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Hong, Sung-Ryong. 2001. A Lexical Constraint-Based Approach to Coordination Constructions. *The Linguistic Association of Korea Journal*, 9(3), 52-70. Coordination constructions have widely been studied in various linguistic theories. The previous studies have focused on how to analyze the coordination constructions where the coordinated expression is clearly identified as a constituent. Accordingly, these studies cannot provide an appropriate analysis to the coordinated constructions which has a gap in each conjunct. This paper first reviews how constituent constructions has been approached in the Head-driven Phrase Structure Grammar(HPSG). Second is to show how to apply HPSG principles to the non-constituent coordination constructions in English. In particular, it shows how the structure of constituent & non-constituent coordination can be explained either by the HPSG Coordination Rule or with the Gap Principle just proposed, but not specified by Ivan A. Sag & Thomas Wasow(1999). Finally this study is to analyze both the constituent coordination and non-constituent coordination constructions with conjunction of "Kuliko" in Korean. (Namseoul University)

1.

가

가

가

가

가

가

가

(Generalized Phrase Structure Grammar: GPSG)

Ross
 GPSG
 (Head-driven Phrase Structure Grammar:
 HPSG) 가 가

HPSG Pollard & Sag(1994) Ivan
 A.Sag & Thomas Wasow(1999) Coordination Rule

1999 Syntactic Theory
 Sag & Wasow gap
 The GAP Principle
 가

, , Pollard & Sag(1994) HPSG
 Sag & Wasow(1999) The Gap
 Principle
 , “ ” 가

2. HPSG Coordination Structure

1994 HPSG 가
 slash
 가

2.1 Pollard, Carl & Ivan A. Sag(1994)

(1) Coordination Principle(strong version)

In a coordinate structure, the CATEGORY and NONLOCAL value of each conjunct daughter is identical to that of the mother.

- (2) Here's the student [[whose_i mother and whose_i father] both attended the soccer match].
- (3) Kim is a republican and proud of it.

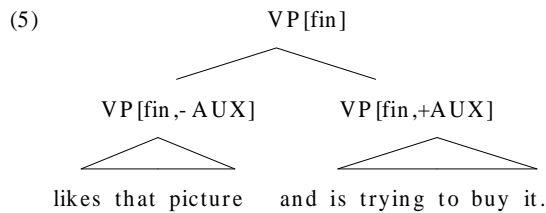
(3) (1) strong version Sag (1985)

(4)

(4) Coordination Principle(weak version)

In a coordinate structure, the CATEGORY and NONLOCAL value of each conjunct daughter is subsumed by (is an extension of) that of the mother.

(4) (5) AUX
 VP [+AUX] [-AUX]



VP AUX 가
 (4) (3) 가 [+PRD]

2.2 Ivan A. Sag & Thomas Wasow (1999)

Sag & Thomas (1999)

. *A day, a cat, and wombat fought*

NP 가 NP NP⁺ CONJ NP

The day barked, the donkey brayed, and the pig squealed

S S⁺ CONJ S

Wasow (1999) *Syntactic Theory*

. Ivan A. Sag & Thomas

schema

(6)-(7)

X

(6) X X⁺ CONJ X

(7) X X₁ . . . X_{n-1} CONJ X_n

가

indices

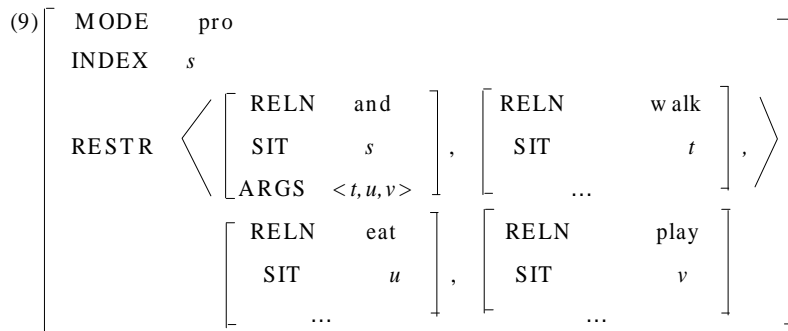
indices

가

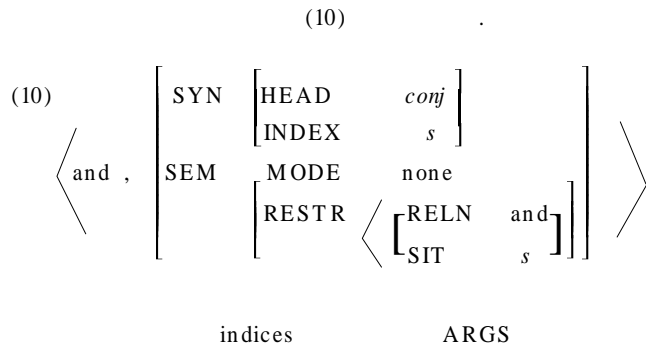
(8) a. Chris [[walks]₁, [eats broccoli]₂, and [plays squash]₃] .

b. [[Chris walks]₁, [Pat eats broccoli]₂, and [Sandy plays squash]₃] .

(8) (9)



index (9) 's' index . RESTR
 RESTR Semantic
 Inheritance Principle¹⁾



Sag & Thomas (1999) (11)

(11) Coordination Rule

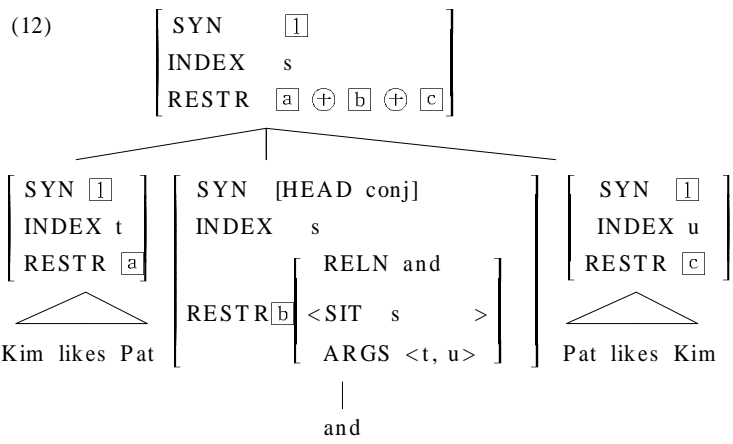
$$\left[\begin{array}{l} \text{SYN} \quad \boxed{0} \\ \text{IND} \quad s_0 \end{array} \right] \rightarrow$$

$$\left[\begin{array}{l} \text{SYN} \quad \boxed{0} \\ \text{IND} \quad s_1 \end{array} \right] \dots \left[\begin{array}{l} \text{SYN} \quad \boxed{0} \\ \text{IND} \quad s_{n-1} \end{array} \right] \left[\begin{array}{l} \text{HEAD} \quad conj \\ \text{IND} \quad s_0 \\ \text{RESTR} \langle [\text{ARGS} \langle s_1 \dots s_n \rangle] \rangle \end{array} \right] \left[\begin{array}{l} \text{SYN} \quad \boxed{0} \\ \text{IND} \quad s_n \end{array} \right]$$

(11)

1) Semantic Inheritance Principle(SIP)
 In any headed phrase, the mother's MODE and INDEX values are identical to those of the head daughter.

HEAD, SPR, COMPS 가 ,
 RESTR mother RESTR . ,
 indices . , index
 index
 Ivan A. Sag Thomas Wasow (1999) *Syntactic Theory* (11)



(12) (11) 가 가
 가 (14) 가 가
 가
 Sag
 & Wasow (1999)

3.

Pollard and Sag(1994)

가

가

가

(1988)

- (13) a. Mary thinks that John likes apples.
- b. [Mary [thinks [that [John [likes apples]]]]].

(13b)

[likes apples](VP), [John likes apples](S)
 , [John likes], [that John likes], [that John

HPSG

Sag & Wasow (1999)

3.1

HPSG

SYN 가

가

가

and

or

가

1994

Pollard & Sag

Sag & Wasow (1999)

(10)

- (14) a. Kim and Terry are/ *is happy.
- b. You or I am to blame.
- c. You or Kerry knows the fact.

(14a) are가
 (14)
 AGR

AGR

- (15) a. Either he or they are responsible for it.
- b. Not only he or but also I was wrong.
- c. Neither I nor he is likely to be present at the meeting.

INDEX

and, or

Sag & Thomas (1999)

SYN

mother

and, or

determiner AGR

가 or, but

, and

+ plural가

INDEX

(14)- (15)

가

([0])

SYN, INDEX

AGR

HPSG

AGR

AGR

(11)

S_n

(16) Revised Coordination Rule

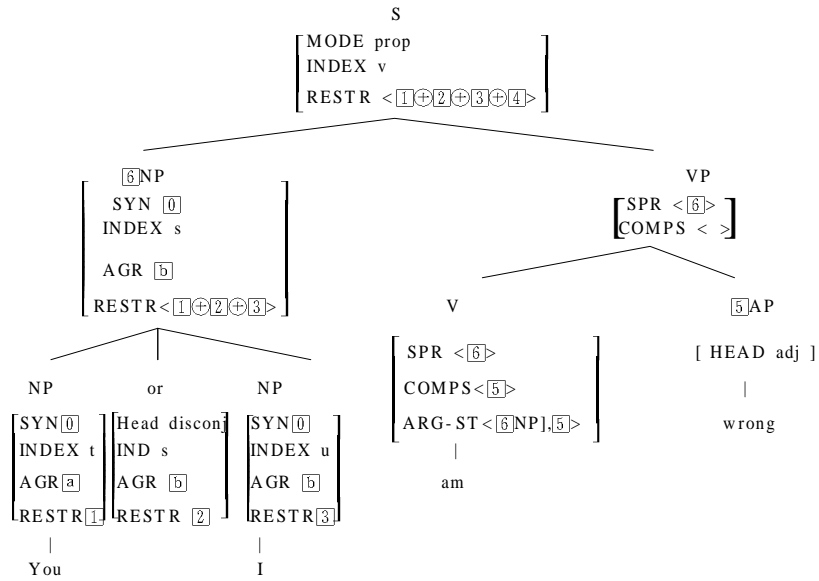
$$\left[\begin{array}{l} \text{SYN } [1] \\ \text{IND } S_0 \\ \text{AGR } [\langle \{[1], \text{plural} \rangle}] \end{array} \right] \rightarrow$$

$$\left[\begin{array}{l} \text{SYN } [0][\text{HEAD } X] \\ \text{SYN } \langle [\text{AGR } 2] \rangle \\ \text{IND } S_i \end{array} \right] \left[\begin{array}{l} \text{HEAD } \text{Conj} [] \\ \text{IND } S_0 \\ \text{AGR } [\langle \{[1], \text{plural} \rangle}] \\ \text{RESTR} \langle [\text{ARGS} \langle S_1 \dots S_n \rangle] \rangle \end{array} \right] \left[\begin{array}{l} \text{SYN } [0][\text{HEAD } X] \\ \text{SYN } \langle [\text{AGR } [1]] \rangle \\ \text{IND } S_n \end{array} \right]$$

(where Conj is $\{or, but\}$, then AGR value of the conjunction is identical with that of S_n . whereas Conj is and , then the number of the conjunction is plural)

HPSG 가 AGR

(17) You or I am wrong.



(17) Sag & Thomas (1999)

SYN "or"가
가
AGR [b] 가
가

3.2

가
가

HPSG

가 [INHER|SLASH] SLASH
{{[1]} , [INHER|SLASH] Filler-Gap
slash
SLASH
가
INHER|SLASH{{[1]}}
SLASH 가
SLASH HPSG 2)
N"
SLASH 가

2) 가 INHER|SLASH{{[1]}}
(. VP V)

Pollard & Sag (1994)
, NP N'

(1993)³⁾

(18)

가 [INH|SLA {[1]}] LOCAL[1] 가
 가 [INH|SLA {[1]}]

(18)

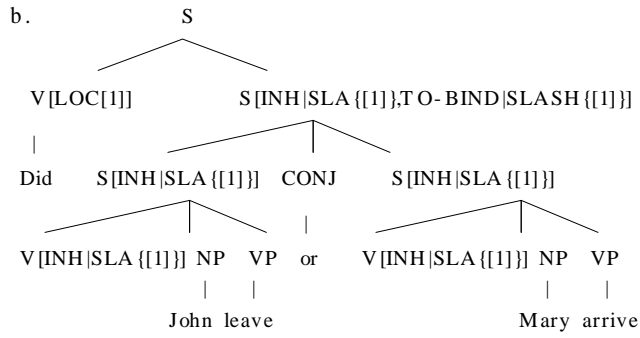
a. 가 [INHER|SLASH {[1]}] LOCAL {[1]} 가
 CONJ-MARKER
 b. X" LOC {[1]}, [-X" [INH|SLA {[1]}], X" [MARKING CONJ a], [INH|
 SLA {[1]}]]]
 FILLER CONJ-DTR CONJ-MARKER CONJ-DTR

(18)

[INHER|SLASH {[1]}]
 CONJ-MARKER
 INHER|SLASH [1] 가 , X" S [+INV]
 HPSG

3) (1993)
 SLASH [1] 가 SLASH

(19) a. Did John leave or Mary arrive?



가

<p>INHER SLASH {[1]}</p> <p>MARKER or가</p> <p>filler-head</p> <p style="text-align: center;">V [LOC[1]]</p>	<p style="text-align: right;">CONJ-</p> <p style="text-align: center;">did S</p> <p style="text-align: right;">INHER SLASH filler</p> <p style="text-align: right;">HPSG</p> <p style="text-align: right;">NONLOCAL</p>
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4.

4.1 “ ”

“ “ 가

. and 4) , , NIL,

. ” “

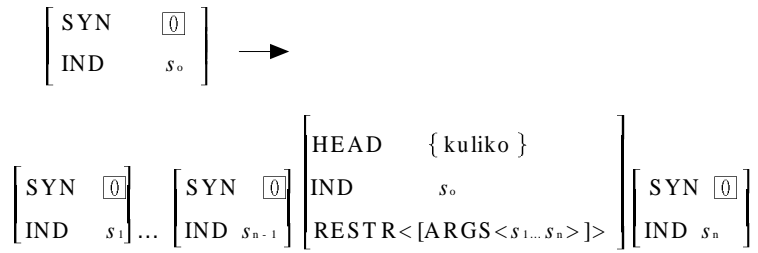
4) ‘ ’ NIL and 가

. ‘ , , NIL ‘ ’

(i) a. NIL 가

 b. NIL 가

(20) Coordination Rule

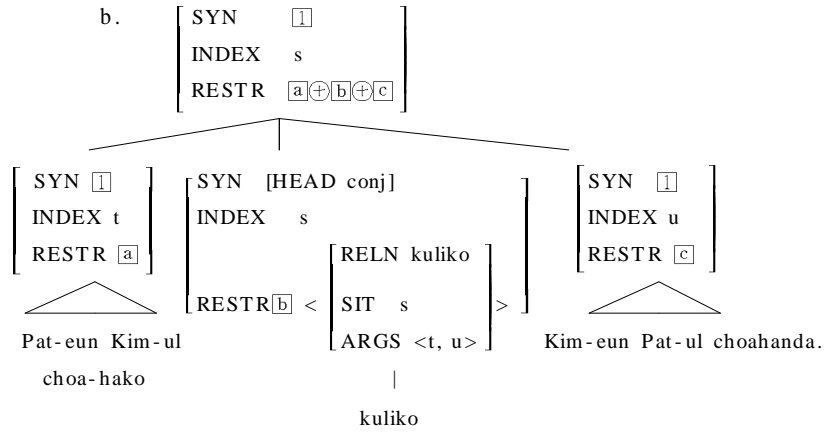


가

(21) a.

Pat-eun Kim-ul choa-hako kuliko Kim-eun Pat-ul choahanda.
 -NOM ACC likes and -NOM -ACC likes
 'Pat likes Kim and Kim likes Pat'

b.



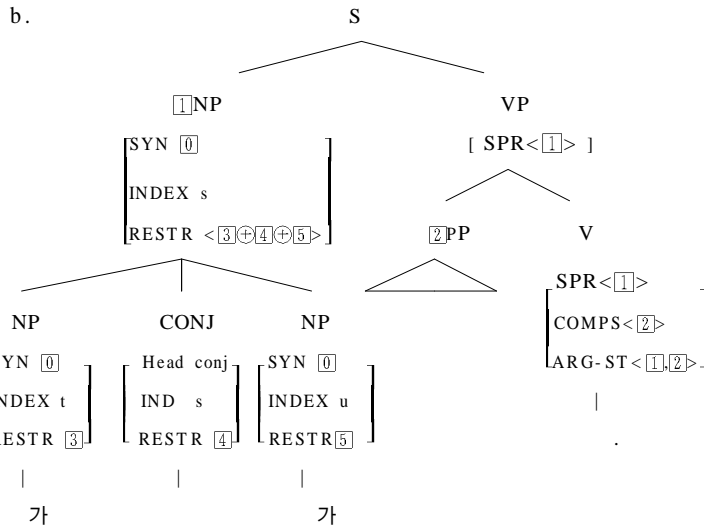
(21)

restr argument t, u 가 . (21)
 slash 가 “ ” “ ”

RESTR

RESTR 가

- (22) a. 가 가
 Chulsu-ka kuliko Namsu-ka hakkyo-ey kassta.
 -NOM and -NOM school-DAT went
 'Chulsu and Namsu went to school'



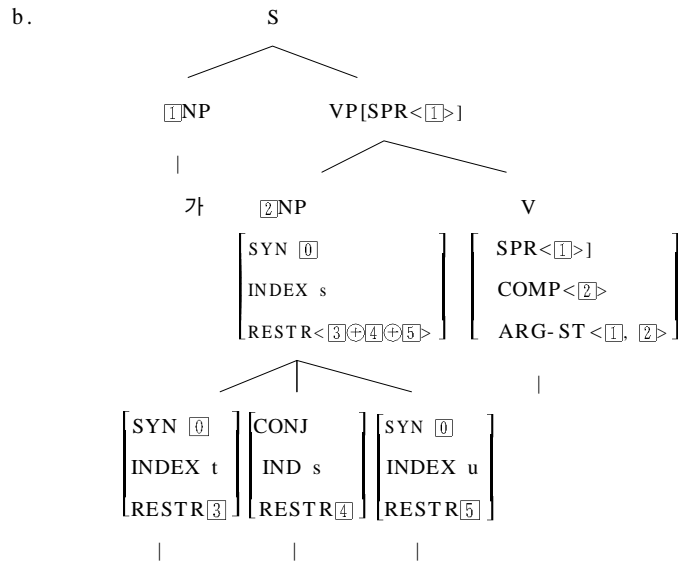
(22)	Coordination Rule		SYN
SYN [0]	,	INDEX	mother node index
가		Sn	5)

- 5) a.
 b.

(Agreement)

(Binding)

- (23) a. 가 .
 Chulsu-ka hamburger-lul kuliko coke-lul mekessta.
 -NOM hamburger-ACC and -ACC ate
 'Chulsu ate an hamburger and a coke'



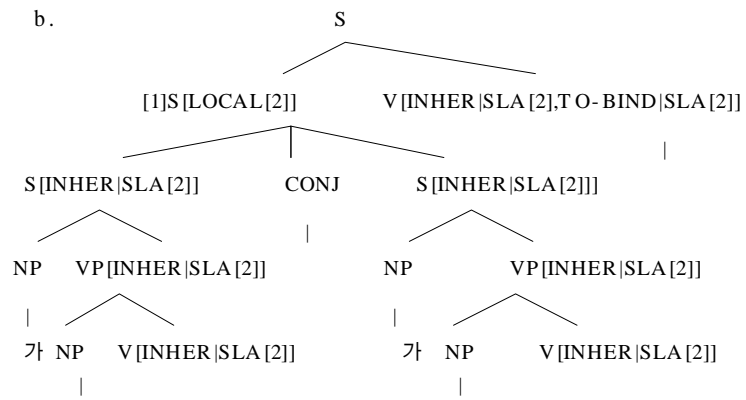
- (23) NP가 “ ” 가
 SYN [0] , index
 s 가 SYN

4.2

가 가 가

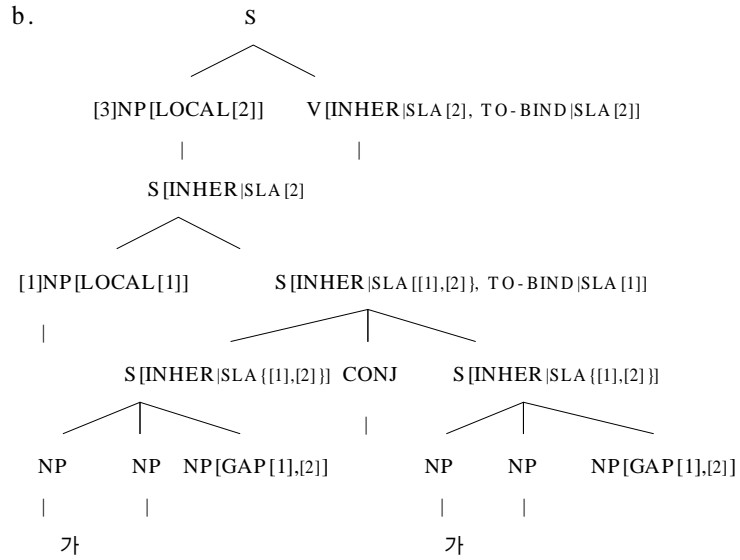
가

- (24) a. 가 가
 Chulsu-ka namu-ul kuliko Younghee-ka sae-lul choahanda.
 -NOM tree-ACC and -NOM bird-ACC likes
 'Chulsu likes a tree and Younghee a bird'



- (24) S Coordination ‘ 가
 slash 가 Filler가
 V[INHER|SLA[2]] slash 가
 Gap Principle

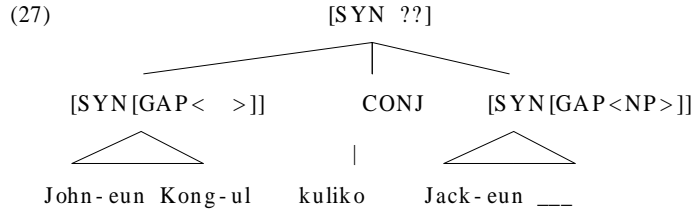
- (25) a. 가 가
 sakwa-lul Chulsu-ka Wiber-eke kuliko Younghee-ka James-eke
 chuessta.
 ' Chulsu gave an apple to Wiber and Younghee to James'



(25) object NP가 Filler S가 ‘ ’ conjunction NP[gap] , NP[GAP[1]] ‘ ’ 가

NP[LOCAL[1]] slash가
 . TO-BIND|SLA[1]
 INHER|SLA[2] , head-filler Gap
 gap .

(26) *
 John-eun Kong-ul kuliko Jack-eun mekessta
 -NOM -ACC and -NOM ate
 ' John ate a bean and Jack ____'.



(26) 가 가 (27) gap

5.

HPSG

Pollard & Sag(1994) 'Strong & Weak Principle Sag &
 Wasow (1999) 'Syntactic Theory: A Formal Introduction'

HEAD, SPR, COMPS

가 , , 가 , Sag &
 가 ,
 Wasow (1999) ,
 가

and

가

(16)

(17)

가

slash

Head Filler Rule 가

‘ ’ 가
 . , .
 SYN
 가
 slash 가

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(key words): (coordination constructions),
 (conjunction), (non-constituent)

330-800.

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