

Acategorial licensing of internal arguments in Korean

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1 Introduction

Event structure is the necessary prerequisite for argument structure (AS). Without event structure (ES), it is not possible to license arguments (Grimshaw 1990).

- ES is a relatively uncontroversial property associated with verbal predicates, but is much more restricted for the nominal domain.
- Only process nominals (or Complex Event Nominals; CENs) are shown to have the capacity to license arguments, given diagnostics that target sensitivity to Lexical Aspect (Aktionsart; Vendler 1967), such as:
 - Event modification, agent-oriented modifiers, manner adjectives, temporal modifiers, implicit argument control (Grimshaw 1990; Borer 2003).
- For example, compare across Complex Event Nominals (CENs) (1a), Simple Event Nominals (SENs) (1b–1c), and Referential Nominals (RNs) (1d) in their ability to host the event modifier *FREQUENT*.

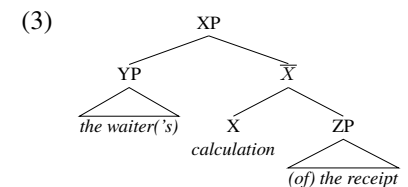
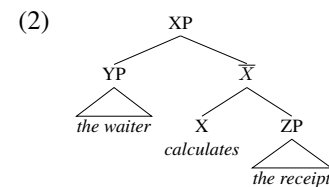
- (1) a. A waiter's frequent calculation of receipts is just part of the job.
b. *The frequent exam was starting to get exhausting.
c. The frequent exams were starting to get exhausting.
d. ?I really like getting to see the frequent cats that come by to visit.

1.1 Syntactic representations of process nominals

- Many process nominals/CENs in well-studied European languages have clear deconstruct-able morphology suggesting embedded verbal material.
- They are often referred to by names that imply verbal origin and a derivational history: nominalizations, 'derived' nominals, de-verbal nominals, etc.

Chomsky (1970) on derived nominals in English: nominals and sentences are parallel, but distinct. There is some relationship between the noun form *calculation* and the verb

form *calculate* in the lexicon, but the syntactic structures of the nominal and the verb phrase are generated independently.



Contemporary approaches within the generative tradition however, have shifted toward structural accounts of predicates and argument licensing (Kratzer 1996; Harley 1995, 2009; Borer 2013).

- Leading to the development of syntactic frameworks that look to do away with a Lexical component entirely.
- Distributed Morphology (DM), for example, minimizes the extent of the lexicon down to just lists of form-meaning pairings (Halle & Marantz 1993).

In a structural approach to argument structure, everything is done compositionally. Therefore, the difference between process nominals and other nominals that lack AS must have a structural source.

- For many accounts, the structural source of this difference is attributed to the presence or absence of a verbal syntactic layer (Borer 2003, 2013; Alexiadou 2010a,b).
- When it comes to process nominals cross-linguistically, researchers have had reason to point toward the presence of some verbal layer embedded within the construction (Hazout 1995; Alexiadou & Rathert 2010; Fu et al. 2001).
- However, a ready counter-evidence to this hypothesis has been identified in Korean (Yoon & Park 2008; C-W. Park 2013; J. Yoon 2022): “Verbal Nouns” (VNs).

2 Korean “Verbal Nouns” (VNs)

The paradigm: The empirical focus of the analysis considers a class of Sino-Korean predicates in Korean, often called VNs. There are three possible constructions that VNs appear in:

- Heading a process nominal construction (4); as a complex predicate in combination with a light verb (5); and as the internal argument of a main verb (6).

- (4) 연구원의 동굴 (의) 탐구
yengwuwen-uy tongwul(-uy) thamkwu
 researcher-GEN cave(-GEN) explore
 ‘the researcher’s exploration of the cave’
- (5) 연구원이 동굴을 탐구했다
yenkwuwen-i tongkwul-ul thamkwu-ha-yss-ta
 researcher-NOM cave-ACC explore-do-PST-DECL
 ‘The researcher explored the cave.’
- (6) 연구원이 동굴을 탐구를 했다
yengwuwen-uy tongwul-ul thamkwu-lul ha-yss-ta
 researcher-NOM cave-ACC explore-ACC do-PST-DECL
 ‘The researcher explored the cave.’

VNs have received a lot of attention from researchers of Korean and Japanese syntax (Grimshaw & Mester 1988; H-R. Chae 1996, 1997; J-S. Jun 2003, 2006, among others).

- The term “verbal noun” is representative of the observation that these lexical items, like verbs, have event structure and take thematic arguments, but yet seem somehow fluid in their categorical label.
 - In some contexts VNs appear within a purely nominal construction, i.e. (4), while in other contexts instead create part of a verbal predicate (5).
 - the “double accusative” construction (6) adds an additional puzzle, where both the VN and its thematic argument seem to be arguments of the light verb itself.
- Yoon & Park (2008) argue that VNs violate *phrasal coherency*. Nonetheless, they have argument structure: they categorically pass all Grimshaw (1990) diagnostics for AS, while other Korean nominals categorically fail.
- Rather than throw phrasal coherency away, Yoon & Park (2008) argue that Korean VNs do not demonstrate VP phrasal coherency because they lack a verbal category entirely.

Phrasal coherency (Yoon & Park 2008; Borer 2003)

Highest verbal property	Case licensing
↑	Argument licensing, event structure
Lowest verbal property	VP pro-forms, VP adverbs

- Korean VNs denote an event, and have aspectual qualities (in the Aktionsart sense) that can be targeted for modification (Yoon & Park 2008):
 - eventive modifiers (7), agent-oriented modifiers (8), manner adjectives (9), or temporal modification (10).
- (7) a. 직원의 잦은 공금 (의) 횡령
cikwen-uy cac-un kongkum(-uy) hoynglyeng
 worker-GEN frequent-ADJ fund(-GEN) embezzle
 ‘the worker’s frequent embezzlement of funds’
- b. 연구원의 끊임없는 동굴 (의) 탐구
yenkwuwen-uy kkunhim.eps-nun tongkwul(-uy) thamkwu
 researcher-GEN constant-ADJ cave(-GEN) explore
 ‘the researcher’s constant exploration of the cave’
- (8) a. 연구원의 계획적인 / 굳센 동굴 (의) 탐구
yenkwuwen-uy kyeyhwoekceki-n/kwutsey-n tongkwul(-uy) thamkwu
 researcher-GEN deliberate-ADJ/steadfast-ADJ cave(-GEN) explore
 ‘the researcher’s deliberate/steadfast exploration of the cave’
- b. 사장의 부주의한 / 의심스러운 증거 (의) 은폐
sacang-uy pwucwuuyha-n/uysimsulewu-n cungke(-uy) unphyey
 boss-GEN careless-ADJ/suspicious-ADJ evidence(-GEN) conceal
 ‘the boss’ careless/suspicious concealment of evidence’
- (9) 아인슈타인의 빠른 / 느린 빛의 속도 (의) 계산
ainsyuthain-uy ppal-un/nuli-n [pich-uy sokto](-uy) kyeysan
 Einstein-GEN quick-ADJ/slow-ADJ [light-GEN speed](-GEN) calculate
 ‘Einstein’s quick/slow calculation of the speed of light’
- (10) 연구원의 2 년 동안의 동굴 (의) 탐구
yenkwuwen-uy i.nyen tongan-uy tongkwul(-uy) thamkwu
 researcher-GEN two.year duration-GEN cave(-GEN) explore
 ‘the researcher’s exploration of the cave for two years’
- Though there has historically been much debate about the category of VNs (see Park 2013 and citations therein), the facts are clear:

- VNs are ‘hybrid’ in the precise way in which process nominals/CENs are characterized: having event structure and arguments, while lacking any verbal syntax at all (Yoon & Park 2008).
- The external syntax of VN process nominals is *ONLY* nominal; no sentential cases or adverbials are allowed (11–12).

- (11) 연구원의 끊임없는/*이 동굴 탐구는 ...
 [DP yenkwuwen-uy kkunhi.m.eps-**nun**/*-i tongkwul thamkwu]-nun
 [DP researcher-GEN constant-**ADJ**/*-**ADV** cave explore]-TOP
 ‘The researcher’s constant exploration of the cave (...was tiring/etc.)’

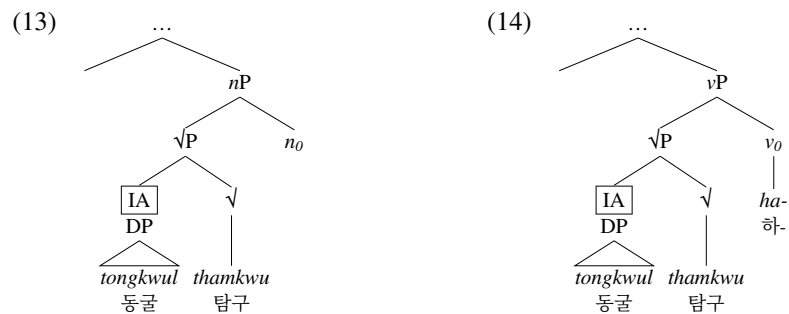
- (12) a. 연구원의 동굴 (의) 탐구는 ...
 [DP yenkwuwen-uy tongkwul(-uy) thamkwu]-nun
 [DP researcher-GEN cave(-GEN) explore]-TOP
 b. * 연구원이 동굴을 탐구는 ...
 [DP yenkwuwen-i tongkwul-ul thamkwu]-nun
 [DP researcher-NOM cave-ACC explore]-TOP
 ‘The researcher’s constant exploration of the cave (...was tiring/etc.)’

- This conclusion indicates that contemporary structural theories of AS which contribute the ability to license arguments to the presence of verbal material, are not entirely adequate to capture the full cross-linguistic picture.

3 Two possible structural analyses

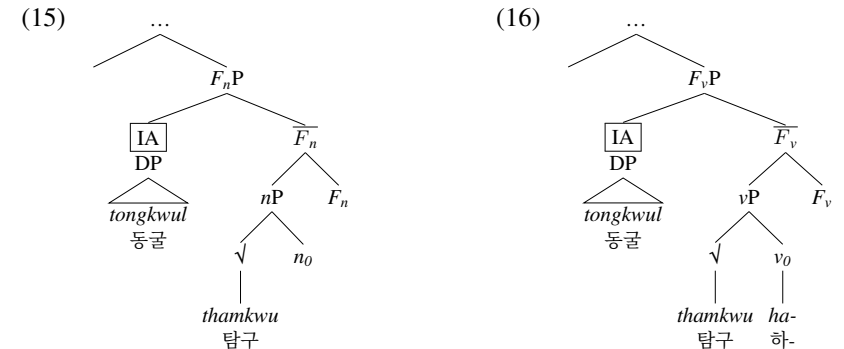
Hypothesis 1

The internal argument (IA) is introduced prior to any category heads at all.



Hypothesis 2

There is both a verbal functional head which introduces an IA, *and* a nominal one.



3.1 Hypothesis 1: the √P (Harley 2014)

- The √P hypothesis, motivated in Harley (2014), commits to Roots as elements that are not entirely bleached of syntactic relevance; they introduce their own complement directly.

The process nominals discussed in Section 2 prove that whatever the property necessary for AS is, it is *NOT* verbal.

- But, does that mean that the property necessary for AS is nominal? No.
- *X-ha-* forms are crucially NON-nominal, no matter what surface position the IA sits in (17–19). All nominal modification and nominal cases are disallowed.

- (17) 연구원이 동굴을 끊임없이/*는 탐구했다
 yenkwuwen-i tongkwul-ul kkunhi.m.eps-i/*-nun thamkwu-ha-yss-ta
 researcher-NOM cave-ACC constant-ADV/*-ADJ explore-do-PST-DECL
 ‘The researcher tirelessly/continuously explored the cave.’
- (18) 연구원이 끊임없이/*는 동굴(을) 탐구했다
 yenkwuwen-i kkunhi.m.eps-i/*-nun tongkwul(-ul) thamkwu-ha-yss-ta
 researcher-NOM constant-ADV/*-ADJ cave(-ACC) explore-do-PST-DECL
 ‘The researcher tirelessly/continuously explored the cave.’
- (19) 연구원이 두 번 (*의) 동굴 (*의) 탐구했다
 yenkwuwen-i twu pen(*-uy) tongkwul(*-uy) thamkwu-ha-yss-ta
 researcher-NOM two times(*-GEN) cave(*-GEN) explore-do-PST-DECL

- By the same logic in which verbal material was ruled out for the VN process nominal constructions, we also rule out nominal material for the *X-ha-* constructions.
- Whatever the property necessary for AS is, therefore, is also *NOT* nominal.

We've now seen that the necessary property for AS to be available is not verbal, nor is it nominal. What's left?

- The only thing consistent across each of these structures is the root; i.e. the VN itself.
- ⇒ **It is the Root which creates the possible conditions for argument structure.** (As represented in Hypothesis 1)

3.2 Against an alternative; Hypothesis 2

Ruling out Hypothesis 2 really comes down to pinpointing the originating base position of the internal argument.

- In both the process nominal and complex predicate constructions utilizing VNs, we see differential case marking (DCM) (Bossong 1985, 1991; Aissen 2003) on the direct object, sensitive to its position in the structure.
- DCM in Korean is not exclusive to VN constructions – it occurs for native predicates as well.
- DCM has been identified and investigated in Korean (E-S. Ko 2000; H-J. Lee 2005, 2006a,b; T-H. Kim 2008; S-N. Kwon & Zribi-Hertz 2008; E-S. Chung 2020), and has been cross-linguistically observed to track animacy, definiteness, and/or other dimensions of prominence (Aissen 2003).
- While Korean does not appear to have DCM fully grammaticalized as a categorical distinction between objects, the language does reflect a clear preference for which environments seem to make case drop acceptable, following the anticipated cross-linguistic patterns.

There are two possible positions for the internal argument as either directly adjacent to the predicate (20a), or higher, above adverbial modification (20b).

- (20) a. 직원이 자주 공금 (을) 횡령했다
cikwen-i cacwu kongkum(-ul) hoynglyeng-ha-yss-ta
 worker-NOM frequently fund(-ACC) embezzle-do-PST-DECL
 'The worker frequently embezzled (the) funds.'
- b. 직원이 공금 *(을) 자주 횡령했다
cikwen-i kongkum(-ul) cacwu hoynglyeng-ha-yss-ta*
 worker-NOM fund*(-ACC) frequently embezzle-do-PST-DECL
 'The worker frequently embezzled the funds.'

- The presence of ACC case is mediated by this positional variation: in the low position, ACC is variably able to be dropped; in the higher position, ACC is *obligatory*.
- The exact same phenomenon is observed in the process nominals:
 - In (21a), the internal argument directly precedes the VN, and in this position GEN is possible, but dis-preferred.
 - In (21b), in contrast, the internal argument is licensed higher, above adjectival modification, and in this position GEN case is required.

- (21) a. 직원의 잦은 공금 (의) 횡령
cikwen-uy cac-un kongkum(-uy) hoynglyeng
 worker-GEN frequent-ADJ fund(-GEN) embezzle
 'the worker's frequent embezzlement of funds'
- b. 직원의 공금 *(의) 잦은 횡령
cikwen-uy kongkum(-uy) cac-un hoynglyeng*
 worker-GEN fund*(-GEN) frequent-ADJ embezzle
 'the worker's frequent embezzlement of the funds'

The object shift phenomenon shows us that the internal argument *originates in a lower position* that is directly adjacent to the VN.

- Regardless of whatever case mechanism is assumed, the IA must move from a lower base position to a higher one in order to interact with higher syntactic mechanisms, as diagnosed by its position with respect to modifiers.
- Recalling the earlier discussion on phrasal coherency, the initial base position of the IA is syntactically *lower* than the lowest property associated with the verbal or nominal domain respectively.

4 Conclusion

Theoretical consequences:

- For Sino-Korean predicates (VNs)— and any predicates that lack clear categorizing morphology— root categorization is **not** required as a prerequisite to building AS on top of the predicate.
- The establishment of an unambiguously 'verbal flavor' or 'nominal flavor' of a construction occurs later than the building of argument structure in the time course of the syntactic derivation, crucially after (minimally) the introduction of the internal argument.
- Introducing an IA is not a property of "verbs", but rather a property of ROOTS. (Harley 2014)

- Roots are, then, not entirely bleached items that simply index forms to meanings, against the strictly Distributed Morphology (DM) notion of roots.

What makes loan words so helpful here?

Loan words lack overt morphology, and resist combination with native categorizing morphemes, and so they provide us with a magnifying glass to understand the nature of AS when the confound of categorizing morphology is absent.

The question of whether overt category morphology is present for a given predicate is ultimately an orthogonal question to whether argument structure is available and possibly contingent on root class, i.e. loan roots vs. native roots.

- It is striking to note that there are English zero-derived predicates which have possible process nominal interpretations (e.g. RELEASE, DISCHARGE, USE; predicates with a single form used in both the nominal and verbal domains), and these tend to be borrowed Latinate/French roots (Alexiadou 2009).

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Appendix

More data on loan roots vs. native roots:

- (22) 서린이가 날씨가 좋았다고 말했다
Selini-ka [_{CP} *nalssi-ka coh-ass-ta.ko*] *mal-ha-yss-ta*
 Seoleen-NOM [_{CP} weath-NOM good-PST-DECL] word-do-PST-DECL
 ‘Seoleen said that the weather was nice.’
- (23) 서린이가 사실을 말했다
Selini-ka [_{DP} *sasil*]-ul *mal-ha-yss-ta*
 Seoleen-NOM [fact/truth]-ACC word-do-PST-DECL
 ‘Seoleen said the truth/the fact.’

- (24) ? 서린이가 사실을 말을 했다
Selini-ka [*sasil*]-ul [*mal*]-ul *ha-yss-ta*
 Seoleen-NOM [fact/truth]-ACC [word]-ACC do-PST-DECL
 Intended: ‘Seoleen said the truth/the fact.’
- (25) 동굴이 탐구됐다
tongkwul-i *thamkwu-twoy-yss-ta*
 cave-NOM explore-become-PST-DECL
 ‘The cave got explored.’
- (26) 공금이 횡령됐다
kongkum-i *hoynglyeng-twoy-yss-ta*
 fund-NOM embezzle-become-PST-DECL
 ‘The funds got embezzled.’
- (27) * 사실이 말됐다
 [*sasil*]-i *mal-twoy-yss-ta*
 [truth/fact]-NOM word-become-PST-DECL
 Intended: ‘The truth/fact got said.’

More on double accusative constructions:

- (28) 연구원이 동굴을 탐구를 했다
yengwuwen-uy tongwul-ul *thamkwu-lul* *ha-yss-ta*
 researcher-NOM cave-ACC explore-ACC do-PST-DECL
 ‘The researcher explored the cave.’
- (29) 니코가 한영(의) 손을 잡았다
Nikho-ka [*Hanyeng(-uy)* *son*]-ul *cap-ass-ta*
 Niko-NOM [Hanyoung(-GEN) hand]-ACC grab-PST-DECL
 ‘Niko grabbed Hanyoung’s hand.’
- (30) 니코가 한영을 손을 잡았다
Nikho-ka [*Hanyeng*]-ul [*son*]-ul *cap-ass-ta*
 Niko-NOM [Hanyoung]-ACC [hand]-ACC grab-PST-DECL
 ‘Niko grabbed Hanyoung’s hand.’