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- ► 논문게재에 관하여 기타 문의사항이 있으시거나, 원고제출에 관해 의논하시려면 편집위원장인 윤영은 교수님께 연락하시면 됩니다.

## 2. 회원 가입 및 회비 납부 안내

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연회비: 정회원 40,000원, 준회원 20,000원, 기관회원 100,000원

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▶ 아울러 주변의 교수님들과 대학원생들이 신입회원으로 많이 가입할 수 있도록 적극적으로 홍보해 주시기를 부탁 드립니다.

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[2003년 12월 이전 평생회비 납부회원: 연회비 선납 처리]

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- ► 기관회원: 경북대, 고려대, 광운대, 국회, 단국대(서울캠퍼스), 단국대(천안캠퍼스), 명지대, 방통대, 부산대, 상명대(천안캠퍼스), 상지대, 세종대, 위덕대, 조선대, 한경대, 한양대(안산캠퍼스), 홍익대
- ▶ 명단에 착오나 누락 사항이 있으시면 알려주시기 바랍니다.

## 4. 공지사항

- ► 지난 소식지에서 알려드린 바와 같이 우리 학회 연구윤리규정이 제정되어 홈페이지의 게시판과 학술지 안내 부분에 공지되어 있습니다. 참고하시기 바랍니다.
- ► PACLIC 21에 직접 참가하시지 못한 분들을 위해 학술대회 프로시딩즈를 12월 월례발표회 때 판매할 예정이니 아래 사항을 참고하시기 바랍니다. 또한 유은정 총무이사(ejyoo@snu.ac.kr)에게 신청하시면 우편으로도 보내드리도록 하겠습니다.

PACLIC 21 프로시딩즈 및 CD: 11,000 원 (직접구입시) 15,000 원 (등기우송시)

- ▶ 9월에 새로이 개통된 학회 홈페이지(<a href="http://society.kisti.re.kr/~ksli/">http://society.kisti.re.kr/~ksli/</a>)에서 수정사항을 발견하시거나 내용 또는 운영에 대해 의견이 있으신 분은 신효필 홍보이사(<a href="https://hpshin@snu.ac.kr">hpshin@snu.ac.kr</a>)께 연락 주시기 바랍니다.
- ▶ 회원주소록은 연중 관리하고 있습니다. 주소 및 이메일, 전화번호가 바뀌신 분은 변경된 내용을 알려주 시면 많은 도움이 되겠습니다. (연락처: 유은정(총무이사) ejyoo@snu.ac.kr)

#### 5. 월레 논문발표회

봄학기에 이어 가을학기에도 기존의 기획논문과 일반논문 발표 이외에 분야별 FISA (Fundamentals, Issues, and the Sate-of-the-Art) 특강 시리즈를 기획하고 있습니다. 이번 12월 모임에는 정소우 (성신여대) 교수님의 담화표상이론(Discourse Representation Theory) 분야 특강이 준비되어 있으며, 장태엽(한국외대) 선생님의 기획논문 발표와 차종열 (대전대), 이예식 (경북대) 교수님의 일반논문 발표가 있을 예정입니다. 월례회에 대한 문의사항이 있으시면 류병래 연구이사(ryu@cnu.ac.kr)나 유은정 총무이사(ejyoo@snu.ac.kr)에게 연락 주시기 바랍니다.

## 한국언어정보학회 2007년 12월 월레회 발표논문 초록

**Automatic Pronunciation Assessment Using Dictionary Expansion** 

Tae-Yeoub Jang

#### (Hankuk University of Foreign Studies)

The ultimate goal of this ongoing project is to establish an automatic tool that helps diagnose accuracy of pronunciation by Korean learners of English. Its main ideas and procedures will be introduced in the talk.

The crucial procedure includes the modification of the pronunciation dictionary employed in most modern automatic speech recognition systems. Based on a standard pronouncing dictionary containing a canonical word pronunciation for each lexical item and its optional variations, a new dictionary is designed to contain a variety of pronunciation errors produced by non-native learners. In other words, the dictionary contains two different types of pronunciation variants: native speakers' legitimate variations and language learners' error pronunciations. Each error variant is assigned a score which is determined a priori on the basis of levels of speakers who are likely to produce that type of error.

When the speech recogniser operates on a target speech signal produced by a learner, it picks up a variant after looking up the closest match in the expanded dictionary. If the chosen variant is a legitimate variation of native speakers no penalty score is given. When, on the other hand, it is found to be one of the error pronunciations the designated penalty score is specified. After the whole process is terminated, all the penalty scores are integrated into an overall evaluation score which is directly shown to human users or evaluators. More details on critical modules will be presented during the talk.

The proposed study is expected to provoke more active research on automatic pronunciation evaluation as a module for the computer aided language education system.

#### <FISA 특강>

## Discourse Representation Theory: Fundamentals, Issues and the State-of-the-Art

정소우 (성신여자대학교)

Kamp (1984), Kamp and Reyle (1993), 그리고 Kamp, Relye and Genabith (2003) 등에 제시된 담화표상이론은 몽테규 의미론과 같은 진리조건적 의미론이 역점을 둔 문장의 진리 조건뿐만 아니라 화용론에서 역점을 둔 문맥과 문장 의미간의 상관관계를 담화표상을 통해서 기술하고 있다. 이 담화표상이론은 통사적 단계, 담화표상구조단계, 그리고 해석단계 등 크게 3단계로 구성된다. 이 중, 담화표상구조단계는 대화에 참여하는 청자와 화자가 언어표현을 듣고 머리 속에 그리는 마음의 표상 (mental representation)을 나타내는 담화표상들로 이루어지며, 담화표상간의 구조적 관계를 이용하여 명사간의 조응관계, 시제간의 조응관계, 함의관계, 양화사간의 영역관계 등을 나타내기도 한다.

이 시간에는 담화표상 구축 원리와 담화지시자 혹은 담화표상간의 접근가능성 등과 같은 담화표상이론의 기본 개념과 원리들과 그 변천 과정을 살펴 본다. 또한 최근의 담화표상이론 문헌과 주요 관심사를 살펴보도록 한다.

참고문헌 (일부)

Kamp, H., U. Relye and J. van Genabith. 2003. Discourse Representation Theory, Handbook of Philosophical Logic, (ed.) D. Gabbay. Kluwer: Dordrecht. (rough draft). Kamp, H. and U. Reyle. 1993. From Discourse to Logic. Kluwer: Dordrecht.

## **Reconsidering Subjectless Constructions**

Jong-Yul Cha (Daejeon University)

This paper investigates the constructional properties of a seemingly subjectless construction in Korean, as in (1a), which consists of a lexically restricted verb kath(`seem') whose complement is a clausal complex noun phrase headed by a generic bound noun kes. The construction in (1a) appears to have no subject, as the matrix clause verb kath takes only a non-subject and non-case marked complement, that is, a clausal complex noun phrase. This is compared to the other use of the same verb in (2), which takes both a subject and a complement.

```
(1) a. [NP [s John-i Mary-lul sarangha-nun] [N kes]] [V kath-ta.]

Nom Acc love-Adn BN seem-Decl

'It seems that John loves Mary.' (Adn: adnominalizer; BN: bound noun)

b. *[NP [s John-i Mary-lul sarangha-nun] [N kes]]-i/ul kath-ta.

Nom/Acc

(2) [NP Mary-nun] [NP cangmikkoch] [V kath-ta.]

Top rose seem-Decl

'Mary looks like a rose.'
```

The bound noun *kes* that occurs in the construction (1a) shows some idiosyncrasies: (i) it hardly carries any lexical meaning in it, i.e., it serves only as a place holder, like the English dummy nouns such as *it* and *there*; (ii) it cannot stand alone and requires a determiner, an adjective or an adnominal clause as shown in (3); (iii) the use of *kes* in (1a) cannot have a case marker to it, as shown in (1b), which is compared to its use in other constructions as in (4a-b) where case markers are required.

```
(3) a. *kes-i
                coh-ta.
   BN-Nom good-Decl
   Intended: 'It is good.' Or 'The thing is good.'
  b. *John-un
                 kes-ul
                          cohaha-n-ta.
       Top BN-Acc like-Pres-Decl
   Intended: 'John likes it.' Or 'John likes the thing.'
(4) a. [NP [S John-i Mary-lul sarangha-nun] [N kes]]-ul [NP nay-ka] [V al-n-ta.]
       Nom Acc love-Adn
                                 BN-Acc
                                           I-Nom know-Pres-Decl
      'I know that John loves Mary.'
   b. [NP [S John-i Mary-lul sarangha-nun] [N kes]-i] [NP muncey]
                                                                    [v i-ta.]
         Nom Acc love-Adn
                                 BN-Nom problem
      'It is the problem that John loves Mary.'
```

Some literature (Park 1974 and Yoon 1989) tries to identify the subject of the construction in (1a) by assuming that a 'situational' subject is left out at the beginning of the sentence, as represented in (5), following the pattern of the sentence (2) above.

```
(5) ([NP sanghwang-i]) [NP [S John-i Mary-lul sarangha-nun] [N kes]] [v kath-ta.] situation-Nom Nom Acc love-Adn BN seem-Decl '(The situation is that) John loves Mary.'
```

But it is not desirable to pursue an approach that depends on paraphrasing tactics without any independent motivation because it does not provide a systematic way to solve a linguistic problem.

Furthermore, there is a puzzle involving distribution of a negative polarity item (NPI) in this construction, against the traditional assumption (Lee 1997, among others) that an NPI and the corresponding negative element should be in the same clause. In (6), for example, contrary to the assumption, an NPI *cenhye* is present in the embedded clause with its corresponding negative element *anh* in the matrix clause.

```
(6) [NP [S John-i cenhye Mary-lul sarangha-nun] [N kes]] [V kath-ci anh-ta.] Nom NPI Acc love-Adn BN seem-NS not-Decl 'It does not seem at all that John loves Mary.' (NS: negative suffix)
```

But other similar constructions show different grammatical behavior in this regard. The sentences in (4a-b) above that have an explicit subject cannot have an NPI in the embedded clause with the corresponding negative element in the matrix clause, as shown in (7).

```
(7) a. *[NP [s John-i cenhye Mary-lul sarangha-nun] [N kes]]-ul [NP nay-ka] [V molu-n-ta.] Nom NPI Acc love-Adn BN-Acc I-Nom not know-Pres-Decl
```

Intended: 'I do not know at all that John loves Mary.'

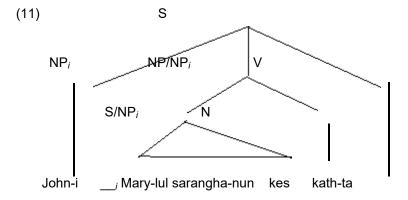
b. \*[NP [S John-i cenhye Mary-lul sarangha-nun] [N kes]]-i [NP muncey-ka] [V ani-ta.] Nom NPI Acc love-Adn BN-Nom problem-Nom not\_be-Decl Intended: 'It is not the problem at all that John loves Mary.'

Also, a sentential adverb like *amato('probably')* can be present in the embedded clause still modifying the matrix clause verb *kath* in the construction in (1a), as shown in (8), while it is not possible in other similar constructions, as shown in (9a-b).

- (8) [ $_{NP}$  [ $_{S}$  John-i **amato** Mary-lul sarangha-nun] [ $_{N}$  kes]] [ $_{V}$  **kath-**ta.] Nom **probably** Acc love-Adn BN **seem-**Decl 'It is probable that John loves Mary.'
- (9) a. \*[NP [s John-i cal Mary-lul sarangha-nun] [N kes]]-ul [NP nay-ka] [v al-n-ta.] Nom well Acc love-Adn BN-Acc I-Nom know-Pres-Decl Intended: 'I know well that John loves Mary.'
  - b. \*[NP [s John-i **cham** Mary-lul sarangha-nun] [N kes]]-i [NP **muncey**] [v i-ta.] Nom **really** Acc love-Adn BN-Nom **problem be**-Decl Intended: 'It really is the problem that John loves Mary.'

The two facts described above (and others that are not presented here due to limited space) lead us to reconsider the structure of the seemingly subjectless construction in (1a). In this paper I claim that the sentence (1a) has the 'semi-flat' structure, as bracketed in (10) and as tree-diagramed in (11).

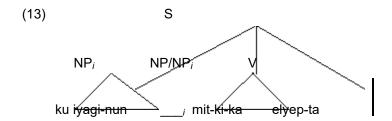
(10) [ $_{NP}$  John-i] $_i$  [ $_{NP}$  [s \_\_\_\_ $_i$  Mary-lul sarangha-nun] [ $_{N}$  kes]] [ $_{V}$  kath-ta.] Nom Acc love-Adn BN seem-Decl



In the structure above, the first NP *John*, the second NP headed by *kes*, and the verb *kath* are now clausemates. This structure allows an NPI after the first NP and the corresponding negative element in the main verb to be in the same clause, which also explains why a sentential adverb can be placed after the first NP in this construction. Also, like in the sentence (2) above, the verb *kath* now subcategorizes for two NPs, a subject and a complement. Therefore, according the structural analysis in (11), the construction is not subjectless any more.

Surprisingly, the construction as represented in (11) is structurally analogous to that of *tough* construction as assumed in the GPSG/HPSG community (Gazdar at al 1985; Pollard et al 1994, among others), having a lexical gap, as shown in (12) and (13).

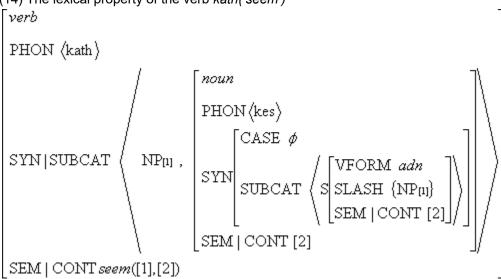
(12) [NP ku iyagi-nun]; [NP [S \_\_\_\_ i mit]-ki-ka] [v elyep-ta.] the story-Top believe-Nmlz-Nom be\_difficult-Decl 'The story is difficult to believe.' (Nmlz: nominalizer)



As seen in (11) and (13), the two constructions have at least two things in common: (i) the main verbs (*kath* and *elyep*) subcategorize for two NPs, a subject and a clausal complex noun phrase missing an NP; (ii) the subject and the missing NP in the embedded clause refer to the same entity, as represented by coindexation in the tree diagram.

Based on this similarity and other arguments presented so far, I claim that the syntactic and semantic properties of the construction in (1a) come from the interaction of the two lexical elements: the generic bound noun *kes* and the lexically restricted verb *kath*. Following in the main the simplified version of HPSG, as proposed in Sag (to appear), I represent the lexical property of the verb *kath* as in (14):

(14) The lexical property of the verb *kath('seem')* 



Syntactically, the above feature structure says that the Korean verb *kath* subcategorizes for two NPs and the second one is the caseless instance of bound noun *kes*, which in turn subcategorizes for an adnominal clause missing an NP that has the same index with the first NP in the subcategorization list of the verb. Semantically, it says that the meaning of the adnominal clause is the same as that of the whole clausal complex noun phrase, indicating that the generic bound noun *kes* contributes nothing to the semantics of the clausal complex noun phrase as the bound noun does not carry any lexical meaning in it. Also, it says that the semantics of the verb *kath* is a function that takes as arguments the meaning of the subject NP and that of the clausal complex noun phrase headed by the bound noun *kes*.

The analysis used here can be extended to the similar constructions, as shown in (15), which have the same syntactic structure as that of (1a), except that the main verb and the bound noun come from different stocks.

- (15) a. [ $_{NP}$  [ $_{S}$  John-i Mary-lul sarangha-nun] [ $_{N}$  chek]] [ $_{V}$  ha-n-ta.] Nom Acc love-Adn BN('pretense') do-Pres-Decl 'John pretends to love Mary.'
  - b. [NP][S] John-i Mary-lul sarangha-l] [N] cwul]] [V] al-n-ta.] Nom Acc love-Adn(fut) BN('method') know-Pres-Decl 'John knows how to love Mary.'
  - c. [ $_{NP}$  [ $_{S}$  John-i Mary-lul sarangha-l] [ $_{N}$  swu]] [ $_{V}$  iss-ta.] Nom Acc love-Adn(fut) BN('possibility') exist-Decl 'John can love Mary.' (Adn(fut): future tense adnominalizer)

Alternative explanations of the construction in (1a) might be achieved by adopting Lexical Sharing Approach (Kim et al 2004) or Lexical Inheritance Analysis (Ball 2005). These two approaches add many new HPSG features and extra mechanisms or assumptions of their own to the current HPSG theory (Ginzburg and Sag 2000; Sag 1997), so that the problems of the construction could be resolved by treating the bound noun plus verb chunk as one lexical unit. Putting aside the detailed arguments, my analysis provided in this paper has at least one good advantage over the other two analyses, in that mine can solve the puzzles of the construction without resorting to any new structural and/or semantic features or extra mechanism or assumption being added to the current HPSG theory.

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## 한국언어정보학회 2007학년도 2학기 월례회 일정표 장소: 대우재단 8층 1실 시간: 9:30-13:00

날짜	시간	구분	발표자	논문제목	사회
	09:30 10:15	기획	한나래 (서울대)	Korean Zero Pronouns: Analysis and Resolution	
			Coffee Bre	` ,	
09/29	10:30 11:40	*FISA 특강	최혜원 (이화여대)	Lexical Functional Grammar: Fundamentals, Issues and the State-of- the-Art	염재일
(토)	Coffee Break (20분)				(홍익대)
	12:00 12:30	일반	이숙의, 류병래 (충남대)	한-영 자동번역을 위한 연결패턴의 특화 기법에 관한 연구	
	12:30 13:00	일반	채명희 (조선이공대)	Number Concord in Wh-Cleft Constructions: A Lexicalist Approach	
11/01 11/02 11/03			PACLIC 21 ( 2007년 11월 1		
	09:30 10:15	기획	오치성 (서울대)	Unratified topics in Korean: The case of topics with the marker -nun	
			Coffee Bre	eak (15분)	
11/24	10:30 11:40	FISA 특강	안상철 (경희대)	Optimality Theory: Fundamentals, Issues and the State-of-the-Art	홍민표
(토)			Coffee Bre	eak (20분)	(명지대)
	12:00 12:30	일반	손현정 (연세대)	불-한 병렬 말뭉치의 문장 정렬 방법에 관하여	
	12:30 13:00	일반	이해윤 (한국외대)	문법적 연어 '비록라도'	
12/15 (토)	09:30 10:15	기획	장태엽 (한국외대)	Automatic Pronunciation Assessment Using Dictionary Expansion	이한정 (성균관대)
			Coffee Bre	eak (15분)	

10:30 11:40		정소우 (성신여대)	Discourse Representation Theory: Fundamentals, Issues and the State-of- the-Art		
	Coffee Break (20분)				
12:00	일반	차종열	Reconsidering Subjectless		
12:30		(대전대)	Constructions		
12:30 13:00	1 의마	이예식 (경북대)	Is Event a Grammatical Object?		

<sup>\*</sup>FISA 특강시리즈 (Fundamentals, Issues and the State-of-the-Art)