

Definite marking in bare argument languages

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Bare argument languages — languages in which bare nominals serve freely as arguments — lack overt definite determiners, but have other ways of encoding definiteness. Many languages including Mandarin simply allow bare nominals to have definite interpretations, while other languages develop alternative strategies of marking definiteness: Bangla uses an NP-preposed number construction (Dayal 2012), while Cantonese uses a bare classifier construction (Cheng & Sybesma 1999, a.o.). Bangla and Cantonese do not allow definite interpretations of their bare nominals, which motivates an economy principle to govern the distribution. For example, a possible economy principle could be that overt operations block covert operations that result in the same meaning: this was used to explain why Hindi, which lacks definite determiners, allows definite bare nominals, while English does not (cf. Chierchia 1998b).

However, the picture is complicated by Nuosu Yi, a Chinese dialect which has a definite determiner *su* but also allows definite bare nominals (Jiang 2012). To account for this, Jiang proposes an alternative economy principle: lexical elements like *su* do not enter the competition unless the semantic types are identical. There is, however, competition between dedicated syntactic structures and covert operations. The definite reading of a kind-denoting bare nominal in classifier languages is assumed to be an extension of the kind at the evaluation index (EI; $\langle e_k, e \rangle$ Dayal 2011b), so in Yi, the lexical determiner *su* (type $\langle et, e \rangle$) does not block EI because of type mismatch. EI is blocked, however, by dedicated syntactic structures such as the NP movement in Bangla (Dayal 2012) and the ClP movement in Cantonese (Cheng et al. 2017) that result in the same definite meaning.

I present a set of new data from Korean that is not predicted by Jiang’s analysis. Specifically, I show that Korean has a syntactic definite marking strategy which is visible in classifier-less number constructions. Although Jiang would predict this to block EI, Korean allows bare nominals in anaphoric definite uses as in (1).

- (1) *yeca-wa namca-ka wassta. yeca-nun kincanghan tus poyessta.*
 woman-CONJ man-NOM came. woman-TOP nervous seemed
 ‘A woman and a man came. The woman seemed nervous’ [Anaphoric]

The structure for NumP is shown below: Head-initialness in the nominal domain and NP movement for linear order are assumed (cf. Choi 2005). Korean is a generalized classifier language where classifiers are required for numerals to combine with nominals.

- (2) *yeca sey-myeng*
 woman 3-CL
 ‘three women’
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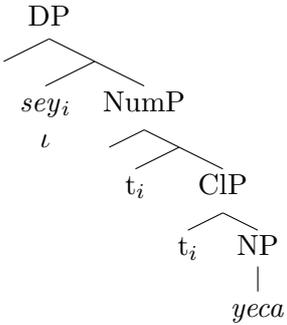
graph TD
 NumP --> NP_i[NPi]
 NumP --> CIP[CIP]
 NP_i --> yeca[yeca]
 CIP --> Num[Num]
 CIP --> Cl[Cl]
 Num --> sey[sey]
 Cl --> myeng[myeng]
 Cl --> ti[ti]

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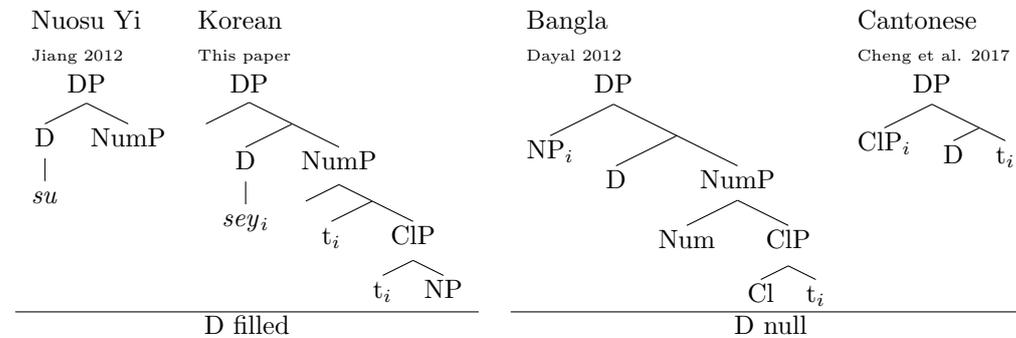
Korean sometimes allows a numeral to combine with a nominal without a classifier as in (3). In what I call the CL-less number construction (NC), the numeral appears pre-nominally without a classifier. The new observations are that a) this construction only allows definite interpretations as shown by the maximality requirement in (3a), and that b) it is restricted to simplex numerals up to *nine*, with complex numerals sounding odd as in (3b).

- (3) *sey yeca*  
 three woman  
 ‘the three women’ [CL-less NC]
- a. *haksayng sey myeng-i wassta. #twu haksayng-un ancassta.*  
 student 3 cl-NOM came 2 student-TOP sat  
 ‘Three students came. #The two students sat down.’ [maximality]
- b. *?yel.sey yeca*  
 ten.three woman  
 ‘the thirteen women’ [?complex numbers]

I propose the following analysis to account for the observations above: while complex numerals require a NumP to receive the correct additive and multiplicative interpretations (Ionin & Matushansky 2006), simplex numerals can appear as simple Num heads. In CL-less NC, the classifier is null. In order to have a definite interpretation, D must either be filled (cf. Simpson et al. 2005), or licensed by noun preposing to spec-DP. To avoid violation of Head Movement Constraint, the null Cl head moves to the Num head first, then the Cl-Num together moves to the D head. With a filled D head, NP preposition is not required, resulting in the Num-Nominal order. It is assumed that head movement leaves behind a trace which are meaningful copies that result in the semantics in (5).

- (4) 
- (5)  $[[\text{CL}]] = \lambda k \lambda x [\text{AT}^{\cup k}(x)]$   
 $[[\text{NumP}]] = [[3 \text{ CL NP}]] =$   
 $= \lambda x [\text{AT}^{\cup \cap} \text{woman}(x) \wedge 3(x)]$   
 $[[\text{DP}]] = \iota x [\text{AT}^{\cup \cap} \text{woman}(x) \wedge 3(x)]$
- $\cup = \lambda k \langle s, e \rangle \lambda x [x \leq k_s]$   $\langle s, e \rangle \rightarrow \langle e, t \rangle$   
 $\cap = \lambda P \langle e, t \rangle \lambda s \iota P_s$   $\langle e, t \rangle \rightarrow \langle s, e \rangle$   
 $\text{AT}^{\cup k}$ : returns a set of atomic entities in  $\cup k$   
 (cf. Chierchia 1998b, Dayal 2012)

Thus, Jiang’s blocking principle must be modified to accommodate Korean data: under Jiang’s definition, CL-less NC is a syntactic operation that is predicted to block definite bare nominals. I propose that the blocking principle be slightly modified to account for the presence of both CL-less NC and definite bare nominals in Korean: the ‘lexical operations’ that do not enter competition unless types are identical must be recast as operations that *involve a lexically filled D*. Definite marking in Korean involves a head movement that results in a lexically filled D. This D position then does not compete with IE because there is a type mismatch: the  $\iota$  in D is  $\langle e, t, e \rangle$  while IE is  $\langle e_k, e \rangle$ . This modified blocking principle correctly predicts the presence of definite bare nominals in Yi and Korean, and the absence of definite bare nominals in Bangla and Cantonese. The relevant structures are summarized below:

- (6) 
- D filled D null

Cheng, Heycock & Zamparelli 2017. Two levels for definiteness. GLOW in Asia 2017. Cheng & Sybesma 1999. Bare and not-so-bare nouns and the structure of NP. *LI* 30. Chierchia 1998b. Reference to kinds across language. *Natural Language Semantics* 6. Choi 2005. The internal structure of Korean DP. *Oxford Univ. Working Papers*. Dayal 2011b. Bare noun phrases. *Semantics: An International Handbook of Natural Language Meaning*. Dayal 2012. Bangla classifiers: Mediating between kinds and objects. *Italian Journal of Linguistics*. Jiang 2012. Nominal arguments and language variation. PhD Thesis, Harvard Univ. Ionin & Matushansky 2006. The composition of complex cardinals. *Journal of Semantics*. Simpson 2005. Classifiers and DP structure in Southeast Asia. *The Oxford Handbook of Comparative Syntax*.