October 8, 2004

LOCALITY IN SYNTAX AND FLOATED NUMERAL QUANTIFIERS

1 Importance of QF

VP-internal subject position
(1) a. Tous les enfants ont vu   ce   film.
        all the children have seen   this movie
     b. Les enfants ont   tous __ vu   ce   film.
        the children have   all   seen this movie   (Sportiche 1988: 426)

Intermediate trace (McCloskey 2000)
(2)   West Ulster English
       a. <u>What all</u> did he say (that) he wanted *t*?
       b. <u>What</u> did he say (that) he wanted <u>all</u>?
       c. <u>What</u> did he say <u>all</u> (that) he wanted *t*?

NP trace (Miyagawa 1989)
(3) a. $Kuruma_i$-ga   doroboo-ni t_i ni-dai   nusum-are-ta.   (passive)
        car_i-Nom   thief-by t_i 2-CL   steal-Pass.-Past
        'Two cars were stolen by a thief.'
     b. Doa-ga_i kono kagi-de t_i futa-tu aita.   (unaccusative)
        doori-Nom   this key-with t_i 2-CL   opened
        'Two doors opened with this key.'
     c. *Kodomo-ga   geragerato   san-nin waratta. (unergative)
         children-Nom   loudly   3-CL   laughed
        'Three children laughed loudly.'

2 Locality of Floated Numeral Quantifiers

"Standard judgment" Haig (1980) and Kuroda (1980)
(4)a.   Gakusei-ga   san-nin   sake-o   nonda.
        student-NOM   3-CL$_{SUB}$ sake-ACC drank
        'Three students drank sake.'
   b. *Gakusei-ga   sake-o   san-nin   nonda.
        student-NOM   sake-ACC 3-CL$_{SUB}$ drank
        'Three students drank sake.'   (Haig 1980, Kuroda 1980)
   c.   Hon-o   gakusei-ga   go-satu   katta.
        book-ACC   student-NOM   5-CL$_{OBJ}$ bought
        'Students bought five books.'   (Haig 1980, Kuroda 1980)
Problem with (4): why not (5)?

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(5)   Gakusei-ga   sake-o   __ san-nin   __   nonda.

      students-NOM   sake-ACC   3-CL_SUB   drank

(6)   Saito (1985)
       (i)   NQ and the associated noun phrase observe strict locality.
      (ii)   The subject in Japanese cannot scramble.

2.1 The Nature of Locality (cf. "Locality in Syntax and Floated Numeral Quantifiers," Shigeru Miyagawa and Koji Arikawa, 2004, MIT and St. Andrews University ms.

                              Nuclear Stress

(7)   *Gakusei-ga   sake-o   san-nin   nonda.
        student-NOM   sake-ACC   3—CL_SUB   drank
        'Three students drank sake.'

(8)*………… …….   [sake-o   san-nin]….
                        [sake-ACC 3-CL_SUB]…

(9)   Hon-o_i   gakusei-ga   t_i go-satu   katta.
      book-ACC_i   student-NOM t_i 5-CLobj   bought
      'Students bought five books.'

3 Counterexamples to Locality

Counterexamples to syntactic locality (e.g., Gunji and Hasida 1998, Ishii 1998, Kuno 1978, Kuno and Takami 2003, Nishigauchi and Ishii 2003, Takami 1998)

Two patterns:
(10) ?Gakusei-ga   sake-o   <u>imamadeni</u> san-nin   nonda
        student-NOM   sake-ACC   so far   3-CL_SUB   drank
        'Three students drank sake so far.'   (Gunji and Hasida 1998: 57)

(11) Gakusei-ga   watasi-no hon-o   <u>futa-ri-sika</u>   kaw-anakat-ta
        student-NOM   my-GEN book-ACC   2-CL_SUB-only   buy-not-past
        'Only two students bought my book.'   (cf. Takami 1998, 1: 92)

4 Responding to the Counterexamples

Saito (1985) assumed the following for the standard judgment.
(12)   (i)   NQ and the associated noun phrase observe strict locality.
       (ii)   The subject in Japanese cannot scramble.
Every linguist who has presented a counterexample has concluded that (12i) must be rejected.
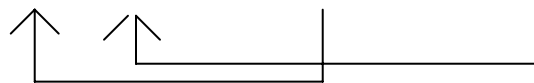
(13) SUB [$_{VP}$ OBJ NQ$_{SUB}$ V]

(14) (i) Subjects may scramble (Ko, to appear)
     (ii) Local A-movement scrambling is due to the EPP

(15) a.[$_{TP}$ SUB [$_{vP}$ OBJ [$_{vP}$ [t$_{SUB}$ NQ$_{SUB}$] … t$_{OBJ}$ …]]] "Sportiche-type"

   b. [$_{TP}$ SUB [$_{TP}$ OBJ   [$_{vP}$ [t$_{SUB}$ NQ$_{SUB}$] … t$_{OBJ}$ …]]]

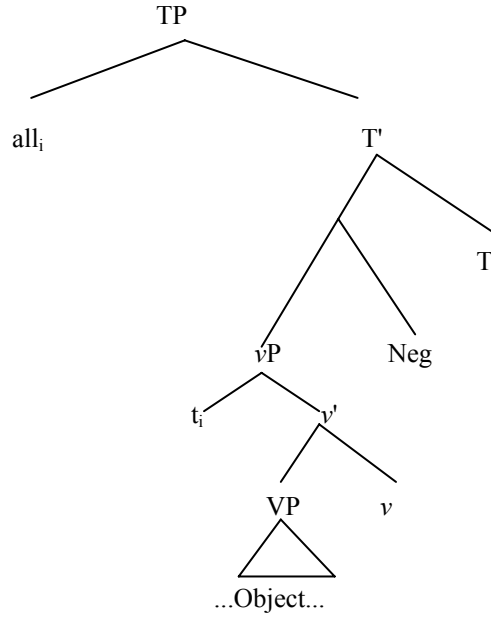## 5 The Analysis

EPP analysis of scrambling (Miyagawa 2001, 2003)

(16) Taroo-ga   *zen'in*-o   sikar-anakat-ta.
      Taro-NOM   all-ACC   scold-NEG-PAST
      'Taro didn't scold all.'
      not > all, all > not
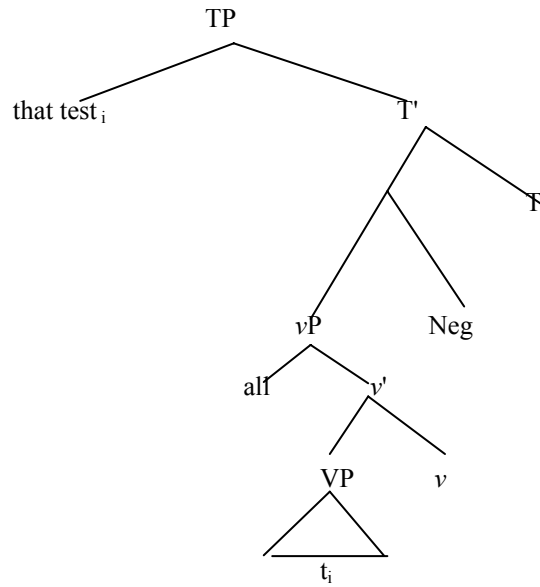
(17) *Zen'in*-ga   tesuto-o   uke-nakat-ta.   (cf. Kato 1988)
      all-NOM   test-ACC   take-NEG-PAST
      'All did not take the test.'
      *not > all, all > not

(18) Tesuto-o$_i$ *zen'in*-ga   t$_i$ uke-nakat-ta.   (Miyagawa 2001)
      test-ACC$_i$ all-NOM   t$_i$ take-NEG-PAST
      'That test, all didn't take.'
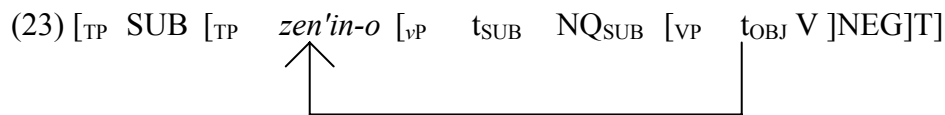   not > all, all > not

3

(19)=(17)

TP
- all$_i$
- T'
  - vP
    - t$_i$
    - v'
      - VP
        - ...Object...
      - v
  - Neg
  - T

(20)=(18)

TP
- that test $_i$
- T'
  - vP
    - all
    - v'
      - VP
        - t$_i$
      - v
  - Neg
  - T

(21) a. [$_{TP}$ SUB [$_{vP}$ OBJ [$_{vP}$ t$_{SUB}$ NQ$_{SUB}$ [$_{VP}$ t$_{OBJ}$ t$_V$]] V-v-T]
   b. [$_{TP}$ SUB [$_{TP}$ OBJ [$_{vP}$ t$_{OBJ}$ [$_{vP}$ t$_{SUB}$ NQ$_{SUB}$ [$_{VP}$ t$_{OBJ}$ t$_V$]] V-v-T]

5.1 Evidence

We will first give two pieces of evidence that in the non-standard judgment structure, the object occurs in the Spec of TP.

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5.1.1 Negation and "all"

(22)a.   Gakusei-ga   futa-ri   zen'in-o mi-nakat-ta   (not > all, all > not)
          student-NOM 2-CL   all-ACC see-NEG-PAST
          'Two students did not see all.'

    b.   Gakusei-ga   zen'in-o   futa-ri-tomo   mi-nakat-ta (*not > all, all > not)
          student-NOM all-ACC   2-CL-both   see-NEG-PAST
           'Neither of the two students saw all.'

    c.   Gakusei-ga   zen'in-o   futa-ri-dake   mi-nakat-ta (*not > all, all > not)
          student-NOM all-ACC   2-CL-only   see-NEG-PAST
          'Only two students saw all.'

(23) [$_{TP}$ SUB [$_{TP}$ *zen'in-o* [$_{vP}$ t$_{SUB}$ NQ$_{SUB}$ [$_{vP}$ t$_{OBJ}$ V]NEG]T]

5.1.2 Indeterminate Pronoun (Kishimoto 2001)

An indeterminate pronoun is a wh-phrase that is interpreted as a universal *any* in the scope of the universal particle *mo*. To make this interpretation possible, the indeterminate pronoun must be c-commanded by the universal *–mo*, and they must be clausemates.

(24)a.   Taro-ga   *nani*-o   kai-*mo*-si-nakat-ta.
          Taro-NOM what-ACC buy-MO-do-NEG-past
          'Taro did not buy anything.'

    b. * *Dare*-ga   warai-*mo*-si-nakat-ta.
         who-NOM   laugh-MO-do- NEG-PAST
         'No one laughed.'

    c. * *Dare*-ga   Hanako-o   home-*mo*-si-nakat-ta.
         who-NOM   Hanako-ACC praise-MO-do-not-past
         'No one praised Hanako.'   (Kishimoto 2001: 600)

As Kishimoto notes, while the object position can host an indeterminate pronoun ((24a)), the subject position cannot ((24b/c)). The subject position is outside the domain of the *mo* particle, which he assumes is at *v*.

(25) a.   Kodomo-ga   san-nin   *dono-eiga*-o   mi-*mo*-si-nakat-ta.
             kids-NOM   3-CL   which-movie-ACC   see-MO-do-NOT-PAST.
            'Three kids did not see any movie.'

    b. *Kodomo-ga *dono-eiga*-o   imamadeni   san-nin mi-mo-si-nakat-ta.
         kids-NOM   which-movie-ACC so far   3-CL see-MO-do-NOT-PAST
        'Three children did not see any movie so far.'

In (25b), which is a non-standard judgment case, the object indeterminate pronoun is ungrammatical, indicating that this object has moved to the Spec of TP.

5.1.4 Anaphor Binding

(26) a. Gakusei$_i$-ga   san-nin-dake   zibunzisin$_i$-o   hihansita.
         student-NOM 3-CL-only   self-ACC   criticized
         'Only three students criticized himself.'
      b.*Gakusei$_i$-ga   zibunzisin$_i$-o san-nin-dake   hihansita
         student-NOM self-ACC   3-CL-only   criticized
        'Only three students criticized himself.'

5.1.5 Quantifier Scope

In Japanese quantifier scope is usually limited to surface scope (Kuroda 1971, Hoji 1985).
(27) Dareka-ga   daremo-o   sikatta.
      someone-NOM   everyone-ACC   scolded
      'Someone scolded everyone.'
      some > every, *every > some
However, note below.
(28) Dareka-ga   daremo-o   tugitugito   sikatta.
      someone-NOM   everyone-ACC   one.after.another   scolded
      'Someone scolded everyone one after another.'
      some > every, every > some

6. Why doesn't Japanese have the "Sportiche-style" QF?

(29) Nevins and Anand (2003):
      EPP + agreement – reconstruction possible; "pure" EPP – no reconstruction.

Korean
(30) **Sensayngnim-(tul)-i caki-uy   haksayng-ul   3-myeng-***(i)   honnay-ss-ta.
      teacher-(pl)-NOM   self-GEN   student-ACC   3-CL-*(NOM)   criticized
      'Three teachers criticized his student.'

7 New Way to do NP trace (Miyagawa 1989)

(31)   Hon-o$_i$ gakusei-ga   t$_i$ go-satu   katta.
       book-ACC$_i$ student-NOM   t$_i$ 5-CLobj   bought
       'Students bought five books.'

(32)   Hon-o$_i$ zen'in-ga   t$_i$ go-satu   yom-anakat-ta.
       book-ACC$_i$ all-NOM   t$_i$ 5-CL$_{OBJ}$ read-NEG-PAST
      'All did not read five books.'
        all > not, *not > all

(33) a. Kuruma$_i$-ga   doroboo-ni   t$_i$ ni-dai   nusum-are-ta.   (passive)
        car$_i$-Nom   thief-by   t$_i$ 2-CL   steal-Pass.-Past
        'Two cars were stolen by a thief.'

b. Doa-ga$_i$ kono kagi-de   t$_i$ futa-tu   aita.   (unaccusative)
doori-Nom   this key-with   t$_i$ 2-CL   opened
'Two doors opened with this key.'

(34) Zen'in-ga   tuk-anakat-ta.
all-NOM   arrive-NEG-PAST
'All didn't arrive.'
not > all, all > not

(35) Miyagawa and Babyonyshev (2004) observe that this lack of the EPP for the unaccusative construction can be observed in other parts of the Japanese grammar.

Selected references

Cinque, Guglielmo. 1993. A null theory of phrase and compound stress. *Linguistic Inquiry* 24:239-298

Fukushima, Kazuhiko. 2003. Verb-raising and numeral quantifiers in Japanese: incompatible bedfellows. *Journal of East Asian Linguistics* 12:313-347.

Gunji, Takao, and Koiti Hasida. 1998. Measurement and quantification. In Gunji, Takao and Koiti Hasida (eds.) *Topics in Constraint-Based Grammar of Japanese*. 39-79. Dordrecht: Kluwer.

Haig, John, H. 1980. Some observations on quantifier floating in Japanese. *Linguistics* 18:1065-1083.

Hoji, Hajime, and Yasuo Ishii. 2004. What gets mapped to the tripartite structure of quantification in Japanese. In *Proceedings of the 23rd West Coast Conference on Formal Linguistics*, 101-114. Standford, Calif.: CSLI Publications. [Distributed by Cambridge University Press.]

Ishii, Yasuo. 1998. Floating quantifiers in Japanese: NP quantifiers vs. VP quantifiers, or both? Grant-in-Aid for COE Research Report (2), 149-171. Kanda University of International Studies.

Kato, Yasuhiko. 1988. Negation and the discourse-dependent property of relative scope in Japanese. Sophia Linguistica

Kishimoto, Hideki. 2001. Binding of indeterminate pronouns and clause structure in Japanese. *Linguistic Inquiry* 32:597-633.

Ko, Heejeong. To appear. Cyclic linearization and asymmetry in scrambling. *NLLT*.

Kuno, Susumu, and Ken-ichi Takami. 2003. Remarks of unaccusativity and unergativity in Japanese and Korean. In *Japanese/Korean Linguistics* 12:280-294. Standford: CSLI Publications.

Kuroda, S.-Y. 1971. Two remarks on pronominalization. *Foundations of Language* 7:183-198.

Kuroda, S.-Y. 1980. Bun kouzou no hikaku [The comparison of sentence structures]. In Kunihiro, Tetsuya (ed.), *Niti-Eigo Hikaku Kouza 2: Bunpou* [Lectures on Japanese-English Comparative Studies 2: Grammar], 23-61. Tokyo: Taisyukan.

McCloskey, James. 2000. Quantifier float and wh-movement in an Irish English. *Linguistic Inquiry* 31:57-84.

Miyagawa, Shigeru. 1989. *Structure and Case-Marking in Japanese.* New York: Academic Press.

Miyagawa, Shigeru. 1997. "Against Optional Scrambling," *Linguistic Inquiry* 28.1, Winter 1997, pp. 1-25.

Miyagawa, Shigeru. 2001. The EPP, scrambling, and wh-in-situ. In Kenstowicz, Michael (ed.) *Ken Hale: A Life in Language*. Cambridge, Mass.: MIT Press.

Miyagawa, Shigeru. 2003. A-movement scrambling and options without optionality. In Karimi, S. (ed.) *Word Order and Scrambling*. Malden, Mass: Blackwell.

Miyagawa, Shigeru, and Babyonyshev. 2004. "The EPP, Unaccusativity, and the Resultative Constructions in Japanese," *Scientific Approaches to Language No. 3, Center for Language Sciences*, Kanda University of International Studies, Kanda, Japan.

Nevins, Andrew, and Pranav Anand. 2003. "Some AGREEment matters," G. Garding and M. Tsujimura, eds., pp. 370-383, *WCCFL 22 proceedings*.

Nishigauchi, Taisuke, and Yasuo Ishii. 2003. *Eigo kara Nihongo o Miru* [Looking at Japanese from English]. Tokyo: Kenkyusya.

Saito, Mamoru. 1985. Some asymmetries in Japanese and their theoretical implications. Doctoral dissertation, MIT, Cambridge, Mass.

Sportiche, Dominique. 1988. A theory of floating quantifiers and its corollaries for constituent structure. *Linguistic Inquiry* 19:425-449.

Takami, Ken-ichi. 1998. Nihongo no suuryousi yuuri nituite [On quantifier float in Japanese]. *Gekkan Gnego* 27, No.1:86-95, No.2:86-95, No.3:98-107. Tokyo: Taisyukan.