**External Pair-Merge of Heads as a Core Syntactic Operation**

**Synopsis:** This paper shows that external pair-Merge of heads (Epstein et al. 2016) is a core syntactic operation. Like set-Merge, pair-Merge applies freely. Free application of pair-Merge gives us a unified account of various phenomena, which are seemingly different and have been explained individually. **External Pair-Merge:** Extending Chomsky’s (2015) form of argument to (internal) pair-Merge, Epstein et al. (2016) proposes that external pair-Merge of R to v* can take place even when v* bears its unvalued ϕ-features (uϕ) and the phase-head status of v* is cancelled because pair-Merge of R to v* makes v* (including its uϕ) invisible. Their proposed analysis predicts that “phase-cancellation by external pair-Merge of heads takes place in verbal phrases with passive, raising, unaccusative and bridge verbs, but not in verbal phrases with transitive (taking a direct object) and intransitive (unergative) verbs.” **Passives in Japanese:** It has been observed and commonly assumed in the literature on Japanese that there are at least two distinct types of passives in Japanese: direct passives and indirect passives (adversative passives), as given in (1) and (2) (Miyagawa 1989; among others). The syntactic behavior of direct/indirect passives in Japanese has received much attention in the literature as to why the passive morpheme –rare in the indirect passive does not seem to absorb case, unlike the direct passive. In the same spirit of Goro (2006), I assume that there are two possible ways to introduce –rare into the syntactic derivation: (i) –rare can be externally set-Merged with v*P and it can take an argument in its Spec (indirect passives) and (ii) it can also be taken from the lexicon and externally pair-Merged with v* (direct passives). **Indirect Passives:** In (2a) and (2b), –rare is externally set-Merged with v*P, as in (3) (the irrelevant derivational steps are not demonstrated). Following Woolford (2006:113), I assume that v heads license inherent dative Case of an external argument which remains in the Spec of v. **Direct Passives:** External pair-Merge of –rare to v* plays an important role to derive a direct passive (1). Like external pair-Merge of R to v*, external pair-Merge of –rare to v* forms ←rare, v*> (–rare with v* affixed), and the phase-head status of v* is cancelled because pair-Merge of –rare to v* makes v* (including its uϕ) invisible, so that Sora moves up to the Spec of T as in (4). **Causatives in Japanese:** It has been observed in the literature on Japanese that in the intransitive (unergative) causative construction, thecausee can be marked with either the dative or the accusative, as shown in (5). **Ni-/O-Causatives:** This application of external pair-Merge can readily explain this optionality. The structures of (5) are given in (6). As in (6a), unlike –rare, v* appears to be above ←sase because the causee can be accusative Case marked. In (6b), external pair-Merge of ←sase to v* takes place so that it forms ←sase, v*> and pair-Merge of ←sase to v* makes v* (including its uϕ) invisible. Although there is no accusative Case licensor in (6b), since Haru stays in the Spec of v, it can receive inherent dative Case. This analysis predicts that the causee can be accusative Case marked even in the transitive causatives contrary to fact, as in (7a). Notice, however, that it is possible in Korean, as we expect, as in (7b). Therefore, here, we simply assume that Japanese does not allow multiple accusatives for a language specific reason. **Empirical Consequence:** The proposed analysis predicts that while causatives of unergatives allow ni-/o-causee, those of unaccusatives allow only o-causee because the verbal phrase with an unaccusative verb forms <R, v*> (=R with v* affixed) so that it is no longer a v head and hence does not license inherent dative Case in the Spec position. Therefore, ni-causee cannot appear. This prediction is born out as shown in (8). The relevant structures are given in (9). **Conclusion:** Without postulating distinct v heads, passive morphemes, nor causative morphemes, external pair-Merge of heads can give a more coherent and uniform explanation to the linguistic phenomena discussed here.
(1) Direct Passives

Sora-ga (Haru-ni) nagur-are-ta     cf. Haru-ga Sora-o nagur-ta
S.- NOM (H.-DAT) hit-PASS-PST      H.- NOM S.- ACC hit-PST
‘Sora was hit (by Haru).’
‘Haru hit Sora.’

(2) Indirect Passives (Adversative Passives)

a. Tomo-ga Haru-ni Sora-o nagur-are-ta  b. Sora-ga Haru-ni (saki-ni) suwar-are-ta
‘Tomo was affected by Haru’s hitting Sora.’
‘Sora was affected by Haru’s sitting (first)’

(3) a. [Tomo-j-ga T [ t; rare [ Haru-ni v* [ Sora-i-o R t)]]]
   b. [Sora-ga T [ t; rare [ Haru-ni v* [ (saki-ni) R ]]]) (linear order irrelevant)

(4) [Sora-ga T [ (Haru-ni) [ t; rare-v* [ t; R t]]]

(5) Intransitive (unergative) Causatives

Tomo-ga Haru-ni/o (saki-ni) suwar-ase-ta
T.- NOM H.- DAT/ACC (first-DAT) sit-CAUS-PST
‘Tomo made Haru sit first.’

(6) a. [Tomo-j-ga T [ t; v* [ Haru-ni j sase [ t; v*[(saki-ni) R]]]]
   b. [Tomo-j-ga T [ t; sase-v* [ Haru-ni j v* [(saki-ni) R]]]]

(7) a. Tomo-ga Sora-ni/*o piza-o tabe-sase-ta
   T.- NOM S.- DAT/ACC pizza-ACC eat-CAUS-PST
   ‘Tomo made Sora eat pizza.’
   J.- NOM M.- DAT/ ACC [pizza-ACC eat-CAUS-PST-DEC]
   ‘John made Mary eat pizza.’

(8) Sora-ga Tomo-o/*ni tsukare-sase-ta Intransitive (unaccusative) Causatives
   S.- NOM T.- ACC/DAT get-CAUS-PST
   ‘Sora tired Tomo out.’

(9) a. [Sora-ga T [ t; v* [Tomoj-o sase[t; R-v* t]]]]
   b.* [Sora-ga T [ t; sase-v* [Tomoj R-v* t]]] (Tomo cannot be case-marked)

References:


