## Subject Phrases are Subject to Scrambling in Japanese Hideaki Yamashita (YNU)

Saito (1985:Ch.3.2) argued that long-distance scrambling (LDS) of Nominative subject is not possible. Despite his claim, many have suggested that it is indeed possible in Japanese (and Korean) (See e.g., the references in [X]). This paper provides arguments that Nominative subjects are subject to scrambling, claiming that Saito's observation is unwarranted on much empirical grounds. In so doing, I show that the (un)availability of LDS of subject is regulated by the "feature-based" superiority condition (I), and provide evidence that even the otherwise licit LDS of object will result in deviance in the configuration that bans the LDS of subject (Miyara 1982).

- The "Feature-based" Superiority Condition (FSC) (based on Chomsky 1973:p.246) The configuration "[XP ... YP ...  $t_{XP}$  ...]" results in a deviant output when all the grammatical features (GF) associated with XP and YP are the same.
- (I) is in fact a formal statement of a "Crossing over Constraint as an anti-ambiguity device" (II) advocated by S. Kuno (1980:p.175); (I) dictates that if there is one distinct GF not shared by XP and YP, then the output will be non-deviant, and if all the GF are shared by XP and YP, then the output will be deviant. This is schematically shown in (II') and (III). (III) and (IV) partially list the patterns and cases which make LDS of subject possible; see (1)–(4) for examples. Fn.1, 2
- (II) "Crossing over Constraint as an anti-ambiguity device" (S. Kuno 1980:p.175) [T]he greater the likelihood of ambiguous interpretation, the more difficult it is to switch the word order of two NPs marked with the same grammatical formative (e.g., particles).
- (II')
- (III) a.
- [XP<sub>{\alpha,\beta,\gamma}</sub> ... YP<sub>{\alpha,\beta,\gamma}</sub> [t<sub>XP</sub> ...]] \rightarrow\* because all the GFs are the same. ((1)b–(3)b)

  a. [XP<sub>{\alpha,\beta,\gamma}</sub> ... YP<sub>{\alpha,\beta,\beta}</sub> [t<sub>XP</sub> ...]] \rightarrow\$ OK because XP&YP have a different GF {\gamma}, {\gamma}, {\gamma}

  b. [XP<sub>{\alpha,\beta,\gamma}</sub> ... YP<sub>{\alpha,\beta,\gamma}</sub> [t<sub>XP</sub> ...]] \rightarrow\$ OK because XP&YP have a different GF {\sigma}, {\gamma}, {\gamma}

  c. [XP<sub>{\alpha,\beta,\gamma}</sub> ... YP<sub>{\alpha,\beta,\gamma}</sub> [t<sub>XP</sub> ...]] \rightarrow\$ OK because YP has an additional distinctive GF {\delta}.

  d. [XP<sub>{\alpha,\beta,\gamma}</sub> ... YP<sub>{\alpha,\beta,\gamma}</sub> [t<sub>XP</sub> ...]] \rightarrow\$ OK because XP has an additional distinctive GF {\delta}.
- (IV) a. Case differences (M. Kuno 2003, Fujii 2004)<sup>Fn.3</sup> ---(III)a (1)a
  - b. Case vs. Topic (Miyara 1982)<sup>Fn.4</sup> ---(III)a ((1)b, (2)b, with *Ken-wa*)
  - animacy (Mihara 1994, Kasai 2002, M. Kuno 2003) --- (III)b (2)a
  - honorification ---(III)d (3)a
  - Wh-phrase ---(III)d (4)a

(4) is of special interest, which has no Wh-Q constraint violation status like (5) (K.I. Harada 1972), and hence suggests that the LDS of subject shows undoing/radical reconstruction effect, a hallmark property of Japanese scrambling (Saito 1989).

The current analysis is independently supported by the fact that the FSC (I) is a general condition that also applies to the LDS of objects. For example, as shown in (6)b, the otherwise licit LDS of indirect object (IO) results in deviance when it crosses the matrix IO which bears the same GF (Miyara 1982:p.545, Oku 1998:Ch.5, p.184, Richards 2002:p.242), but it is ameliorated via the same sort of strategies that make LDS of subject possible, such as turning the scrambled IO into a Wh-phrase (6)a.

Fn.1 The differences with respect to person/gender/number do not ameliorate LDS of subject, suggesting the agreement-defective nature of Japanese.

Fn.2 Note that Saito's (1985:Ch.3, pp.188-189) "downgraded topic" conjecture (which is based on Muraki 1979, Tonoike 1980), even if it is tenable, is not applicable to these examples.

An embedded Dative subject can readily undergo LDS crossing a matrix Nominative subject (M. Kuno 2003), but not crossing a matrix Dative subject, which is captured by the FSC (I).

Fn.4 Replacing the Nominative Case on the matrix subject with the Topic particle makes LDS of subject possible (Miyara 1982). But see Saito's (1985) "downgraded topic" conjecture.

- (1) a. [XP-SUB{NOM} YP-SUB{DAT} [t\_{XP} ...]] --- no FSC violation [Mari-ga; Ken-ni(-wa) [CP t; sushi-o tabeta to] omo-e-ta]. (Fujii 2004:p.10, M.-NOM K.-DAT(-TOP) sushi-ACC ate C think-can-TNS (16)) '[Mari(NOM); Ken(DAT) thought [CP that t; ate sushi]].'
  - b.  $[XP-SUB_{\{\underline{NOM}\}} YP-SUB_{\{\underline{NOM}\}} [t_{XP} ...]]$  --- FSC violation

    \* $[\underline{Mari-ga_i} \underline{Ken-ga} [c_P t_i \text{ sushi-o} tabeta to]$  omotteita]. <OK if

    M.-NOM K.-NOM sushi-ACC ate C thought Ken-wa "K.-TOP"=(IV)b>' $[\underline{Mari}(NOM)_i, \underline{Ken}(NOM)$  thought  $[c_P \text{ that } t_i \text{ ate sushi}]]$ ."
- (2) a.  $[XP-SUB_{\{NOM, Human\}}]$   $YP-SUB_{\{NOM, Human\}}]$   $[t_{XP}...]]$  --- no FSC violation ?  $[Saru(-no-taigun)-ga_i]$  Ken-ga [CP] [CP]
  - b.  $[XP-SUB_{\{NOM,+Human\}} YP-SUB_{\{NOM,+Human\}} [t_{XP}...]]$  --- FSC violation \* $[Mari-ga_i Ken-ga [_{CP} t_i Yumi-ni osoi-kakatta to] itta].$  <OK if M.-NOM K.-NOM Y.-DAT attacked C said Ken-wa "K.-TOP"=(IV)b> ' $[Mari_i, Ken]$  said  $[_{CP}$  that  $t_i$  attacked Yumi]].' (see Saito 1985, Oku 1998, Takahashi 2008)
- (3) a.  $[XP-SUB_{\{NOM,Agt, Hon\}}]$   $YP-SUB_{\{NOM,Agt, Hon\}}]$   $[t_{XP} ... V(_{Hon})]$   $V(_{Hon})]$  --- no FSC vio.  $[Mori-kyooju-ga_i]$  Ken-ga  $[_{CP}$   $t_i$  tsugi-no gakuchoo-ni nar-are-ru to] omotteita]. Prof. M.-NOM K.-NOM next president-NI become(HON)C thought '[ $Prof. Mori_i$ , Ken thought  $[_{CP}$  that  $t_i$  will become the next president (of Univ.)]].'
  - b. [XP-SUB<sub>{NOM,Agt,+Hon}</sub> YP-SUB<sub>{NOM,Agt,+Hon}</sub> [t<sub>XP</sub> ... V(<sub>+Hon</sub>)] V(<sub>+Hon</sub>)] --- <u>FSC vio.</u>
    \*[Mori-kyooju-ga<sub>i</sub> fuku-gakuchoo-ga [CP t<sub>i</sub> tsugi-no gakuchoo-ni nar-are-ru to]
    Prof. M.-NOM vice president-NOM next president-NI become(HON) C
    o-omoi-ni-natteita]. '[Prof. Mori<sub>i</sub>, the vice president thought [CP that t<sub>i</sub> will thought(HON) become the next president (of Univ.)]].'
- (4)  $[XP-SUB_{\{NOM,Agt, | wh\}}]$   $YP-SUB_{\{NOM,Agt, | wh\}}$   $[t_{XP} \dots C(+_{Q})]$   $C(-_{Q})]$  --- no FSC vio.] ?  $[\textbf{\textit{Dare-ga}}_{i}$  Ken-ga  $[_{CP}$   $t_{i}$  wain-o tanonda ka] Aya-ni shirabe-saseta-yo]. who-NOM K.-NOM wine-ACC ordered Q A.-DAT have.investigated-SFP ' $[\textbf{\textit{Who}}_{i},$  Ken made Aya investigate  $[_{CP}$  Q  $[t_{i}$  ordered wine]]].' --- no Q-Wh constraint vio.
- (5) Wh-Q constraint: Wh-phrase must be bound by via c-command from Q-particle.

  \*[Ken-ga dare-ni [CP Mari-ga wain-o nonda ka] shirabe-saseta-yo].

  K.-NOM who-DAT M.-NOM wine-ACC drank Q have.investigated-SFP

  \*'[Ken made who investigate [CP Q [Mari drank wine]]].' --- Q-Wh constraint vio.
- (6) a. [XP-OBJ<sub>{DAT,Goal</sub> + wh} ... YP-OBJ<sub>{DAT,Goal</sub> wh} [... t<sub>XP</sub> ...]] --- no FSC violation [Dare-ni<sub>i</sub> Ken-ga Aya-ni [CP Mari-ga t<sub>i</sub> a(wa-naka)t-ta ka] tsutaeta-yo]. who-DAT K.-NOM A.-DAT M.-NOM meet(-NEG)-TNSQ told-SFP '[Who(DAT)<sub>i</sub>, Ken told Aya(DAT) [CP Q Mari met/didn't meet t<sub>i</sub>]].'
  - b.  $[XP\text{-}OBJ_{\{DAT,Goal\}} \dots YP\text{-}OBJ_{\{DAT,Goal\}} \quad [\dots t_{XP} \dots]]$  --- FSC violation  $[\underline{Yumi\text{-}ni_i} \quad Ken\text{-}ga \ (*\underline{Aya\text{-}ni}) \ [_{CP} \quad Mari\text{-}ga \ t_i \ a(wa\text{-}naka)t\text{-}ta \ ka] \ (^{OK}\underline{Aya\text{-}ni}) \ tsutaeta\text{-}yo].$  Y.-DAT K.-NOM A.-DAT M.-NOM meet(-NEG)-TNSQ A.-DAT told-SFP '(intended)  $[\underline{Yumi}(DAT)_i$ , Ken told  $\underline{Aya}(DAT) \ [_{CP} \ Q \ Mari \ met(/didn't \ meet) \ t_i]].'$

Ref. (partial): K Kuno, S. 1980. A further Note on Tonioke's Intra-subjectivization Hypothesis. MITWPL 2, 171-184. M Miyara, S. 1982. Reordering in Japanese. LJK 7:2, 518-550. R Richards, N. 2002. In Epstein&Seely (eds.), 227-248. S Saito, M. 1985. MIT Diss. X (a) Fujii, T. 2004. String Vacuous Scrambling. Ms., UMD. (b) Harada, S.I. 1977. Nihongo-ni Henkei-wa Hitsuyoo-da. Gekkan Gengo 6, 88-103. (c) Kasai, H. 2002. Eliminating Scrambling. Ms., UCI. (d) Ko, H. 2008. Subject Scrambling. JK 13. (e) Kuno, M. 2003. Scrambling in Japanese as Pure Merge. Lang. Research 19, 45-78. (f) Oku, S. 1998. UConn Diss. (g) Sohn, K.-W. 1994. UConn Diss.