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Licensing case (mis)matching in Korean fragments: Evidence from acceptability judgments*

Jeong-Seok Kim
(Korea University)

Kim, Jeong-Seok. 2025. Licensing case (mis)matching in Korean fragments: Evidence from acceptability judgments. *Linguistic Research* 42(3): 581-602. This study examines how case connectivity in Korean fragments is shaped by the interaction between structural licensing and cue-based interpretation. Two acceptability-judgment experiments tested whether case (mis)matching between a remnant and its correlate is modulated by the case-licensing range of the elided predicate. Across both sluicing and *why*-stripping, we found a robust main effect of case matching and a strong MATCH × VERB interaction: mismatch penalties were substantially smaller when the predicate licensed both dative and accusative case, but sharply degraded when it licensed only dative case. To evaluate competing theories, we compared models representing the silent-structure approach, the interpretive approach, and a hybrid approach. Structural models captured the categorical unacceptability of mismatches with non-alternating verbs, whereas interpretive models captured the general MATCH advantage and the presence of non-categorical mismatch penalties, but did not predict the categorical verb-conditioned interaction. Neither approach alone accounted for the full pattern. Hybrid models, which incorporate both categorical licensing constraints and gradient cue-based effects, provided the best overall fit. The findings show that fragment interpretation in Korean is jointly determined by structural and processing mechanisms: argument-structure identity restricts the set of grammatically licit cases, while cue-based retrieval yields gradience within the structurally permitted domain. These results situate Korean within broader cross-linguistic theories of case connectivity and the syntax-processing interface. **(Korea University)**

Keywords acceptability judgment, argument structure, case connectivity, cue-based retrieval, Korean fragments, structural licensing

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1. Introduction

A central issue in ellipsis research is whether fragments are derived from silent syntactic structure or interpreted through discourse-based mechanisms such as cue-based retrieval. Under the silent-structure approach, fragments contain an unpronounced clause whose argument structure parallels the antecedent, and the remnant is syntactically licensed within that clause (Merchant 2004, 2013; Chung 2006, 2013). By contrast, the interpretive approach (Riemsdijk 1978; Ginzburg and Sag 2000; Culicover and Jackendoff 2005, 2012; Sag and Nykiel 2011; Barker 2013; Jacobson 2016; Kim 2017; Kim and Nykiel 2020; Nykiel et al. 2023) treats fragments as independent phrases interpreted by linking them to discourse antecedents without invoking silent syntax. Case connectivity—where remnants preserve the morphological case of their correlates (Ross 1969; Merchant 2001)—has been a key diagnostic in this debate, traditionally taken to reflect structural licensing. Yet recent work shows that case matching is not categorical: mismatches often yield intermediate acceptability influenced by processing factors and general retrieval dynamics, rather than exclusively by grammatical constraints (Wood et al. 2020; Nykiel et al. 2023). This raises a core question: does case connectivity reflect categorical licensing requirements in silent structure, or gradient preferences rooted in cue-based retrieval mechanisms?

Korean provides a particularly revealing testing ground. Case marking is morphologically transparent and tightly tied to verbal argument structure; many predicates allow dative-accusative alternation, creating conditions under which both case values are structurally licit. These properties allow a controlled examination of whether case (mis)matching in fragments depends on the predicate's case-licensing properties or instead reflects general retrieval preferences. Korean also parallels well-studied English ellipsis constructions such as sluicing and *why*-stripping (Merchant 2001, 2004; Griffiths and Lipták 2012; Yoshida et al. 2015), where wh-remnants or *why*-XP remnants survive clausal deletion, as in (1).

(1) a. John scolded someone, but who?
    b. John scolded Mary, but why Mary?

In sluicing, the wh-remnant *who* corresponds to its correlate *someone*; in *why*-stripping, the non-wh-remnant *Mary* corresponds to its antecedent correlate

Mary. Korean exhibits parallel matrix sluicing (Park 2009; Park and Li 2014; Kim 2015) and *why*-stripping (Kim 2017; Bae and Park 2021; Kim et al. 2021; Kim 2023), as shown in (2).[1]

(2) a. Inho-ka nwukwunka-eykey yatanchyessta-nuntey, nwukwu-eykey/lul?
Inho-Nom someone-Dat scolded-but who-Dat/Acc
'(I heard) Inho scolded someone, but who?'

b. Inho-ka Yena-lul yatanchyessta-nuntey, way Yena-lul/eykey?
Inho-Nom Yena-Acc scolded-but why Yena-Acc/Dat
'(I heard) Inho scolded Yena, but why Yena?'

These examples illustrate case connectivity: the remnant typically appears with the case morphology associated with its correlate (Merchant 2001; Jacobson 2016). Importantly, Korean verbs that allow dative-accusative alternation (e.g., *yatanchita* 'scold') make it possible to determine whether fragments must be licensed by the case frame of the elided predicate or whether case matching merely facilitates retrieval.

Under the silent-structure approach, the remnant's case must be licensed by the silent verb. Alternating predicates therefore permit both matching and mismatching cases, while dative-only predicates categorically prohibit mismatches. In contrast, the interpretive approach treats fragments as independent constituents whose case morphology functions as a retrieval cue: matching facilitates access to the intended antecedent, whereas mismatching introduces interference but does not yield ungrammaticality. Although both approaches predict a general preference for case matching, they differ sharply in how they account for graded mismatch acceptability—whether such gradience arises from structural licensing constraints or from general processing-based pressures. *Gradience* here denotes systematic, non-categorical variation within structurally permitted contexts, rather than arbitrary intermediate judgments.

Empirically distinguishing these mechanisms requires controlled experimentation. If case-mismatch acceptability depends sharply on the verb's case-licensing range, this would support a structural identity requirement. If, instead, mismatch penalties follow gradient patterns independent of verb class, this would favor a cue-based interpretive

1 Abbreviations: Acc = accusative, Dat = dative, G = general case, Nom = nominative, Non-S = non-subject case, Q = question.

account. A hybrid outcome—structural sensitivity combined with graded preferences—would suggest that fragment interpretation emerges from the interaction of syntactic licensing and processing-based constraints.

To evaluate these competing possibilities, the present study conducts two acceptability-judgment experiments on Korean matrix sluicing and *why*-stripping. A 2 × 2 factorial design crosses MATCH (match vs. mismatch) and VERB (dative-accusative vs. dative-only), enabling a direct test of how mismatch penalties vary across predicate types. The remainder of the paper proceeds as follows. Section 2 develops the contrasting predictions of the two theoretical approaches, laying out the structural and interpretive assumptions that motivate the empirical tests. Section 3 then reports the results of two acceptability-judgment experiments, examining how case (mis)matching patterns align with these predictions. Section 4 interprets the empirical findings in light of the theoretical debate, arguing that neither approach alone accounts for the full pattern. Finally, Section 5 summarizes the main conclusions and identifies directions for future research.

2. Theoretical predictions

This section outlines two major approaches to case (mis)matching in Korean fragments—the silent-structure approach and the interpretive approach—and summarizes the core assumptions that differentiate their predictions.

2.1 Silent-structure approach

Under the silent-structure approach, fragments are derived from fully articulated but unpronounced clausal structures. Following Merchant (2004, 2013) and Chung (2006, 2013), a functional head bearing an E-feature deletes its TP complement at PF under syntactic and semantic identity with an antecedent clause.[2] The E-feature ensures that the elided TP retains a complete syntactic representation, and ellipsis is licensed only

2 The E-feature (ellipsis feature) is a lexical feature merged onto a functional head (C or F) that licenses clausal ellipsis. It triggers the PF deletion of its complement (e.g., TP), ensuring the full syntactic structure remains present for interpretation. This feature imposes constraints for ellipsis identity. According to Merchant (2001), it requires semantic identity, typically focus-assisted mutual entailment.

when the silent clause stands in the appropriate semantic relation to its antecedent (Merchant 2001).

The remnant is internally merged within this silent TP and undergoes Ā-movement to the left periphery before deletion. Because it is syntactically embedded inside an unpronounced clause, its morphosyntactic features—crucially, case—must be licensed by the same verbal head that licenses the correlate in the antecedent clause. Thus, ellipsis identity is not purely semantic: Chung's (2013) limited syntactic identity condition requires correspondence between the antecedent and elided clauses in their argument-structure configurations and case-assigning heads.

A simple Korean illustration appears in (3).

(3) a. Q: Yena-ka nwukwu-lul po-ass-ni?
Yena-Nom who-Acc see-Past-Q
'Who did Yena see?'
b. A: Inho-lul.
Inho-Acc
'Inho.'
c. [$_{FP}$ Inho-lul$_1$ [$F_{[E]}$ [$_{TP}$ Yena-ka t_1 po-ass]]]

Here, *Inho-lul* receives accusative case inside the silent clause from *po-ass* 'see-Past', just as in the overt antecedent. Without a silent TP, such case correspondence would be accidental rather than grammatically enforced.

Cross-linguistic evidence reinforces this structural perspective. Wood et al. (2020) show that Icelandic fragments generally require case matching, but a small class of mismatches is possible when—and only when—the antecedent verb licenses dual case frames. For most Icelandic predicates, mismatching is categorically excluded; however, verbs such as *langa* 'want', which allow either an accusative or dative experiencer, create environments in which mismatching becomes grammatically licit, as shown in (4).

(4) A: Mig langar að fara.
me.Acc want to go
'I want to go.'

B: {*Ég, Mig, Mér} líka.
{*I.Nom, me.Acc, me.Dat} too
'Me too.' (Wood et al. 2020: 415)

Unlike *vilja* 'want', which licenses only nominative subjects, *langa* 'want' allows both accusative and dative. Mismatching is permitted only because the verb's argument-structure specification licenses both values. Under this analysis, case matching is not an independent requirement; rather, the silent predicate must be able to assign the case borne by the remnant.

Korean provides a similarly clear testing domain, given its overt case morphology and strict predicate-specific case licensing. Verbs such as *yatanchita* 'scold' allow dative-accusative alternation for many speakers, whereas verbs such as *panhata* 'fall in love' license only dative. Examples (5)-(6) show that mismatches are tolerated only under alternating verbs.

(5) a. Inho-ka nwukwunka-eykey yatanchyessta-nuntey, nwukwu-eykey/lul?
Inho-Nom someone-Dat scolded-but who-Dat/Acc
'(I heard) Inho scolded someone, but who?'
b. Inho-ka nwukwunka-eykey panhayssta-nuntey, nwukwu-eykey/*lul?
Inho-Nom someone-Dat fell.in.love-but who-Dat/*Acc
'(I heard) Inho fell in love with someone, but who?'

(6) a. Nwukwu-eykey/lul Inho-ka yatanchyess-ni?
who-Dat/Acc Inho-Nom scolded-Q
'Who did Inho scold?'
b. Nwukwu-eykey/*lul Inho-ka panhayss-ni?
who-Dat/*Acc Inho-Nom fell.in.love-Q
'Who did Inho fall in love with?'

Speakers strongly reject mismatches with dative-only predicates because the silent predicate cannot assign accusative case; by contrast, mismatches with alternating predicates are acceptable to the extent that the predicate licenses both options.

Critically, under the structural account, this contrast is categorical. Mismatch is predicted only when the silent predicate lexically licenses the relevant case; otherwise it is ungrammatical. Therefore, the structural approach predicts a strong MATCH

× VERB interaction—mismatches should be acceptable under alternating predicates and unacceptable under dative-only predicates—but does not predict a general preference for case matching or graded penalties among structurally licit forms. Any robust main effect of MATCH, or any graded variation within alternating verbs, lies outside what a purely structural account can derive.

2.2 Interpretive approach

The interpretive approach tradition (Ginzburg and Sag 2000; Culicover and Jackendoff 2005, 2012; Jacobson 2016; Kim and Nykiel 2020) rejects the assumption that fragments contain silent clausal structure. Instead, fragments are analyzed as independent phrases whose meanings are recovered through discourse interpretation. Under this view, no TP is deleted at PF; rather, the fragment is linked to an antecedent by drawing on pragmatic, semantic, and morphosyntactic information. Case morphology contributes to this process not by signaling licensing within a silent clause, but by supplying formal cues that guide the comprehender toward the intended correlate.

Recent work develops an explicit processing implementation of this idea. Sag and Nykiel (2011) and Nykiel et al. (2023) propose that fragment interpretation proceeds through cue-based retrieval, a general memory mechanism in which features such as case serve as retrieval cues for accessing discourse antecedents. Matching cues facilitate rapid and accurate retrieval, whereas mismatching cues generate interference, lowering acceptability without producing ungrammaticality. Because retrieval is a processing mechanism rather than a syntactic one, mismatching case values are fully compatible with grammatical well-formedness.

Independent evidence for this gradient behavior comes from Bulgarian. As illustrated in (7), the correlate may bear either the general case form (*njakoi*) or the non-subject form (*njakogo*), yet the fragment *kogo* must appear in the non-subject form. Despite this mismatch, speakers do not judge the fragment as ungrammatical; instead, mismatching simply reduces interpretive efficiency.

(7) Ivan sreshtna njakoi/njakogo no ne znam kogo.
Ivan met someone.G/someone.Non-S but not I-know who.Non-S
'Ivan met someone, but I don't know who.' (Nykiel et al. 2023: 3)

A central factor in cue-based accounts is cue diagnosticity: the extent to which a case cue uniquely identifies an antecedent. When the antecedent verb allows more than one case value, diagnosticity is lower and mismatching cues produce relatively weak interference. Diagnosticity increases when only one case value is licit, because the cue narrows the set of possible antecedents and thus makes mismatches more disruptive. Importantly, however, this variation is processing-driven and not tied to structural licensing; mismatches remain acceptable across all verb types.

Under this perspective, the interpretive approach predicts a robust main effect of MATCH, as matching cues facilitate retrieval more efficiently than mismatching ones. Crucially, it does not predict a strong MATCH × VERB interaction. Any verb-related differences in mismatch penalty are expected to reflect general variability in cue informativeness, not categorical differences in grammatical licensing. Thus, while alternating verbs may incidentally yield somewhat milder penalties due to their broader cue environment, this is not a necessary or defining prediction of the approach.

In contrast to the silent-structure view—which predicts categorical mismatch rejection under non-alternating predicates—the interpretive approach predicts that mismatches remain acceptable across all verb types, modulated only by the degree of retrieval interference. Fragment acceptability should therefore vary as a continuous function of retrieval efficiency, yielding graded, non-categorical differences rather than structurally conditioned discontinuities. These processing-based expectations provide a clear empirical contrast with the categorical predictions of structural licensing and motivate the experimental tests in the following sections.

2.3 Empirical motivation for experimental testing

The silent-structure and interpretive approaches generate fundamentally different predictions about when case (mis)matching in Korean fragments should be acceptable. Although both acknowledge that case morphology plays a role in fragment interpretation, they diverge sharply in the mechanisms responsible for this influence and in the predicted empirical outcomes.

Under the silent-structure approach, case connectivity reflects categorical syntactic licensing within a silent clause whose argument-structure configuration and

case-assigning heads must correspond to those of the antecedent (Merchant 2004, 2013; Chung 2006, 2013; Wood et al. 2020). This view yields strictly categorical predictions: if the elided predicate licenses only one case, mismatching remnants are ungrammatical; if it licenses two, both matching and mismatching remnants are fully grammatical. Alternating predicates should therefore allow mismatches, whereas non-alternating predicates should categorically prohibit them. Because acceptability hinges solely on whether a case value is grammatically licensed, this approach predicts a strong MATCH × VERB interaction but no MATCH main effect.

In contrast, the interpretive approach attributes case connectivity to cue-based retrieval, not structural licensing. Case morphology functions as a formal cue for locating an antecedent in discourse memory. Matching cues facilitate retrieval; mismatching cues introduce interference but do not violate grammaticality. Because retrieval is a processing mechanism, not a syntactic constraint, mismatches are expected to remain acceptable but receive reduced ratings. The magnitude of this penalty is predicted to vary with cue diagnosticity: alternating predicates, which permit two case frames, create a broader and less informative cue space and therefore yield weaker mismatch penalties; non-alternating predicates create a narrower, more informative cue space and therefore yield stronger penalties. Importantly, the interpretive approach predicts a robust MATCH main effect and graded penalties, but not a categorical interaction of the kind predicted by structural licensing.

These conceptual differences cannot be resolved through theory alone. Empirical testing is required to determine whether mismatch acceptability patterns in Korean fragments converge on (i) the categorical boundaries expected under structural licensing, (ii) the continuous variation expected under cue-based retrieval, or (iii) a hybrid model combining both categorical and gradient components.

To this end, the present study examines two fragment constructions—matrix sluicing and matrix *why*-stripping—which represent the two most widely attested fragment types in Korean. Experiment 1 investigates sluicing, the canonical domain in which case connectivity has been studied. However, evidence from a single configuration leaves open the possibility that observed effects are construction-specific. Experiment 2 therefore examines matrix *why*-stripping as an independent test case. Its goals are: (i) to determine whether the MATCH × VERB interaction observed in sluicing replicates in a distinct fragment type, and (ii) to assess whether mismatch penalties reflect general properties of Korean fragments rather than characteristics of

a single ellipsis pattern.

3. Experiments

Building on the theoretical contrast outlined in Section 2.3, the experiments test how case (mis)matching in Korean fragments is shaped by structural licensing and cue-based interpretation. The central hypotheses are as follows. First, if fragment acceptability is governed primarily by structural licensing, case-mismatch responses should show a categorical split: mismatches with non-alternating (dative-only) predicates should be strongly degraded, whereas mismatches with alternating (dative-accusative) predicates should be tolerated, with no independent preference for matching over mismatching forms. Second, if fragment interpretation is primarily driven by cue-based retrieval, case matching should yield a global facilitative effect, and mismatches should receive graded, non-categorical penalties across all predicate types; any differences in penalty size across verbs would arise only from general cue informativeness rather than from verb-specific structural constraints. Third, if both mechanisms contribute, we expect a hybrid pattern: near-categorical rejection of mismatches under non-alternating predicates, but graded mismatch penalties under alternating predicates, together with a robust main effect of MATCH.

3.1 Experiment 1

Experiment 1 examined matrix sluicing in Korean using a 2 × 2 factorial design crossing MATCH and VERB. This experiment provides an initial test of whether fragment acceptability reflects categorical structural licensing or gradient cue-based interpretive effects.

3.1.1 Participants, materials, and design

Forty-nine self-reported native speakers of Korean (mean age = 21.02, SD = 1.56), all undergraduate students at Korea University, participated in an online acceptability-judgment task. One participant who failed to engage with the task was excluded, yielding a final sample of 48 participants (12 per experimental list).

Participants received 5,000 won (approximately US $4) for participation.

The 2 × 2 design manipulated MATCH (Case.Match vs. Case.Mismatch) and VERB (Dat-Acc.V vs. Dat-only.V), illustrated in (8).

(8) a. [Case.Match | Dat-Acc.V]
Inho-ka nwukwunka-eykey hyeppakhayssta-nuntey, nwukwu-eykey?
Inho-Nom someone-Dat threatened-but who-Dat
'(I heard that) Inho threatened someone, but who?

b. [Case.Mismatch | Dat-Acc.V]
Inho-ka nwukwunka-eykey hyeppakhayssta-nuntey, nwukwu-lul?
Inho-Nom someone-Dat threatened-but who-Acc
'(I heard that) Inho threatened someone, but who?

c. [Case.Match | Dat-only.V]
Inho-ka nwukwunka-eykey cepkunhayssta-nuntey, nwukwu-eykey?
Inho-Nom someone-Dat approached-but who-Dat
'(I heard that) Inho approached someone, but who?

d. [Case.Mismatch | Dat-only.V]
Inho-ka nwukwunka-eykey cepkunhayssta-nuntey, nwukwu-lul?
Inho-Nom someone-Dat approached-but who-Acc
'(I heard that) Inho approached someone, but who?

In the Match conditions, the remnant carried the same morphological case as its correlate, whereas in the Mismatch conditions it appeared with a different case. The dative-accusative condition used verbs such as *hyeppakhata* 'threaten', which license both cases, while the dative-only condition used verbs such as *cepkunhata* 'approach', which license only dative. This manipulation tests whether fragment acceptability reflects the predicate's case-licensing range or more general retrieval-based preferences.

Sixteen lexically matched sets of four conditions were distributed across four lists following a Latin square design, ensuring that each participant saw only one condition per item. Each list included 16 experimental items and 64 fillers (1:4 ratio), totaling 80 sentences. Fillers were balanced for sentence length and complexity to minimize strategy effects.

3.1.2 Procedure and data analysis

Both experiments used identical procedures via PCIbex (Zehr and Schwarz 2018). Participants viewed each sentence individually and rated its acceptability on a 7-point scale (1 = very unnatural, 7 = very natural). Each experiment included 16 gold-standard fillers (eight acceptable, eight unacceptable) normed on approximately 200 speakers. We computed squared deviations from the expected values (1 or 7) to assess attentiveness; participants exceeding two SDs were excluded.

Raw ratings were z-score normalized within participants (Schütze and Sprouse 2013) to reduce individual scale bias and facilitate comparison of gradient effects. Linear mixed-effects regression models were fitted in R using *lme4* (Bates et al. 2015) with random intercepts for participants and items. *P*-values were estimated via Satterthwaite's approximation using *lmerTest* (Kuznetsova et al. 2017). This modeling approach directly evaluates whether MATCH and VERB interact in ways predicted by structural, interpretive, or hybrid accounts.

3.1.3 Results

Figure 1 presents mean z-scored acceptability ratings.

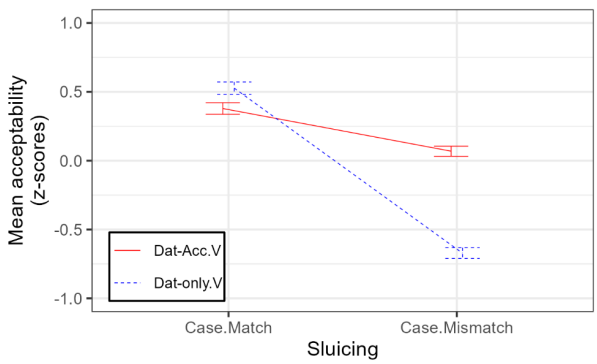

Figure 1. Mean acceptability of experimental conditions (*SE* bars)

A mixed-effects model with sum-coded predictors revealed significant main effects of MATCH and VERB, and a robust MATCH × VERB interaction (Table 1).

Table 1. Fixed effects summary (Hybrid model, Experiment 1)

	Estimate	*SE*	*t*	*p*
(Intercept)	0.076	0.035	2.146	.038
MATCH	0.377	0.019	19.779	< .001
VERB	0.148	0.019	7.767	< .001
MATCH:VERB	−0.222	0.019	−11.646	< .001

Estimated marginal means confirmed that dative-accusative verbs showed a modest mismatch penalty (0.379 vs. 0.069), whereas dative-only verbs showed a substantially larger penalty (0.527 vs. –0.672). Thus, case matching strongly facilitates acceptability, and mismatch penalties vary sharply with predicate type.

Post-hoc comparisons further clarified the source of the MATCH × VERB interaction. Using Holm-corrected pairwise tests (*emmeans*; Lenth 2004), we found that for dative-accusative verbs, mismatches incurred significant but non-zero penalties relative to matches (β = 0.310, SE = 0.055, t = 5.622, $p < .0001$), indicating reduced acceptability while remaining well above floor level. In contrast, mismatches with dative-only verbs showed near-floor acceptability (β = 1.198, SE = 0.055, t = 21.720, $p < .0001$), consistent with a categorical structural violation. Crucially, mismatches in the dative-only condition were significantly less acceptable than mismatches in the dative-accusative condition (β = –0.888, SE = 0.078, t = –11.383, $p < .0001$), confirming that the two verb classes differ sharply in the magnitude of mismatch penalties. This pattern supports a distinction between categorical rejection driven by structural licensing limits and gradient penalties that arise within the structurally licit domain.

To evaluate the competing accounts, three models were fitted to the Experiment 1 data: a Structural model (z-rating ~ VERB + MATCH:VERB), an Interpretive model (z-rating ~ MATCH + VERB), and a Hybrid model (z-rating ~ MATCH + VERB + MATCH:VERB). Because the Interpretive model is nested within the Hybrid model, we conducted a likelihood-ratio test (LRT) to assess whether the interaction term significantly improves model fit.[3] The LRT was highly significant (χ^2 = 71.869, $p <$

3 AIC (Akaike Information Criterion) evaluates model fit while penalizing unnecessary complexity; lower values indicate a better balance of fit and parsimony. BIC (Bayesian Information Criterion) is similar to AIC but imposes a stronger penalty for model complexity; lower values likewise reflect better models. LRT (Likelihood-Ratio Test) compares a simpler model with a more complex, nested model; a significant χ^2 value indicates that the additional parameter(s) in the more complex model significantly improve model fit.

.0001), indicating that removing the MATCH × VERB interaction results in a substantially poorer fit and that the interaction is required by the data. By contrast, the Structural and Hybrid models are not nested and therefore cannot be compared using an LRT. Instead, model comparison must rely on information-theoretic criteria. These two models yielded identical AIC and BIC values (AIC = 1272.8; BIC = 1305.3), showing that adding a MATCH main effect does not improve overall model fit under AIC/BIC. However, the Hybrid model remains theoretically preferable, as it captures the robust MATCH main effect and the graded mismatch penalty observed with alternating verbs—patterns that the Structural account does not predict. Taken together, the model-comparison results indicate that while categorical constraints associated with predicate-based licensing are necessary, they must be supplemented by an additional, gradient component reflected in the MATCH main effect.

Experiment 1 reveals categorical mismatch rejection with dative-only verbs, graded penalties with alternating verbs, and a robust matching preference. Experiment 2 tests whether this pattern replicates in a second fragment construction, thereby assessing its construction-independent generality.

3.2 Experiment 2

3.2.1 Participants, materials, and design

Fifty self-reported native speakers of Korean (mean age = 23.56, SD = 1.24) participated under procedures identical to Experiment 1; two were excluded for inattention, leaving 48 participants (12 per list). Experiment 2 employed the same 2 × 2 factorial design as Experiment 1, crossing MATCH and VERB, but tested a different fragment construction—matrix *why*-stripping. The four conditions are shown in (9).

(9) a. [Case.Match | Dat-Acc.V]
Inho-ka Yena-eykey hyeppakhayssta-nuntey, way Yena-eykey?
Inho-Nom Yena-Dat threatened-but why Yena-Dat
'(I heard that) Inho threatened Yena, but why Yena?
b. [Case.Mismatch | Dat-Acc.V]
Inho-ka Yena-eykey hyeppakhayssta-nuntey, way Yena-lul?

Inho-Nom Yena-Dat threatened-but why Yena-Acc
'(I heard that) Inho threatened Yena, but why Yena?

c. [Case.Match | Dat-only.V]
Inho-ka Yena-eykey cepkunhayssta-nuntey, way Yena-eykey?
Inho-Nom Yena-Dat approached-but why Yena-Dat
'(I heard that) Inho approached Yena, but why Yena?

d. [Case.Mismatch | Dat-only.V]
Inho-ka Yena-eykey cepkunhayssta-nuntey, way Yena-lul?
Inho-Nom Yena-Dat approached-but why Yena-Acc
'(I heard that) Inho approached Yena, but why Yena?

By testing these manipulations in *why*-stripping, Experiment 2 assesses whether structural licensing and retrieval-based interpretive effects extend beyond the sluicing environment tested in Experiment 1.

3.2.2 Results

Figure 2 plots the mean z-scored acceptability ratings for the four conditions.

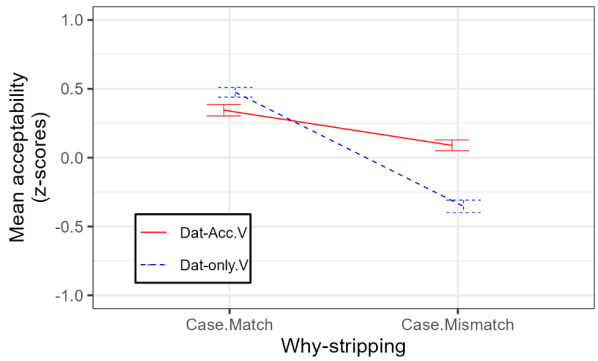

Figure 2. Mean acceptability of experimental conditions (*SE* bars)

A mixed-effects model with sum-coded predictors revealed significant main effects of MATCH and VERB, along with a reliable MATCH × VERB interaction (Table 2), replicating the general pattern of Experiment 1.

Table 2. Fixed effects summary (Hybrid model, Experiment 2)

	Estimate	*SE*	*t*	*p*
(Intercept)	0.139	0.042	3.298	.002
MATCH	0.271	0.023	12.031	< .001
VERB	0.078	0.023	3.468	.001
MATCH:VERB	−0.143	0.023	−6.347	< .001

Estimated marginal means revealed a clear separation between the two verb classes. Under predicates that allow dative-accusative alternation, mismatches incurred only a small reduction in acceptability (Match = 0.345, Mismatch = 0.089). In contrast, predicates restricted to dative case produced a markedly sharper decline (Match = 0.475, Mismatch = –0.354). The pattern parallels the sluicing results, showing that both constructions are similarly sensitive to case matching and verb-based licensing constraints.

Pairwise comparisons further illuminate the contrast in mismatch penalties across the two verb classes. With alternating predicates, mismatches were significantly dispreferred relative to their matched counterparts (β = 0.256, SE = 0.066, t = 3.898, p < .001). When the predicate licensed only dative, however, the penalty was far steeper (β = 0.829, SE = 0.066, t = 12.629, p < .0001). A direct contrast between the two mismatch conditions confirmed that the degradation associated with dative-only verbs was substantially greater (β = –0.573, SE = 0.093, t = –6.174, p < .0001). These findings indicate that alternating verbs allow some tolerance for mismatching, whereas non-alternating verbs sharply constrain it.

Model comparison provides additional quantitative support. We fitted three models corresponding to the structural, interpretive, and hybrid predictions. The Structural model omitted a MATCH main effect; the Interpretive model excluded the MATCH × VERB interaction; and the Hybrid model contained both components. Because the Interpretive model is nested within the Hybrid model, an LRT was carried out, yielding a highly significant result (χ^2 = 31.003, p < .0001), demonstrating that the interaction term meaningfully improves model fit. The Structural and Hybrid models are not nested, and their AIC/BIC scores were identical (AIC = 1215.8; BIC = 1248.3), indicating that information-theoretic criteria alone cannot discriminate between them. Nevertheless, the Hybrid model is favored on theoretical grounds, as it accounts for both the pervasive matching advantage and the graded mismatch attenuation found

with alternating verbs—patterns the Structural model cannot derive. Together, the model results suggest that Experiment 2, like Experiment 1, is best explained by combining structural constraints with gradient, retrieval-based pressures.

4. General discussion

The experimental results reveal a robust main effect of MATCH and a strong MATCH × VERB interaction across both sluicing and *why*-stripping. Case-matched fragments were consistently preferred to mismatched ones, and mismatch penalties were substantially smaller for predicates allowing dative-accusative alternation. This pattern replicates prior observations that case connectivity is a stable tendency in fragment interpretation (Merchant 2001; Barros 2014; Wood et al. 2020; Nykiel et al. 2023), while simultaneously offering new insight into how structural and interpretive mechanisms interact in Korean.

Across both experiments, three facts emerged: (i) a consistent preference for case matching, (ii) reduced acceptability for mismatches, and (iii) sharply larger mismatch penalties under non-alternating verbs than under alternating verbs. Because both constructions yield parallel patterns, the discussion below illustrates these effects using the *why*-stripping data in (10).

(10) a. Inho-Nom Yena-Dat threatened-but
why Yena-Dat ~~Inho-Nom threatened$_{Dat/Acc}$-Q~~?
b. Inho-Nom Yena-Dat threatened-but
why Yena-Acc ~~Inho-Nom threatened$_{Dat/Acc}$-Q~~?
c. Inho-Nom Yena-Dat approached-but
why Yena-Dat ~~Inho-Nom approached$_{Dat}$-Q~~?
d. Inho-Nom Yena-Dat approached-but
why Yena-Acc ~~Inho-Nom approached$_{Dat}$-Q~~

The contrast between (10b) and (10d) illustrates the categorical role of predicate-based licensing. Under *hyeppakhata* ‘threaten’, which licenses both dative and accusative, the accusative remnant in (10b) remains moderately acceptable. Under *cepkunhata* ‘approach’, which licenses only dative, the same remnant in (10d) is sharply degraded.

By contrast, the two matched conditions (10a) and (10c) do not differ significantly, aside from a small numerical preference consistent with processing-based facilitation. Together, the pattern shows that graded penalties arise only within the structurally licit domain, whereas mismatches that violate the predicate's case frame are categorically rejected.

Under the silent-structure approach, such categorical limits follow directly from the licensing requirements imposed by the silent predicate. The account therefore predicts the strong MATCH × VERB interaction observed in both experiments, but not a general MATCH main effect. In contrast, cue-based interpretive models predict a robust MATCH advantage, because matching features facilitate retrieval while mismatches introduce interference. Importantly, however, the interpretive approach does not inherently predict strong verb-dependent differences. Any modulation by verb class arises only indirectly, to the extent that broader or narrower cue environments incidentally affect retrieval efficiency; the approach therefore does not predict categorical penalties tied to argument-structure specifications.

The results conform to neither approach in isolation. Mismatches with non-alternating verbs show the categorical unacceptability predicted by structural licensing, while mismatches with alternating verbs show the non-zero but non-categorical penalties expected under cue-based retrieval. The strong MATCH main effect likewise supports the interpretive account, but the magnitude of the interaction cannot be derived from retrieval considerations alone. A hybrid analysis is therefore required: structural licensing determines which case values are grammatically possible, and cue-based retrieval yields graded preferences within that space.

Finally, before concluding this section, we address a reviewer's insightful suggestion concerning potential *directionality* within alternating verbs—specifically, whether a verb might preferentially appear with one case and thereby affect mismatch acceptability. Such asymmetries could, in principle, sharpen the empirical contrast between structural and interpretive accounts, as illustrated in (11).

(11) a. Inho-ka nwukwunka-eykey yatanchyessta-nuntey, nwukwu-lul?
Inho-Nom someone-Dat scolded-but who-Acc
'(I heard) Inho scolded someone, but who?'

b. Inho-ka nwukwunka-lul yatanchyessta-nuntey, nwukwu-eykey?
Inho-Nom someone-Acc scolded-but who-Dat

'(I heard) Inho scolded someone, but who?'

The experiments reported here did not manipulate, nor did they reveal, any stable case-preference asymmetry among alternating predicates, and pilot testing likewise did not identify such tendencies. We therefore leave this as an important question for future research. A systematic investigation of possible directional preferences could provide additional leverage for distinguishing the predictions of structural licensing from those of interpretive, cue-based models.

5. Conclusion

This study examined how case connectivity in Korean fragments arises from the interaction of structural licensing and cue-based interpretive mechanisms. Across two acceptability-judgment experiments—sluicing and *why*-stripping—a consistent empirical profile emerged: a strong main effect of MATCH, a robust MATCH × VERB interaction, and markedly larger mismatch penalties under non-alternating (dative-only) predicates than under alternating (dative-accusative) predicates. These results indicate that case matching reliably enhances fragment acceptability, while mismatch tolerance depends on the case-licensing properties of the elided verb.

The findings do not support a strictly structural analysis. The silent-structure approach correctly predicts the categorical asymmetry observed with non-alternating verbs, where mismatches are sharply degraded because the silent predicate cannot license the remnant's case. This structural boundary is evident in both experiments and shows that argument-structure identity constrains the domain of licit remnants. However, the structural account does not predict the pervasive main effect of MATCH. Since case matching is not itself a licensing condition, the overall advantage for matched fragments indicates that structural licensing alone is insufficient.

At the same time, the results also challenge a purely interpretive account. Under a cue-based approach, case features function as retrieval cues, predicting a general MATCH advantage and graded (non-categorical) mismatch penalties within structurally permitted contexts. These predictions correspond to the pattern observed for alternating predicates, where mismatches exhibit non-zero but non-categorical declines in acceptability. However, the interpretive approach does not predict the

strong verb-dependent contrast or the categorical penalty found under non-alternating predicates; such asymmetries exceed what retrieval-based mechanisms alone can generate.

Taken together, the results support a hybrid model of fragment interpretation. Structural licensing determines which case values are grammatically possible, and within that structural domain, cue-based retrieval contributes gradient acceptability differences. Korean therefore provides evidence that connectivity effects arise from the joint influence of grammatical constraints and general cognitive mechanisms. This hybrid perspective is consistent with cross-linguistic findings showing that fragment interpretation reflects both argument-structure identity and processing-based pressures. Future research may extend these results to other ellipsis in Korean and to cross-linguistic comparisons, further clarifying the division of labor between syntax and processing in ellipsis resolution.

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Jeong-Seok Kim
Professor
Department of English Language and Literature
Korea University
145 Anam-ro, Seongbuk-gu,
Seoul, 02841, Korea
E-mail: uconnkim@korea.ac.kr

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