Closest Conjunct Agreement modulates interferences in processing dependencies: Evidence from Korean honorific agreements

Myung Hye Yoo (Korea University), So Young Lee (Miami University)

[Introduction] The phenomenon of verb agreements with the nearer noun, known as the closest conjunct agreement (CCA) pattern, has been widely observed in conjunctions cross-linguistically, even when it becomes ungrammatical (e.g. *the maids and/or the butler **is***) [1,2]. The nature of subject-verb honorific agreements in Korean diverges from that of subject-verb agreement in English, as it is optional and relies on pragmatic features. Nevertheless, [3]'s acceptability judgment task found CCA patterns in honorific agreements in Korean: a preference for NH-H conjunctions (non-honorifiable & honorifiable; e.g., *Minho and the director*) over H-NH conjunctions (honorifiable & non-honorifiable; e.g., *the director and Minho*) in honorific agreements (with the verbal honorific *-si-* marker).

Building upon their finding, we investigate the role of CCA in real-time processing. We probe interferences from the honorific feature of a distracting noun phrase (termed as *attractor*) during the retrieval of a conjoined subject for honorific agreements, particularly focusing on the combination of mixed honorific features within conjoined subjects (NH-H/H-NH conditions). We predicted that if CCA guides the retrieval of conjoined subjects with mixed honorific features during honorific agreement process, the sensitivity to the honorific feature of an attractor would differ between NH-H and H-NH conditions. Conversely, if CCA does not play a role in its retrieval, no differences will be observed between the two conditions.

[Experiments] We conducted two self-paced reading tasks using a non-cumulative moving window display (Exp1 N=40; Exp2 N=38). For both experiments, we employed a 2 x 2 design (24 sets), manipulating two factors. First, the main subject was a single noun with either honorific (H) or non-honorific (NH) features, serving as an attractor. Second, we manipulated the linear order of mixed honorific features within the conjoined subject in the embedded clause (NH-H/H-NH conditions) (see (1) and Table 1). All embedded verbs contained the verbal honorific suffix *-si-* across conditions to signal honorific agreements with the conjoined subject in the embedded clause. Experiment 2 tested the case effect by replacing a standard nominative marker (*-i/ka*) with an honorific nominative marker *-kkeyse* for NH-H conditions (infelicitous with H-NH conditions). This marker is optional like the verbal honorific marker *-si-*.

[Results and discussion] LMEMs revealed that CCA modulated sensitivity to H attractors in both experiments. NH-H conditions, where the closer conjunct has an honorific feature, were sensitive to the H attractors, but not H-NH conditions. The mixed honorific features of conjoined subjects demand more processing cost for retrieval than those bearing honorific features only. We propose that CCA aids retrieval of NH-H conditions when seeking the honorific feature within conjoined subjects for honorific agreements with *-si-* at the verb. Based on CCA, NH-H conditions become less distinctive by increasing similarity with H attractors, compared to H-NH conditions. This similarity presumably leads to the susceptibility to interference effects.

Interestingly, the pattern of interference effects differed depending on the honorific feature of nominative case markers. In Experiment 1, where the standard nominative case marker *-i/ka* was used, H attractors significantly *slowed down* the reading time at the spillover region for NH-H conditions, but not for H-NH conditions (Fig. 1; t=1.99; p=0.04). In Experiment 2, where the honorific nominative case marker *-kkeyse* was used, H attractors *facilitated* the reading time at the spillover region for NH-H conditions only (Fig. 2; t=2.00; p=0.04). Given [3]'s findings that *-kkeyse* case markers increased the preference for NH-H conditions over H-NH conditions in honorific agreements, the observed processing facilitation of H attractors for NH-H conditions in Experiment 2 can be attributed to the influence of the honorific case marker *-kkeyse*. This marker is likely to prompt an active prediction of the *-si-* marker, thereby facilitating the retrieval of NH-H conditions. Overall, we provide evidence for the modulation of interference effects based on the closest conjunct agreement (CCA), particularly when retrieving a crucial feature from the mixed features within a target subject.

(1) [$_{matrix}$ Subject … [$_{embedded}$ Conjoined subject … Verb-*si*…] … Verb]

[H/NH] [H-NH/NH-H] [honorific]

Honorific Agreement

Table 1. A sample set of items

Attractor	Subject	R1 (attractor)	R2 (conjoined subject)	R3	R4 (critical region)	R5 (spillover region)	R6
H	NH-H	chwukkwupwu khochi-nim-un	Minho-wa kamtoknim-i/kkeyse	yayeng-ul	cheyhemha-**si**-key	theynthu-lul	cwunpihay-ess-ta
		soccer team coach-HON-TOP	Minho-and director-NOM/HON.NOM	camping-ACC	experience-HON-COMP	tent-ACC	prepare-PST-DEC
NH	NH-H	kolkhiphe Seho-nun	Minho-wa kamtoknim-i/ kkeyse	yayeng-ul	cheyhemha-**si**-key	theynthu-lul	cwunpihay-ess-ta
		goalkeeper Seho-TOP	Minho-and director-NOM//HON.NOM	camping-ACC	experience-HON-COMP	tent-ACC	prepare-PST-DEC
H	H-NH	chwukkwupwu khochi-nim-un	kamtoknim-kwa Minho-ka	yayeng-ul	cheyhemha-**si**-key	theynthu-lul	cwunpihay-ess-ta
		soccer team coach-HON-TOP	director-and Minho-NOM	camping-ACC	experience-HON-COMP	tent-ACC	prepare-PST-DEC
NH	H-NH	kolkhiphe Seho-nun	kamtoknim-kwa Minho-ka	yayeng-ul	cheyhemha-**si**-key	theynthu-lul	cwunpihay-ess-ta
		goalkeeper Seho-TOP	director-and Minho-NOM	camping-ACC	experience-HON-COMP	tent-ACC	prepare-PST-DEC

Reading times at the spillover region in Experiments 1 and 2:

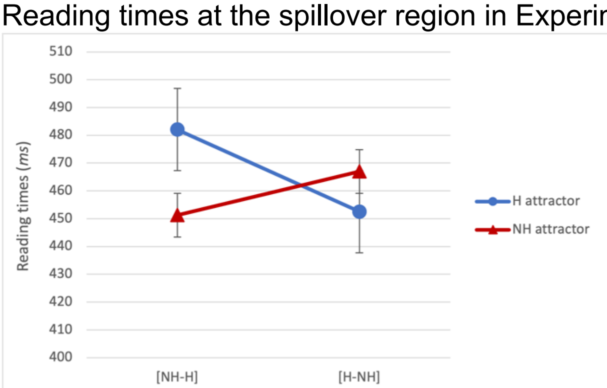

Fig 1. Exp1

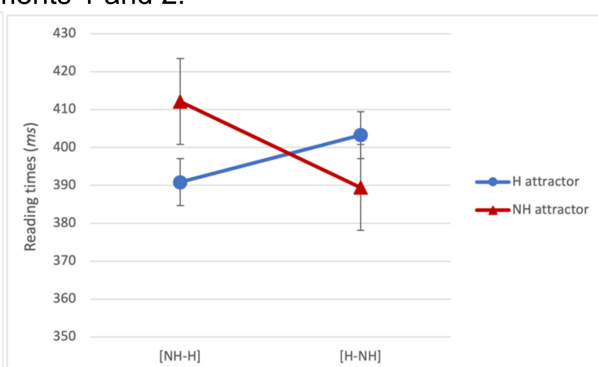

Fig 2. Exp 2

References

[1] Keung & Staub (2018). *Journal of Memory and Language*, 103. [2] Haskell & MacDonald (2005). *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 31. [3] Jeong & Davis (2019). Talk at *the JK Workshop*