

3.2 *Events, Agents and “verbs”*

In the previous section, we have seen some of the reasons to assume that the projection in which subjects are generated is separate from the projection that is responsible for object projection—that is, that the VP in the canonical sense does not exist. Here, we will briefly investigate the nature of the projections that make up verbs and propose that the conservative version of the distinction between lexical syntax and clausal syntax is a spurious one. What Hale and Keyser (1993) refer to as *l-syntax* can be identified structurally, as it is delimited by iterations of a purely verbal category.

A VP¹ with an external argument, then, inevitably contains at least two heads: that which projects/selects the external argument, and that which projects/selects the internal argument(s)². The issue here is how to properly characterize the content of these heads, particularly the top head, which projects the external argument.

We will approach this question in a somewhat roundabout fashion.

3.2.1 *L-syntax: deriving the lexicon*

3.2.1.1 *How many theta-roles? Hale and Keyser's question*

Hale and Keyser (1991, 1993) note that on a view of the lexicon in which verbs have θ -roles to assign, listed in their lexical entry, there seems to be no explanation for

¹I use "VP" here to refer to the minimal projection that contains all the arguments in a given clause - essentially, the structure headed by "SubjP" in example 28a) above. It should be re-emphasized, however, that this is purely a notational convenience for the nonce.

²I will assume Hale and Keyser's (1991) contention that there are no true "objectless" verbs; unergatives are disguised transitives. We will discuss this question further in 3.2.4.1 below.

the curious paucity of θ -roles. Presumably, θ -roles could be just as idiosyncratic as any information that must be listed in the lexicon as underivable from independent properties of the verb. On such a view, they argue, there is no obvious reason why there should not be twenty different θ -roles, or two hundred, rather than the five or six that are usually assumed. They propose an account of this fact that relies on decomposing verbs into component primitives, (essentially) suggesting that the number of θ -roles is limited because the number of primitives is limited. Apparent θ -roles are the result of arguments entering into structural relations with these primitives (specifier of, complement of), which combine to form the lexical verb that appears to assign θ -roles. I propose to adopt the view that these primitives are the heads of the various shells labeled “V” in the previous chapter, contra, e.g., Larson (1988) and Pesetsky (1994), but in line with, e.g. Travis (1991), (1994).

In Larson (1988), the shell-projecting V-heads which provide a syntactic slot in which arguments of double object constructions appear are purely empty, and the verb satisfies its selectional requirements during the course of the derivation as it moves into each empty head and saturates its argument structure. For Larson, a verb is still listed in the lexicon as a function requiring a certain number of arguments of certain types, and there is presumably still no way to derive a restriction on the number or type of arguments it is possible for a verb to have.

For Pesetsky (1994), shells are headed by contentful Ps, which mediate theta-assignment for the verb, thus satisfying its selectional restrictions. Locality restrictions on mediated theta-assignment ensure that no more than two internal arguments can be selected for by any one verb; any more, and the structural requirements on mediated theta-assignment would not be met. This type of proposal is a step closer to answering the question posed by Hale and Keyser, in that the *number* of arguments is limited in a

principled way, but there is still no answer to the question of how to derive the crucial limitations on argument *type*; on such an approach, presumably, there could still be any number of θ -roles, any one or two of which could be assigned to internal arguments³. Deriving the restriction on the number of arguments it is possible for a verb to have via locality constraints, then, is a less than perfect solution (although a much-proposed one⁴

Hale and Keyser (1991), (1994), Hale (1995) propose that the argument structure of a verb is purely the result of principles governing the lexical syntax. Combinations of lexical primitives (see section 3.2.4.1 below) result in syntactically complex, yet often monomorphemic “verbs”, which then enter the syntax, combining with argument DPs to satisfy basic relations imposed by their lexical structure. Crucially, the lexical structure contains no “lists” of arguments, nor of theta-roles that must be assigned, as on more familiar approaches to argument structure like those in Williams (1993) or Grimshaw (1990). Their approach, they are quick to point out, is compatible with the notion of lexical insertion and hence compatible with, for example, a Larsonian approach to VP-shells: these structures could be in the lexicon in some sense, *in place of* the lists of θ -roles. They draw a sharp distinction between this type of syntax (l-syntax) and clausal syntax of the more familiar type, although the principles governing the well-formedness of the structures are the same in both types. Many discussions of their work blur the distinction between the two types (e.g. Chomsky (1993):14); I propose to abandon it.

³For Pesetsky, this is an intended result, as the class of “object experiencer” verbs which he deals with require on his argument a finer-grained notion of theta-role than commonly assumed, and it would not prove surprising on his analysis to discover that 50 or 100 theta-roles were necessary. We will not attempt a counteranalysis here, merely note that object experiencers as a serious problem for future study.

⁴The revised version of Rizzi's (1990) Relativized Minimality proposed in Chomsky (1992, 1993) in terms of Equidistance in combination with an Agr-based account of case-checking, for instance, interact to prevent a verb from having more than two structurally-case-checked internal arguments, as laid out in Collins and Thráinsson (1993) for double object constructions, and in Watanabe (1994) and Harley (1995) for locative inversion and psych verb constructions. This interaction seems to achieve the desired result; however, it has the flavor of a coincidence, and still fails to provide any explanation for the central question about argument type posed by Hale and Keyser. Further, the primary motivation for Equidistance was to allow case-checking of the object above the position of base-generation of the subject, and in a split-VP clausal architecture, this is no longer necessary. See further discussion, however, in section 5.3 below.

3.2.1.2 *VoiceP, unaccusatives and agents*

Let us approach the notion of lexical decomposition via the proposal of Kratzer (1993) outlined in section 3.1.

For Kratzer, the external-argument-projecting head is a “VoiceP”. It can contain two possible abstract heads, one that selects an external argument, and one that doesn't. Alternations between unaccusative/transitive pairs, or active/passive pairs, are the result of variation in whether the Voice head selects an external argument or not. Consider the standard unaccusative/transitive pair in 30) below:

30. a) Dandelions grow.
 b) Opus grows dandelions.

On Kratzer's analysis, the external argument in 30b) *Opus* is introduced by an argument-selecting Voice head, and in 30a), the movement of the internal argument *dandelions* to subject position is forced because the non-argument-selecting Voice head projects no argument to satisfy the EPP, and there is no accusative case available for the internal argument. (Burzio's generalization, for Kratzer, is the result of case-assignment by the argument-selecting Voice head. For discussion of Burzio's generalization under the assumptions here, see section 5.1 in chapter 5 below).

The example in 30b) can in be intuitively decomposed into the meaning of 30a) plus a notion of causation, as originally noted in the classic “cause to die” examples in the generative semantics literature (as discussed, e.g. in Fodor (1970)). 30b) means something close to “Opus causes dandelions to grow.” A well-known argument for such decomposition is that a lexical nominalization of the verb “grow” has no causative force (Chomsky (1970)), as evidenced in 31):

31. *Opus's growth of dandelions⁵.

This asymmetry is easily captured in Kratzer's approach. This type of nominalization is formed from a constituent or head that does not include VoiceP; hence, no external “causer” argument can appear in the noun's argument structure. This approach is motivated even for verbs that do not undergo the transitive/unaccusative alternation—that is, for verbs that always have an external causer argument. An example of such a verb and its nominalization is seen in 32) below: the nominalization can have no causative force whatever.

32. a) Opus amused Ronald-Ann
b) *Opus's amusement of Ronald-Ann

Although Kratzer makes no specific proposal about the content of the external-argument-selecting head of Voice, it seems reasonable to suppose that it can at least sometimes correspond to an abstract CAUSE morpheme—that is, that “Causer” or “Agent” arguments are projected in the specifier of this head. This was proposed for the shells of Pesetsky (1994); the impossibility of nominalization was attributed to a ban on affixation to a zero morpheme.

3.2.1.3 “Kill” as “cause to die”: event structure

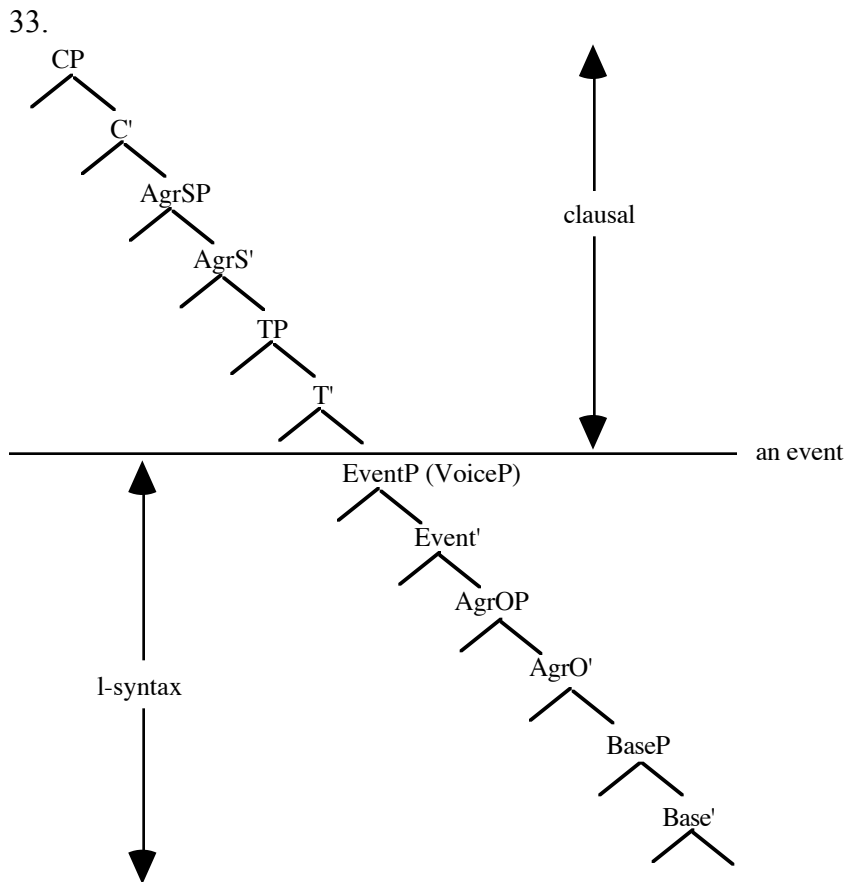
The decomposition of monomorphemic agentive verbs into “basic” phrases like “cause to die” was argued against in its original, generative semantic, incarnation by Fodor (1970). Essentially, the problem he raises with the attempt to represent words as underlyingly phrasal elements is that the event structure of “kill” is not the same as that of “cause to die”. In the former, there is but one event, in which the action of the agent is directly responsible for the death of the patient; in the latter, the causation is a separate

⁵There are nominalizations of verbs which *do* have causative force, of course; “John’s destruction of the city” from “destroy” is an example of one such. Such nominalizations admit of no obvious explanation on the l-syntactic structures here, see, however, the discussion of “mandatory agents” in 5.4.

event, which results in the event of dying. This two-event structure of “cause to die” provides two possible domains for “do so” ellipsis, adjunction of time adverbials and control of instrumental adverbials, which are his “three reasons” against such decomposition of “kill”⁶. The notion of decomposition we need, then, is not one in which “kill” is represented as “cause to die”, complete with its two-event syntax, two tense morphemes, etc., but one in which the abstract CAUSE morpheme is part of the same event as its complement. It is the introduction of the event argument that divides Hale and Keyser’s l-syntax from the clausal syntax, and divides the VP from the rest of the clause; a reflex of this division is that verbal heads in English combined within the EventP will be realized as verbs, (giving, e.g. “CAUSE+[some verb]=“kill”). The VP-Internal Subject Hypothesis, then, is really a hypothesis about event structure. Kratzer’s “Voice” head, which can select or not select an external argument, implements the intuition that a verb phrase denotes an event, which can be initiated by an agent or not. I rename it EventP, below, to capture this intuition. (There seems to be some convergence occurring on this issue; Travis (1994) has independently reached the same conclusion with respect to data from Malagasy causatives, and gives the relevant head the same name).

For future reference, I include here a sample tree, with the domains of l-syntax and clausal syntax clearly indicated. (See Nash (1994):168 for a similar diagram):

⁶For instance, the event of dying and the event of causing can be temporally distinct in “Mary caused John to die on Saturday (by shooting him on Friday)” but not in “Sue killed Bill on Saturday (*by shooting him on Friday)”. Fodor’s other arguments also hinge on the presence of an embedded IP and hence an embedded Event in the “cause to die” examples but not in the “kill” examples.



In English, the arguments for such decomposition are largely conceptual in their simplest form. Hale and Keyser (1993) provide extensive evidence that the formation of verbs is subject to syntactic constraints, and hence should be syntactically represented; however, external arguments of the type generated in the specifier of EventP are for them not selected by a separate head. The notion of actual decomposition of verbal forms in the syntax is thus not articulated by Hale and Keyser in the sense we want here. We will examine their arguments in section 3.2.4 below; for now, we turn to Japanese for morphological and semantic evidence for the l-syntax and clausal syntax distinction.

3.2.2 *Lexical Japanese causatives: l-syntax and Late Insertion*

Here I will begin a prolonged discussion of the Japanese causative morpheme *-(s)ase-*. This morpheme always appears in a phonological word consisting of a verbal root *V*, *-sase-*, and any tense or other inflectional material. I am primarily concerned in this section with the conditions under which this morpheme is analyzed as “lexical”, that is, as part of a single-event-denoting “word”, as opposed to the conditions under which this morpheme is analyzed as “syntactic”, when two events, one associated with causing, one associated with the embedded verb, are clearly represented. The parallel with the “kill” (“lexical” causative) vs. “cause to die” (“analytic/syntactic” causative) examples is very close here, except that the abstract CAUSE morpheme in the former and the matrix “cause” verb in the latter can both be overtly realized in Japanese as the same causative morpheme *-sase-*. The possible difference in interpretation between two identical verb+*sase* combinations, one lexical and one analytic, is the result of whether or not two events are implicated by the complex verb+*sase*—that is, whether or not the *-sase-* morpheme realizes a CAUSE morpheme that encodes an event separate from the event associated with the verb. The crucial similarity the lexical causative shares with “kill” is the strong intuition of native speakers of Japanese that the lexical causative is a “word” with unanalyzable meaning, which can undergo semantic drift in the same way as monomorphemic verbs, and receive an idiomatic interpretation. The syntactic causative, however, cannot receive an idiomatic interpretation; it must always be interpreted compositionally, as “cause to *V*”. Other tests for lexical vs. syntactic status for a given *V+sase* combination will be outlined and employed in section 3.2.2.3 below.

3.2.2.1 “Lexical” vs. “analytic”: interpreting *V+sase*

The morpheme indicating causation in Japanese can form two types of causativized verbs: one that is analyzed as “syntactic” (Kuroda (1965) and one that is thought of as “lexical” (Miyagawa 1980, 1984, 1986, 1989). Most treatments of the two

types separate them: the former is considered to head a verbal projection in its own right, analogous to English *make*, and the latter is considered a derivational morpheme, attached by some mechanism in the lexicon (Kuroda (1994). The former's meaning is always compositional, while the latter's meaning is often idiomatic and unanalysable (though always causative).

The syntactic causative can attach freely to any verbal head, just as English “make” can take any TP as a complement, to produce a causative structure of the “cause to die” type. The lexical causative, however, is not so freely attachable. Miyagawa (1989) characterizes its pattern as follows: lexical *-sase-* can attach to any verbal stem, thereby adding a causer argument, just in case that verbal stem does not have another form (zero-derived or otherwise) that already has an additional argument. Essentially, addition of a lexical causative affix to an intransitive verb is blocked if that verb has an (otherwise derived) transitive counterpart; similarly, addition of a lexical causative affix to a transitive verb is blocked if that verb has an (otherwise derived) ditransitive counterpart.

This “blocking” effect leads Miyagawa (1989) to posit a level of “Paradigmatic Structure” (PDS) between the lexicon and the syntax, where lexical causatives can be formed if there is no independently formed element in the lexicon occupying the “slot” (corresponding to a cell in the table in 34) below) in the PDS that would be filled by affixation of the causative morpheme to the verb stem. An example is seen in 34) below:

34.

	Intransitive	Transitive
a)	<i>niow smell</i>	<i>niow-ase hint</i>
b)	<i>koe become rich</i>	<i>koyas enrich</i>
		<i>*koe-sase enrich</i>

In 34a), there is no lexical item occupying the transitive slot corresponding to intransitive *niow* “smell”, hence the addition of the “transitivizer” *-sase-* is well-formed, giving the lexical causative *niow-ase* with the noncompositional meaning “hint”. In 34b),

however, there is a lexical item *koyas* “enrich” occupying the transitive slot corresponding to intransitive *koe* “get rich”, and this blocks the affixation of the lexical transitivizer -*sase-*.

Miyagawa (1980) notes that similar facts exist in Mitla Zapotec. The causative prefix *s-* in Mitla Zapotec can attach to intransitive verbs, giving a meaning of “cause-V”, just in case there is no other transitive counterpart with this meaning. Examples of a legitimate and blocked addition of the causative *s-* can be seen in 35) below⁷:

35.

	Intransitive	Transitive
a)	ni÷ <i>move</i>	s-ni÷ (<i>make</i>) <i>move</i>
b)	ri÷ <i>come/go out</i>	Læ÷ <i>take out</i>
		*s-ri÷ <i>take out</i>

This provides a satisfactory characterization of the blocking effect that Miyagawa observes for the lexical causative, and maintains a sense in which the lexical V+*sase* combination is an item in the lexicon. Miyagawa argues that his analysis of the lexical causative as a word-level item (generated before the syntax proper) provides an explanation for the difference in the possibility of idiom-formation between the lexical and the syntactic causative: the former can participate in idiom formation, while the latter cannot. Take the instance of blocking in 36) below:

36.

Intransitive	Transitive
tobut <i>fly</i>	tobas <i>dismiss</i>
	*tob-ase <i>dismiss</i>

Miyagawa (1994) notes that the idiomatic meaning of the transitive verb *tobas* cannot be expressed by affixation of -*sase-* to the intransitive stem “fly”. Such affixation is necessarily syntactic, not lexical, due to the blocking effect induced by the stem *tobas* (*tob-ase* is a well-formed complex verb with a biclausal interpretation, “x

⁷Similar facts exist in Malagasy and Tagalog (Guilfoyle, et al. (1992), Travis (1994))

made *y* fly”), and hence *tob-ase* cannot receive the necessarily lexical idiomatic interpretation.

3.2.2.2 The “Elsewhere” rule: Late Insertion

This type of distinction between the lexical and syntactic *-sase-*, however, seems to miss a generalization, as pointed out in later work by Miyagawa (1994). If syntactic *-sase-* is a verb that takes a clausal complement, while lexical *-sase-* is a derivational morpheme that affixes at some late stage in the lexicon like PDS, there is no reason why they should be morphologically related at all. It is surely more than a coincidence that this element, meaning in one instance abstract CAUSE and in another “to cause”, can be realized using exactly the same morphophonological form in the two cases.

Miyagawa (1994) proposes a unified approach to the lexical and syntactic affixation of *-sase-*, arguing that in both cases, affixation is syntactic. Rather than positing an intermediate level of PDS, in which a cycle of lexical affixation of the “transitivizing” *-sase-* takes place if there is no previously-formed transitive counterpart to a given verb, he proposes that all affixation of causative morphemes takes place in the syntax. Given the existence of l-syntax à la Hale and Keyser, he proposes that *-sase-* is an “Elsewhere” causative. The proposal makes crucial use of post-syntactic insertion of lexical items—Late Insertion, as proposed in Halle and Marantz (1994).

A “Late Insertion” view of lexical realization holds that information about the phonological realization of a given terminal node in the syntax is only available in some subpart of the derivation, on the way to PF component. For all syntactic purposes, the word “cat” is equivalent to the word “dog”; information about the identity of an item that is not purely syntactic in nature (e.g. its canine vs. feline qualities, or its phonological

realization) is not represented in the syntax. The phonological realization of terminal nodes is inserted on the way to PF, where it undergoes whatever morphological operations are necessary. (A canonical case, for instance, involves the realization of the “plural” terminal node in English: the special plural form *-en* blocks the realization of the default *-s* in the environment of the form *ox*; the syntax, however, doesn’t recognize any difference between the plural of “ox” and the plural of any other noun.) For the purposes of the syntax, then, /kæt/ = /dag/ = {N, animate, -human ...}.

Recall that (so far) we have assumed the syntactic reality of a CAUSE element, which can occupy the Event head (Kratzer’s Voice). Miyagawa (1994) assumes that this element is present in all lexical causatives, whether they are monomorphemic, formed with a morpheme other than *-sase-* or formed with lexical *-sase-*, just as the evidence from nominalizations points towards the presence of such a head in English *annoy*. The blocking effect is not produced by blocking effects on insertion operations in a separate post-lexical, pre-syntactic level of structure like PDS, but by the well-known Paninian “Elsewhere” condition, already necessary elsewhere in morphology. Essentially, the CAUSE head is subject to spell-out conditions like those seen everywhere in morphology. If there is a more “specific” form (Vocabulary Item) for CAUSE (e.g. zero or some other idiosyncratic morphological realization according to class membership (cf. the sixteen different classes of inchoative/causative pairs listed in Jacobsen (1992))⁸, the CAUSE head is realized as that form, while if there is no specification, CAUSE is realized as the Elsewhere form—*sase-*.

The paradigm Miyagawa is accounting for is seen in 37) below; the (partial) set of ordered Vocabulary Items he proposes is seen in 38) (Miyagawa (1994) ex. (38)). (The

⁸The PDS approach assumed in Miyagawa (1989) appeals to essentially the same insight—more specific forms blocking less specific forms—the implementation, however, is strikingly different.

reference to BECOME in 38a)-c) below is not particularly important for our purposes here; it refers to a stative verbal head embedded in l-syntactic structures which we do not employ.)

37.

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

- 38.
- a) BECOME +CAUSE → /-e-/ in env. [(a)(i)]
 - b) BECOME +CAUSE → /Ø/ in env. (c)(i)
 - c) CAUSE → /-e-/ in env. (b)(ii)+BECOME
 - d) CAUSE → /-as-/ in env. (b)(i)
 - e) CAUSE → /-(s)ase-, -(s)as-/ elsewhere

The crucial point here is that by assuming Late Insertion, Miyagawa is able to avoid positing a whole separate level of lexical structure to account for the blocking effect produced by non-*sase* realizations of CAUSE on the causative morpheme. Further, he is able to assume that the realization of the syntactic causative and the lexical causative are taken care of by the same Vocabulary Item—the elsewhere item, 38e) above. On this analysis, the syntactic *-sase-* is a CAUSE head, as is its lexical counterpart. Miyagawa treats it as taking a clausal complement. For Miyagawa, clauses do not participate in the type of class-membership phenomena that verbal stems do, so syntactic *-sase-* will never have allomorphs of the type found in lexical causatives.

I adopt a version of this analysis here. Miyagawa's approach focuses on the status of these lexical causatives as evidence for Late Insertion; I would like to shift the

emphasis a little bit and argue that the lexical/syntactic distinction here is an argument for the view of the “VP” outlined above.

3.2.2.3 *Lexical causatives: realizing CAUSE*

A crucial fact about the intransitive/transitive distinction in the lexical causative paradigms (formed with *-sase-* or otherwise) is that the intransitive member of the pair is *always* unaccusative/stative. Particularly for lexical causatives formed from *-sase-*, this observation is not always noted. In Miyagawa (1989), for instance, *-sase-* is referred to as “transitivizer”, adding an argument to a verb or a clause. Crucially, however, in the lexical causative, this verb or clause prior to transitivization must be of the unaccusative type. Unergative intransitives do not occur in the lists in Jacobsen, nor in the intransitive member of the pairs of *-sase-* lexical causatives in Miyagawa (1989). That is, *lexical causatives are always formed on stems lacking an external argument*.

We can test whether or not a lexical interpretation is possible for a *V+sase* combination where the verb has an external argument. On a PDS approach to lexical causatives, one might expect that intransitive unergatives could have *-sase-* affixed to them to form a lexical causative, since their transitive slot in PDS is not filled. This is never the case. When *-sase-* is added to an unergative verb, only the analytic meaning can result; an idiomatic, non-compositional, lexical meaning is never available. An example of this can be seen in 39) below. Using Miyagawa's test for underlying unaccusativity (the ability to float a numeral quantifier in object position—see discussion in section 3.1.3 above), we can see in 39a) that *waraw*'laugh' is unergative, as a NQ cannot occur in an objective base position. In 39b) we see that an “adversity causative”⁹

⁹This type of reading is suspiciously similar to “experiencer have” discussed in section 3.2.6.2 below; these sentences entail that the event that is a complement to *sase* had an adverse effect on the matrix subject.

interpretation of *waraw-sase-ta* is unavailable. Oehrle and Nishio (1981) argue that the adversity causative interpretation is only possible for lexical causatives; hence it can be used to test for analytic vs. lexical causatives:

39. a) ***Gakusei-ga** [_{VP} tosyokan-de **2-ri** waraw-sita]
 students-N *library-at* *2-CL* *laugh-did*
 “Two students laughed at the library”
- b) Doroboo-ga Yakko-o waraw-ase-ta
 a thief-N *Yakko-A* *laugh-cause-Pst*
 “A thief made Yakko laugh.”
 *”A thief had Yakko laugh on him” (e.g., revealing his presence).

Lexical causatives, then, no matter how they are formed, act to add an external argument to the l-syntactic representation of a verb. Crucially, they *cannot* be formed if there already is an external argument in the l-syntactic representation—that is, if there already is a CAUSE morpheme in the l-syntactic representation—no matter what the surface valency of the verb.

This fact parallels the restriction on reduplication of causative meanings implied by the “blocking” effect above. When a “double causative” appears (V-*sase-sase*) the interpretation of the outer *-sase-* is necessarily analytic—a lexical causative can never be formed on a pre-existing lexical causative¹⁰. This is true of lexical causatives formed via affixation of any of the causativizing morphemes seen in 37) above.

¹⁰We still have no account of the restriction on stacking of *analytic* causatives. No multiple V+*sase+sase+sase+sase...* combinations are possible, where *sase* is receiving the analytic interpretation. This stacking is perfectly possible with English “make”: “Calvin made Susie make Hobbes make Rosalyn...” As things stand, any Event head should be a legitimate complement for *sase*, even one headed by another analytic *sase*. See Kuroda (1993) for discussion. Bobaljik (p.c.) suggests that this restriction could be morphological, rather than syntactic, comparable to the restriction on more than one /-s/ affix in English: **the boys’s books*. Even if the syntax allows a possible configuration, the morphology can block iterations of “types” of affixes. A suggestion of Kuroda (1993) might provide some support for this; it is possible, he claims, that a single *sase* can have the meaning of a “double” *sase*, just as in “the boys’ books” the single -s morpheme has both plural and possessive functions. Again, see Kuroda (1993) for discussion.

What seems to be the case, then, is that the lexical causative affix is the morphological realization of a CAUSE Event head—that is, of a Event head that selects an external argument. There is no sense, then, in which a lexical causative is a “transitivizing” affix that attaches to a pre-existing intransitive “verb”: lexical causatives are like the monomorphemic agentive English verbs like *kill*, which contain CAUSE in their l-syntactic structure¹¹. Presumably, it should be possible to have an Event head which does *not* select an external argument. The corresponding “detransitivizing” affix that appears on many of the intransitive counterparts to lexical causatives (see the “intransitive” column in 37)) is similarly a realization of a non-CAUSE Event head; what we will call “BE”—a Event head that does not select an external argument. As a visual aid, here, I indicate the l-syntax structures of *ag-ar-u* 'rise' and *ag-e-ru* 'raise'.

¹¹If, as proposed here, all unergatives have already a CAUSE head in their EventP (as they have external arguments) we have an account of the impossibility of forming a zero-derived causative on an unergative in English (as pointed out to me by Jonathan Bobaljik):

- i) *We laughed the child (from *the child laughed*)

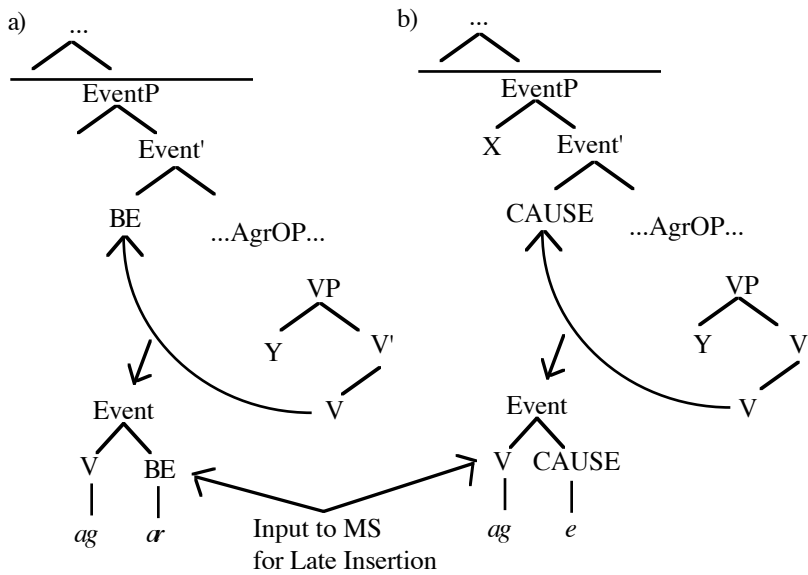
This is bad for the same reason that lexical causatives cannot be “stacked” in Japanese: the presence of the CAUSE morpheme in the representation marks the delimitation of an EventP; in order to add a CAUSE morpheme to the structure of the verb “laugh” a new EventP, and hence a new domain of l-syntax, must be introduced. Contrast this with

- ii) We jumped the horse (from *the horse jumped*)

Verbs of motion and location can be optionally unaccusative, with the moving thing acting as a Theme (this allows the famous “Locative Inversion” construction: *Over the fence jumped the horse*, cf. Bresnan (1992)). When a verb of motion is unaccusative, it has a BE Event head. When that event head is realized as a CAUSE, an external argument is introduced, giving the zero-derived causative form in ii). (Verbs of motion can also be realized as unergative, of course, with the underlying structure something like iii), like any other unergative (see the discussion in section 3.2.4.2)).

- iii) [_{Event} the horse [CAUSE... [_{VP}a jump]

40.



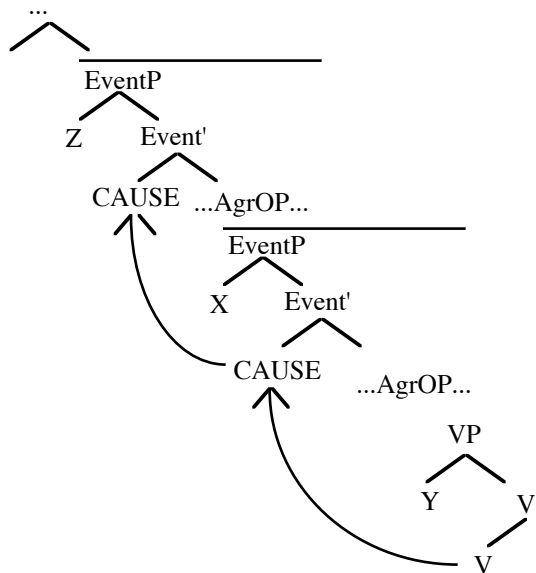
Thus, we provide additional motivation for adopting the view that external arguments are introduced by a head, with semantic content, rather than assuming with, e.g. Hale and Keyser (1993) that external arguments are merely the result of adjunction to some type of predicative structure. Note that on such a view, the difference between *ag-ar-u* and *ag-e-ru* would be the presence or absence of an adjoined external argument. There would then be no explanation for the presence of the additional morphology on the intransitive *ag-ar-u*. One would expect, perhaps, the occurrence of ill-formed bare stem **ag-u*, given that *-e-* can appear as a causativizing morpheme on stems whose intransitive counterpart requires no extra morphology—that is, can be bare (compare *ak-u* 'open(intr)' and *ak-e-ru* 'open(tr)'). Given that *-e-* alternates with a null BE morpheme (in *aku* “open”), it cannot be the case that it must be replaced with *-ar-* in intransitive “raise”. Further, it cannot be the case that the morphology is purely “thematic”, present to ensure well-formedness when no derivational morphology is attached to the root *ag-*. If that were the case, one would expect that the addition of, for instance, an analytic causative to the intransitive form would satisfy the well-formedness requirement, and that the *-ar-* morphology should drop off. This does not happen: in order to express an

analytic causative of the intransitive, *-sase-* must be affixed to the stem *ag-ar* rather than to the root *ag-*. This can be seen in 41) below:

41. Yakko-ga Wakko-o butai-ni agar-ase-ta/*ag-ase-ta
 Yakko-N Wakko-A stage-on rise-Cause-Past
 “Yakko made Wakko rise onto the stage” (e.g. by magic).

Now, take the structure of the syntactic/analytic causative. It is analytic, hence is not formed within the I-syntax. Further, it denotes two separate events, an event of causing and the resulting event. It can have two external arguments (matrix and embedded), each of which can antecede a subject-oriented reflexive. Its complement bears no tense morphology whatever. Further, we would like it to be eligible for the CAUSE Vocabulary Item *-sase-* in 38e) above; hence, it must be realized as a pure CAUSE terminal node in the syntax. I would thus like to suggest that the syntactic/analytic causative is an EventP which takes another EventP as its complement¹². The structure would be that in 42) below:

42.



¹²See Chapter 5 for extensive discussion of the syntactic causative.

Note that the top CAUSE head will be a separate domain of l-syntax from the lower VP, and hence no class-conditioned allomorphy will ever appear in the analytic causative, which will always be realized as the Elsewhere causative, *-sase-*.

3.2.2.3.1 More evidence for Late Insertion

In addition to the inherent elegance of treating the insertion of *-sase-* as an example of the default morpheme on a par with other instances of morphological realization, the above argument from unergative verbs provides strong evidence for a Late Insertion approach to lexical realization. Consider how a PDS account might attempt to prevent the formation of a lexical causative on an unergative root. The most obvious way is to assume that the unergative root already fills a transitive slot in the PDS representation—that is, that it is represented as transitive at PDS, in line with (for instance) Hale and Keyser's (1991) proposal that all unergatives are underlyingly transitive. On such an account, *waraw-* “laugh” would be represented as the transitive “do a laugh” in PDS, hence blocking the addition of a transitivity morpheme *-(s)ase-*:

43.

Transitive
DO + <i>waraw</i>
* <i>waraw-ase</i>

A paradox arises, however, on such an account. The formation of the intransitive verb *waraw* from DO+”laugh” will have to occur after PDS, to ensure that the blocking of lexical *waraw-ase* takes place at PDS, but the formation of lexical causatives like *koyas* from *koe* +*as* will have to take place before PDS, again to ensure blocking of *koe-sase* at PDS. A PDS account, then, requires word-formation processes to occur both before and after PDS. On a Late Insertion account, however, no such problem arises; both *waraw* and *koyas* will be represented as having a CAUSE Event head in the syntax,

which will be spelled out according to the rule block for spelling out CAUSE and blocking the formation of *waraw-sase* and *koe-sase* in each case.

3.2.3 *EventP as a delimiter: why non-compositional interpretation?*

At this point, I would like to remind the reader of Kratzer's original motivation for separating the subject from the rest of the VP. Her argument essentially was that objects and verbs could receive non-compositional interpretations, but that subjects and verbs never could, to the exclusion of the object. The semantic rule she proposes to combine the embedded VP with her Voice head was non-compositional—there was no sense in which the Voice head was a function that took the lower VP as an argument, or vice versa. I would like to suggest that this accounts for the word-level intuition associated with an EventP; the EventP is the domain of l-syntax because it is the point at which regular Fregean composition ceases to apply.