Specific Nominals in Chinese and Korean

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This paper looks at two languages, Chinese and Korean, which lack an overt distinction in internal structure between DPs and NPs. Based on the distinction in distribution and interpretation, an argument is presented in favor of a DP-vs.-NP distinction in these two languages. Apart from its superior account of the facts concerning the distribution and interpretation of the two types of nominal phrases, additional support for this approach is provided by the different extraction possibilities that NPs allow relative to DPs. The account proposed is also in line with what has been proposed in other languages (Pérez-Leroux & Roeper 1996) based on evidence from acquisition.

Key words: Chinese, Korean, DP, NP, scrambling, ba-construction, specificity, type(s)

1. Introduction

This study explores the possibility of extending the DP-hypothesis (Abney 1987) to languages without articles. I focus on specific nominals in Chinese and Korean, which appear in positions from which nonspecific ones are excluded. I attribute this correlation between interpretation and distribution to (i) the status of the restricted positions as landing sites of overt movement and to (ii) the referentiality of specific nominals, which identifies the movement chains (hence allowing for movement). Further properties commonly associated with specific nominals are shown to follow from my proposal about their interpretation and structure.

In Chinese, only specific nominals occur preposed in the post-\textit{ba} position (nominals without the particle \textit{ba} typically follow the verb) and preverbal subjects are

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always specific. 1 Similarly, in Korean, “scrambling” is limited to specific nominals. Throughout the paper, I will be referring to these positions as “VP-external positions,” for convenience.

Section 2 characterizes the interpretive restrictions in these VP-external positions. The next three sections lay out a proposal about the correlation between distributional and interpretive restrictions, hinging on the following two premises. First, in §3, following the VP-internal subject hypothesis and Sybesma’s (1999) analysis of the ba-construction, I claim that the VP-external positions are landing sites of movement. In §4, I present the properties of specific indefinites, drawing on previous literature. In §5, I argue that movement into the “VP-external positions” is restricted to nominals with a certain make-up, which I claim to be the DP projection. The different interpretation of nominals—specific vs. non-specific—has to do with the distinct semantic types of nominals, which in turn are reflected in the different syntactic types. Section 6 expands on the DP vs. NP distinction and presents data problematic to any approach that does not posit a dichotomy in nominal type.

2. Positions as overt cues for nominal interpretation

Nominals in certain positions obligatorily receive specific interpretation in Chinese. Preverbal positions in Chinese, a VO language, only host nominals whose interpretation is specific or generic. 2

2.1 Positions and interpretations in Mandarin Chinese

Number (1) illustrates the four possible forms of nominals in Chinese: (a) bare, (b) explicitly marked for definiteness by a demonstrative, (c) explicitly marked for indefiniteness by a numeral, 4 or (d) explicitly marked for nonspecificity:

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1 The notion of specificity adopted in this paper will be discussed, briefly in §2.1, and at greater length in §4.1.
2 I shall restrict myself to the Mandarin dialect of Chinese throughout this paper. See Cheng & Sybesma (1999) and Li (1997) for a discussion of Cantonese.
3 Generic nominals pattern with specific nominals in Chinese, as well as in Korean (as an anonymous reviewer points out), in their capacity to appear in the restricted positions under discussion. I defer the analysis of these generic nominals to future work.
4 All three labels are Sybesma’s (1999). The addition in (d) is the author's, based on Cheng and Sybesma (1999).
(1) a. Bare:
   gou ‘a dog/dogs/this dog/these dogs/dog (generic)’

b. With demonstrative: “explicitly marked for definiteness:”
   zhe-zhi gou
   this-CL[assifier] dog ‘this/the dog’

c. Explicitly marked for definiteness:
   yi-zhi gou
   one-CL dog
   ‘a dog/a particular dog’ (Sybesma 1999:139)

d. Non-specific
   zhi gou
   CL dog
   ‘a/any dog’

There is a correlation between interpretation and certain positions, such as the preverbal subject position. As illustrated in the glosses below, nominals that do not exhibit any restriction as to their distribution are nominals that would be translated into English with (i) a definite article or demonstrative (2b)/(3) or (ii) a modifier such as certain/partycular/specific (2b)/(3):5

(2) a. lai ke le
   come guest LE
   ‘Guests have come.’

b. ke lai le
   guest come LE
   ‘The/certain guest(s) have come.’ (Chao 1968, from Liu 19976)

(3) gou jintian tebie tinghua
    dog today very obedient
    ‘The/A certain dog was very obedient today.’ (Cheng & Sybesma 1999:510)

Nominals of the type (d), which are overtly nonspecific indefinites, are therefore ungrammatical in the preverbal subject position:

5 There are two additional readings for these uninhibited nominals: partitive and generic readings. Partitive readings have been analyzed by some as an instance of specific interpretation (e.g., Enç 1991; see §4.1 for some discussion).

6 The gloss has been revised to include the specific indefinite interpretation, which has been confirmed by my Chinese consultant.
(4) a.  lai ge-ke le
    come CL-guest LE
   ‘A guest has come.’
b. *ge-ke lai le
    CL-guest come LE

(5) *zhi-gou jintian tebie tinghua
    CL-dog today very obedient

Nominals appearing after ba are subject to similar interpretive restrictions:

(6) a.  ta zu chuqu le yi jian fang
    s/he lease out LE one-CL room
   ‘He leased out a room.’
b.  ta ba yi jian fang zu chuqu le
    s/he BA one-CL room lease out LE
   ‘He leased out a certain room/one of the rooms.’ (Wang 1987:82)

Number (6b) is felicitous when ‘he’ has leased out a particular room or (‘he’ has more than one room, and) has leased out one of them. Number (6a), on the other hand, is felicitous in either of the aforementioned contexts, as well as in a context where the speaker merely asserts that a room-leasing event has taken place, with ‘he’ as the agent, without any assertion as to the identity of a particular room; in fact, this is the most salient interpretation of the post-verbal nominal.

In contrast to preverbal subject and post-ba positions, post-verbal positions are more or less7 open to all nominals, whether specific as in (7a) or nonspecific as in (7b):

    Yunling love-ascend-LE Zhangsan/this-CL person/specific actor
   ‘S/he fell in love with Zhangsan/this person/a certain actor.’
b.  ta ai-shang-le ge yanyuan.
    s/he love-ascend-LE CL actor
   ‘S/he fell in love with an actor.’

In (7a), the speaker is making an assertion as to (his knowledge of) the identity of the object of Yunling’s affection, by using a proper noun (Zhangsan), a definite nominal

7 Some (e.g., Li 1990, 1996) claim that specific, especially definite, nominals are ungrammatical postverbally. Sybesma (1999) argues, however, that objects following telic predicates must be specific.
with an overt demonstrative (zhe-ge ren ‘this-CL person’), or a nominal modified by an overt specificity adjective mou ‘certain’. No such claim is made in (7b), where no particular referent is singled out.

2.2 Positions and interpretations in Korean

In Korean, “scrambled” nominals are interpreted as specific:

(8) a. (na-nun) kil-eyse tongceen-ul cwu -ess-ta
    I-TOP street-LOC coin-ACC pick up -PST-DECL
    ‘I found a coin in the street.’

b. (na-nun) tongceen-ul kil-eyse cwu -ess-ta
    I-TOP coin-ACC street-LOC pick up -PST-DECL
    ‘I found a (particular)/the coin in the street.’

Korean nominals differ from their Chinese counterparts in the option of an overt Case-marker—ka/i for nominative, -(l)ul for accusative, to name a few. It is also interesting that this morphology is exploited in cueing one in to the specificity/nonspecificity distinction, and other languages besides Korean, such as Turkish⁸ or Finnish,⁹ have been known to follow suit. Turkish and Korean are similar in requiring an overt Case-marker on specific indefinites:

(9) Yonghi-nun [etten haksayng*(-ul)] po -ass-ta
    -T OP certain student*(-ACC) saw -PST-DECL
    ‘Yonghi saw a certain student.’

Unlike Chinese, nominals in other positions than “scrambled” in Korean are not susceptible to an obligatory specific interpretation.

3. Landing sites of movements

In this section, I show that the positions restricted to specific nominals are all landing sites of movement. This will form the crucial half of the explanation for the correlation between interpretation and distribution observed in the previous section.

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⁸ See Enç 1991 for examples.
⁹ See Belletti 1988 and de Hoop 1989 for examples.
3.1 Preverbal subjects in Mandarin

Assuming the VP-internal subject hypothesis and weak agreement features for subjects, little need be said about the operation that takes the external argument of a predicate and moves it out of the phrase headed by this latter. This is an overt movement that leaves the moved argument in the Specifier position of AgrP, upon which Case is checked under Spec-Head agreement.

I follow Li 1990, which convincingly argues that Case features, albeit not overtly realized, are nevertheless operative in Chinese.

3.2 The Mandarin ba-construction

I adopt the analysis developed by Sybesma (1999) for the Chinese ba-constructions illustrated in (10c), adapted from Sybesma (1999:143-144):

\begin{enumerate}
  \item[a.] shi-le \textit{shoujuan}  
  wet-LE handkerchief
  ‘A handkerchief got wet.’
  \item[b.] Lisi ku-shi-le \textit{shoujuan}  
  Lisi cry-wet-LE handkerchief
  ‘Lisi cried a/a certain/the\textsuperscript{10} handkerchief wet.’
  \item[c.] Lisi ba \textit{shoujuan} ku-shi-le  
  Lisi BA handkerchief cry-wet-LE
  ‘Lisi cried the handkerchief wet.’
\end{enumerate}

In all of the sentences in (10), the nominal \textit{shoujuan} ‘handkerchief’ is an argument of the embedded verb \textit{shi} ‘wet’, not of the matrix verb \textit{ku} ‘cry’. Thus it is the non-ba counterpart where the thematic relations are more transparent.

According to Sybesma 1999, the abstract XP heads a phrase whose specifier is the matrix “subject” (\textit{Lisi}) and whose complement is the VP (headed by \textit{ku} ‘cry’). The matrix verb, which heads this VP, lacks an external argument and has only a complement consisting of any predicate-type maximal projection (an AP in the given example). The head of this latter is the embedded predicate (\textit{shi} ‘wet’), and predicates of the post-ba nominal (\textit{shoujuan} ‘handkerchief’):

\textsuperscript{10} Sybesma (1999) claims that the tendency of this postverbal nominal to be interpreted as either definite or specific has to do with the telicity of the verb (pp.172-175).
3.3 Scrambling in Korean

Many proposals have been made regarding scrambling constructions such as the one in (8), repeated below:

(8) a. (na-nun) kil-eyse tongcen-ul cwu -ess-ta
    I-TOP street-LOC coin-ACC pick up -PST-DECL
    ‘I found a coin in the street.’

b. (na-nun) tongcen-ul kil-eyse cwu -ess-ta
    I-TOP coin-ACC street-LOC pick up -PST-DECL
    ‘I found a (particular) the coin in the street.’

The key issue is that the surface configuration cannot be reasoned out in light of such basic relations as thematic relations. In (8b), for instance, the sentence-initial nominal is not adjacent to the verb from which it would be assigned a theme role. This state of affairs is strongly reminiscent of construction pairs related by means of transformation such as passive constructions, wh-questions in English or topicalization,\(^\text{11}\) and not surprisingly, the traditional approach to these sentences (Harada 1977, Saito 1985) follows closely in the steps of the approaches to active-passive constructions.

The analysis of English wh-questions or topicalization, however, have not been extended to the structures in question, given that these lack a good number of the

\(^{11}\) I am merely pointing out the similarity among approaches to the constructions mentioned above, without the intention of implying that any of these constructions share characteristics.
former’s characteristics, such as Relativized Minimality effects\(^{12}\) and weak crossover effects.\(^ {13}\)

The standard view has been to posit a common base structure for both elements of the pair and to derive one (8b) from the other (8a) via an overt, optional (Saito 1985) or obligatory (Miyagawa 1997), leftward movement, i.e., scrambling.\(^ {14}\)

Bošković & Takahashi 1998, on the other hand, argues against scrambling, and posit a base-structure corresponding closely to the surface structure for (8b), and a lowering operation at LF driven by \(\theta\)-features.

The two main branches of proposals differ markedly in their assumptions about the structure of the “scrambled” sentences. However, very little, if any, empirical data distinguish between the two. Both converge on the fact that at LF, the “scrambled” nominal is in a position adjacent to the predicate whose \(\theta\)-grid it satisfies.

For the time being, I merely note the similarity of “scrambling” under the movement analysis with other movements that derive the subject position and the post-

4. Specificity

In this section, I discuss the interpretation of specific nominals, and introduce a proposal that will shed some light on their syntactic behavior observed in the previous section.

4.1 Specific nominals

The specificity/non-specificity dichotomy has been employed in semantic theory mainly to further classify indefinite nominals. Unlike their nonspecific counterparts, “specific indefinites” tend to take wide “scope”\(^ {15}\) over operators:

\[
\text{(12) John wants to own a certain piano which used to belong to a famous pianist.} \\
\text{(Enç 1991:2)}
\]

\(^{12}\) The reader is referred to Bošković & Takahashi 1998 and §7.2.2 for relevant examples and discussion.

\(^{13}\) This last is to be taken with the qualification ‘at least in Korean’. See Cho 1994 or §7.2.2. for examples and discussion.

\(^{14}\) The constructions in question will be dubbed “scrambled” sentences for ease of reference.

\(^{15}\) It will transpire from the subsequent discussion that “scope” is not a correct characterization of the interpretation of these nominals; hence the scare quotes.
In this respect, specific indefinite nominals (12) are like the (specific) definite nominal (13) in the following example:

(13) John wants to own the piano which used to belong to a famous pianist.

As illustrated in the examples above, nominals modified by adjectives\textsuperscript{16} such as certain, particular, and specific are necessarily interpreted as specific.

It so happens, however, that specific indefinites can also receive a narrow-scope reading with respect to modals (must) and quantifiers (every) (14):

(14) For every committee, the dean must appoint a certain student to represent the students’ point of view. (Enç 1991:2-3)

For this reason, operations standardly assumed in the interpretation of scope-exhibiting items (e.g., quantifiers) have been proposed to apply in the interpretation of specific indefinites as well. Assuming that the computation of scope relations relies on the structure (i.e., a quantifier will be represented as c-commanding a quantifier(s) over which it has scope), the standard analysis of scope effects is to make use of Q[uantifier]R[aising].

QR is not quite adequate, however, to account for the wide-“scope”-taking tendency of specific indefinites illustrated above. For instance, an island-free QR analysis predicts a distributive reading for plural specific indefinites in islands, a reading which doesn’t exist (see Reinhart (1997) for discussion):

(15) a. If three relatives of mine die, I will inherit a house.
   b. [three relatives of mine], [if e, die, I will inherit a house] \textsuperscript{(QR)}
   c. *=∃3x[relative-of-mine(x) & [dies(x) → I inherit a house]] \textsuperscript{17}

4.2 Choice functions

One widely accepted line of account for the “scope” effects of specific indefinites makes use of choice functions, which pick a member out of a set. Such an approach has figured prominently in various proposals (Reinhart 1997, Winter 1997, Kratzer 1998, and Matthewson 1999). A choice function analysis of the example in (15) yields only

\textsuperscript{16} I employ this term simply for ease of reference. It has been proposed (see Reuland 1988 for an example) that certain be analyzed as a determiner, with a suppletive form a certain in singular nominals. This claim is made on the basis that certain does not co-occur with determiners in plural nominals.

\textsuperscript{17} Read this as “cannot have the interpretation …”.

the desired reading:

(16) die(f(three relatives of mine)) → inherit-a-house(I)
    If the plural individual consisting of three relatives of mine dies I will inherit
    a house. (Adapted from Winter 1997:419)

This is also the single available reading in parallel examples in Chinese, (17), and
Korean, (18):

(17) ruguo san-wei qinqi si-le wo de fangzi
    if three-CL relative die-LE, I get house
    ,'If three relatives (of mine) die, I will get a house.'

(18) manil sey-myeng-ui chinji-ka cwuk-umyen, na-nun cip-ul
    if three-CL-GEN relative-NOM die-COND, I-TOP house-ACC
    get-FUT
    ‘If three relatives (of mine) die, I will get a house.’
    Rejected in a context where I shall benefit from the death of any of 3 relatives.

Such data suggest that specific nominals are in fact quite distinct from quantifier
phrases, whose behavior can be explained by QR.

Can we then consider specific nominals on a par with referential expressions (e.g.,
proper nouns and definite descriptions)? There are some data that seem to suggest they
cannot. Besides the well-known widest “scope” interpretation illustrated in (19), specific
indefinites also exhibit intermediate “scope” interpretation, as illustrated in (20).

(19) a. Every professor rewarded every student who read a certain book I had
    recommended.20
    b. \( \forall x [\text{prof}(x) \rightarrow \forall y [\text{student}(y) \& \text{read}(y,f,(\text{bookIrecommended})) \rightarrow \text{reward}(x,y)]] \]
    c. \( \forall x [\text{prof}(x) \rightarrow [\forall y [\text{student}(y) \& \text{read}(y,f_{\text{sp}}(\text{bookIrecommended})) \rightarrow \text{reward}(x,y)]]] \]

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18 In Chinese, the ‘relatives’ are interpreted to be the speaker’s in the absence of an overt
    possessor.
19 Consultant’s comment: This is only plausible in a situation where all three relatives must die
    (e.g., I’m #4 on the inheritance list) before I inherit a house.
20 Abusch’s (1993/4) examples as adapted by Matthewson (2000).
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(20) a. Every professor rewarded every student who read a certain book s/he had recommended.
   b. $\forall x [\text{prof}(x) \rightarrow [\forall y [\text{student}(y) \& \text{read}(y, \text{recommended})] \rightarrow \text{reward}(x, y)]]$
   c. $\forall x [\text{prof}(x) \rightarrow [\forall y [\text{student}(y) \& \text{read}(y, \text{sp}(\text{book x recommended}))] \rightarrow \text{reward}(x, y)]]$

In (19), the intermediate “scope” reading is very marginal, unlike (20). According to Kratzer (1998), this has to do with the one difference between (19) and (20)—the absence/presence of a bound variable (the deictic mine vs. the bound pronoun his), and provides suggestive evidence for Kratzer 1998 or Matthewson 1999, which attribute the “scope” effects to the parameters introduced by variable binding.

Under these approaches, the apparent “scope” behavior of specific indefinites is to be captured by choice functions, instead of an operation such as quantifier raising or a hidden operator/quantifier which would be inserted at every site to generate the desired (as well as the undesired) interpretation. The “scope” of specific indefinites is thus pseudoscope. In this view, specific indefinites are quite similar to referring expressions in not entering into scope interactions, as claimed by Fodor and Sag (1982).

5. Proposal

Chinese specific indefinites behave as in English. For one thing, the intermediate “scope” readings, readily available in sentences with a bound pronoun (21a), are unavailable in the absence of an overt pronoun (21b):

(21) a. mei-ge yuyanxue xuezhe, dou yanjiu-le keneng jiejue ta,  
    every-CL linguistics scholar all research-LE possible solve he  
    suo guanxin-de yi-ge wenti-de suoyou-de fangfa.  
    SUO interest-DE one-CL problem-DE all-DE method.  
    zhi you liang-ge ren yanjiu-le yinyunxue-de wenti.  
    only exist two-CL person research-LE phonology-DE problem.
    ‘Every linguist, studied every method that can solve a problem that interested her/him, There are only two people who studied phonology problems.’

\[\text{von Fintel 1995 proposes the second sentence is proposed to diagnose the presence of intermediate “scope” interpretations.}\]
b. mei-ge yuyanxue xuezhe dou yanjiu-le keneng jiejue every-CL linguistics scholar all research-LE possible solve yi-ge wenti-de suyou-de fangfa. one-CL problem-DE all-DE method. (*zhi you liang-ge ren yanjiu-le yinyunxue-de wenti). only exist two-CL person research-LE phonology-DE problem ‘Every linguist studied every method that can solve a problem. There are only two people who studied phonology problems.’

So also in Korean, as illustrated below:

(22) a. motun enehakca-ka etten mwuncey-lul p’wul swu’it-nun motun Every linguist-NOM certain problem-ACC solve can-COMP every pang’an-ul yenkwuhaytta. (*ocik twu myeng-man-i umwunlon solution-ACC studied. only two people-only-NOM phonology mwuncey-lul yenklwhayssta). problem-ACC studied ‘Every linguist studied every solution that can solve a certain problem. There are only two people who studied phonology problems.’

b. motun enehakja-ka ku-eykey hungmi-itnun mwuncey-lul p’wul swu’it- Every linguist-NOM s/he-DAT interest-exist problem-ACC solve can-nun motun pang’an-ul yenkwuhaytta. ocik twu myeng-man-i COMP every solution-ACC studied. only two people-only-NOM umwunlon mwuncey-lul yenkwuhayssta. phonology problem-ACC studied ‘Every linguist; studied every solution that can solve a problem that interested her/him,. There are only two people who studied phonological problems.’

5.1 Specific nominals are DPs

Where do choice functions come from? Kratzer 1998 hypothesizes that they are introduced in English by certain determiners. In Chinese and Korean, the default case is the absence of overt determiners. Assuming that choice functions are introduced in the same way across languages, we need something to introduce the choice function in Chinese and Korean specific nominals; I propose that a null determiner, which projects a D (and hence DP), does that. Now, as mentioned above, choice functions pick out an

22 Consultant’s comment: “The sequence doesn’t make sense. There’s only one problem, and later you say two people studied something, while others studied others.”
individual from a set; the result of such an operation on the restriction provided by the
NP is thus of an individual type $<(s),e>$, the prototypical argument type.

Nonspecific nominals, on the other hand, have no use for choice functions, nor do
they exhibit any need for an extra projection, since they merely act as restrictions for
some operator (Heim 1982); they are therefore bare NPs in the true sense, of type
$<(s),<e,t>$. Alternatively, one may say that they are similar to predicate modifiers, in
the sense that they combine with the predicate to form a complex predicate, at the same
time saturating the argument structure of/detransitivizing the predicate, as proposed by
de Hoop (1989) for Dutch weak nominals and Dayal (1999) for Hindi bare NPs.

5.2 Only DPs move

5.2.1 Preliminaries: DPs vs. NPs

There are then several properties that set apart DPs from NPs. First, DPs are
projected from a D, whose role is to apply to the restriction set provided by the NP
denotation and anchor its referent in the discourse. Demonstratives and definite articles
are prime examples of this function of D. Indefinite articles in languages such as
English, are ambiguous between a version that can perform this D function (specific or
“referential” in Fodor and Sag’s 1982 terms) and another that cannot (nonspecific or
“quantificational” in Fodor and Sag’s terms). The former version of the indefinite
article thus projects a D, while the nonspecific indefinite one fails to. Still another class
of items that can fulfill the function of D is that of covert items such as the choice
function D proposed in the previous subsection.

Reflections on this function of D naturally leads to the second main distinction
between DPs and NPs: specific nominals/DPs “can establish a discourse referent
(Karttunen 1971) and thus be referred to later in the discourse by a coreferential pronoun
or definite expression, while the latter cannot.” (Lii 1975:47).

A similar claim has been made by Avrutin (2000), albeit along a different
dimension, that of definiteness. He identifies indices (e.g., the digits on the nominals in
the sample discourse (23)) as the formal expressions of D features. In his system, indices
are variables which may be either bound or “instantiated with a constant [referent] (the
file cards in the filing example (24)).” All nominals are supposed to carry indices; the
definiteness distinction lies in whether the variable index is instantiated by a new file
card (indefinite, as in (24a/b/c)) or an old one (definite, as in (24d/e)); see Heim (1982)
for further discussion of her File Change Semantics):
A sample of Heim’s (1982) File Change Semantics:

(23) Sample discourse:
   a. A woman\textsubscript{1} was bitten by a dog\textsubscript{2}.
   b. She\textsubscript{1} hit him\textsubscript{2} with a paddle\textsubscript{3}.

(24) Filing by addressee:
   “A woman was bitten by a dog.”
   a. new file card 1: “is a woman;” “was bitten by 2”
   b. new file card 2: “is a dog;” “bit 1”
   “She hit him with a paddle.”
   c. new file card 3: “is a paddle;” “was used by 1 to hit 2”
   d. old file card 1: “hit 2 with 3;” hence the use of the pronoun she in (23b)
   e. old file card 2: “was hit by 1 with 3;” hence the use of the pronoun him in (23b). (Adapted from Heim 1982)

There are similarities between Avrutin’s proposal and Karttunen’s claim about specific indefinites. One can think of a way of bringing them together by looking more closely at the distinction between definites and specific indefinites, the model in (23)/(24), and the instantiation of indices.

Lii 1975 argues that both specific indefinites and definites are both referential, in the sense that “reference to a specific individual is intended” (Lii 1975:46). What distinguishes the one from the other is that with specific indefinites, the referent is assumed to be known only to the speaker.

It is evident from the model in (23)/(24) that the filing is done from the point of view of the addressee. Suppose that filing is carried out not only in public discourse, but also by the speaker, or at least, that the addressee makes certain inferences about the speaker’s intention. Upon hearing out of the blue a sentence such as “A certain man called,” the addressee would take out a card, and write not only “1: “is a man;” “called,”” but would also assume that an identification is in the speaker’s mind, i.e., that a speaker’s file card corresponding to the addressee’s #1 would have long been updated.

Next, consider what the indices do. They are quite useless in the case of nonspecific indefinites, which have been introduced in the discourse (from this point on, understand it as discourse that is either public/explicit or private/implicit/inferred), which are there merely to predicate of the constants (as in (24a/b)). It is only when the constants are reintroduced into the discourse that indices instantiate those constants.
5.2.2 The constraint

It is the distinctive (interrelated) characteristics of DPs that define their ability to move. First, the index that is available to DPs helps identify/recover the relation between the moved DPs and their traces/copies in the event that movement has taken place. In the case of nonspecific nominals/NPs, this type of indexing is not available, and therefore, nothing is there to track the movement afterwards.

Second, DPs require Case, and Case is capable of driving movement, whether overt (as with the Chinese preverbal subject in (2b)) or covert (as with the Chinese postverbal subject in (2a), under the specific reading). NPs do not require Case, and therefore lack the reason to move at all.

Thirdly, an NP cannot suddenly change into a DP in order to move; a DP is projected only in the presence of either an overt determiner or a null choice function determiner, and therefore, should NPs change their syntactic types, they would inevitably have to change their interpretations and semantic types alongside.

Equipped with this new view of nominals, we can now tackle the question of the link between certain positions and specificity.

6. Supporting evidence

The present proposal is not unique in proposing a DP/NP distinction. Similar proposals have been made, with evidence from languages where this distinction is overt (presence vs. absence of overt determiner; Casielles 1997), as well as from different developmental stages of certain languages (Roeper and Pérez-Leroux 1996).

6.1 DPs vs. NPs

Roeper and de Villiers (1995) point out the distinct syntactic behaviors of DPs vs. NPs. For instance, nonspecific nominals (including superficial definites in idioms)/NPs allow extraction (25a), while specific nominals/DPs don’t (25):

(25) a. Q: Howi does John like [NP advice from home]?  
   A: With kindness.  

b. Q: Howi does John like ti [DP the advice from home]?  
   A: Very much. (Roeper 2000)

Similar effects are observed in Chinese:
It is a widely accepted assumption, following Huang 1982, that *-phrases undergo QR at LF in Chinese. The *-phrase shei in (26) has to be extracted out of the nominal phrase in both cases in order to be interpreted. Such extraction is possible (if not perfect) out of an NP (the explicitly nonspecific nominal xie … shu ‘CL … book’) in (26a), but is ungrammatical out of a DP (the explicitly specific nominal na-xie … shu ‘that-CL … book’) in (26b).

6.2 Referentiality

Let us look at some examples illustrating further the role of the “referential” indices proposed in §5.2. Not only do these indices identify chains created by movement, but they may also, in some cases, enable a connection to be established between a nominal and a pronoun used later, either at the sentence level (27) or at the discourse level (28).

(27) a. wo jiao-guo *(yi)-ge xuesheng hen congming
     I teach-PST one-Cl student very smart
     ‘I once taught a student who was very smart.’

b. ta xie-guo *(yi)-ben shu hen you-yisi
   he write-PST one-Cl book very have-interest
   ‘He once wrote a book which was very interesting.’ (Huang 1987)

Only specific nominals can occur in these constructions, as illustrated by the ungrammaticality of the obligatorily nonspecific CL+N in the examples above. Huang 1987 proposes to analyze these structures, where two different predicates predicate of a single nominal, by positing a null pronoun. Under the current proposal, then, the restriction on the nominals is easily derived: only specific/referential nominals are allowed in these positions, since nonspecific nominals lack the index that would bind the null pronoun.

Similar effects are observed at the discourse level, as shown below:
(28) a. wo ba yi-zhi gangbi nong-huai-le. na-zhi gangbi shi wo
     I BA one-CL pen make-broken-LE that-CL pen be I
dad give me DE
     ‘I broke a pen. That pen was given to me by my father.’
b. wo xiang jie yi-zhi bi. (*wo xianzai yao yong na-zhi bi).
     I want borrow one-CL pen I now want use that-CL pen
     ‘I’d like to borrow a pen. I want to use that pen now.’
     (Adapted from Lii 1975:47)

The nonspecific nominal fails to establish a discourse referent, which explains the
oddity of the sequence in (28b).

6.3 DPs vs. NPs in acquisition

Pérez-Leroux and Roeper (1996) discuss the difference in the interpretation of
English bare nominals (29a) vs. nominals with an overt determiner (29b/c):

(29) a. Everybody went home.
     b. Everybody went to a home.
     c. Everybody went to his/ her home. (Pérez-Leroux & Roeper 1996)

The claim is that nominals/NPs do not delimit a binding domain; therefore, only
the distributive reading in (29) is possible (i.e., for everyone x, x went to x’s home).
Nominals with overt determiners, on the other hand, are ambiguous between a
referential reading (giving rise to a non-distributive reading: ‘there is a single house that
everybody went to’) and a non-referential reading equivalent to the one seen in (29a).

In the experiment described by Pérez-Leroux and Roeper, children were shown to
give “significantly more bound variable responses [distributive] to bare nominals than
to overt possessors” in the case of a one-clause example where locality conditions on
binding would apply. Such distinct responses can be readily accommodated in a
proposal positing syntactic/semantic dichotomy in nominal types.

7. Alternative approaches

Let us now clean the slate and see if we can devise an alternative way of explaining
the facts—that the positions where the specific reading is forced are landing sites of
movements and that specificity is closely tied to a nominal’s position within a sentence
or morphological properties (such as Case-marking). A number of possibilities are considered below.

**7.1 The interpretation of nominals (Chierchia 1998)**

Chierchia (1998) proposes the following three type-shifting mechanisms for the interpretation of predicate-type bare NPs across languages:

(30) If P is a predicate, it may be reinterpreted as:
   a. For any property P and world/situation s,
      \( \cap P = \lambda s \hat{\iota} Ps \), if \( \lambda s \hat{\iota} Ps \) is in K, where K is the set of kinds; undefined otherwise;
   b. \( \hat{\iota} P \) = the largest member of P if there is one (undefined otherwise);
   c. \( \lambda Q \exists x P(x) & Q(x) \) (Adapted from Chierchia 1998)\(^{23}\)

The application of these type-shifts is restricted by the following blocking principle:

(31) **Blocking Principle (‘Type Shifting as Last Resort’)**
    For any type shifting operation \( \tau \) and any X:
    \* \( \tau(X) \)
    if there is a determiner D such that for any set X in its domain, D(X) = \( \tau(X) \)
    (Chierchia 1998:360)

The role of this principle is evident in languages such as English, where the presence of overt determiners preëmpts every possibility for bare NPs from receiving either of the type-shifting operations in (30b) and (30c).

It is not so obvious how choice functions, which we have decided to adopt as the interpretation mechanism for specific nominals, fit in this system, at least in a way that would explain the asymmetry that nominals exhibit both in terms of distribution and interpretation. If choice functions are understood as functions picking out members from sets (denoted by predicates), then the normal expectation is that NPs are all eligible, whereas DPs, which are either of types e or <<e,\( e \),t>, are not, in the absence of any extra type-shifting intervention. And given that choice functions yield the desirable

\(^{23}\) To paraphrase (30a) and (30c):
   (30a)’ For any property P and world/situation s, “down” P is “the largest member of the extension of a property (at any given world)” (Chierchia 1998:351)
   (30c)’ “Derived Kind Predication”: “whenever an object-level argument slot in a predicate is filled by a kind (in an episodic frame), the type of the predicate is automatically adjusted by introducing a (local) existential quantification over instances of the kind.” (Chierchia 1998:362).
argument type, what would block their applications in favor of other type-shifting mechanisms?

As proposed above, a possible way out is to assume that choice functions are introduced by a D, and that choice functions project a D syntactically. Nonspecific indefinites are not interpreted using choice functions, and therefore do not project the extra projection D, which may be understood in terms of economy: don’t project something unless you have a good reason to. Assuming further that DPs have case, which NPs lack, it will be only DPs that can move. Alternately, one may also take the “referential” approach and claim as above, that only “referentials” can bind their traces.

7.2 The distribution of nominals

7.2.1 “Interpretation Drives Movement” (Diesing 1997, Tsai 1998)

Diesing 1997 makes the following proposal to account for scrambling in Yiddish. Yiddish exhibits an asymmetry between specific nominals and nonspecific nominals very similar to that in Korean, in allowing only the former to appear in preverbal, scrambled, positions:

(32) a. Maks hot geleyent a bukh.
   ‘Max has read a book.’

b. *Maks hot a bukh mistome/nekhtn/keyn mol nit geleyent.
   ‘Max has a book probably/yesterday/never read.’

c. Maks hot dos bukh mistome/nekhtn/keyn mol nit geleyent.
   Max has the book probably/yesterday/never read
   ‘Max has probably/yesterday/never read the book.’ (Diesing 1997:389-90)

Diesing’s account is based on two premises: (i) her Mapping Hypothesis (Diesing 1992), which maps VP into the nuclear scope (the domain of existential closure) and the rest of IP into the restriction of a tripartite quantificational structure, and (ii) the claim that nominals can be of different semantic types—referential type $e$, predicational type $<e,t>$, and quantificational type $<et,t>$, which in turn can make the nominal sensitive to the following two conditions on syntactic representations, the exact level of which varies from language to language.

Quantificational nominals raise syntactically—either overtly (“scrambling”) or covertly (no “scrambling”), leaving a trace (type $e$) and thereby avoiding a type mismatch that would otherwise occur between the nominal and the transitive verb. Heim’s 1982 Novelty Condition further ensures a resistance against postverbal (non-“scrambled”)

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24 “Variables bound by existential closure must be new to the discourse.”
specific nominals (of types $e$ or $<et,t>$), given that the variables they introduce would be under the scope of the default existential quantifier. Number (32b) above, where the indefinite object is outside the VP (and hence outside the scope of the default existential closure), is ruled out, unless an appropriate context is supplied, in which case the indefinite object receives a non-existentia l, specific interpretation.

All the positions under consideration are VP-external, in both Chinese and Korean, and therefore, the interpretation and distribution of nominals in those two languages can be explained using Diesing’s (1997) approach. Note, however, that under the Mapping Hypothesis, movement is a necessary condition on specific nominals, whereas the facts point to movement as merely a sufficient indication of specificity: recall the fact that postverbal nominals can be interpreted either as specific or nonspecific, and unless we assume that the mapping hypothesis applies at LF in the Chinese and Korean, we cannot explain why specific nominals are nevertheless allowed in the scope of the default existential quantifier in overt syntax.

An account of specificity using choice functions, on the other hand, has merely to say that choice functions can appear as the denotation of the null determiner, regardless of the sentential position of the nominal. The interpretation of specific nominals, which remains to be characterized in Diesing’s system, is already taken care of by choice functions.

Furthermore, Diesing’s approach lacks an account for the connection between case morphology and specificity, which, under my proposal, stems from the distinction between case-requiring argument types and caseless modifier types.

7.2.2 “Distribution and Interpretation Reflect Information Structure”

One can address the distributional and interpretational asymmetries and their connection from the viewpoint of information structure. More specifically, a proponent of such an analysis would start out by claiming that the positions in question are ones that are designated for elements that have a special status in the discourse, such as topics or foci.

Under such an approach, the asymmetry in interpretation would be attributed to the relation in which these elements stand with regard to the context (cf. Enç 1991), while the asymmetry in distribution would be a reflection of how sentences structure discourse elements.

There are, however, several arguments and facts suggesting that we need to consider the preverbal or “scrambled” positions separately from positions with discourse-
specific functions. First, topic positions\textsuperscript{25} in Chinese (33) have restrictions distinct from those on either preverbal subjects (34) or post-\textit{ba} objects (35) in that they can only host definite nominals:

(33) a. *mou xuesheng wo jian-guo
certain/particular student I see-PAST
‘A certain/particular student, I saw.’
b. *wo mou xuesheng bu jian-le
I certain student not see-LE
‘A certain student, I don’t see any more.’

(34) mou xuesheng jian-guo ni
certain student see-PAST you
‘A certain student saw you.’

(35) wo ba mou xuesheng da-si-le
I BA certain student beat-die-LE
‘I beat a certain student to death.’

Second, whereas topic positions show properties of A-bar movement, properties of A-movement are clearly present in post-\textit{ba} positions, in that a lower argument (e.g., the embedded object \textit{neiben shu} below) cannot move to the post-\textit{ba} position across a higher argument (e.g., below, the embedded subject \textit{Zhangsan}):

(36) a. nei-ge nühai ku de Zhangsan nian-bu-xia nei-ben shu
that-CL girl cry so-that Zhangsan read-NEG-continue that-CL book
b. neige nühai ba Zhangsan ku-de nian-bu-xia nei-ben shu
BA

c. *neige nühai ba nei-ben shu ku de Zhangsan nian-bu-xia
(Goodall 1987:234)

Third, the restriction on the subject position in Chinese remains intact under embedding, as shown in the examples below. While root subject positions may be argued to coincide frequently with discourse-prominent positions in SV languages, the distinction is clearly drawn in the case of embedded subjects, regardless of the type of embedding verb:\textsuperscript{26}

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\textsuperscript{25} Topic positions in Chinese can be either sentence-initial as in (33a) or after the subject as in (33b); one diagnostic is whether one can insert one of the four “pause particles” after the element in question; cf. Tsao (1987) for further details.

\textsuperscript{26} Thanks to Barbara Partee for alerting me to the potential hazard in Tsai’s (1998) examples:
Both sentences in (37) are good only when the embedded subject nominals liugeren ‘six people’ or yigeren ‘one person’ are interpreted as specific indefinites. The definite reading option is not available in these cases, in accordance with the well-known claim (see Cheng and Sybesma 1999 for a detailed discussion) that Num+CL+N sequences cannot be definite.

That the positions under consideration in Chinese and Korean are indeed distinct from discourse-prominent positions is also confirmed by their discrete syntactic characteristics. Relativized minimality effects ((38)-(39) below) or weak crossover effects ((40)-(41) below), which are characteristic of topicalized constructions, are absent from our “VP external positions”: while the sentences in (38), where an element has been topicalized (A’-moved) over an element in A’-position (the underlined elements in the examples below) are bad, the sentences in (39), where an element has been scrambled over a the same A’-elements, are good, signaling the absence of relativized minimality effects in scrambled constructions:

(38)  
a.  ?*John₁, you wonder whether Mary kissed t₁.
b.  ?*To John₂, that book₁₁, (Bill said that) Mary handed t₁ t₂.

(39)  

[Adapted from Bošković & Takahashi (1998:359), with added underscores and Korean translations of the original Japanese examples by author]

“Using think that to test for root/non-root is slightly dangerous; sometimes propositional attitude verbs become close to quotational contexts in allowing almost root-like complements.” [B.H. Partee, p.c.]
Similarly, scrambled constructions do not exhibit weak crossover effects (40), which are attested with topicalized structures (41):

(40) a. nwukwuᵊ-lul kuᵊ-uy sensayng-i tᵊ tayryess-ni?
   who-ACC he-GEN teacher-NOM hit-Q
   ‘Who, did his teacher hit tᵊ?’

   b. nwukwuᵊ-lul kuᵊ-uy apeci-ka [sensayng-i tᵊ tayryessta-ko] sayngkakha-ni?
   who-ACC he-GEN father-NOM [teacher-NOM hit-COMP] think-Q
   ‘Who, does his father think that the teacher hit tᵊ?’

(41) a. nwu(kwu)ᵊ-ka kuᵊ-uy apeci-lul silheha-ni?
   who-NOM he-GEN father-ACC dislike-Q
   ‘Who, dislikes his father?’

   b. *kuᵊ-uy apeci-nun nwukwuᵊ-lul silheha-ni?
   he-GEN father-TOP who-ACC dislike-Q
   ‘His, father, dislikes whoᵊ?’  (Adapted from Cho 1994:14)

Reinhart’s (1995) proposal for Dutch scrambling (see §7.2.2) is a variant of the approach argued against in this section: following Cinque 1993, she suggests that phonological factors, such as focus stress, might be what drives D-linked specific nominals out of the scope of the new focus. Specific nominals would therefore be judged as marked (i.e., in violation of economy in derivation) if they stay in situ in a language where surface word order is flexible (i.e., overt movement is an option to free the nominal from the new focus scope).

There are quite a few merits to Reinhart’s approach: (i) the relation between stress and possibility of scrambling, also observed by Diesing (1997) but left unexplained, is readily explained, (ii) the distributional/interpretive asymmetry can be explained without recourse to a dichotomy in nominal types, such as the one advocated in the current proposal.

Recall from §3.3 that we are also assuming a feature [+Focus] to drive scrambling. The question is then whether the sortal dichotomy is still necessary; should we not rather adopt a proposal such as Reinhart’s (1995)? My answer is no. While [+Focus] as a movement-driving feature unquestionably calls for further elucidation, it is by no means sufficient to account for the consequences of referentiality discussed in §6.2: what would be Reinhart’s story for the barrierhood, Case marking and the like, which all follow from the assumption that specific nominals are referential?).
7.2.3 “Distribution is the Result of Constraint on Empty Categories”  
(Longobardi 1994)

Article-less nominals in languages with overt articles may exhibit a restricted distribution and interpretation very similar to the cases we observed in Chinese and Korean, as illustrated in the following examples:

(42)  a. *Acqua viene giù dalle colline.
      water comes down from-the hills  
      b. Viene giù acqua dalle colline.
      comes down water from-the hills 
      c. Ho preso acqua dalla sorgente.
      I took water from-the spring.  (Longobardi 1994:616)

Longobardi 1994 analyzes such nominals as DPs with a null D, thereby deriving both the interpretation and distribution asymmetries: nominals with null D receive the default existential interpretation, and can appear only in positions that are lexically governed so as to license the null D. To account for the interpretation and distribution of proper names, which pattern with full DPs (DPs with an overt D), he posits N-to-D movement, thus ridding proper name DPs of the constraint on null categories.

This proposal successfully accounts for the facts under consideration, and its empirical predictions are very hard to distinguish from those made by the current proposal, although the basic ideas are quite distinct. In Longobardi’s (1994) system, the asymmetries in interpretation and distribution are attributed to the overtness/covertness of the D, with covert D being subject to the Empty Category Principle. In the present account, on the other hand, the asymmetries in interpretation arise from an economy limitation on projections (§5.1) on the one hand, while the ones in distribution are attributed to a constraint on movement (i.e., what can move and what can’t; §5.2).

Under my proposal, a DP is projected regardless of the presence of an overt determiner/article, provided that the specific interpretation is available. One possible objection, then, might be that empty categories are overgenerated, thereby raising the question of whether the ECP can still be maintained. One possible way to address that problem is to posit a movement within those DPs equivalent to Longobardi’s (1994) N-to-D movement. This was the very device he used to circumvent the ECP in a system which is no less generous in positing null determiners.

Furthermore, Longobardi 1994 has to tackle the task of explaining the correlation between case-marking and interpretation/distribution, as well as the syntactic/semantic barrierhood of DPs (§6.1). He also has to grapple with evidence from language
acquisition (Pérez-Leroux & Roeper 1996; see §6.3), which suggests a distinction in the acquisition of DPs and NPs.

8. Concluding remarks

Starting with the observation that nominals in certain positions obligatorily receive specific interpretation in Chinese, I have derived this correlation based on two assumptions: (i) all of the positions in question are landing sites of movement, (ii) nominals come in two types—DPs and NPs. The correlation between position and specificity then follows from the fact that NPs lack the make-up (referential indices) that allows movement.

The current proposal posits distinct structures for strings that are indistinguishable on the surface, and as such gives rise to a sizable amount of abstractness. Such dichotomy in the internal structure of nominals, albeit not attested in overt form in Chinese, accounts successfully for the external structure—the syntactic distribution of nominals—and the interpretation of nominals in those positions, as well as the distinct syntactic and semantic behaviors of the respective nominal types exemplified in the previous section. The data remain a puzzle to competing proposals under which nominals are of one type regardless of their interpretation (Chierchia 1998, Diesing 1997, Reinhart 1995, Longobardi 1994).

I have further proposed a possible identity for the phonetically null D—a choice function operator, keeping the current proposal in line with the principle of economy that nothing would be projected in the absence of either such a function or an overt lexical item.
References


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本文探討漢語與韓語的名詞結構，根據名詞的分布、語意詮釋等區別，論證這兩個語言中名詞的內部結構應有「定語詞組」(DP) 與「名詞組」(NP)的分別。除了分布與語意的區分，相對於定語詞組而言，名詞組裡的成份移出較為自由。此分析也與 Pérez-Leroux & Roeper (1996) 根據語言習得的證據為其他語言提出的分析一致。

關鍵詞：漢語，韓語，定語詞組，名詞組，攪拌規律，把字句，殊指性，類型