

Two domains of causatives

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1 Introduction

I have been outlining an approach to the inner-outer causative distinction that builds on Travis' (2000a, 2000b) analysis of Malagasy, namely that the mysterious morpheme which I called 'M' in my talk at the Argument Structure workshop in November marks the boundary between two event domains. In trying to do this I have been drawing on Marantz' (2001) interpretation of Chomsky's (2001) phases.

2 The properties of inner and outer causatives

Recall the recurring properties of inner and outer causatives that we have examined in languages as diverse as Nivkh, Kitharaka, Hindi/Urdu, Northern Sámi, Japanese, Amharic, Malagasy, and so on (repeated from an earlier handout, lightly updated).

(1)

		INNER	OUTER
A	Restrictions on the base:	High (e.g. unaccusative, intransitive, listed, low on the Haspelmath scale)	Low (highly productive)
Bi	Morphology [i]:	Less regular, opaque	Regular, transparent
Bii	Morphology [ii]:	Subset of outer	Superset of inner
C	Expression of the causee:	Obligatory direct object	Optional and/or oblique
D	Type of causation:	Direct	Possibly indirect (permissive, assistive, etc.)
E	Iteration:	None	Possible; Outer cause can sometimes be formed on an inner-causativized base
F	Animacy:	No restrictions	Causee animate
G	Adverbial scope:	Unambiguous	Potentially ambiguous
H	Passive:	Unrestricted	Restricted

(2)

	SÁMI		HINDI		NIVKH		AMHARIC		KITHARAKA		MALAGASY	
	<i>In</i>	<i>Out</i>	<i>In</i>	<i>Out</i>	<i>In</i>	<i>Out</i>	<i>In</i>	<i>Out</i>	<i>In</i>	<i>Out</i>	<i>In</i>	<i>Out</i>
A	yes	yes	NO	yes	yes	yes	yes	yes	yes	yes	yes	yes
Bi	yes	yes	NO	yes	yes	yes	NO	yes	NO	yes	yes	yes
Bi	NO	NO	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
C	yes	yes	yes?	yes		yes?	yes	yes	yes	yes		
D	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
E	yes	yes	yes	NO	yes	yes	yes	?	yes	?		yes
F	yes	yes	NO	NO	yes	yes	yes	yes	yes	yes		
G	yes							yes?				
H	yes	yes					NO	yes	yes	NO		

I will try to argue that all of these properties follow from the inner causative being separated from the outer causative by a domain boundary.

Thus, there is a domain boundary in the functional sequence (dubbed f_{seq} by Starke 2001), roughly corresponding to Chomsky’s vP phase (there is a lot of skepticism about the reality of this boundary; see Svenonius 2004 for supporting evidence). This domain boundary is relevant for cyclic spell-out, which in what I consider the most attractive possible version of phase theory, unifies the phonological and syntactic cycles; Chomsky has suggested that it is also the point at which the lexicon is accessed, and this is the crucial point for Marantz’ implementation of it, and for mine.

The phase is supposed to be ‘opaque,’ in some sense (Chomsky 2000, 2001, 2004). As it turns out, it is necessary to allow certain features to remain visible outside the phase, but not others. It can be assumed for my purposes here that the features that are visible are gathered together in a bundle at the top of the phase (its ‘edge,’ or ‘label’). The details of this remain to be worked out; the hope is that the features which are visible can be independently motivated and few in number.

Another important idea is that the things that get stored as meaningful units in the lexicon do not tend to cross this domain boundary. As Michal Starke has pointed out (in the seminar), there is psycholinguistic evidence that larger units are *stored*, e.g. tensed Turkish verbs; thus I must unfortunately distinguish between what is *stored* and what is *listed*; the claims here concern only what is listed.

What is listed includes verb stems, verb-particle collocations, and idioms. It does not include tensed verbs, modal-lexical verb combinations, or full sentences.

2.1 A: Restrictions

The lexicon is the repository of all that is unpredictable; as Di Sciullo and Williams (1987) put it, “The lexicon is like a prison—it contains only the lawless, and the only thing that its inmates have in common is lawlessness.” (p. 3). So any unpredictable morphological forms must be there, and anything that is not there must be predictable. This is important for the explanation of properties A and Bi above.

Property A in the first table above is the degree of restrictiveness. It is often commented in the literature that a given causative affix only attaches to certain verbs. On the two domains approach, an outer causative could attach selectively, but only with respect to features of the label. It could not, for example, select for individual verb roots, the way inner causative appear to be able to do; the Nivkh *-u*, for example, Northern Sámi *-d*, and the Japanese *-as* seem to exhibit a high degree of idiosyncratic selectivity;

for example, in Japanese ‘cry’ forms the intransitive–transitive pair *nak-u* ~ *nak-as-u* and ‘withdraw’ is *hikkom-u* ~ *hikkom-er-u*; the causative suffix *-as* cannot be added to *hikkom-u*: **hikkom-as-u*; and no generalization has been discovered to capture the exact class of verbs which accept *-er* as opposed to *-as* (Shibatani 1976). Similarly, Nedjalkov et al. (1995) list the verbs which appear with the inner causative *-u*.

This does not mean that some language could not have a completely general inner causative; but it is predicted that whatever properties the outer causative is sensitive to must be properties of the ‘label,’ that is, properties of the lower domain as a whole.

2.2 Bi: Opaque Morphology

Property Bi is the property that the morphology involved in the inner causative may be irregular or opaque. For example, in Nivkh, there is a consonant mutation of the initial consonant in the root associated with the inner causative *-u* suffix.

- (3) a. t’o-d’ ‘bend’ (intr.) zo-d’ ‘bend’ (tr.)
 b. p^haz-d’ ‘undress’ (intr.) faz-u-d’ ‘undress’ (tr.)

This mutation appears to be specific to certain roots.

- (4) a. nok-t’ ‘be narrow’ nok-u-d’ ‘make narrow’
 b. vaxt’-t’ ‘tear’ (intr.) vaxt-u-t’ ‘tear’ (tr.)
 c. lørk-d’ ‘swim’ lørk-u-d’ ‘float’

This suggests that possibly, the Nivkh alternation is not really an example of special phonology but of idiosyncratic stem selection, i.e. another instance of property A. However, there are clear examples of Property Bi as well.

As Travis (2000a) points out, the phonology of Malagasy converts sequences of nasals and stops into prenasalized stops.

- (5) pentson+pentson → pentso^mpentsona ‘chatter’

However, when the inner causative *an-* prefixes to a verb stem, assimilation takes place.

- (6) m-an-petrak → mametraka ‘put’ (*ma^mpetraka)

This is not idiosyncratic, taking place in some verbs and not in others, as in Nivkh, but is systematic for the inner causative prefix in Malagasy. Phonologically, we would say that the reduplicant in (5) forms a cyclic domain, but the stem excluding the inner causative prefix in (6) is not; in phase theory, the syntactic and phonological cycles are the same, so the phonological boundary being outside the inner causative in (6) is evidence that the syntactic boundary is as well.

Similarly, the inner causative systematically triggers mutation in the stem in Chichewa, while the outer causative does not (Simango 1999, Mchombo 2004)

- | (7) | Base verb | Inner causative | Outer causative |
|-----|-----------------------------|-----------------------------|--|
| a. | <i>tuluk-a</i> ‘come out’ | <i>tuluts-a</i> ‘bring out’ | <i>tuluk-its-a</i> ‘make come out’ |
| b. | <i>chok-a</i> ‘leave’ | <i>chots-a</i> ‘remove’ | <i>chok-ets-a</i> ‘make leave’ |
| c. | <i>kwer-a</i> ‘climb’ | <i>kwez-a</i> ‘hoist’ | <i>kwer-ets-a</i> ‘make climb’ |
| d. | <i>lir-a</i> ‘cry’ | <i>liz-a</i> ‘ring’ | <i>lir-its-a</i> ‘make cry’ |
| e. | <i>vulal-a</i> ‘be injured’ | <i>vulaz-a</i> ‘injure’ | <i>vulal-its-a</i> ‘cause to be injured’ |

2.3 Bii: M

Property Bii is the property that the inner causative is often a ‘subset’ of the outer causative, e.g. as in Kitharaka, where the inner causative is *-i* and the outer causative is *-ithi*, or Amharic where the inner causative is *a-* and the outer causative is *as-*, or Hindi where the causatives are *-aa* and *-vaa*. The idea in the two domains analysis is that the part that is shared is a causative morpheme which can appear either within or outside the domain, but with essentially the same meaning; the difference in meaning is derived from its being inside or outside the domain.

The problem that I spent most of my Argument Structure Workshop talk grappling with was the problem of what M is. Patrycja Jabłońska’s solution, in her talk and in the seminar, was that in Amharic *-s* is a kind of nominalizer. Gillian Ramchand’s solution for Hindi/Urdu was that *-v* was a process head. I will return to this problem but the basic idea for the two domains approach is that M marks the domain boundary.

2.4 C: Optional Causee

I have not addressed the solution in this case yet. It is tied up with a notion of case and licensing of DPs that I am still working on. The basic idea is that passive is a head outside the VP domain which licenses a null argument. In the examples with an optional causee, the same head is involved. Since there are arguments from passive that this head is outside the relevant domain, this predicts that inner causatives cannot make use of it.

2.5 D: Indirect Causation

The idea here is that indirect causation is the result of juxtaposing two events, the causing event and the caused event, while direct causation is the result of fusing two subevents into a single event. For the latter, I adopt the mechanism proposed in ?, the ‘leads to’ relation, whereby process leads to a result, and an initiating subevent might lead to a process. This is the one of the basic mechanisms by which verb meanings are computed.

I suggest that there are events which cannot be placed in the ‘leads to’ relation. Suppose, for example, that an event which has already had an initial boundary set cannot be the second member of a ‘leads to’ relation; if M sets that initial bound, then the outer causative will not be able to combine with the event denoted by the initial domain by the leads to relation, but must be combined by some other mechanism. This, I suggest, is the basis for the nature of indirect causation.

This led me to make various claims about events and times which did not seem to convince anybody, and in any case is called into question by Gillian Ramchand’s analysis of Hindi/Urdu, in which indirect causation is analyzed fully within the *vP*, which would be within the lower domain on these terms.

2.6 E: Iteration

The idea here is that if the outer causative is a function from events to events, then nothing will intrinsically prevent it from iterating. But there are some constraints at play within the relevant domain.

2.7 F: Animacy

Here, the generalization is that the causee in an outer causative construction often must be animate. I attempt to relate this to the fact that passives are often only possible with (understood) animate external arguments.

2.8 G: Adverbial scope

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