Proximity and same case marking do not increase attraction effect in comprehension

Citation for published version:
Kwon, N & Sturt, P 2018, 'Proximity and same case marking do not increase attraction effect in comprehension: Evidence from eye-tracking experiments in Korean', CUNY 2018, California, United States, 15/03/18 - 17/03/18.

Link:
Link to publication record in Edinburgh Research Explorer

Document Version:
Other version

General rights
Copyright for the publications made accessible via the Edinburgh Research Explorer is retained by the author(s) and / or other copyright owners and it is a condition of accessing these publications that users recognise and abide by the legal requirements associated with these rights.

Take down policy
The University of Edinburgh has made every reasonable effort to ensure that Edinburgh Research Explorer content complies with UK legislation. If you believe that the public display of this file breaches copyright please contact openaccess@ed.ac.uk providing details, and we will remove access to the work immediately and investigate your claim.
Proximity and same case marking do not increase attraction effect in comprehension: Evidence from eye-tracking experiments in Korean

Nayoung Kwon¹ & Patrick Sturt²
¹ Konkuk University, ² University of Edinburgh

Background & Research questions

- Memory retrieval is content addressable (Lewis & Vasishth, 2005; Lewis et al., 2006; McElree et al., 2003; Van Dyke & McElree, 2006)
- Potential targets in memory are activated in parallel in response to retrieval cues.
- Facilitatory intrusion: Reading time penalty for a mismatching dependency could be reduced due to the presence of a partially matching distractor (Wagers et al. 2009; Vasishth et al. 2008; Xiang et al. 2009)
- SOV word order with case marking & impoverished verbal agreement except for subject honorific agreement
- Subject honorific suffix -si- is optional and can be omitted (a) but when used, should agree with the subject in honorific feature (b) and cannot be used with a subject of low social status (c)
- Subject honorific violation in Korean elicits a P600 (Kwon & Sturt, 2015).
- Potential targets in memory are activated in parallel in response to retrieval cues.

Goal of study: To investigate whether attraction effects would be modulated by memory representation of a distractor (cf. Nicol et al., 2016; Kwon & Sturt, 2017)

Korean

- Subject honorific violation in Korean elicits a P600 (Kwon & Sturt, 2015).

3 Experiments & Results

(4 conditions: ± honorific features of NP1 and NP2; Emb.Verb-honorific)

Experiment 1: different case markers & intervening distractor
Subject control (-\(\overline{\text{si}}\), -keyas); (+hon vs. –hon) NP1-nom x (+hon vs. –hon) NP2-dat … emb.verb-\(\overline{\text{si}}\) …

Experiment 2: different case markers & distant distractor
Object control (-\(\overline{\text{si}}\), -la); (+hon vs. –hon) NP1-nom x (+hon vs. –hon) NP2-dat … emb.verb-\(\overline{\text{si}}\) …

Experiment 3: same case markers & distant distractor
Center embedding; (+hon vs. –hon) NP1-nom x (+hon vs. –hon) NP2-nom … emb.verb-\(\overline{\text{si}}\) …

Predictions:
1) If proximity matters, stronger attraction effects in Exp 1 > Exp 2
2) If same case marking matters, stronger attraction effects in Exp 3 > Exp 2

Methods: 28 native Korean speakers per an experiment; 40 sets of experimental sentences; Eyelink 1000+

Results:

Regression path durations at spill-over region: Two words after the critical verb position

Exp1: NP 1 is the licit antecedent
No attraction effect in early processing

Exp2: NP 2 is the licit antecedent
Main effect of a distractor t = 2.22

Exp3: NP 2 is the licit antecedent
Main effect of a distractor t = 2.79

Discussion & Conclusions

The proximity effect was not observed, with the results suggesting a stronger attraction effect in Exp2 than in Exp1.
- Conservatively it is compatible with the hypothesis that cues are weighted. That is, the subject grammatical role is a critical cue for a subject-verb agreement such that a distractor marked with dative case (NP2) is less likely to be retrieved even when it is closer to retrieval point (Experiment 1) than a distractor marked with nominative case further away (Experiment 2).
- The same case marking did not incur a stronger attraction effect, given the similar level of attraction effects in Exp2 and Exp3 (t < 1).
- This is not compatible with the hypothesis that a greater number of matching cues of a distractor would trigger more mis-retrieval, in contrast to a previous finding that a greater number of (mis)matching cues of a licit antecedent does so (Park, 2014).

This research was supported by the Academy of Korean Studies (AKS-2014-R20).