

## Parametric Variation in NPI-Licensing and the Role of LF X<sup>0</sup>-Movement

**Overview:** Cross-linguistic differences in licensing conditions on Negative Polarity Items (NPIs) have been observed. **[Difference A]** Long-distance licensing of NPIs is possible in English unless an island intervenes ([1]: (1)), while Korean/Japanese (K/J) NPIs require a clause-mate Neg ([2]: (2)). **[Difference B]** K/J allow subject NPIs, while English does not ((3)). Although previous studies of Korean NPIs ([3], [4]) attribute these differences to the properties of chains formed by LF movement to [Spec NegP/AgrP], we argue that the Japanese NPI *-sika* is licensed by covert head-movement. We thus suggest that there is head-movement that does not feed PF (contra [5]).

**Previous analyses:** [3] accounts for the two differences between English and K/J by proposing that [Spec, NegP] is an A'-position in English while it is an A-position in K/J. She argues that NPIs covertly move to [Spec, NegP]. **[Diff. A]** is derived because when a K/J NPI moves long-distance through the embedded [Spec, CP] ((4)a), it forms an improper chain A-A'-A ((4)b), while movement of English NPIs ((5)a) forms a legitimate A-A'-A' chain ((5)b). **[Diff. B]** is derived because overt movement of the subject bypassing [Spec, NegP] makes an improper A-A'-A chain in English ((6)) while forming a legitimate A-A-A chain in Korean ((7)). [4] also employs the argument based on improper chains, but rejects the idea that Neg projects NegP. Under [4]'s account, NPIs are licensed in [Spec, AgrP] (A-position) in Korean, and Neg is adjoined to the V head ((8)).

**New observations:** Although the Japanese NPI *-sika* behaves in the same way as Korean NPIs with respect to **[Diff. A/B]**, we show that [3] and [4]'s analyses of Korean cannot be extended to the analysis of *-sika*. (*-Sika* attaches to a constituent and is licensed by Neg, interpreted as 'not ... except ...' See (9).) First, *-sika* can attach to adjuncts ((10)), which is unpredicted in the previous analyses. If the adjunct-*sika* phrase were licensed in an A-position ([Spec, NegP/AgrP]), it should form an improper chain consisting of A'-A (explicable given a ban on "comp" to non-"comp" movement originally in [6]: cf. [7]). Second, *-sika* can attach to heads. In (11)a, the scope of *-sika* is only the V-head, because it only means 'John only *licked* the juice (as opposed to *drink* the juice),' while in (11)b, the implication is 'John didn't do any activities other than to *lick cough drops* (as opposed to *see the doctor*, etc.)' The contrast shows that *-sika* is ambiguous between V- or VP-attachment depending on the context. Under previous analyses, it would be hard to account for how a head can move to a Spec position. Third, ambiguity arises when double negation occurs ((12)). The ambiguity is well-accommodated under a system where NPIs are associated with a Neg-related position; it reflects which Neg the NPI is associated with. The ambiguity is hard to account for if NPIs uniformly occupy [Spec, AgrP] as [4] proposes.

**Analysis:** Given the above discussion (especially (11)a), we propose that covert head-movement of *-sika* to Neg is relevant to the licensing of *-sika* as in (13)a. (The movement skips V/v-heads. We follow [8] and [9] and assume that the Head Movement Constraint does not always hold.) If this movement crosses a CP, the head-movement of *-sika* onto the matrix Neg is blocked ((13)b) because the embedded C is filled by the C morpheme *to*. As a result, *-sika* cannot be attracted to the matrix clause, due to the Phase Impenetrability Condition. On the other hand, English NPIs undergo covert phrasal movement to [Spec, NegP]. When an English NPI moves long-distance, the embedded [Spec, CP] is available as an escape hatch ((14)). **[Diff. A]** is thus derived. This system enables us to assume that [Spec, NegP] is uniformly an A'-position, contra [3]'s stipulation. **[Diff. B]** is derived because English NPI subjects undergo movement to [Spec, TP] via [Spec, NegP], forming an improper chain ((6)). On the other hand, *-sika* in (9)c is licensed by head-movement and subject movement to [Spec, TP] is irrelevant in forming the chain of *-sika*. In this way, both differences between Japanese and English NPIs are attributed to the parameter of head vs. phrasal movement.

**Theoretical consequences:** If our analysis is on the right track, it provides an instance of covert head-movement, which shows that not all head-movement is PF-movement. Our system also implies that only CP is a phase ([10]) in Japanese because morphemes on v (e.g. passives, causatives) do not block *-sika* movement as opposed to C morphemes. Finally, the proposed system suggests that NPIs need to move to NegP even under the probe-goal system. This enables us to account for the covert long-distance licensing of wh-phrases/NPIs ((1)b) without cumbersome assumptions such as long-distance Agree.

- (1) a. Mary did **not** meet **anyone**.                      b. Mary did **not** believe that John bought **anything**.  
 c. \***I never** met [the man who tried to kill **anybody**]. (Complex NP island)
- (2) a. Mary-ka **amuto ani** manna-essta ‘Mary did not meet anybody.’ [Korean]  
*Mary-Nom anybody not met*  
 b. \*Mary-ka [John-i **amukesto** saessta-ko] mit-ci **ani** hayessta.  
*Mary-Nom John-Nom anything bought-C believe not did*  
 ‘Mary did not believe that John bought anything.’
- (3) a. \***Anyone** did **not** meet Mary.  
 b. **Amuto** Mary-lul **ani** mennessta. ‘Anybody did not meet Mary.’ [Korean]  
*Anybody Mary-Acc not met*
- (4) a. \*Mary-ka [<sub>NegP</sub> **amukesto**<sub>1</sub> [<sub>VP</sub> [<sub>CP</sub> **t**<sub>1</sub>’ [<sub>C</sub> John-i **t**<sub>1</sub> saessta-ko]] mit-ci] ani] hayessta  
 b. \*[[Spec, NegP] (A) ... [Spec, CP] (A’) ... original theta-position (A)] = (2b)
- (5) a. Mary did [<sub>NegP</sub> **anything**<sub>1</sub> not [<sub>VP</sub> believe [<sub>CP</sub> **t**<sub>1</sub>’ [<sub>C</sub> that John bought **t**<sub>1</sub>]]]] = (1b)  
 b. [[Spec, NegP] (A’) ... [Spec, CP] (A’) ... original theta-position (A)]
- (6) a. \*[[<sub>AgrSP</sub> **Anyone**<sub>1</sub> [<sub>TP</sub> did [<sub>NegP</sub> **t**<sub>1</sub>’ [<sub>Neg</sub> not [<sub>AgrOP</sub> [<sub>VP</sub> **t**<sub>1</sub> meet Mary]]]]]] = (3a)  
 b. \*[[Spec, AgrSP] (A) ... [Spec, NegP] (A’) ... original theta-position (A)]
- (7) a. [<sub>AgrSP</sub> **Amuto**<sub>1</sub> [<sub>TP</sub> [<sub>NegP</sub> **t**<sub>1</sub>’ [<sub>VP</sub> **t**<sub>1</sub> Mary-lul] ani] mennessta]] = (3b)  
 b. [[Spec, AgrSP] (A) ... [Spec, NegP] (A) ... original theta-position (A)]
- (8) ... [<sub>AgrOP</sub> **amukesto**<sub>1</sub> [<sub>AgrO</sub>’ [<sub>VP</sub> (SUBJ) [<sub>V</sub> **t**<sub>1</sub> [<sub>V</sub> **ani**+V]]]]]]
- (9) a. Mary-wa ringo-**sika** tabe-**nakat**-ta. ‘Mary ate only apples.’ [Japanese]  
*Mary-Top apple-sika eat-not-past* (= lit. ‘Mary didn’t eat except for apples.’)  
 b. \*Mary-wa [John-ga ringo-**sika** tabe-ta to] omowa-**nakat**-ta.  
*Mary-Top John-Nom apple-sika eat-past C think-not-past*  
 ‘Mary did not think that John ate only apples.’  
 c. Mary-**sika** ringo-o tabe-**nakat**-ta. ‘Only Mary ate apples.’  
*Mary-sika apple-Acc eat-not-past*
- (10) Mary-wa **yukkuri-sika** ringo-o tabe-**nakat**-ta. ‘Mary ate apples only slowly.’  
*Mary-Top slowly-sika apple-Acc eat-not-past*
- (11) a. [context: John hates the vegetable juice. Juice is normally what you *drink*, but...]  
 John-wa sonojuusu-o **name-sika** si-**nakat**-ta.  
*John-Top the juice-Acc lick-sika do-not-past*  
 ‘John only *licked* the juice./All John did was to *lick* the juice.’  
 b. [context: John has a terrible cold. He should take a proper care of himself, but...]  
 John-wa **nodoame-o name-sika** si-**nakat**-ta.  
*John-Top cough-drop-Acc lick-sika do-not-past*  
 ‘John only *licked cough drops*./ All John did was to *lick cough drops*.’
- (12) Mary-wa ringo-sika tabe-**naku-nakat**-ta.  
*Mary-Top apple-sika eat-not-not-past*  
 a. [[Mary-Top apple-**sika** eat-**not**] not-past]  
 ‘It is not the case that Mary only ate apples. (=ate something else, too.)’  
 b. [Mary-Top apple-**sika** [eat-not] **not**-past]  
 ‘Mary did not eat (= avoided eating) only apples. (=ate everything other than apples.)’
- (13) a. [<sub>IP</sub> Mary-wa [<sub>NegP</sub> [<sub>VP</sub> ringo-**t**<sub>1</sub> tabe] **nakat-sika**<sub>1</sub>] ta] = (9a)  
*Mary-Top apple eat not-sika past*  
 b. \*[[<sub>IP</sub> Mary-wa [<sub>NegP</sub> [<sub>VP</sub> [<sub>CP</sub> John-ga ringo-**t**<sub>1</sub> tabe-ta **to**] omowa] **nakat-sika**<sub>1</sub>] ta] = (9b)  
*Mary-Top John-Nom apple eat-past C think not-sika past*
- (14) [<sub>IP</sub> Mary did [<sub>Neg</sub> **anything**<sub>1</sub> not [<sub>VP</sub> believe [<sub>CP</sub> **t**<sub>1</sub>’ [<sub>C</sub> that [<sub>IP</sub> John bought **t**<sub>1</sub>]]]]]] = (1b)

[1] Ross. 1967. *Constraints on Variables in Syntax*, Ph.D. diss, MIT. [2] Choe. 1988. *Restructuring Parameters and Complex Predicates: A Transformational Approach*, Ph.D. diss, MIT. [3] Lee. 1993. NPI Licensing and the Domain of A-movement, Ms., UConn. [4] Kim. 1995. The Negative Polarity Item Licensing in Korean: An Alternative to NegP. *Studies in Generative Grammar* 5. [5] Chomsky. 2000. Derivation by Phase. *Ken Hale: A Life in Language*, MIT Press. [6] Chomsky. 1973. Conditions on Transformations. *A Festschrift for Morris Halle*. [7] May. 1979. Must Comp-to-Comp Movement Be Stipulated? *LI* 10. [8] Roberts. 1994. Two Types of Head Movement in Romance. *Verb Movement*, CUP. [9] Takahashi. 2002. Determiner Raising and Scope Shift. *LI* 33. [10] Simpson & Wu. 2002. Understanding Cyclic Spell-Out. *NELS* 32.