

The argument structure of causatives

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PROPOSAL

- Causatives can be modelled as a **valency** alternation. It **adds an additional participant**, a new causer, to a particular construal of an event, and thereby increases a predicate's valency.
- Causativisation creates a (more) complex event. It is logically possible that an additional causer can be added to any event:
 - a semantically intransitive, or transitive or ditransitive event
 - a semantically unaccusative or unergative event

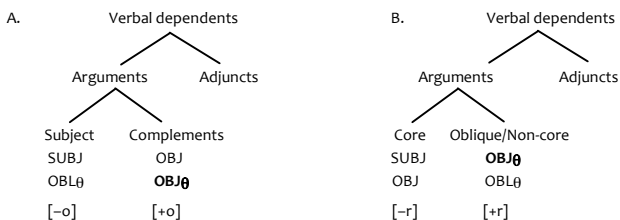
MAPPING THEORY (MT) TOOLS FOR ARGUMENT-TO-FUNCTION MAPPINGS

(For details see e.g. the summary in Kibort and Maling 2015, and references therein to earlier work.)

Decomposition of basic argument functions into features, based on asemantic argument alternations available in syntactically nominative-accusative languages:

(1)		[-r]	[+r]
	[-o]	SUBJ	OBL _θ
	[+o]	OBJ	OBJ _θ

The existing linguistic description allows us to see the secondary object (OBJ_θ) as a special grammatical function overlapping complements and non-core arguments. MT features can be understood to refer to the traditional linguistic concepts, grouping and distinguishing subsets of grammatical functions cross-classified by the features:



(2)	[+o]	complements	('internal arguments' of the predicate)
	[-o]	non-complements	(the 'external' argument and oblique arguments)
	[-r]	core arguments	(subject and object only)
	[+r]	non-core arguments	(all arguments except subject and object)

A universally available syntactic subcategorisation frame with fixed argument positions:

(3)	<	arg ₁	arg ₂	arg ₃	...	arg ₄	...	>
		[-o]	[-r]	[-r]	[+o]	[-o]		

Note: Only one SUBJ and one OBJ function are permitted. However, multiple secondary objects (OBJ_θ) and oblique arguments (OBL_θ) are possible and distinguished by their subscripts.

(4)	SUBJECT DEFAULT
	The first argument compatible with the SUBJ function is mapped to SUBJ.

Note: The Subject Default is not equivalent to the Subject Condition assumed in other variants of LFG's Mapping Theory. Subjectless clauses are permitted (and attested).

(5)	MAPPING PRINCIPLE
	The ordered arguments are mapped to the available functions compatible with their intrinsic marking.

The simplified representations presented here encode **the participants** of the event as follows:

- x = the highest semantic participant (actor/agent or experiencer) of the base predicate
- y = the second highest/core participant (undergoer/patient/theme) of the base predicate
- b = the third semantic participant (beneficiary/recipient) of ditransitive predicates
- z = a peripheral semantic participant typically expressed through an oblique argument
- c = an external causer participant added to the base event

THE REALISATION OF CAUSATIVES

Monoclausal 'lexical' causativisation

A construction in which the basic verb may 'include the sense of causation as a part of its semantic content' (see e.g. Kroeger 2004:193).

- I propose that examples of productive (even though restricted) lexical causativisation involve labile verbs (in the narrow sense of Letuchiy 2009) which participate in alternation such as:
The horse jumped over the fence. - Sylvia jumped the horse over the fence. (Levin 1993: 31-32)
The dog walked. - Peter walked the dog.
The baby burped. - I burped the baby.
- Note that in English the causative - inchoative alternation is also lexical and it is possible to analyse it in the same way as lexical causativisation, rather than as anticausativisation.

Semantic valency change:

non-causativised	causativised	= single (complex) event
< x >	< c x >	

Syntactic valency change:

non-causativised	causativised	= single PRED (i.e. single clause) with new causer c=SUBJ
< arg1 >	< arg1 arg2 >	
[-o]	[-o] [-r]	
SUBJ	SUBJ OBJ	

Monoclausal 'morphological' causativisation

A construction with a causative verb derived from a basic verb through a regular morphological process, e.g. affixation.

- The linguistic literature abounds in examples, and the following simplified representations of typical semantic and syntactic valency changes in morphological causatives can be matched with specific linguistic examples from Turkish, Swahili, and Malayalam, cited in Kroeger (2004: 194-211; after other authors).

Semantic valency change:

non-causativised	causativised	= single (complex) event
< x >	< c x >	
< x y >	< c x y >	
< x y b >	< c x y b >	

Syntactic valency change:

non-causativised	causativised	= single PRED (i.e. single clause) with new causer c=SUBJ
x	c x	
< arg1 >	< arg1 arg2 >	e.g. Turkish, Swahili, Malayalam
[-o]	[-o] [-r]	x=OBJ
SUBJ	SUBJ OBJ	

x y	c x y	
< arg1 arg2 >	< arg1 arg2 arg3 >	Swahili: x=OBJ, y=OBJ _θ
[-o] [-r]	[-o] [-r] [+o]	
SUBJ OBJ	SUBJ OBJ OBJ _θ	

c y x	c x y	
< arg1 arg2 arg3 >	< arg1 arg2 arg4 >	Turkish: x=OBJ _θ , y=OBJ
[-o] [-r] [+o]	[-o] [-r] [+o]	
SUBJ OBJ OBJ _θ	SUBJ OBJ OBJ _θ	

Not many languages with morphological causatives allow them to be derived from basic ditransitive verbs:

x y b	c y b x	
< arg1 arg2 arg3 >	< arg1 arg2 arg3 arg4 >	Turkish, Malayalam:
[-o] [-r] [+o]	[-o] [-r] [+o] [-o]	x=OBJ _θ , y=OBJ, b=OBJ _θ
SUBJ OBJ OBJ _θ	SUBJ OBJ OBJ _θ OBL _θ	

x y b	c y b x	[possible? looking for an example]
< arg1 arg2 arg3 >	< arg1 arg2 arg4 arg4 >	
[-o] [-r] [-o]	[-o] [-r] [-o] [-o]	
SUBJ OBJ OBL _θ	SUBJ OBJ OBL _θ OBL _θ	

x b y	c x b y	
< arg1 arg2 arg3 >	< arg1 arg2 arg3 arg3 >	Swahili: x=OBJ, y=OBJ _θ , b=OBJ _θ
[-o] [-r] [+o]	[-o] [-r] [+o] [+o]	
SUBJ OBJ OBJ _θ	SUBJ OBJ OBJ _θ OBJ _θ	

- **Intransitives and the Relational Hierarchy.** Comrie (1981) argues that the grammatical function of the causee (x) in languages like Turkish (i.e. languages with canonical datives) can be predicted from Keenan and Comrie's (1977) Noun Phrase Accessibility Hierarchy presumed to be universal in nominative-accusative systems (SUBJ > OBJ > OBJ_θ > OBL > possessor NP > object of comparison): the causee will get the highest function on the hierarchy which is not part of the subcategorisation of the base verb, i.e. the 'next available GF' (Kroeger 2004: 201-202). Therefore, in some classes of verbs which subcategorise for SUBJ and OBJ_θ, or SUBJ and OBL_θ, the causee is mapped to OBJ:

non-causativised	causativised	
x b	c x b	Turkish: x=OBJ, b=OBJ _θ
< arg1 arg3 >	< arg1 arg2 arg3 >	
[-o]	[+o]	[-o] [-r] [+o]
SUBJ	OBJ _θ	SUBJ OBJ OBJ _θ

x z	c x z	Malayalam: x=OBJ, z=OBL _θ
< arg1 arg4 >	< arg1 arg2 arg4 >	
[-o]	[-o]	[-o] [-r] [-o]
SUBJ	OBL _θ	SUBJ OBJ OBL _θ

- Causation may include different concepts (direct vs indirect/mediated causation; coercion vs permission; manipulation vs verbal direction), and a language may have distinct causative strategies to express these different distinctions (e.g. Malayalam).

- Regarding grammatical function assignment: (i) a language may use a different grammatical function for the causee depending on the type of causation; and (ii) in South Asian languages morphological causatives from transitive roots of ingestion and perception likewise follow the casemarking of intransitive roots (i.e. the causee is, or may be, an ACC direct object). ➔ These observations point to the possibility of **alternations in the assignment of grammatical functions to the arguments, with some change in meaning.** A model of a Malayalam alternation (example):

c y x	~	c x y
< arg1 arg2 arg4 >		< arg1 arg2 arg3 >
[-o] [-r] [-o]		[-o] [-r] [+o]
SUBJ OBJ OBL _θ		SUBJ OBJ OBJ _θ

causee as an oblique in Malayalam: caused by "instruction"
 [cf. English non-shifted give, send, show, tell, teach]

causee as a core argument in Malayalam: caused by "manipulation"
 [dative-shifted give, send, show, tell, teach]

MAPPING THEORY (MT) TOOLS FOR PARTICIPANT-TO-ARGUMENT MAPPINGS

Mainstream LFG analyses of causatives assume that causative realisation (whether with a lexical or light verb, or an affix) involves a 'cause' predicate, which has its own argument structure, fusing with the base predicate. See Lowe (2015) for a very thorough critique of the traditional LFG account of complex predicates, and in particular of the concept of argument fusion, from a formal perspective.

- The present proposal recognises that in some (i.e. morphosemantic) argument alternations, the predicate entails different roles for the same participants in the two variants, e.g.
load the wagon (patient) with hay (instrument) - load hay (patient) onto the wagon (location)
- The present MT allows participants to map on the available argument positions in alternative ways. The participants remain the same, but their interpretations may change between the variants.
- Kibort (2014): the semantic participants of an event are identified not through their semantic roles, but via 'semantic markers' which indicate merely what mapping options each participant has of mapping to the hierarchically ordered syntactic argument positions within the set of semantically related predicates each lexicalising a different semantic construal of the event.

- 1 is a semantic participant which can map on the (arg1) position
- 2 is a semantic participant which can map on the (arg2) position
- 3 is a semantic participant which can map on the (arg3) position
- 4 is a semantic participant which can map on the (arg4) position
- 41 is a semantic participant which can map either on the (arg4) or the (arg1) position
- 42 is a semantic participant which can map either on the (arg4) or the (arg2) position
- 23 is a semantic participant which can map either on the (arg2) or the (arg3) position etc.

- Sample RULES FOR MAPPING PARTICIPANTS TO THE ARGUMENT POSITIONS (specific, formal):

- (a) Arg1 position is associated with the participant bearing the marker 1. If participant 1 is not expressed, participant 13 or 41 maps on the first argument position.
- (b) Arg2 position is associated with the participant bearing the marker 2.
- (c) Arg3 position is associated with the participant bearing the marker 3.
- (d) Arg4 position is associated with the participant bearing the marker 4 [i.e. either 4 or 41.]

- The 'causative rule' can, therefore, be seen an operating in the following way:

- Take a semantic valency frame, e.g. OPEN < 1 2 > (simplified).
- Add a new semantic participant '1' and a semantic marker to the participant which needs to map differently to the non-causative variant, e.g. in Turkish: CAUSE-OPEN < 1 13 2 >.
- The MAPPING RULES will find and map: participant '1' onto arg1, participant '2' onto arg2, and participant '13' onto arg3 position.
- Note that the Mapping Rules cannot map participant '13' onto arg1 because participant '1' would remain unmapped and the mapping would fail.