Case-mismatches of Shared Arguments in Korean Coordination:
An Experimental Study

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Issue: Nakao (2010) and Chung (2010) claim that the shared element that undergoes Japanese and Korean left-node-raising (LNR) as in (1)—the pivot—must check the same Case in both gap positions. Conversely, Kim (2019) observes that Korean may tolerate Case-mismatches of LNRed pivots as in (2a, c). This study confirms via two experiments that Korean may tolerate Case-mismatches of shared arguments as in (2a/c, 4a/c).

Experiment 1: With an inquiry of the empirical reality of the Case-match requirement, we aim to answer two questions: (i) 'Is the Case-match requirement affected by the Case of the LNRed pivot—inherent Case (IC) vs. structural Case (SC)?'; (ii) 'Is the Case-match requirement affected by the locus of the matching Case?' We executed an acceptability judgment experiment with a 7-point scale based on a 2 × 2 factorial design with the two factors CASE (DAT vs. ACC) and LOCUS (1ST conjunct vs. 2ND conjunct), as sampled in (2).

As shown in Figure 1, acceptability scores appeared to decline when the Case of the pivot is not checked in the first conjunct, and when the pivot bears SC (i.e., ACC). A linear mixed effects model (n = 120; 40 subject trees with 3 observations each) revealed the main effect of CASE ($p < .001$) as well as LOCUS ($p < .001$) but no interaction between the two ($p = .667$).

As Nakao's (2010) ATB scrambling and Chung's (2010) multidominance accounts assume that the Case of the pivot is shared by both conjuncts, they have difficulty in explaining why certain instances of Case-mismatches are judged to be better than others. Alternatively, we propose that the LNRed pivot is scrambled only within the first conjunct, and the gap in the second conjunct is *pro* (*e*) that refers to the LNRed pivot as in (3). The apparently LNRed pivot is just subject to the Case (and θ-) requirement in the first conjunct, which is independent from that of *e* in the second conjunct. The Case licensed in the second conjunct is SC in (2a), whereas that of (2c) is IC. In terms of the Visibility Condition (Chomsky 1986), *e* in (2c) violates the θ-criterion because an IC assigner cannot discharge a θ-role without IC. Since *e* is Caseless, the verb cannot check its Case against it (Bošković 2008). On the other hand, (2a) is more acceptable than (2c) because SC is independent from θ-role. As a result, even if the verb cannot check its SC feature against *e*, there is no θ-criterion violation, unlike in (2c). In short, *e* in (2a) receives θ-role, but *e* in (2c) does not. On the other hand, (2b) and (2d) are degraded, compared with (2a) and (2c), because the first conjunct Case-licensing requirement of LNR is not satisfied. Summing up, Visibility is responsible for the difference between (2a) and (2c), and possibly for the difference between (2b) and (2d).

Experiment 2: We conducted a further experiment to test the prediction: LNR of the pivot could be optional since it is independent from *pro*, and the Case-match requirement should persist in the case where the pivot remains in-situ. Experiment 2 was thus the same with Experiment 1, except that the pivot remains in-situ, which is traditionally called a null *pro* construction (Moon 1991; Ahn & Cho 2009; Park 2014), as sampled in (4).

As shown in Figure 2, acceptability scores dropped when the Case of the pivot is not checked in the first conjunct, and when the pivot bears SC (i.e., ACC). A linear mixed effects model (n = 120; 40 subject trees with 3 observations each) revealed the main effect of CASE ($p < .05$) as well as LOCUS ($p < .001$) but no interaction between the two ($p = .353$).

Theoretical consequences: The results of both experiments challenge the claim that ATB movement requires Case-matches (Dyła 1984; Franks 1993; Citko 2003; Nakao 2010) because the Case-mismatch of LNRed pivots may be tolerated once their Case is licensed in the first conjunct. Additionally, we explore the nature of Chomsky's Visibility under the minimalist program (Chomsky1995, 2000, 2001, 2004): Case-checking renders an element as being interpretable, not only for thematic purposes, but also for scope (Boeckx 2008).

(1) [Kheyikhu-lul]$_{\text{pivot}}$ John-i e_{ACC} mantul-ko Mary-ka e_{ACC} mek-essta. [Korean]
cake-**ACC** J-NOM make-& M-NOM eat-PAST
'The cake, John made __, and Mary ate (it).'

(2) a. Condition (a) **[DAT |1ST]**
Chelswu-eykey chinkwu-ka swul-ul sa-ko pwumonim-i e_{ACC} wiloha-essta.
C-**DAT** friend-NOM alcohol-ACC buy-& parents-NOM comfort-PAST
'To Chelswu, friends bought drink __, and his parents comforted (him).'
b. Condition (b) **[DAT | 2ND]**
Chelswu-eykey pwumonim-i wiloha-ko chinkwu-ka ***e*** swul-ul sa-essta.
C-DAT parents-NOM comfort-& friend-NOM alcohol-ACC buy-PAST
'To Chelswu, his parents comforted __, and friends bought drink (for him).'
c. Condition (c) **[ACC | 1ST]**
Chelswu-lul pwumonim-i wiloha-ko chinkwu-ka e_{DAT} swul-ul sa-essta.
C-**ACC** parents-NOM comfort-& friend-NOM alcohol-ACC buy-PAST
d. Condition (d) **[ACC | 2ND]**
Chelswu-lul chinkwu-ka swul-ul sa-ko pwumonim-i ***e*** wiloha-essta.
C-ACC friend-NOM alcohol-ACC buy-& parents-NOM comfort-PAST

(3) [$_{\text{TP}}$ cake$_1$-ACC [$_{\text{TP}}$ John-NOM t_1 make]] & [$_{\text{TP}}$ Mary-NOM ***pro***$_1$ eat-PAST]

(4) a. Condition (a) **[DAT| 1ST]**
Chinkwu-ka Chelswu-eykey swul-ul sa-ko pwumonim-i e_{ACC} wiloha-essta.
friend-NOM C-**DAT** alcohol-ACC buy-& parents-NOM comfort-PAST
'Friends bought a drink to Chelswu, and his parents comforted (him).'
b. Condition (b) **[DAT | 2ND]**
Pwumonim-i Chelswu-eykey wiloha-ko chinkwu-ka ***e*** swul-ul sa-essta.
parents-NOM C-DAT comfort-& friend-NOM alcohol-ACC buy-PAST
'Parents comforted Chelswu$_{\text{Dat}}$, and friends bought (him) a drink.'
c. Condition (c) **[ACC | 1ST]**
Pwumonim-i Chelswu-lul wiloha-ko chinkwu-ka e_{DAT} swul-ul sa-essta.
parents-NOM C-**ACC** comfort-& friend-NOM alcohol-ACC buy-PAST
d. Condition (d) **[ACC | 2ND]**
Chinkwu-ka Chelswu-lul swul-ul sa-ko pwumonim-i ***e*** wiloha-yssta.
friend-NOM C-ACC alcohol-ACC buy-& parents-NOM comfort-PAST

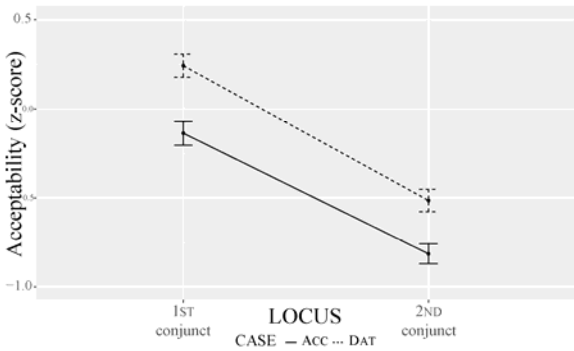

Figure 1: Interaction plot for LNRed NPs

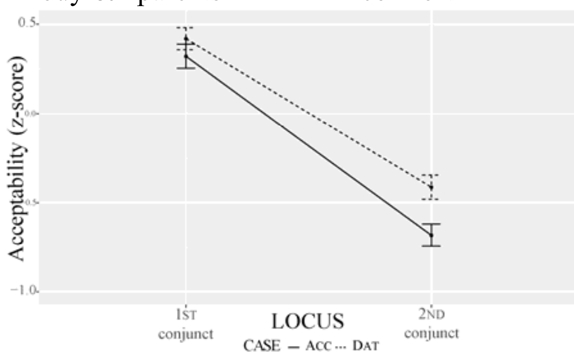

Figure 2: Interaction plot for in-situ NPs

Selected references: **Ahn & Cho. 2009.** On the absence of CP ellipsis in English and Korean. **Boeckx. 2008.** *Bare syntax*. **Bošković. 2008**. A minimalist account of genitive of quantification. **Chomsky. 1986**. *Knowledge of language: Its nature, origin, and use*. **Chung. 2010**. Left node raising as a shared node raising. **Citko. 2003**. ATB wh-movement and the nature of Merge. **Dyła. 1984**. Across the board dependencies and Case in Polish. **Franks. 1993**. On parallelism in across-the-board dependencies. **Kim. 2019**. *Ellipsis and focus*. **Moon. 1991.** Identification of null arguments. **Nakao. 2010.** Japanese left node raising as ATB scrambling. **Park. 2014.** Some cases against the ellipsis analysis of the null argument.