The syntactic and semantic introduction of internal arguments

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BIG QUESTION: What is the nature of internal argument introduction?

OVERVIEW

There are **two distinct base positions** to generate an internal argument (**IA**) of an eventive predicate.

- Different Roots (√) involved in Korean complex predicate formation create **two distinctly different structures**, dependent on whether the Root itself has event structure (ES) that semantically encodes an undergoer event participant. (Ramchand 2008)
- One type is built using a √P structure, with the Root taking the IA as its complement. (Harley 2014)
- A second type is one where the IA is introduced as a specifier of a verbal functional projection (F_v).

BACKGROUND

What syntactic objects can host thematic arguments?

Without event structure (ES), argument structure (AS) is not possible (Grimshaw 1990).

- ES is uncontroversially associated with verbal predicates, but is much more restricted for the nominal domain.
- Only process nominals are shown to have AS, given diagnostics that target sensitivity to Aktionsart, such as: event modification, agent-oriented modifiers, manner adjectives, temporal modifiers, implicit argument control. (Grimshaw 1990; Borer 2003; Vendler 1967).

Syntactic representations of process nominals vs. verb phrases

Lexicalist vs. Structural: Under a Lexicalist approach, process nominals do not inherit any syntactic structure from the related verb, only the thematic grid (e.g. Chomsky 1970; Jackendoff 1975).

In a Structural approach to AS, everything is done compositionally (Kratzer 1996; Harley 1995, 2009; Borer 2013). This requires the difference between process nominals and other nominals that lack AS to have a structural source.

- This difference is often attributed to presence/absence of a verbal syntactic layer. (Borer 2003, 2013; Alexiadou 2010a,b)
- Investigation of nominalizations in many languages has found that verbal layers must be embedded within a nominal in order for event participant arguments to be realized in the nominal domain (Alexiadou 2009, Fu et al. 2001).

THEORETICAL CONSEQUENCE

Non-verbal AS:

Not all argument introduction is contingent on the presence of verbal structure: there is one semantically constrained place where an **IA can be introduced as a complement to a Root.**

- It follows that verbal structure is not inherently required for all argument introduction. If a Root, however, lacks the inherent semantics needed to introduce an IA, then verbal structure provides an alternative way to introduce one.

Roots live a syntactic life:

'Root' is a syntactic category that projects a phrase. Introducing an IA is not an exclusive property of 'verbs', but also a property of Roots (Harley 2014); Roots that are eventive (i.e. have Aktionsart) introduce their internal argument, if they have one, directly.

- This characterization departs from the more traditional Distributed Morphology (DM) notion of Roots (Halle & Marantz 1993, Embick & Marantz 2008), both in the syntactic capabilities awarded to Roots and in the amount of semantic information encoded in their lexical entries.

Selected references. Alexiadou 2009. *Quantification, definiteness, and nominalization*, OUP. // Alexiadou 2010a. *Language and Linguistics Compass*. // Alexiadou 2010b. *Language and Linguistics Compass.* // Borer 2003. *The Nature of Explanation in Linguistic Theory*, CSLI. // Borer 2013. *Structuring sense, volume III*, OUP. // Chae 1996. *Language Research.* // Chae 1997. *Language Research.* // Chomsky 1970. *Readings in English Transformational Grammar*, Ginn. // Embick & Marantz 2008. *Linguistic inquiry*. // Fu et al 2001. *Natural Language & Linguistic Theory*. // Grimshaw 1990. *Argument structure*. MIT Press. // Grimshaw & Mester 1988. *Linguistic inquiry.* // Halle & Marantz 1993. *The view from Building*, MIT Press. // Harley 1995. MIT dissertation. // Harley 2009. *Quantification, definiteness and nominalization*, OUP. // Harley 2014. *Theoretical Linguistics*. // Jackendoff 1975. *Language*. // Jun 2003. Brandeis University dissertation. // Jun 2006. *Language Research*. // Kratzer 1996. *Phrase structure and the lexicon*, Dordrecht. // Ramchand 2008. *Verb meaning and the lexicon: A first-phase syntax*, CUP. // Vendler 1967. *The Journal of Philosophy*. // Yoon & Park 2008. *Japanese/Korean Linguistics 13*, CSLI.

DATA

Korean complex predicates utilize a light verb in combination with another element— depending on the nature of the this pre-verbal element, these predicates form two cohesive classes based on syntactic behavior. One type is built from eventive Roots ('Verbal Nouns'; Grimshaw & Mester 1988; Chae 1996, 1997; Jun 2003, 2006; etc.), while the other is built from non-eventive Roots.

Eventive Roots appear in three constructions:

◆ As part of a complex predicate:

(1) *yenkwuwen-i **tongkwul**-ul cacu **thamkwu**-ha-yss-eyo*
researcher-NOM **cave**-ACC frequent.ADV **explore**-do-PST-DECL
"The researcher frequently explored the cave."

◆ Heading a process nominal construction:

(2) *yenkwuwen-uy cac-un **tongkwul**(-uy) **thamkwu***
researcher-GEN frequent-ADJ **cave**(-GEN) **explore**
"The researcher's frequent exploration of the cave"

◆ As the object of the verb "do", with a double ACC variation, or with the IA marked GEN:

(3) *yenkwuwen-i* [***tongkwul***(*-uy*) ***thamkwu***]*-lul cacu ha-yss-eyo*
researcher-NOM [**cave**(-GEN) **explore**]-ACC frequent.ADV do-PST-DECL

(4) *yenkwuwen-i* [***tongkwul***]*-ul* [***thamkwu***]*-ul cacu ha-yss-eyo*
researcher-NOM [**cave**]-ACC [**explore**]-ACC frequent.ADV do-PST-DECL
"The researcher continuously explored the cave."

Non-eventive Roots can only appear in one:

◆ As part of a complex predicate:

(5) *Cwuni-ka **mwuncang**-ul cacu **mal**-ha-yss-eyo*
Juni-NOM **sentence**-ACC frequent.ADV **word**-do-PST-DECL
"Juni said the sentence loudly."

◆ **Cannot** head a process nominal construction:

(6) * *Cwuni-uy cac-un **mwuncang**(-uy) **mal***
Juni-GEN frequent-ADJ **sentence**(-GEN) **word**
Intended: "Juni's frequent saying of the sentence"

◆ **Cannot** be the object of the verb "do", with either double ACC or with the IA marked GEN:

(7) * *Cwuni-ka* [***mwuncang***(*-uy*) ***mal***]*-ul cacu ha-yss-eyo*
Juni-NOM [**sentence**(-GEN) **word**]-ACC frequent.ADV do-PST-DECL

(8) * *Cwuni-ka* [***mwuncang***]*-ul* [***mal***]*-ul cacu ha-yss-eyo*
Juni-NOM [**sentence**]-ACC [**word**]-ACC frequent.ADV do-PST-DECL
Intended: "Juni said the sentence frequently."

The external syntax (2) is **exclusively nominal**, while the external syntax of (1) is **exclusively verbal**. Process nominals built from these Roots, like (2), do not have any verbal structure. (Yoon & Park 2008)

- The only thing consistent across each of these structures (1-2) is the Root, indicating that it is the presence of **the Root itself** which **creates the possible conditions for argument structure.**

Unlike the eventive Roots in (1-4), the IA of a complex predicate built from a **non-eventive Root** can only be supported by **verbal structure**, given the ungrammaticality of (6).

Differential object marking (DOM) in Korean helps to diagnose height of the IA for each predicate type.

◆ DOM in the verbal domain:

(9) *cikwen-i cacu **kongkum**(-ul) **hoynglyeng**-ha-yss-eyo*
worker-NOM frequent.ADV **fund**(-ACC) **embezzle**-do-PST-DECL

(10) *cikwen-i **kongkum***(-ul) cacu **hoynglyeng**-ha-yss-eyo*
worker-NOM **fund***(-ACC) frequent.ADV **embezzle**-do-PST-DECL
"The worker frequently embezzled (the) funds."

◆ DOM in the nominal domain:

(11) *cikwen-uy cac-un **kongkum**(-uy) **hoynglyeng***
worker-GEN frequent-ADJ **fund**(-GEN) **embezzle**

(12) *cikwen-uy **kongkum***(-uy) cac-un **hoynglyeng***
worker-GEN **fund***(-GEN) frequent-ADJ **embezzle**
"The worker's frequent embezzlement of (the) funds"

The distribution of ACC case found in (9-12) **is not replicable** with predicates built from non-eventive Roots.

(13) *Cwuni-ka **mwuncang***(-ul) cacu **mal**-ha-yss-eyo*
Juni-NOM **sentence***(-ACC) frequent.ADV **word**-do-PST-DECL

(14) *Cwuni-ka cacu **mwuncang***(-ul) **mal**-ha-yss-eyo*
Juni-NOM frequent.ADV **sentence***(-ACC) **word**-do-PST-DECL
"Juni said (the) sentence frequently."

If all Roots were forced to have their IAs introduced exclusively by functional structure, we would lose the distinction between the two types observed above.

- We'd also be forced to posit a nominal *and* verbal flavor of an IA introducing functional projection, given **(1-2)**.

The DOM facts demonstrate empirically that structures built from eventive Roots have more space: the **IA originates in a low position**, linearly adjacent to the predicate.

- This low IA position is crucially **unavailable** for the **non-eventive Roots**.

The absence of this position correlates with the appearance of verbal structure to support the IA.

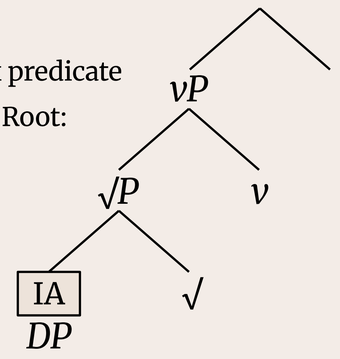
ANALYSIS

In contrast to the eventive Roots, **the non-eventive Roots cannot support an IA without the assistance of the verbal domain**, i.e. utilizing a verbal functional projection (F_v).

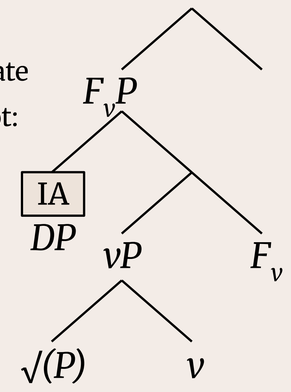
The difference between the two kinds of Roots is derived from **the availability of the √P structure**. The √P is available for only eventive Roots that semantically encode an undergoer event participant:

- Eventive Roots can **introduce IAs as complements** (15), so long as that IA is entailed by the ES.
- For predicates built out of non-eventive Roots, which lack ES and therefore never entail an event participant, **the IA is introduced higher** (16), by verbal structure, which explains why the non-derived process nominal construction is unavailable.

(15) Structure of a complex predicate built from an eventive Root:



(16) Structure of a complex predicate built from a non-eventive Root:



TAKEAWAY: There are two distinct base positions for an IA, differentiated empirically via complex predicates in Korean and the Roots at their core.