A Quantificational Analysis of Generic Expressions in Korean

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0. Introduction

This paper attempts to provide a quantificational analysis of generic expressions in Korean. Here 'generic expressions' include not only generic NPs but also VPs which give rise to generic meaning. In particular, the present paper aims to extend the semantic analysis provided in Ik-Hwan Lee (1991) to explaining generic expressions other than NP generics.

1. Generic Nnoun Phrases

(1) a. kay-nun cic- nun- ta.[1]
       dog GnP bark-PrsP-DecP
       'The dog barks; Dogs bark'
    b. kay-tul-un   cic-nun-ta.
       dog-PlP-GenP bark
       'Dogs bark.'
    c. kay-nun cecmeki-tongmwul-i- ta.
         dog GnP mammal   be-DecP
       'The dog is a mammal; Dogs are mammals'
    d. kay-tul-un   cecmeki-tongmwul-i- ta.
       dog-PlP-GenP mammal   be DecP
       'Dogs are mammals.'

As shown in (1), in Korean the generic NPs are characteristically marked by a particle *nun*, which I call a Generic Particle (GenP, henceforth), without any modification of article. A sentence with a plural NP as a subject as in (1.b) is a bit unnatural, but it is accepted as a generic expression. Deletion of articles and plural particle is very common in Korean. Thus, (1.a) can be interpreted as meaning (1.b), too. This means that the Korean sentence of type (1.a) may function both as (2.a) and (2.b) in English.

(2) a. The dog barks.
    b. Dogs bark.

On the other hand, sentences in (1.c) and (1.d), though generic, are a bit different from (1.a) and (1.b). The difference between (1.a-b) and (1.c-d) can be attributed to the predicates of the sentences. The present paper will represent the difference in terms of different logical forms.
    There is another fact to be taken into consideration. Depending upon what kind of NPs/predicates are used in a sentence, the particle *nun* may function as a topic particle, as shown in (3).

(3) mica-nun kho- ka   yeppu-ta.
    Mica TopP nose-NomP pretty-DecP
    'As for Mica, (her) nose is pretty.'

This fact accounts for the ambiguity of the sentence in (4).

(4) Ku kay- nun cic-nun-ta.
    the dog- GenP bark

The ambiguity of the sentence in (4) can be paraphrased as in (5).

(5) a. The dog (i.e., that particular kind of dog) barks.
    b. As for the particular dog, it barks.

That is, sentence (4) is ambiguous between a generic reading and an episodic reading (i.e., topic reading). Here we are interested in the generic reading. Considering this generic reading, we can regard sentences in (1), particularly (1.a), and (4) as the typical generic sentences in Korean. Again, the crucial factor is the presence of the GenP *nun*. Definite NPs without the GenP do not have the generic meaning (Cf. C. Lee 1989).[2] As in English, indefinite NPs do not seem to denote the meaning of genericity in Korean. Let us examine the following sentences:

(6) a. Ku kay-ka   cic-nun-ta
       the dog-NomP bark

'The dog barks = (I haven't expected it, but) the (particular) dog
barks/ It's
strange that the (particular) dog barks.'
b. Kay han   mali-ka   cic-nun-ta.
dog a/one AnCT-NomP bark
'A dog barks = One dog barks.'

As the English version in (6.a) shows, a definite NP without the GenP *nun* does not give rise to
the reading of genericity. In addition, the nominative marker *ka* (or *i*, depending upon the final
sound of the preceding word) deserves a remark. In contrast to the Topic/Generic particle *nun*,
the nominative particle *ka/i* marks Contrast/Focus (C. Lee 1989).[3] Sentence (6.b) shows that an
indefinite NP in Korean may not trigger the generic meaning. This intuition accords with what
have been observed by C. Lee (1989) and by Hwangbo (1991). They both note that indefinite NPs in
Korean do not give rise to generic reading.
    With some predicates, this is also true in English as the sentences in (7) show (Lawler
1973a,b; Lyons 1977: 196;).

(7) a. *A lion is extinct.
    b. *A lion is no longer to be seen roaming the hills of Scotland.

This may suggest that indefinite NPs do not trigger genericity in many languages.[4]
    As the sentences in (1), (4) and (6) indicate, the GenP *nun* is crucial in delivering
genericity in Korean. (6.a) does not have the generic reading because of the nominative particle
ka. Even without the definite article, when the nominative particle is present we cannot get the
generic reading as the following sentences show.

(8) a. kay-ka   cic- nun- ta.
       dog NomP bark-PrsP-DecP
       '(Now) A certain dog barks/ is barking = It's strange to see a dog
       barking.'
    b. kay-tul-i cic-nun-ta.
       dog-PlP-SP bark
       '(Now) Some dogs bark/ are barking = It's strange to see dogs barking.'

Sentences in (8) are different from those in (1) in that they have episodic readings, namely
they denote situations limited to the present time. I attribute this semantic difference to the
nominative particle *ka/i* in (8).
    It is true that the sentences in (1) are ambiguous in that they can have episodic readings.
That is, in addition to the ascribed generic reading, (1.b), for example, may have a descriptive
meaning that can be paraphrased as in (9).

(9) [It is dark outside. No one is around the house. And] Dogs bark/ are barking.

    If the sentence is in the past tense, it is more likely to have this episodic reading.
Examine the sentence in (10).

(10) a. kay-nun cic- ess- ta.
        dog GnP bark-PstP-DecP
        'The dog barked; Dogs barked'
     b. kay-tul-un   cic- ess- ta.
        dog-PlP-GenP bark PstP DecP
        'Dogs barked.'

Suppose that we live in a world where no dogs bark. But we know that dogs barked before, say for
a certain period of time in the past. Then, the notion of genericity can be defined within that
specific past time period. Under such a condition, sentences in (10) can be used to denote
generic meaning. For a similar observation in English, readers are referred to Carlson
(1982:165). In addition to this generic reading, both of the sentences can have an episodic
reading. My concern in this paper is the generic readings of the sentences exemplified by (1a,b)
and (4).
    Considering these facts, we can take the examples in (1a,b) and (4) as typical generic
sentences in Korean. The types of sentences given in (1.c,d) will be discussed in Section 4.

2. Quantificational Analysis

    In the previous two sections I discussed the general characteristics of generic sentences
in Korean. An attempt was made in Ik-Hwan Lee (1991) to provide a formal analysis of these types

of sentences.

Generic sentences are often discussed in connection with a sentence of the universal quantificational force (Jackendoff 1972; Lawler 1972,1973; Dahl 1975; Lyons 1977). I will briefly review some of the interesting observations. Then I will suggest a reasonable treatment of the sentences with generic NPs.

In the literature it is noted that a semantic interpretation of the generic operator may be obtained in terms of the universal quantification. Under this approach, the generic sentences (1a-b: repeated here for convenience) may be represented as in (11).

(1) a. kay-nun cic- nun- ta.
dog GnP bark-PrsP-DecP
'The dog barks; Dogs bark'
b. kay-tul-un cic-nun-ta.
dog-PlP-GenP bark
'Dogs bark.'

(11) GEN[x](x is a dog & x barks)

This is compared with the semantic representation of a sentence like (12), given in (13).

(12) motun kay-ka cic-nun-ta.
all dog NomP bark
'All dogs bark/ Every dog barks'
(13) $\forall(x)$ [$D(x) \rightarrow B(x)$]

The formula in (13) means that "for all values of x, if x is a dog, then x barks". However, this formula is too strong in that it can be falsified by discovering only a single non-barking dog. This is not intended by uttering the sentences in (1) and (4). At the same time, the formula in (13) is too weak in that it can be true if it just happens to be the case, as a matter of contingent fact, that all the extant dogs bark. The sentences in (1) are not intended to mean this, either (Lyons 1977:195; Krifka et al. 1990:26). As observed by Lyons, we may take the proposition expressed by (12) to be true, while refusing to subscribe to the truth of the proposition expressed by (1) or by (4). Thus, universal quantification does not seem to be satisfactory in formalizing the generic meaning of the sentences in (1) and (4).

A slightly different formulation is suggested by Dahl (1975). He notes that the generic sentence in (14) can be paraphrased either as (15.a) or as (15.b).

(14) A dog barks.

(15) a. In all alternative worlds, all dogs bark sometimes.
b. In all alternative worlds, all dogs are such that in all alternative worlds, they bark sometimes.

Dahl further suggests that (15.a) be formalized as (16.a), and (15.b) as (16.b).

(16) a. $\Box \forall x\ F(x)$
b. $\Box \forall x\ \Box F(x)$

He provides several arguments which speak in favor of choosing (15.b) rather than (15.a). Concerning the logical formula, he suggests that there be no significant differnce between (16.a) and (16.b).

In his analysis, however, it is not clear how the quantificational adverb 'sometimes' in (15) is interpreted. The formulas in (16) does not specify the semantics of this adverb. It seems that the adverb is introduced to weaken the strong universal reading of the NP 'all alternative worlds'. However, unless the semantics of this adverb is more clearly represented, his analysis will face a similar criticism as in the case of (13). That is, Dahl's formulas in (16) can be regarded as a similar form of any regular formula of universal quantification.

3. Generic Quantifier

It is true that some generic sentence denotes a proposition of the universal quantificational force, as the sentences in (1.c) and (1.d) show, which are repeated here in (17).

(17) a. kay-nun cecmeki-tongmwul-i- ta. (=1.c)
dog GnP mammal be-DecP
'The dog is a mammal; Dogs are mammals'

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b. kay-tul-un   cecmeki-tongmwul-i- ta.(=1.d)
dog-P1P-GenP mammal   be DecP
'Dogs are mammals.'

The sentences in (17) are different from those in (1.a-b). The generic sentences in (1.a-b), as noted above, allow exceptions. For the sentences in (17), however, there can be no exception under the present biological knowledge. Lawler (1973a:15,113; 1973b:317) suggests that we postulate two generic quantifiers: namely, a universal generic quantifier ($\forall_g$) for the types of sentences in (17) and an existential generic quantifier ($\exists_g$) for those in (1.a-b).

He analyzes generic sentences in terms of presupposition and assertion. Accordingly, the two different quantifiers are actually represented as two expressions each. According to his analysis, the logical form of a univeral generic sentence can be represented in the following general form of (18). Please note that I use the situation variable s instead of Lawler's event variable e.

(18) a. P: $(\exists s)(\exists x)(\Diamond F(x,s))$
     b. A: $(\forall s)(\exists x)(\Diamond F(x,s) \rightarrow F(x,s))$
        where, P = Presupposition; A = Assertion; x = Individual variable;
           s = Situation variable; F = Predicate variable;

It should be noted that the logical operator $\Diamond$ is not an ordinary modal operator. It "can be read as an epistemic" operator (Lawler 1973b:326). That is, it denotes the inherent possibility or ability. Furthermore, the conditional in the assertion in (18.b) is equivalent to saying "if possible". This is necessary in any generic.

On the other hand, an existential generic sentence is represented in the following form:

(19) a. P: $(\exists s)(\exists x)(\Diamond F(x,s))$ (same as (18.a))
     b. A: $(\exists s)(\exists x)(\Diamond F(x,s) \rightarrow F(x,s))$

(Here, $[\Diamond F(x,s)$ indicates a normal situation.)

In the formula in (19.b), the existential quantifier binding the event variable e cannot be treated as an ordinary existential quantifier. If it can, the assertion in (19.b) would have an unfavorable consequence. That is, the proposition in (19.b) will be true even if there is only one situation in which dog barks. This does not correctly capture the genericity denoted by sentences such as (1) and (4). To avoid this confusion, we may devise a new generic quantifier which, allowing exceptions, has the force of a universal quantifier. For this purpose I use the symbol A. Now (19.b) is rewritten as in (20.b), with the presupposition part unchanged.

(20) a. P: $(\exists s)(\exists x)(\Diamond F(x,s))$ (same as (18.a = 19.a))
     b. A: $(A s)(\exists x)(\Diamond F(x,s) \rightarrow F(x,s))$

Now, the so-called universal generic sentence is represented as (18), and the so-called existential generic one as (20), which I will call a pseudo-universal generic representation. The presupposition part and assertion part may be conjoined as in (21).

(21) a. Universal generics: (17.a-b = 1.c-d): Logical form: (18)
        $[(\exists s)(\exists x)(\Diamond F(x,s))] \wedge [(\forall s)(\exists x)(\Diamond F(x,s) \rightarrow F(x,s))]$
     b. Pseudo-universal generics: (1.a-b) : Logical form: (20)
        $[(\exists s)(\exists x)(\Diamond F(x,s))] \wedge [(A s)(\exists x)(\Diamond F(x,s) \rightarrow F(x,s))]$

For the interpretation of the quantified formulas, the following truth-conditions are postulated.

(22) a. $[(\forall s)(\exists x) F(x,s)]$ = 1(TRUE) iff for every value assignment g' to
        the variable s, for some value assignment h' to the variable x, and for
        every index i, $[F(x,s)]^{M,g',h',i} = 1$.

     b. $[(A s(\exists x) \Diamond F(x,s)]$ = 1(TRUE) iff for more than 75% of all value
        assignments g's to the variable s, for some value assignment h' to the
        variable x, and for some index i, $[F(x,e)]^{M,g',h',i} = 1$.

The truth condition in (22.b) is a tentative one, which is open to a further refinement. But there is one point to be noted. What is important in the truth-conditions in (22) is the presence of the event variable s. The distinction between the universal and the pseudo-universal generics crutially relies on this variable. In (22.b) the expression '75%' might sound

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arbitrary. Nonetheless, this seems to be the best formulation I can think of.
Now the pseudo-universal generic sentence in (1.a) is represented as in (23).

(1) a. kay-nun cic- nun- ta.
      dog GnP bark-PrsP-DecP
      'The dog barks: Dogs bark'

(23) $[(\exists s)(\exists x) [D(x,s) \wedge \Diamond B(x,s)]] \wedge$
      $[(As)(\exists x) [[D(x,s) \wedge \Diamond B(x,s)] \rightarrow B(x,s)]]]$

Similarly, the universal generic sentence in (1.c = 17.a) is represented as in (24).

(1.c = 17.a). kay-nun cecmeki-tongmwul-i- ta.
              dog GnP mammal   be-DecP
              'The dog is a mammal: Dogs are mammals'

(24) $[(\exists s)(\exists x) [D(x,s) \wedge M(x,s)]] \wedge [(\forall s)(\exists x) [D(x,s) \rightarrow M(x,s)]]$

4. Generic Verb Phrases

So far I have discussed the generic NPs. In the examples (3)-(4), however, we can see that the generic reading of a sentence is not uniquely concerned with the so-called generic NPs in the sentence. In this case, the generic meaning is directly related to the semantic characteristics of predicates. In this section I will discuss the generic reading arising from VPs. In particular, habitual sentenced will be discussed in terms of generic reading. Let us examine the sentences in (25)-(26).

(25) mica-nun cha-llu molko hakkyo-ey tani-n-   ta.
     Mica GnP car AcP drive school to go   PrstP DecP
     'Mica drives a car to school.'
(26) mica-nun cha-llu molko hakkyo-ey tani-ko- iss- ta.
     Mica GnP car AcP drive school to go   PrstProg DecP
     'Mica is driving a car to school.'

The sentence in (25) denotes a habitual situation (or event), while (26) denotes an event under progress in an interval including the present point of time. Generally, the time period of the event in (25) is determined by some pragmatic factor. The time period in (26), however, is expressed by the progressive aspect.
If a time adverb is used the situation is different. Look at the sentences in (27)-(28).

(27) mica-nun ol yelum-ey   cha-llu molko hakkyo-ey tani-n-   ta.
     Mica GnP this summer-in car AcP drive school to go   PrstP DecP
     'Mica drives a car to school this summer.'
(28) mica-nun ol yelum ey   cha-llu molko hakkyo-ey tani-ko- iss- ta.
     Mica GnP this summer-in car AcP drive school to go   PrstProg DecP
     'Mica is driving a car to school this summer.'

The sentence in (27) can be interpreted either as the future meaning or as the report of the present habit. On the other hand, (28) is interpreted only as the present habit. The simple present in (27) limits the time period to 'this summer'. The present progressive in (28), however, gives rise to the reading of 'at least this summer'. Thus in (28) it is denoted that the time period may be extended over the period 'this summer'. Here I am concerned with the present habitual reading of the sentence. I analyze this type of habitual meaning in terms of the method suggested for generic sentences in Ik-Hwan Lee (1991).
Specifically, the sentences are analyzed by adopting the methods suggested in Dowty(1979), Parsons(1990), Kearns(1991), Ik-Hwan Lee(1991). That is, in interpreting the tense and aspect of the sentences I adopt Dowty's time interval. Furthermore, I adopt the event variable fro Parsons(1990) and Kearns(1991). To represent the habitual event I use the semantics of generics elaborated in Carlson(1977,1989) and Ik-Hwan Lee(1991).
According to Kearns(1991), the sentences in (25) and (28) are represented as (29) and (30), respectively.

(25) mica-nun cha-llu molko hakkyo-ey tani-n-   ta.
     Mica GnP car AcP drive school to go   PrstP DecP
     'Mica drives a car to school.'
(28) mica-nun ol yelum ey   cha-llu molko hakkyo-ey tani-ko- iss- ta.
     Mica GnP this summer-in car AcP drive school to go   PrstProg DecP

'Mica is driving a car to school this summer.'

(29) Es(driving-a-car-to-school(s) $\wedge$ Agent(m,s)) [s=situation]
(30) [Qt:t = this summer] (Es[[at(s, t) $\vee$ [Et'[(t is a proper subset of t')
    & at(s, t')]] $\wedge$ driving-a-car-to-school(s) $\wedge$ Agent(m, s)]]
    (s menas situation)

Here the logical form in (30) indicates that the time period may be extended over the exprerssed period 'this summer'. Kearns(1991) notes that a situation denoted by a habitual sentence implies the sporadic situations within the time period. This fact can be represented by the logical form given in (31). I replace Kearns' variable e by s.

(31) EIEs[(at(s, I) $\wedge$ P(s)] +> EtEs[(t is a subset of I) $\wedge$ at(s, t) $\wedge$ P(s)]

As shown in (31) a situation which is true within I satisfies the predicate P. If this situation is satisfied, it will be the case that there is a time t (t is a subset of I) and a specific situation s is true of this time t. This event is designated by the predicate P.
    Now, I represent the analyzed meanings, namely (29), (30), and (31) in terms of the formalism introduced in Ik-Hwan Lee(1991). That is, I represent the situation s in I as a part of the presupposed meaning, while I represent the fact that there are specific events in I in the form of assertion. I introduce a general interval in the representation given in (29). In (30) I rewrite t and t' as I and I', respectively. I take t in (31) as an existential generic expression and introduce a quantifier A which binds the time t. Accordingly, (25) and (26) are represented as (32) and (33), respectively.

(25) mica-nun cha-llu molko hakkyo-ey tani-n-   ta.
    Mica GnP car AcP drive school to go   PrstP DecP
    'Mica drives a car to school.'

(32) EIEs[[(at(s, I) $\wedge$ driving-a-car-to-school(s)) $\wedge$ Agent(m, s)] $\wedge$
    $\forall$ IEs[[(at(s, I) $\wedge$ driving-a-car-to-school(s))] $\rightarrow$ [A tEs'[(t is a
     subset of I) $\wedge$ at(s', t) $\wedge$
     $\diamondsuit$ [(driving-a-car-to-school(s') $\wedge$ Agent(m, s')]]
     $\rightarrow$ [(driving-a-car-to-school(s') $\wedge$ Agent(m, s'))]]]]]
     (s' is a specific situation(or event) of the type of s)

    (Here, $\diamondsuit$ [(driving-a-car-to-school(s') $\wedge$ Agent(m, s')] indicates a normal situation.)

(26) mica-nun cha-lul molko hakkyo-ey tani-ko- iss- ta.
    Mica GnP car AcP drive school to go PrstProg DecP
    'Mica is driving a car to school.'

(33) EIEs[[[at(s, I) $\vee$ EI'[(I is a proper subset of I') $\wedge$ at(s, I')]] $\wedge$
    driving-a-car-to-school(s) $\wedge$ Agent(m, s)] $\wedge$
    [$\forall$ IEs[[(at(s, I) $\wedge$ driving-a-car-to-school(s))] $\rightarrow$ [A tEs'[(t is a subset
     of I) $\wedge$ at(s', t)] $\wedge$
     $\diamondsuit$ [(driving-a-car-to-school(s') $\wedge$ Agent(m, s')]]
     $\rightarrow$ [(driving-a-car-to-school(s') $\wedge$ Agent(m, s')]]]
     (s' is a specific situation(or event) of the type of s. That is, s' has
     a $part$-of relation to s(Cooper 1991).)

For the semantic interpretation of (32) and (33) I introduce the following truth condition for the pseudo-universal quantifier (i.e., generic quantifier).

(34) [A tEs'[[(t is a subset of I) $\wedge$ at(s', t)] $\wedge$
    $\diamondsuit$ [(driving-a-car-to-school(s') $\wedge$ Agent(m, s')]]
    $\rightarrow$ [driving-a-car-to-school(s') $\wedge$ Agent(m, s')]] = 1(TRUE) iff for
    more than 70% of all value assignments h's to the variable t, for some
    value assignment g' to the variable s', and for some index i,
    [(driving-a-car-to-school(s') $\wedge$ Agent(m, s'))]$^{M \cdot g', h', i}$ = 1.

As shown in (32), (33), and (34), we can represent the habitual reading of the simple present sentence and the present progressive sentence in terms of the semantic representatin of generic expressions. In the truth condition given in (34) the phrase 'more than 75%' and the expression '75%' in (22.b) need to be further investigated. On this point there may be difference depending upon culture and individual. I would like to leave this question open.

5. Summary and Conclusion

In this paper Korean generic sentences are divided into two major categories. They are NP generics and VP generics. NP generics are further subdivided into universal generics and pseudo-universal generics. This division is based on the fact that in some cases the generic reading arises from the semantic characteristics of the predicate in the sentence.

In this paper the the universal NP generics (1.a-b) are formalized as in (23), while the pseudo-universal NP generics in (1.c-d) are logically representened as in (24). In providing the formal representation I took into consideration the formal representations suggested by Lawler (1972,1973), Carlson (1982), and Krifka et al. (1990). Nonetheless, the representaions in (23) and (24) are different from these analyses in some way or other.

VP-generic sentences were discussed on the basis of habitual sentences. That is, habitual sentences were identified as VP generic sentences. It was shown that this type of VP-generic sentences can be analyzed in terms of the formal mechanism introduced in Ik-Hwan Lee(1991) for NP-generic sentences.

To conclude, I hope to have shown that at least two significant types of generic sentences in Korean can be effectively represented in terms of logical forms which make use appropriate quantifiers. In other words, the present paper has shown the effectiveness of the quantificational approach to the semantic analysis of generic sentences in Korean.

NOTES

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1. In describing Korean data, the following abbreviations are used:
    AccP = Accusative Particle
    AnCT = Animal Counter
    DecP = Declarative Particle
    ExcP = Exclamatory Particle
    GnP = Generic Particle
    NomP = Nominative Particle
    PossP = Possessive Particle
    PostP = Postposition
    PlP = Plural Particle
    PrstP = Present Tense Particle
    PrstProg = Present Progressive Aspect
    PstP = Past Tense Particle
    TopP = Topic Particle

2. Of course, as observed by Seungja Choi (1989; personal communication), the particle *nun* has other semantic functions in addition to that of the generic marker. In the present paper our particular concern is the generic use of the particle *nun*.
A further discussion on this point is provided in note 5.

3. C. Lee (1989) discusses the following expression:
    (i) kay-ka ta   wus- ne!
        dog SP (even) laugh-ExcP
    C. Lee cites this example as a puzzsle. The common noun marked with the subjective particle *ka* is perceived as "the stage with an instance of dog but commented on dog-kind." However, this seems to be a comment on a particular dog on a particular occasion. Thus, this is a particular example. The dog-kind implication seems to arise from the relation of (i) to the following negative generic sentence:
    (ii) kay-nun an wus-nun-ta.
        dog GnP not laugh
    Looking at C. Lee's sentence in this way, we can easily account for the impression that (i) seems to give rise to the dog-kind implication. The impression comes not the NP *kay-ka* in (i) but from the implicit negative generic sentence (ii). This conclusion accords with my contention that the particle *ka* instantiates particular individuals.(Cf. note 5 below.)

4. However, in some cases English indefinite NPs can have generic readings as will be noted in Section 2. For example, look at the following sentences:
    (i) *A lion will become extinct soon.
    (ii) A lion (namely the Berber lion) will become extinct soon.
Here in sentence (ii) the indefinite NP *a lion* is interpreted as a taxonomic NP, thus the

sentence (ii) is grammatical (Krifka 1990).

5. As for the distinction between *nun* and *ka*, Seungja Choi (personal communication) notes that the particle *ka* may function as the generic marker. She provides the following dialogue:

A: (i) kay-nun cecmeki tongmul-i ani ci?
         dog   mammal   be not
         The dog isn't mammal, is it?

B: (ii) kay-ka cecmeki tongmul ila-nun kes-un ta a-nun sasil ita.
          dog   mammal   be   all know fact be
          The fact that the dog is mammal is known to everybody.

   (iii) ?*kay-nun cecmeki tongmul ila-nun kes-un ta a-nun sasil ita.
          dog   mammal   be   all know fact be
          The fact that the dog is mammal is known to everybody.

Choi argues that in the embedded sentences the particle *ka*, not *nun*, gives rise to a generic reading as shown in B' responses. That is, (ii) is appropriate as B's response to A's tag question. But (iii) is unnatural as B's response to A. This situation shows that *ka* may function as the generic marker.

In this case, however, the particle *ka* in (ii) is a focus marker which appears in the place of the generic particle *nun* in (i). Thus, the kind-generic reading of (ii) is not due to the focus particle *ka*, but actually due to the original generic particle *nun* in (i).(Cf. Kuno 1973) (iii) is unnatural because it is in the contrastive focus context without the focus particle.

Thus, Choi's observation does not weaken my claim that the particle nun sets up the potential generic reading of the NP to which it is attached.

Incidentally, considering this fact, we can see it natural that Carlson's problematic sentence does not cause any difficulty in its Korean version. In Carlson's (1989) anlaysis the following sentence is ambiguous:

(i) Hurricanes arise in this part of the Pacific.

One reading of (i) is a generic reading, in which the sentence says somethign about hurricanes in general. In addition, in (i) the NP hurricanes can have an existential reading, in which the phrase 'this part of the Pacific' is closed up. This latter interetation is noted as a problem in Carlson, since it cannot be explained by the subjct NP itself.

In Korean this distinction is made by the use of particles. Thw two readings of (i) in Korean are distinguished as follows:

(ii) thayphwung <u>un</u> thayphyengyang uy   i pwupwun eyse palsaynghan-ta.
     hurricane GnP the-Pacific   PossP this-part at   arise-   DecP

(iii)a. thayphwung <u>i</u>   thayphyengyang uy   i pwupwun eyse(<u>nun</u>)
        hurricane NomP the-Pacific   PossP this-part at
        palsaynghan-ta.
        arise-   DecP

(ii) b. thayphyengyang uy   i pwupwun eyse <u>nun</u> thayphwung <u>i</u>
        the-Pacific   PossP this-part at   GnP hurricane NomP
        palsaynghan-ta.
        arise-   DecP

In (ii) the NP *thayphwung un* has the generic reading, while the NP *thayphwung i* has has the existential reading in (iii,a-b).

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