

Kitagawa (1986) observes cases in Japanese in which the morphemes *ko-*, *usu-*, and *oo-* which normally receive adjectival interpretation ('little', 'thin', and 'big' respectively), are sometimes interpreted adverbially, even when they form a phonological constituent with a following nominal element:

- (1) a. **ko-gosi** o kageru 'bend oneself **slightly**' CF: **ko**-eda 'twig'
little-waist Acc bend *little*-branch
 b. **oo-guti** o akeru 'open one's mouth **wide(ly)**' **oo**-goe 'big voice'
big-mouth Acc open *big*-voice

Kitagawa shows that these examples are "paradoxical" in the sense that the A-morphemes (*ko-*, *usu-*, *oo-*) form a phonological constituent with the nominal, exemplified by Rendaku (first segment of second element gets voiced; *kuti* 'mouth' → *oo-guti o akeru* 'open one's mouth wide'), but they are semantically adverbial, thus not forming a semantic constituent with the nominal element, as infelicity of a sentence involving a conflicting adverb suggests:

- (2) a. #hukaku **ko-gosi** o kageru b. #wazukani **oo-guti** o akeru
 deeply *little*-waist Acc bend slightly *big*-mouth Acc open
 # 'deeply bend oneself **slightly**' # 'slightly opens one's mouth **widely**'

I argue that the phonological constituency observed between such As and Ns is a result of a post-syntactic morphological operation, *Local Dislocation Merger* (LDM) (Embick & Noyer, 1999), and that the adverbial-like interpretation of such As arises from them being construed in the innermost complement position of V. The derivation of (1b) is shown below:

- (3) a. Spell-Out: [_{VP} [_{VP} [_{NP} **guti**] [_V [_{XP} oo] ake]]] b. Linearization: [**guti** * oo * akeru]
 mouth *big* open c. LDM: [[] * [_A oo + **guti**] * akeru]

That the A-Ns are derived by LDM rather than by syntactic operation is evidenced by the fact that these A-Ns do not behave like a single complex head as far as their distribution is concerned; they cannot appear with a nominal modifier (4a), or with degree modifiers (4b), hence the A-Ns do not behave either like syntactic nominals or adverbial:

- (4) a. *neko no **oo-guti** o akeru 'open cat's **mouth slightly**'
 cat Poss *big* mouth Acc open
 b. *totemo **oo-guti** o akeru 'open one's **mouth very slightly**'
 very *big* mouth Acc open

Assuming that they are syntactically an independent head, the claim that the adverbially interpreted As appear in innermost V-complement position can be justified by constituency (5) and binding (6) tests. (5b) indicates that A is a part of VP, so it cannot be stranded. (6b) argues that the projection of A occurs lower than the complement NP; coindexing of the pronominal *sore* in NP with the R-expression *kuti* '(one's) mouth' appearing in a projection of A can be correctly ruled out as a Condition C violation:

- (5) a. [**ookiku** kuti o ake-sae]_j John-ga t_j sita b. *[kuti o ake-sae]_j John-ga t_j **ookiku** sita
widely mouthAcc open-even John-Nom did mouth Acc open-even John-Nom widely did
 'open the mouth **widely** John did'

- (6) a. John-ga **kuti**_j-o [**sore**_j-no aku tokoro-made *ooki-ku*] aketa
 John-Nom mouth-Acc it-Gen open point-to widely opened
 'John opened the mouth_j [as widely as it_j; openable point]'

- b. *John-ga **sore**_j-o [**kuti**_j-no aku tokoro-made *ooki-ku*] aketa
 'John opened it_j [as widely as mouth_j's openable point]'

The observation that the A-Ns must appear in predicative environments (e.g. **obaachan no ko-gosi* 'grandma's **little/slightly waist**'; Kindaichi, 1973; Kitagawa, 1986) is accounted for by taking the relevant As to be V-complements in syntax. Furthermore, I show that the LDM account correctly predicts the observed distribution of the A-Ns shown in (4); this straightforwardly falls out from the locality condition imposed on the LDM. Because LDM operates on linear structure, A-N formation is legitimate only when N is in peripheral position (thus no nominal modifier) and there is no linearly intervening element between A and N (thus no degree modifier).

I close with the discussion of potentially parallel English phenomena (ex. *He sliced the meat **thick** / **thickly***) that may also be illuminated by this approach.

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