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(S)ASE AS AN ELSEWHERE CAUSATIVE AND THE SYNTACTIC NATURE OF WORDS*

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ABSTRACT

This paper argues that lexical insertion may occur at various stages of syntactic derivation. The only component where lexical insertion does not occur is LF. Under this model, morphological processes, such as causativization, take place in syntax, thus reducing the Lexicon simply to a list of items to be spelled out as lexical insertion takes place during derivation (Halle and Marantz 1993). There are no morphological rules as such in the lexicon, with the syntax taking on the function of "word building." In this model, even simple words, such as verb stems, are often associated with a complex syntactic structure. We will look in particular at the causative forms, both "lexical" and "syntactic." In Miyagawa (1980, 1984, 1986, 1989), I argued that both types of causative verbs are formed in the same component. I will give further support for this "same-component" analysis. Unlike in the previous studies, in which I argued that the relevant component is the lexicon, I will give arguments that "lexical" and "syntactic" causative verbs are both formed in the syntactic component. In our analysis, a simple lexical causative stem such as *ake-ru* 'open_r' is associated with a complex syntactic structure.

(Areas of interest: syntax, morphology)

0. Introduction

The Japanese causative morpheme (*s*)*ase* exhibits both syntactic and lexical properties. By "syntactic," I mean that the causative morpheme acts as a periphrastic causative, very much like *make/cause* in English, so that it takes a full clausal complement (e.g., Kuno 1973; Kuroda 1965; Miyagawa 1984, 1986). In contrast, and paradoxically, the lexical properties we see for (*s*)*ase* make it plausible to view the causative verb *V-(s)ase* as a lexical unit (cf. Miyagawa 1980, 1984, 1986, 1989). In this paper, I will propose a modification of the theory to resolve this paradox. Our analysis makes it possible to capture the most basic generalization about the distribution of (*s*)*ase*, and also its related form, (*s*)*as*.

1. Distribution of (*s*)*ase*

The causative morpheme may attach to a verb, monomorphemic or derived,

to form a causative verb, *V-(s)ase*.¹ Following are examples of the causative form with an intransitive verb ("go"), a transitive verb ("eat"), and a derived verb ("begin to eat").

- (1) Taroo-ga Ziroo-o ik-ase-ta.
Taroo-nom Jiro-acc go-cause-past
Taro made Jiro go.'
- (2) Hanako-ga Taroo-ni piza-o tabe-sase-ta.
Hanako-nom Taro-dat pizza-acc eat-cause-past
Hanako made Taro eat pizza.'
- (3) Hanako-ga Taroo-ni piza-o tabe-hazime-sase-ta.
Hanako-nom Taro-dat pizza-acc eat-begin-cause-past
Hanako made Taro begin eating pizza.'

While the causative form may attach freely to most verbs, there are some restrictions. One restriction is found in idiomatization (Miyagawa 1980, 1984, 1989; cf. also Kuroda 1981, 1993). The intransitive verb *nio-u* 'smell' has the causative form *niow-ase* 'cause to smell'. The causative verb has the idiomatic meaning of 'hint', in addition to its compositional meaning (Miyagawa 1980).

- (4) Taroo-ga zisyoku-o niow-ase-ta.
Taro-nom resignation-acc smell-cause-past
Taro hinted that he might resign; lit. Taro caused resignation to smell.'

That the meaning "hint" associated with the causative verb *niow-ase* is idiomatic is shown by the fact that the verb stem "smell" alone lacks a related meaning.

- (5) *Zisyoku-ga nio-u.
resignation-nom smell-present
Resignation smells; *resignation is hinted.'

However, not every causative verb may participate in idiomatization. For example, the causative verb formed from the intransitive verb *kaer-u* 'return_{intr}', *kaer-(s)ase* 'cause to return', does not appear in idioms. Instead, the transitive stem counterpart of *kaer-u*, *kaes-u* 'return_{tr}', participates in idiomatization.²

- (6)a. tenohira-o kaes-u
palm -acc return_{tr}-present
'change one's attitude/opinion/position/etc. abruptly'
'do all at once; lit. return the palm'
- b. *tenohira-o kaer-ase-ru
palm -acc return_{intr}-cause-present

Just as in the case of *nio-u* 'smell' example above, the intransitive stem *kaer-u* 'return_{intr}' does not contain any meaning related to the idiom.

- (7) *tenohira-ga kaer-u
palm -nom return_{intr}-present
'the palm returns; *change one's attitude/opinion/position/etc. abruptly'

The difference, then, between *kaer-ase* 'cause to return_{intr}' and *niow-ase* 'cause to smell; hint', is that the intransitive verb stem *kaer-u* has the transitive verb counterpart *kaes-u* 'return_{tr}' while the intransitive verb stem *nio-u* does not. This can be schematized as follows; the asterisk indicates that the verb does not participate in idiomatization.

- (8) Paradigm for idiomatization
- | | | |
|---|---------------------------------------|--------------------------------|
| intransitive stem | transitive stem | <i>V_{intr}-(s)ase</i> |
| <i>kaer-u</i> 'return _{intr} ' | <i>kaes-u</i> 'return _{tr} ' | * <i>kaer-ase</i> |
| <i>nio-u</i> 'smell' | ————— | <i>niow-ase</i> |

The generalization is clear. If a *V_{intr}-(s)ase* has a corresponding and competing transitive verb stem, the causative verb does not participate in idiomatization, but if no such transitive stem exists, the causative verb is avail-

able for idiomatization. While this generalization is simple to state informally, as we just did, it is not so apparent how we capture it explicitly in a theory of Universal Grammar. Specifically, this generalization, stated informally, depends on *negative information* — "if no such transitive stem exists..." If the paradigm suggested in (8) reflects an empirically correct generalization, we must construct a theory that can explicitly and formally predict whether or not a particular causative verb is available for idiomatization, without depending on informal negative information.

2.1. Paradigmatic Structure

In a series of works (Miyagawa 1980, 1984, 1989), I argued that the generalization we see in (8) reflects a particular way in which the lexicon organizes verbs. I argued that there is a level of representation, which I called Paradigmatic Structure, in which all verbs are organized according to their meaning and valency. A Paradigmatic Structure (PDS) has three slots, one each for intransitive, transitive, and ditransitive.

(9) Paradigmatic Structure

intransitive	transitive	ditransitive

All verb stems find a slot in the PDS. Thus, the intransitive/transitive pair *kaer-u/kaes-u* 'return_{intr}/return_{tr}', fill PDS slots as shown below.

(10)

intransitive	transitive	ditransitive
<i>kaer-u</i> 'return _{intr} '	<i>kaes-u</i> 'return _{tr} '	
<i>kaer-ase</i> 'cause to return _{intr} '		

As indicated, the causative verb formed from the intransitive *kaer-u* is "blocked"

from entering a PDS slot by the existence of the transitive morpheme *kaes-u*. It is important to note that a blocked causative such as *kaer-ase* 'cause to return' may occur in the language. It is simply blocked from participating in lexical processes such as idiomatization.

On the other hand, the intransitive verb *nio-u* 'smell' lacks a transitive stem, thus the causative form of it enters the transitive slot of the PDS. In this way, the causative morpheme functions as a *transitivizer* (Miyagawa 1980).

(11)

	intransitive	transitive	ditransitive
	<i>nio-u</i> 'smell'	<i>nio-w-ase</i>	

What is the theoretical status of the PDS? As we saw, it screens out verb forms that may or may not participate in idiomatization. Because idioms must be registered in the permanent lexicon — they must be learned — I argued that the PDS represents an organization within the lexicon that filters which verbs may enter the permanent lexicon (Miyagawa 1980, 1984, 1989). Because all *V-(s)ase* must be evaluated by the PDS for PDS status, I also argued that the causative verb is formed in the lexicon. These are stated below.

(12) Two assumptions

- (a) The PDS is a level of representation in the lexicon, located post-lexically but pre-syntactically. It functions to filter verb forms for the permanent lexicon.
- (b) All *V-(s)ase* are formed in the lexicon, in order that they can be evaluated by the PDS for membership in the permanent lexicon.

Kuroda (1981, 1993), who has been a vocal critic of the "lexical" approach to the causative verb in Japanese, nevertheless concludes in his recent article that the PDS as a level of representation is necessary in the lexicon (Kuroda 1993, p. 70):

What remains in favor of the PDS is our reformulated lexical integrity principle for idioms... If this principle holds, “unblocked” causatives that occur in idioms must (and those that occur in semantic extensions may) be found in the lexicon. I do not see how this principle is reduced to another which does not refer to negative information, i.e., the non-existence of a simple causative stem. An organized lexicon can indeed provide this negative information by referring to a (vacant) slot in the PDS. It appears, then, that the PDS is relevant to the understanding of how idioms are structured and how the lexicon develops through idiomatization and semantic extensions. This would be no surprise. It is plausible that the lexicon has an organized structure, and the structure influences how it develops.

The PDS makes it possible, then, to state in a formal fashion the distribution of causative verbs in idioms, without depending on negative information. All verbs, both stems and the morphologically complex *V-(s)ase*, may participate in idiomatization if they attain PDS status. This solves the problem with negative information, but it creates another problem. The PDS is only *descriptively adequate*, in that we are forced to establish a level of representation — the PDS — solely for the phenomenon we are dealing with, that of idiomatization.³

In this article, I will propose an analysis of the causative verbs, both “lexical” and *V-(s)ase*, that does away with the assumption that there is a distinct level of representation I have called the PDS. In so doing, I will modify the “lexical” approach to Japanese causatives. Abstracting away from whether a verb is formed in the lexicon or the syntax, we can view the controversy regarding the Japanese causatives as either of (a) or (b) below.

- (13) Two distinct approaches to the Japanese causatives, both *V-(s)ase* and the lexical (verb-stem) causatives
 (a) *The same-component hypothesis*: all verbs that contain the meaning

of CAUSE are formed in the same component of the grammar, whether it is “lexical” or the productive *V-(s)ase*.

- (b) *The different-component hypothesis*: “lexical” causatives are found in the lexicon, while the “productive” *V-(s)ase* verbs are formed in syntax.

The studies contained in Miyagawa (1980, 1984, 1989) embody the “same-component” hypothesis, because it is argued that all verbs, stems and the productive *V-(s)ase*, are found in one component, which, in the works cited, is the lexicon. Most other works on the Japanese causatives, including Kuroda (1965, 1981, 1993), adopt the “different-component” hypothesis, in which lexical causatives such as *kaes-u* ‘return_{tr}’ exist in the lexicon and the productive causatives such as *V-(s)ase* are formed in syntax.

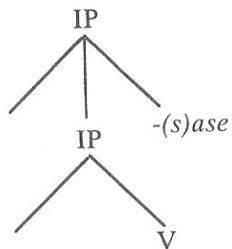
In this article, I will continue to argue for the same-component hypothesis. Unlike in my previous works, I will argue that this component is *syntax*, not the lexicon. I will also attempt to capture the original intuition that the PDS is a filter for the permanent lexicon, but do so from a general design of the theory instead of establishing a distinct level of representation such as the PDS. The proposal I will put forth requires a modification of the theory of Universal Grammar. We will do away with the lexicon as a locus of morphological processes, in turn requiring that lexical insertion that gives phonological value to “words,” both morphologically simple and complex, be allowed to take place in later stages of syntactic derivation. This is essentially the design of Distributed Morphology proposed in Halle and Marantz (1993).

2. Syntactic and Lexical Properties of *(s)ase*

A typical indication of biclausality is that the antecedent of the reflexive *zibun* is ambiguous (e.g., Kuroda 1965).

- (14) Tanaka_i-ga Suzuki_j-ni zibun_{i/j}-no hon-o yom-ase-ta.
 Tanaka_i-nom Suzuki_j-dat self_{i/j}-gen book-acc read-cause-past
 ‘Tanaka made Suzuki read self’s book.’

Since *zibun* requires a subject as its antecedent, this ambiguity suggests a biclausal structure, hence a “syntactic”(s)*ase*, as illustrated below.



As is well known, in a simplex sentence, which contains only one subject, the interpretation of the reflexive is unambiguous.

- (16) Tanaka_i-ga Suzuki_j-ni zibun_{i/*j}-no hon-o age-ta.
 Tanaka_i-nom Suzuki_j-dat self_{i/*j}-gen book-acc give-past
 ‘Tanaka gave Suzuki self’s book.’

At the same time, the causative verb is associated with a cluster of properties typically found with lexical verbs (Miyagawa 1980, 1984, 1986, 1989). As already noted, there are causative verbs associated with a non-compositional meaning, such as *niow-ase* ‘hint; lit. smell-cause’.

If the situation were simply limited to the syntactic/lexical bifurcation I just described, we are not compelled to pursue this topic any further. It would be at least descriptively adequate simply to state that the causative morpheme (s)*ase* shows up by coincidence both in syntax and the lexicon. However, there is one additional phenomenon that requires more analysis. As noted originally in Miyagawa (1980), the ability of a particular causative verb $V_{intr}(s)ase$ to take on an idiomatic meaning depends on whether there is a competing transitive verb stem that corresponds to the intransitive stem of the causative verb. Earlier, I gave the example of the causative verb *niow-ase* ‘cause to smell’, which has the idiomatic meaning ‘hint’. The intransitive verb stem, *nio-u* ‘smell’, does not contain any meaning related to this idiom. In contrast, the intransitive *kaer-u* ‘return_{intr}’ has the transitive counterpart *kaes-u* ‘return_{tr}’,

so that the causative verb formed from the intransitive stem, *kaer-ase* ‘cause to return_{intr}’, is prohibited from taking on idiomatic meaning. It is also the case that even if the intransitive stem contains the relevant idiomatic meaning, if the intransitive stem has a transitive stem counterpart, the $V(s)ase$ formed from the intransitive stem cannot maintain the idiomatic meaning.

- (17) a. mune-ga itam-u
 chest-nom ache-present
 ‘be worried’
 b. mune-o itam-e-ru
 chest-acc hurt-present
 ‘worry oneself’
 c. *mune-o itam-ase-ru
 chest-acc ache-cause-present

The intransitive verb stem *itam-u* ‘ache’ may take on the idiomatic meaning of “worry” in combination with the noun *mune* ‘chest’. The transitive counterpart, *itame-ru* ‘hurt’, sustains this idiomatic meaning. As shown in (c), due to the existence of this transitive stem, the $V_{intr}(s)ase$ verb cannot occur in the idiom, even though the intransitive stem already contains the idiomatic meaning.

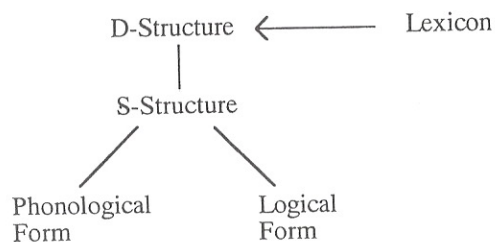
In contrast, if there is no transitive stem, the $V(s)ase$ can sustain the idiomatic meaning of the intransitive verb.

- (18) a. me-ga hikar-u
 eye-nom shine-present
 ‘be under a watchful eye’
 b. me-o hikar-ase-ru
 eye-acc shine-cause-present
 ‘keep a watchful eye’

This is the phenomenon that I have called “blocking” (Miyagawa 1980, 1984, 1986, 1989).⁴ A transitive (or ditransitive) verb “blocks” a causative

verb formed from its intransitive (or transitive) counterpart from taking on lexical properties, which prohibits the blocked causative verb from participating in idiomatization.⁵ The blocked causative can exist, but only as a syntactic causative. This means that the syntactic causative must somehow “know” whether there is a competing verb stem in the lexicon. Consequently, it is not just a matter of bifurcating the causative morpheme between the syntactic component and the lexicon. Rather, the two must be allowed somehow to interact. This is a state of affairs not normally allowed in the model of grammar I assumed for the analysis of the causatives (e.g., Chomsky 1965, 1981, 1993).

(19)



Once a lexical item leaves the lexicon and is inserted into a syntactic representation at D-structure, the ensuing syntactic derivation cannot have access to information residing in the lexicon, except as encoded into the individual lexical items. There is no obvious encoding mechanism for capturing the phenomenon of blocking. Blocking takes place when there is an *absence* of a class of lexical items — the verb stems that would compete with the causative verb. One cannot encode information onto something that has no existence (the information that would be encoded if it were possible is that it doesn't exist!).

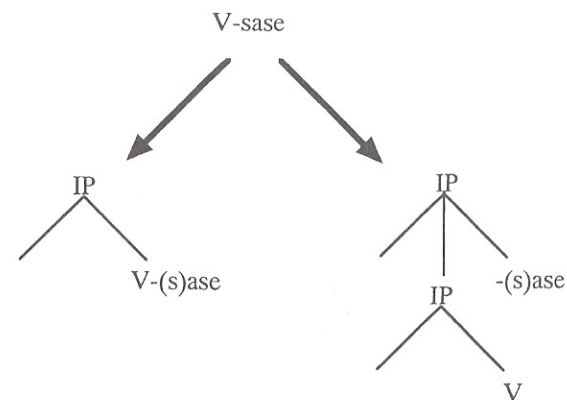
In order to capture the blocking effect, it is necessary to locate both the “syntactic” and “lexical” causatives in one component of the grammar. This is what I have termed the “same-component” hypothesis, repeated below.

(20) The Same-Component Hypothesis

All verbs that contain the meaning of CAUSE are formed in the same component of the grammar, whether it is “lexical” or the productive *V-(s)ase*.

In a series of works dating back to my doctoral dissertation (Miyagawa 1980), I have argued that the *(s)ase* causative verb is formed in the lexicon. This position differed radically from the contemporary “syntactic” analysis of the Japanese causative verb (e.g., Kuno 1973; Kuroda 1965; Shibatani 1973, 1976; Tonoike 1978), but it naturally captured the lexical properties associated with the *V-(s)ase* verbs with regard to idiomatization. However, as I noted, this position had the consequence that the syntactic properties of the *V-(s)ase* must receive some ad hoc lexical explanation, a point also noted by a number of linguists in response to my proposal (e.g., Kuroda 1981, 1993). In part to address this problem, I suggested in Miyagawa (1984, 1986) that the causative verb, once formed in the lexicon, may project a dual structure of simplex and biclausal structures.⁶

(21)



(22) The Dual-Structure Hypothesis

V-(s)ase is, in principle, associated with a dual structure.

The problem with the dual-structure analysis is that it is ad hoc. How can we capture blocking without falling into this or some other proposal that lacks compelling motivation? Recall the paradox: lexical information, which is normally considered to be within the proper jurisdiction of the lexicon, must be available to syntactic derivation. I will suggest that the way to avoid this paradox is to modify the model of grammar as follows: *do away with the lexicon as a distinct component of the grammar for morphological processes*. With this move, we push the relevant "lexical" information into the syntactic component, making it possible for syntactic derivations to access lexical information at various specified stages of the derivation. In other words, *V-(s)ase*, both "lexical" and "syntactic," is derived in syntax. In spirit this is consonant with the original proposal in Miyagawa (1980): the "same-component" hypothesis for all instances of *V-(s)ase* and lexical causatives is maintained. As I will also show, the dual-structure hypothesis is also maintained. The proposal in this paper, then, is a natural extension of the series of works contained in Miyagawa (1980, 1984, 1986, 1989).

3. Generalization to be Captured: "Elsewhereness"

In Miyagawa (1980) and in subsequent works, it was noted that a *V-(s)ase* may qualify as a lexical causative only if there is not a morphologically simpler verb — a verb stem — that corresponds in meaning and valency. With the assumption that only lexical causatives may take part in idiomatization (cf. Miyagawa 1980), we have the following paradigm, taken from Miyagawa (1989) (the data is originally taken from Zenno 1985).

(23)	intransitive stem	transitive stem	causative
a.	heru 'lessen'	—	her-ase
	hara-ga heru		hara-o her-ase-ru
	stomach-nom lesson		stomach-acc lesson-cause
	'get hungry'		'wait for a meal'
b.	hikaru 'shine'	—	hikar-ase
	me-ga hikaru		me-o hikar-ase-ru
	eye-nom shine		eye-acc shine-cause
	'be under a watchful eye'		'keep a watchful eye'

c.	kiku 'be effective'	—	kik-ase
	haba-ga kiku		haba-o kik-ase-ru
	width-nom be effective		width-acc be effective-cause
	'have influence with'		'influence'
d.	hairu 'come in'	ireru 'put in'	hair-ase
	kiai-ga hairu	kiai-o ireru	*kiai-o hair-ase-ru
	spirit-nom come in	spirit-acc put in	
	'be full of spirit'	'put spirit into'	
e.	itamu 'ache'	itameru 'hurt'	itam-ase
	mune-ga itamu	mune-oitameru	*mune-o itam-ase-ru
	heart-nom ache	heart-acc hurt	
	'be worried'	'worry oneself'	
f.	oreru 'break'	oru 'break'	ore-sase
	hone-ga oreru	hone-o oru	*hone-o ore-sase-ru
	bone-nom break	bone-acc break	
	'require hardwork'	'exert oneself'	

Three points are to be noted for this paradigm. First, the causative verb may appear in an idiom if there is not a competing transitive stem. Second, this is true even if the intransitive verb stem to which *(s)ase* attaches contains the idiomatic meaning. Third, as shown in (d) - (f), even if the causative verb cannot attain lexical status, it may occur as a "syntactic" causative; it simply cannot occur in idioms because it fails to have existence as a lexical causative.

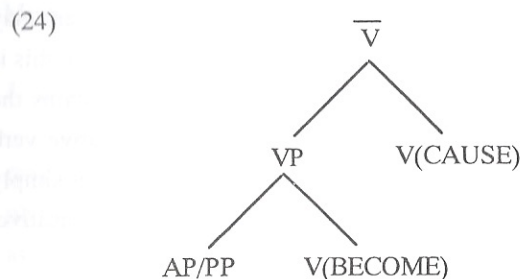
3.1. Elsewhere

A natural way to view this state of affairs is the following. To express the meaning of lexical causation, if there is a specific form, select that form. Otherwise use *V-(s)ase*. On this view, *(s)ase* is an "elsewhere" causative. I believe that this is the single most fundamental distributional property of *(s)ase*. In order to evaluate whether there is a specific lexical causative form, or whether the elsewhere causative *(s)ase* should be inserted, both the specific forms and *(s)ase* must be present in the same component of the grammar — the "same-component" hypothesis. In my previous works, I located both in the lexicon. This was due to the nature of the theory at the time. Lexical processes such as

word formation had to be in the lexicon. However, I now break from this tradition, and locate the two morphological forms, “lexical” and “syntactic” (*s*)*ase*, in the syntax. Since even the specific verb form involves some morphological derivation, as I will show, what our move entails is that *all* morphological processes take place in syntax. In turn, we do away with the lexicon as a distinct component of grammar for morphology. We still obviously need a lexicon to store the basic vocabulary of the language, in some fashion. However, according to the theory we are pursuing, any and all morphological processes that involve these basic vocabulary items take place in syntax.

4. The Structure of Causation

Hale and Keyser (1993) propose a structure for lexical causality. According to them, the characteristic causative structure is where a V takes a VP (I will use the head-final order).⁷



The higher V corresponds to the “cause” verb, and the lower verb corresponds to a notion such as “become.” “AP” is for an adjective representing a state. “PP,” the other option, denotes location. The idea is that causatives involve causing a change in either the state or location. Following is an example from Hale and Keyser for change of state.

(25) The cook thinned the gravy.

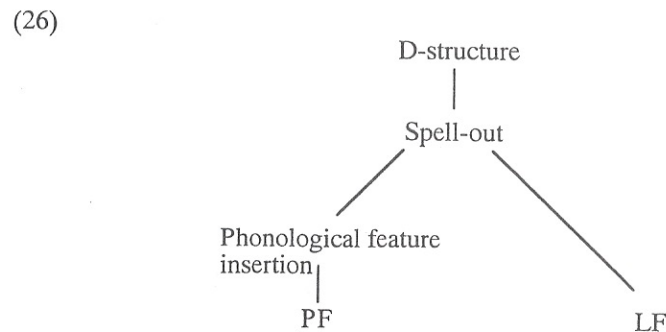
In this example, the adjective *thin* occupies the terminal node under AP. Under

the lower V is a verb corresponding to the meaning “become (thin)” and this VP is selected by the higher verb “cause.” I will assume that the “lexical” causative has this structure. In contrast to the “lexical” causative, the “syntactic” causative is associated with a structure in which there is a “subject” associated with the lower V as well as with the causative verb. This means that a lexical causative verb such as *thin* has a syntactic representation. Its underlying structure is not simply an X⁰, but is a complex syntactic structure with V (CAUSE) taking a VP complement.

5. Late Insertion of Phonological Features: Distributed Morphology

In a series of works, Halle and Marantz (Halle and Marantz 1993, 1994; Halle 1994; Marantz, 1995) propose that the phonological features are inserted after spell-out. Insertion of phonological features takes place on the “PF” side. The “LF” side does not ever compute elements with phonological features.

...that *cat* begins with the phoneme /k/ ...ha[s] no role in derivations prior to Spell-out, nor do they function in the operations in the right branch heading toward LF. (Halle 1994)



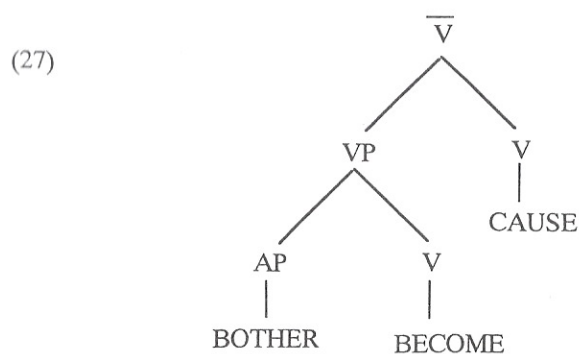
Halle and Marantz consider evidence such as the following (Halle 1994).

There is ... empirical evidence for late insertion. Consider the English Past tense form *went*. This form is composed of the Past tense

suffix *t*, which occurs also in *sent*, *lent*, *bought*, *left*, etc., and the stem *wen/(wend)*. Both stem and suffix appear only when Infl dominates Past and only when the main verb is moved up to Infl after Spell-out. Since Past is a “weak” feature in English, the main verb does not appear next to Infl at Spell-out. In fact, because of *Procrastinate* [cf. Chomsky (1993)] the stem moves up to Infl only after Spell-out. Hence both parts of the form *wen-t* can only be computed in the PF branch, as implied by “late insertion.”

The analyses that Halle and Marantz have presented up to now are limited to inflectional morphology. However, if Distributed Morphology, as they call it, is to have full validity, it must be able to deal with derivational morphology in a meaningful and insightful manner (Marantz 1995).

Taking the lead from Hale and Keyser (1993), I propose that every lexical causative verb has the structure they propose, with the difference in meaning among the verbs attributable to the variation in the adjective (or the PP); the other parts, “become” and “cause,” are identical across all lexical causatives. Thus, for example, the causative verb *iya-gar-ase* ‘bother-become-cause’ has the lexical causative representation as follows, before phonological insertion (*iya* is represented as BOTHER to indicate that it does not yet have phonological representation).⁸



According to the principles of late insertion, after Spell-out, the following are ostensibly inserted (it is not clear if *gar* corresponds to BECOME; I will assume that it does for the present analysis).⁹

- (28) *iya* <—> BOTHER
gar <—> BECOME in the environment Adj¹⁰ _____
 (s)ase <—> CAUSE

The verb, *iya-gar-(s)ase*, also has a syntactic counterpart with the same morphemes. In the syntactic form, CAUSE ((s)ase) takes an IP complement.

6. Specific Lexical Causatives

The structure in (27) signifies that across all lexical causative verbs, we find CAUSE and BECOME to be invariant, and the variability in meaning arises from the choice for AP (or PP). That is, all lexical causatives, despite their meaning differences, have this structure. It is, therefore, natural to suggest that it is only the AP/PP portion that the native speaker must learn for a particular lexical causative. The other portions, BECOME and CAUSE, are always available. The point of interest for us is, how does this structure get implemented as a phonological form — that is, how is it pronounced? Looking through the list of lexical causative verbs in Japanese reveals a number of combinatory possibilities. For example, the causative verb, *iya-gar-ase* ‘bother-become-cause’, which we just saw above, has a transparent morphological structure relative to the general lexical causative structure. There is a one-to-one correspondence between the pieces of the structure and the pieces of the morphological representation: X—*iya*; BECOME—*gar*; CAUSE—(s)ase. Following are two other lexical causative verbs. I have provided not only the causative verbs, but also their intransitive counterparts (the (r)u at the end is the dictionary-form ending). These are taken from Jacobsen (1992).

- (29) a. - \emptyset -/e- ak-u ‘open_{intr}’/ak-e-ru ‘open_{tr}’
 b. -re-/s- tao-re-ru ‘fall’/tao-s-u ‘fell/push down’

There are a number of ways to analyze the morphological pieces. What is important is that these verbs indicate different ways to combine the pieces of the original structure (X, BECOME, CAUSE). In the first pair, the stem *ak* phonologically represents the combination X ("be open")¹¹ +BECOME. The morpheme *e* apparently stands for CAUSE for this class of verbs. In (b), *tao* can be thought of as the phonological representation of X ("be down"), and the *re* in the intransitive verb as the representation of BECOME. In the transitive verb, *s* is selected by this class of predicates for implementing the phonological combination BECOME+CAUSE. Again, there may be other analyses for each of these morphemes. What is important is that the phonological piece that represents CAUSE (and, in the second verb, also BECOME in combination) is specifically selected by a particular class of predicates. These are schematized as follows.

	Intransitive	Transitive (causative)
(30)		
(a)	<i>ak-</i> 'open _{intr} ' BE-OPEN BECOME	<i>ak-</i> <i>e-</i> 'open _{tr} ' BE-OPEN BECOME CAUSE
(b)	<i>tao-</i> <i>re-</i> 'fall' BE-DOWN BECOME	<i>tao-</i> <i>s-</i> 'fell/push down' BE-DOWN BECOME CAUSE

What this indicates is that for the category that contains the verbs "open," CAUSE is to be pronounced with the morpheme *-e-*. For the category that includes the "fall/fell" verbs, the combination BECOME+CAUSE is pronounced with *-s-*. To put it more generally, the structure X BECOME CAUSE is provided as the general structure for all lexical causatives. As part of language acquisition, the native speaker must learn how this structure is pronounced, by learning the categories that the verbs belong to, and the specific morphemes that each category of verbs imposes on the pronunciation of the pieces of the general structure.

Let us look at a sampling of the specific lexical causative forms. Jacobsen (1992) gives sixteen classes of intransitive-transitive pairs, where the intransitive is inchoative and the transitive verb is lexical causative with what we are calling a specific form. Following is a subset of his data.

(31) intransitive-transitive pairing (taken from Jacobsen 1992)

a.	(i)	<i>-ar/-e-</i>	<i>ag-ar-u</i> 'rise'	<i>ag-e-ru</i> 'raise'
	(ii)	<i>-re/-s-</i>	<i>hazu-re-ru</i> 'come off'	<i>hazu-s-u</i> 'take off'
	(iii)	<i>-ri/-s-</i>	<i>ta-ri-ru</i> 'suffice'	<i>ta-s-u</i> 'add, supplement'
	(iv)	<i>-e/-as-</i>	<i>kog-e-ru</i> 'become scorched'	<i>kog-as-u</i> 'scorch'
	(v)	<i>-i/-os-</i>	<i>ok-i-ru</i> 'get up'	<i>ok-os-u</i> 'get up'
b.	(i)	\emptyset / <i>-as-</i>	<i>nar-u</i> 'ring _{intr} '	<i>nar-as-u</i> 'ring _{tr} '
	(ii)	\emptyset / <i>-e-</i>	<i>ak-u</i> 'open _{intr} '	<i>ak-e-ru</i> 'open _{tr} '
c.	(i)	<i>-e/\emptyset</i>	<i>kir-e-ru</i> 'be cut'	<i>kir-u</i> 'cut'
	(ii)	<i>-ar/\emptyset</i>	<i>matag-ar-u</i> 'sit astride'	<i>matag-u</i> 'straddle'

Let us work through some of these forms according to the structure of the causative and the principles of late phonological-feature insertion.

Take the intransitive-transitive pair in (a)(i), *ag-ar* and *ag-e*. This is much more complex than the example we dealt with above, *iya-gar-ase* 'cause to become bothered'. It is complex because insertion is not one-to-one. Following the practice I established above, I will use capital letters for the representation of the morphemes prior to insertion (e.g., UP). I will also use the numbering I used above for verb class, e.g., (a)(i) is for the verb class exemplified by the intransitive/transitive pair *ag-ar/ag-e*.

- (32) a. for the intransitive *ag-ar*
ag \longleftrightarrow UP
ar \longleftrightarrow BECOME in env. (a)(i) _____
- b. for the transitive *ag-e*
e \longleftrightarrow BECOME+CAUSE¹² in env. (a)(i) _____

An important insight we derive from this exercise is that the late insertion allows us to maintain a consistent representation of the inchoative (ADJ+BECOME) and the causative (ADJ+BECOME+CAUSE). The individual morphemes get inserted according to a variety of combinations of these components of the inchoative/causative, e.g., the morpheme *ar* is inserted for

BECOME in the intransitive (inchoative); and the morpheme *e* is inserted for the combination BECOME+CAUSE in the transitive (lexical causative). These details must be learned, and the often non-general nature of these operations of phonological insertion is indicative of this.

Finally, let us derive the pair, *kir-e* 'be cut' / *kir* 'cut', in (c)(i). This is the most problematic. Note that the lexical transitive *kir* 'cut' is monomorphemic. It is the intransitive *kir-e* that is bimorphemic. There is, indeed, a sense that the transitive stem is "basic." One possibility is that there is a zero-morpheme associated with *kir* 'cut' with the meaning of "BECOME+CAUSE."

- (33) a. *kir* 'cut'
 kir <—> BE CUT
 ∅ <—> BECOME+CAUSE in env. (c)(i) _____
 b. *kir-e* 'be cut'
 e <—> BECOME in env. (c)(i) _____

There are other possibilities that are just as — may be even more — likely. My intention here is to illustrate the kinds of possibilities that open up with this approach to morphology.¹³

Where does the causative morpheme (*s*)*ase* fit in? The generalization that is apparent from looking at its distribution is this: (*s*)*ase* occurs whenever a verb category does not specify a phonological representation for CAUSE.¹⁴ This is the notion of (*s*)*ase* as an *elsewhere* causative. That is, use a form for CAUSE specified by a verbal category; use (*s*)*ase* **elsewhere**.

- (34) (*s*)*ase* <—> CAUSE

Unlike the other morphemes for CAUSE, (*s*)*ase* is not selected, but instead, is inserted when no specific morpheme is selected for CAUSE.¹⁵

Two points are to be noted for the various derivations I suggested above. First, our analysis based on late insertion automatically derives the effects of blocking. In the lexical causative structure we have been looking at, a *V-(s)ase* is "blocked" from occurring if the verb selects another morpheme, such as *e* in *ak-e* 'open_{tr}'. (*S*)*ase* appears only in those environments where the verb does

not select a specific causative morpheme. This is what I mean by saying that (*s*)*ase* is the "elsewhere" causative.¹⁶ Second, along with the lexical causative structure, there is the "syntactic" causative (*s*)*ase*, which takes a full clause. Before phonological insertion, this verb is represented only as CAUSE. In this syntactic structure, the verb stem (the embedded verb) would not ever select a particular type of causative morpheme. Thus, CAUSE is unselected, and the "elsewhere" rule inserts (*s*)*ase* for the "syntactic" CAUSE. The "syntactic" *V-(s)ase* exists regardless of whether the "lexical" *V-(s)ase* is blocked.

In terms of what the native speaker knows, our proposal makes the following kind of statement: to pronounce CAUSE, the native speaker must learn the following.

- (35) Native speaker's knowledge about causative verbs
 (i) know the verbal category that a verb belongs to, and what specific morpheme the category imposes on the pronunciation of CAUSE for this category
 (ii) learn the elsewhere rule for (*s*)*ase*

This is, in essence, a reinterpretation of the status of PDS as a filter for the permanent lexicon (Miyagawa 1980, 1984, 1989). In the PDS scheme, first, verb stems are entered into the appropriate PDS slots. This is equivalent to (i), since "verb stems" here refer in part to the lexical causatives (and their intransitive counterparts) with specified morphology for CAUSE—this is something that must be learned. (ii) is the blocking effect for lexical causatives: in the PDS, a *V-(s)ase* is blocked by a competing transitive (or ditransitive) stem, but in the proposal in this article, a "blocked" *V-(s)ase* does not get formed because of a more specific CAUSE morpheme associated with the verbal category.

The analysis I have provided also captures the essence of the "dual-structure" hypothesis I proposed in an earlier work (Miyagawa 1986). *V-(s)ase* as a "syntactic" form always exists, since the elsewhere rule automatically inserts (*s*)*ase* for the "unselected" syntactic CAUSE. This represents the biclausal portion of the dual structure. For the lexical portion, *V-(s)ase* appears if no

specific morpheme is specified for the lexical CAUSE. Otherwise, a specific lexical causative appears.

- (36) a. "syntactic" CAUSE \longleftrightarrow (s)ase Elsewhere rule
 b. "lexical" CAUSE \longleftrightarrow -e-
 .
 .
 .
 (s)ase Elsewhere rule

7. Further Evidence

How can we distinguish between the "lexical" and "syntactic" manifestations of *V-(s)ase*? A test created by Martin (1975) and used extensively by Kuroda (1993) is the double-causative test. Double causative is possible if the first causative is "lexical." To see this, let us form a double-causative from the *V-(s)ase aw-ase* 'lit. 'meet-cause'; 'fit/match"' (Kuroda 1993).

- (37) Reiko-ga Hanako-ni yoofuku-o aw-ase-sase-ta.
 Reiko-nom Hanako-dat clothing-acc meet-cause-cause-past
 'Reiko made Hanako match her clothing.'

As shown, this double causative is perfect, indicating that *aw-ase* can function as a "lexical" causative.

In contrast, the *V-(s)ase, ag-ar-ase*, 'rise-cause' is blocked as a lexical causative by the existence of the transitive verb *ag-e* 'raise'.

- (38) * Reiko-ga Hanako-ni Ziroo-ni butai-ni agar-ase-sase-ta.
 Reiko-nom Hanako-dat Jiro-dat stage-on rise-cause-cause-past
 'Reiko made Hanko make Jiro rise onto the stage.'

As Kuroda points out, in these instances of double-causative meaning, the most appropriate way to express the double causative is to drop one of the causative morphemes.

- (39) Reiko-ga Hanako-ni Ziroo-ni butai-ni agar-ase-ta.
 Reiko-nom Hanako-dat Jiro-dat stage-on rise-cause-past
 'Reiko made Hanko make Jiro rise onto the stage.'

To summarize, if a specific causative morpheme is selected, the "lexical" and the "syntactic" sides of the causative construction end up with different causative forms.

- | | | | |
|------|--------------|-------------------|-----------------------------|
| (40) | intransitive | lexical causative | syntactic causative |
| | ag-ar | ag-e/*ag-ar-ase | agar-ase |
| | 'rise' | 'raise' | 'cause to rise (syntactic)' |

If the verbal category does not select a specific causative morpheme, the "elsewhere" *(s)ase* is automatically inserted for CAUSE. In this way, the "lexical" as well as the "syntactic" causatives may end up as *V-(s)ase*. An example of this is the intransitive verb *hasir-u* 'run'. The causative of this verb may be used to mean 'move quickly.'

- (41) (a) Taroo-ga (tegami-ni) me-o hasir-ase-te iru.
 Taro-nom (letter-dat) eye-acc run-cause-progressive
 'Taro is moving his eyes quickly (over the letter).'
 (b) *Me-ga hasit-te iru.
 eye-nom run-progressive

The example in (b) indicates that the intransitive verb by itself does not contain the relevant semantics we see in the causative form in (a). This suggests that the causative verb *hasir-ase* is a lexical causative. On the other hand, the reflexive indicates that the same causative verb may appear as a syntactic form.

- (42) Mary_i-ga John_j-o zibun_{i/j}-no heya-de hasir-ase-ta.
 Mary-nom John-acc self-gen room-in run-cause-past
 'Mary made John run in her/his own room.'

Kuroda's double-causative test confirms that this *V-(s)ase* is syntactic.

- (43) a. *Taroo-ga Mary_i-ni John_j-o zibun_{i/j}-no heya-de hasir-ase-sase-ta.
 Taro-nom Mary-dat John-acc self-gen room-in run-cause-cause-past
 'Taro made Mary make John run in her/his own room.'
 b. Taroo-ga Mary_i-ni John_j-o zibun_{i/j}-no heya-de hasir-ase-ta.
 Taro-nom Mary-dat John-acc self-gen room-in run-cause-past

As shown, the double-causative meaning is expressed with only one *(s)ase* ((b)), indicating that *hasir-ase* is a syntactic *V-(s)ase*.¹⁷ This, then, is an instance of the dual structure of *V-(s)ase*, in which both occurrences of *(s)ase* are implemented by the elsewhere rule.

8. On *V-(s)as*

Along with the causative morpheme *(s)ase*, there is the form *(s)as*, which often alternates freely with *(s)ase*. At least in the standard dialect, there is a sense that *(s)as* implies a more direct causation than *(s)ase*, although both can form a "syntactic" causative (Kuroda 1993; Miyagawa 1984, 1989; Shibatani 1973, among others). I will follow the analysis in the works just cited and assume that *(s)as* as well as *(s)ase* are available as "elsewhere" causative. Thus, for every "syntactic" causative *V-(s)ase*, there exists *V-(s)as* (cf. Kuroda 1993; Miyagawa 1984, 1989).

What about the "lexical" side of the picture? There is a causative morpheme, *as*, that is selected by certain verb stems, such as in the \emptyset/as alternation *ugok* 'move_{intr}'/*ugok-as* 'move_{tr}' (cf. Kuroda 1993). As noted by Kuroda, Martin's double-causative test indicates that *ugok-as* is a "lexical" causative.

- (44) Rentai-tyoo-ga syootai-tyoo-ni heitai-tati-o ugok-as-ase-ta.
 regiment-commander platoon-commander-dat soldiers-acc move-cause-cause-past
 'The regiment commander made a platoon commander move soldiers.'

As shown below, replacing *as* with *(s)ase* makes it impossible to have the double causative.

- (45) * Rentai-tyoo-ga syootai-tyoo-ni heitai-tati-o ugok-ase-sase-ta.
 regiment-commander platoon-commander-dat soldiers-acc move-cause-cause-past

As expected, the appropriate way to express this double causative is simply to have a single instance of *(s)ase*, again indicating that *(s)ase* with the verb *ugok* 'move_{intr}' is a "syntactic" causative.

- (46) Rentai-tyoo-ga syootai-tyoo-ni heitai-tati-o ugok-ase-ta.
 regiment-commander platoon-commander-dat soldiers-acc move-cause-past

The insertion for *as* is thus as follows.

- (47) *as* \longleftrightarrow CAUSE in env. (b)(i) _____

Evidence that *(s)as* may occur as a "syntactic" elsewhere causative alongside *(s)ase* is shown by the pair *hatarak* 'work'/*hatarak-as* 'cause to work'. As Kuroda (1993) notes, double causative with *hatarak-as* is ungrammatical.

- (48) *Rentai-tyoo-ga syootai-tyoo-ni heitai-tati-o hatarak-as-ase-ta.
 regiment-commander platoon-commander-dat soldiers-acc work-cause-cause-past
 'The regiment commander made a platoon commander make soldiers work.'

The version with *(s)ase*, **ugok-(s)ase-sase*, is equally bad, as expected.

We have identified two types of *(s)as*, the "syntactic" elsewhere causative, and *as* that is selected by a certain class of verb stems. Is there another type? In Miyagawa (1980, 1984), I argued that there is also a *(s)as* that is an allomorph to "lexical" *(s)ase*. For example, the causative verb we have already looked at, *aw-ase* 'lit. 'meet-cause'; 'fit/match', may occur in a double causative, as we have already seen. Along with *aw-ase*, there is the "as" version *aw-as*, which may also occur in the double causative (*aw-as-ase*).¹⁸ The following statements capture the distribution of *(s)as*.

(49) *(s)as*

(s)as is an allomorph of the elsewhere *(s)ase*¹⁹

In our system, the elsewhere causative *(s)ase* may form either a lexical or a syntactic causative. Thus, it is sufficient simply to make the statement above without specifying whether we are referring to the "lexical" or the "syntactic" causative. Along with this allomorph, we have already seen that there is a separate causative morpheme, *as*, which is specified for pronunciation for CAUSE in the environment of (b)(i) verb type.

How would the different-component hypothesis deal with the facts we have observed about *(s)as*? The specific CAUSE morpheme *as* for (b)(i) type verbs would be stated in a similar way as above. The difference comes with the alternation with *(s)ase*. If, as we have done above, we continue to assume that *(s)as* is an allomorph, the following would be the way for the different-component hypothesis to state the distribution of this allomorph.

- (50) Distribution of *(s)as* in the different-component hypothesis
- (i) *(s)as* is the allomorph of *(s)ase* that occurs in syntax
 - (ii) *(s)as* is the allomorph of *(s)ase* that occurs in the lexicon

This misses the important generalization captured by the same-component hypothesis, that *(s)as* is the allomorph of *(s)ase* in general.

9. A Prediction

The analysis I have presented makes one clear prediction. Given its elsewhere nature, *(s)ase* is associated only with CAUSE. That is, we should never find a situation in which *(s)ase* represents, for example, BECOME + CAUSE. This contrasts with specific lexical causatives, which may contain a morpheme, for example *s intao-s-u* 'fell', which may very well be associated with a meaning more than just CAUSE (*s* here is associated with BECOME + CAUSE). Based on our analysis of *(s)as* above, which is, in one instance, an allomorph of the elsewhere *(s)ase*, the same prediction states that *(s)as* that is the allomorph of *(s)ase* can only be associated with CAUSE. In turn, we pre-

dict that if there is an instance of *(s)as* that is associated with more than just CAUSE (e.g., BECOME + CAUSE), this is not the elsewhere allomorph *(s)as*, hence it should not freely alternate with *(s)ase*. This is an empirically testable prediction.

There are two major verbal categories in Jacobsen's (1992) list of verbs in which *as* stands for BECOME + CAUSE (Jacobsen's IX and X).

(51) (IX) -e-/-as-

- | | |
|-----------------------|-------------------|
| d-e-ru 'come out' | d-as-u 'take out' |
| hi-e-ru 'become cool' | hiy-as-u 'cool' |

In this class, in the intransitive form, -e- represents BECOME. In the transitive form, -as- represents BECOME + CAUSE. Thus, -as- here is specified by this class of verbs for BECOME + CAUSE; it is not the allomorph of the elsewhere causative. We correctly predict that this -as- cannot alternate with *(s)ase*: *d-ase-ru 'take out', *hiy-ase-ru 'cool'²⁰ I have checked all the verbs in the class, and our prediction is borne out in every case.

(52) (X) -i-/-as-

- | | |
|-----------------------------------|---------------------------------|
| nob-i-ru 'become extended' | nob-as-u 'extend' |
| toz-i-ru 'close _{intr} ' | toz-as-u 'close _{tr} ' |

In this class, in the intransitive form, -i- represents BECOME. Like the category above, in the transitive form, -as- represents BECOME + CAUSE, thus we make the prediction that this -as- does not alternate with *(s)ase*. This is correct: *nob-ase-ru, *toz-ase-ru. There is, however, one verb in this class, *mit-as-u* 'fill', for which I have found two native speakers who can alternate the -as- with -ase- (*mizu-o mit-ase-ru* 'fill (it up) with water'). Most native speakers, including myself, find the -ase- form unacceptable, and I have no explanation for why a few speakers appear to allow this form.²¹

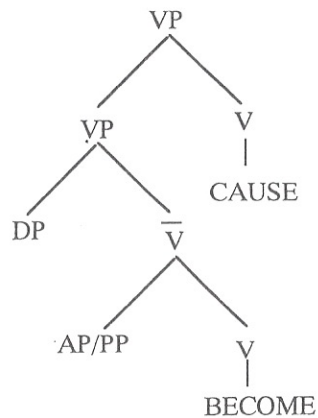
10. On Lexicality and Idiomatization

The double-causative test reliably separates lexical causatives from syn-

tactic causatives. What, then, is the status of the “idiom” test? There are three questions, related, as it turns out. First, is the idiom test still reliable as a test for distinguishing lexical from syntactic causatives? Second, if so, why (or, if not, why not)? Third, how can we account for semantic non-compositionality in a theory such as the one in this article, in which all causatives, including lexical causatives, are formed in the syntactic component?

The answer to the first question is, as far as I know, still true. Because both types of causatives are built in the syntax, it is a puzzle as to why this test should hold. Let us consider again the structure.

(53)



Note that the lower VP is selected by the CAUSE V. This structure suggests the answer to both the second and the third questions. This is similar to phrasal idioms such as *kick the bucket*, where the verb *kick* selects the object DP *the bucket*. The idiomatic interpretation associated with this idiom is realized after the phrase is built in the syntax. While the process of this association of idiomatic meaning is unclear, it is similar — in fact probably the same — as the process by which idiomatic meanings are associated with lexical causatives. This analysis, however tentative, makes the correct prediction that only the lexical causative would be associated with a non-compositional interpretation.

It also makes the prediction that however idiosyncratic the meaning, a lexical causative would minimally contain the meaning ‘cause’, a prediction that, as far as I know, is true. Finally, we do not expect a “syntactic” causative to be associated with an idiomatic meaning because this CAUSE selects a clause (IP) with its own subject, so that the lower VP which contains the verb stem is too far away to be selected by the causative verb for joint participation in an idiom.²²

11. Problematic Cases of Blocking

We have derived the effect of blocking, by allowing lexical insertion after Spell-out, as proposed in Distributed Morphology. At the point of insertion, if a morpheme is specified for the pronunciation of CAUSE by the verbal category, a specific morpheme is inserted. If not, the elsewhere *(s)ase* is inserted. This is true for both lexical and syntactic *(s)ase*. *V-(s)ase* that occurs in the “lexical” causative structure, along with the other lexical causatives, may participate in idiomatization.

There are two classes of apparent counterexamples, both noted by Kuroda. First, in both his 1981 and 1993 articles, he notes the following as a counterexample to the blocking scheme. The transitive verb *tobass-u* ‘fly’ has the idiomatic meaning “dismiss.” This meaning is not contained in the intransitive verb *tob-u* ‘fly’. However, for Kuroda, the *(s)ase* causative of this intransitive verb, which should be “blocked,” also contains the idiomatic meaning ‘dismiss’.

- (54) Zyoozi-ga Kyuusyuu-e Taroo-o tob-ase-ta.
 George-nom Kyushu-to Taro-acc fly-cause-past
 ‘George dismissed Taro to Kyushu.’

Unlike Kuroda, I do not accept this, nor do other native speakers I have consulted. Kuroda (1993) also points out that “some native speakers” do not accept it. So, it is open to question whether we should consider this as a true counterexample.

The second apparent counterexample, which appears in Kuroda (1993),

is more interesting. The intransitive verb *tat-u* 'stand' has the transitive stem counterpart *tat-e-ru* 'stand X up'. This transitive stem should block the causative verb *tat-ase-ru* 'cause to stand'. However, Kuroda argues that this causative verb is associated with an idiomatic meaning that is "used to refer to the disciplinary measure teachers used to take against students. In this specialized sense, *tat-ase-ru* 'make (a student) stand (in the corner of the classroom),' does not pair with the intransitive *tat-u*..." (pp. 59-60). It is not clear to me whether *tat-ase-ru* 'cause to stand' should be considered as an idiom. However, let us suppose that it is. The paradigm identified is as follows.

- (55) intransitive: *tat-u* 'stand'
 lexical causative: *tat-e-ru* 'stand X up'; *tat-ase-ru* 'cause to stand'

Kuroda correctly notes that this is potentially a problem for the PDS hypothesis, because only one item per slot is allowed in a PDS. Here, it appears that both the transitive stem and the causative have an existence as a lexical causative. On the present proposal, this is potentially a problem for the elsewhere treatment of (s)ase, since there is already *tat-e-ru* for the lexical causative and there is no reason for (s)ase to appear in the lexical causative structure.

The problem with the array of verbs noted by Kuroda parallels what I have discussed in Miyagawa (1989: pp. 141-144). As originally pointed out by Zenno (1985), the intransitive verb *nuke-ru* 'come out', has two lexical causative counterparts, *nuk-u* 'pull out' and *nukas-u* 'leave out'. Both may appear in idioms.

- (56) a. *te-o nuk-u*
 hand-acc pull out
 'cut corners'
 b. *kosi-o nukas-u*
 waist-acc leave out
 'be paralyzed with fright'

Although these two lexical causatives appear to both be counterparts of the

intransitive stem *nuke-ru* 'come out', the two causatives in fact differ in their use (Zenno 1985).

- (57) *Ken-ga daikon-o tuti-kara nui-ta/*nukasi-ta.*
 Ken-nom daikon-acc earth-from pulled out/left out
 'Ken pulled out a daikon from the garden.'

This example shows that the act of physically pulling something (vegetable) from what contains it (soil) is described with *nuk-u*, not *nukas-u*. If no such direct physical force is implied, *nukas-u* may be used.

- (58) *Hanako-ga minna-no namae-o yonda toki Taroo-o nukasi-ta.*
 Hanako-nom everyone-gen name-acc called when Taro-acc left out
 'When she was calling out everyone's names, Hanako left Taro out.'

In Miyagawa (1989, pp. 140-144), I suggested that this difference between the two verbs arises from different thematic roles being assigned to the object. *Nuk-u*, the "physically direct" verb, assigns what I called Affected Theme role to its object, while *nukas-u* assigns Nonaffected Theme role.

The intransitivizing resultative (*-te aru*) provides an independent test to distinguish these two types of thematic roles that are assigned to objects (Miyagawa 1989). For example, there are two verbs for "hit," *ut-u* and *nagur-u*. The former is used to describe the act of hitting an object with an instrument, such as hitting a baseball with a bat. The latter, *nagur-u*, is used when describing the act of someone hitting someone else with his/her fist. Only the former can participate in the intransitivizing resultative construction.

- (59) a. *Sanruida-gamoo ut-te aru node, kondo wa...*
 triple-nom already hit-has been because next time
 'A triple has already been hit, so next time...'
 b. ?**Taroo-ga moo nagut-te aru.*
 Taro-nom already hit-has been
 'Taro has already been hit.'

Returning to the two verbs, *nuk-u* 'pull out' and *nukas-u* 'leave out', the intransitivizing resultative construction tells us that only *nuk-u* assigns an Affected Theme role.

- (60) a. Daikon-ga nui-te aru.
 daikon-nom pull out-has been
 'Daikon has been pulled out.'
 b. *Taroo-ga nukasi-te aru.
 Taro-nom leave out-has been
 'Taro has been left out.'

A "double transitive" pair noted by Inoue (1983, pp. 24-25) shows a similar pattern (cf. Miyagawa 1989, pp. 143-144). The intransitive stem *toke-ru* 'melt' has the two lexical causatives *tok-u* 'dissolve' and *tokas-u* 'melt'. Inoue points out that *tok-u* is appropriate if the referent of the object DP is one that must have some external force to melt, whereas *tokas-u* is appropriate if the referent of the object is understood to naturally undergo the process of melting.

- (61) a. tamago-o tok-u/*tokas-u
 egg-acc dissolve/melt
 'dissolve the egg'
 b. koori-o *tok-u/tokas-u
 ice-acc dissolve/melt

According to Inoue, "egg" does not naturally dissolve, so that this process requires an external force, thus *tok-u* is appropriate. On the other hand, "ice" melts naturally, hence *tokas-u* is used. The intransitivizing resultative test displays a pattern similar to the two verbs of "hit" above.²³

- (62) a. tamago-ga toi-de aru
 egg-nom dissolve-has been
 'the egg has been dissolved'
 b. ???koori-ga tokasi-te aru

ice-nom melt-has been
 'ice has been melted'

Let us return to the three verbs Kuroda notes: the intransitive *tat-u* 'stand' and the two "lexical" causatives *tat-e-ru* 'stand X up' and *tat-ase-ru* 'cause to stand'. The two causatives exhibit similar properties as the pairs of lexical causatives we have observed above. Using Inoue's terminology, the lexical causative *tat-e-ru* 'stand X up' is used when it is understood that an external force is exclusively responsible for causing the event of standing up to occur. On the other hand, *tat-ase-ru* (and its allomorphic counterpart *tat-as-u*) implies some quasi-agency on the part of the object, very much as in the case of "ice melting naturally." On our account, *tat-e-ru* assigns the Affected Theme role to its object, while *tat-ase-ru* assigns the Nonaffected Theme role. For example, the act of standing up a mirror is described with *tat-e-ru*.

- (63) Hanako-ga heya-no sumi-ni kagami-o tate-ta/*tat-ase-ta.
 Hanako-nom room-gen corner-in mirror-acc stood/caused to stand
 'Hanako stood the mirror up in the corner of the room.'

On the other hand, if someone causes someone else to stand, *tat-ase-ru* is appropriate.

- (64) Hanako-ga heya-no sumi-ni Taroo-o *tate-ta/tat-ase-ta.
 Hanako-nom room-gen corner-in Taro-acc stood/caused to stand
 'Hanako made Taro stand in the corner of the room.'

Of course, *tat-e-ru* is appropriate here if Hanako physically picked Taro up and placed him in the corner. The intransitivizing resultative construction also distinguishes these two causatives.

- (65) a. Kagami-ga tate-te aru.
 mirror-nom stand-has been
 'The mirror has been stood up (=is standing).'

- b. ???Taroo-ga tat-ase-te aru.²⁴
 Taro-nom cause to stand-has been
 'Taro has been made to stand up.'

Consequently, to the extent that Kuroda is correct in stating that *tat-ase-ru* may participate in idiomatization/semantic extension, we have an answer that avoids the noted problem for the analysis of (*s*)*ase* as an elsewhere causative (and also for the PDS hypothesis). The two causative verbs, *tat-e-ru* and *tat-ase-ru*, have different argument structures: *tat-e-ru* assigns the Affected Theme role and *tat-ase-ru* assigns the Nonaffected Theme role. They are, therefore, not competing for the same morphological "space" (or PDS slot).

An interesting point to note about the discussion above is that among the lexical causatives, there appears to be a distinction between "direct" and "indirect" causation. Normally, this kind of distinction is drawn between lexical causatives ("direct") and analytical/syntactic causatives ("indirect"). The facts we have observed blur the lexical/syntactic causative split in terms of interpretation. This, then, is another piece of evidence, albeit indirect, that both lexical and syntactic causatives should be placed in one component. I have argued in this article that this component is the syntactic component.

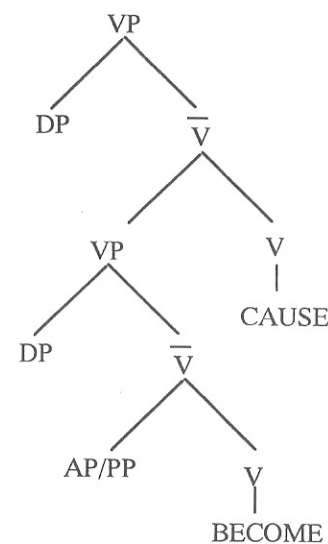
12. Lexical vs. Syntactic Causatives: Interpretation

It is well-known that lexical causatives are associated with a direct causative interpretation while the syntactic causatives have a less direct ("manipulative") causative interpretation (e.g., Shibatani 1973, Miyagawa 1989). How can we derive this difference in meaning? The syntactic causative is naturally associated with a less direct causative interpretation because there is a full clause under CAUSE that contains a subject. The referent of the subject (*Hanako* in the following), which corresponds to the causee, may be interpreted to carry out the action; the main subject, the causer, is interpreted to have brought about this state of affairs in some indirect manner, such as suggesting or ordering the causee.²⁵

- (66) Taroo-ga Hanako-ni ronbun-o kak-ase-ta.
 Taro-nom Hanako-dat paper-acc write-cause-past
 'Taro caused Hanako to write a paper.'

How do we derive the direct causative interpretation associated with the lexical causative? Let us look at the full underlying structure of a lexical causative (minus the functional projections and other details that are not pertinent to the present study).

(67)



The higher DP is the subject of CAUSE, and the lower DP is the object (cf. Hale and Keyser 1993). It is the referent of this object that is interpreted to be

the target of the direct causation. Note that by virtue of this structure, the object must be associated with an internal argument, most commonly the theme. Consequently, the object would not ever be interpreted to have an agentive force of its own, which is necessary for the less direct causation. Thus, the lexical causative is always associated with a direct causative interpretation.

13. Concluding Remarks and Summary of Insertion Rules

In a series of works (Miyagawa 1980, 1984, 1986, 1989), I have suggested that both the V-(s)ase causative verbs and lexical causatives (and other verb stems) originate in the same component of the grammar. The principal generalization that has led to this claim is the phenomenon of blocking, in which we can detect a direct interaction between the “syntactic” V-(s)ase and the “lexical” causatives. The seed of this generalization is found in works as early as Shibatani (1973). The apparent counterexamples, of which there have only been a few, have led to important extensions, and an affirmation, of the core generalization. However, as a number of linguists have correctly noted, this analysis, cast in the EST/GB framework, faces a difficulty, in not being able straightforwardly to deal with the biclausality of the “syntactic” V-(s)ase. One important study which attempts to deal with this tension between morphology and syntax is Kitagawa (1986), which invokes the LF rule of excorporation. In this paper, I have attempted to more directly capture the spirit of the so-called “lexicalist” approach, which I now call the same component hypothesis. In the original works (e.g., Miyagawa 1980, 1984, 1986, 1989), this “same” component was the lexicon, as dictated by the theoretical framework of the time, which contained both V-(s)ase and lexical causatives. In this paper, I have suggested that “the same component” is syntax. This syntactic same-component analysis is made possible by the notion of late lexical insertion in Distributed Morphology. It is no accident that the “blocking” generalization for the Japanese causatives is compatible with DM. The most striking empirical evidence for DM is morphological blocking. An important point to note here is that in the original work by Halle and Marantz (1993), DM was motivated solely on the basis of inflectional morphology. In contrast, the blocking involving Japanese causatives is an instance of the DM principles

operating in derivational morphology, thus illustrating that DM is applicable to all areas of morphology, and not limited to inflectional morphology.

Finally, I list below the insertion rules I have suggested in this paper that involve CAUSE.

- (68) a. $e \longleftrightarrow$ BECOME+CAUSE²⁶ in env. (a)(i) _____
(ag-e ‘raise’)
- b. $\emptyset \longleftrightarrow$ BECOME+CAUSE in env. (c)(i) _____
(kir ‘cut’)
- c. $e \longleftrightarrow$ CAUSE in env. (b)(ii)+BECOME _____
(ak-e ‘open_{tr}’)
- d. $as \longleftrightarrow$ CAUSE in env. (b)(i) _____
(ugok-as ‘move_{tr}’)
- e. $as \longleftrightarrow$ BECOME+CAUSE in env. (IX, X)²⁷ _____
(d-as ‘take out; nob-as ‘extend’)
- f. $(s)ase, (s)as \longleftrightarrow$ CAUSE
(the “elsewhere” rule)

Notes

* I am grateful to Morris Halle and Alec Marantz for discussions of the subject matter contained in this article. I also benefitted from comments by the following people: Ken Hale, Nobuko Hasegawa, Heidi Harley, Kazuko Inoue, and Natsuko Tsujimura. I also wish to acknowledge the assistance of Yasuaki Abe, Editor of *JLL*, on the preparation of the final version. An earlier version of this article was presented at the Tsuda Conference on Theoretical Linguistics and Japanese Language Education, November 1994. A shorter version of this article appeared in the Program that was distributed at the conference.

¹ The causative morpheme shows up as *sase* if the verb to which it attaches ends in a vowel. If the verb ends in a consonant, the first consonant, *s*, is dropped, resulting in the form *ase*.

2 Many of the idiom examples in this paper are taken from Zenno (1985).

3 In Miyagawa (1980, 1984, 1989), I also gave evidence from nominalization and adversity interpretation to further support the existence of the PDS. However, in this paper, I will limit my discussion to idiomatization. See Kuroda (1993) for criticism of the use of these other types of evidence.

4 There is, apparently, an additional factor involved in the relationship between “blocking” and idiomatization. The contrast between (17) and (18) clearly demonstrate the relevance of blocking: in (17), an intransitive verb that has a transitive “stem” counterpart does not function as a part of an idiom under causativization; but in (18), in the absence of the transitive stem, the intransitive stem may participate in idiomatization under causativization. However, one remaining issue, noted by Yasuaki Abe (personal communication), is why in (17), the idiomatic intransitive verb cannot take the phrasal (syntactic) *sase*, *mune-o itam-ase-ru*, with the meaning, ‘cause X to be worried’. I will leave this problem as an open question.

5 There are very few idioms made up of a transitive stem and the causative morpheme. See, for example, Abe (1994) for an argument that such an idiom should not exist. This may be a constraint on general word-building. Causatives that participate in idioms are “lexical” in nature. However, there may be a constraint against such a word — i.e., causativizing a verb with an agent (which, presumably, is the stereotypical external argument of a transitive verb) (cf. Hale and Keyser 1993).

6 This was based on a similar proposal by Zubizarreta (1982) about Romance causatives.

7 In Hale and Keyser (1993), the lower VP in this structure does not contain an agent. The agent is solely associated with the higher V, which is the “cause” predicate. This is the lexical causative structure. For the structure corresponding to the “periphrastic” causative, an agent is associated with the lower V as well as with the causative verb, thereby giving the characteristic double external-argument structure of a periphrastic causative. In this article, I will use the more traditional “IP” for the complement of the syntactic (*s*)*ase*, although this has no bearing on the argument.

8 See Kageyama (1993) for a similar representation of causation.

9 In Halle and Marantz’s convention, which I will adopt, the double-headed arrow indicates what phonological features (left of the arrow) are to be associ-

ated with a particular item (right of the arrow). Where necessary, an environment is specified for the particular insertion operation.

10 The “adjective” here is meant to represent an abstract entity denoting state. In some cases the use of this term does not have a real-world lexical counterpart. Ultimately, we would need to specify in detail the items that may appear as “adjective,” such as the *na*-adjective *iya* ‘bother’.

11 For “X,” I am providing an informal semantic label, such as “be open.”

12 In Halle and Marantz’s framework, in order to do late insertion on a combination such as BECOME+CAUSE, the two must be “fused” into one terminal node. I assume that this or some similar process takes place, although I have no independent evidence for it.

13 Another possibility is simply that the transitive verb *kir* does not contain an adjectival “state” complement in the lower V, so that it must be analyzed fundamentally differently from the other lexical causatives (this possibility was pointed out to me by A. Marantz).

14 In Miyagawa (1980, p. 117), I stated that *V-(s)ase* appears as a member of the permanent lexicon if there is not a “morphologically simpler” verb. We can reinterpret this statement as saying that (*s*)*ase* appears as the CAUSE for a lexical causative if the verbal category does not specify a particular morpheme for CAUSE. Any category that makes such a specification leads to a “morphologically simpler” form than *V-(s)ase* because it would result in what we commonly refer to as a causative verb stem, such as *kae-s-u* ‘return_{tr}’.

15 The term “elsewhere” was introduced by Kiparsky (1973). The concept is found as early as Panini’s grammar of Sanskrit. The principle at play here is that when there are two potential candidates for the same position, one chooses the more specific item. By “specific” is meant that the selected item has a larger set of relevant features for the slot. Thus, in the lexical causative *ak-e* ‘open_{tr}’, the causative morpheme *e* is selected in the environment (a)(i)+BECOME. This is more specific than the other choice, (*s*)*ase*, which is not specified for any specific environment. This captures the original generalization in Miyagawa (1980) that a more specific lexical causative blocks the *V-(s)ase* lexical causative.

16 There are two verbs which I am aware of that constitute a problem for the elsewhere analysis of (*s*)*ase*. These are *mak-ase* ‘entrust’ and *nek-ase* ‘make (someone) go to sleep’ (Miyagawa 1980; cf. also Kuroda, to appear). The problem is that the verb stems, **mak* and **nek*, do not occur (there is the form

ne 'sleep', so *nek* may be less of a problem). One way is to allow nonexisting stems, which in turn allows the language to take advantage of the elsewhere causative rule. It is clearly an instance of the elsewhere causative, since the other elsewhere causative, *(s)as* (see below) can also occur in these two verbs. I leave this problem as an open question.

17 The "lexical" version of *hasir-ase* which we see above in *me-o hasir-ase* 'move the eyes quickly' does not allow a double causative to be formed from it, not because it is inconsistent in structure with the double causative, but because the notion of "move the eyes" here is assumed to be essentially non-self-controllable.

- (i) ???Hanako-ga Taroo-ni me-o hasir-ase-sase-ta.
 Hanako-nom Taro-dat eye-acc run-cause-cause-past
 'Hanako made Taro move his eyes rapidly.'

We must therefore depend on the availability of the idiomatic meaning for the lexical status of this manifestation of *V-(s)ase*.

18 There appears to be at least two kinds of *as*, one we have just seen with *ugok-as* 'move_{tr}', in which *as* is inserted for CAUSE. The other is in the following (Jacobsen 1992).

- e/as* d-e-ru 'come out' d-as-u 'take out'
 kog-e-ru 'become scorched' kog-as-u 'scorch'

The late insertion operations are presumably as follows (I will call this class (d)):

for *d-e*

- d* <—> OUT OF A PLACE
e <—> BECOME in env. (d) _____

for *d-as*

- as* <—> BECOME+CAUSE in env. (d) _____

What our analysis predicts is that we would not expect to find an instance of *(s)ase* that would be inserted for a combination such as BECOME+CAUSE, because *(s)ase* is, by our analysis, an elsewhere causative. It would only be

inserted for CAUSE.

19 It is possible to state this in the reverse, that is, *(s)ase* is the allomorph of elsewhere *(s)as*. It is even possible that in some dialectal regions, the statement as it appears here is accurate, but in other regions, it is reversed — i.e., *(s)ase* is an allomorph of elsewhere *(s)as*. The important point is that there is only one elsewhere causative morpheme, and the other is simply an allomorph.

20 We must take care not to confuse these forms with the potential form, which would mean 'be able to take out' and 'be able to cool'. The potential is homophonous with the inappropriate *(s)ase* form, but is built from the appropriate *-as-* form:

- | | | | |
|----------|---------------|--------|---------------|
| d-as | -e-ru | hiy-as | -e-ru |
| take out | -potential-ru | cool | -potential-ru |

21 There is an additional verb, from Jacobsen's XIII, that contradicts our prediction. This class is the alternation of *-e/-akas-*. Thus, *-e-* is BECOME in the intransitive, and *-akas-*, which appears to contain the form *-as-*, is BECOME + CAUSE. For all but one verb, our prediction is borne out.

- hagur-e-ru 'stray from' hagur-akas-u 'put off, evade' *hagur-akase-ru

However, some native speakers allow the verb *amay-akas-u* 'spoil (as in spoil the child)' to alternate with *amay-ase-ru*. I do not have any explanation of this apparent counterexample.

22 What exactly is the domain within which idiomatization may occur? We have seen numerous instances of idiomatization that contains the lexical CAUSE and its VP complement. Is this the largest unit that can participate in idiomatization? Kuroda (1993) gives an example that suggests that the domain is somewhat larger, although not as large as the syntactic CAUSE. He notes the idiom, *ha-ga tat-ana-i* 'be beyond one's ability (literally, "tooth does not stand")' (pp. 28-30). The interesting point about this idiom is that it contains the negative morpheme, *(a)na*; as Kuroda points out, the idiom does not work without the negation. This means that the domain of idiomatization must at least reach the NEG phrase above the VP that dominates the lexical CAUSE.

23 In Miyagawa (1989, p. 144), I marked the intransitivizing resultative for *tokas-u* with the asterisk, instead of the three question marks below. The intended reading for the ungrammatical intransitivizing resultative is that "ice has melted naturally." However, it seems to me that if, for example, someone

uses fire to melt the ice, the intransitivizing resultative sounds better, although not perfect. Due to this apparent fluidity in interpretation, I have used three question marks instead of the asterisk.

24 This example improves markedly if the case marking on the logical object is accusative instead of nominative (Yasuaki Abe, personal communication). This is the phenomenon I discussed in Miyagawa (1989), which prohibits the object of a non-affected verb to be extracted under certain conditions. The accusative case would indicate that no such extraction has taken place, thus the example is better.

25 Whether any verb can participate in the syntactic causative construction is open to question. In Miyagawa (1989), I argued that the causative form of an unaccusative verb that is blocked by the existence of a corresponding transitive stem does not occur in the language.

- (i) *Taroo-ga isu-o taore-sase-ta.
 Taro-nom chair-acc fall-cause-past
 'Taro pushed the chair down.'

However, as Kuroda (1993), referring to work by Shibatani (1976), notes, with the appropriate context, sentences similar to these can be made to sound better. If this is true, there is, as far as I can see, no constraints on the types of verbs that can participate in the syntactic causative construction.

26 In Halle and Marantz's framework, in order to do late insertion on a combination such as BECOME+CAUSE, the two must be "fused" into one terminal node. I assume that this or some similar process takes place, although I have no independent evidence for it.

27 These are Jacobsen's (1992) classification designations.

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Quotation Verb to Modal: *TO YUU* Reconsidered*

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Abstract

The complementizer *to yuu* has been one of the topics that challenged researchers in the field of Japanese linguistics since 1970's. The notion of factivity proved unable to adequately give a semantic account of *to yuu* usages. Lacking in past works on *to yuu* was a closer attention to its different uses. To give a separate account for each use is possibly a step closer toward the understanding of *to yuu*. Recent research in cognitive science makes it possible to differentiate them in a significant way. This paper thus proposes three major types of uses, i.e., meta-use, referential use, and modal use. The uses differentiated indicate that *to yuu* has gone through the process of grammaticalization from a quotation verb to a modal.

(Area of interest: Semantics and pragmatics)

Introduction

The use of *to yuu* has been discussed by various researchers who attempted to determine complementizer choice¹. In 1970's, the subject of complementizer choice was discussed in terms of factivity (Kuno 1973, Nakau 1973, Josephs 1976, etc.) and *to yuu* was associated with nonfactive predicates. Approaches to analysis of complementizers have since changed. Later researchers have examined them more or less in terms of human cognition with the assumption that linguistic expressions the speaker employs reflect his level of cognition. It has been suspected that there may be a kind of mental process, a process of internalization, the speaker has to go through before some information received becomes his/her knowledge, and that *to yuu* constructions reflect this stage of pre-internalization. However, the use of *to yuu*, a complementizer which morphologically is the quotative particle *to* plus the verb *yuu* 'to say,' is difficult to define because there is a great range of usage, some being more like a verb and others less. Semantic/pragmatic explanations that have been attempted can only partially account for the phenomenon. This paper illustrates the range of its usage and argues that the use of *to yuu* can be accounted for in terms of grammaticalization, a process in which the verb *yuu* 'say' preceded by the quotative particle *to* loses its lexical meaning and becomes