

Predicate topicalization in Korean: A construction-based HPSG Approach*

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Kim, Jong-Bok 2019. **Predicate topicalization in Korean: A construction-based HPSG Approach.** *Korean Journal of Linguistics*, 44-3, 395-423. Many languages including Korean allow the so-called predicate topicalization in which a predicate expression is located in the left peripheral position while the identical stem also appears in the lower clause. The morphological (stem) identity of the two predicates indicates that there is a doubling process. Languages differ with respect to the exact morphosyntactic properties of the fronted predicate as well as its discourse function, but share certain grammatical properties. This paper first reviews this kind of doubling process as topicalization in Korean while referring to other languages. It then offers a construction-based HPSG analysis that can resolve issues that simple movement and spell-out analyses would encounter. (Kyung Hee University)

Key words: predicate copying, predicate fronting, predicate topicalization, doubling, construction-based HPSG

1. Basic properties

The so-called ‘predicate doubling’ constructions, as illustrated in (1), are sentences with a verb or a VP in the left periphery of a sentence with a copy of this verbal expression in the base position:

- (1) a. Yiddish (Cable 2004: 2)
Essen est Maks fish.
to.eat eats Max fish
‘As for eating, Max eats fish.’

* I thank three anonymous reviewers of this journal for constructive comments. My thanks also go to Jungsoo Kim, Alain Kihm, Nurit Melnik, Stefan Müller, for discussing some of the relevant data discussed in the paper. Part of this paper is also discussed in Müller et al. (2019). The usual disclaimer also applies here. This work was supported by the National Research Foundation of Korea Grant funded by the Korean Government (NRF-2014S1A2A2028437).

- b. Hebrew (Landau 2006: 37)
Liknot, hi kanta et ha-praxim
to.buy she bought ACC the-flowers
'As for buying, she bought the flowers.'
- c. Korean
Mek-ki-nun Mimi-ka sakwa-lul mek-ess-ta
eat-NMLZ-TOP Mimi-NOM apple-ACC eat-PST-DECL
'As for eating, Mimi ate an apple.'

As observed in these examples, the left peripheral expression, bearing either an bare verb form or nominal morphology, has a copied expression in the main clause. Such constructions, occurring in a wide variety of typologically unrelated languages,¹ are herein referred as predicate topicalization because of their discourse functions, which will be clear in due course.²

Note that in these three languages the left periphery or fronted expression can be more than just a verb. For instance, it can include an object:

- (2) a. Yiddish (Cable 2004: 2)
Essen fish est Maks.
to.eat fish eats Max
'As for eating, Max eats fish.'
- b. Hebrew (Landau 2006: 37)
Liknot et ha-praxim, hi kanta
to.buy ACC the-flowers she bought
'As for buying the flowers, she bought (them).'
- c. Korean
?Sakwa-lul mek-ki-nun Mimi-ka (sakwa-lul)
apple-ACC eat-NMLZ-TOP Mimi-NOM apple-ACC
mek-ess-ta
eat-PST-DECL

¹ including Vata (Koopman 1997), Haitian Creole (Larson and Lefebvre 1991), Russian (Abels 2001), Hebrew (Landau 2006), Spanish (Vicente 2009), Brazilian Portuguese (Cable 2004), Japanese (Nishiyama and Cho 1998), Korean (Jo 2003), etc.

² The topichood of the fronted verb is also supported from Yiddish, as pointed out by Davies and Prince (1986), Yiddish requires that the tensed verb be in second position (V2), and both the topicalized element and the fronted verb, different from the left dislocation, count as first position. See Davies and Prince (1986) for details.

‘As for eating apples, Mimi ate apples.’

The fronted predicate can also include an adverbial expression, as shown in the following Korean example:

- (3) ppalli talli-ki-nun, Mimi-ka ppalli talli-ess-ta
 fast run-NMLZ-TOP Mimi-NOM fast run-PST-DECL
 ‘As running fast, Mimi ran fast.’

In languages like Korean, as illustrated in (4a), the fronted predicate needs to have a nominal morphology with a topic marker, but with no tense marking. Meantime, in languages like Yiddish, as given in (4b), the fronted predicate can bear past-participial morphology when the copied predicate has the same morphology as the matrix verb (Cable 2004):

- (4) a. talli-(*ess)-ki-nun Mimi-ka talli-ess-ta
 run-PST-NMLZ-TOP Mimi-NOM run-PST-DECL
 ‘As for running, Mimi ran.’
 b. Gegressen hot Maks gregessen fish
 eaten has Max eaten fish
 ‘As for having eaten, Max has eaten fish.’

Different from such doubling examples Yiddish allows examples like (5a) where the fronted predicate (V(P)) and the linked main predicate are in a genus-species relation (Cable 2004). Korean also allows such examples, as given in (5b):

- (5) a. Yiddish
 ?Essen fish est Maks hekht.
 to-eat fish eats Max pike
 ‘As for eating fish, Max eats pike.’
 b. Korean
 (?)kwail-ul mek-ki-nun Mimi-ka sakwa-lul
 fruit-ACC eat-NMLZ-TOP Mimi-NOM apple-ACC
 mek-ess-ta
 eat-PST-DECL
 ‘As for eating fruit, Mimi ate an apple.’

Another distinguishing property of the construction is that the relationship between the fronted predicate and the linked predicate in the lower clause can be unbounded. Observe the following Hebrew (from Landau 2006: (21)) and Korean examples:

- (6) a. la'azor le-Rina eyn li safek s̃-Gil hivti-ax
 to-help to-Rina there-isn't to-me doubt that-Gil
 promised
 s̃hu ya'azor
 that-he will-help
 'As for helping Rina, I have no doubt that Gil promised he would help.'
- b. nol-ki-nun, wuli-nun Mimi-ka nol-ass-ta-ko
 play-NMLZ-TOP we-TOP Mimi-NOM play-PST-DECL-COMP
 sayngkakha-n-ta
 think-PRES-DECL
 'As for playing, we think Mimi played.'

As observed from the examples, the linked predicates *help* in Hebrew and *play* in Korean are in the finite embedded clause. However, the dependency between the two is island-sensitive (Cable 2004, Landau 2006):

- (7) a. *likro, Gil daxa et ha-te' ana s̃e-hu kvar
 to-read Gil rejected ACC the-claim t hat-he already read
 kara et ha-sefer
 ACC the-book
 'As for reading the book, Gil rejected the claim that he had already read.'
- b. *mek-ki-nun Mimi-ka mek-ess-ten sakwa-lul
 eat-NMLZ-TOP Mimi-NOM eat-PST-MOD apple-ACC
 sa-ss-ta
 buy-PST-DECL
 'As for eating, Momo bought the apple that Mimi ate.'

The ungrammaticality of such examples indicates that the copied expression cannot be within an island.

As pointed out by Landau (2006), the construction has two main types cross-linguistically: cleft and topicalization. The former predicate cleft type, found in African and Caribbean Creole languages, in general expresses a contrastive focus. The latter type, observed in Hebrew, Yiddish, and Korean, evokes a topic interpretation. In languages like Korean, as we have noted, the obligatory topic marker in the fronted verbal expression supports its topichood. In what follows, we will discuss possible issues that derivational approaches raise in accounting for such doubling effects by movement operations. Section 3 then examines general properties of topic constructions in Korean and a construction-based analysis of topic constructions. Section 4 then offers a construction-based analysis of the predicate topic constructions, and Section 5 concludes this paper.

2. Possible issues in movement-analyses

As we have seen, one key property of predicate topicalization is to double the main predicate, one in the left-peripheral and the other in the lower main clause. One way to account for such a double process is to link the two by movement operations, which may be supported from their unbounded dependencies. For instance, one could assume that the fronted predicate (V(P)) undergoes movement to the topic position and the remaining part is pronounced or copied in the lower clause at PF (see Koopman 1997, Cable 2004, Landau 2006, Aboh and Dyakonova 2009, Hein 2017).

One immediate question that arises from such a movement-based MP (minimalist program) analysis is then how the predicate in the lower clause is pronounced. One cannot simply assume that the trace left behind is pronounced since there can be a mismatch between the fronted expression and the putative trace, as noted in genus-species examples. As seen earlier in (2), there is no identical morpho-phonemic forms in such examples. As a reviewer points out, MP analyses could offer several solutions to resolve such an issue. For instance, Landau (2006: 37) identifies two different types of predicate fronting in Hebrew:

- (8) a. PI-fronting (phrasal infinitive)
 liknot et ha-praxim, hi kanta
 to-buy ACC the-flowers she bought

- ‘As for buying the flowers, she bought.’
- b. BI-fronting (bare infinitive fronting)
- liknot, hi kanta et ha-praxim
to-buy she bought ACC the-flowers
‘As for buying, she bought the flowers.’

In accounting for these two different fronting, as Landau (2006) states, there are at least two main issues involved: “(i) why V is pronounced twice, (ii) why is the higher V-copy spelled out as an infinitive.”³ In answering the first issue, Landau’s (2006) account introduces the following:

- (9) a. P-Recoverability:
In a chain $\langle X_1 \dots X_i \dots X_n \rangle$, where some X_i is associated with phonetic content, X_i must be pronounced.
- b. Modular Chain Resolution (MCR)
The decision which chain copy to pronounce/interpret is locally determined at PF/LF, respectively.

As for the second issue, Landau (2006) resorts to the notion of Late Insertion of p-features, with the claim that the fronted V is spelled out as the default infinitival form. Such a solution would make sense within MP-proponent analyses, but it is hard to deny that these are all theory-dependent, with no strong empirical motivations. As also pointed out by Cable (2004), the analysis is built upon the theoretical notions of chain and PF/LF and the MCR is also not mathematically well-defined: the question remains who is making the decision and how. In addition, the infinitival form is not the default form in all the languages that allow similar constructions. For instance, as given in (1c), Korean requires the nominalizer *ki* followed by the topic marker.

An ensuing question that follows from a movement-based analysis is why the doubling is possible only when a verbal predicate is fronted. Nominal fronting or topicalization in these languages does not allow any copying, as seen from the following Korean example:⁴

³ There is another issue Landau (2006) mentions: What is the size of the fronted category in BI-fronting? As for this issue, Landau argues for a bare V-fronting analysis. See Landau (2006) for details.

⁴ See Cable (2004) for a similar discussion.

- (10) Ku sayngsen-un Mimi-ka (*ku sayngsen-ul) ecey
 that fish-TOP Mimi-NOM the fish-ACC yesterday
 mek-ess-ta
 at-PST-DECL
 'As for that fish, Mimi ate it yesterday.'

It is clear that the verb-copying and verb form in the fronted position is not movement-induced but construction-dependent in the target language, which we will discuss further in Section 4.

There is also an issue concerning the semantics of such constructions, also pointed out by Cable (2004). The situation denoted by the topic cannot be identical with the situation denoted by the lower clause. The situation of the predicate topic is more general than the one denoted by the lower clause: the lower (comment) clause denotes a more specific situation 'about' the topic. The event of the predicate topic cannot be identical to that of the comment clause. This implies that the predicate in the fronted position cannot form a simple chain with the predicate in the matrix clause.

As we have discussed here, movement-based analyses may resolve the possible issues we have discussed in this section, but the solutions seem to be quite theory-dependent. In this paper, we try to offer an alternative, non-movement and construction-based approach that can be empirically motivated while reflecting the constructional properties of the phenomenon in question.

3. Topic constructions: A Construction-based perspective

3.1. Types of topic constructions

The predicate topicalization or fronting observed in many languages at first glance appears to resemble cleft constructions. However, at least in the three languages we discuss here, it is a topic construction (cf. Landau 2006). For instance, the fronted predicate in Korean is nominalized with a topic marker, but the typical predicate cleft uses a bound-noun *kes* as given in the following.:

- (11) talli-n kes-un Mimi-i-ta
 run-MOD thing-TOP Mimi-COP-DECL

‘(Lit.) What runs is Mimi.’

Both cleft and predicate fronting are topic marked, but the predicate fronting in (1c) includes no copula verb, a hallmark of cleft constructions.

Literature has identified three different types of topic constructions: aboutness, contrastive, and scene-setting (Reinhart 1981, Gundel 1988, Lee 2000), each of which is exemplified in the following Korean examples (Kim 2016b):

- (12) A: (How is Mimi doing?)
 B: *Mimi-nun chinkwu-tul-kwa cwumal-mata cacenke-lul*
Mimi-TOP friend-PL-with weekend-every bike-ACC
tha-n-ta
ride-PRES-DECL
 ‘As for Mimi, she is biking with friends every weekend.’
- (13) a. *sakwa-nun ai-tul-i mek-ciman, pay-nun mek-ci*
apple-TOP child-PL-NOM eat-but pear-TOP eat-CONN
anh-nun-ta
not-PRES-DECL
 ‘Children eat apples, but do not eat pears.’
 b. *yelum-un maykcwu-ka masiss-ta.*
summer-TOP beer-NOM tasty-DECL
 ‘As for summer, beer tastes good.’

As illustrated by the dialogue in (12), the topic represents what the sentence is about, providing familiar and identifiable information. The topic *Mimi-nun* ‘Mimi-TOP’ refers to the individual familiar to both interlocutors, which we can conjecture from the dialogue. Meanwhile, the topic in (13a) describes a contrast between the topic constituent and a previously mentioned referent. That is, *sakwa-nun* ‘apple-TOP’ contrasts with ‘pears’. The example in (13b) includes a scene setting topic that provides a spatial, temporal or individual framework within which the main predication holds (Chafe 1976). Different from the aboutness topic, the scene setting topic need not be discourse-familiar or old since it just offers a scene for the comment clause. As given in (13b), scene-setting topics are expressed typically by an adverbial phrase and set up a scene for the proposition of the main clause.

Topic constructions can also be distinguished according to their

syntactic properties such as how they are integrated into the following comment clause. That is, topic constructions differ with respect to whether or not there is a gap in the comment clause linked to the sentence topic. A typical type is one where the topic expression functions as an argument or a modifier in the comment clause. But note that there is another type in which the topic in question is neither an argument nor an adjunct of the comment clause. Observe the following (Kim 2016a, 2016b, and references therein):

- (14) a. *kkoch-un* [cangmi-ka alumptap-ta]
 flowers-TOP rose-NOM pretty-DECL
 ‘As for flowers, roses are pretty.’
 b. *sayngsen-un* [kotunge-ka masiss-ta]
 fish-TOP mackerel-NOM tasteful-DECL
 ‘As for fish, mackerel is tasteful.’

In these examples, *kkoch* ‘flower’ and *sayngsen* ‘fish’ are neither an argument of the matrix verb nor a modifier. The matrix sentence headed by the pure intransitive verb in each case is a fully saturated one, even without the topic expression.

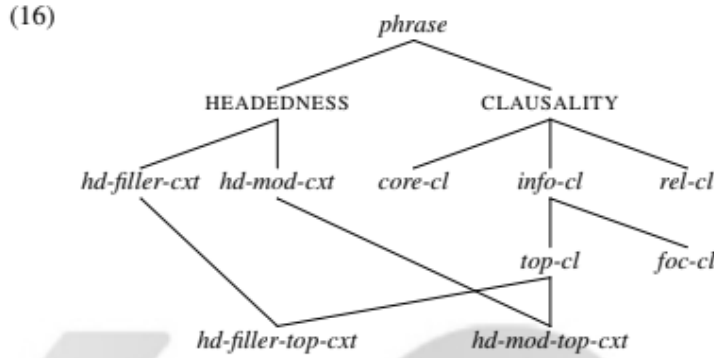
3.2 Topic constructions in the network of constructions

In licensing topic constructions, the first question is where topic information comes from. The topic marker, as in Korean, cannot encode this information since not all topic-marked expressions function as topic: the one in the non-initial position just represents contrastive information (see Kim 2016a and references therein):

- (15) *ku chayk-ul Mimi-nun ecey ilk-ess-ta*
 the book-ACC Mimi-TOP yesterday read-PST-DECL
 ‘Mimi (but not the others) read the book yesterday.’

Even though Mimi here is marked with the topic marker *nun*, it has contrastive information only. In addition, in Yiddish and Hebrew, the fronted expression does not bear any topic marker although it carries contrastive given information, with an implicature that the referent is in opposition to a set of alternatives. This means that it is the constructional

property (or positional property) that evokes topic information. To reflect the discussed properties of topic constructions, i.e., their subtypes and information packaging encoding, we assume topic constructions are within the following inheritance network of constructions:



Phrasal constructions are first classified in accordance with the CLAUSALITY and HEADEDNESS properties (see Sag et al. 2003, Kim 2016a). The subtypes of CLAUSALITY include *core-cl*, *rel(ative)-cl*, and *info-cl*. The *core-cl* type includes canonical clauses like declarative and imperative. The constraints on *info-cl* are the locus of the treatment of various topic as well as focus constructions (Kim 2016b). The type *info-cl* has at least two subtypes: *top-cl* and *foc-cl*, which have either a positive TOPIC or FOCUS value. Each has its own constraints that will be inherited to its subtypes. For example, *top-cl* is declared to have the following constraints which will be inherited to its subtypes:

(17) Head-Topic Construction:

$$\left[\begin{array}{c} \textit{top-cl} \\ \text{GAP} \langle \quad \rangle \\ \text{C-CONT} \mid \text{RELS} \left\langle \begin{array}{c} \text{PRED } \textit{about-rel} \\ \text{ARG1 } \boxed{1} \\ \text{ARG2 } \boxed{2} \end{array} \right\rangle \end{array} \right] \rightarrow \left[\begin{array}{c} \text{IND } \boxed{1} \\ \text{TOPIC } + \end{array} \right], S \left[\begin{array}{c} \text{MOOD } \textit{decl} \\ \text{IND } \boxed{2} \\ \text{SUBJ} \langle \quad \rangle \\ \text{COMPS} \langle \quad \rangle \end{array} \right]$$

The Head-Topic Construction (*top-cl*) thus consists of a topic expression

and a sentential expression which is a fully saturated independent (IC) declarative (*decl*) sentence. This also explains why examples like (15) are not a topic construction. Note that the topic clause (*top-cl*) has as its constructional content (C-CONT) an *about-ref*: the topic phrase tells us what the main clause is about.

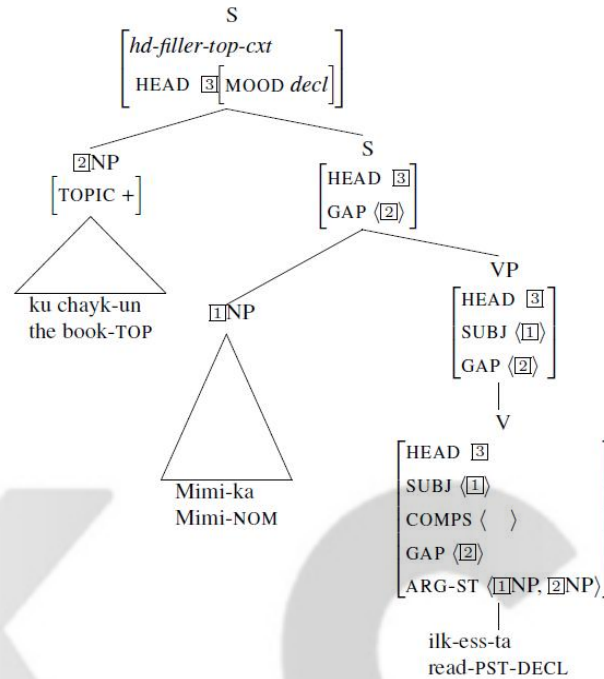
Note that within this inheritance network system, the *top-cl* has two subtypes: *hd-filler-top-cxt* and *hd-mod-top-cxt*. The existence of two types thus projects gapped aboutness topic as well as ungapped adverbial aboutness (or scene-setting) topic sentences like the following, respectively:

- (18) a. *ku chayk-un* [Mimi-ka ____ *ilk-ess-ta*]
 (*hd-filler-top-cxt*)
 the book-TOP Mimi-NOM read-PST-DECL
 ‘As for the book, Mimi read it.’
 b. [*ecey-nun* [nalssi-ka *dwuw-ess-ta*]] (*hd-mod-top-cxt*)
 yesterday-TOP weather-NOM cold-PST-DECL
 ‘As for yesterday, it was cold.’

In (18a), the topic phrase *ku chayk-un* is an argument of the main predicate *ilk-ess-ta* and enters into a head-filler relation, whereas in (18b), the topic *ecey-nun* is just an adjunct. The properties of these two can be illustrated from the structure of (18a) in which the object argument is topicalized:⁵

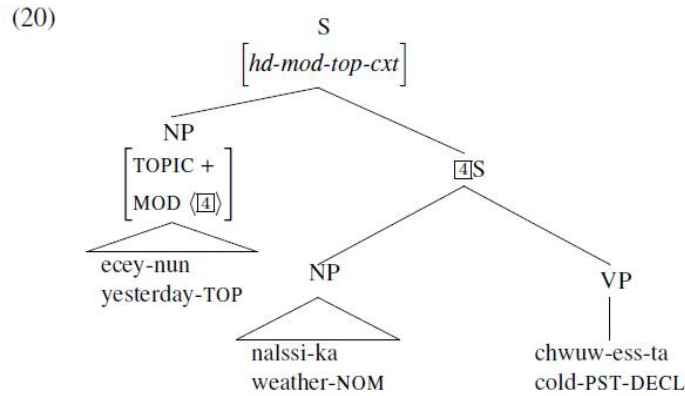
⁵ As for the system of the feature structures, see Sag et al. (2003) and Kim (2016a).

(19)



As shown in the structure, the main predicate *ilk-ess-ta* 'read-PST-DECL' selects two arguments whose second argument is realized as a GAP value. This GAP value is passed up to the lower S and discharged by the filler-construction topic *the book*: the combination of the topic and the lower S will then form a well-formed *hd-filler-top-cxt* (and the features IC and MOOD mark an independent declarative clause).

Meanwhile, in the example (18b), the topic expression *ecye-nun* 'yesterday' is not an argument but an adjunct. There is no GAP value here; the topic expression simply modifies the following sentence, as part of a *hd-mod-top-cxt*. This implies that examples with an adverbial topicalization can be taken to be a head-modifier topic construction as represented in the following.



The topicalized adverbial expression *ecey* ‘yesterday’ is not moved but base-generated. It just modifies the sentence that follows, forming a Head–Modifier Construction. At the same time, the adverbial also functions as topic of the sentence, being in the sentence initial position.

The third type of topicalization, often called dangling (or hanging) topic, involves examples where we topicalize a nominal expression, whose example we repeat here.

- (21) *kkoch-un* [*cangmi-ka* *yeppu-ta*]
 flowers–TOP rose–NOM pretty–DECL
 ‘As for flowers, roses are pretty.’

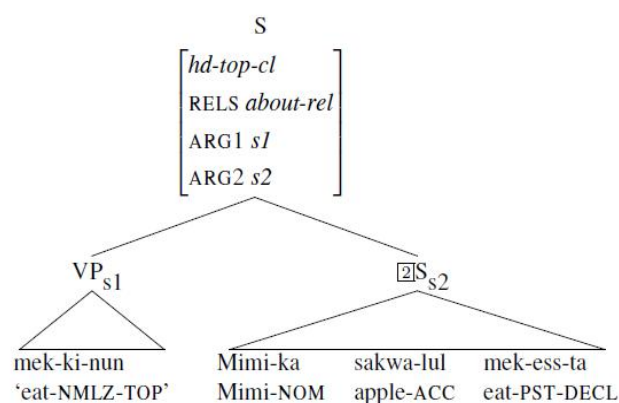
The expression *kkoch* ‘flower’ here is a nominal expression but not linked to the matrix sentence, implying that the topicalized nominal is an adverbial expression. The present system would assign a structure similar to the one in (21) where the topic functions as a modifier to the following comment clause.

4 Analysis for Predicate Topicalization

4.1. As a subtype of head–filler topic construction

The predicate topic construction also belongs to the Head–Topic Construction, as illustrated by the following structure for (1c):

(22)



Being a subtype of the Head-Topic Construction, the predicate topicalization would also induce an *about-rel* between the fronted predicate and the following clause, as defined in (17). The notion of aboutness is rather pragmatic. As noted Reinhart (1981) and Gundel (1988), topic can be identified with two criteria: old information and aboutness, in which old information is a property of the referents denoted by linguistic expressions and aboutness refers to a relation between an argument and a position. This in turn can be put in as the speaker announces a topic, and then says something about it. Consider the following simple example:

- (22) Mimi-nun sakwa-nun coh-a ha-n-ta
Mimi-TOP apple-TOP like-CONN do-PRES-DECL
‘Mimi likes apples, (but...,)’

The first NP *Mimi-nun* is a topic, while the following expression, as a comment clause, describes a property about the topic. However, the second NP *sakwa-nun* is not a topic but a focus since we cannot establish an aboutness relationship with anything. In the predicate fronting, there needs to be such an aboutness relation. Consider the following contrast, as suggested by a reviewer:

- (24) a. [mek-ki-nun] Mimi-ka mek-ess-ta
eat-NMLZ-TOP Mimi-NOM eat-PST-DECL
‘As for eating, it is Mimi who ate.’

- b. ?[photo-lul mek-ki-nun] Mimi-ka mek-esta
 grape-ACC eat-NMLZ-TOP Mimi-NOM eat-PST-DECL
 'As for eating grapes, it is Mimi who ate grapes.'
- (25) a. *[mek-ki-nun] Mimi-ka masi-ess-ta
 eat-NMLZ-TOP Mimi-NOM drink-PST-DECL
 '(int.) As for eating, Mimi drank.'
- b. *[photo-lul mek-ki-nun] [Mimi-ka sawak-lul
 grape-ACC eat-NMLZ-TOP Mimi-NOM apple-ACC
 mek-ess-ta]
 eat-PST-decl
 '(int.) As for eating grapes, Mimi ate apples.'

In both (24a) and (24b), there is an aboutness relation between the fronted predicate and the following comment clause. However, there cannot be any aboutness relation in (25a) and (25b): Mimi's drinking cannot be about 'eating' or Mimi's eating an apple cannot be about eating grapes.

4.2. Resumptive verb and constructional constraints

The ensuing question is how to address the relationship between the fronted predicate (V or no bigger than VP) and the following matrix clause including the copied part. The fronted predicate is neither an argument of the matrix predicate nor an adverbial expression linked to the main clause. As noted earlier, there is a strong syntactic and semantic dependency between the two. The dependency can be even long-distance. In these senses, the predicate fronting is a lot similar to resumptive pronoun constructions we find in the three languages (Yiddish, Hebrew, and Korean). Observe the following Hebrew data:

- (26) a. hine ha-is̃ s̃ e rita oto 'etmol.
 here the-man that saw.2ms him yesterday
 'Here is the man that you saw (him) yesterday.'
- b. hine ha-is̃ s̃ e s̃ avta s̃ e hu nafal la-bor.
 here the-man that thought.2ms that he fell.3ms into-the-pit
 'Here is the man that you thought that (he) fell into the pit.'

The resumptive pronoun here (*oto* in (26a) and *hu* in (26b)) is optional,

and can be even in the embedded clause as in (26b). Korean also allows a resumptive pronoun in the relative clause:

- (27) salamtul-i (ku-ka) ip-ko iss-nun yangpok-i
 people-NOM he-NOM wear-CONN is-MOD suit-NOM
 telep-ta-ko saygakha-n sinsa
 dirty-DECL-COMP think-MOD gentleman
 ‘the gentleman such that we thought the suit that he is wearing
 is dirty’

As suggested by Koopman (1997) and others, the matrix verb in the predicate fronting can be taken to be a resumptive expression. In addition, note that the copied predicate in the three languages can be even replaced by a pro-verb. Korean also seems to behave alike: Consider the following Korean example where the lower clause has the pro-verb *ha-* ‘do’ instead of the verb *talli-* (see section 4.3 for further discussion):

- (28) talli-ki-nun, Mimi-ka ha-yess-ta
 run-NMLZ-TOP Mimi-NOM do-PST-DECL
 ‘As for running, Mimi did.’

Such a possibility implies that the fronted predicate can be taken as a type of resumptive-expression. This in turn means that the copied verb can introduce a GAP value when it functions as a resumptive verb, as given in the following:⁶

- (29) Deriving a resumptive verb lexeme (first approximation):

$$\left[\begin{array}{c} v\text{-}lxm \\ \text{SYN } [1] \\ \text{SEM } [2] \\ \text{GAP } \langle \quad \rangle \end{array} \right] \mapsto \left[\begin{array}{c} \textit{resumptive-v-lxm} \\ \text{SYN } [1] \\ \text{SEM } [2] \\ \text{GAP } \left\langle \text{V} \left[\begin{array}{c} \text{SYN } [1] \\ \text{SEM } [2] \end{array} \right] \right\rangle \end{array} \right]$$

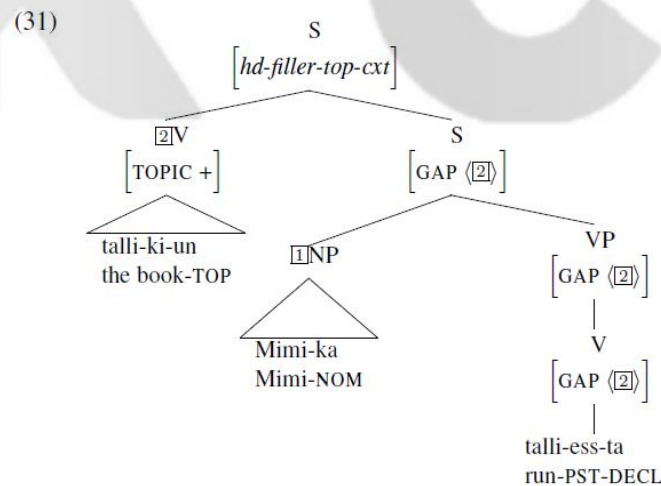
This mapping relation means that a verb lexeme (*v-lxm*) can be mapped

⁶ See Alotaibi and Borsley (2013) in which resumptive pronouns in Arabic are taken to introduce a gap value.

into a resumptive verb lexeme (*resumptive-v-lxm*) that introduces a GAP value whose syntax and semantics is identical to those of its input lexeme. Since this mapping relation holds for verb-lexemes, the GAP value does not refer to the tense or nominalizer information. For instance, verb lexemes like *talli*– ‘run–’ would be mapped onto a resumptive verb:⁷

$$(30) \left[\begin{array}{l} \textit{resumptive-v-lxm} \\ \text{FORM } \langle \textit{talli-} \rangle \\ \text{SYN } [1] \\ \text{SEM } [2] \\ \text{GAP } \left\langle \text{V} \left[\begin{array}{l} \text{SYN } [1] \\ \text{SEM } [2] \end{array} \right] \right\rangle \end{array} \right]$$

This resumptive lexeme with a non-empty GAP value will then be inflected into the word *talli-ess-ta* with the addition of the past-tense suffix and the declarative mood. It then projects a structure like the following:



⁷ We leave out the detailed values of SYN and SEM here, but the SYN value at this point excludes the value for the nominalizer and the topic marker since the verb is a lexemic expression.

The verb *talli-ess-ta* bears the non-empty GAP value, which is percolated up to the point where it is discharged. The top S is a head-filler topic construct, evoking an aboutness-relation between the topic and the following comment clause S. As represented here, such a sentence is an instance of the Head-Filler Topic Construction. This addresses the A'-dependency property between the fronted predicate and the copied predicate in the lower clause. As noted earlier, the fronted predicate can be linked to the copied one in a lower clause.

- (32) *talli-ki-nun* [*wuli-nun* *Mimi-ka* *talli-ess-ta-ko*]
 run-NMLZ-TOP we-TOP Mimi-NOM
 run-PST-DECL-COMP
sayngkakha-yess-ta
 think-PRES-DECL
 'As for running, we thought Mimi ran.'

The GAP value originates from the lower clause verb *talli-ess-ta-ko* and percolated up to the second lower S. This value is then discharged by the filler, the fronted topic predicate

As we have seen, the filler of the predicate fronting construction can be a VP, but not a full sentence. This is what the literature has observed in the languages allowing the predicate fronting. Korean seems to have the identical constraint:

- (33) a. ?*Sakwa-lul mek-ki-nun Mimi-ka (sakwa-lul)*
 apple-ACC eat-NMLZ-TOP Mimi-NOM apple-ACC
mek-ess-ta
 eat-PST-DECL
 'As for eating apples, Mimi ate apples.'
 b. **Mimi-ka sakwa-lul mek-ki-nun Mimi-ka (sakwa-lul)*
 Mimi-NOM apple-ACC eat-NMLZ-TOP Mimi-NOM apple-ACC
mek-ess-ta
 eat-PST-DECL
 'As for eating apples, Mimi ate apples.'

This in turn means that the GAP value can be either a simple V or a VP, but not an S. This possibility asks us to revise (29) as following:⁸

(34) Deriving a resumptive verb lexeme (second approximation):

$$\left[\begin{array}{l} v\text{-}lxm \\ \text{SYN } \boxed{1} \\ \text{SEM } \boxed{2} \\ \text{GAP } \langle \quad \rangle \end{array} \right] \mapsto \left[\begin{array}{l} \text{resumptive-}v\text{-}lxm \\ \text{SYN } \boxed{1} \\ \text{SEM } \boxed{2} \\ \text{GAP } \left\langle \text{V(P)} \left[\begin{array}{l} \text{SYN } \boxed{1} [\text{SUBJ } \langle \text{XP} \rangle] \\ \text{SEM } \boxed{2} \end{array} \right] \right\rangle \end{array} \right]$$

This lexemic realization introduces a GAP value whose SUBJ value is not empty. This specification on the subject value ensures that the GAP value can be either a V or a VP still looking for the subject XP. Different from Landau's (2006) observation for Hebrew predicate clefts, Korean seems to allow any VP to serve as the predicate topicalization:⁹

- (35) a. kaluchi-ki-nun Mimi-ka hankwuke-lul h
aksayngtul-eykey teach-NMLZ-TOP Mimi-NOM
Korean-ACC students-DAT
kaluchi-ess-ta
teach-PST-DECL
'As for teaching, Mimi taught Koran to the students.'
- b. haksayngtul-eykey hankwuke-lul kaluchi-ki-nun
students-DAT Korean-ACC teach-NMLZ-TOP
Mimi-ka kaluchi-ess-ta
Mimi-NOM teach-PST-DECL
'As for teaching Korean to the students, Mimi taught.'
- c. ?hankwuke-lul kaluchi-ki-nun Mimi-ka
Korean-ACC teach-NMLZ-TOP Mimi-NOM
haksayngtul-eykey kaluchi-ess-ta
students-DAT teach-PST-DECL
'As for teaching Korean, Mimi taught to the students.'
- d. ?haksayngtul-eykey kaluchi-ki-nun Mimi-ka
students-DAT teach-NMLZ-TOP Mimi-NOM
hankwuke-lul kaluchi-ess-ta
Korean-ACC teach-PST-DECL

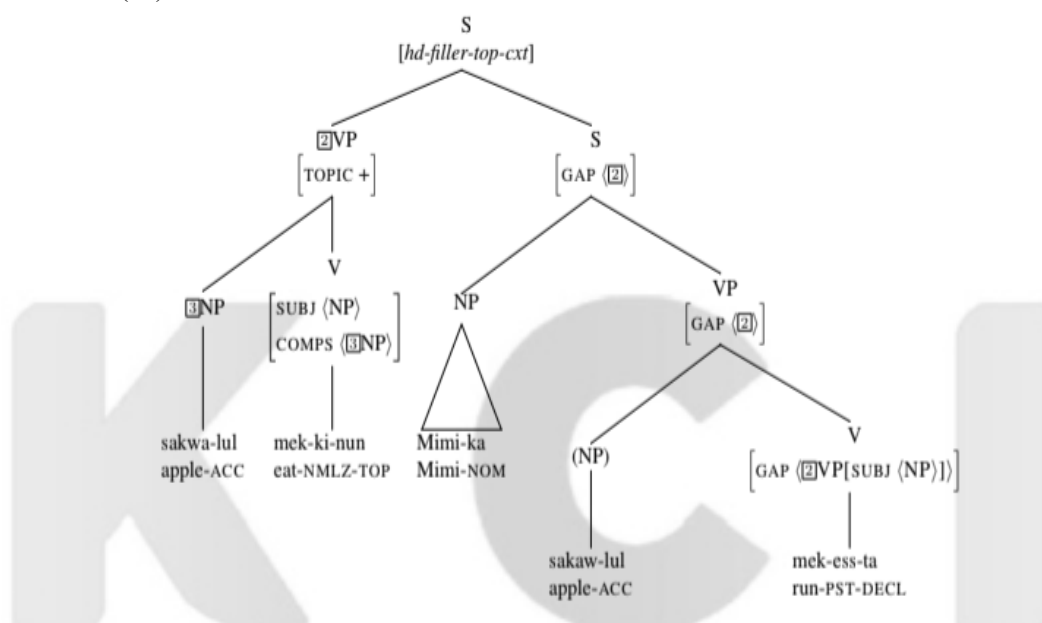
⁸ Once again, the feature structure given here is a simplified version.

⁹ Landau (2006) suggests that "if a topic constituent contains any arguments of the V, it must contain all the obligatory arguments of the V."

‘As for teaching students, Mimi taught Korean.’

With this modification in (34), the present system then allows the fronted predicate to be a VP as illustrated by the following:

(36)



As represented in the structure, the resumptive verb *mek-ess-ta* ‘eat-PST-DECL’ evokes a GAP whose value is a VP. This GAP value is discharged by the topic VP syntactically functioning as the filler to the GAP value. As a topic construction, there is also an ‘aboutness’ relation between the topic and the following comment clause.

There still remain issues in the treatment of predicate fronting in Korean. One is the morphosyntactic constraint on the fronted verb: it is nominalized with *ki* and topic marked. The second key issue concerns the semantic relations between the fronted predicate and the comment clause. We have seen that in topic constructions, there is an aboutness relation between the topic and the following comment clause. The predicate topicalization has a more specific semantic relation between the two. This is more than an aboutness relation since we could have something like the following:

- (37) talli-ki-nun, Mimi-ka coh-a ha-n-ta
 run-NMLZ-TOP Mimi-NOM like-CONN do-PRES-DECL
 'As for running, Mimi likes it.'

The comment clause is about the topic *running*. There is no subset or entailment relation between the topic and the comment clause even though there is an aboutness relation. Unlike this kind of typical topic one, the event denoted by the fronted predicate and the event denoted by the comment clause are in an semantic 'subsumption' relation: a less specific (more abstract) feature structure subsumes (\subset) a more specific one.¹⁰ This can be supported by the simple fact that the fronted predicate cannot bear any tense information:

- (38) *talli-ess-ki-nun, Mimi-ka talli-ess-ta
 run-PST-NMLZ-TOP Mimi-NOM run-PST-DECL
 '(int.) As for running, Mimi ran.'

This semantic condition also holds with a stative predicate:

- (39) a. aphu-ki-nun Mimi-ka aphu-ta
 sick-NMLZ-TOP Mimi-NOM sick-DECL
 'As for being sick, Mimi is sick.'
 b. ton-i manh-ki-nun Mimi-ka (ton-i)
 money-NOM much-NMLZ-TOP Mimi-NOM money-NOM
 manh-ta
 much-DECL
 'As for having a lot of money, Mimi has a lot of money.'

The fronted predicate in (39a) describes the general situation of being sick while the following comment clause describes a subset of this being-sick situation where Mimi is a member. In (39b), the comment clause is a subset of the set for the situation of having a lot of money.

We suggest that these morphological constraints on the fronted predicate as well as the semantic relations are constructional constraints,

¹⁰ As a reviewer suggests, this can be interpreted as an entailment relationship. That is, there is a downward entailment relationship: the situation of someone's running denoted by the predicate topic downward-entails the situation of Mimi's running denoted by the comment clause.

as represented in the following:

- (40) Predicate Topic Construction in Korean (\uparrow *hd-filler-topic*):

$$\left[\begin{array}{l} \textit{pred-topic-cxt} \\ \text{IND } e2 \supset e1 \end{array} \right] \rightarrow \left[\begin{array}{l} \text{IND } e2 \\ \text{NOMINAL +} \\ \text{CONTRAST +} \\ \text{SUBJ } \langle \text{XP} \rangle \end{array} \right], \text{S} \left[\begin{array}{l} \text{GAP } \langle \text{IV(P)} \rangle \\ \text{IND } e1 \end{array} \right]$$

As specified here, the language particular constructional constraint thus ensures that the topic bears nominal morphology even though it refers to a situation that the verbal predicate denotes. An individual language may have slightly different constraints on the topic. For instance, the Korean Predicate Topicalization requires the fronted expression to be marked with nominal as well as topic morphology. This in turn means that examples like (41), headed not by a nominal affix *-ki* but by the bound noun *kes*, are not taken to be predicate topic even though it is marked with the topic marker *-nun*.

- (41) a. sakwa-nun kaul-i ceychel-i-ta
 apple-TOP fall-NOM good.season-COP-DECL
 ‘As for apples, autumn is a good season.’
 b. ppalli talli-n kes-un Mimi-i-ta
 fast run-MOD thing-TOP Mimi-COP-DECL
 ‘What ran fast is Mimi.’

The semantic constraint ensures that there is not only an aboutness relation between the predicate topic and the comment clause, but also a subsumption (entailment) relation. We have noted that in the lower clause, the object is omissible but when it occurs, it needs to match with the object in the predicate topic:

- (42) a. *Sakwa-lul mek-ki-nun, Mimi-ka photo-lul
 apple-ACC eat-NMLZ-TOP Mimi-NOM grapes-ACC
 mek-ess-ta
 eat-PST-DECL
 ‘*As for eating apples, Mimi ate grapes.’
 b. *ton-i manh-ki-nun Mimi-ka kum-i
 money-NOM much-NMLZ-TOP Mimi-NOM gold-NOM

manh-ta
much-DECL
'*As for having a lot of money, Mimi has a lot of gold.'

The semantic subsumption relation could rule out such examples.

However, we have noted that in genus-species examples, the objects can differ:

- (43) ?kwail-ul mek-ki-nun Mimi-ka sakwa-lul mek-ess-ta
fruit-ACC eat-NMLZ-TOP Mimi-NOM apple-ACC
eat-PST-DECL
'As for eating fruits, Mimi ate apples.'

We have seen that in such examples, the predicate topic refers to more a general situation than the situation denoted by the lower clause. That is, the situation denoted by the comment clause can be a subset of the situation referred by the predicate topic. That is, the situation of reading books is more general than the situation of reading novels. Given that such an example is possible, we may assume that when the resumptive GAP value is a VP, its object NP need not be identical but can be a subset relation: apples are a type of fruits. This semantic relation is what the Predicate Topicalization Construction has as its own constructional constraint.

4.3. Other Related Constructions

This resumptive account, as noted earlier, may predict examples with an pro-verb *ha-* in the lower clause:

- (44) talli-ki-nun Mimi-ka ha-yess-ta
run-NMLZ-TOP Mimi-NOM do-PST-DECL
'As for running fast, Mimi did.'

The verb *ha-* 'do' in this usage can refer to the activity of running. As a way of dealing with such an example, we can allow the verb *ha-* also introduces a GAP value, but its syntactic and semantic value can be underspecified but matches with the fronted predicate *talli-* 'run'.

As pointed out by a reviewer, Korean also has an pro-verb *kulaha-* 'do so' (see Park (2007) for detailed discussion):

- (45) Mimi-ka talli-ess-ko, Momo-to kuliha-yess-ta.
 Mini-NOM run-PST-CONJ Momo-also do.so-PST-DECL
 'Mimi ran, and Momo did so too.'

Note that *kulay-* is a pro-VP, as illustrated by the following (see Park 2007 and references therein):

- (46) a. Mimi-kas akwa-lul mek-ess-ko, Momo-to
 Mimi-NOM apple-ACC eat-PST-CONJ Momo-also
 kulay-ss-ta
 do.so-PST-DECL
 b. *Mimi-ka sakwa-lul mek-ess-ko, Momo-to
 Mimi-NOM apple-ACC eat-PST-CONJ Momo-also
 sakwa-lul kulay-ss-ta
 apple-ACC do.so-PST-DECL

One key difference between the use of *ha-* in the predicate topicalization and the pro-VP *kulay-* is that only the former is used as a resumptive expression evoking GAP value. This is why we have a contrast like the following:

- (47) a. *Mimi-ka talli-ess-ko, Momo-to ha-yess-ta.
 Mimi-NOM run-PST-CONJ Momo-also do-PST-DECL
 '(int.) Mimi ran, and Momo did so too.'
 b. Mimi-ka mek-ess-ko, Momo-to kulay-ss-ta
 Mimi-NOM eat-PST-CONJ Momo-also do.so-PST-DECL

Since the GAP value of *ha-* needs to be bound in the same sentence level, it cannot be linked to one in the different conjunct. Meantime, *kulay-* is an anaphoric pro-VP evoking no GAP value.¹¹

There are some related differences between the two. As seen from the following, *ha-* can refer to the preceding verb, but not *kulay-*:

- (48) a. *Mimi-ka mek-ki-nun kulay-ss-ta
 Mimi-NOM eat-NMLZ-TOP do.so-PST-DECL

¹¹ This is why the semantic relationship between the predicate topic and the comment clause also needs to be local (intrasentential), as also pointed out by Cable (2004).

‘Mimi ate, but ...’

- b. *Mimi-ka mek-ki-nun kulay-ss-ta
Mimi-NOM eat-NMLZ-TOP do.so-PST-DECL

This difference is carried over to the predicate topic constructions:

- (49) a. talli-ki-nun Mimi-ka ha-yess-ta
run-NMLZ-TOP Mimi-NOM do-PST-DECL
‘As for running, Mimi did.’
b. *talli-ki-nun Mimi-ka kulay-ss-ta
run-NMLZ-TOP Mimi-NOM do.so-PST-DECL
‘As for running, Mimi did so.’

These difference also have to do with the fact that *ha-* has a resumptive use referring to the predicate in the same clause while *kulay-* is a pro-VP referring to an antecedent outside the clause.

The following also illustrates the behavior of *ha-* in the predicate topicalization:

- (50) a. mek-ki-nun, Mimi-ka ha-yess-ta
eat-NMLZ-TOP Mimi-NOM do-PST-DECL
‘As for eating, it is Mimi who did so.’
b. *mekki-nun, Mimi-ka sakwa-lul ha-yess-ta
eat-NMLZ-TOP Mimi-NOM apple-ACC do-PST-DECL
c. sakwa-lul mekki-nun, Mimi-ka ha-yess-ta
apple-ACC at-NMLZ-TOP Mimi-NOM do-PST-DECL
d. *sakwa-lul mek-ki-nun, Mimi-ka sakwa-lul
apple-ACC eat-NMLZ-TOP Mimi-NOM apple-ACC
ha-yess-ta
do-PST-DE

The badness of the examples in (50b) and (50d) has to do with the intransitive use of the resumptive verb *ha-*. It cannot combine with an object, as further supported by the so-called EVC (echo verb construction).¹² Consider the following:

¹² For the detailed discussion of the construction, see, among others, Nishiyama and Cho 1998, Cho and Kim 2002, Jo 2003.

- (51) a. Mimi-ka chayk-ul ilk-ki-nun ilk-ess-ta
 Mimi-NOM book-ACC read-NMLZ-TOP
 read-PST-DECL
 'Mimi read the book, but...'
 b. Mimi-ka chayk-ul ilk-ki-nun ha-yess-ta
 Mimi-NOM book-ACC read-NMLZ-TOP do-PST-DECL
 'Mimi read the book, but...'
- (52) a. ?Mimi-ka chayk-ul ilk-ki-nun chayk-ul
 Mimi-NOM book-ACC read-NMLZ-TOP book-ACC
 ilk-ess-ta
 read-PST-DECL
 'Mimi read the book, but ...'
 b. *Mimi-ka chayk-ul ilk-ki-nun chayk-ul
 Mimi-NOM book-ACC read-NMLZ-TOP book-ACC
 ha-yess-ta
 read-PST-DECL
 'Mimi read the book, but ...'

What we can see from the (a) examples is that a V or VP can be echoed (repeated). When a V is echoed as in (51a), the V can be replaced by *ha-*. However, this substitution is not possible with the presence of the object as in (52b). As seen here, the EVC appears to be quite similar to the Predicate Topicalization, but there are several key differences. Compare the following:

- (53) a. Mimi-ka o-ki-nun o-ass-ta
 Mimi-NOM come-NMLZ-TOP come-PST-DECL
 'Mimi came, but...'
 b. o-ki-nun Mimi-ka o-ass-ta
 come-NMLZ-TOP Mimi-NOM come-PST-DECL
 'Mimi came, but...'

As seen from the data, we could observe some key differences between the Predicate Fronting and the EVC. The marker *nun* in the EVC is not a topic marker but a contrastive one, inducing a negative implicature (Nishiyama and Cho 1998, Lee 2002, Cho and Kim 2002). That is, (52) implies that Mimi ran, but there is some negative result from this running.

No such implicature can be found in the Predicate Fronting. As seen from the gloss, in the Predicate Fronting, it is the subject *Mimika* that is focus. There is no cleft like meaning. In the predicate fronting, the comment clause includes a focus expression, similar to the clefting one. Meanwhile, in the EVC, it is the running activity that is in the focus.

5 Conclusion

In this paper, we discussed the key properties of predicate topicalization in languages like Yiddish, Hebrew, and Korean. One intriguing property of the construction is that it involves a process of doubling one predicate in the left peripheral and in the lower clause. The one in the left peripheral position functions as a contrastive topic, as evidence from its morpho-syntactic and discourse properties. The construction also involves long-distance dependency relations, which may motivate movement and spell-out operations as suggested by the previous literature. However, the paper noted that data including genus-species examples, grammatical properties involving semantics of the construction, and discourse functions all argue against such directions.

The paper offers a construction-based approach that can avoid issues arising from movement and spell-out operations. After discussing the properties of three main types of topic construction (aboutness, contrastive, and scene-setting), the paper suggests that the Predicate Topic Construction is a subtype of the Head-Filler as well as the Head-Topic Construction. Any stative or nonstative verb (but neither auxiliary nor copula verb) can function as a resumptive expression introducing a GAP value with a constraint on its IND value. Interacting with the constructional constraints on the family of constructions including the Predicate Topic Construction, this allows us to license simple (V) as well as complex (VP) predicate topicalization examples.

We have seen that this construction-based approach can account for basic as well as complex predicate topic constructs (sentences). It also predicts the possibility of genus-species examples, and addresses the semantic relation of the topic with the lower clause as well as its discourse constraints.

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Received: August 21, 2019.
Revised: September 23, 2019.
Accepted: September 27, 2019.