Case-matching effects and fragments

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Introduction. This paper centers on case-based identity that holds between fragments and their antecedents.

(1) A: We traced this transfer to someone's restricted account.
B: Yes, Harvey's./Yes, *Harvey.

Fragments are stranded XPs with propositional semantics. We collapse here XPs representing fragment answers (non-wh-phrases like *Harvey's* in (1)B) and those representing sluicing (wh-phrases like *who* in (2)) and focus on morphosyntactic features they inherit from phrases to which they correspond (= correlates) in their antecedents. The English fragment in (1)B must be genitive-marked, corresponding to the genitive determiner in *someone's restricted account*.

That fragments must match the case features of their correlates is clearest in languages with overt case marking systems (Ross 1969). The German fragment in (2) can only be dative, like its correlate.

(2) Er will jemandem schmeicheln, aber sie wissen nicht
he wants someone.DAT flatter but they know not
*wer/*wen/wem.
*who.NOM/*who.ACC/who.DAT.
'He wants to flatter someone but they don't know who.'

This case-matching requirement is commonly incorporated into syntactic analyses of fragments. On movement-and-deletion analyses, it's known as a connectivity effect such that the fragment appears to behave as if it was a constituent of a full clause, with its case assigned by the same lexical head that assigns case to the correlate (Merchant 2001, 2004). On direct interpretation analyses, case-matching is formulated as a condition on fragments and their correlates (Ginzburg & Sag 2000).

However, additional data have come to light showing three patterns: (1) morphological marking on the fragment and its correlate may be identical or nonidentical but must stay within the limits permitted by the lexical head assigning case to the correlate (Kim 2015 for Korean, Abels 2017 for Bulgarian, Wood et al. 2019 for Icelandic), (2) there appears to be a preference for identical morphological marking on the fragment and its correlate (Abels 2017, Wood et al. 2019), and (3) morphological marking on the fragment and its correlate must be identical in Hungarian (with some speakers allowing variation) although the lexical head assigning case to the correlate permits variation (Jacobson 2016). These patterns, along with the English and German examples above, suggest that the grammar doesn't directly impose a case-matching requirement on fragments and

their correlates, instead permitting a limited amount of variation. Our purpose here is two-fold: to explore how current cue-based retrieval models of sentence processing (e.g., Lewis & Vasishth 2005, Van Dyke & McElree 2011, Van Dyke & Johns 2012) fare in accounting for the patterns in (2)-(3) and whether it is feasible to use cue-based retrieval as a motivation for the variation represented by the pattern in (1) and the case identity seen in the English and German examples above.

Hypothesis. We test the hypothesis that the ease of resolving a dependency between a fragment and its correlate is linked to the cue-specificity of the fragment triggering the search for the correlate, and we argue that the fragment's case features are a cue relevant for this search. We test this hypothesis on Korean, which allows case mismatch between fragments and correlates in addition to case match. In (3) the correlate is an accusative-marked wh-phrase (*mwues-ul*) paired with a caseless fragment. The reverse is also possible: the fragment may be accusative-marked and the correlate caseless due to the possibility of case drop from object NPs in full clauses.

(3) A: Mimi-ka mwues-ul masy-ess-ni? B: Cwusu.
A: Mimi-NOM what-ACC drink-PST-QUE? B: juice
'A: What did Mimi drink? B: Juice.'

Experiments. We conducted 3 acceptability judgment experiments. Experiment 1 confirmed the preference for case-matched fragments and correlates over mismatched ones ($p < .05$) and in addition provided evidence that mismatched fragments and correlates were judged better when the fragments were caseless than when they were case-marked ($p < .01$). These results reveal that match is better than mismatch and that some mismatches are better than others. We hypothesized that the latter pattern of results follows from the difference between case-marked fragments and caseless ones in Korean being a difference in explicitness such that caseless fragments are a subset of case-marked fragments. Attaching explicit information to a fragment is known to create a processing advantage due to parts of the correlate being repeated in such an explicit fragment and thereby providing better retrieval cues (Harris 2015). This predicts that less explicit (caseless) fragments are expected in easy-to-process environments. We tested and confirmed this hypothesis in 2 further experiments manipulating the morphological marking on fragments and the implicitness of the correlates, where overt correlates represent an easy-to-process environment.

Conclusion. We spell out the details of our cue-based retrieval analysis of case-marking patterns in fragments and compare our results to the acceptability of voice mismatch under Verb Phrase ellipsis (Parker 2018), exploring the viability of a unified cue-based retrieval account of both phenomena.