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# **BLOCKING AND CAUSATIVES: UNEXPECTED COMPETITION ACROSS DERIVATIONS\***

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## **1 Introduction**

The Japanese causative verb is formed by attaching the causative morpheme *sase* to a verb: *tabe-sase* ‘eat-cause’, *ik-(s)ase* ‘go-cause’; the initial *s* drops if the verb stem ends in a consonant. In the 1980s and the 1990s, fierce debate arose about the exact nature of the causative form. Should it be analyzed as being formed in syntax, or does it belong to the lexicon where it is formed by some process of word formation? One piece of evidence in favor of the “lexical” analysis is the phenomenon of ‘blocking’, in which synthetic (monomorphemic) verbs were shown to block *V-sase* verbs from taking on a particular meaning. Given the standard assumption that synthetic verbs belong to the lexicon, the fact that they interact with the *V-sase* causative verb gave credence to the notion that the *V-sase* causative verb also belongs to the lexicon. In the last ten years or so, a similar debate has taken place for the analysis of certain inflectional and derivational forms in English (past, perfect, comparative, etc.) and other Indo-European languages, with blocking playing a central role (e.g., Embick and Noyer 2001, Embick 2007, Embick and Marantz 2008, Kiparsky 2005, Stump 2001). In this paper, I will review the original arguments for blocking in Japanese causatives, then explore a recent proposal to analyze both the synthetic (lexical causative) and the analytical *V-sase* verbs in syntax. I will then look at implications of this analysis for the acquisition of Japanese causatives and for the analysis of English causatives. I will end with a discussion on the nature of blocking, concluding that we don’t need the “filters” approach advocated by Kiparsky (2005) and McCawley (1978).

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## 2 Lexical and Analytical Causatives

Lexical causatives in Japanese have irregular and non-productive forms. Following are examples taken from Jacobsen (1992).

(1)	Class	<i>unaccusative</i>	<i>lexical causative</i>
(i)	-ar-/-e-	ag- <i>ar</i> -u ‘rise’	ag- <i>e</i> -ru ‘raise’
(ii)	-re-/-s-	hazu- <i>re</i> -ru ‘come off’	hazu- <i>s</i> -u ‘take off’
(iii)	-ri-/-s-	ta- <i>ri</i> -ru ‘suffice’	ta- <i>s</i> -u ‘add, supplement’
(iv)	-e-/-as-	kog- <i>e</i> -ru ‘become scorched’	kog- <i>as</i> -u ‘scorch’
(v)	-i-/-os-	ok- <i>i</i> -ru ‘get up’	ok- <i>os</i> -u ‘wake (someone) up’
(vi)	φ/-as-	nar-u ‘ring <sub>INTR</sub> ’	nar- <i>as</i> -u ‘ring <sub>TR</sub> ’
(vii)	φ/-e-	ak-u ‘open <sub>INTR</sub> ’	ak- <i>e</i> -u ‘open <sub>TR</sub> ’
(viii)	-e-/φ	kir- <i>e</i> -ru ‘be cut’	kir-u ‘cut’
(ix)	-ar-/φ	matag- <i>ar</i> -u ‘sit astride’	matag-u ‘straddle’

Others: (x) -r-/-s-, (xi) -i-/-as-, (xii) φ/-se-, (xiii) -or-/-e-, (xiv) are-/-e-, (xv) -e-/-akas- (xvi) “miscellaneous”; All in all, 16 different classes.

As we can see in (1), there are 16 different classes of unaccusative – lexical causative pairs, and these forms, which are irregular, must be learned, hence best viewed in the traditional model as being listed in the lexicon. Further evidence for the lexical nature of lexical causatives is that they undergo semantic drift, a property typically associated with listed items.

### (2) Semantic drift

hone-o or-u (Class viii)  
bone-ACC break-Present  
‘exert oneself’

Furthermore, they appear in non-productive nominal forms.

### (3) Non-productive nominalization

<i>lexical causative</i>	<i>nominalization</i>
fusag-u ‘to obstruct’ (Class ix)	fusagi ‘closing, plug’
hasam-u ‘to catch between’ (Class ix)	hasami ‘scissors’

Intuitively, then, lexical causatives are listed in the lexicon.

Unlike the lexical causatives, analytical causatives are fully productive and regular in form, with *sase* ‘cause’ attaching to a verb stem (simple or complex verb).

- (4)a. Hanako-ga kodomo-o/-ni ik-(s)ase-ta.  
Hanako-NOM child-ACC/-DAT go-cause-PAST  
'Hanako made/let the child go.'
- b. Hanako-ga kodomo-ni hon-o yom-(s)ase-ta.  
Hanako-NOM child-DAT book-ACC read-cause-PAST  
'Hanako made/let the child read a book.'

(4a) is an example of an analytical causative verb formed by attaching *sase* to an intransitive verb; as shown the causee “child” may be marked by the accusative or the dative case marker. In (4b) the causative morpheme attaches to a transitive verb; the causee in this construction must be marked by the dative, and not by the accusative — the so-called “Double-*o* Constraint” (Harada 1973).

A reasonable view of the two types of causatives, lexical and analytical, is that while lexical causatives belong to the lexicon, analytical causatives are formed in syntax. This is the standard analysis as seen, for example, in Kuroda (1965) and Shibatani (1973). The standard view of the two causatives makes a clear prediction.

- (5) Prediction of the standard analysis  
Analytical causatives and lexical causatives should not interact in any way – derivationally, semantically, etc.

Regardless of the particular model of generative grammar that one assumes (Standard, GB, MP), this prediction holds, because in generative theories what occurs within the lexicon is partitioned off from any forms that are constructed in syntax.

### 3 Blocking

Contrary to this prediction of the standard analysis, facts of blocking militates against a simple lexicon-syntax compartmentalization of lexical causative and analytical causatives. The modern notion of blocking appears in Aronoff (1976), where he notes that certain *-ity* nouns do not occur due to the existence of a simple noun.

Blocking (Aronoff 1976)

(6)

<i>adjective</i>	<i>noun</i>	<i>blocked</i>
curious	curiosity	-----
glorious	glory	*gloriosity

While the adjective *curious* has the *-ity* noun *curiosity*, the adjective *glorious* does not have the *-ity* counterpart due to the occurrence of the simple noun *glory*, which blocks *\*gloriosity* from occurring.

Blocking is found with causatives. The key observation is that *V-sase* causative verbs, which are always analytical in nature, may also behave as a lexical causative in some cases. It is blocked from behaving as a lexical causative if there is a synthetic lexical causative verb to begin

with (McCawley 1978; Miyagawa 1980, 1984, 1989). I will illustrate this with the double-causative test and also with idiomatization.

When a sentence has a double causative meaning, two instances of the analytical *sase* causative morpheme cannot co-occur; they are instead reduced to a single occurrence of *sase* (Martin 1975, Kuroda 1993).

- (7)a. \*Sensei-ga Hanako-ni kodomo-o yukkuri *taore-sase-sase*-ta.  
 teacher-NOM Hanako-DAT child-ACC slowly fall.down-cause-cause-Past  
 ‘The teacher made Hanako make the child fall down slowly.’
- b. Sensei-ga Hanako-ni kodomo-o yukkuri *taore-sase*-ta.  
 teacher-NOM Hanako-DAT child-ACC slowly fall.down-cause-Past  
 ‘The teacher made Hanako make the child fall down slowly.’

(7a) has the double causative meaning of the teacher *made* Hanako *make* the child fall down slowly, and if it weren’t for the constraint against two instances of *sase* emerging in the same verbal complex, we would expect the double *sase*. Instead, the two occurrences of *sase* must be reduced to one, and, despite the single occurrence of the causative morpheme, the sentence carries the double-causative meaning, as we can see in (7b). Importantly, Kuroda (1993) notes that a double-causative meaning with two causative morphemes is fine if the first causative is a lexical causative.

- (8) Hanako-ga Taroo-ni doa-o *ak-e-sase*-ta.  
 Hanako-NOM Taro-DAT door-ACC open-*e*-cause-PAST  
 ‘Hanako made Taro open the door.’

Here, we have two causative meanings, but the first is the lexical causative represented by the morpheme *e* attached to the unaccusative *ak* ‘open’, and it is fine for the analytical *sase* to attach to this lexical causative. So, the double-causative prohibition is a prohibition against two occurrences of the analytical *sase*.

The double-causative test demonstrates that in certain cases, a *V-sase* verb acts as a lexical causative.

- (9) Hanako-ga Taroo-ni yotei-o *aw-(s)ase-sase*-ta.  
 Hanako-NOM Taro-DAT schedule-ACC match-cause-cause-PAST  
 ‘Hanako made Taro match the schedule.’
- (10) Intyoo-sensei-wa Taroo-ni tuuzyoo-yori nagaku byooin-ni  
 chief physician Taro-DAT usual-than longer hospital-at  
 hahaoya-o *i-sase-sase*-ta.  
 mother-ACC be-cause-cause-PAST  
 ‘The chief physician caused Taro to cause his mother to stay in the hospital longer than usual.’

What is the difference between \**taore-sase-sase* ‘fall.down-cause-cause’ in (7a) on the one hand and *aw-(s)ase-sase* ‘match-cause-cause’ in (9) and *i-sase-sase* ‘be-cause-cause’ in (10) on the

other? The generalization is that a *V-sase* verb may function as a lexical causative (as well as an analytical causative) if there is no corresponding synthetic lexical causative.

- (11) **Blocking:**  $V_{UNACC}$ -*sase* that does not have a lexical causative counterpart may function as a lexical causative (as well as an analytical causative) (Miyagawa 1980, 1984).

This is shown in the following paradigm for *taore-sase* and *aw-(s)ase*.

(12)	unaccusative	lexical causative	analytical causative
	taore ‘fall down’	tao-s ‘push down’	taore-sase ‘fall.down-cause’
	aw ‘match’	aw-(s)ase ‘match-cause’	aw-(s)ase ‘match-cause’

The unaccusative *taore* ‘fall down’ has the synthetic lexical causative *tao-s* ‘push down’, and this lexical causative blocks the *V-sase* verb formed from the unaccusative *taore* from taking on a lexical causative meaning. In contrast, *aw* ‘match’ does not have a synthetic lexical causative, so that the *V-sase* verb, *aw-(s)ase* ‘match-cause’, is able to take on the lexical causative function as well being an analytical causative. The same holds for *i* ‘be’ in (10). If we use the lexical causative *tao-s* ‘push down’ as the first of two causatives, we get a grammatical double-causative sentence as predicted, unlike (7a).

- (13) Sensei-ga Hanako-ni kodomo-o yukkuri *tao-s-(s)ase*-ta.  
 teacher-NOM Hanako-DAT child-ACC slowly fall.down-cause-cause-Past  
 ‘The teacher made Hanako make the child fall down slowly.’

We saw at the outset that lexical causatives may undergo semantic drift to form idioms. What we find is that idiomatization with *V-sase* is only possible with unblocked *V-sase* (Miyagawa 1980, 1984), showing again that an unblocked *V-sase* functions as a lexical (as well as an analytical) causative.

- (14)a. Taroo-ga zisyoku-o niow-(s)ase-ta.  
 Taro-NOM resignation-ACC smell-cause-PAST  
 ‘Taro hinted resignation. LIT: Taro made resignation smell.’
- b. \*Zisyoku-ga nio-u.  
 resignation-NOM smell-PRES  
 ‘Resignation smells.’

c.	unaccusative	lexical causative	analytical causative
	niow ‘smell’	niow-(s)ase ‘smell-cause’	niow-(s)ase ‘smell-cause’

The unaccusative *niow* ‘smell’ does not have a corresponding synthetic lexical causative, so that *niow-(s)ase* ‘smell-cause’ takes up the lexical causative role, and has undergone semantic drift to take on the non-composition meaning of ‘hint’. An example similar to this is the following.

- (15) kazoku-o tabe-sase-ru  
family-ACC eat-cause-PRS  
'take care of the family'

The verb *tabe* 'eat' here is the intransitive use of this verb (*kazoku-ga tabe-ru* 'family eats'), and it does not have a synthetic transitive counterpart, which allows the *V-sase* verb *tabe-sase* 'eat-cause' to fill the lexical causative role. Other examples of idioms with *V-sase* that are not blocked, as well as those that are blocked, are given below.

- (16) Other examples of idioms (from Zenno 1985; see Miyagawa 1989)

<i>unaccusative</i>	<i>lexical causative</i>	<i>V-sase</i>
a. <b>her-u</b> 'lesson' hara-ga her-u stomach-NOM lesson 'become hungry'	----	<b>her-(s)ase-ru</b> 'lesson-cause' hara-o her-ase-ru stomach-ACC lesson-cause-PRS 'wait for a meal'
b. <b>hikar-u</b> 'shine' me-ga hikaru eye-NOM shine 'be under a watchful eye'	----	<b>hikar-(s)ase-ru</b> 'shine-cause' me-o hikar-ase-ru eye-ACC shine-cause-PRS 'keep a watchful eye'
c. <b>hair-u</b> 'come in' kiai-ga hair-u spirit-NOM come in 'be full of spirit'	<b>ire-ru</b> 'put in' kiai-o ire-ru spirit-ACC put in 'put spirit into'	<b>hair-(s)ase-ru</b> 'come in – cause' *kiai-o hair-ase-ru
d. <b>ore-ru</b> 'break' hone-ga ore-ru bone-NOM break 'require hard work'	<b>or-u</b> 'break' hone-o or-ru bone-ACC break 'exert oneself'	<b>ore-sase-ru</b> 'break-cause' *hone-o ore-sase-ru

(16a/b) are examples of unaccusative verbs that do not have a synthetic lexical causative, which allows the *V-sase* counterpart to take on idiomatic meaning. These are examples of *V-sase* functioning as a transitive lexical causative and occurring in an idiom. (16c/d) are examples of unaccusative verbs that have a synthetic lexical causative, and this lexical causative is what participates in idiomatization, and its occurrence blocks the corresponding *V-sase* from taking on noncompositional meaning. There are instances of *V-sase* that are ditransitive and likewise occurring in idioms; they are also predicted by blocking since these do not have a synthetic ditransitive counterpart.

- (17) a. binta-o kuw-ase-ru  
slap-ACC eat-cause-PRS  
'give (someone) a slap on the cheek'

- b. yaruki-o      das-ase-ru  
 desire-ACC    put.out-cause-PRS  
 ‘motivate (someone)’
- c. saihi-o        ake-sase-ru  
 wallet-ACC    open-cause-PRS  
 ‘make (someone) pay’

These examples show that the semantic drift involving *V-sase* may involve just the causative verb, as in *niow-(s)ase* ‘hint’ in (14), or an entire VP, as in (16).

## 4 One-Component Hypothesis of Lexical and Analytical Causatives

The blocking effect clearly demonstrates that lexical and analytical causatives interact at some level, so that these two types of causatives must be accessible to each other at some point in their derivation. A reasonable analysis based on the blocking fact is the “One-Component Hypothesis” (Miyagawa 1994, 1998), whereby both causatives are derived in the same component of the grammar. There are two possibilities for this component, the lexicon or syntax, and in the literature, we find both possibilities:

**Lexicon:** Farmer (1980), Manning, Sag, Iida (1999), Miyagawa (1980, 1984, 1989)

**Syntax:** Hale and Keyser (1993, 1996), Harley (1995a/b, 2008), Miyagawa (1994, 1998), Pykkänen (2002).

There are other theories that would allow the lexicon/syntax distinction to stay intact and at the same time address the blocking effect. Kitagawa (1986) presents an analysis in which the *V-sase* is created in the lexicon and inserted as a unitary word into the syntactic tree, and at LF, *sase* is excorporated to form a complex syntactic structure. Kuroda (1981:116-121), who is one of the chief proponents of the standard analysis, suggested on the basis of the blocking facts that these facts point to the possibility that once *V-sase* is created in syntax, it is allowed to loop back into the lexicon, where it is compared to counterparts in the lexicon to see if blocking should prohibit it from taking on the lexical-causative function. More recently, Kiparsky (2005) has argued that blocking between lexical and syntactic elements (or between any two semantically relevant expressions) is a matter of a filter on the generative output — choose the simpler and the more expressive expression. This is similar to McCawley’s (1978) cooperative principle, which favors a simpler form for optimally expressing the meaning of causation at hand. I will return to McCawley’s and Kiparsky’s works later.

I will pursue a one-component hypothesis in which both types causatives are located in syntax (Harley 1995a/b, 2008; Miyagawa 1994, 1998, contra Miyagawa 1980, 1984, 1989). This means that lexical causatives are syntactic in nature, something that has been argued for in a number of works, including in an early work by Chomsky (1970), where he makes the following observations.

- (18) a. John grew tomatoes (in his backyard).  
 b. Tomatoes grew (in John's backyard).

Chomsky observes that only the unaccusative allows nominalization.

- (19) a. \*John's growth of tomatoes  
 b. the growth of tomatoes

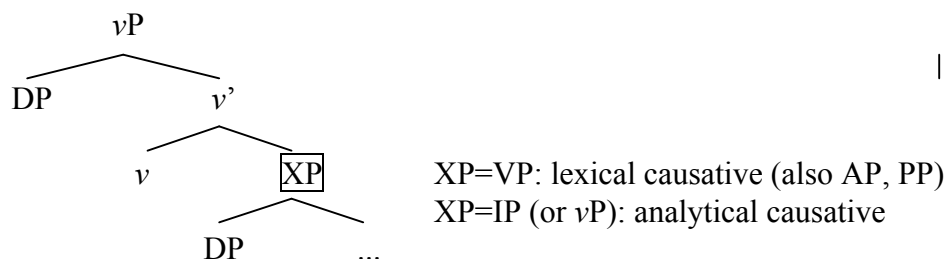
Chomsky (1970: 25) notes that *the growth of tomatoes* “has the interpretation of *tomatoes grow* but not of *John grows tomatoes...*”, so the unaccusative *grow* fails to have a causative meaning. The following derivations are given for (17a/b) (Chomsky 1970:59) (see Marantz 1997, Pesetsky 1995, etc. for relevant discussion).

- (20) John grows tomatoes: John [+cause, grow] tomatoes  
 (21) Tomatoes grow: [<sub>S</sub> tomatoes grow]<sub>S</sub>

The important point to note is that the lexical causative *grow* is decomposed syntactically into the unaccusative *grow* plus “cause,” which in English is not pronounced. This “cause” is a syntactic entity, and the reason Chomsky gives for why the lexical causative fails to nominalize is that the notion of “cause” is inherently a syntactic one and does not belong in nominals.

I will adopt a modern version of the syntactic analysis of lexical and analytical causatives that is proposed by Hale and Keyser (1993). Introducing the notion of “small *v*,” Hale and Keyser argue that the meaning of cause emerges when this *v* selects an XP. If the selected XP is a VP (or AP, PP), we have a lexical causative, and if the XP is something larger — IP in their analysis but it could very well be *v*P, which is what I will assume — we have an analytical causative.

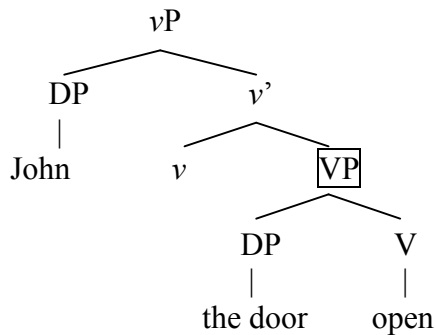
- (22) Hale and Keyser (1993)



On this account, the lexical causative sentence *John opens the door* has the following underlying structure (I am omitting the structure above the *v*P).

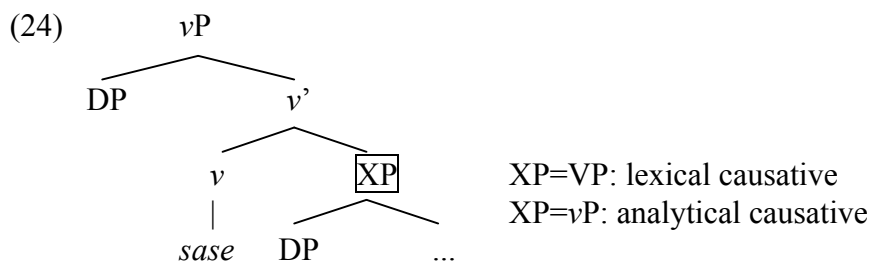


## (23) Lexical causative

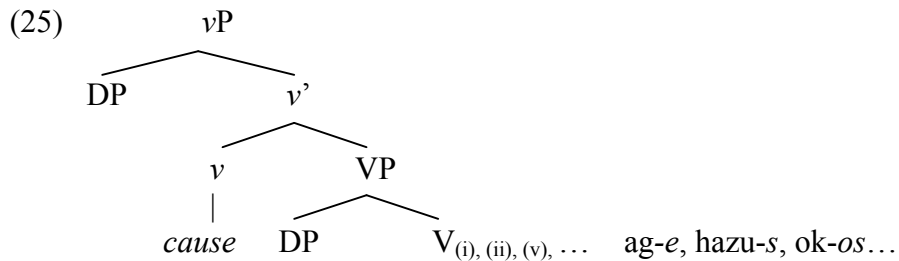


V raises to *v* to derive the final word order.

For Japanese, let us suppose that *v* is pronounced, and where *sase* is unblocked so that it may function as both a lexical causative and an analytical causative, it has the following structure (I am assuming that the in analytical causative *v* selects *vP* (e.g., Harley 1995, Murasugi, Fuji, Hashimoto 2008) (I'm artificially using the head-initial order for Japanese to parallel the Hale-Keyser structure.)



How can we distinguish between *sase* and the irregular (synthetic) lexical causative morphology we saw at the outset of this paper? I will assume the basic tenets of Distributed Morphology (Hale and Marantz 1993, Marantz 1997), which allows pronounced items such as *sase* to be inserted after the syntactic structure is built and certain abstract morphological processes have taken place. A simple way to analyze the lexical causative in Japanese is to postulate “cause” under *v* (this is different from Hale and Keyser 1993; see their work). Under V, a verb is inserted which carries designation of its class (e.g., Class (i), Class (ii), etc.).



The small  $\nu$  here selects the V. If, for example, the Class (i) stem *ag* ‘rise’ is inserted under V, this V is selected by  $\nu$  and raised to  $\nu$ , so that we have the structure  $\nu_{\text{CAUSE}} + V_{ag[\text{CLASS (i)}]}$ .<sup>1</sup> This is an instruction to insert the causative morpheme *e* to pronounce “cause,” leading to the lexical causative *ag-e* ‘raise’. We can do this for all 16 classes from Jacobsen’s (1992) list. The notion that the irregular synthetic causatives must be learned comes from this process of having to know that given a particular designation for a lexical causative (e.g., formed from Class (i) verb), the language learner must know that a specific form, such as *e*, must be inserted for the causative.

When does *sase* get inserted? A simple way to view its environment is one in which the verb inserted under V does not have any specification with regard to the causative; that is, if a verb is inserted that does not belong to any of Jacobsen’s classes, hence carries no specific information on how to pronounce the causative, *sase* is inserted to pronounce the causative. This is the notion of “elsewhere causative.”

(26) *sase* as an Elsewhere Causative (Miyagawa 1998; see also Harley 2008)

If there is no specific instruction for pronouncing *cause*, *sase* is inserted.

The notion of “elsewhere” is introduced in Kiparsky (1973), although the concept is found as early as Panini’s grammar of Sanskrit. When there are two potential candidates for the same position, choose the more specific form — one that has a larger set of relevant features for the slot. Thus, in the lexical causative *ak-e* ‘open<sub>tr</sub>’, the causative morpheme *e* is selected in the environment (vi)+CAUSE. This is more specific than the other choice, *sase*, which is not specified for any specific environment. We can see that the elsewhere notion of *sase* automatically captures blocking: *sase* is blocked from being inserted if there is a specific form required for pronouncing “cause”; a specific form results in a synthetic lexical causative.

The elsewhere designation of *sase* also captures in a straightforward manner the fact that *sase* always occurs in the analytical causative. In an analytical causative, there is no sense in which the “causative”  $\nu$  selects the lower V in the way that we find for lexical causatives. Due to locality, the causative  $\nu$  would not be able to select beyond the  $\nu$  in  $\nu\text{P}$ . As a result, no instruction can be given to pronounce “cause” under  $\nu$  in some specific fashion, hence the elsewhere *sase* is always inserted. This also makes the right prediction that in environments where no specification is given for pronunciation of “cause,” *sase* is ambiguous between lexical and analytical causatives. Matsumoto (2000) argues that *V-sase* is always ambiguous in this way, but he does not take into account the blocking facts, where blocked *V-sase* is unable to function as a lexical causative.

With regard to idiomatization, the analysis captures the fact that only lexical-causative *V-sase* may be associated with noncompositional meaning. Marantz (1997) argues that idiomatization is possible up to the external argument. If we look at the structures for lexical and analytical causatives, we see that while the lexical causative does not contain an external argument, the analytical causative does because  $\nu$  selects for  $\nu\text{P}$ , and this  $\nu\text{P}$  contains an external argument. Thus, only the former (lexical causative) allows idiomatization (see also Kratzer 1996 for relevant discussion). Another way to look at this data is that, assuming small  $\nu$  to furnish the lexical category for a root (Marantz 1997), idiomatization can only occur up to the root of the verbal head. Thus, a  $\nu$  selecting VP is fine because the root “verb” under V does not get its categorial designation until it raises to  $\nu$ . But in the case of  $\nu$  selecting a  $\nu\text{P}$ , the root under V

<sup>1</sup>In Marantz’s (1997) system, what is at V above is a root that, once raised to  $\nu$ , takes on the category of a verb. I will comment more on this later.



There are other reported instances in which a child apparently has mastered the morphophonemics of *sase* early on — being able to drop the initial *s* in the environment of a consonant-ending stem.

- (29) Shiraid, et. al. (2001):  
 Kii (1;6-2;0) (Miyata 1998, Yokoyama 1991)  
 a. *toor-ase-n* ‘(I will not) let you pass.’ 7 tokens, *toor-* ‘pass<sub>UNACC</sub>’, *toos-* ‘pass<sub>TRANS</sub>’  
 b. *kabur-ase-te* ‘put.on-cause-request ‘Let me put (it) on.’

Assuming that these are also cases of lexical causatives, there are a couple of observations to make. In (29a), the child is using the elsewhere *sase* to form the lexical causative instead of using the “normal” synthetic causative *toos* ‘pass<sub>TRANS</sub>’. Either the child has not acquired the synthetic lexical causative, or there is, at this point in acquisition, a tendency to privilege the simpler elsewhere causative, a possibility we also saw in (28). (29b) is another instance of a ditransitive lexical causative with *sase*. We can see that this is a lexical causative because the context is that of putting something on the head of a doll. There is no synthetic ditransitive lexical causative, so the elsewhere *sase* is appropriate.

Finally, MFH (2008) reports on what they characterize as overgeneration.

- (30) Kuruma-o      *too-s-i -sase-ru* (Taatyan, 3;10) (adult form: *too-s-(r)u*)  
 car-ACC          pass-CAUSE-CAUSE-PRES  
 intended meaning: ‘(I’ll) pass the car through.’

As MFH (2008: 9) note, “...the transitive verb *too-s* ...[‘pass’], which is a causative verb...is erroneously associated with an additional causative morpheme *sase*.” The adult form would simply call for the transitive *too-s* ‘pass’ without the need for *sase*. One way to interpret this overgenerated form is that, despite the selection of the transitive form *too-s*, the child, in order to express the meaning of lexical causation, is compelled to insert the elsewhere *sase*, again suggesting that *sase* is privileged for creating a lexical causative. See MFH for an interesting discussion of this example.

More work is required for us to understand the process of acquisition for elsewhere causatives, but this handful of examples is suggestive of the direction of future research.

## 6 English Causative

McCawley (1978) has made an observation for English causatives that is similar to what we have observed for Japanese. According to him, where there is a synthetic lexical causative, the analytical causative only has the meaning of indirect causation that is characteristic of analytical causatives as opposed to the direct causation that characterizes lexical causatives.

- (31) a. He caused the sheriff to die.  
 b. He killed the sheriff.

McCawley (1978: 249) notes, “[a] would be an inappropriate thing to say if the person in question shot the sheriff to death, since there is an alternative available [namely (b)] involving a less complex surface structure.” The point being that for the simplest assumption about what transpired (the sheriff being killed), one would use the lexical causative, but if the death was caused in some nontypical way, (a) may be chosen. He notes that the analytical (or “periphrastic”) causative may express the lexical causative meaning if there is no synthetic lexical causative.

- (32) “...periphrastic causatives can be used for direct causation in cases where there is no lexical causative...” (ibid., 250).

I will return to McCawley’s description of (31).

### 6.1 Elsewhere Causative in English

English appears to be different from Japanese in having two elsewhere causatives, with the choice between them unclear, and sometimes both are possible. This unusual situation arises in part from the fact that one of the elsewhere causatives is limited to lexical causatives — the null causative morpheme — while the other, *make*, can stand for either a lexical or an analytical causative similar to *sase*. It does not explain why two elsewhere causatives exist, and I will not be able to offer an explanation. However, this unusual situation allows us to test a fundamental property of elsewhere causatives.

In English, unaccusative – lexical causative pairs typically, though not always, are comprised of words that are homophonous.

- (33) open<sub>UNACC</sub>/open<sub>LEX. CAUSATIVE</sub>

Based on the fact that there is a large number of pairs like these, a reasonable assumption to make is that the elsewhere causative is the null causative morpheme that creates a lexical causative from unaccusative verbs. On this account, a lexical causative like *stop*<sub>LEX. CAUSATIVE</sub> has the elsewhere null causative morpheme, and it blocks an analytical causative formed from the unaccusative counterpart from functioning as a lexical causative. We can see this in the idiom data below.

- (34) a. stop the rot  
b. #make/cause the rot (to) stop

While (34b) is interpretable, it only has the literal meaning, and not the idiomatic meaning in (34a) of doing something to prevent a situation from getting worse. Following are other examples.

- (35) a. Henry killed time reading a novel.  
b. #Henry made/caused time (to) die reading a novel.

- (36) a. John’s confession moved me.  
b. #John’s confession made me move.

One point about the null causative morpheme is that, unlike *sase*, it only occurs in a lexical causative environment, thus:  $v[_{VP/PP/AP} \dots]$ . In that sense it is not equivalent to *sase* because *sase* covers both lexical and analytical causatives.

Is there another elsewhere causative in English that is more like *sase*? In some contexts, *make* apparently has the same function as *sase* in co-occurring with an unaccusative to form a complex predicate that functions as a lexical causative. In its typical use, *make* forms an analytical causative.

(37) Mary made John wash the windows.

Following are examples of idioms formed with *make*, showing that *make* may occur as part of a lexical causative; some are taken from Marantz 1997, Ruwet 1991.

(38) *Make* in idioms

- a. make ends meet
- b. make (someone) tick
- c. make your mouth water
- d. make oneself scarce
- e. make X over
- f. make headway

(38a-c) are examples of *make* selecting a VP. Just as we saw with Japanese idioms, in some cases the non-causative counterpart also functions as an idiom (*ends didn't meet*, *my mouth watered* (thanks to Beth Levin for these examples)), while in others only the causative constitutes an idiom (*#he ticked*, *#he became/was scarce*, *#he became/was over*). Unlike *sase*, which is always blocked from functioning as a lexical causative in the presence of a synthetic lexical causative, *make* apparently co-exists with the the null causative morpheme as an elsewhere causative.

The presence of two elsewhere causatives is certainly unusual, and we can only surmise as to how this situation came about historically. At the same time, the double elsewhere causative allows us to test a fundamental property of elsewhere causatives. A basic property of an elsewhere item, causative or any other type, is that it is allowed to occur if and only if nothing blocks it in derivation. Conversely, an elsewhere item itself would not block another item from occurring. We can see this in English. Note that the verb *boil* has the typical unaccusative-lexical causative pair *boi/boil*, indicating that the elsewhere null causative morpheme functions to create the lexical causative. Yet there exists the idiom, *make my blood boil*. This idiom is made up of the unaccusative construction *blood boils* and the elsewhere causative, *make*. The synthetic lexical causative *boil* does not occur in the same idiom (*#something boiled my blood*), which simply indicates that the *make* version has been picked out for semantic drift. The important point is that the *make* elsewhere causative is not blocked from occurring by the existence of the other elsewhere causative. We would predict that there ought to be cases where both elsewhere causatives have undergone semantic drift, since one does not block the other, and what is picked to undergo idiomatization is a matter of idiosyncratic choice. Indeed, there are cases of idiom doublets involving *come/bring* (thanks to Beth Levin for the following).

- (39) a. make him come to his senses/bring him to his senses  
 b. make it come to light/bring it to light

There is, in principle, nothing to prevent a language from having two (or more) elsewhere causatives, although one would hope that they are something like allomorphs whose occurrences are governed by the context. The fact that both can occur in the same context, as we can see in (39), makes this problem complex. I will leave it open.

## 6.2 Historical Development of the ‘Elsewhere’ Null Causative<sup>2</sup>

We saw that English has the unusual situation of having two elsewhere causatives, *make* and the null causative. Of these two, *make* behaves the same as *sase* in functioning to pronounce CAUSE regardless of whether it is lexical or analytical, and I take this form to be the more natural type of elsewhere causative. This is so because, under Hale and Keyser’s (1993) theory, there is no difference in the CAUSE that occurs in lexical and analytical causatives, hence we would expect the elsewhere causative not to distinguish between them. In contrast, the null causative is limited to lexical causatives, a fact that limits its scope of elsewhere-ness. We were able to take advantage of this unusual situation to demonstrate one predicted property of elsewhere-ness: an elsewhere item would not block any other item, because, by definition, an elsewhere item emerges when there is nothing more specific to block it. But how did English manage to develop two elsewhere causatives, when one is all that is required to fulfill the role of pronouncing CAUSE in the absence of a more specific form?

The null causative that is responsible for creating the lexical causative member of intransitive/transitive doublets did appear in Old English, but its occurrence was limited to a relatively small number of verbs. In post-OE, the null causative spread throughout the language and this proliferation was due to a variety of factors. According to Visser (1970:Chapter 2), based on his study of *Oxford English Dictionary* volumes, there were over two hundred twenty verbs that were purely intransitive, without the transitive companion. During the same era, there were only about fifty intransitive/transitive doublets. Of the two hundred twenty verbs that were purely intransitive in OE, only fifty-eight or so remain as such in present-day English. Hence the proportion of those that are purely intransitive to those that form an intransitive-transitive doublets essentially reversed through time: in OE the verbs in the purely intransitive category substantially outnumbered those that formed doublets, but in modern-day English it is the doublets that substantially outnumber the purely intransitive verbs.

We can see a snapshot of this change in a study by Kitazume (1996), who investigated when the members of an intransitive-transitive doublet appeared as recorded in the *OED*. Of the approximately 100 doublets that she found, only a handful were those in which both members appeared at the same time; below I give these the year(s) in which they appeared. Kitazume does not distinguish between unaccusatives and unergatives, and in some cases, the doublet is not the unaccusative/lexical causative pair that concern us, and I have limited the list to those that we can reasonably analyze as unaccusative in its intransitive usage.

- (40) break (1000)  
 hang (1000)

<sup>2</sup> This subsection is new, and it does not appear in Miyagawa (2010).

open (1000)  
end (975, 1000)

In contrast, there is a large number of doublets where the lexical causative occurred later — in some cases much later — than the unaccusative. Following is a sample.

(41) melt (900, 1000)  
sink (975, 1300)  
burn (1000, 1200)  
boil (1000, 1320)  
drop (1000, 1340)  
rise (1000, 1425)  
float (1100, 1586)  
enter (1250, 1362)

## 7 On the Nature of Blocking

There are two general and competing approaches to blocking in the literature. In one view, blocking arises during the course of derivation, where two competing derivations result in one of them winning based on the “Panini” principle that the more specific form wins over the more general one. Distributed Morphology is a framework that is designed to capture these instances of blocking (e.g., Halle and Marantz 1993, Marantz and Embick 2008). The other view, modeled on Optimality Theory, is to consider the paired (or more than a pair) expressions that are equivalent/similar in meaning as competing expressions, and filters are placed at the output of the generative component to let the simpler of the competing forms through (Kiparsky 2005).<sup>3</sup> Which is correct, or do we need both in different contexts? I will argue that we only need the derivation-based notion of blocking for the range of data in this paper, including the comparative construction noted below. On this view, it means that there is no special notion of “blocking,” but instead, it is an informal description for the outcome of derivations that favor a more specific form, presumably a universal characterization of derivation in human language. For expository purposes, I will continue to refer to these effects as “blocking.”

The most straightforward cases of derivation-based blocking are found with irregular forms in paradigms — *swam* as the past tense form of *swim*, for example, where the combination, *swim*+PAST, comes with the instruction to pronounced it as *swam* and not as the “elsewhere” form \**swimmed*. There is no instance in English grammar where *swimmed* occurs (see Mcloskey and Hale 1983 for similar examples from Irish).

More interesting cases are those we observed with the elsewhere *sase*. The assumption behind the analysis I presented is that “cause” is identical across lexical and analytical causatives, and, in the absence of anything to block it, *sase* may occur in both constructions. It is blocked in the course of the derivation of a lexical causative if there is a more specific form associated with a

<sup>3</sup>There is a third approach based on the notion of paradigms (Miyagawa 1980, 1984, 1989; Stump 2001). I believe that the two approaches I take up can subsume most, or all, of the advantages of the approach based on paradigms.



particular verb stem+cause. In that case, *sase* only occurs with the analytical causative. We saw a similar phenomenon in English, although more complex. English apparently has two elsewhere causatives, the null causative morpheme, which occurs only with lexical causatives, and *make*, which, like *sase*, may occur with lexical and analytical causatives. What is intriguing is that the null causative morpheme and *make* may co-exist even with the same unaccusative verb instead of one blocking the other, as in *make someone come to his senses* and *bring someone to his senses*. It is not clear if there are contexts that dictate the use of one elsewhere causative over the other for forming a lexical causative.

A morpheme similar to *sase* is English *-er*, which can create an agentive nominal ( (*dog*) *catcher*) or an instrument ( (*fly*) *catcher*). In the presence of a more specific form, it is blocked from one or both of these uses, as in *cooker*, which is blocked from the agentive use by the occurrence of the nominal *cook*, limiting *cooker* to the usage as an instrument (Aronoff 1976). Just as with *sase*, we can consider the agentive use of *cooker* to be blocked in derivation because *cook* + AGENT comes with the specific instruction to pronounce it as *cook*.

A different type of blocking is found in cases where the base has two distinct meanings, as in *bad*, which has the conventional meaning and the meaning of ‘tough, mean’ (Kiparsky 2005). The comparative of the conventional meaning is the synthetic form *worse*; *worse* does not contain the other meaning of ‘meaner, tougher’. The comparative of this latter meaning is the “elsewhere” form of *badder*, as in *Badder than Bad*. The fact that morphology distinguishes between the two meanings may be an argument that there are two distinct words, *bad1* and *bad2*, an issue I will not pursue here. A similar phenomenon where a morphological process picks out one meaning of a multi-meaning verb is found in Japanese (Miyagawa 1989).

While all of the cases above are amenable to a derivation-based explanation, there are others noted in the literature that cannot readily be so explained. A well-known case is noted by Poser (1992).

- (40) a. *smarter*, \**more smart*  
 b. \**intelligenter*, *more intelligent* (Poser 1992)

Where the *-er* form is possible, as in *smarter*, the analytical *more ADJECTIVE* form is blocked. The condition that dictates whether the *-er* form is possible is phonotactic: one-syllable adjectives allow the *-er* form while trisyllabic ones do not; di-syllabic ones are more complex, some allowing both forms. These examples appear to be cases where a synthetic form blocks an analytical form, and that there is no ready derivational connection between the two forms. Kiparsky (2005) argues that these examples provide evidence for a different approach to blocking, one based on Optimality Theory, in which a filter is placed at the output of the generative component. This filter evaluates both syntactic and lexical items, selecting the simpler form (presumably one that is structurally less complex) that most closely expresses the intended meaning. If this approach is correct, it would also cover all cases of derivation-based blocking.

Embick and Noyer (2001) argue that even cases such as (40) can be analyzed as an instance of derivation-based blocking. They assume that comparatives have a structure in which the comparative *-er* occurs in the position where *more* occurs in the analytical form — in a high position, in other words. This *-er* must lower to the adjective, producing the ADJ-*er* form. The adjective is somehow marked for whether the *-er* comparative is possible; where it is not possible, the form with *-er* in the original high position is selected, and to this *-er*, *mo* is attached, producing *more*.

Embick (2007) also notes (as does Kiparsky 2005) that *more smart* may occur in a different context.

(41) John is more smart than handsome.

This is what Embick calls a “metalinguistic” comparison, and he gives an analysis of it based on Bresnan’s (1973) study. The crucial point is that the structure of this metalinguistic comparison is such that *-er* in the original high position cannot lower to the adjective *smart*, thereby always forcing the analytical form for this particular construction. See Kiparsky (2005) for criticism of this approach; see Embick (2007) for response. I will assume that the derivation-based approach is feasible.

Another type of example where a filters-type approach has been suggested is with analytical causatives in English.

- (42) a. John opened the door/John made the door open.  
 b. John killed the sheriff/John caused the sheriff to die (McCawley 1978).  
 c. John stopped the engine/John caused the engine to stop (McCawley 1978).

The analytical causative ‘*make the door open*’ requires a reasonably rich context compared to the conventional event of opening the door, the latter expressed by the synthetic lexical causative *open*. In all of these periphrastic cases, their meaning implies some special method that was employed to bring about the eventuality being referred to. For example, in (42c), while *stop the engine* simply suggests that John turned off the engine with the key, *cause the engine to stop* implies some unconventional method, such as jamming the engine with a crowbar (see McCawley 1978). McCawley (1978) suggests that when there is a corresponding synthetic lexical causative, the corresponding analytical causative must have this kind of special meaning as expressed in indirect causation. He proposes a Gricean approach of a cooperative principle that states that unless one is expressing something out of the ordinary, use the simpler form if it exists (the synthetic causative). This is similar to Kiparsky’s (2005) approach, in both cases putting the burden of the blocking effect on a filter to the output of the generative component. But is McCawley’s description of the examples correct, particularly the analytical examples? When one inspects his examples, those that require some special context for the indirect causation all contain an unaccusative verb (*open, die, stop*). Those he observes that don’t require a special interpretation all involve verbs with an external argument, either an agent or an experiencer (*laugh, drop, drop*; p. 250). Unaccusative verbs by nature do not have agency or some inherent force associated with an experiencer, and in the context of an analytical causative, which has the meaning of indirect causative, some external force causes the eventuality to take place. But given the lack of agency of the lower clause, the external force cannot simply be in the form of, for example, giving direction/order to do something. Rather, one must employ some special method for indirectly bringing about the event. On this analysis, there is nothing special about the analytical causative forms in McCawley’s examples; they are precisely what we expect of an analytical causative built on an unaccusative verb, and there is no reason to treat them in some special manner.

## 8 Conclusion

The causative forms in Japanese give support to the idea that both lexical and analytical causatives share a common syntactic frame, where a causative “small *v*” selects a maximal projection: *v*P, VP, PP, AP, NP. If it selects a *v*P, the result is an analytical causative, while any of the other XPs results in a lexical causative (Hale and Keyser 1993). We saw that this “cause” may be pronounced by the same morpheme in both lexical causative and analytical causative: *sase* in Japanese and the null causative morpheme or *make* in English. Where there is a specific (synthetic) lexical causative, it blocks *sase* from being identified with the lexical causative, so that the *V-sase* cannot participate in any of the lexical-causative processes, such as idiomatization and double-causative construction. While these cases of causatives in English and Japanese are amenable to a derivation-based approach to blocking, there are cases in the literature that have been analyzed by a “filter-based” approach. We saw that these, too, are compatible with a derivation-based analysis, making the filter-based approach to blocking unnecessary.

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