Does the strength of a verb’s referential bias in Korean affect Korean-speaking L2 learners’ reference choices in English?

- Testing effects of reference priming (Exp1)
- Testing effects of L2 proficiency (Exp2)

Cross-language activation in bilinguals
- Word level (Dijkstra et al., 2018; Gollan et al., 1997)
- Syntactic level (Sanoudaki & Thierry, 2015; Shin & Christianson, 2009)
- No study has looked at the influence of cross-language activation at the word level on reference choices in implicit causality sentences.

Effects of proficiency in cross-linguistic activation remain inconclusive. (e.g., Bernolet et al., 2013; Duyc et al., 2004)

Implicit causality (IC)
- Some verbs allow for inferences about the causality of an event they denote. (Garvey & Caramazza, 1974)
- Consistent biases toward one of the two arguments as the underlying cause of the event are elicited in studies where participants are prompted to provide continuations for the sentence fragment “ARGUMENT-VERB-ARGUMENT because” (Ferstl et al., 2011)
- In addition to subject- and object-based IC constructions (2a,c) Korean has a subject-based syntactic causative (SC) construction (2b, Lee, 1996)

Korean has a subject-based syntactic causative (SC) construction. 

(1)
- a. Tom embarrassed John (embarrass: subject-biased)
- b. Tom feared John (fear: object-biased)

(2)

Hartshorne et al. (2013) predicted that predicates containing explicit marking of causality may give rise to stronger IC biases than lexical verbs.

- Supporting this prediction, native Korean speakers showed stronger subject bias with SC than with (subject-biased) non-SC predicates in Korean, whereas native English speakers showed similar biases for their English translation equivalents.

Korean & Grüter, 2018, Exp1&b)

Prediction: Korean learners of English will show stronger subject-bias for English translation equivalents of Korean SC vs. non-SC predicates.

Materials
- Participants
- Exp1 (Kim & Grüter, 2018, Exp2): 34 Native speakers of English (NS), 72 Korean learners of English (NNS, 36 in Translation-first (T1), 36 in Translation-later (T2) group)
- Exp2 (new): 40 NS, 62 NNS with varied proficiency

Procedure & Data coding
- Exp1 Sentence-completion task
  - Critical items: English translation equivalents of Korean non-SC (k = 12) and SC (k = 12) predicates
  - Fillers: 12 object-biased IC & 12 distractor verbs (Exp1); 24 object-biased IC verbs (Exp2)

- Exp 1: Verbs selected from previous studies on IC bias
- Exp 2: Verb argument structure more carefully controlled: only psychological verbs from class 31.1 (Levin, 1993) included

- Written translation task (Exp2)

2. Written translation task (English to Korean)
- The same sentences as in the sentence-completion task were used (without connective or continuation).

- Exp1: Sentence-completion task (NS, T1, T2), Translation task (T1, T2)
- Exp2: Sentence-completion task (NS, TNS), Translation task (TNS)
  - NNS additionally completed two measures of proficiency:
    i) LexTALE (Lenhöfer & Broersma, 2012): M74 of 100 (31.25–100)

- 1. Written sentence-completion task

- Continuations annotated for intended reference of the grammatical subject
- Items excluded: rater disagreement (1% in Exp1, 2% in Exp2), inconsistent or incomplete continuations (1% in Exp1, 2% in Exp2), ambiguous items (0.1% in Exp1, 0.2% in Exp2), subject referents other than the previous subject or object (9% in Exp1, 10% in Exp2)

- 2. Written translation task

- Translations annotated for accuracy and presence of keyha.
- Items excluded: rater disagreement (1% in Exp1, 4% in Exp2), inaccurate translation (10% in Exp1, 5% in Exp2)
- Recategorization of items (presence/absence of keyha) into participant categories
  - % of NS items translated as SC: 16% in Exp1, 19% in Exp2 recategorized as SC

Results
- Mixed-effects logistic regression (gim, lmerTest, Kuznetsova et al., 2018)
  - Subject * Verb-type * Group = 1(Verb-type * participant) + (1 | item)

- Exp 1:
  - Effect of verb type
    - Comparison 1 (NS vs. T2)
      - Group: p<.001
        - Verb type: p<.001
          - Group * Verb type: p<.001
  - Exp 2:
    - Effect of translation priming
      - Comparison 2 (T2 vs. T1)
        - Group: p<.001
          - Verb type: p<.001
            - Group * Verb type: p<.001

Figure 1. Mean percentage of subject reference; 95% CIs

- Follow-up analysis: more subject reference for SC vs. non-SC verbs in the T1 (p = 1.43, p < .001) and T2 (p = 1.23, p < .001) groups, but not the NS (p = .21, p = .69 group)

Figure 2. Mean percentage of subject reference; 95% CIs

- When added as a fixed effect to the model neither LexTALE (b = .30, p = .057) nor cloze test scores (b = .14, p = .384) interacted significantly with predicate type in the NNS data.

Figure 3. Scatter plots of proficiency scores for differences of mean percentage of subject reference between SC and non-SC items

Summary & Conclusions
- Effects from Exp1 (Kim & Grüter, 2018, Exp2) replicated with a more homogeneous set of verbs.
- The strength of a verb’s referential bias in Korean affects Korean-speaking L2 learners’ reference choices in English, regardless of translation priming and L2 proficiency.
- Cross-linguistic activation extends beyond the word level and construction level and can influence L2 learners’ reference choices in English sentences including IC verbs.

References

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