

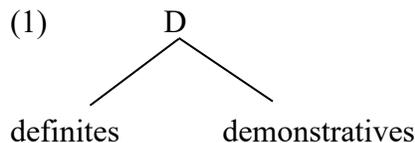
# Marking definiteness in articleless language: The role of the domain restrictor KU in Korean

The main purpose of this paper is to identify the novel type of Korean definiteness marker. Especially I show that Korean KU, which originated from the morphological demonstrative ‘that’, instantiates a solid pattern of distribution of definiteness marker. Mainly focusing on the semantico-pragmatic role of KU, the proposal comprises three main parts: (i) Given that Korean employs distinct devices teased apart into uniqueness (i.e., referential use) and familiarity (i.e., anaphoric use) in its definiteness system, I show that the effect of referential use in argument saturating function is achieved by the covert D in bare nouns, whereas anaphoric use in argument non-saturating function is achieved by the overt KU; (ii) The semantic contribution of KU is analyzed as a domain restrictor ( $D_{DR}$ ; Etxeberria and Giannakidou 2010) which supplies an indexical property as an argument (Schwarz 2009, 2012; Jenks 2018); (iii) I further show that the  $D_{DR}$  operator is present in the syntax, falling out from the standard D position as an adjunctive modifier in a lower DP layer. The contribution of my work is that the proposed account allows us to widen our view of cross-linguistic variation to cases where the prerequisite of definiteness is based on the dissociation of meaning (i.e. the semantic role of D as encoding familiarity) and form (i.e. the syntactic role of D as an argument-building function).

**Keywords:** Korean KU, definiteness, demonstratives, domain restriction, DP structure

## 1. Introduction

The aim of the current paper is to provide a theoretical understanding of the phenomena of definiteness in Korean. In particular, I address the following questions: (i) what elements qualify as a definiteness marker in Korean? (ii) what type of definiteness is possible? (iii) what is the function of a Korean definiteness marker from a formal semantic as well as a typological perspective? These questions will be crucial guidelines in this paper, and the answers obtained will in turn be important contributions to a theory of definiteness in natural language. Traditionally, the morphological realization of determiner (D, henceforth) occurs in the two morphosyntactic paradigms, namely definite articles and demonstratives (Abney 1987; Longobardi 1994):



A variety of Indo-European languages make a morpho-syntactic distinction between definite articles and demonstratives. Regarding the instantiation of definite determiners, a definite article *the* in English is brought up as the prototypical morphosyntactic instantiation that has received the most attention in the literature:

(2) **The** king of France is bald.

The felicitous use of the definite article *the* requires that the referent of *king of France* be either

*familiar* (i.e. anaphoric) within the discourse (Christophersen 1939; Prince 1981b, 1992; Heim 1982, a.o.), or *uniquely identifiable* to the hearer (Russell 1905; Hawkins 1978; Löbner 1985; Kadmon 1987, 1990; Gundel 1988; Heim 1990; Lyons 1999, a.o.).

In recent work, definiteness induced by demonstratives has received much attention and there have been a lot of attempts to capture a unified semantics for definites and demonstratives (Hawkins 1991; King 2001; Roberts 2002; Elbourne 2005, 2008; Wolter 2006; Ionin et al. 2011, 2012, a.o.). As shown below, the demonstrative *that* in English can be used interchangeably with *the* to encode familiarity and uniqueness/maximality. In (3), NPs marked by *the* and *that* denote a familiar referent to the interlocutors. In (4), NPs marked by *the* and *that* both denote a unique/maximal referent(s). In (4a), *that dog* refers back to the unique dog in the discourse; in (4b), the use of *that dog* is infelicitous since uniqueness has not been established; and in (4c), with a plural, *those dogs* must refer to the totality of dogs.

(3) Familiarity uses

- a. Anaphoric: The curtain rose. A woman came onto the stage. Then **that/the** woman started singing and dancing. (Ionin et al. 2012: (8a))
- b. Co-varying anaphoric: Every dog in my neighborhood, even meanest, has an owner who thinks that **that/the** dog is a sweetie. (Roberts 2002: (11))
- c. Bridging: Gentian jerked the plug out of the drain and climbed out of the tube. The cat leapt into the sink and began biting at **that/the** plug. (Wolter 2006: (117))

(4) Uniqueness/maximality uses

- a. The pet shop had a dog for sale. I bought **that/the** dog.
- b. The pet shop had three dogs for sale. #I bought **that/the** dog.
- c. The pet shop had five dogs for sale. I bought **those/the** dogs. [=all five dogs] (Ionin et al. 2012: (7))

Other than the English *the*, which encodes both uniqueness and familiarity, there are various cross-linguistic devices that exhibit typologically distinct behaviors for definiteness. On the one hand, as pioneered by Schwarz (2009, 2013), uniqueness and familiarity can be overtly contrasted with the morphologically distinguished forms of definite articles in languages such as German, Lakhota, and Hausa. The following example shows the separate form of weak (i.e. unique) and strong (i.e. familiar) definite articles in German (Schwarz 2009: (41)):

- (5) a. In der Kabinettsitzung heute wird ein neuer Vorschlag  
 In the cabinet meeting today is a new proposal  
**vom / #von dem** Kanzler erwartet. [German]  
 by-the<sub>weak</sub>/ by the<sub>strong</sub> chancellor expected  
 ‘In today’s cabinet meeting, a new proposal by the chancellor is expected.’
- b. In der Kabinettsitzung heute wird ein neuer Vorschlag  
 In the cabinet meeting today is a new proposal  
**#vom / von dem** Minister erwartet. [German]  
 by-the<sub>weak</sub>/ by the<sub>strong</sub> minister expected  
 ‘In today’s cabinet meeting, a new proposal by the minister is expected.’

On the other hand, in some languages, only anaphoric determiners are exclusively marked. These

include East Asian languages like Japanese (Kaneko 2012, 2014; Oshima and McCready 2017) and Mandarin (Jenks 2018), in which the weak definites are realized with bare nouns whereas the strong definites with demonstratives. The following examples reveal cases where demonstratives in these languages allow a co-variable anaphoric reading:

- (6) Do-no zidoosya-gaisya-mo      **so-no**      zidoosya-gaisya-no      ko-gaisya-o  
 which automobile-company-∀      **SO-NO**      automobile-company-GEN      subsidiary-ACC  
 suisensita      [Japanese; Kaneko 2014: (3a)]  
 recommended  
 ‘Every automobile-company recommended one, some or all of **that** automobile-company’s subsidiaries.’
- (7) mei ge [you yi zhi shuiniu de] nongfu      dou      hui      da  
 every CLF have one CLF buffalo Rel farmer      all      will      hit  
**na zhi** shuiniu.      [Chinese; Jenks 2018: (3b)]  
 that CLF buffalo  
 ‘Every farmer that has a buffalo      hits **that** buffalo.’

In this paper, just like Japanese and Mandarin, I will show that Korean is a language that overtly marks anaphoricity by means of demonstrative in its definiteness system.

As for the morphological realization of the demonstratives in the morphosyntactic paradigm, Korean employs three types of demonstratives as *i* ‘this,’ *ce* ‘that (over there),’ and *ku* ‘that.’ The proximity of the entity between the interlocutors plays a role in determining what demonstrative should be used. As shown below, in a situation where John is in the furniture store where the chairs are visually present, if John (i.e., an addresser) points to a chair near him, the demonstrative *i* should be used (8a). If John wants to refer to a chair near the clerk (i.e., an addressee), *ku* should be used (8b). Likewise, *ce* should be used to refer to the chair that is far from both (8c):

(8) *Context: John is talking to the clerk at the furniture store. Pointing at a certain chair,*

*John says:*

- a. **i**      uyca-ka      maum-ey      tul-eyo.      [Korean]  
 this      chair-Nom      mind-Loc      have-Pol  
 ‘(I) like **this** chair (near the clerk).’
- b. **ku**      uyca-ka      maum-ey      tul-eyo.  
 that      chair-Nom      mind-Loc      have-Pol  
 ‘(I) like **that** chair (near John).’
- c. **ce**      uyca-ka      maum-ey      tul-eyo.  
 that      chair-Nom      mind-Loc      have-Pol  
 ‘(I) like **that** chair (far from both the clerk and John).’

Among the three demonstratives, only *ku* encodes definiteness in an anaphoric context (C. Lee 1989, 1992; Kang 1994; Sohn 1994, 2001; Kang 2012, 2015, Ahn 2017; Cho 2017, a.o.). As shown below, in the context where the chairs are not visually present, the bare noun *uyca* ‘chair’ combined with *ku* obligatorily gives rise to an anaphoric interpretation:

(9) Context: After deciding to buy the most expensive chair in the store, John calls to his wife and says:

|                       |           |               |           |          |           |
|-----------------------|-----------|---------------|-----------|----------|-----------|
| yekise                | ceyil     | pissan        | uyca-ka   | maum-ey  | tul-e.    |
| here                  | most      | expensive     | chair-Nom | mind-Loc | have-Decl |
| * <b>(ku)</b> /*i/*ce | uyca-lul  | sa-lke-ya.    |           |          | [Korean]  |
| KU/this/that          | chair-Acc | buy-will-Decl |           |          |           |

‘I like the most expensive chair here. I will buy **the/that** chair.’

The anaphoric force of KU is further evidenced by a bound reading (i.e., donkey sentence). In (10b), *ku* should be used for the felicitous interpretation, whereas the use of a bare noun in (10a) is not allowed:

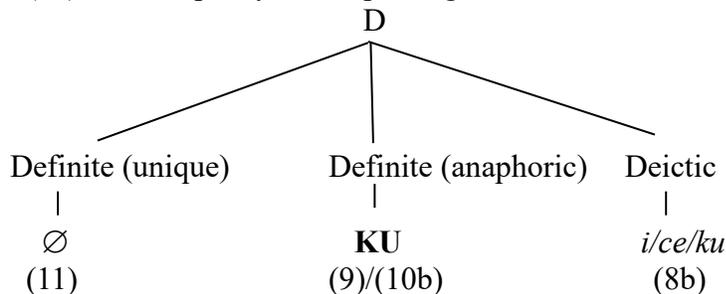
|         |   |          |       |             |           |               |               |
|---------|---|----------|-------|-------------|-----------|---------------|---------------|
| (10) a. | so-lul  | kaci-n   | motun | nongpwu-nun | so-lul    | ttayli-n-ta.  | [Korean]      |
|         | cow-Acc   | have-Rel | every | farmer-Top  | cow-Acc   | hit-Pres-Decl |               |
|         | ‘Every farmer that has a cow hits a cow (in general).’  |          |       |             |           |               |               |
| b.      | so-lul  | kaci-n   | motun | nongpwu-nun | <b>ku</b> | so-lul        | ttayli-n-ta.  |
|         | cow-Acc   | have-Rel | every | farmer-Top  | KU        | cow-Acc       | hit-Pres-Decl |
|         | ‘Every farmer that has a cow hits <b>the/that</b> cow.’ |          |       |             |           |               |               |

The occurrence of *ku* and bare nouns appears to exhibit complementary distribution in most cases in the sense that the occurrence of KU is licensed by anaphoricity and the bare noun by uniqueness:

|      |                                   |              |          |        |               |          |
|------|-----------------------------------|--------------|----------|--------|---------------|----------|
| (11) | onul                              | <b>(*ku)</b> | tal-i    | ilccik | ttu-ess-ta.   | [Korean] |
|      | today                             | KU           | moon-Nom | early  | rise-Pst-Decl |          |
|      | ‘The moon has risen early today.’ |              |          |        |               |          |

Given the above empirical data, I suggest the morphosyntactic paradigms of D in Korean as below. Korean employs two linguistic devices marking definiteness as bare nouns (i.e., covert D operator) and the overt *ku*. *Ku* has a further split use of the regular deictic demonstrative and “definite” determiner. For the sake of making a clear distinction between the deictic *ku* and definite *ku*, from now on, I will gloss the definite *ku* as KU:

(12) The morphosyntactic paradigms of D in Korean



An attempt to consider KU as the semantic equivalent of a definiteness marker is not new and

has been reflected descriptively in recent literature, where it is termed as ‘definite determiner’ (C. Lee 1989, 1992; Kang 1994), ‘definite demonstrative’ (Sohn 2001), ‘contextual domain restrictor’ (Kang 2012, 2015) and ‘anaphoric demonstrative’ (Ahn 2017; Cho 2017). Although it has been noted that the interpretation of KU involves a definiteness marker in the literature, to my knowledge the precise nature of its formal semantico-syntactic function has not been discussed. In order to test the hypothesis that KU in Korean behaves like a definiteness marker, we need to show the following: First, KU has the semantic and pragmatic function of definiteness. Second, KU should differ from other non-definite (i.e., deictic) demonstratives. Third, the distinct property of definiteness induced by covert D in bare nouns and KU should be captured. In doing so, the investigation of the contrast among KU, *ku/i/ce*, and bare nouns will be considered, and the definite behavior of KU will be suggested.

In this paper, I argue that the way of marking definiteness KU is morpho-syntactically real. In particular, the types of definiteness are distinguished into separate functions of *argument-saturating* (i.e., a determiner head serving as a type-shifter) for referential use of uniqueness/maximality and *type-preserving non-saturating* (i.e., an adjunctive modifier) for anaphoric use of familiarity. Semantically, the effect of argument-saturating function is achieved by the covert D in bare nouns, whereas the effect of non-saturating function is achieved by the overt marking of KU. Given that the main role of KU is to signal that the property of NP exists on common ground, building on Etxeberria and Giannakidou (2010 et seq.), the semantic contribution of KU is further analyzed as a *domain restrictor* (D<sub>DR</sub>, henceforth). The main effect of D<sub>DR</sub> KU is to supply an index as an argument referring to an anaphoric element for *individuals* or *properties* (i.e., a *discourse familiar set*) (Schwarz 2009, 2013).

The remainder of this paper is as follows: Section 2 deals with a number of theoretical issues discussed in the literature on definiteness, including familiarity, uniqueness/maximality, domain restriction and indexical expressions. By looking at Korean data, Section 3 lays out the basic properties of KU to identify it as a definiteness marker. I suggest that its fundamental semantic/pragmatic property is domain restriction. After an in-depth discussion of the major types of uses, Section 4 analyzes its semantic meaning. I will show how covert D and overt KU can be integrated into a unified syntactic structure. I conclude in Section 5 with some suggestions for further implications and the remaining questions of this study.

## 2 Theoretical background on definiteness

The first property of definiteness is familiarity. The main traditional approach of *familiarity* was pioneered by Christophersen (1939). In his view, the distinction between definite and indefinite description is determined by whether the referent of an NP is familiar to the hearer. The familiarity theory has been formalized as a Novelty-Familiarity condition by Heim (1982). According to Heim, the meaning of sentences is represented by their capacity to change the context, which is argued to include sets of assignment functions. This is the dynamic view of (in)definiteness that goes back to how information grows in discourse (Stalnaker 1978). The distinction between definite and indefinite DPs can be analyzed by means of the dynamic view of (in)definiteness. Simply put, the use of the indefinite DP introduces a new (novel) entity into the discourse, whereas the use of the definite DP indicates that the speaker presupposes the content of the DP. The formal conditions of a definite DP and indefinite DP are stated in (13):

(13) The Extended Novelty-Familiarity Condition (Heim 1982: 369-370):

For a  $\delta$  to be felicitous w.r.t a context C it is required for every  $NP_i$  in that:

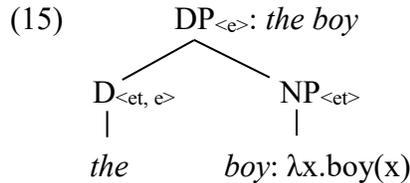
- a. if  $NP_i$  is [- definite], then  $i \notin \text{Dom}(C)$ ; NOVELTY CONDITION
- b. if  $NP_i$  is [+ definite], then
  - (i)  $i \in \text{Dom}(C)$ , and
  - (ii) if  $NP_i$  is a formula, C entails  $NP_i$  FAMILIARITY CONDITION

(13) defines a logical form where Dom indicates a domain that maps from discourse context C to discourse referents  $NP_i$ . A discourse referent is not an actual thing in the world. Rather, it is a kind of mental entity represented by a natural number. When an  $NP_i$  is not entailed in the domain of the context in question, an  $NP_i$  gives novelty in (13a), whereas when an  $NP_i$  is entailed in the domain of the context in question,  $NP_i$  gives familiarity in (13b).

Second, *uniqueness* is based on the intuitive appreciation that a definite description refers to things of the singleton set in the context. Russell’s classic work analyzes the sentence in (14a) as having meaning in (14b) by positing that definite descriptions are referential NPs:

- (14) a. The  $\phi$  is  $\psi$ .
- b.  $\psi(\iota x.\phi x)$

The definite NPs presuppose the existence of the entities (Strawson 1950), where definite descriptions denote an individual of type  $e$ . Thus, for instance, DP *the boy* is thought of as a referring expression of type  $e$ :



As shown above, *the* creates an *argument-saturating* constituent whose output is of type  $\langle e \rangle$  in the referential use. Importantly, the  $\iota$  operator can also obtain a suitable interpretation for plural and mass nouns, termed “maximality” (i.e., *max*) (Link 1983), shown as follows:

- (16) a. the boy =  $\iota(\lambda x.\textit{boy}(x))$
- b. the boys =  $\textit{max}(\lambda x.\textit{boy}(x))$

In a lattice structure, a supremum operator  $\iota$  (or *max*) captures the meaning of the definite description. When the extension of the predicate is a singleton,  $\iota x.P(x)$  will pick out the unique individual in the extension of P. When the extension of the predicate is plural,  $\textit{max}x.P(x)$  will pick out the maximal individuals in the extension of \*P.

Third, although the central discussion of the definite D has been mainly focused on the vehicle of familiarity and uniqueness, recent works have laid out the basic framework for capturing the meaning of definiteness by implementing *contextual domain restriction* (Giannakidou 2004; Etxeberria 2005; Etxeberria and Giannakidou 2010 et seq.). This type of definiteness is crucially different from the traditional role of definite D of type  $\langle \iota, e \rangle$ , since its



and (21) respectively. In Greek and Basque,  $D_{DR}$  operates on the quantificational argument. D in this configuration type-shifts to a modifier function, as in (22). By supplying the context set variable C,  $D_{DR}$  plays a role as a function that triggers the anaphoric presupposition that the common ground contains a property that is a value for C, just like a property anaphor. Q is thus consequently anaphoric to a discourse familiar property (Ettxeberria and Giannakidou 2014: (8)(9)):

- (20) a. [ $\mathbf{o}_D + \text{kathe}_Q [\text{fititis}_N]_{NP}$ ] $_{QP}$   
 b.  $\mathbf{o}$  kathe fititis = [ $\text{kathe}(C)$ ](student) [Greek]
- (21) a. [[ $\text{mutil}_N$ ] $_{NP} + \text{bakoitz}_Q - \mathbf{a}$ ] $_{QP}$   
 b. mutil bakoitz- $\mathbf{a}$  = (mutil)[ $\text{bakoitz}(C)$ ] [Basque]
- (22) D to  $D_{DR}$  type-shifting:  
 a.  $D_{DR}$  rule: When D composes with Q, use  $D_{DR}$   
 b.
- ```

      graph TD
      QP[QP] --- Q1[Q]
      QP --- NP[NP]
      Q1 --- D[D]
      Q1 --- Q2[Q]
      D --- o[o]
      o --- the[the]
      Q2 --- kathe[kathe]
      kathe --- every[every]
      NP --- triangle[△]
      triangle --- fititis[fititis 'student']
    
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- c.  $[[Q]] = \lambda P \lambda R. \forall x P(x) \rightarrow R(x)$   
 d.  $[[D_{DR}]] = \lambda Z_{et,ett} \lambda P_{et} \lambda R_{et} Z(P \cap C)(R)$ ; Z is the relation denoted by Q  
 e.  $[[D_{DR}(Q)]] = \lambda P \lambda R. \forall x (P(x) \cap C(x)) \rightarrow R(x)$

In terms of cross-linguistic perspective, however, it does not seem that a morphological definite article guarantees manifestation of  $D_{DR}$ . This is attested in other languages as evidenced by cross-linguistic morphosyntactic variation in the type of  $D_{DR}$ . For example, in Salish, there is no article distinction between definite and indefinite, and the single available D is a deictic demonstrative.<sup>1</sup> As shown below, when the morphological deictic *i...a* co-occurs with NP *smelhmúlhats* ‘woman(pl)’ and quantifier *tákem* ‘all’, it functions as a  $D_{DR}$ , which restricts the domain of NP (Ettxeberria and Giannakidou 2014: (23), adapted from Matthewson (1998, 2001)):

- (23) a. léxlex      tákem i      smelhmúlhats-a      [St’át’imcets Salish]  
 intelligent    all    D.pl    woman(pl)-D  
 ‘all of the women are intelligent.’  
 b. \*léxlex      [tákem      smelhmúlhats]

<sup>1</sup> It is suggested that St’át’imcets Salish D is a Kaplanian-style demonstrative, which behaves like a referentially rigid nature with the following empirical evidence: first, the St’át’imcets DPs are always linked to the here and now of current discourse; Second, since the St’át’imcets DPs are referentially rigid, they take only wide scope with negation; Third, the St’át’imcets DP cannot be licensed with donkey full DPs and receive E-type interpretations (Matthewson 1999, 2008).

intelligent all woman(pl)

It signals that the property of women exists in the common ground. As revealed in the translation “all of the women” in QP, the structure is similar to partitive, since this is the typical structure where the NP domain is presupposed. In this sense,  $D_{DR}$  functions as a type-preserving function that introduces the anaphoric variable  $C$ , yielding a contextually salient set of individuals characterized by the  $[NP \cap C]$  property. The composition of the Salish definite demonstrative *i...a* in (23a) turns out to be (25) under the  $D_{DR}$  type-shifting rule in (24) (adapted from Giannakidou 2004: (31), following Cheng and Ladusaw 2003):

(24) D to  $D_{DR}$  type-shifting:

a.  $D_{DR}$  rule: When D composes with NP under Q, use  $D_{DR}$

b.  $\llbracket D_{DR} \rrbracket = \lambda P_{et} \lambda x (P(x) \cap C(x))$

(25)  $\llbracket i...a \rrbracket = \llbracket D_{DR} \rrbracket = \lambda P_{et} \lambda x (P(x) \cap C(x))$

The Salish type of demonstrative as a function of  $D_{DR}$  is observable in many languages. For instance, in Japanese, the demonstrative *so-no* ‘that’ has been argued to function as a domain restrictor (Kaneko 2012, 2014).<sup>2</sup> Since *so-no* is morphologically demonstrative, one might expect that its role would be equivalent to Korean KU. However, they sharply contrast in terms of uniqueness/maximality. I will come back to a more detailed discussion in Section 3.2.

Given this background, Etxeberria and Giannakidou (2010 et seq.) establishes a family of phenomena revealing cross-linguistically distinct functions of D. The saturating function of D is a traditional definite article in (26a), whereas the non-saturating function manifests definiteness by means of  $D_{DR}$  in (26b).  $D_{DR}$  further appears in two forms: as a Q modifier or as a predicate modifier, shown as follows (adapted from Etxeberria and Giannakidou (2018: (41)):

(26) Types for D:

a. Saturating: *et*  $\rightarrow$  *e (iota)*: e.g. English *the*

b. Non-saturating: *et, ett*  $\rightarrow$  *et, ett* ( $D_{DR}$  on Q): e.g. Greek *o*, Basque *ak*

*et*  $\rightarrow$  *et* ( $D_{DR}$  on NP): e.g. Salish *i...a*, Japanese *sono*

Fourth, Schwarz (2009, 2013) furthermore proposes the weak-strong distinction for the definite article system. Given the lexically distinct types of definite articles in German (refer back to (5)), he argues that these two articles must receive different semantics as unique (i.e., weak) and familiar (i.e., strong) definiteness. In a given resource situation  $s_r$ , the weak article denotes a unique entity, whereas a strong article introduces an index argument that refers back to the antecedent. The semantic meaning of the two types of definites are illustrated below (Schwarz 2009):

(27) a. unique definite article:  $\lambda s_r \lambda P: \exists! x [P(x)(s_r)]. \iota x [P(x)(s_r)]$

b. anaphoric definite article:  $\lambda s_r \lambda P \lambda y: \exists! x [P(x)(s_r) \cap x=y]. \iota x [P(x)(s_r) \cap x=y]$

<sup>2</sup>Another example of morphologically non-article type  $D_{DR}$  comes from the Chinese maximal operator *dou* (Cheng 2009) used with free choice items (Giannakidou and Cheng 2006).



- b. ‘**The chair** is in the room.’  
 c. ‘~~There are chairs in the room.~~’  
 d. ‘**The chairs** are in the room.’

Thus, it might be assumed that the occurrence of KU is optional for anaphoric interpretation, which in fact becomes available in some instances. As illustrated below, the co-referent of a bare noun *haksayng* ‘student’ refers back to the contextually salient student in the first sentence, a student the speaker saw today:<sup>3</sup>

- (31) na-nun onul han haksayng-ul po-ass-ta.  
 I-Top today one student-Acc see-Pst-Decl  
 (ku/\*i/\*ce) haksayng-**un** hayngpokhay po-i-ess-ta. [Korean]  
 KU/this/that student-Top happy look-Cs-Pst-Decl  
 ‘Today I saw a student. The/that student looked happy.’

However, as will be clear in Section 3.2, the optionality of KU is allowed in a special case only when a KU-marked NP appears in a subject position with a topic marker (*n*)*un*. Crucial evidence for the status of bare nouns as a non-anaphoric marker from a semantic point of view comes from their inability to license an anaphoric context in non-subject positions. For example, as illustrated below, the unmarked bare noun *haksayng* ‘student(s)’ (32a) in the second sentence prefers to have an indefinite interpretation; the subject John will meet today will be a new

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<sup>3</sup> I thank an anonymous reviewer for suggesting that the demonstrative *i* ‘this’ also gives rise to an anaphoric interpretation as follows:

- (i) haksaying hana-ka ture-wass-ta. **i** hksaying-un hayngpokhay po-i-ess-ta.  
 Student one-Nom come.in-Pst-Decl this student-Top happy look-Cs-Pst-Decl  
 ‘A student came in. **This** student looked happy.’

It is important to note that KU and *i* in Korean have in common in the sense that they both give rise to familiarity in some context, however, the occurrence of *i* appears to be much restricted than KU. As shown below, in the context where the antecedents are not visually present, the sentences containing *i* become infelicitous:

- (ii) yekise ceyil pissan uyca-ka maum-ey tul-e. #i uyca-lul sa-lke-ya.  
 here most expensive chair-Nom mind-Loc have-Decl this chair-Acc buy-will-Decl  
 ‘(intended) I like the most expensive chair here. I will buy the chair.’
- (iii) #so-lul kaci-n motun nongpwu-nun **i** so-lul ttayli-n-ta.  
 cow-Acc have-Rel every farmer-Top this cow-Acc hit-Pres-Decl  
 ‘(intended) Every farmer that has a cow hits this cow.’
- (iv) nay-ka onul sosel-ul han-kwen sa-ss-ta.  
 I-Nom today novel-Acc one-CL buy-Pst-Decl  
 #i ceca-nun phulangsuin-i-ta.  
 this author-Top French-be-Decl  
 ‘(intended) I bought a novel today. The author is French.’

Accordingly, it seems that the semantic contribution of *i* cannot be understood along similar lines as KU in the sense of familiarity. Although the detailed discussion of the relation between *i* and KU is worth pursuing, it is not the purpose of the current study, so I will put it aside from the current discussion.



every.year president-Top each city-Gen KU mayor-Acc meet-Pst-Decl  
 ‘Every year, the president met with the mayor of each city.’

The prerequisite of anaphoricity further allows an implicature to be drawn about the antecedent in a bridging context. As empirically evidenced across languages (Schwarz 2013), a bridging context can be subdivided into a part-whole relation and a producer-product relation, where the weak definite article is typically used for the former context, whereas the strong definite article is required for the latter (Schwarz 2013: (15)):

(36) a. **Part-whole relation**

|                   |             |                                                  |    |             |            |            |               |          |
|-------------------|-------------|--------------------------------------------------|----|-------------|------------|------------|---------------|----------|
| Der               | Kühlschrank | war                                              | so | groß,       | dass       | der        | Kürbis        |          |
| The               | fridge      | was                                              | so | big         | that       | the        | pumpkin       |          |
| Problemlos        |             | <b>im</b>                                        |    | <b>/#in</b> | <b>dem</b> | Gemüsefach | untergebracht |          |
| Without a problem |             | in-the <sub>weak</sub> /in the <sub>strong</sub> |    |             | crisper    | stowed     | be            |          |
| warden konnte.    |             |                                                  |    |             |            |            |               | [German] |

could

‘The fridge was so big that the pumpkin could easily be stowed **in the crisper**.’

b. **Producer-product relation**

|                                                  |              |              |        |             |      |       |          |
|--------------------------------------------------|--------------|--------------|--------|-------------|------|-------|----------|
| Das                                              | Theaterstück | missfiel     | dem    | Kritiker    | so   | sehr, |          |
| The                                              | play         | displeased   | the    | critic      | so   | much  |          |
| dass                                             | er           | in           | seiner | Besprechung | kein | gutes | Haar     |
| that                                             | he           | in           | his    | review      | no   | good  | hair     |
| <b>#am / an dem</b>                              |              | <b>Autor</b> | ließ.  |             |      |       |          |
| on-the <sub>weak</sub> /on the <sub>strong</sub> |              | author       | left   |             |      |       | [German] |

‘The play displeased the critic so much that he tore **the author** to pieces in this review.’

The similar pattern of strong definites in bridging use is recognized by KU. As shown in (37b), on the basis of the general knowledge that books have authors, a novel has the corresponding discourse referents with an author, thus facilitating the bridging interpretation. KU freely gives rise to bridging interpretations in the producer-product relation, whereas it cannot occur in the part-whole relation (37a):

(37) a. **Part-whole relation**

|               |             |       |           |               |          |
|---------------|-------------|-------|-----------|---------------|----------|
| kyelhonsik-ey | ka-ss-ta.   | (*ku) | sinpu-ka  | phalansayk-ul |          |
| wedding-to    | go-Pst-Decl | KU    | bride-Nom | blue-Acc      |          |
| ip-ess-ta.    |             |       |           |               | [Korean] |
| wear-Pst-Decl |             |       |           |               |          |

‘I went to a wedding. The bride/#that bride wore blue.’ (Cho 2017, (11))

b. **Producer-product relation**

|              |            |                   |          |               |          |
|--------------|------------|-------------------|----------|---------------|----------|
| nay-ka       | onul       | sosel-ul          | han-kwen | sa-ss-nuntay, |          |
| I-Nom        | today      | novel-Acc         | one-CL   | buy-Pst-Con   |          |
| (ku/*i/*ce)  | ceca-nun   | phulangsuin-i-ta. |          |               | [Korean] |
| KU/this/that | author-Top | French-be-Decl    |          |               |          |

‘I bought a novel today. The author is French.’

Given the empirical set of data we observed, Korean KU properly gives rise to familiarity in anaphoric, co-varying anaphoric, and bridging contexts, just like other typical definiteness markers across languages. With the close connection between KU and familiarity, I close my discussion in this subsection by showing how the familiarity induced by KU is explained under the framework of Roberts's theory. Building on Heim's (1982) system, Roberts (2002, 2003) refines the framework on definiteness, suggesting two types of familiarity, which are classified as weak familiarity and strong familiarity and shown as follows:

(38) Taxonomy of familiarity (Roberts 2002: (46)):

a. **Strong familiarity:** the NP has as antecedent a discourse referent introduced via the utterance of a (usually) preceding NP.

b. **Weak familiarity:**

i. the entity referred to is globally familiar in the general culture or at least among the participants in the discourse (e.g., through perceptual acquaintance), although not mentioned in the immediate discourse (see (39a) below).

ii. introduction of the NP's discourse referent is licensed by contextual existence entailments alone (see (39b) below).

iii. weak familiarity is guaranteed by giving a functional interpretation to the definite description (which function may have to be accommodated) (see (39c-d) below).

(39) a. One stranger to another: the sun is especially hot today.

b. I dropped ten marbles and found only nine of them. The missing marble is probably under the sofa.

c. John read a book about Schubert and wrote to the author.

d. (To a European friend who knows nothing about West Virginia:)

Last weekend we climbed the biggest mountain in West Virginia. (Roberts 2002: (47)-(50), (52))

The use of definites having strong familiarity is only licensed by prior mention and is anaphoric to a preceding linguistic expression. This is exactly what definite KU does in the discourse, in which its antecedent should be explicitly mentioned in prior discourse. To wit, the prerequisite of the definite KU is strong familiarity, in which the interlocutors share knowledge and the antecedent should be explicitly mentioned in prior discourse.<sup>4</sup>

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<sup>4</sup> One might suggest the use of recollective KU as the counterexample against the strong familiarity use of D<sub>DR</sub>. For example, KU in (i) denotes a coffee shop from prior experience of the interlocutors' (Cho 1999 (6), adapted from Ionin et al. (2012), (12)):

(i) **Ku** coffee shop-ey semannaca.  
 KU coffee shop-Loc see  
 '(Let's) See you at the coffee shop.'

Although the referent does not present explicitly in previous sentence, I consider the use of recollective KU as a subtype of domain restrictor in a broad sense of strong familiarity, given that the referent of coffee shop in past experience must have been introduced as an antecedent via the utterance of a preceding NP at some point.

### 3.2 (Anti-)uniqueness/maximality

As observed in previous literature (Chang 2009; Ahn 2017; Cho 2017, a.o.), the role of KU involves only anaphoric reading and lacks uniqueness/maximality. As shown in the following table, it is bare nouns that induce the property of uniqueness (i.e. argument-saturating) to create a referential expression of type *e* (adapted from Cho 2017, pp. 373 following Chang 2009):

|                                                           | Korean      |
|-----------------------------------------------------------|-------------|
| Anaphoric definite NPs<br>[+uniqueness, +familiarity]     | ?bare NP/KU |
| Non-anaphoric definite NPs<br>[+uniqueness, -familiarity] | bare NP/#KU |

Table 1. Definiteness markers in Korean

Whereas Korean bare nouns can form anaphoric definite (exceptionally in subject position marked with a topic marker; refer back to (30) and (31)) and non-anaphoric definite NPs, KU only makes anaphoric definite NPs. The following examples provide crucial empirical support for the current proposal: First, KU does not give rise to uniqueness in situational use (Hawkins 1978; Lyons 1999; Schwarts 2009). Unlike English definite description, which refers to a unique referent associated with the situation mentioned in (40) and (42), the use of KU is redundant and unacceptable in the immediate situation in (41) and the larger situation in (43):

*Immediate situation* (out of context):

- (40) **The** moon was very bright last night. [English]  
 (41) eceyspam (\*ku) tal-i acwu palk-ass-ta. [Korean]  
 Last.night KU moon-Nom very bright-Pst-Decl  
 ‘The/\*that moon was very bright last night.’

*Larger situation*:

- (42) **The** President of the United States came to the State of Ohio. [English]  
 (43) (\*ku) mikwuk taythonglyeng-i ohaiocu-ey o-ass-ta. [Korean]  
 KU US president-Nom the.state.of.Ohio come-Pst-Decl  
 ‘The/\*that President of the United States came to the State of Ohio.’

As was already mentioned earlier, the recent literature on definiteness in English has argued that the definite *the* and the demonstrative *that* have in common in that they both give rise to uniqueness/maximality. The crucial distinction follows from the constraint placed on the *domain* relative to which uniqueness/maximality is computed (Wolter 2006; Ionin et al. 2011, 2012, a.o.). As illustrated below, although the definite and demonstrative description have in common denoting the unique entity in a given situation, they differ in the sense that the uniqueness of definite description is defined relative to *the default situation* in (44a), whereas the uniqueness of demonstrative description is defined relative to *the non-default situation* in (44b):

- (44) Semantic entries of *the* and *that* (Ionin et al. 2011: (6))  
 a. A sentence of the form [the<sub>n</sub> A] B presupposes that there exists a unique individual



|         |           |                       |                         |                |          |
|---------|-----------|-----------------------|-------------------------|----------------|----------|
| talun   | yeca-ka   | mwutay                | oluncok-eyse            | tuleo-ass-ta.  |          |
| another | woman-Nom | stage                 | right-from              | enter-Pst-Decl |          |
| ??(ku)  | yeca-nun  | kkochpakwuni-lul      | tul-ko.iss-ess-ta.      |                | [Korean] |
| KU      | woman-Top | basket.of.flowers-Acc | carry-Asp/Prog-Pst-Decl |                |          |

‘A woman entered from stage left. Another woman entered from stage right. **That/#the** woman was carrying a basket of flowers.’

The implication of the above empirical examples reveals that a constraint on the domain of KU is not sensitive to (non-)default situations, and such a generalization fails to capture the true spectrum of definiteness in Korean. As will become clear in the next subsection, Korean has distinct devices teased apart into uniqueness and familiarity. KU is employed to encode familiarity only.

Rather, I argue that what is common to both KU and typical demonstratives is that they both convey *contrastivity* (i.e., partitivity or anti-uniqueness (Barker 1998)). It is in line with the cross-linguistic tendency that marking contrasted referents is a typical function of anaphoric demonstratives (Diessel 1999). In Korean, when KU is used anaphorically, it tends to place emphasis or contrastive focus on the NP (Chang 1984; Ionin et al. 2012, a.o.). The occurrence of KU presupposes the existence of (implicitly) contrasting with another entity of the NP arguments to which it is attached. In (49), the occurrence of KU is felicitous not because of the non-default situation, but because of contrastivity, which reveals that the woman (who entered from stage right) is being contrasted with another woman (who entered from stage left). The property of contrastivity, which is deeply connected with the notion of partitivity, is crucial characteristic of KU. I will come back to more discussion of partitivity in Section 3.3.

More importantly, although uniqueness/maximality is NOT induced by KU, the interpretation of uniqueness/maximality is necessarily yielded in KU-marked definite NPs. As shown below, KU can be felicitously interpreted as being exhaustive where *KU sonnim* ‘KU guest(s)’ refers back to the maximal antecedent, John, Peter, and Mary in (49a). Its felicitous use is guaranteed by the fact that the sum of John, Peter, and Mary is considered to be maximal individuals that the hearer can single out by means of KU:

*Context: John, Peter and Mary are known as notorious guests to their friends. Three days ago, Jack threw a party and John, Peter, and Mary were invited. Today, Ann asks Jack what John and Mary were like:*

|      |          |           |          |                  |          |
|------|----------|-----------|----------|------------------|----------|
| (48) | Con-kwa  | Phethe-wa | Meyli-ka | etteha-(e)ss-ni? | [Korean] |
|      | John-and | Peter-and | Mary-Nom | how.about-Pst-Q  |          |

‘How did John, Peter, and Mary behave?’

*Context: Jack answers that he actually liked them as guests. But there were other guests that he did not like. The answer would be:*

|         |           |               |                   |  |
|---------|-----------|---------------|-------------------|--|
| (49) a. | ku/*i/*ce | sonnim-tul-un | kwaynchanh-ass-e. |  |
|         | KU        | guest-pl.-Top | good-Pst-Decl     |  |

‘The guests (denoting John, Peter, and Mary) behaved well.’

|    |           |               |                   |                    |              |
|----|-----------|---------------|-------------------|--------------------|--------------|
| b. | ku/*i/*ce | sonnim-tul-un | kwaynchanh-ass-e. | #haciman Meyli-nun | isanha-ss-ta |
|----|-----------|---------------|-------------------|--------------------|--------------|



- ‘Yes, I’ll buy the pictures.’  
 b. #ung, kulim-tul-ul sa-l.ke-ya.  
 Yes, painting-Pl-Acc buy-will-Decl  
 ‘(intended) Yes, I’ll buy the pictures.’

As shown above, the bare nouns in object position in (51b) are infelicitous because it is not topic marked. The bare noun *kulim* ‘picture’ is neither semantically indexed nor pragmatically salient in the discourse. While the discussion on the relationship between the topic marker and discourse saliency is worth pursuing in detail, it is beyond the scope of this paper, and I skip further discussion for reasons of space.

I close this subsection by showing the contrast between Japanese *so-no* and Korean KU. As mentioned in Section 2, although the semantic contribution of Japanese adnominal demonstrative *so-no* is analyzed as a domain restrictor, it is not exactly equivalent to Korean KU. According to Kaneko (2012, 2014), *so-no* lacks a uniqueness or maximality presupposition in all its uses. As shown below, the referents of *so-no koinu* ‘so-no puppy’ may be not maximally identified with the seven puppies introduced in the preceding sentence, which is confirmed by B’s question of ‘How many puppies?’ (Kaneko 2014: (13):

- (52) A: pet shop-ni totemo kawaii koinu-ga nana-hiko imasita.  
 Pet-shop-Loc very pretty puppy-Nom seven-CL were  
 watasi-wa **so-no** koinu-o kaimasita.  
 I-Top SO-NO puppy-Acc bought  
 ‘The pet shop has seven very pretty puppies. I bought **(one, some or all) of those** puppies.’  
 B: nan-biki katta-no desu-ka? [Japanese]  
 What-CL bought-Comp Cop-Q  
 ‘How many (puppies) did you buy?’

In contrast, in the same context, the following question in (53B) is not allowed since it violates maximality:

- (53) A: phey syop-ey kwieywun kangaci ilkop-mali-ka iss-ess-e.  
 pet shop-Loc pretty puppy seven-CL-Nom exist-Pst-Dec  
 na-nun **ku** #kangaci-lul/kangaci-tul-ul sa-ss-e.  
 I-Top KU puppy-Acc/puppy-Pl-Acc buy-Pst-Decl  
 ‘The pet shop has seven pretty puppies. I bought **all of those/the** puppies.’  
 B: #myes-mali sa-ss-e? [Korean]  
 What-CL buy-Pst-Q  
 ‘How many (puppies) did you buy?’

This empirical contrast leads us to lead that the behavior of Japanese *so-no* is not exactly equivalent to that of Korean KU.

### 3.3 Domain restriction

The third characteristics of KU is domain restriction. In this subsection, we see the case of  $D_{DR}$

KU functioning as a Q modifier. It is supported by the following empirical evidence in which KU is compatible with quantified nouns such as *free choice items*. Traditionally, there are two types of FCI in Korean, i.e., *nwukwu-na* and *amwu-na*, as shown below:<sup>5</sup>

- (54) a. *nwukwu-na* ‘everyone/anyone’  
 b. *amwu-na* ‘anyone’

It has been argued that *wh*-indefinites are ‘contextually specific’ in that they involve a discourse-given (i.e., salient) set. In this regard, *nwukwu-na* is domain-determined, whereas *amwu-na* is domain-undetermined (i.e. domain-widening) (Choi 2007, a.o.). As shown in the gloss below, *nwukwu-na* denotes the contextually specified set ‘everyone from a contextually specified set’, whereas *amwu-na* is interpreted as ‘anyone’:

- (55) a. haksayng-tul **nwukwu-na** i il-ul ha-lswuiss-ta.  
 student-Pl who-or this job-Acc do-possible-Decl  
 ‘Everyone/all of the students (**from a contextually specified set**) can do this job.’  
 b. haksayng-tul **amwu-na** i il-ul ha-lswuiss-ta. [Korean]  
 students any-or this job-Acc do-possible-Decl  
 ‘Any student can do this job.’

Among those two indefinites, KU is compatible only with *nwukwu-na* and denotes a *contextually restricted subset*.

Crucially, just like bare nouns, since the domain of bare FCI is determined depending on the context, its interpretation can be ambiguous. For example, in (56), we notice two different resources of domain restrictions of bare FCI: *nwukwu-na* ‘everyone’ conveys a contextually specified domain ranging over individuals in the semantics class (57a) or every individual first-year student in the semantics class (57b). Although the FCI *nwukwu-na* allows both interpretations, the interpretation of *nwukwu-na* by itself prefers to pick out the set of everyone in the semantics class:

*Scenario: An advisor, Susan, heard that the students of semantics I class plan to go to the pub tonight. Susan was worried if the first-year students are all over 21 years old and if they are allowed to enter the pub. Susan asks another professor, Bill, of semantics I:*

- (56) il-haknyen haksayng-tul-i phep-ey ka-lswuiss-eyo? [Korean]  
 first-year student-PL-Nom pub-Loc go-possible-Q  
 ‘Are first-years allowed to go to the pub?’

*And Bill answers:*

- (57) **nwukwu-na** phep-ey ka-lswuiss-eyo.  
 who-or pub-Loc go-possible-Decl

<sup>5</sup> Korean FCIs are composed of an indefinite and a particle. Basically, there are two indefinites (i.e., *nwukwu-* and *amwu-* ‘who’) and one particle (i.e., *-na* ‘or’) that can combine (Lee et al. 2000; Choi 2007; Park 2009, a.o.).

- a. ‘Everyone/all of the students (in semantics class) is allowed to go to the pub.’  
 b. ?‘Everyone/all of the students (in the first year) is allowed to go to the pub.’  
 (58) **ku**/\*i/\*ce (cung) **nwukwu-na** phep-ey ka-lswuiss-eyo. [Korean]  
 KU among/of who-or pub-Loc go-possible-Decl  
 a. #Everyone/all of the students (in semantics class) is allowed to go to the pub.’  
 b. ‘Everyone/all of the students (in the first year) is allowed to go to the pub.’

When KU is attached to the *na*-indeterminate in (58), the domain of FCI is contextually more restricted; thus, *KU (haksayng-tul) (cung) nwukwu-na* can be interpreted as the set of ‘every first-year student in the semantics class’. Given that KU needs some strict linguistic antecedents, KU combines with *wh*-indefinite based quantifiers to yield a domain that is characterized as being given in a discourse contrasted with another (larger) domain. It provides important evidence that uniqueness/maximality is not lexically encoded in Korean KU.<sup>6</sup> Rather, KU triggers the anaphoric presupposition that the common ground contains an anaphoric set of individuals, a set of first-year students. It needs to pick out the exact antecedent, very much like a property anaphor. KU quantifies over a subset of the students in the semantics class by contrasting two contextual sets (i.e. the students in the semantics class vs. the students in the first year). When the antecedent of KU has an antecedent of quantified set, the domain of KU creates a subset of the contextually salient larger domain in discourse. Hence we get the partitivity.

KU cannot co-occur with QPs whose domain is unrestricted. As illustrated below, *amwu* is a domain-undetermined indefinite (i.e., domain widener in Choi (2007)) and it is NOT compatible with KU, since there is no domain to be referred back anaphorically.

- (59) \***ku** amwu-na phep-ey ka-lswuiss-eyo. [Korean]  
 KU any-or pub-Loc go-possible-Decl  
 intended: ‘Anyone (from a contextually specified set mentioned before) can do the job.’

The above data provides crucial evidence that the domain-restricting condition is a precondition for the felicitous use of KU. Given the consistent parallels between the KU and domain restrictor we have observed so far, it is plausible to treat KU as a  $D_{DR}$ :

- (60)  $KU = \text{domain restrictor} = D_{DR}$

As a  $D_{DR}$ , KU comes to create an anaphoric domain which presupposes a discourse familiar property to be anchored to.

Summing up, the main role of definiteness markers in Korean is split into the saturating and non-saturating as follows:

- (61) Types for definiteness marking in Korean:  
 a. Saturating: covert D: e.g. (35), (41), (43)  
 b. Non-saturating:  $D_{DR}$  KU  
 i.  $D_{DR}$  on Q: e.g. (54)

<sup>6</sup> I thank Klaus von Heusinger and Junko Shimoyama (personal communication) for bringing this important point to my attention.

ii. D<sub>DR</sub> on NP: e.g. (49)

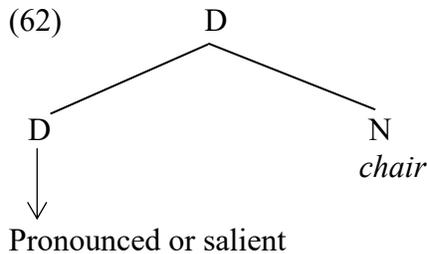
The first type of D is a typical argument-saturating in bare nouns, which produces a unique or maximal argument of type *e*; the other is D<sub>DR</sub> KU, which gives rise to the familiarity presupposition. The semantic function of KU is relevant to the argument non-saturating. Table 2 summarizes the pattern of definiteness markings across languages (adapted from Jenks 2018, table 2):

| Types of definiteness marking |                                          | Languages                                                                                          | Definiteness marker |                       |
|-------------------------------|------------------------------------------|----------------------------------------------------------------------------------------------------|---------------------|-----------------------|
|                               |                                          |                                                                                                    | <i>unique</i>       | <i>anaphoric</i>      |
| <i>Bipartite</i>              | <i>Saturating</i>                        | Fering, Lakhota, ...                                                                               | Def <sub>weak</sub> | Def <sub>strong</sub> |
|                               | <i>Non-saturating</i>                    | (unattested)                                                                                       |                     |                       |
| <i>Marked anaphoric</i>       | <i>Saturating</i>                        | Mandarin, Akan                                                                                     | ∅                   | Def <sub>strong</sub> |
|                               | <i>Non-saturating</i> (D <sub>DR</sub> ) | Greek <i>o</i> , Basque <i>ak</i> , Salish <i>i...a</i> , Japanese <i>so-no</i> , <b>Korean KU</b> |                     |                       |
| <i>Generally marked</i>       | <i>Saturating</i>                        | English, Cantonese                                                                                 | Def                 |                       |
|                               | <i>Non-saturating</i>                    | (unattested)                                                                                       |                     |                       |
| <i>Marked unique</i>          |                                          | (unattested)                                                                                       | Def <sub>weak</sub> | ∅                     |

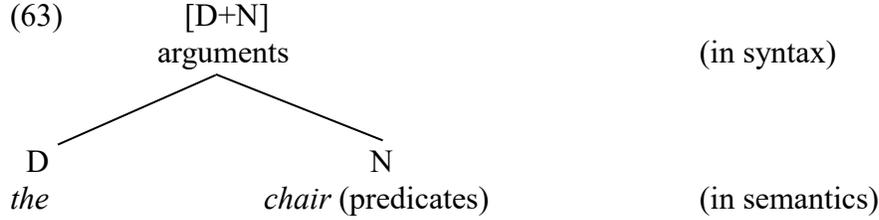
Table 2. Definiteness markings across languages

#### 4. Analysis: KU as a contextual domain restrictor

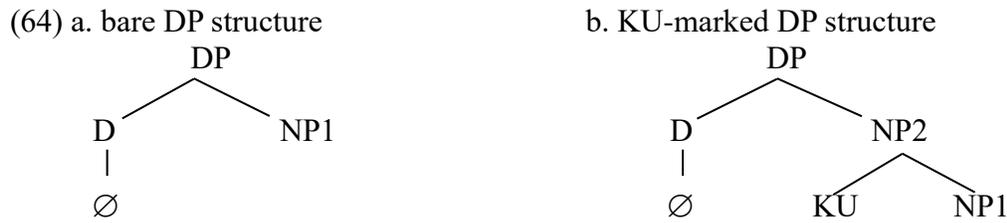
In this section, we introduce the formal mechanisms that underlie the key assumption that two distinct types of definiteness markers can be syntactically integrated into DP. For the syntactic configuration, building on Universal Structure hypothesis (Abney 1987; Szabolcsi 1987; Longobardi 1994)), I follow previous studies that Korean employs nominal phrases that are projected by a determiner head (Suh 2005; Chang 2009, a.o.).



In the sense of Universal structure hypothesis, all nominal arguments must be DPs in which null determiners are posited. In this vein, nouns are predicates denoting properties, and the determiner is always present in the structure serving as a type-shifter (i.e., argument-saturating function) turning nouns into arguments:



The definite D has two grammatical functions: semantic D and syntactic D. Given that the syntactic head D has been generally treated as the locus of the semantic feature of uniqueness and maximality (Lyons 1999, a.o.), we can assume that the covert D in referential use is in the canonical position of D-head. In this vein, in the grammar of Korean domain restriction,  $D_{DR}$  should have different syntactic positions and semantic meanings from the traditional definite D. As shown in (64a), unlike English DP where the position of the determiner should be obligatorily filled, the head of D in Korean is filled by the referential Covert D (i.e., left vacant), which is a *default* in forming DP. It is a syntactic D that takes a predicate and makes an argument of type  $e$ . On the other hand, in (64b) the operation of  $D_{DR}$  KU over the NP does not affect the grammaticality of DP (Choi 2017). It makes KU appear optionally for the manifestation of domain restriction in an attachment site for an adjunct modifier in a lower DP layer. As a result, we come to have the following syntactic structure of DP in Korean:



Here I provide a detailed explanation of the strategy for obtaining an  $e$ -type denotation in KU marked structure: As a domain restrictor,  $D_{DR}$  KU can operate either on the noun phrase or on the quantificational argument, since  $D_{DR}$  is a function indicating indexical argument (Schwarz 2009; 2013). For this, I incorporate Jenks' proposition in which the indexical argument can be regarded as a property, building on Nowak (2014) and von Stechow (1994). Jenks represents the index as the domain restriction of the anaphoric definite DP as follows:

- (65) a. Unique definite article:  $\lambda s_r \lambda P_{\langle e, \langle s, t \rangle \rangle} : \exists ! x (P(x)(s_r)) . \iota x [P(x)(s_r)]$   
 b. Anaphoric definite article:  $\lambda s_r \lambda P_{\langle e, \langle s, t \rangle \rangle} \lambda Q_{\langle e, t \rangle} : \exists ! x [(P(x)(s_r) \cap Q(x)) . \iota x [P(x)(s_r)]$

Likewise when KU as a presuppositional determiner undergoes  $D_{DR}$ , it actually has an index argument in it, and this index argument makes KU anaphoric. By supplying index, KU triggers the presupposition that the common ground contains a property that can function as the antecedent for index argument. The NP and QP are consequently anaphoric to a discourse familiar property. In this regard, KU's contribution is really this domain restriction, which refers back to the familiar set. It draws values from the intersection of the index argument with the NP. Given that the NP intersection with index argument will be a subset of that NP, KU creates

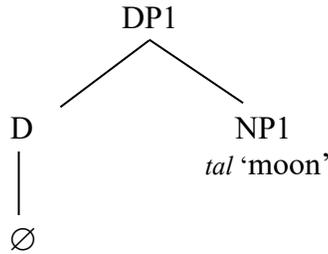
partitivity. Since  $D_{DR}$  KU is a type-preserving function, the top (default) D necessarily comes to saturate the predicate. Then the covert D starts out with a denotation that produces something of another type, and then shifts it into a function of type  $\langle e \rangle$ . In this regard, the contribution of KU in DP is really a domain restriction, as follows:

$$(66) \quad \llbracket \emptyset \rrbracket = \iota = \lambda s_r \lambda P_{\langle e, \langle s, t \rangle \rangle} : \exists ! x (P(x)(s_r)) . \iota x [P(x)(s_r)]$$

$$(67) \quad \llbracket KU \rrbracket = \llbracket D_{DR} \rrbracket = \lambda s_r \lambda P_{\langle e, \langle s, t \rangle \rangle} \lambda Q_{\langle e, t \rangle} \lambda x : (P(x)(s_r)) \cap Q(x)$$

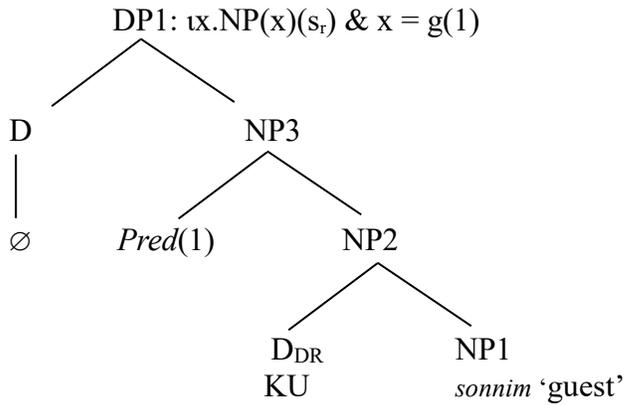
In light of the the above lexical entries, the interpretation of weak and strong DPs in Korean are provided below:

(68) Unique DP:



1.  $\llbracket NP1 \rrbracket^g : \lambda x \lambda s . [moon(x)(s)]$
3.  $\llbracket DP1 \rrbracket^g : \exists ! x [moon(x)(s')] . \iota x [moon(x)(s')]$

(69) Anaphoric DP:



1.  $\llbracket NP1 \rrbracket^g : \lambda x \lambda s . [guests(x)(s)]$
2.  $\llbracket NP2 \rrbracket^g : \lambda Q_{\langle e, t \rangle} \lambda x . [student(x)(s') \cap Q(x)]$
3.  $\llbracket NP3 \rrbracket^g : \lambda x [guests(x)(s') \cap x = g(1)]$
4.  $\llbracket DP1 \rrbracket^g : \exists ! x [guests(x)(s') \cap x = g(1)] . \iota x [student(x)(s')]$

KU is a function operating on an NP and/or QP and gives back a discourse familiar property which is indexed as  $g(x)=1$ . And then the phrase has the converter null D for the final saturation.

I will term this discrepancy a *dissociation between meaning* (i.e., the function of D encoding definiteness) *and form* (i.e., D as an argument saturating function) in the DP structure.

Notably, I subsume the expended uses of KU under the more general analysis of domain restriction, which can be conceptually linked to the distinct realm of D<sub>DR</sub> KU and its stretched emphasis use. As shown below, when the spoken KU receives high prosodic prominences co-occurs with gradable NPs (just like Focus), the utterance expresses speaker’s strong surprise, and the emphatic status is overtly indicated by KU. For this reason, it seems appropriate to treat this type of KU as an *emphatic marker* (C. Lee 1995; adapted from Kang 2018: (1)):

(70) *Context: Yesterday, Mary was invited to Kim’s place. Kim made dinner with tofu. Today, Ann asks Mary how the dish tasted. Mary tells Ann that the cooking was bad. Mary was surprised at the fact that a dish made with tofu could be unsavory because she likes tofu and tofu is delicious. Mary says:*

|           |                   |               |                        |                |
|-----------|-------------------|---------------|------------------------|----------------|
| yoli-nun  | masep-ess-e.      | (kim-i)       | <b>KU<sub>H%</sub></b> | masiss-nun     |
| dish-Top  | unsavory-Pst-Decl | Kim-Nom       | KU <sub>emphatic</sub> | delicious-Adnz |
| twupwu-lo | kulen             | masep-nun     | yoli-lul               | mantul-ess-e.  |
| tofu-with | such.a            | unsavory-Adnz | dish-Acc               | cook-Pst-Decl  |

~~‘Kim cooked an unsavory dish with that/the delicious tofu.’~~

‘The dish was unsavory. (It is unbelievable that) Kim cooked such an unsavory dish with that much delicious tofu!’

The emphatic KU raises an unexpectedness effect (i.e., mirativity): it encodes the speaker’s strong surprise at the unexpected situation in which Kim cooked an unsavory dish with delicious tofu. On its semantico-pragmatic effect for the felicitous use of the emphatic KU, Kang (2015, 2018) suggests that the following two conditions should be met: First, there are (at least two) alternative individuals restricted in the context. Second, the implicature triggered by the emphatic KU contributes to scalarity by presupposing that the alternatives are ranked on a scale. In this vein, the emphatic KU contributes a scalar implicature associated with the least likely end of the likelihood scale. Since the proposition with a low likelihood was out of the subject’s expectation, the speaker’s strong surprise arises. Given the above requirement, the use of emphatic KU originates from D<sub>DR</sub> since the first feature of the prerequisite (i.e., the assertion of the existence of contextually restricted alternative individuals) comes from the contextual restrictor that, I argue, is lexically encoded in the D<sub>DR</sub> KU.<sup>7</sup> In light of this observation, we can

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<sup>7</sup> I am grateful to the anonymous reviewer for suggesting that not only KU, but also *i* ‘this’ involves the emotive use, as follows:

- (i) i        nappun nom-a!  
       this    bad    guy-Exc  
       ‘this bad guy.’
- (ii) paro    i        haksayng  
       right this    student  
       ‘this very student’

However, it seems that the emotive function of *i* does not directly correspond to KU. In (i), unlike KU, the referent of *bad guy* should be visually present (e.g. in front of the speaker) in a given context. Further, in (ii), the role of *i*

conclude that the behavior of emphatic KU provides a crucial implication for the extended role of domain restriction. Much more needs to be said to gain a full understanding of the link between the emphatic KU and  $D_{DR}$ , which remains on my future agenda.

## 5. Conclusions

Recent studies of definiteness in DPs have yielded several theoretical analyses of their semantics, which have different implications for cross-linguistic variation. The aim of this paper was to contribute to this debate by offering a novel semantic analysis of Korean definiteness system. Its original motivation was that the traditional analysis of definiteness, which relies on the definite article attributed to their morphosyntactic properties, is not satisfactory. From a cross-linguistic perspective, languages exhibit a range of morphological overt marking that are linked to the notion of domain restriction. I showed that in Korean the morphological demonstrative element KU is adopted for the legitimate function of the domain restriction to anaphorically denote the indexical property in natural languages.

Although KU is fully qualified as a definiteness marker, it has not yet fully taken over the syntactico-semantic role of the definite article. This is evidenced by the Korean D system split into the dichotomy of argument-saturating and non-saturating. In this vein, we could get the dissociation in the grammar between the semantics and syntax of D. Developing such an account will afford us more detailed insight into the wide-ranging spectrum of domain restriction. In order to see the full picture of the role of domain restrictor, future studies should conduct an investigation that will provide an account of the landscape of KU in Korean.

**Acknowledgement** (To follow)

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appears to be based on the specificity as speaker's noteworthiness rather than the interlocuter's common ground. An analogous fact holds *this* in spoken English (Ionin 2006). Detailed discussion on this phenomenon is another worthwhile topic for further investigation.

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