I met two girls yesterday.’
   (ii) ‘I met the two girls yesterday.’ (Tue Trinh p.c.)

(29)  Amake Tin ta boi eney dao (Bengali)
   me three CL book bring
   ‘Bring me three books’

(30)  Amake boi Tin ta eney dao
       me book three CL bring
       ‘Bring me the three books’ (Sabrina Sadique p.c.)

iv. Over Determiners

Typologically, it is rare for classifier languages to have overt determiners.

But Yi is different: Yi has a definite determiner, occurring with classifier phrases (Jiang and Hu 2010).
(31) a. mu ma li ndo o. b. mu ma su li ndo o.  
Horse Cl lose Past Horse Cl Det lose Past  
‘A horse got lost.’ ‘The horse got lost.’  
(Yi)

(32) a. mu sɔ ma li ndo o b. mu sɔ ma su li ndo o.  
Horse three Cl lose Past Horse three Cl Det lose Past  
‘Three horses got lost.’ ‘The three horses got lost.’  
(Jiang and Hu 2010)

★ The determiner Su cannot appear with bare nouns—Su has to co-occur with classifiers

(33) *mu su li ndo o.  
Horse Det lose Past  
(Yi)  
(Jiang and Hu 2010)

★ Su is not a demonstrative, and it cannot co-occur with demonstratives.

(34) mu tʃh/a daŋ sɔ li ndo o.  
Horse this/that three lose Past  
‘These/those three horses got lost.’  
(Yi)

(35) mu sɔ su li ndo o.  
Horse three Det lose Past  
‘The three horses got lost.’  
(Jiang and Hu 2010)

(36) *mu tʃh/a daŋ sɔ su li ndo o.  
Horse this/that three Det lose Past  
(Jiang and Hu 2010)

2.5 Things to understand
i. Why are classifiers obligatory?
ii. Why are bare arguments always allowed in classifier languages, like Chinese?
iii. Where do different interpretations of NPs come from?
iv. How to account for the language variation within classifier languages?

3. Nature of the Debate

3.1 The Traditional View of Nominal Phrases
Nouns in English are predicates, denoting properties, and the determiner (a/an/the) servers as a ‘converter’ turning nouns into arguments. (Abney 1987, Szabolcsi 1994, Longobardi 1994)

(37) Arguments (definite, indefinite, generic)  
(DPs—Argument, NPs—Predicate)  

(D) N  
a/the doctor (Predicates)  

(38) t (Pred) → Argument  
(in the semantics)
3.2 The Debate Between Two Main Hypotheses

   i. Nouns in all languages are predicative, denoting properties.
   ii. D(eterminers) are always present in the structure, turning predicates into arguments.
   iii. Ds contribute to the different interpretations of NPs.

(39) The structure of nominal phases in all languages

\[
[D+N] \text{ (Argument)}
\]

The source of different interpretations

CONSEQUENCES:
   a. Bare nouns in classifier languages are not really bare—the structure is more than just a bare noun. These languages also have determiners, which exist in a silent form (Li 1998).

(40) a. gou
   dog
   ‘the dog/a dog/dogs’
   b. DP
   (silent) gou
   ‘dog’

b. We have a universal nominal structure across languages \(\rightarrow\) DPs (Determiner Phrases)

SOME PROBLEMS:

(41) *mu su li ndo o. \(\text{(Yi)}\)
   Horse Det lose Past
   ‘The horse got lost.’
   (Jiang and Hu 2010)

(42) *gau soeng gwo maalou \(\text{(Cantonese)}\)
   dog want cross road
   ‘The dog wants to cross the road.’
   (Cheng and Sybesma 1999)

b. Theoretical problem: It says nothing about classifiers—why are classifiers obligatory in classifier languages?
Variable Mapping Hypothesis (Chierchia 1998):

i. Languages vary in how they categorize their nouns. (Nouns in some languages are predicative and in some are argumental)

CONSEQUENCE:

a. Nouns as predicates: English \( \rightarrow \) hence D(eterminers) are needed to create arguments.
b. Nouns as argument (kinds): classifier languages \( \rightarrow \) In classifier languages, nouns are argumental and can directly combine with verbs.

(43) English-like languages                              Chinese-like languages

<table>
<thead>
<tr>
<th>a. Argument</th>
<th>b. Argument</th>
</tr>
</thead>
<tbody>
<tr>
<td>D N</td>
<td>N</td>
</tr>
<tr>
<td>the dog</td>
<td>gou</td>
</tr>
<tr>
<td>(Predicates: property-denoting)</td>
<td>‘dogs’</td>
</tr>
</tbody>
</table>

ii. An assumption: Numerals are adjectival; they combine with properties.

CONSEQUENCE:

a. Numerals can combine with directly with nouns in English. However, they cannot do so in Chinese.

(44) a. I bought one book
     b. *wo mai le yi shu
     I buy Past one book

b. An operation is needed to turn kinds to countable properties: this is the role of the classifier.

(45) The Role of Classifiers: Turning kinds to properties—it is like to extract/create countable atoms from kinds.

[CL N] (properties, containing countable atoms)

\[
\text{CL} \quad \text{N (kinds)} \\
\text{ben} \quad \text{shu} \\
\text{‘book’}
\]

(46) wo mai le yi ben shu
     I buy Past one Cl book
     ‘I bought one book.’

\( \rightarrow \) That is the reason why classifiers are obligatory in languages like Chinese. No other theory can make such prediction so straightforwardly

SOME PROBLEM:

a. What do we make of Ds in classifier languages where they are rare but possible? \( \rightarrow \) Chierchia’s hypothesis has nothing to say about determiners in classifier languages.
b. How do we get ‘particular kinds’ (definite/indefinite) from kinds?
4. A ‘Jiangli’ Proposal for NPs

4.1 Some ingredients of the new proposal

i. **Assumption**: Nouns in classifier languages are kind-denoting, and classifiers are to create countable properties. (Based on Chierchia 1998)

★ This immediate account for the generic reading of bare nouns in classifier languages.
★ **Question**: How do we get the others reading? Especially definite interpretation?
→ Note that the D(eterminer) cannot combine with kind-denoting bare nouns because the types do not match, so the option of apply an silent D is not available here.

ii. **My proposal for definiteness**:

★ I propose that the definiteness can obtained by another operation—Situational Restriction (SR). This operation applies to kinds by restricting them to specific situations so that the definite interpretation can be obtained.

\[
\text{(47)} \quad [N_K]_{SR} \rightarrow [N_{Det}]
\]

a. This Situational Restriction is universal available.
b. It doesn’t apply to English, because in English, nouns are not kind denoting *[N_{Pred}]_{SR}. But it freely makes nouns definite in classifier languages.

iii. **My Claim for Determiners**

★ Determiners can exist in classifier languages. But only applies to bare classifier phrases level and above.

\[
\text{(48)} \quad \text{Argument}
\]

\[
\begin{array}{c}
D \\
[\text{CL} \ N] \text{(properties-denoting, contain countable atoms)} \\
\end{array}
\]

\[
\begin{array}{c}
D \\
N_K \text{(kind-denoting, Argument)} \\
\end{array}
\]

(49) a. CRASH! \quad \Rightarrow \quad b. \quad [N_K]s \rightarrow [N_{Det}]

→ This is the ‘heart’ of my proposal

a. The definiteness of bare nouns in classifier languages is obtained through a different source (SR).
b. This explains why D(eterminers) cannot be used with bare nouns, but only with bare CLPs and the level above.
iv. Principle and Language variation

★ Two devices to derive definite interpretations

a. A Covert Device in Semantics: Apply Context/Situational Constraint to kind: [NPc-s]  
   → Applying the Context/Situation Constraint is like to take a token/snapshot of the kind. (apply to bare nouns)

b. A Overt Device in Syntax: Applying the Determiner (either pronounced or silent) which encodes the definiteness  
   → This device cannot be applied to bare nouns in classifier languages (for the reason stated above) but can apply to levels above bare nouns.

★ Languages do not employ two devices which yield the identical result simultaneously. (Not economic)  
   → A Principle: Languages do not employ the covert device if the overt device is available which yield identical results.

★ Consequences:
   a. In classifier languages, bare nouns are really bare [N]  
   b. Classifier languages can have D(eterminers) but only above bare noun level  
      → Some classifier languages have a pronounced form of the determiner (the definite D in Yi); some languages have a silent form of the determiner (the indefinite D in Yi, the definite D in Cantonese/Bengali)  
      → Some classifier languages might just not have Ds (only have the covert device)

★ The distribution of bare classifier phrases [Cl N]/[N Cl] is varied and complex across languages. Here is the first step of analyzing it:

5. Conclusion

★ Take-home messages:
1) I have provided an account for the existence of determiners in classifier languages and a proposal for the sources of definiteness across languages.

2) I have given the beginning of the account for the language variation in terms of bare classifier phrases [Cl N]. Some of the bare CLPs turn to arguments through an overt determiner, some turn to arguments covertly, and some just cannot turn to arguments.

3) I have gathered a massive data of the possible interpretations and structures of nominal phrases in classifier languages and made a series of generalizations. The data and generalizations show that we need a sophisticated approach to nominal phrases in classifier languages. The newly discovered data enlarge the debate on nominal phrases, but I still stick to a universalistic view on this topic.

Selected References