

The Syntax of Internal and External Causation^{*}

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1. Introduction

Levin and Rappaport (1995, henceforth L&R) argue that the distribution of the English causative alternation is predicted by the internal/external causation distinction. For L&R this distinction is represented in lexical conceptual structure. In this paper I argue that representing this distinction in the syntax, rather than in the lexicon, allows a crosslinguistically more satisfying theory of causativization.

L&R propose that there are two types of intransitive verbs: those that are internally caused and those that are externally caused. L&R define the class of externally caused verbs as those that describe eventualities which are brought about by an external force. These can be further divided into change of state verbs and verbs of motion, as in (1).

- (1) Externally caused verbs.
 - a. Change of state verbs: *bake, blacken, break, cook, cool...*
 - b. Verbs of motion: *bounce, move, roll, rotate, spin...* (L&R: 93)

Internally caused, verbs, on the other hand, describe eventualities which are brought about by the internal characteristics of an event participant. Such characteristics are the will of an agent, the physical properties of an event participant, and emotional reactions. Examples of each of these are listed in (2).

- (2) Internally caused verbs.
 - a. Agentive verbs: *laugh, play, speak...*
 - b. Verbs of sound, light or smell emission: *burble, flash, flicker, smell...*
 - c. Unvolitional change of state or activity: *blush, tremble, shudder...* (L&R: 91)

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L&R's generalization is that only externally caused verbs participate in the causative alternation. Thus a verb such as *break* occurs both as an intransitive and as a transitive, while a verb such as *laugh* does not.

- (3) a. The window broke.
 b. Pat broke the window.
- (4) a. The children laughed.
 b. *The teacher laughed the children.

Crosslinguistically we, however, find an abundance of verbs which are internally caused but nevertheless causativize. The following examples are from Finnish:

- (5) a. Tytöt nauro-i-vat.
 girls.NOM laugh-PAST-3PL
 'The girls laughed'
- a. Sami naura-tti tyttö-jä.
 Sami.NOM laugh-CAUSE.PAST girls-OBJ
 'Sami caused the girls to laugh'
- (6) a. Sami punastu-i.
 Sami.NOM blush-PAST
 'Sami blushed'
- b. Tytöt punastu-tti-vat Sami-n.
 girls blush-CAUSE.PAST-3PL Sami-OBJ
 'The girls caused Sami to blush'

These examples are, however, not counterexamples to L&R's generalization. Their proposal is only meant to account for the English type of causative *alternation* which is a much less productive phenomenon than the type of morphological *causativization* that (5) and (6) illustrate. What L&R set out to explain is the distribution of the causative alternation and, for them, what we see in (5) and (6) has to reflect some other phenomenon.

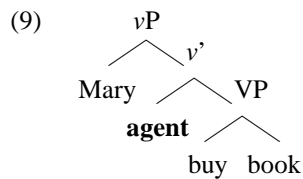
But the pattern in (5) and (6) holds many similarities to what we see in (3). In both cases the introduction of causation has the same effect on the grammatical functions of the arguments. Thus, ideally, our theory should be able to capture not only the differences between the two phenomena but also the similarities. In other words, the goal should be to find a theory in which causativization in English and in Finnish is essentially one phenomenon, with some parametric variation, rather than to start out with the assumption that they are two unrelated phenomena.

In this paper I try to lay out a framework for such a theory. First, I argue that the locus of the internal/external causation distinction is not in the lexicon but rather in the syntactic head that introduces the external argument. Second, I argue that one of the parameters of causativization is whether both internal and external causation or only internal causation are expressed in this head.

d. kill a bottle (i.e. empty it)

If the external argument is not a true argument of the verb, we can easily explain this subject-object asymmetry. We simply need to say that the interpretation of a verb depends on its argument. Since the external argument is not an argument of the verb, it cannot affect the verb's interpretation.¹

These subject-object asymmetries have lead researchers to treat the external argument as being projected not by the verb but by a separate head, usually called *v* (e.g. Marantz, 1997; Chomsky, 1998 and Kratzer, 1994, 1996 who calls this head 'Voice'). This head is interpreted as the thematic relation that holds between the eventuality described by the VP and the individual that appears as the external argument (Kratzer 1994, 1996). Significantly, the nature of this thematic relation is generally predictable from the meaning of the VP. This is another motivation for "severing" the external argument from the verb, as Kratzer puts it. Since the semantic relationship between the external argument and the VP is predictable, specifying it in the lexical entries of verbs would be redundant. For example, in (9), our non-linguistic knowledge about buying events determines that the external argument is interpreted as an agent, and not, for example, as an experiencer:

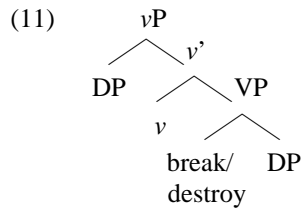


L&R's proposal is, however, incompatible with this type of theory of external arguments. The two approaches could, of course, be made compatible if we just omitted the external causer argument from L&R's lexical representation of *break*. In this approach its underived meaning would be as in (10):

(10) *break* [[DO-SOMETHING] CAUSE [y BECOME *BROKEN*]]

But there is a problem also with (10). The problem is that it does not distinguish the transitive *break* from nonalternating agentive verbs, such as *destroy*. In this revised version of L&R's approach, both *break* and *destroy* would directly combine with the external argument-introducing head in the syntax, as in (11).

¹ See also Kratzer (1994) who shows that the subject-object asymmetry cannot be captured by simply giving the subject a special role as the final argument in the semantic composition of the sentence (cf. Bresnan, 1982; Grimshaw, 1990).



But there is evidence that causative alternating verbs and nonalternating transitives combine with their external arguments in different ways. One indication of this is that only nonalternating transitives appear as transitive in nominalizations: an agentive possessor argument is impossible with causative alternating verbs, as is illustrated in (12-15) (Chomsky, 1970; Pesetsky, 1995; Marantz, 1997; examples slightly modified from Pesetsky 1995: 75 and Marantz 1997):

- (12) a. Bill destroyed the city
 b. *The city destroyed
 c. the destruction of the city
 d. **Bill's destruction of the city**
- (13) a. Bill cultivates tomatoes.
 b. *The tomatoes cultivate.
 c. the cultivation of tomatoes.
 d. **Bill's cultivation of tomatoes**
- (14) a. The curtain dropped
 b. The boy dropped the curtain
 c. the drop of the curtain
 d. ***the boy's drop of the curtain**
- (15) a. His salary shrank.
 b. The manager shrank his salary.
 c. the shrinkage of his salary
 d. ***the manager's shrinkage of his salary**

In (12d) and (13d), 'Bill' is interpreted as the agent since this thematic relation is recoverable from the meanings of the verbs *destroy* and *cultivate* and their complements (Marantz, 1997). But by parallel reasoning, (14d) and (15d) should also be possible if there is no significant difference between causative alternating and nonalternating transitives. Since (14d) and (15d), however, are not possible, there must be something that distinguishes transitive *drop* and *shrink* from *destroy* and *cultivate*.

The obvious hypothesis is that the transitive forms of causative alternating verbs are, in fact, derived forms. Explanations of the data in (12-15) in these terms can be found in Pesetsky (1995) and Marantz (1997).² Pesetsky argues that the causative alternate is zero-derived from the noncausative and attributes the impossibility of causative meanings in nominalizations to restrictions in the further derivation of zero-derived forms (Pesetsky,

² But, importantly, Marantz (1997) argues that his analysis is, in fact, the analysis presented in Chomsky (1970).

1995: 79-93). Marantz's explanation has a more semantic flavor. He argues that a possessor argument in (14d) and (15d) is impossible because the nominalizations in (12-15) are "root-nominalizations"³ and from the root of a causative alternating verb we cannot recover a suitable semantic role for the possessor argument.⁴ The root describes a change of state which can only take the participant undergoing the change of state as its argument. To get an agentive interpretation for a causative alternating verb, one needs to merge the inchoative root with a causative head. After this, an agent can be added since it can now be interpreted as a participant in the causing event. But after the causative head has been merged, root nominalizations are no longer possible.

Thus, under the assumption that the transitive form of causative alternating verbs is derived from the intransitive, the English nominalization data are easily explained. Merging a possessor argument to a nominalization requires the nominalization to describe an event to which an agent or a causer can easily be related. Inchoative roots, however, are not such until a causative head has been added and after this, the types of nominalizations as in (12-15) are no longer possible, perhaps due to the kinds of morphological reasons discussed by Pesetsky.

The interpretations of stative participles, or "adjectival passives", provide a similar argument.⁵ Similarly to nominalizations, stative participles formed from causative alternating verbs do not have causative meanings.⁶

- (16) a. This ice-cream is frozen. (≠ Somebody froze it.)
 b. My walkman is broken. (≠ Somebody broke it.)
 c. This butter is melted. (≠ Somebody melted it.)

Kratzer (1998) and Marantz (1999) argue that adjectival passives are participles built right above the VP level (or RootP for Marantz). Thus they are built before the merging of any causative meaning and this is why causative meanings are unavailable in stative participles. Again, if the basic meaning of *freeze*, for instance, were the causative one, one would be hard-pressed to explain why we cannot form a stative participle from the transitive *freeze* while from a nonalternating transitive, such as *destroy*, we can:

- (17) My sand castle is destroyed.

³ In the framework of Distributed Morphology (Halle and Marantz, 1994, and subsequent work) this means that the category-neutral root of a verb such as *drop* (i.e. $\sqrt{\text{DROP}}$) appears in a nominal environment in the syntax. Thus, in Distributed Morphology, what we see in (12-15) are, in fact, not "nominalizations" in the sense that a noun would have been derived from a verb.

⁴ See Pesetsky (1995) for discussion on the semantic constraints of this role.

⁵ I call these constructions stative participles rather than adjectival passives because calling them any kind of passives is misleading; many verbs that do not passivize do appear in "adjectival passive" constructions (e.g. *John is gone/rested*).

⁶ The examples in (16) do, of course, have causative meanings under the habitual interpretation which is derived from the eventive passive, i.e. *My walkman is broken (by Mary) every Saturday*. But the eventive passive is not relevant for my point here.

Two conclusions arise from the data discussed in this section. First, we must conclude, contra L&R, that in English the causative form of causative alternating verbs is the derived form and not the noncausative. In other words the direction of derivation in English is the same as in a language such as Finnish where the causative is transparently derived from the noncausative, as the examples in (5) and (6) illustrated. The challenge then is to develop a theory which accounts for causativization in English and in Finnish in a unified way while also capturing the fact that causativization in Finnish is much more productive than in English.

Second, there seems to be a certain a locality domain within which all the phenomena discussed in this section occur. For subject-object asymmetries this domain is the external argument-introducing head, v : the external argument which is merged above v is not able to trigger a special interpretation of the verb while the verb's internal argument, merged below v , can. For nominalizations and stative participles this domain is defined by whatever head expresses causation: both nominalizations and stative participles must be built below this head. The question then is, is the head that defines a domain for special meanings of verbs the same head that defines the domain for nominalizations and stative participles? In other words, is causation expressed in v ? Marantz (1997) argues that it is. In what follows I try to show that this is, indeed, so for English but not for Finnish. I will argue that in Finnish causation is expressed in a separate head from v and that this is one of the reasons why causativization in Finnish is more productive than in English. But before discussing the differences between English and Finnish, I wish to spell out in more detail what I mean by causation and the introduction of external arguments.

3. Causation and External Arguments

To investigate whether causation is expressed in the same or in a separate head from the head that introduces the external argument, we need to understand what is semantically involved in the introduction of causation or the external argument to the meaning of a VP. Let us start with external arguments.

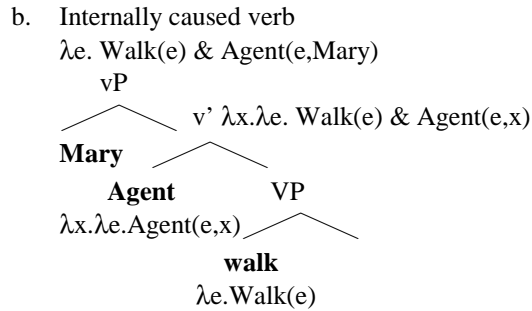
Having external arguments be arguments of some head other than the verb is, on the face of it, semantically problematic. If 'Mary' in (18) is not an argument of 'read', how can it fall out of our semantics that Mary indeed is the agent of the reading event?

(18) Mary read the Times.

Kratzer (1994, 1996) lays out a specific proposal about how this is done. Kratzer proposes that the external argument-introducing head combines with the VP by a rule of semantic composition which she calls 'Event Identification'. This rule is a conjunction operation that allows us to conjoin the thematic relation born by the external argument into the meaning of the VP. The rule of Event Identification is stated in (19a) and illustrated in (19b):^{7,8}

⁷ The semantic types involved here are e for individuals, t for truth-values and s for eventualities (including states).

⁸ (19b) differs from Kratzer's semantics in that I assume neo-Davidsonian argument association also for internal arguments (as in Parsons 1990) in conceptual structure (i.e. within the meanings of verbs) although not in the syntax. Nothing here hinges on this.



Of course we must ask the question, what prohibits the merge of a *v* also with externally caused unaccusatives. The reason is the same that prohibited the addition of an agentive possessor in the nominalizations of externally caused verbs: the meaning of the noncausative *break*, i.e. 'become broken', does not allow us to relate an agent to it without the addition of causation. In other words, the event 'become broken' is in some sense "complete" without an agent. Walking events, on the other hand, require an agent, and therefore a *v* is merged.

Similarly to the external theta role, I assume that causation is a universal semantic feature (cf. Pesetsky, 1995: 85). I assume that this feature, call it **cause**, is interpreted as an eventuality which causes the eventuality described in its complement, i.e. in the VP. In other words, **cause** has the meaning in (21):

$$(21) \quad \mathbf{cause}: \lambda f_{\langle s, t \rangle}. \lambda e_s. [(\exists e') [f(e') \ \& \ \mathbf{CAUSE}(e, e')]]$$

Thus adding causation into the meaning of a VP formally means adding a *causing eventuality* into its meaning (cf. Parsons, 1990). But significantly, **cause** does not introduce any new event participants, i.e. it does not introduce the external argument. In what follows I wish to argue that while the meaning of **cause** does not itself involve a relation that would allow it to take the external argument as its argument directly, some languages bundle **cause** together with the external theta role feature, call it θ , thus giving rise to an external argument introducing causative head. Other languages do not, and this is one source of crosslinguistic variation in the expression of causation.

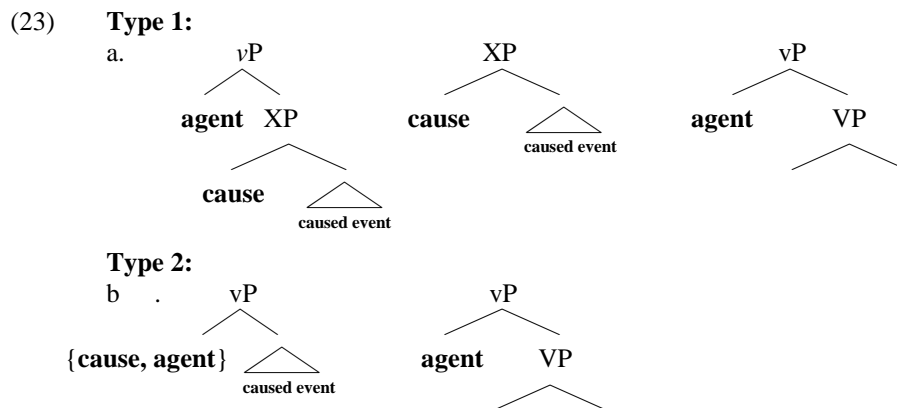
4. Crosslinguistic Variation in the Expression of Causation

In this section I wish to argue that languages split at least into the following two types when it comes to the syntactic expression of causation:

- (22) **Type 1:** The feature **cause** is independent of θ .
 Type 2: The feature **cause** is bundled together with θ .

Since in Type 1 languages **cause** is independent of θ , i.e. the external theta role, **cause** and θ are realized in two different syntactic heads. In Type 2 languages, on the other hand, **cause** does not occur independently of θ and therefore these two features are realized in

one syntactic head. In Type 2 languages **cause** is realized in *v* because θ has to be realized in *v*. In Type 1 languages, on the other hand, **cause** cannot be realized in *v* since it does not involve a relation between an event and an individual, i.e. it does not involve θ . An important prediction of this typology is that in Type 1 languages it should be possible to have causatives without an external argument while in Type 2 languages such causatives should not occur. Thus all the structures in (23a) should be possible in a Type 1 language while only the structures in (23b) should occur in a Type 2 language:

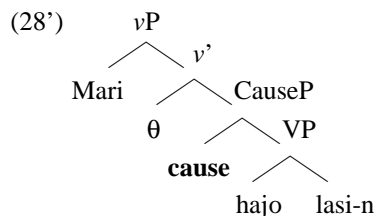


In the rest of this paper I wish to argue that Finnish represents a Type 1 language and English a Type 2 language.

4.1 Finnish

If Finnish is a Type 1 language, its causative morpheme should be realized in a head that is separate from the external argument-introducing head. Thus Finnish causatives should have the structure in (28’):

- (28) Mari hajo-tti lasi-n.
 Mari.NOM break-CAUSE.PAST glass-ACC
 ‘Mari broke the glass’



Here the causing eventuality and ‘Mari’, i.e. the participant of the causing eventuality, are introduced in separate heads. The prediction then is, as already mentioned, that in Finnish it should be possible to introduce the causing eventuality without relating any participant to it, i.e. without introducing an external argument. Such a structure is indeed possible. In

Finnish, when a causing eventuality is introduced without the introduction of an external argument, the result is what I will here call the desiderative causative, illustrated in (29):

- (29) Maija-a laula-tta-a.
 Maija-PAR sing-CAUSE-3SG
 ‘Something causes Maija to feel like singing’

In what follows I show that Finnish desiderative causatives have no external argument and involve no agentivity while still exhibiting a causative semantics.

Let us start by showing that desiderative causatives have no external argument. If this is the case, the preverbal argument in (29) must be a derived subject. The best indication of its derived status is its partitive case. Finnish has two object cases, partitive and accusative. The choice is determined by aspect: when the eventuality described by the verb is interpreted as telic, the object appears in the accusative and when the eventuality is interpreted as atelic, the object is in the partitive. Partitive is also a possible subject-case but in this position it has a truly “partitive” interpretation and thus it is only possible with plural and mass nouns, as the ungrammaticality of (30c) illustrates:

- (30) Mass:
 a. Kansa-a kokoontui aukio-lle.
 people-PAR gathered square-ABL
 ‘People gathered in the square’
- Plural:
 b. Miehi-ä laula-a kato-lla.
 men-PAR sing-3SG roof-ADE
 ‘Some men are singing on the roof’
- Singular:
 c. *Mies-tä laula-a kato-lla.
 man-PAR sing-3SG roof-ADE
 ‘A (part of a) man is singing on the roof’

The preverbal partitive argument of desiderative causatives can, however, perfectly well be singular, as (29) above showed. Thus this partitive argument cannot be an external argument. In fact, if it is underlyingly an object, partitive case is expected. This is because desiderative causatives are fully stative. Their stativity can be shown by their present tense interpretations. As in English, only stative verbs in Finnish have a nonhabitual interpretation in the present tense. Thus the eventive sentence in (31a) can only be interpreted habitually: in other words, Maija is in the habit of driving a convertible in some situations. The stative sentence in (31b) can, however, be interpreted as reporting on a situation that holds at speech time; i.e. it is true at speech time that Jussi knows French. The same holds for the desiderative causative in (31c) and hence we can conclude that it is stative.

- (31) a. Maija ajaa avoauto-a.
 Maija-PAR drives convertible-PAR
 ‘Maija (habitually) drives a convertible’

- b. Jussi osa-a ranska-a.
 Jussi know-3SG French-PAR
 ‘Jussi knows French’
- c. Maija-a laula-tta-a.
 Maija-PAR sing-CAUSE-3SG
 ‘Something causes Maija to feel like singing (now)’

Since the desiderative causative is stative, and since its preverbal argument is an internal rather than an external argument of the causative verb, it is only grammatical when this argument is in the partitive. This is because the object of atelic predicates always occurs in the partitive. Thus the contrasts in (32a) and (32b) are parallel:

- (32) a. Maija-a / *Maija/ *Maija-n laula-tta-a.
 Maija-PAR/ Maija.NOM/ Maija-ACC sing-CAUSE-3SG
 ‘Something causes Maija to feel like singing’
- b. Sami osa-a ranska-a/ *ranska/ *ranska-n.
 Sami.NOM know-3SG French-PAR/ French.NOM/ French-ACC
 ‘Sami knows French’

The conclusion then is that the partitive argument is not an external argument; i.e. it is not projected by a v above the causative head. From this alone it, however, does not follow that **cause** can occur without an external theta role. It is still possible that the desiderative construction could have an implicit agent similarly to that in passives. In passives agentivity is introduced even though no agent is projected in the syntax (cf. Embick, 1997). The possibility of purpose clauses with passives shows the presence of an implicit agent:

- (33) Maija-a laula-te-ta-an tarkoituksella.
 Maija-PAR sing-CAUSE-PASS-AGR on.purpose
 ‘Maija is caused to sing on purpose’

Passives have an external theta role, and hence a v , even though this theta role is not assigned to any argument. The implicitness of the agent can be captured by having a passive v introduce an existentially closed participant into the meaning of a VP:

- (34) **Agent**_{PASS}: $\lambda e.(\exists x) \text{Agent}(e,x)$

Unlike passives, desiderative causatives do not combine with purpose clauses:

- (35) *Maija-a laula-tta-a tahallaan.
 Maija-PAR sing-CAUSE-3SG on.purpose
 ‘Something causes Maija to feel like singing on purpose’

Thus there is evidence that desiderative causatives do not involve the same kind of passive v as passives.

What we need to show next is that the meaning of desiderative causatives does involve a causing eventuality even though no participant of this eventuality is introduced. In other words, we need to show that the construction does not simply mean ‘Maija feels like singing’. One indication of the presence of a causing eventuality is that it can be questioned, while the object of the singing cannot:

- (36) a. Maija-a laula-tta-a.
 Maija-PAR sing-CAUSE-3SG
 ‘Something causes Maija to feel like singing’
 b. Mikä?
 What.NOM
 ‘What (causes Maija to feels like singing)?’
 c. #Mitä?
 What.PAR
 ‘What (does Maija feel like singing)?’

Felicitous answers to (36b) are answers such as ‘her happiness’ or anything that can be taken to describe an internal mental state of the experiencer. But interestingly, this mental state cannot be expressed as the external argument even though it can be questioned:

- (37) ??Liisa-n onnellisuus laula-tti hän-tä.
 Liisa-GEN happiness sing-CAUSE.PAST her-PAR
 ‘Liisa’s happiness caused her to sing’

In (37), the expression of the causing mental state as the external argument has made the desiderative meaning disappear; in (37) we have a purely causative meaning. However, the causative of ‘sing’ requires an agentive subject and therefore (37) is anomalous.⁹

Based on these data we can conclude that in Finnish **cause** can, indeed, occur independently of θ . Thus the structure posited in (28) is supported. But not all languages allow causatives without external arguments. In the next section I describe how a language where **cause** does not occur independently from θ differs from Finnish.

4.2 English

Unlike in Finnish, causative verbs in English always have an external argument. I propose that this is because in English the feature **cause** is bundled together with θ . This is to say that the phonologically null causative morpheme in English involves a semantic feature that is absent from the meaning of the Finnish causative morpheme. Since the causative morpheme in English has θ as one of its features, it has to be expressed in *v*.

⁹ An interesting variation of these facts can be found in Tohono O’odham, which has a desiderative causative very similar to the Finnish one (Zepeda, 1987). In O’odham, desiderative causatives can have an external argument but this external argument is limited to a very small set of nominalizations describing internal states and emotions such as ‘hunger’ or ‘tiredness’. Thus even though the O’odham desiderative causative allows an external argument, this external argument cannot be a participant of the causing eventuality, it has to *be* the causing eventuality. See Pylkkänen (to appear) for discussion.

Thus, in English, the possible semantic contents of v are both (38a) and (38b) while in Finnish only (38a) is possible:

- (38) a. $\{\theta\}$
 b. $\{\mathbf{cause}, \theta\}$

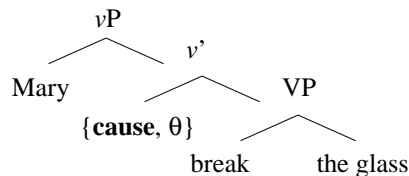
The obvious question that arises is, how is (38b) interpreted? The interpretation that we want is one where the causative morpheme introduces a causing eventuality *and* a participant of that eventuality, i.e. we want the meaning in (39):

- (39) $\{\mathbf{cause}, \theta\}$: $\lambda f_{\langle s, t \rangle} . \lambda x . \lambda e . [\theta(e, x) \ \& \ (\exists e') [f(e') \ \& \ \mathbf{CAUSE}(e, e')]]$

Exactly how bundles of semantic features are interpreted is largely an open question. One possibility that at least works for the case at hand is that they are interpreted in whatever order works out. Thus, in the English case, we would first have to combine the meaning of **cause** with the meaning of the VP and then combine θ with the result of this by Event Identification. The opposite order would result in uninterpretability since combining θ with the meaning of a VP by Event Identification would give us a function from individuals to functions from events to truth-values while the argument of **cause** needs to be only a function from events to truth-values. But I do not wish to examine this issue further here; I simply want to point out that a semantic theory about the interpretation of the types of feature bundles in (38b) is conceivable.

The proposal then is that v in English and v in Finnish have different semantic features. In L&R's terms we could say that the difference between English and Finnish is that English expresses external causation in v while Finnish does not. In other words, the structure in (40) is only possible in English:

- (40) External causation in v (English):



To the extent that what L&R mean by 'internal causation' corresponds to agentivity and experiences, i.e. to the external theta role, we can say that internal causation is always expressed in v .¹⁰ But in the grammar internal causation is not expressed as causation, only external causation is. This is why internal causation is not realized via causative morphology nor does it introduce a causing eventuality into the meaning of a verb. Since it does not have these properties, internal causation is *inseparable* from the caused event.

¹⁰ While such a correspondence is plausible for agentive and experiencer verbs, it is less plausible for those internally caused verbs whose internal cause is a physical property of the event participant (i.e. verbs of sound, light and smell emission). Here I will have to leave this issue aside simply by noting that it is unclear in what way this latter kind of internal causation plays in the grammar, if in any.

This is formally captured in Kratzer's theory: agentivity, for instance, is always combined with the meaning of the VP by Event Identification. This identifies the agentive event and the event caused by agentivity as one event. Thus we can give L&R's theory an interpretation within compositional semantics by saying that the difference between internal and external causation is that the former combines with the meaning of the VP by Event Identification while the rule of composition with the latter is Functional Application.

5. Conclusion

In this paper I have given an interpretation to the internal/external causation distinction proposed by Levin and Rappaport (1995) in terms of Kratzer's event semantics and Chomsky's proposal that parametric variation arises from the way a language selects its features from a universal feature set (Kratzer, 1994, 1996; Chomsky, 1998). I proposed that internal causation essentially amounts to the thematic relation that the external argument bears to the event described by the verb and is hence always expressed in v . External causation, on the other hand, is expressed by the semantic feature **cause**. In some languages this feature is expressed in v and in others in a separate causative head. Expressing causation in a causative head rather than in v results in a more productive system as it allows causatives without an external argument while a system which expresses causation in v does not. This proposal gives rise to the possibility that there is a correlation between whether or not causative morphology is pronounced and the independence or dependence of **cause** and the external theta role. In other words, it is plausible that in a language where causative morphology is phonologically null, the bundling of **cause** together with θ is a forced choice since without the external argument there would not be any indication of a causative meaning.

In conclusion, I have tried to show that even though superficially causativization in languages such as English and Finnish seem to be different phenomena, there is promise of a unified theory. In this paper I sketched the beginnings of such a theory by having the similarities between the two systems be due to the fact that causativization in both is the syntactic expression of a universal causative meaning and by attributing parametric variation to differences in the way the causative feature is associated with other features of UG.

References

- Bresnan, Joan. 1982. The Passive in Lexical Theory. In Joan Bresnan (ed.) *The Mental Representation of Grammatical Relations*. MIT Press, Cambridge, MA.
- Chomsky, Noam. 1970. Remarks on Nominalization. In *Studies on Semantics in Generative Grammar*. The Hague: Mouton, 1972. 11-61.
- Chomsky, Noam. 1998. Minimalist Inquiries. *MIT Occasional Papers in Linguistics*, Number 15. MTWPL, Cambridge, MA.
- Embick, David. 1997. *Voice and the Interfaces of Syntax*. PhD Dissertation, University of Pennsylvania.
- Grimshaw, Jane. 1990. *Argument Structure*. MIT Press, Cambridge, MA.
- Halle, Morris and Alec Marantz. 1994. Distributed Morphology. In Ken Hale and Jay Keyser (eds.), *The View from Building 20. Essays in Linguistics in Honor of Sylvain Bromberger*. Current Studies in Linguistics. MIT Press, Cambridge, MA.

- Kratzer, Angelika. 1994. *The Event Argument and the Semantics of Voice*. Ms. University of Massachusetts, Amherst.
- Kratzer, A. 1996. Severing the external argument from its verb. In J. Rooryck & Laurie Zaring, (eds.), *Phrase structure and the lexicon*. 109-137. Dordrecht: Kluwer.
- Levin, Beth. and Malka Rappaport. 1995. *Unaccusativity*. MIT Press, Cambridge.
- Marantz, Alec. 1984. *On the Nature of Grammatical Relations*. MIT Press, Cambridge.
- Marantz, Alec. 1997. No Escape from Syntax. Penn Working Papers in Linguistics.
- Marantz, Alec. 1999. Creating words above and below 'little v'. The Paris Lectures.
- Parsons, Terence. 1990. *Events in the Semantics of English*. MIT Press, Cambridge, MA.
- Pesetsky, David. 1995. *Zero Syntax*. MIT Press, Cambridge, MA.
- Pylkkänen, Liina. (to appear). External Arguments and Causation. In Heidi Harley, Angeliëk van Hout and Liina Pylkkänen (eds.). *Papers from the Second Penn/MIT Roundtable on the Lexicon*. MITWPL, Cambridge, MA.
- Zepeda, Ofelia. 1987. Desiderative-Causatives in Tothonno O'Odham. *International Journal of American Linguistics*, vol. 53. no.3.

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