

On Exp-Subj Psych-verbs: A Lexicalist Approach*

Sang-Geun Lee & Kyung-Sik Shin
(Korea University · Korea Military Academy)

Lee, Sang-Geun & Shin, Kyung-Sik. 2007. On Exp-Subj Psych-verbs: A Lexicalist Approach. *The Linguistic Association of Korea Journal*, 15(2), 39-58. The main concern of this research is to demonstrate that what was once assumed to be simple is in fact complicate, and reveal that Experiencer-Subject psych-verbs be classified into two types, [+transitive] and [-transitive]. Concerning the two types of psych-verbs, I propose that the [-transitive] type is analyzed with underlying causativity in the lexicon while the [+transitive] type is without causativity. Though this research focuses solely on the effect of the T/SM restriction reported by Pesetsky (1995), the underlying causative analysis has an implication that it will be extendable crosslinguistically to other asymmetric behaviors between the two types of Exp-Subj psych-verbs.

Key Words: [+/-transitive] Exp-Subj psych-verbs, causativity, causativization, lexical binding

1. Introduction

Psych-verbs have been of interest to syntacticians (Lakoff 1970, Akatsuka 1976, Belletti & Rizzi 1988, Pesetsky 1995 among others), since they exhibit exceptional properties such as the linking problem for Baker's (1988) UTAH, backward binding (Akatsuka 1976), and the

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Target/Subject Matter restriction effect (Pesetsky 1995).¹⁾ However, no previous analysis considers the fact that causativization sometimes increases the valence of some psych-verbs in Korean, but sometimes does not, which raises an objection to the untested assumption that all types of Korean Exp-Subj psych-verbs are comprised in one group (cf., Kim 1989, Kim 1990, Nam 1993).²⁾ In this paper, I will provide an explanation for why some psych-verbs causativize differently from the others in Korean, showing different result with respect to Pesetsky's (1995) T/SM restriction effect (i.e., *Causer-Exp-T/SM), and which part of the grammar is most responsible for the contrastive distribution of two types of Exp-Subj psych-verbs in Korean. For an answer to these questions, I suggest that Korean Exp-Subj psych-verbs should be classified into two types, i.e., [+/-transitive], which is indeed attributed to two event-types, i.e., simple and complex event (cf. Pustejovsky 1991, 1995 Levin & Rappaport 1995, Li 1995). And thus, I am not with such syntactic approaches as Pesetsky (1995), as far as the contrast between the two types of Korean Exp-Subj psych-verbs is approachable from the lexicalist point of view, such as Levin & Rappaport's (1995) Lexical Semantic Representation.

¹⁾ Pesetsky (1995) suggests that the thematic role, Theme, should be divided into three subtype roles, Causer, Target (T), and Subject Matter (SM), and argues that a Causer subject is obviously different from a Theme object. This approach of the finer-grained thematic roles leads to a new problem, the T/SM restriction: given that Causer is distinctive, why can't such thematic roles as T/SM cooccur with a Causer, as in (i)?

(i) *The article in the Times angered Bill at the government.

²⁾ Experiencer's emotional state can be expressed in two ways in Korean: bare-form psych-verbs and *-eha* form psych-verbs. The former, which is my concern in this paper, describes the internal emotional state of the experiencer, forming double nominative constructions (DNCs), and being traditionally analyzed as ordinary two-place predicate sentences. See Kim (1990) for more of the contrasts between them.

a. nay-ka holangi-ka mwusepta. (Bare form psych-verb)

I-Nom tiger-Nom is afraid

'I am afraid of tigers.'

b. nay-ka holangi-lul mwusep-eha-n-ta. (*-eha* form psych-verbs)

I-Nom tiger-Acc afraid-do-Pres-Dec

'I fear tigers.'

2. The Syntactic Approach to the T/SM Restriction

2.1 The T/SM Restriction

Assuming that linking patterns between thematic roles (e.g., Agent, Patient) and grammatical functions (e.g., Subject, Object) are predictable from the lexical properties of predicates, one can postulate a principle to that effect like Baker's (1988) UTAH or something weaker.

(1) Uniformity of Theta Assignment Hypothesis (Baker 1988: 46):

Identical thematic relationships between items are represented by identical structural relationships between those items at the level of D-structure.

However, pairs such as (2) challenge the Hypothesis, which was reported as Flip by Lakoff (1970):

- (2) a. Bill was angry at the article in the Times. <Exp <Theme>>
b. The article in the Times angered Bill. <Theme <Exp>>

In (2a), Experiencer is the subject, and Theme is the object, while Theme is the subject and Experiencer is the object in (2b), which suggests that for psych-verbs, linking is arbitrary. To avoid this problem and rescue the Hypothesis in (1), Pesetsky (1995) proposes that the thematic roles assumed in (2) should be redefined as in (3):

- (3) a. Bill was angry at the article in the Times. <Exp <Target/SM>>
b. The article in the Times angered Bill. <Causer <Exp>>

Given Pesetsky's (1995: 59) new thematic hierarchy, i.e., Causer>Experiencer>Target/Subject Matter, we can say that higher thematic roles in pairs like (3) are mapped onto the higher D-structure positions, rescuing UTAH. However, this solution also has its own

potential problem such as T/SM restriction effect, which is describable as in (4a) and illustrated in (4b):

(4) a. T/SM restriction effect (Pesetsky 1995: 60)

If Causer-role is distinct from either Subject Matter or Target of Emotion, why can't Causer and Target/Subject Matter cooccur with the same predicate?

b. **The article* in the Times angered *Bill* at *the government*.

(*<Causer <Exp <Target>>>)

Pesetsky (1995) suggests that in English, Object-Experiencer predicates like *anger* and *sadden* are actually bimorphemic, a zero causative morpheme (CAUS) and a bound root morpheme (e.g., *anger*, *sad*), as represented in (5). A piece of evidence for his suggestion is primarily based on Japanese data taken from Akatsuka (1976), where a causative morpheme is overtly realized as *-(s)ase*, which is shown in (6):

(5) a. [[$\sqrt{\textit{anger}}$]+CAUS]] → anger

b. [[$\sqrt{\textit{sad}}$]+CAUS] → sadden

(6) sono sirase-ga Tanaka-o knasim-ase-ta.

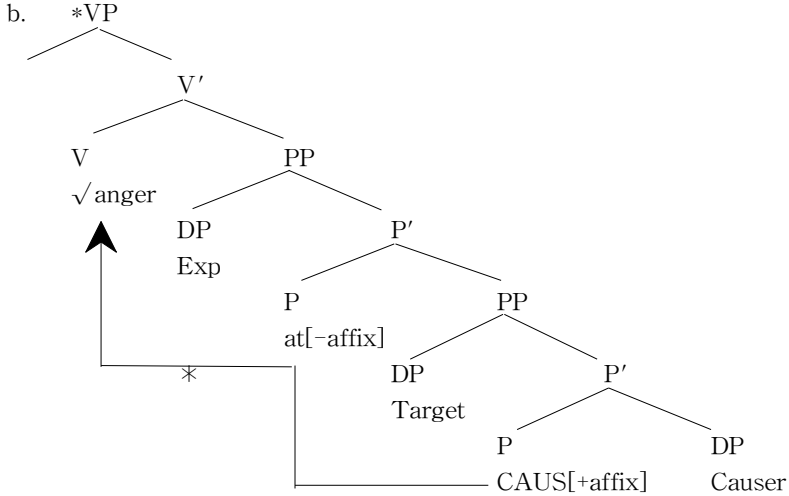
that news-Nom Tanaka-Acc be sad-CAUS-past

'That news saddened Tanaka.'

The point made by Pesetsky (1995) is that affixation of CAUS to its root morpheme takes place in the syntax, specifically at S-structure. That is, the phonologically null morpheme, CAUS, in English Object-Experiencer (henceforth, causative) psych-verb sentences, starts its life as a preposition lower than main root morpheme in the cascade structure representation shown in (7). Movement of CAUS to its host (root) morpheme requires adjunction to each preposition intervening between them, so that it observes Travis's (1984) Head Movement Constraint (HMC). However, the movement of CAUS in (7) is blocked by an intervening nonaffixal preposition *at*. Thus, the zero morpheme, CAUS, cannot raise to its bound root morpheme *anger*, explaining the

T/SM restriction effect. In the derivation of (7b), the star mark, *, indicates an illegitimate movement, due to the [-affix] preposition, *at*.

(7) a. *The article in the Times angered Bill at the government.



2.2 Problems Revisited

My concern in this paper is whether a better linguistic theory results from building complicated abstract representational structures such as the cascade structure (Pesetsky 1995) or adopting something simpler as phrase structure, and making use of other abstract informational structures, such as Lexical Semantic Representation (c.f., Levin & Rappaport 1995). In particular, for an analysis of two types Korean Exp-Subj psych-verbs, I will take the latter position from now on, and showing how simply we can account for the fact that [-transitive] Exp-Subj psych-verbs somehow observe the T/SM effect while [+transitive] Exp-Subj psych-verbs in Korean do not.

In addition to the potential difficulties in Pesetsky's (1995) analysis, (7b),³⁾ he does not seem to take it into consideration that in Korean (probably Japanese too)⁴⁾ there are actually two types of Exp-Subj

psych-verbs, one of which shows a totally different set of properties, especially with respect to the T/SM restriction. Note the contrast, especially in the grammaticality judgment between (8b) and (9b):

- (8) a. Sara-ka ku sosik-i sulphuessta. <Exp <T/SM>>
 Sara-Nom the news-Nom was sad
 'Sara was sad about the news.'
- b. *ku sosik-i Sara-eykey casin-uy checi-lul sulphu-keyhayssta
 *<Causer <Exp <T/SM>>>
 the news-Nom Sara-Dat herself-Gen situation-Acc be sad-made
 'The news made Sara sad about her own (difficult) situations.'
- c. ku sosik-i Sara-lul sulphu-keyhayssta. <Causer <Exp>>
 the news-Nom Sara-Acc be sad-made
 'The news made Sara sad.'
- (9) a. Sara-ka pata-ka kuliwuessta. <Exp <T/SM>>
 Sara-Nom ocean-Nom was (home)sick for
 Sara was sick for the ocean.'
- b. pata-ka Sara-eykey kohyang-ul kulip-keyhayssta.
 <Causer <Exp <T/SM>>>
 ocean-Nom Sara-Dat hometown-Acc be (home)sick-made
 'The ocean made Sara sick for her hometown'
- c. *pata-ka Sara-eykey/lul Ø kulip-keyhayssta. <Causer <Exp>>
 ocean-Nom Sara-Dat be (home)sick-made
 'The ocean made Sara (home)sick for.'

The data in (8) might lead us to conclude that the T/SM restriction is somehow observed even with Korean psych-verbs, on the one hand.

³⁾ In this D-structure representation, the Causer is still placed lower than the Target as well as the Experiencer. This kind of arrangement of thematic roles in (7b) violates Pesetsky's (1995) thematic hierarchy. To avoid this contradiction within his framework, he eventually needs to assume some extra mechanism, ending up with a more complicated phrase structure. See Pesetsky (1995: 208-209) for more details.

⁴⁾ Inoue (1972) reported that Japanese Exp-Subj psych-verbs seemed not to be comprised in just one group. See the data in (10) and (11) taken from Inoue 1972) for the contrast between two types of Japanese Exp-Subj psych-verbs.

However, this conclusion does not seem to be extended to the other type of psych-verbs, as can be seen in (9b), which shows no T/SM restriction at all. On the contrary, without a T/SM argument, the sentence would be judged ungrammatical, unless the sentence is understood as an ellipsis.

The main question to be answered is then why a group of psych-verbs shows a similar pattern of the T/SM restriction, while the other does not. The same observation in Japanese has been reported by Inoue (1972), without serious explanation. Note the contrast between (10) and (11) in Japanese:

- (10) a. taroo-ga sigoto-o tanosindeiru. <Exp <T/SM>>
 Taro-Nom work-Acc is enjoying
 'Taro is enjoying his work.'
- b. sigoto-ga taroo-o tanosim-aseteiru. <Causer <Exp>>
 work-Nom Taro-Acc happy-makes
 'The work makes Taro happy.'
- (11) a. taroo-ga ototoo-no kooun-o netandeiru. <Exp <T/SM>>
 Taro-Nom brother-Gen good fortune-Acc be jealous
 'Taro is jealous of his brother's good fortune.'
- b. *ototoo-no kooun-ga taroo-o netam-aseteiru. *<Causer <Exp>>
 Brother's good fortune-Nom Taro-Acc jealous-making
 'His brother's good fortune is making Taro jealous.'

The Japanese causative psych-verb sentence in (10b) with *tanosim-aseteiru* 'happy-make', when we compare it with the ungrammatical causative one in (11b) with *netam-aseteiru* 'jealous-make', does seem to show the same T/SM effect. The data in Japanese, coupled with the previous data in Korean, thus supports the claim that Exp-Subj psych-verbs should not be grouped into the same class, that is, two-place psych-predicates, at least, with respect to the T/SM effect, to which no serious attention has been paid so far. Then, I will provide more data for two types of Exp-Subj psych-verbs.

3. Two Types of Exp-Subj Psych-verbs

In this section, I propose that Japanese/Korean Exp-Subj psych-verbs should be classified into two types, [+/- Transitive].

- (12) Two types of Exp-Subj psych-verbs in Korean (cf. Nam 1993)
- a. [+trans] type: *kulipta* (be (home)sick), *pwulepta* (be envious), *heymosulepta* (be disgusted), ...
 - b. [-trans] type: *sulphuta* (be sad), *culkepta* (be happy), *koylopta* (be distressed), *cikyepa* (be bored) ...
- (13) Two types of Exp-Subj psych-verbs in Japanese (Inoue 1972)
- a. Ordinary transitives: *uram-u* (be bitter), *urayam-u* (envy), *netam-u* (be jealous of), *nozom-u* (desire)...
 - b. Pseudo-transitives: *tanosim-u* (enjoy), *kanasim-u* (grieve), *kurusim-u* (suffer), *nagek-u* (regret)...

First, compare causativization with Korean ordinary (in)transitive predicates in (14) with causativization with two different types of Exp-Subj psych-verbs in (8) and (9).

- (14) a. Sara-ka talliessta. (intransitive)
 Sara-Nom ran
 'Sara ran.'
- a'. Sora-ka Sara-lul talli-keyhayssta. (causativization)
 Sora-Nom Sara-Acc run-made
 'Sora made Sara run.'
- b. Sara-ka Seri-lul ttayliessta. (transitive)
 Sara-Nom Seri-Acc hit
 'Sara hit Seri.'
- b'. Sora-ka Sara-eykey Seri-lul ttayli-keyhayssta. (causativization)
 Sora-Nom Sara-Dat Seri-Acc hit-made
 Sora made Sara hit Seri.'

The data in (14) show that causativization in Korean necessarily involves one additional argument, Causer, which increases the valence of an ordinary (in)transitive verb. [+transitive] psych-verbs undergoing causativization behave exactly like the ordinary transitive verbs, showing the same case alternation pattern and argument increase, as we have seen in (9). In contrast, the [-transitive] type does not show any change in the valence (number of arguments) through causativization, as shown in (8), which convinces us that Korean [-transitive] Exp-Subj psych-verbs should not be analyzed as ordinary transitive verbs.

Consider the causativization of two types of Japanese psych-verbs, such as (10) and (11), and compare it with the pattern of causativization with ordinary transitive verbs, which is illustrated in (15).

- (15) a. taroo-ga tomodati-o tazuneta. (transitive)
 Taro-Nom friend-Acc visited
 'Taro visited his friend.'
- b. *tomodati-ga taroo-o tazune-saseta. (causative)
 friend-Nom Taro-Acc visit-made
 'Taro's friend made him visit.'

The causative sentence in (11) with a Japanese [+transitive] psych-verb shows the same pattern of causativization in (15), where an ordinary transitive verb comes to increase the number of arguments. And thus, the surface object in (11) with a Japanese [+transitive] psych-verb can be said to be a true object. On the other hand, as pointed out by Inoue (1972), the second NP (NP2) in (10) with a Japanese [-transitive] psych-verb, which looks like a surface object, is not an ordinary object but a noun phrase denoting cause of emotion.

This conclusion is further supported by the fact that the NP2's with [-transitive] Exp-Subj psych-verbs in Korean can be easily paraphrased with cause expressions like *-(u)lo* 'for' or *ttaymwuney* 'because of', with no change of meaning (cf., Nam 1993).⁵⁾ However, this is not the

case with [+transitive] type, which is illustrated in (16):

- (16) a. Sara-ka ku sosik-i/ulo/ttaymwuney sulphuessta.
 Sara-Nom the news-Nom/for/because of was sad
 'Sara was sad because of the news.' (Lit.)
- b. Sara-ka kohyang-i/*ulo/*ttaymwuney kuliwuessta.
 Sara-Nom hometown-Nom/for/because of was (home)sick
 'Sara was (home)sick because of her hometown.' (Lit.)

The possibility of paraphrasing the NP2 (*ku sosik* 'that news') with a cause phrase in (16a) suggests that the NP2's with [-transitive] type denote causes of such psychological states, which ordinary objects in transitive sentences never involve.

4. From Events to [+/-transitive] Exp-Subj Psych-verbs

According to the lexicalist point of view (Chierchia 1989, Levin & Rappaport 1995 among others), the meaning of words itself reflects the deeper conceptual structures (e.g., Lexical Semantic Representation). In this section, I propose that NP2's with [-transitive] Exp-Subj psych-verbs at the level of surface structure are a reflection of the presence of cause event, which is one of the distinctive lexical properties of [-transitive] type, and that the NP2's themselves be represented as Causer in the Lexical Semantic Representation (LSR).

Levin & Rappaport (1995) convincingly argue that only the core unaccusative verbs of change of state participating in the causative alternation (i.e., causative and inchoative alternation) are underlyingly

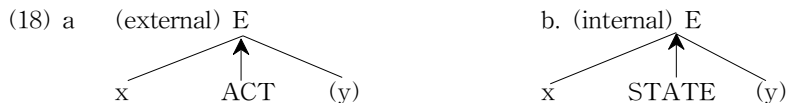
⁵⁾ Nam (1993) also provides such paraphrasing test as a piece of evidence for two types of Exp-Subj psych-verbs in Korean. One might point it out that the possibility of paraphrasing the NP2's with a Korean causal phrase *-ttaymwuney* 'because of' cannot guarantee the NP2's as being analyzed as an adjunct. At the moment, however, the test itself can say enough to make a distinction between two types of Exp-Subj psych-verbs in Korean as well as Japanese.

causatives and thus dyadic in LSR, as shown in (17):

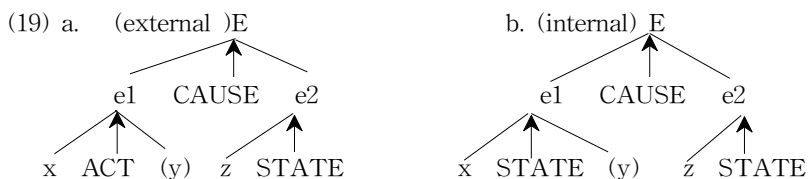
- (17) a. Pat *broke1* the window. (causative transitive verb)
 b. The window *broke2*. (unaccusative verb)
 c. *break1*: [x CAUSE [y BECOME broken]]
 d. *break2*: $\exists x$ [x CAUSE [y BECOME broken]]

In line with Dowty's (1981) position for a lexical rule serving to predict how the form and meaning of a new added expression may be derived from that of an existing more basic expression, Levin & Rappaport (1995) further assume that existential quantification as a lexical binding (i.e., detransitivization) comes in with *break2*, as represented in (17d), which makes it possible to derive an unaccusative (inchoative) verb in (17b).

I propose that Korean [-trans] Exp-Subj psych-verbs participate in the same alternation, and thus can be analyzed as unaccusatives with causativity, containing complex events in the lexical representation, while [+trans] Exp-Subj psych-verbs are ordinary transitives without causativity, and are represented as having simple events in LSR (cf., Kim 1990).⁶ I shall henceforth use the term 'simple events' to refer to either external events or internal events (or mental states) without causativity, as in (18), whereas 'complex events' to refer to either external or internal events with causativity, as in (19) (cf. Pustejovsky (1991, 1995):



⁶ Kim (1990) convincingly argues that all types of (bare-form) Exp-Subj psych-verbs in Korean as well as English are unaccusatives, based on the unaccusativity of those verbs. Then, her analysis cannot explain why some type of Exp-Subj psych-verbs does somehow show the T/SM restriction, whereas the other type does not. After all, for an analysis of Exp-Subj psych-verbs, I am not on any side, such as Akatsuka's (1976) intransitive analysis, Kim's (1990) unaccusative analysis, and transitive analysis (Lakoff 1970, Belletti & Rizzi 1988, Pesetsky 1995 among others).



The event-denoting abstract predicates, ACT and STATE, in (18) are understood as being lexicalized as DO and BE, while the event-denoting abstract predicates, ACT and STATE, in (19) can be lexicalized as DO and BECOME in the lexical structure. Given this understanding on event structure, the [+transitive] type can be characterized with the internal event structure in (18b) while the [-transitive] type is with the internal event structure in (19b).

Now, consider the contrast in grammaticality between (20a) and (20b):

- (20) a. Sara-ka/eykey ku sosik-i sulphuessta. [-transitive]
 Sara-Nom/Dat the news-Nom was sad
 'Sara was sad about the news.'
- b. Sara-ka/*eykey kohyang-i kuliwuessta. [+transitive]
 Sara-Nom/Dat hometown-Nom was (home)sick
 'Sara was sick for her hometown.'

Given the claim that the "passiveness" of mental experiences is expressed with a dative experiencer (Croft 1993, Dabrowska 1994), the possibility of nominative-dative case alternation in (20a) suggests that Exp-Subj [-trans] psych-verbs in Korean include unaccusativity (or passiveness) in their lexical properties.⁷⁾

⁷⁾ The contrast can be well-represented by adopting Croft's (1993) two-way causal structure, as in (i) and (ii):

- (i) Object-motivated mental experiences in causal structure: [-trans] psych-verbs
 Experiencer <---cause mental transition--- Stimulus/Cause
 Experiencer -----FEEL -----> Stimulus/Cause

Next, based on the observation that [-transitive] psych-verbs show the systematic pattern of causative alternation, as in (21), I suggest extending the underlying causative analysis of core unaccusatives (Dowty 1981, Chierchia 1989, Levin & Rappaport 1995), where core unaccusative verbs showing the causative alternation are derived from underlyingly causative verbs, to the effect that [-transitive] psych-verbs are represented as having a complex event with causativity.

- (21) a. ku sosik-i Sara-lul sulphu-keyhayssta. (causative)
 the news-Nom Sara-Acc be sad-made
 'The news made Sara sad.'
- b. Sara-ka ku sosik-i sulphuessta. (unaccusative (I))
 Sara-Nom the news-Nom was sad
 'Sara was sad about the news.'
- c. Sara-ka sulphuessta. (unaccusative (II))
 Sara-Nom was sad
 'Sara was sad.'

In (21), both (21b) and (21c) can be called unaccusatives with causativity in the lexicon, since the same pattern of causative alternation, which is illustrated in (21a, b), is also observed in (21a, c). Based on this parallel pattern, I suggest that both subclasses of [-transitive] Exp-Subj psych-verbs, (21b, c), start from a single representation in LSR, as represented in (22):

- (22) *sulphuta* 'be sad': $\exists(x)[x \text{ CAUSE } [y \text{ BECOME } \text{sad}]]$

What is crucial in my proposal for deriving two usages of unaccusatives, (21b, c), from a single lexical representation is then to assume that the existential quantifier in (22) optionally binds its variable, *x*, in Korean; if this binding takes place, the result will be

(ii) Self-motivated mental experiences in causal structure: [+trans] psych-verbs
 Experiencer -----FEEL -----> Target/Theme

detransitivized sentences such as (21c), Otherwise, unaccusative causative sentences with NP2's like (21b) will be borne out. In other words, the NP2's with unaccusative causatives (I) in (21b) actually realize the Causer argument at the level of surface structure, which has been originally introduced through causativity in the lexicon.

In contrast, [+transitive] Exp-Subj psych-verbs in Korean can be represented as ordinary transitives without causativity in the lexicon, as in (23):⁸⁾

(23) *pwulepta* 'be envious': [x BE envious y]

A piece of evidence in favor of the analysis of Korean [-transitive] Exp-Subj psych-verbs as unaccusatives involves interpretation. According to Chierchia (1989) and Levin & Rappaport (1995), if unaccusative verbs such as *open*, *sink*, *break* are analyzed as containing a cause argument at some abstract level (e.g., LSR), it might be expected that some kind of special morpheme or modifier could be found that would reflect the presence of this Causer. Chierchia (1989) explicitly suggests that the Italian phrase *da se* 'by itself' (in the sense of 'without outside help') plays such a role. This is exemplified in (24), originally reported by Chierchia (1989) and cited by Levin & Rappaport (1995), and the English counterparts in (25) are taken from Levin & Rappaport (1995):

- (24) a. La porta si e aperta da se.
 the door opened by itself
 'The door opened by itself.'
 b. La barca e affondata da se.
 the boat sank by itself
 'The boat sank by itself.'

⁸⁾ Here, the capitalized predicate BE is designed to denote a state event, and thus it should be differentiated especially from the result state subevent BECOME in (22). In (23), it can be said that the argument x is an agent-Experiencer, if it is allowed to refer to the Experiencer subject of a [-transitive] psych-verb as patient-Experiencer.

- (25) a. The plate broke by itself.
 b. The door opened by itself.

Given their anaphoric nature, the Italian *da se* and the English *by itself*, which modify a Causer, identify the Causer as Theme argument (i.e., *the door*, *the boat*, and *the plate* here in (24, 25)). Ordinary intransitive verbs not participating systematically in the causative alternation (i.e., causative and inchoative) do not seem to have the same kind of interpretation when followed by this expression. For instance, the most natural interpretation of the sentence '*Sara laughed by herself*' is that Sara laughed unaccompanied (alone) rather than without outside help.

Extending Chierchia's (1989) original suggestion for the Italian *da se* to the effect that the Causer argument represented in the lexicon can be realized as an independent argument at the surface structure level, I assume that in Korean unaccusative causative sentences like (21b), the NP2's are real Causers, not just a reflection of the presence of the Causer.

Overall, [-transitive] Exp-Subj psych-verbs in Korean are further classified into two subgroups, i.e., unaccusatives with causativity (I) and unaccusatives without causativity (II), as we have seen in (21b, c), both of which start from the same lexical representation with causativity. In the next section, I will show how the causativity either survives or disappears even before the psych-verbs go into the syntax.

5. A Lexical Approach to the T/SM Restriction

In section 2.2, I provided a pair of the Korean psych-verb sentences, (10b and 11b), to show that they do not uniformly conform to the T/SM restriction effect that Pesetsky (1995) reported. That is, I have shown that the [+transitive] type does not show the effect at all, though the [-transitive] type somehow shows a similar effect. For the distinction between the two types of psych-verbs, I have appealed to the event structure where the [+transitive] type is characterized as

simplex event without causativity while the [-transitive] type is as complex event with causativity. Then, the distinction can be attributed to the (non-)existence of causativity in lexical properties.

I propose that two subgroups of [-transitive] psych-verbs go through the following derivation, as in (26), respectively:

(26) a. [-transitive] psych-verbs (I) with causativity: *sulphuta* 'be sad'

LSR:	$\exists (x)[x$	CAUSE	[y	BECOME	sad]]
L-Binding:						
Argument Structure:	$\langle x \rangle$		$\langle y \rangle$			
D-S:	Causer		Exp			

b. [-transitive] psych-verbs (II) without causativity: *sulphuta*

LSR:	$\exists x_i [x_i$	CAUSE	[y	BECOME	sad]]
L-Binding:	\emptyset					
Argument Structure:	\emptyset		$\langle y \rangle$			
D-S:	\emptyset		Exp			

In the lexical representation, when existential quantification as lexical binding binds over the variable, *x*, unaccusative psych-verbs (II) without causativity would come out as a result, as in (26b). Otherwise, when existential quantification does not bind over the variable, *x*, unaccusative psych-verbs (I) with causativity come out, as in (26a).

Given these distinctive derivations for two subgroups of [-transitive] psych-verbs, I propose that causativization of [-transitive] Exp-Subj verbs with causativity can be banned in terms of the following generalization:

(27) Vacuous Syntactic Operation Hypothesis

No vacuous syntactic operation, operation applied in the syntax but resulting in no change in the semantics, should be allowed.

The hypothesis in (27) explains why sentences with a [-transitive] unaccusative psych-verb (I) with causativity show the T/SM restriction effect. That is, [-transitive] psych-verb sentences like (28a), where the

presence of the second NP reflecting the underlying causativity will disallow another Causer argument to be added to the those sentences. That is why [-transitive] Exp-Subj psych-verbs, especially when they are introduced with causativity, show a similar pattern of the T/SM restriction, which is repeated in (28b):

- (28) a. Sara-ka ku sosik-i sulphuessta. [-transitive]
 Sara-Nom the news-Nom was sad
 'Sara was sad about that news.'
- b. **ku sosik-i* Sara-eykey casin-uy checi-lul sulphu-keyhayssta.
 (causativization)
 the news-Nom Sara-Dat herself-Gen situation-Acc sad-made
 'The news made Sara sad about her own situation.'
- c. *ku sosik-i* Sara-lul sulphu-keyhayssta. (causativization)
 the news-Nom Sara-Acc sad-made
 'That news made Sara sad.'

The only way to avoid vacuous causativization for the [-transitive] type, is to introduce a simple [-transitive] Exp-Subj psych-verb, of which causativity is already removed by lexical binding. In other words, when a simple [-transitive] psych-verb is introduced in the syntax with a single argument, Experiencer subject, Causer argument can be further added by causativization in the syntax. This is the case in (28c).

In contrast, I suggest that [+transitive] Exp-Subj psych-verbs like *pwulepta* 'be envious' are derived in the following way, ending up with two arguments:

- (29) [+transitive] psych-verbs: *pwulepta* 'be envious'
- | | | | | |
|---------------------|-----|----|---------|----|
| LSR: | [x | BE | envious | y] |
| Argument Structure: | <x> | | <y> | |
| D-S: | Exp | | T/SM | |

Since [+transitive] Exp-Subj psych-verbs are lexically transitives without causativity, as shown in (29), causativization of the verb can

add an extra Causer argument. This lexicalist approach accounts for the reason that [+transitive] Exp-Subj psych-verbs do not show the T/SM restriction effect, which is repeated in (30):

- (30) a. Sara-ka pata-ka kuliwuessta. <Exp <T/SM>>
 Sara-Nom ocean-Nom was (home)sick for
 'Sara was sick for the ocean.'
- b. pata-ka Sara-eykey kohyang-ul kulip-keyhayssta.
 <Causer <Exp <T/SM>>>
 ocean-Nom Sara-Dat hometown-Acc be (home)sick-made
 'The ocean made Sara sick for her hometown'

6. Conclusion

The study in this paper has demonstrated that what was once thought simple is in fact complicate. With a focus on Korean, I have suggested that Exp-Subj psych-verbs are not uniformly included in a single group, but in two types, [+/-transitive]. In doing so, I have taken a lexicalist approach, to explain why the [-transitive] type shows the T/SM restriction effect while the [+transitive] type does not. I have eventually attributed the contrast to whether a psych-verb comes into the syntax with or without causativity. The underlying causativity of the [-transitive] type is the one prohibiting causativization to take place in the syntax. The underlying causative analysis, where existential quantification as lexical binding optionally binds over Causer, has turned out to be also desirable in explaining how the meaning of one existing basic expression is related to that of another: two subgroups of [-transitive] Exp-Subj psych-verbs.

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Sang-Geun Lee

Anam-dong, Seongbuk-gu Seoul 136-701, Korea

Research Institute of Language and Information

Korea University

Phone: 82-2-3290-1648

E-mail: slee16@korea.ac.kr

Kyung-Sik Shin

P.O. Box 77-2 Gongreung-dong Nowon-gu Seoul 139-799, Korea

English Department

Korea Military Academy

Phone: 82-2-2197-2738

E-mail: ksshin@kma.ac.kr

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