

## Root-selecting, Verb-selecting and VoiceP-selecting Causatives

**1. Problem.** While much current research assumes that all causative formation takes place in the syntax (Miyagawa, Hale and Keyser, Harley, Doron, Pytkänen), there is still no serious response to the Fodorian objection that the caused events of lexical causatives are generally unavailable for adverbial modification (1). Thus it appears that modification facts remain a strong argument for a lexicalist position.

**2. Proposal.** This paper argues that the above problem is solved by assuming a radical version of the syntactic approach where functional heads not only introduce the external argument (Kratzer 1994) but also define the syntactic category of otherwise category-free roots (Marantz 1997). In such a theory there are three sites where causative, or any verbal morphology, can attach: at the root (2a), after verbal category has been determined, (2b), or after the external argument has been introduced (2c). We argue that these three merging sites constitute the core classification of causative constructions crosslinguistically.

To translate Marantz's notion of category-freeness into a Kratzerian type-driven event-semantics we assume that lacking category means lacking specification as to what type of an entity a predicate ranges over: verbs are predicates of events  $\langle s, t \rangle$ , nouns and adjectives are predicates of (non-event) individuals,  $\langle e, t \rangle$ , and, consequently, roots are predicates of unspecified entities,  $\langle n, t \rangle$ .

**3. Predicted correlations of properties.** The present proposal predicts a tight correlation between adverbial modification facts and possibilities for intervening morphology between the root and CAUSE.

**3.1. Root-selecting causatives (Japanese lexical causatives, English, Pulaar).** A root-selecting causative head takes a root as its argument and states that (i) there is an event which the root predicate is true of and that (ii) this event is caused by another event. Thus CAUSE-P is a function from the causing event to truthvalues and the event variable of the caused event is syntactically inaccessible. The modification facts follow: there is no place in the syntax where we have a function from the caused event to truthvalues. Merging an event modifier at the root doesn't work either since event modifiers modify predicates of events, not of unspecified entities.

Root-selecting causative heads cannot combine with a constituent whose category has already been determined. Thus no verbalizing morphology can appear between the root and CAUSE. While Japanese *sase*-causatives are often ambiguous between a "lexical" and a "productive" analysis, adversity interpretations are only available for lexical causatives (Oehrle and Nishio, Miyagawa). However, for an adversity interpretation to be available, root and 'sase' must be adjacent, as in (3a,b). If other verbalizing morphology intervenes, such as the desiderative 'tai', (3c), or the '-e-' associated with the intransitive alternant of the *kogeru/kogasu* pair, (3d), adversity interpretations are impossible, as predicted.

**3.2. Verb-selecting causatives (Bemba, Finnish).** A verb-selecting causative head selects for predicates of events and consequently modification of the caused event is possible (4a, b). This modification cannot, however, be agentive since verb-selecting causatives cannot embed an external argument (5a, b). Verbalizing morphology is possible between the root and CAUSE (6a, b). But this morphology cannot be high applicative morphology (Pytkänen 2000) since high applied arguments are instances of external arguments (cf. McGinnis 2001) (6c).

**3.3. VoiceP-selecting causatives (Venda, Luganda, Japanese "productive").** With VoiceP-selecting causatives, all types of modification of the caused event are possible, including agent oriented (7a,b). Similarly, all types of verbal morphology between the root and CAUSE are possible, including external argument-introducing, such as high APPL (8a,b).

**4. Conclusion.** This paper captures previously undescribed correlations between adverbial modification and possibilities for intervening morphology between root and CAUSE while maintaining a unified semantics for causative constructions cross-linguistically. The proposal predicts, and argues for, the existence of verb-selecting causatives, which add to the existing typology of causative constructions (i.e. lexical vs. syntactic) and provide an argument for defining syntactic category in the syntax: in such a framework the distinction between root and verb-selection comes for free. Finally, the present proposal makes strong predictions about causative-applicatives in Bantu (Hyman 2000): the possibility to causativize high applicatives is expected to be rare since there is only one type of causative head that can merge after a high applied argument has been added.

- (1) Hahaoya-wa kodomo-o nikai-de nek-ase-ta. (Shibatani 2000,11:18a)  
 ‘Mother put the child to sleep upstairs’ (Mother’s act must take place upstairs)
- (2a) Root-selecting causative: [CAUSE [Root]]  
 CAUSE:  $\lambda f_{\langle n,t \rangle} . \lambda e. (\exists e') f(e') \& \text{CAUSE}(e,e')$
- (2b) Verb-selecting causative: [CAUSE [ $v$  [Root]]]  
 $v:$   $\lambda f_{\langle n,t \rangle} . \lambda e. f(e)$   
 CAUSE:  $\lambda f_{\langle s,t \rangle} . \lambda e. (\exists e') f(e') \& \text{CAUSE}(e,e')$
- (2c) VoiceP-selecting causative: [CAUSE [Voice[ $v$  [Root]]]]  
 CAUSE:  $\lambda f_{\langle s,t \rangle} . \lambda e. (\exists e') f(e') \& \text{CAUSE}(e,e')$
- (3a) Taroo-ga hahaoya-o sin-ase-ta. (3b) Taroo-wa niku-o kog-asi-ta  
**die-CAUSE-PST** **burn-CAUSE-PST**  
 ‘Taro caused his mother to die’ ‘Taroo scorched the meat’  
 ‘Taro’s mother died on him’ ‘The meat got scorched to Taro’s detriment’
- (3c) Taroo-ga musuko-o sini-taku-sase-ta. (3d) Taroo-wa niku-o kog-e-sase-ta  
**die-DES-CAUSE-PST** **burn-INTRANS-CAUSE-PST**  
 ‘Taroo made his son want to die’ ‘Taro caused the meat to become scorched’  
 \*‘Taro was adversely affected by his son wanting to die’ \*‘The meat got scorched to Taro’s detriment’
- (4) Nonagentive modification:  
 a. Kenraali marssi-tti sotilaat pello-n yli nopeasti.  
 sergant march-CAUSE soldiers field over quickly  
 OK: ‘The sergant made the soldiers MARCH QUICKLY over the field’ (Finnish)  
 b. Naa-butwiish-ya Mwape ulubilo.  
 I.past-run-CAUSE Mwape fast  
 OK: ‘I made Mwape RUN FAST’ (Bemba, Givon 1976)
- (5) Agentive modification:  
 a. Ulla rakenn-utti Mati-lla uude-n toimistopöydä-n innokkaasti.  
 Ulla.NOM build-CAUS Matti-ADE new-ACC officetable-ACC enthusiastically  
 (i) ‘Ulla ENTHUSIASTICALLY HAD Matti build a new officedesk’  
 (ii) \*‘Ulla had Matti ENTHUSIASTICALLY BUILD a new officedesk’ (Finnish)  
 b. Naa-butwiishya umuana ukwiitemenwa  
 (i) ‘I WILLINGLY MADE the boy run’  
 (ii) \*‘I made the boy RUN WILLINGLY’ (Bemba)
- (6) a. seiso- ‘stand’ seiso-skel-utta ‘cause to stand around’ (Finnish)  
 b. Naa-mon-an-ya Mwape na Mutumba  
 I.past-see-REC-CAUS Mwape and Mutumba  
 ‘I made Mwape and Mutumba see each other’ (Bemba)  
 c. \*Naa-tem-en-eshya Mwape Mutumba iciimuti  
 I-cut-BEN-CAUS M. M. stick  
 ‘I made Mwape cut Mutumba a stick’ (Bemba)
- (7) a. Muuhambadzi o-reng-is-a Katonga mod9oro nga dzangalelo  
 salesman SC-buy-CAUSE-FV Katonga car with enthusiasm  
 ‘The salesman made Katonga BUY THE CAR EAGERLY’ (Venda)  
 b. Omusomesa ya-wandi-s-a Katonga ne obu nyikivu  
 teacher 3sg.PAST-write-CAUSE-FV Katonga with the dedication  
 ‘The teacher made Katonga WRITE WITH DEDICATION’ (Luganda)
- (8) a. Katonga o-n-tandul-el-is-a tsimu ya mukegulu  
 Katonga SC-1sg-survey-APPL-CAUSE-FV old.woman the field  
 ‘Katonga made me survey the field for the old woman’ (Venda)  
 b. tambula ‘walk’ tambu-za ‘make walk’  
 tambul-ir-a ‘walk for’ tambul-i-z-a ‘make walk for’ (Luganda)

