

*v*P Structure for Light Verb Constructions*

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Jung, Dukkyo. 2002. *v*P Structure for Light Verb Constructions. *The Linguistic Association of Korea Journal*, 10(2), 19–42. This paper examines the assumption that causativity/transitivity is syntactically represented as a 'cause' light verb generated independently of the main verb in a clause. It argues that *ha* in Light verb constructions and Psych verb constructions in Korean is an overt realization of the *v* head. *Ha/ci* alternation in Korean psych verbs makes a strong case for DO/BECOME meanings of *v*, whose semantic contribution is undetermined and contextualized and whose morphological realization is phonologically zero morpheme in English. For Korean, the absence of the class of denominal verbs like “water”, “paint”, “oil”, “hammer”, or “comb” in English, where they are alleged to be formed by conversion from noun to verb, is morphological evidence for this view. Further, this view is in favor of Harley’s (1995, 1999) claims that the BECOME *v* is in complementary distribution with CAUSE *v* and that non-stative events are always represented in a structure containing a *v*P. The study of Korean light verb constructions clarifies her suggestion that recognizing the complements of *v* (\sqrt{P}) as a predicative structure denoting events, things, or states helps to contextualize the interpretation of little *v* along with its determining environments.

Key words: light verb, psych verb, denominal verb

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1. Denotation of \sqrt{P} and v Head

Transitive/Unaccusative verb pairs have long been well-known syntactic examples supporting the need to posit a kind of "pre-deep structure level" of representation due to the semantic relationship between morphologically related forms as in Korean causative/non-causative pairs (for instance, *kwul-li* 'roll-Cause' vs. *kwulu-* 'roll') or the same morphological forms as in (1) below.

- (1) a. John opened the door / The door opened.
 b. John broke the window / The window broke.
 c. John grew the vegetables in the garden/ The vegetables grew in the garden.

Generative Semantics (Lakoff 1970, McCawley 1971, among others) attempted to derive one member of the pairs from the other. Simply speaking, John broke the window is assumed to be derived from John caused the window break in that the unaccusative *break* and its counterpart transitive *break* have the following semantic (or conceptual) structure:

- (2) unaccusative *break*: y come to be BROKEN
 transitive *break*: x cause (y come to be BROKEN)

In much of the recent work involving the transitive/unaccusative verb pairs (Bowers 1993, Hale & Keyser 1993, Chomsky 1996, Kratzer 1996, Collins 1997 among others), Larson's (1988) influential "VP-shell" analysis of ditransitive verbs has been extended to (mono)transitive verbs on the premise that the external argument is not assigned by the verb but by a projection selecting the (lower) VP. Following Hale and Keyser's (1993) suggestion that if intransitive (unergative) verbs are hidden transitives, then only unaccusatives lacking agents would have a simple VP structure, Chomsky (1996) assumes that vP is the projection in question, equivalent to the upper VP in Larson's, and that v -VP

configuration can be taken to express the causative or agentive role of the external argument. This addition of vP on top of the basic VP shell in the recent work in Distributed Morphology (Hale & Keyser 1991, 1993) or the Minimalist program of Chomsky (1996) has given an impression of a return to a Generative Semantics-style analysis of causative-inchoative alternations as illustrated above in (1). This is reminiscent of the 70's linguistic war between Generative Semantics and Chomsky's Interpretive Semantics.

Some syntactic structures linked to the transitive/unaccusative pairs, ironically, seem to defy Generative Semantics' generalization that the semantic relations between transitives and unaccusatives can be captured by simply involving a syntactic transformation (i.e., "Predicate Raising") before a lexical insertion. The nominalization of an alternating verb like "grow" does not allow an agentive interpretation, whereas that of a non-alternating verb like "destroy" does. This was noted by Chomsky (1970) and used as a counterexample against the Generative Semantics argument for the identity between the Deep structure and the semantic representation, as demonstrated below:

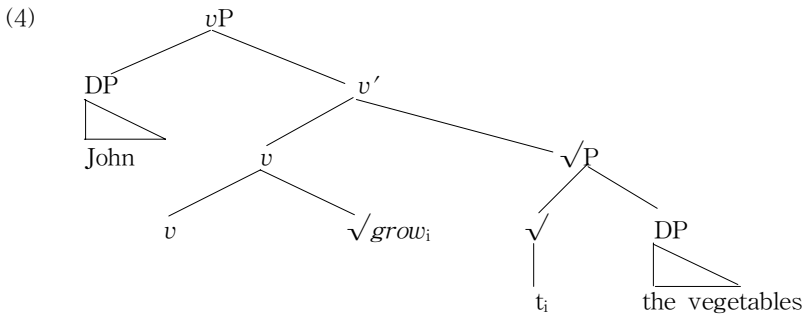
- (3) a. *John's growth of vegetables.
 b. The army's destruction of the city.

By arguing that the derivative nominals, which clearly are nouns found in surface structures, are not transformationally derived from verbs, but instead are inserted at deep structure as nouns, Chomsky (1970) proposes the Lexicalist Hypothesis for integrity of lexical items that syntactic transformations do not perform morphological derivation, but the latter belongs to the lexical component prior to syntactic underlying structure.

To the credit of Generative Semantics, however, Marantz (1997) explains the difference of agentivity in the nominalization case through a simple postulation that nominalization takes as its input the simple V root, without the v head which selects an agent in the verbal frame. The inputs here are roots which in some cases do not occur as an

independent verb, such as bound morphemes like $\sqrt{1)}$ *ceive* (as in re-ceive and per-ceive) or \sqrt{fer} (as in pre-fer and trans-fer). The roots are assumed to belong to basic event classes (including state, change of state: Achievements/Activities/ Accomplishments in the terms of Vendler 1967, and causation) that contain in themselves the appropriate information required to give an agentive interpretation to a genitive possessor. Thus, \sqrt{destr} class denoting 'externally caused change of state' is distinct from \sqrt{grow} class denoting 'internally caused change of event' in that the spontaneous nature of the root \sqrt{destr} allows the agentive interpretation in the nominalization while non-spontaneous nature of \sqrt{grow} does not. The roots \sqrt{grow} , \sqrt{open} , or \sqrt{break} themselves only refer to some kernel of meaning. We will get different types of predicates according to the structure in which the root is inserted. For example, \sqrt{grow} , inserted in a non-causative structure, yields the unaccusative *grow*, and when it is imbedded under a causative structure, it yields the causative transitive *grow*.

The contribution in meaning that the *v* head makes seems to be CAUSE in the underlying representation of the causative version of the verb "grow" found in (1), as Harley (1999) illustrates in (4):



1) This notation $\sqrt{\quad}$ follows Pesetsky (1995) to indicate the root form of the verb. It is read as "Root". It will be used to mark roots that are homophonous but not coextensive with words.

Harley (1995) argues that vP decides the introduction of event (not eventuality but dynamicity²). For these causative/inchoative verbs. For the inchoative version ('The vegetables grow'), vP headed by *v* meaning BECOME has as its complement \sqrt{P} , a predicative structure denoting a state, the end result of the change of state introduced by the *v* head. On the other hand, the causative version ('John grow the vegetables') will have vP headed by a CAUSE *v*, which replaces the BECOME *v*, rather than adds on it in a higher vP, and which selects an external argument in its specifier. The agent argument that is projected brings up to the change of state introduced by the *v* head, a cause interpretation rather than a spontaneous meaning.

Harley's (1999) claim that the BECOME meaning *v* is replaced in causative by the CAUSE meaning *v* distinguishes itself from the generative semantics and the generative lexicon style approach, where the BECOME meaning component is added on by the CAUSE meaning component (e.g., CAUSE to BECOME·). From the study of Japanese lexical causatives and inchoatives (Harley 1995), she argues that the causatives never demonstrate stacking morphology and that the CAUSE morphology is rather in complementary distribution with the BECOME morphology.

In fact, however, this approach also is in the spirit of Lakoff's bimorphemic analysis (1971), which postulates a phonologically zero causative morpheme attached to a non-causative root. From this "neo-Lakovian" view that the transitive *grow* would be regarded as the phonological spell-out of the combination of the causative predicate cause *v* and the predicate, \sqrt{grow} as a bound morpheme, I will give a unified account of the complex predicate structure to Light verb constructions and Psych verb constructions in Korean. I will claim that *ha* in the light verb constructions and the psych verb constructions is an overt realization of the *v* head and that *ha/ci* alternation in Korean

2) Dynamicity for events means that representing the vP structure is concerned with change of states, not just tangible occurrence of accidents or incidents (cf. Harley 1999:74)

psych verbs is the alternating case of DO/BECOME meanings of *v*, whose semantic contribution is undetermined and contextualized and whose morphological realization is phonologically zero morpheme in English.

2. Psych-verbs in Korean

The case study I will discuss here is that of Korean psych verbs, which seem to be relevant to the light verb constructions in that they share *ha* as a root. It is one thing to show such initial plausibility and another thing to show that it is right, which is the task ahead in this section. Psych verbs, verbs denoting psychological states, usually fall into two main groups: Subject Experiencer verbs (e.g., *fear*), which realize their Experiencer participant as the subject, and Object Experiencer verbs (e.g., *frighten*), which realize their Experiencer as the object. My discussion will be concerned only with Subject Experiencer verbs, for these Korean psych verbs exhibit their peculiar behavior: a psych root can form three different verbs.

2.1. Psych Verbs and Property Adjectives

There are three classes of psych verbs that share the same root but differ only with respect to the presence/absence of light verb *-ha-*/inchoative verb *ci-*. As shown below, they constitute minimal pairs of predicates exhibiting different case marking:

- (5) a. Na-nun/eykey-(nun) ku-ey moksoni-la coh-a-ss-ta
 I-Top/Dat-(Top) his voice-Nom belikable Past-Dec
 'I was fond of his voice/I liked his voice'. (stative reading at a time)
- b. Na-nun/y-la ku-ey moksoni-la coh-a-ci-ess-ta
 I-Top/Nom his voice-Nom belikable-BECOME Past-Dec
 'I became to like his voice' (non-stative reading)

- c. Na-nun/y-ka ku-euy moksori-lul coh-a~~ha~~-yess-ta
 I-Top/Nom his voice-Acc believable-LV-Past-Dec
 'I liked his voice.' (non-stative agentive reading)

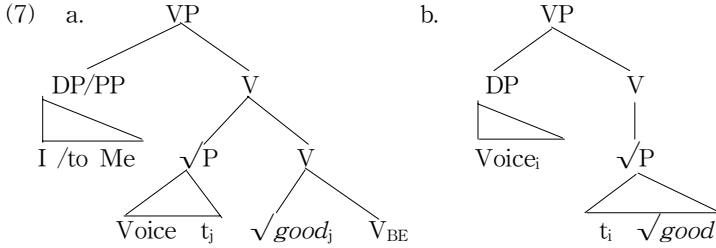
As in the case of regular transitive verbs, (5c) has Theme NP marked with accusative, while (5a) and (5b) take the nominative case for Theme, and even the Dative case for Experiencer even though they take two arguments (Experiencer, Theme) just like transitives. I will refer to the former type (5c) as '*ha* form' psych verbs, to the latter one (5b) as '*ci* form' psych verbs, and, lastly, to the root type (4a) as 'bare form' psych verbs. [-stative] is characteristic of *ci* form (5b) and *ha* form (5c) of psych-verbs while [+stative] of bare form psych-verbs (5a), which is attested by Progressive formation universally known to be a test for stativity. The agentivity tests (Kim 1990:74-75) including Imperative, Propositive, Embedding under agentive control verbs, and Embedding under coercive verbs, make *ha* form psych verbs distinct from *ci* form and bare form psych verbs.

Note that there often exists a possibility of confusing the [-agentive] psych verbs with (perceptible) property verbs (i.e., adjectives) due to the same surface forms, as in the following examples:

- (6) a. ku-euy moksori-ka coh-a-ss-ta.
 his voice-Nom good-Past-Dec
 'His voice was good.' (stative reading at a time)
- b. ku-euy moksori-ka coh-a-ci-ess-ta.
 his voice-Nom good-BECOME-Past-Dec
 'His voice became good.' (non-stative reading)

The relationship between the psych verbs and perceptible property verbs can be captured with the same root as a shared piece of lexical material between them, and complex syntactic structures: when the root is combined with another verbal head "BE" predicate (V_{BE}) suggested in Harley (1995), it yields a "psych" meaning ('likable') from a property meaning (good). The head is always stative and its complement

denotes a property (be at a place/mental state, or have a property) which is predicated on its external argument. The structural difference can be illustrated as follows:

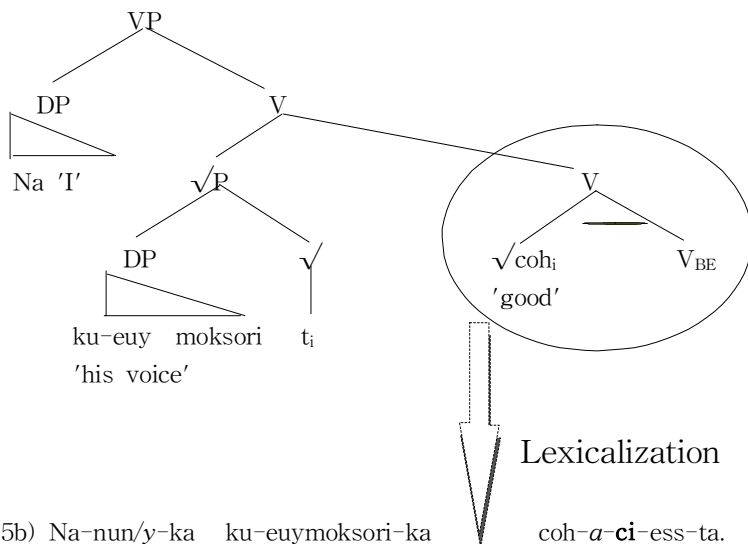


2.2. Three Semantic Interpretations for v : DO v , BECOME v , V_{BE}

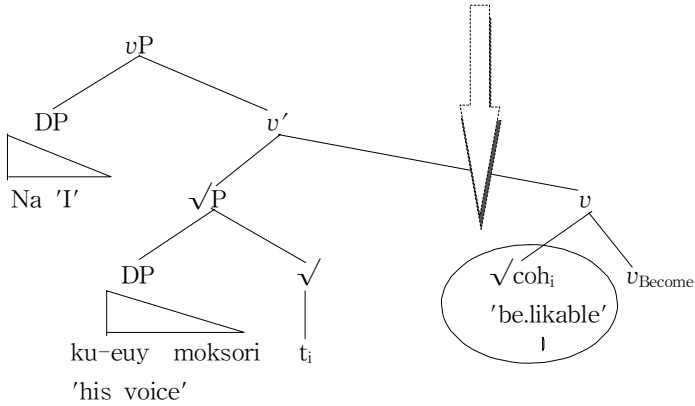
Harley's (1999) proposition that vP structure is responsible for CAUSE/BECOME meaning can be applied to analyze the alternation of *ha/ci* form on the bare form psych verbs shown in (5). Further examination of where the event comes from in the representation in vP structure, however, does not support the original assumption that \sqrt{P} denotes a state, and the v head denotes CAUSE, introducing eventiveness. When the incorporated root nominal denotes an event, the v head means DO, as in "Mary danced", and the eventiveness seems likely to be introduced by the nominal root itself. On the other hand, when the nominal denotes a thing, the v head seems to be interpreted as MAKE, as in "The mare foaled". So far, then, we have four different interpretations (BECOME, CAUSE, MAKE, DO) for v . Harley (1999) argues that the semantic "primitive" associated with v is fully determinable in context and thus no lexical content for v need be posited. But Korean Morphology shows the other way of linking, as we will see in the next section. For v in Korean, the light verb *ha* corresponds to agentive head DO v or V_{BE} "BE predicate". Inchoative verbs *ci/toy* are associated with BECOME v while all the verbs can be involved in characterizing CAUSATIVE/ PASSIVE v , but an extended

discussion is beyond the scope of this paper. It suffices to grasp the double linking nature (DO *v* or V_{BE}) of *ha* for *v* head in vP structure. Harley's (1995) additional concept of "BE" predicate (V_{BE}), as mentioned above, also allows us to make a distinction between bare form psych verbs and non-psych property verbs, which are perceived as objective rather than subjective. A "psych" root can thus form three possible verbs: it can combine with a DO *v* / a BECOME *v*, thus forming [+agentive]/[-agentive] non-stative verbs, or with another verbal head V_{BE} forming [+stative] psych verbs. The following are the syntactic structures corresponding to the three types of psych verbs in (5), respectively.

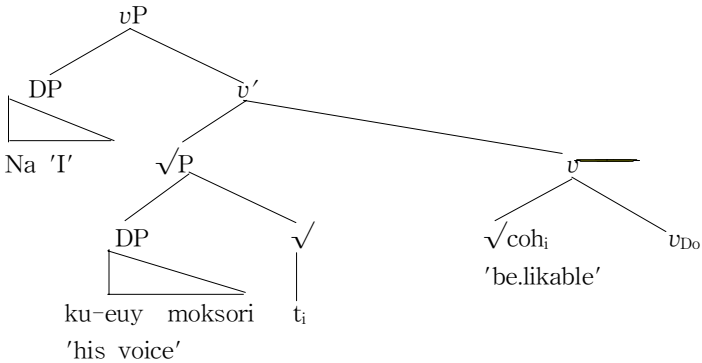
- (8) a. (=5a) Na-nun/-eykey-(nun) ku-euy moksori-ka coh-a-ss-ta.
 I-Top/Dat-(Top) his voice-Nom be.likable-Past-Dec
 'I was fond of his voice/I liked his voice.'(stative reading at a time)



- b. (=5b) Na-nun/y-ka ku-euymoksori-ka coh-a-ci-ess-ta.
 I-Top/Nom his voice-Nom be.likable-BECOME-Past-Dec
 'I became to like his voice.'(non-stative reading)



c.(=5c) Na-nun/y-ka ku-euy moksori-lul coh-a-ha-yess-ta.
 I-Top/Nom his voice-Acc be.likable-LV-Past-Dec
 'I liked his voice.' (non-stative agentive reading)



I argue that the composite entries of [\checkmark good + V_{BE}] go through another lexicalization, which induces a slightly different meaning due to the "psych flavor" in a mental process of lexical decomposition like 'x [FEEL \checkmark good AT y].' The morphological spell-out here for V_{BE} is \emptyset , so that the bare form psych verb in (5a) and the property verb are

homonymous. However, alternation of ha/ci in a class of Korean verbs whose roots originated from attributive adjectives shows the evidence for the morphological existence of V_{BE} as well as the BECOME v head.

(9)	<u>Basic Form</u>	<u>Contracted Form</u>
a.	ire-ha-ta like.this-LV-Dec 'be (like) this'	ireh-ta be.like.this-Dec 'be (like) this'
b.	cere-ha-ta like.that-LV-Dec 'be (like) that'	cereh-ta be.like.that-Dec 'be (like) that'
c.	kure-ha-ta like.so-LV-Dec 'be so/such'	kureh-ta be.like.so-Dec 'be so/such'

(10) ha form stative verbs and their Contracted forms

A. Composite Predicates in demonstratives

a.	ire -n +	ha- →	ireh-
	like.this-Mod	LV	'be (like) this'
b.	cere -n +	ha- →	cereh-
	like.that -Mod	LV	'be (like) that'
c.	kure -n +	ha- →	kureh-
	like.so-Mod	LV	'be so/such'

B. Composite Predicates in color adjectives

a.	√ nora -n +	ha- →	norah-
	yellow-Mod	LV	'be yellow'
b.	√ phara -n +	ha- →	pharah-
	blue-Mod	LV	'be blue'
c.	√ haya -n +	ha- →	hayah-
	white-Mod	LV	'be white'

(11) *ci* form non-stative verb formation from demonstrative and color adjectives

A. Composite Predicates in demonstratives

- | | | | | | |
|----|----------------|---|------------|---|---------------------|
| a. | ire -n | + | ci | → | iræ-ci |
| | like.this-Mod | | Inchoative | | 'become to be this' |
| b. | cere -n | + | ci | → | ceræ-ci |
| | like.that -Mod | | Inchoative | | 'become to be that' |
| c. | kure -n | + | ci | → | kuræ-ci |
| | like.so-Mod | | Inchoative | | 'become to be so' |

B. Composite Predicates in color adjectives

- | | | | | | |
|----|-------------------|---|------------|---|-----------------|
| a. | √ nora -n | + | ci | → | noræ-ci |
| | yellow-Mod | | Inchoative | | 'become yellow' |
| b. | √ phara -n | + | ci | → | pharæ-ci |
| | blue-Mod | | Inchoative | | 'become blue' |
| c. | √ haya -n | + | ci | → | hayæ-ci |
| | white-Mod | | Inchoative | | 'become white' |

As Jung (2001) noted the parallelism between the adjectives (or stative verbs) derived from demonstrative attributive and post-verbal (or long-form) negations in Korean, we can extend the parallelism to the alternation of attributive color adjectives and their derived *ha/ci* form verbs, as shown in (10) and (11). This observation provides strong evidence for lexical specifications for V_{BE} , BECOME *v*, and DO *v* that we have discussed so far.

3. Denominal Activity Verbs and Light Verb Constructions

In English, there is a substantial class of denominal verbs which can be sub-classified according to the kinds of denotation made by their nominal bases: among an event, a thing to make, a location to put, a thing to be put, and an activity to do with. They exhibit different natures in relating to the spatial dimension of the count/mass distinction

and the temporal dimension of the bounded/unbounded distinction (as noted by Gruber 1967 and Talmy 1978, Tenny 1992, Dowty 1991 among others) as shown below:

- (12) a. Mary **danced** *in an hour/for an hour. (event-activity)
 b. The mare **foaled** in an hour/*for an hour. (thing)
 c. Bill **shelved** the computer in an hour/*for an hour. (location)
 d. John **greased** the chain in an hour/for an hour. (locatum)
 e. Amy **brushed** the horse in an hour/for an hour. (activity)

It is a surprising fact that Korean doesn't have any class of denominal verbs whose nominal forms exhibit no special morphology but are homophonous with their bare verb. That is why English denominal verbs are alleged to be formed by conversion (-derivation) from noun to verb. As for Korean, much morphological work is needed to derive verbs from the nominal base. What is most interesting is that the light verb *ha* always is involved in the morphological derivation.

3.1. Denominal Activity verbs with light verb *ha*-

A issue that I raise here is the nature of the parametric difference responsible for this phenomenon. The solution is that the way of compositing $\sqrt{\text{root}}$ and the little *v* accounts for such a difference between English and Korean. Since we have already seen the English way even though it is too superficial, let us consider the Korean way of how to turn such concepts like event, things, location/locatum, activity, and property even into the lexicalization of verbs.

(13)

a. $\sqrt{\text{hammer}}_N$ $\sqrt{P[\text{hammer}]}_N$ $\text{hammer}_V = v + \sqrt{P}$ (English)
 thing Activity *'strike/shape/flatten with a hammer'*
 |
 mangchi mangchi-cil mangchi-cil ha- = DO withhammer (Kor.)

cf. *mangchi ha-(ta)

b.

$\sqrt{\text{whore}}_N$ $\sqrt{P[\text{whore}]}_N$ $\text{whore}_V = v + \sqrt{P}$ (English)
 thing Activity *'have sex with whores/women'*
 |
 kyaecip kyaecip-cil kyaecip-cil ha- = DO with whores/women
 derog. 'girl'

cf. *kyaecip ha-(ta)

(Korean)

Examples in (13) contrast the ways of composing $\sqrt{\text{root}}$ and v head and of realizing the spell-out of v in English and Korean. Korean adds a suffix morpheme *-cil* indicating 'activity' to the root before combining with v and has a morphological realization for v , whose default meaning is 'DO'. Without resorting to Morphology, English seems to choose the underdetermination approach for the meaning of v , letting the syntactic, semantic environment provide the cues necessary for the appropriate interpretation.

The following example in Korean light verbs shows a case of ambiguity in interpretation, based on whether the incorporated noun denotes an event (activity) or a thing: it indicates that even pragmatic information is needed to get a contextually correct meaning.

any -assigning category presents no problem.

The class of lexical items called Verbal Nouns (VN) in Japanese as well as in Korean have a hybrid nature, as the term indicates: VNs have some verb-like properties and some noun-like properties. In efforts to solve the basic puzzle, some linguists like Iida (1987), Park (1989), Ahn (1991), and Takahashi (2000) argue that VNs in Japanese/Korean are verbs, contrary to the widely held standard practice of regarding them as nouns: they are listed as verbs and head a VP unless they are incorporated into a noun before lexical insertion. Takahashi (2000) shows that the following properties are consistent with the VN=V view, while there are some facts unexplainable under the VN=N view:

- i. VNs have the meaning of verbs and can be used as the main predicates of clauses, which cannot be explained by the traditional view of VN=N.
- ii. VNs have identical syntactic structures as the corresponding regular verb sentences.

But VNs are unlike regular verbs in that VNs cannot support verbal affixes (i.e., Tense, Aspect, Honorific marker) directly and that the dummy verb *su* 'do' must be inserted between the VN and the verbal affixes whenever a VN is used in the place of a regular verb. The verb-like item which follows the VN, *su*, will be inserted in the phonological component to support the tense-marker, similar in many respects to the dummy verb *do* in English. The reason why *su*-insertion is necessary in the simple VN-sentence is that the tense-marker is a bound morpheme and it needs to form a part of a prosodic word with another morpheme, but the VN refuses to be its prosodic word mate because it is a free morpheme. *Su*-insertion is the only way to satisfy both the selectional properties of the VN and the tense-marker, while in the simple regular verb sentence, the verb and the tense-marker can be parsed into a single prosodic word, making *su*-insertion unnecessary.

(15) a. simple regular verb sentence

keisatu-wa [sono ziken]-o sirabe-ta.
 police-Top [the incident]-Acc investigate-Past
 'The police investigated the incident.'

b. simple VN-sentence

keisatu-wa [sono ziken]-o TYOOSA *(si)-ta.
 police-Top [the incident]-Acc investigate *(do)-Past
 'The police investigated the incident.'

Takahashi (2000) claims that the noun-like properties are a consequence of the fact that VNs are free morphemes required to form a prosodic word on their own whereas regular verbs are bound morphemes, which are unable to form a prosodic word on their own. The reason why VNs are accented like nouns rather than regular verbs (the location of the accent in the accented VNs is unpredictable similar to nouns but unlike regular verbs) can be explicable with the assumption that VNs undergo productive \emptyset -nominalization and form VN-nominals, the surface form: VN-nominals give the impression that VNs can head NPs, supporting the view of VN=N with the fact that regular verbs in Japanese cannot form an NP without overt affixation. But Takahashi argues that it is possible for the VN to head a VP within the VN-nominal, a behavior explainable only under the VN=V view. This view assumes that the head of the VN-nominal is a null noun and that it can nominalize only VNs because it is invisible to phonology.

In the "Case-marking light-*su* construction³⁾" such as below, the main predicate of the construction is an Agentive verb *su*, which assigns an Agent theta-role to the subject and an Accusative Case to the VN-nominal which precedes it.

(16) keisatu-wa [[sono ziken]-no TYOOSA]-o si-ta.
 police-Top [[the incident]-Gen investigation]-Acc do-Past
 'The police conducted an investigation of the incident.'

3) This is the same as 'Japanese light verb constructions' labeled by Grimshaw & Mester (1988).

Regarding the VN-nominal as a modifier of *su*, with which it forms a semantic complex predicate, explains many curious properties of the construction: for instance, the "argument-raising phenomenon", which can be explained only if the VN-nominal contains a VP where the arguments of the VN can be assigned. This light verb construction may provide another piece of supporting evidence for the VN=V view.

As for the Korean light verb constructions, the alternation of DO/BECOME shown in the Korean psych verb constructions again reveals a similar pattern here, with the V_{BE} "BE predicate". The difference between the two constructions is that in the light verb construction, the roots (or bases) are Verbal Nouns (VN) instead of stative verbs (i.e., adjectives), the morphological realizations of *v* are *ha-/toy-* instead of *ha-/ci-*, and the meaning of *toy-* is BECOME-PASSIVE.

(17) A. Korean Verbal Nouns (VN) and their Chinese gloss counterparts

VN [kwan - ri] _N	[hwak-dae] _N	[phan-myeng] _N	[hyen-myeng] _N
CHI control-govern	enlarge-big	become-clear	wise-clear
'supervision'	'spread'	'becoming clear'	'being wise'

B. a. John-i onul-uy coep-ul kwan-ri-(ul) **ha**-yess-ta.
 -Nom today-Gen operation-Acc control-govern-(A) DO-Past-Dec
 'John supervised today's operation.'

a' onul-uy coep-i John-eyuyhay kwan-ri-(ka) **toy**-ess-ta.
 today-Gen operation-Nom -by control-govern-(N) BECOME-Pas
 'Today's operation was supervised by John.'

b. milkwuk-i cencayng-ul hwak-dae-(lul) **ha**-yess-ta.
 America-Nom war-Acc enlarge-big-(Acc) DO-Past-Dec
 'America spread the war.'

b'. cencayng-i milkwuk-eyuyhay hwak-dae-(ka) **toy**-ess-ta.
 war-Nom America-by enlarge-big-(Acc) BECOME-Past-Dec
 'The war was enlarged by America.'

c. ??kyengchal-i ku-uy socay-lul phan-myeng-(ul) **ha**-yess-ta.
 Police-Nom he-Gen location-Acc become-clear-(A) DO-Past-Dec
 'His location became known.'

- c'. ku-uy socay-ka phan-myeng-(i) **toy**-ess-ta.
 he-Gen location-Nom become-clear-(Nom) BECOME-Past-Dec
 'His location became known.'
- d. John-i hyen-myeng **ha**/*toy-ta.
 -Nom wise-clear BE/*BECOME-Dec
 'John is wise.'

It is possible to analyze *toy-* as one of lexical passive morphemes like *i/hi/li/ki*. But it is much more productive and constitutes consistent oppositions on [-stative] VN with *ha-*, the authentic light verb. It can apply to any [-stative] VN except few Achievement (instantaneous event) VNs, which seems to be due only to semantic restriction of BECOME, which seems intuitively to be [-instantaneous]. The following exhibits a paradigmatic "big picture" of relations between causatives and passives in Korean:

(18) Morphological realizations of *v* in the paradigms of Korean causative/passive

	Morphemes	Function/Meaning
<i>v</i> , lexical head of vP:	ha/ toy/ ci sikhi	DO-BE/ BECOME-PASSIVE/BECOME CAUSE
Syntactic (Peripheral) causative/passive	-key ha -key sikhi -key toy -E ci	Causative [+/- agentive] Causative [+ agentive] Passive [+Affected] Passive
Lexical causative/passive ⁴⁾	i/hi/li/ki/wu/kwu/chwu i/hi/li/ki	Causative Passive

Following the line of such reasoning, I will assume that *toy-* is also one of the morphological realizations of *v*. It will be beyond the scope of this short paper to go further to an extended discussion.

4) See Jung (1999) for the detail of the distinction of syntactic and lexical causativization and passivization in Korean.

With the *v*P structure and the morphological realizations of *v* head for the light verb, combining light verbs with $\sqrt{\text{root}}$ rather than the Verbal Noun itself is more plausible in the light verb constructions. This approach to the complex predicate of [vroot + *v*] can explain the whole class of light verb constructions in Korean. Most literature (Ahn 1991, among others) about Korean light verb constructions has observed the three sub-classes as follows:

- (19)a. KONGPWU-(lul) ha-ta ---->Type I [-stative] ha-/toy-
 study -(Acc) DO-Dec
 '(X) studies.'
- b. PHIKON ha-ta ---->Type II [+stative] ha-/*toy-
 tiredness BE⁵-Dec
 '(X) is tired.'
- c. maum-ul CENG ha-ta ---->Type III [1-syllabic] ha-/*toy
 mind-Acc fix DO-Dec
 '(X) decides one's mind.'
- c' maum-ul KYEL-CENG-(ul) ha-ta --->Type I ha-/toy-
 mind-Acc decide-fix-(Acc) DO-Dec (same as above (19.c))

In example (19), what is interesting and important to note is the Type III sub-class, whose members are monosyllabic Chinese verbs or adjectives. Its light verb construction shows different behavior: it does not allow any particle (i.e., case-markers, delimiters) to intervene between the light verb and the root, unlike the disyllabic counterpart in (19c'). They are bound morphemes and can't stand alone, and their syntactic category is never Noun but Verb, which means that there is no \emptyset -nominalization.

More evidence for this reasoning that no \emptyset -nominalization is employed in the light verb constructions comes from the variations of

5) In the traditional way of glossing, DO is always given to *ha-* without considering its semantic content.

Type II, which are regarded as native Korean adjectives with no connection to Chinese adjectival counterparts. Some of these words can function as roots of the mimesis, which usually are expressed by the repetition of the roots. It is also hard to suppose a -nominalization on roots themselves, because they are never used as Nouns.

(20)

- a. *banccak*-*ha* 'be shiny/flash/twinkle' *banccak*-*banccak* 'twinkling'
- b. *bancil*-*u*-*ha* 'be slippery/oily/smooth' *bancil*-*bancil* 'oily/slyly'
- c. *santtut*-*ha* 'be neat/fresh/vivid' *santtut*-*santtut* 'freshly/clea
- d. *kkaykkut*-*ha* 'be clean'
- e. *ttokttok*-*ha* 'be clever'
- f. *dandan*-*ha* 'be hard/strong'

(21) $\sqrt{\text{clever}}_{\text{Adj}}$ $\sqrt{\text{P}[\text{clever}]_{\text{Adj}}}$ be clever = V + $\sqrt{\text{P}}$ (English)
 property state 'be clever'
 ttokttok *ttokttok* *ttokttok ha-(ta)* = V_{BE} clever (Korean)

These examples confirm that the view of the light verb constructions as complex predicates of [$\sqrt{\text{P}} + v$] can carry explanatory power over the wider range of environments of light verbs to occur than the approach of V-incorporation from VN in lexicon or LF.

4. Conclusion

I have argued that *ha* in Korean light verb constructions and psych verb constructions is the overt realization of the *v* head. *ha/ci* alternation in Korean psych verbs makes a strong case of DO/BECOME meanings of *v*, whose semantic contribution is undetermined and contextualized in English. The relationship between the psych verbs and perceptible property verbs can be captured with the same root as a shared piece of lexical material between them, and complex syntactic structures, yielding a "psych" meaning ('likable') from a property meaning ('good') when the root is combined with another verbal head "BE" predicate (V_{BE}).

For Korean, the absence of the class of English denominal verbs like "hammer" or "comb", which are alleged to be formed by conversion (\emptyset -derivation) from noun to verb, is morphological evidence for this view. English and Korean contrast the ways of composing $\sqrt{\text{root}}$ and v head and of realizing the spell-out of v . Korean adds a suffix morpheme indicating activity to the root before combining with v and has a morphological realization for v , whose default meaning is DO. Without resorting to Morphology, English seems to choose the underdetermination approach for the meaning of v , leaving the syntactic, semantic environment to provide the cues necessary for the appropriate interpretation.

As for the Korean light verb constructions, the alternation of DO/BECOME shown in the Korean psych verb constructions reveals a similar pattern again here, with the V_{BE} "BE predicate". The difference between the two constructions is that in the light verb construction the morphological realizations of v are *ha-/toy-* instead of *ha-/ci-*, and that the meaning of *toy-* is BECOME-PASSIVE.

Thus, this study of *ha* in Korean light verb constructions as well as in Korean psych verb constructions clarifies Harley's (1995, 1999) claims that the BECOME v is in complementary distribution with CAUSE v , that non-stative events are always represented in a structure containing a $v\text{P}$, and that recognizing the complements of v ($\sqrt{\text{P}}$) as a predicative structure denoting events, things, or states helps to contextualize the interpretation of little v in an appropriate way along with its determining environments.

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