Constituency in numeral classifier constructions: Korean vs. Japanese

Synopsis: In this paper, we provide an account for hitherto unnoticed aspects of numeral classifier constructions in Japanese and Korean, revealing a cross-linguistic interpretational difference that can be attributed to the structural difference within nominal domains in these languages. Specifically, Korean is different from Japanese in the left-periphery of NP, in that only the latter can house a ‘stranded’ numeral classifier (NC, alia QP) in its position. We provide an account based on the labeling algorithm proposed in Chomsky (2013), in that only in Japanese the NP can stay in the left-periphery of QP due to the presence of K(ase) projection in its nominal domain.

Interpretational Asymmetry: Both in Japanese [JP] and Korean [KR], an NC can either precede or follow its host noun as in (1) and (2). What is noteworthy is that NC constructions in JP and KR exhibit an interpretational asymmetry when an NC follows its host noun, cf. (2), and the host noun in question involves conjunction as in (4). In (3), where an NC precedes its host conjoined nouns, there are two interpretations available: both (3a) and (3b) can mean either that the five of men and women came (total interpretation), or that five men and an indefinite number of women came (separate interpretation). By contrast, in (4), where an NC follows its host conjoined nouns, JP (4a) allows the separate interpretation, i.e. that an indefinite number of men and five women came, whereas KR (4b) allows not the separate but only the total interpretation.

Structural Asymmetry: We argue that the total interpretation and the separate interpretation in (4) are derived from the structures (5a) and (5b), respectively. In (5a), the QP is on the top of the &P so that the total interpretation is obtained; in (5b), the numeral classifier only modifies the second noun, i.e. woman, so the separate interpretation is obtained. The current perspective predicts yeka-ka tases-myeng ‘woman-NOM five-CL’ in (4b), where the separate interpretation is absent, not to form a constituent. This prediction is borne out as in (7). In JP (6), karera ‘they’ can take dorobooga go-nin ‘thief-NOM five-CL’ as its antecedent; in KR (7), kutul ‘they’ cannot take totwuk-i tases-myeng ‘thief-NOM five-CL’ as its antecedent and the second sentence is unacceptable. The idea that the constituency of QP is important for the separate interpretation, cf. (5b), is further supported by the fact that even JP disallows such an interpretation in the situation where NOUN NUM-CL cannot be a constituent as in (8a). In (8a), the conjoined object otoko-to onna ‘man and woman’ has undergone scrambling, which eliminates the possibility that onna ‘woman’ and go-nin ‘five-CL’ form a constituent under the base structure. Crucially, the separate interpretation is absent in (8a) as the current analysis predicts.

Presence/Absence of KP: The question to be answered is then why KR disallows the structure (5b), unlike JP. We argue that the absence of the structure (5b) in KR can be attributed to the absence of K(ase) P(rojection) within nominal domains. One of the distinctive differences between JP and KR is that only the former allows particle-stranding ellipsis (Sato and Ginsberg 2007, Sato 2012, Bošković 2014) as in (9) and (10). Following Bošković (2014), we assume that particle-stranding ellipsis is an instance of ellipsis of an NP that is a complement of KP, taking the ungrammaticality of (10B) as an argument for the absence of KP in KR. Assuming with Takahashi (2011) and Bošković (2014) that JP nominal domains with numeral classifiers involve tripartite structure i.e. QP-KP-NP, we then propose that KR counterparts involve only QP and NP as in (11b). We then argue that the order [NP-Case NC] can be obtained by adjunction of NP to QP (QP=NCP), as illustrated in (12). This involves the merger of {NP, QP}, which Chomsky (2013) argues that it cannot be labeled unless (i) it undergoes feature-sharing (ii) either one of them moves. Following Chomsky (2013), all syntactic objects must be labeled for interpretation. We then argue that KR can only take option ii, hence the order in question does not form a constituent on surface (12b). However, for JP, what is merged with QP is KP (13a). Saito (2016) convincingly shows that the Case (KP) in JP functions as an anti-labeler, which results to the label of the merger {KP, QP} as QP (13b). Therefore, the order in question in JP can stay as a constituent.
(1) a. Go-nin-no otoko-ga kita.  b. Tases-myeng-uy namca-ka wassta.
   five-CL-GEN man-NOM came              five-CL-GEN man-NOM came
   man-NOM five-CL came                    man-NOM five-CL came
(3) a. [Go-nin-no otoko-to onna]-ga kita.
   five-CL-GEN man-and woman-NOM came
   lit: ‘Five man and woman came.’ [JP] (✓ total; ✓ separate)
   b. [Tases-myeng-uy namca-va yeca]-ka wassta.
   five-CL-GEN man-and woman-NOM came
   lit: ‘Five man and woman came.’ [KR] (✓ total; ✓ separate)
(4) a. Otoko-to onna-ga go-nin kita.
   man-and woman-NOM five-CL came
   lit: ‘Man and woman five came.’ [JP] (✓ total; ✓ separate)
   man-and woman-NOM five-CL came
   lit: ‘Man and woman five came.’ [KR] (✓ total; X separate)
(5) a. TOTAL INTERPRETATION b. SEPARATE INTERPRETATION

(6) Keisatu-to doroboo-ga go-nin kita no? Iie, yakuza-to karera-ga kimasita.
   police-and thief-NOM five-CL came Q no gangster-and they-NOM came
   lit: ‘Did police and thief five come? No, gangster and they came.’ [JP]
   police-and thief-NOM five-CL came-Q no gangster-and they-NOM came
   lit: ‘Did police and thief five come? No, gangster and they came.’ [KR]
(8) a. [Otoko-to onna]-i-o Taro-ga ti go-nin tataita.
   man-and woman-ACC Taro-NOM five-CL hit
   lit: ‘Man and woman, Taro hit five.’ [JP] (✓ total; X separate)
   b. [Namca-va yeca]-i-lul Minswu-ka ti tases-myeng ttaylyessta.
   man-and woman-ACC Minsoo-NOM five-CL hit
   lit: ‘Man and woman, Minsoo hit five.’ [KR] (✓ total; X separate)
(9) A: [NP Taro]-ga tukimasita ka? B: [NP Δ]-ga mada tuiteimasen.
   Taro-NOM arrived-Q -NOM yet arrived.not
   ‘Has Taro arrived?’ [JP]                lit: ‘Δ-NOM has not arrived yet.’ [JP]
   Minsoo-NOM arrived-Q -NOM yet arrived.not
   ‘Has Taro arrived?’ [KR]               lit: ‘Δ-NOM has not arrived yet.’ [KR]
(11) a. [QP [KP NP K] Q=Classifier] b. [QP NP Q=Classifier]
(12) a. [QP NP [QP ]] b. .. NP [ι QP tNP [QP tNP QP=NCNP]]
(13) a. [QP KP [QP ]] b. { QP {KP^ANTILABELER, QP} }