On the EPP I
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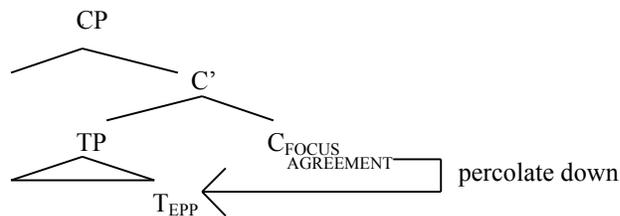September 28, 2004

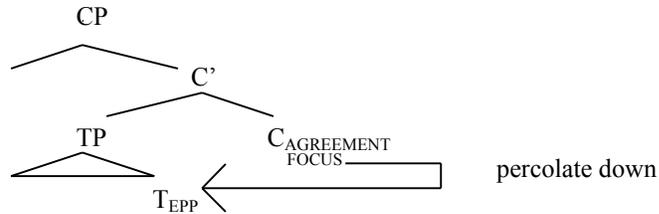| |
|---|
| (1) "Agreement" and "Non-agreement" Languages:
      Focus, broadly conceived, is computationally equivalent to agreement. |

(2) (i) EPP and Agreement: e.g., Indo-European
     (ii) EPP and Focus: e.g., Japanese

(3) Why is there this Agreement – Focus parameter?   They originate on the same head: C

(4) Agreement-prominent (e.g., most of Indo-European)

(5) Focus-prominent (e.g., Japanese)

(6) Simpson and Wu (2001):
     Historically, agreement/concordance may sometimes be traced back to a focus
     structure.

1. Focus and EPP

1.1. A-movement scrambling and A'-movement scrambling
        (Mahajan 1990, Webelhuth 1989, Saito 1992, Tada 1992, Yoshimura 1989).

1.1.1. A-movement: suppression of weak crossover

(7) ??/?*Who$_i$ does his$_i$ mother love t$_i$?

(8) Who$_i$ seems to his$_i$ mother t$_i$ to be a genius?

(9) *[Soitu_i-no   hahaoya]-ga   dare_i-o   aisiteiru   no?
    [he_i-Gen   mother]-Nom   who_i-Acc   love   Q
     'His mother loves who? = Who does his mother love?'

(10) ?Dare_i-o   [soitu_i-no   hahaoya]-ga   t_i   aisiteiru   no?
    who_i-Acc [he_i-Gen   mother]-Nom   t_i   love   Q
    'Who, his mother loves?'

Long-distance scrambling: cannot suppress WCO: only A'-movement

(11) ?*Dare_i-o   [soitu_i-no   hahaoya]-ga   [_{CP}Hanako-ga   t_i   aisiteiru to] itta no?
    who_i-Acc   [he_i-Gen   mother]-Nom   [_{CP}Hanako-Nom   t_i   love   C] said Q

    'Who, his mother said Hanako loves?'

(12) Summary
    Local scrambling: A-scrambling
    LD scrambling: A'-scrambling

1.1.2. Confirmation: anaphor binding

(13) Local scrambling: can create a new binder through A-movement
    Karera_i-o   [otagai_i-no   sensei]-ga   t_i   hihansita.
    they-Acc   [each other_i-Gen teacher]-Nom t_i   criticized
    'They_i, each other's teachers criticized t_i.'

(14) LD scrambling: cannot create a new binder because it is solely A'-movement
    Karera_i-o   [otagai_i-no   sensei]-ga   [_{CP}Hanako-ga   t_i hihansita   to] itta.
    they-Acc   [each other_i-Gen teacher]-Nom [_{CP}Hanako-Nom t_i criticized   C] said

    'They_i, each other's teachers said that Hanako criticized t_i.'

1.1.3. Further confirmation: idiom chunk (Miyagawa 1997)
    Idiom chunks may scramble only by A-movement

    (15) Idiom: kosi-o orosu 'lower hip'
        Kosi-o_i Taroo-ga   t_i   orosita (isu)
        hip-Acc_i Taro-Nom   t_i   lowered (chair)
        '(the chair that) hip, Taro lowered (Taro sat down)'

    (16) ?*Kosi-o_i   Hanako-ga   [Taroo-ga   t_i   orosita to]   itta (isu)
        hip-Acc_i   Hanako-Nom [Taro-Nom   t_i   lowered C]   said (chair)
        '(the chair that) hip, Hanako said that Taro lowered (Hanako said that Taro

sat down)

1.1.3. A'-scrambling: reconstruction

(17) Himself$_i$, John likes t$_i$.

(18) LD scrambling: reconstruction possible
Zibunzisin$_i$-o [Taroo-ga   [Hanako$_i$-ga   t$_i$ hihansita   to]   itta.
self$_i$-Acc   [Taro-Nom   [Hanako$_i$-Nom   t$_i$ criticized   C]   said
'Self$_i$, Taro said that Hanako$_i$ criticized t$_i$.'

(19) Local scrambling: may also be A'-movement — reconstruction possible
Zibunzisin$_i$-o Hanako$_i$-ga   t$_i$ hihansita.
self$_i$-Acc   Hanako$_i$-Nom   t$_i$ criticized
'Self$_i$, Hanako$_i$ criticized t$_i$.'

(20) Summary:
Local scrambling: may be A- or A'-movement
LD scrambling: solely A'-movement

1.2. EPP and Scrambling (Miyagawa 2001, 2003; cf. also Collins 1997, Kitahara 2002)

Miyagawa (2001, 2003)
(21) Taroo-ga   *subete-no-kodomo*-o   sikara-nakat-ta.
Taro-Nom   all-chidren-Acc   scold-Neg-Past
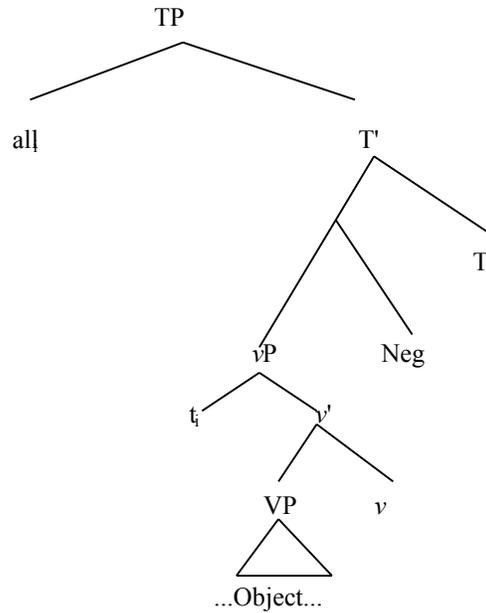'Taro didn't scold all children.'
not > all (all > not)

(22) *Subeten-no-kodmo-ga*   yasai-o   tabe-nakat-ta. (cf. Kato 1988)
all-children-nom   vegetable-Acc   eat-Neg-Past
'All the children did not eat vegetables.'
*not > all, all > not

(23) Yasai-o$_i$ *Subete-no-kodomo-ga*   t$_i$ tabe-nakat-ta. (Miyagawa 2001)
green-Acc$_i$ *all-children-Nom*   t$_i$ eat-Neg-Past
'All the children didn't choose green.'
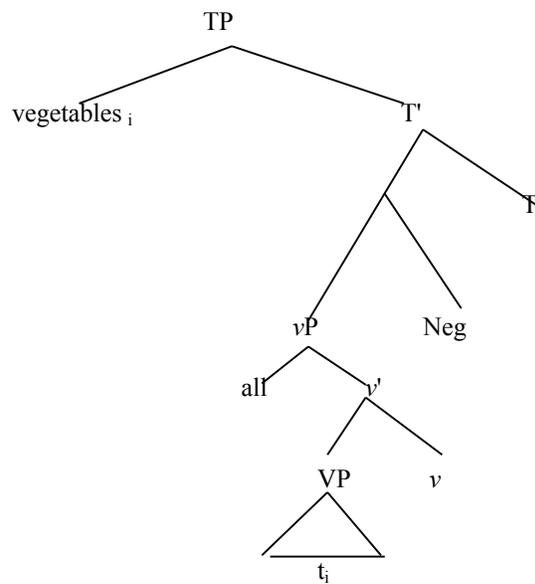not > all, all > not

(24) A quantifier is in the scope of negation iff it is c-commanded by negation
(cf. Klima 1964)

The position of negation is roughly as proposed by Laka (1990), Pollock (1989).

3

(24)=(21)

```
                    TP
           ╱                ╲
       allᵢ                   T'
                         ╱          ╲
                       vP             T
                     ╱    ╲
                   vP      Neg
                  ╱  ╲
                tᵢ    v'
                    ╱    ╲
                  VP       v
                 ╱  ╲
                ╱____╲
               ...Object...
```

(25)=(22)

```
                    TP
            ╱              ╲
     vegetables ᵢ            T'
                        ╱          ╲
                      vP             T
                    ╱    ╲
                  vP      Neg
                 ╱  ╲
               allᵢ   v'
                    ╱    ╲
                  VP       v
                 ╱  ╲
                ╱____╲
                  tᵢ
```

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(26) Something must move to the Spec of TP (e.g., subject, object): EPP

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(27) LD scrambling: does not count as EPP movement to Spec, TP (Miyagawa 2001).
Syukudai-oᵢ   subete-no-gakusei-ga [sensei-ga   tᵢ dasu to]
homework-Accᵢ all-students-Nom   [teacher-Nom tᵢ assign   C]
omo-wanakat-ta.
think-Neg-Past
'Homework, all the students did not think that the teacher will assign.'
*not > all, all > not

(28) A-movement = "EPP" movement to Spec of TP

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A'-movement ≠ "EPP" movement; possibly to Spec of CP?

2. A Focus-prominent Language: Japanese

(29) Two Types of Focus   (É. Kiss 1998)

  (i) Informational focus: what is not presupposed in a topic-focus structure.
  (ii) Identificational focus: expresses exhaustive/contrastive identification.

(30) Informational Focus: John bought a BOOK. **Nuclear stress assignment**

(31) Identificational Focus: **JOHN** bought a book.

Identificational focus: exhaustive listing

Szabolcsi (1981)
(32)   It was a hat and a coat that Mary picked for herself.

Szabolcsi (1981)
(33)   #It was a hat that Mary picked for herself.
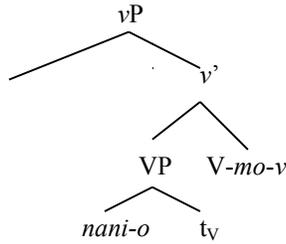
Identificational Focus and the EPP

indeterminate pronoun

(34)   Taroo-ga *nani-mo*   kawa-nakat-ta.
       Taro-Nom   what-MO   buy-Neg-Past
       'Taro didn't buy anything.'

As is well known, the wh-phrase portion and *mo* can be separated (Kuroda 1965, Nishigauchi 1990).

(35)   Taroo-ga   *nani*-o   kai-*mo*   sina-kat-ta.
        Taro-Nom   what-Acc   buy-MO   do-Neg-Past
        'Taro didn't buy anything.'

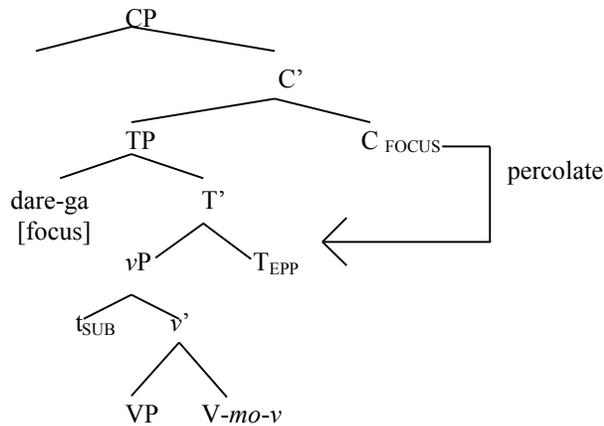(36) Kishimoto's (2001): *mo* must m-command the indeterminate pronoun

```
              vP
           ／     ＼
          ·        v'
               ／     ＼
             VP       V-mo-v
          ／    ＼
       nani-o    t_V
```

(37) Indeterminate pronoun in the subject position is ungrammatical
   Dare-ga   piza-o   tabe-*mo*   sina-kat-ta.
   who-Nom   pizza-Acc   eat-MOdo-Neg-Past
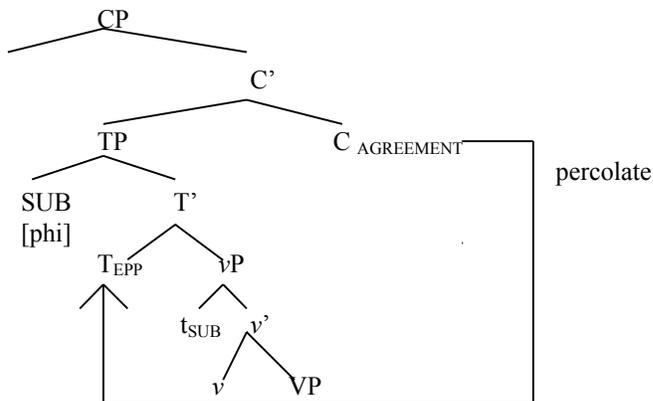   'Anyone didn't eat pizza.'

Kishimoto assumes the EPP here, and argues that the subject indeterminate pronoun *dare* 'who' raises to the Spec of TP to satisfy the EPP of T, and this takes it outside the scope of *mo*, which is on *v*. According to the analysis I'm pursuing, the relevant portion of the structure of (37) is the following.

(38)
```
              CP
           ／     ＼
                    C'
                 ／     ＼
               TP        C FOCUS ─┐
            ／    ＼              │  percolate
       dare-ga     T'            │
       [focus]   ／    ＼   ←─────┘
               vP      T_EPP
            ／   ＼
         t_SUB    v'
               ／    ＼
             VP       V-mo-v
```

The same as subject-verb agreement

(39)
```
              CP
           ／     ＼
                    C'
                 ／     ＼
               TP        C AGREEMENT ─┐
            ／    ＼                   │  percolate
         SUB       T'                 │
       [phi]    ／    ＼               │
             T_EPP     vP             │
              ↑     ／   ＼           │
                  t_SUB    v'         │
                        ／   ＼       │
                       v      VP ─────┘
```

Scrambling the object does not help if the indeterminate pronoun is in the subject

position. It necessarily gets picked out by the EPP because it has (identificational) focus.
(40) *Piza-o$_i$ dare-ga   t$_i$ tabe-*mo*   sina-kat-ta.   (Kishimoto 2001)
      pizza-Acc$_i$ who-Nom   t$_i$ eat-MO   do-Neg-Past
      'Pizza, anyone didn't eat.'

Indeterminate pronoun in the object position: long-distance "agreement."
(41)   Taro-ga   *nani*-o   kai-*mo* sina-kat-ta.
        Taro-Nom what-Acc   buy-MO   do-Neg-Past
        'Taro didn't buy anything.'

(42) There walks a boy (into the room).

If the "agreed-with" phrase is moved, it must move to Spec of TP due to the EPP.
(43)   *_Nani_-o$_i$ Taroo-ga   t$_i$ kai-*mo*   sina-kat-ta.
        what-Acc$_i$ Taro-Nom   t$_i$ buy-MO   do-Neg-Past
        'Taro didn't buy anything.'

Cannot take the A'-movement option, which should in principle be possible.

(44) [$_{TP}$ A boy$_i$ T$_i$ [$_{VP}$ walks t$_i$ (into the room)]]

In a focus-prominent language, the EPP can be met with, for example, the subject, in a long-distance agreement environment.
(45)   Taro-ga   *nani*-o   kai-*mo*   sina-kat-ta.
        Taro-Nom what-Acc   buy-MO   do-Neg-Past
        'Taro didn't buy anything.'

(46) LD scrambling of indeterminate pronoun: A'-movement
    a. Taroo-ga   [$_{CP}$ Hanako-ga   nani-o   katta   to]-mo   omowanakatta.
       Taro-Nom [$_{CP}$ Hanako-Nom what-Acc   bought   C]-MO   thought.not
       'Taro didn't think that Hanako bought anything.'

    b. Scrambling of object indeterminate pronoun *nani* is fine:
       Taroo-ga   [$_{CP}$ nani-o$_i$ Hanako-ga   t$_i$ katta to]-mo   omowanakatta.
       Taro-Nom [$_{CP}$ what-Acc$_i$ Hanako-Nom   t$_i$ bought C]-MO   thought.not

    c. LD scrambling also fine, showing that an indeterminate pronoun can undergo
       A'-scrambling and reconstruct.
       Nani-o$_i$ Taroo-ga   [$_{CP}$ Hanako-ga   t$_i$ katta   to]-mo   omowanakatta.
       what-Acc$_i$ Taro-Nom   [$_{CP}$ Hanako-Nom t$_i$ bought C]-MO   thought.not

Focus particle and scope

(47) Dareka-ga   daremo-o   aisiteiru.
      someone-Nom   everyone-Acc love
      'Someone loves everyone.'
       some > every, every > some

(48) Daremo-o$_i$ dareka-ga   t$_i$ aisteiru.
      everyone-Acc$_i$ someone-Nom t$_i$ love
      'Everyone, someone loves.'
      every > some, some > every

Focus particle 'also' (Lee 2004)

(49) Subete-no-otoko-no-ko-ga   Hanako-mo   suki da.
      all-Gen-boy-Nom   Hanako-also   like
      'All the boys like Hanako also.'
       (i) For each boy x, there is someone other than Hanako who x likes. (all > also)
       (ii) There is someone other than Hanako who every boy likes. (also > all)

(50) Hanako-mo$_i$ subete-no-otoko-no-ko-ga   t$_i$ suki da.
      Hanako-also$_i$ all-boys-Nom   t$_i$ like
      'Hanako also, all the boys like t'
       (i) *For each boy x, there is someone other than Hanako who x likes. (all > also)
       (ii) There is someone other than Hanako who every boy likes. (also > all)

4. Informational Focus and Nuclear Stress

Two types of focus:
Identificational:
Informational: topic-focus

In the absence of identificational focus, "focus" on T picks out an XP and marks it as "topic". This XP moves to Spec of TP for the EPP. This creates the topic-focus structure.

In the absence of identificational focus, the focus stress rule is nuclear stress.

Nuclear Stress Rule: nuclear stress falls on the phrase located lowest on the syntactic tree (Cinque (1993), cf. Chomsky and Halle (1968) and Halle and Vergnaud (1987))

(51) Mary read a **book** yesterday.

Identificationa focus: anywhere

(52) **John** read a book yesterday.

Neeleman and Reinhart (1998) point out that scrambling allows a given phrase to move away from the position of nuclear stress. In the following Dutch example, the phrase that bears the nuclear stress is in bold.

(53) Dat   Jan   langzaam   het   **boek**   las
     that   John   slowly   the   book   read

(54) Dat   Jan   het   boek langzaam   **las**
     that   John   the   book slowly   read

The following are taken from Ishihara (2000) (Ishihara assumes V-raising to T).

(55) a. Taroo-ga   [$_{VP}$ **hon**-o t_v] katta.
      Taro-Nom   [$_{VP}$ book-Acc t_v] bought

     b. Hon-o$_i$ **Taroo**-ga   [$_{VP}$$t_i$ t_v] katta
       book-Acc$_i$ Taro-Nom   [$_{VP}$$t_i$ t_v] bought

(56) a. Taroo-ga   kyoo   **hon**-o   katta.
      Taro-Nom   today   book-Acc   bought

     b. Hon-o$_i$ Taroo-ga   **kyoo** t_i katta.
       book-Acc   Taro-Nom   today t_i bought

(57) <u>Focus Rule</u>
     The focus of IP is a(ny) constituent containing the main stress of IP, as
  determined by the stress rule   (=nuclear stress rule).

(58) Taroo-ga   [$_{VP}$ **hon**-o t_v] katta
     Taro-Nom   [$_{VP}$book-Acc t_v] bought

(59) a. What happened? (focus on IP)
     b. What did Taro do? (focus on VP)
     c. What did Taro buy? (focus on object)

(60) Hon-o$_i$ **Taroo**-ga   [$_{VP}$ t_i t_v] katta
    book-Acc$_i$ Taro-Nom   [$_{VP}$ t_i t_v] bought

    No focus on VP, hence cannot answer "What did Taro do?"

5. Formal Feature Issue: All Formal Features Are Merged at the Phase Heads

5.1. Agreement does not require tense

Modern Greek (Iatridou 1993)
(61) vlepo ton Kosta   na <u>tiganizi</u> psaria   (ECM, no active tense on embedded S)
    see   DET Kostas/ACC   fries   fish
  'I see Kostans fry fish.'

(62) elpizo o   Kostas na   <u>tiganizi</u> psaria(tensed embedded S)
    hope DET Kostas/NOM fries   fish
    'I hope Kostas fries fish.'

5.2. Complementizer agreement with subject, Case I (Turkish, Kornfilt 2004)

(63) a. subject as the target of relativization — no agreement on the lower verb; agreement blocked by the subject *e* agreeing with C.
      [[e_i geçen yaz   ada -da   ben-i gör-**en**] kiş i-ler$_i$]
      [[last   summer   isalnd-Loc I-Acc see-**(y)An**] person-Pl]
      'the people who saw me on the isalnd last summer' (No ɸ-feature
      morphology; special nominalization form on predicate)

    b. a non-subject as the target of relativization — agreement on the lower verb
      [[pro geçen yaz   ada-da e_i gör-**düğ̆-üm**]   kiş i-ler$_i$]
      [[last   summer island-Loc   see-**DIK-1.sg**] person-Pl]
      'the people who(m) I saw on the island last summer' (ɸ-feature
      morphology; general indicative nominalization form on predicate).

5.3. Complementizer agreement, Case II: agreement on both C and T (West Flemish (Carstens 2003, referring to   Haegeman 1992)

(64)a.Kpeinzen *dan-k*   (ik) morgen goan.
    I-think   that-I (I)   tomorrow   go
    'I think that I'll go tomorrow.'

    b. Kpeinzen *da-j*   (gie) morgen goat.
    I-think   that-you (you) tomorrow   go
    'I think that you'll go tomorrow.'

    c. Kvinden *dan*   die   boeken te   diere   zyn.
    I-find   that-PL the   books too   expensive   are
    'I find those books too expensive.'

(65) The agreement features gets merged on C, and copied on T (Carstens 2003).

CP
```
         CP
        /  \
            C'
           /  \
     C_AGREEMENT   TP
                  /  \
                 T
```