Appendix: Semantic composition

Let us show how the resultative structure in (1) can be interpreted compositionally.

(1) a. pẽ-gue
break-RES
'broken'

b. $[_{AspP}\ RES_{TARGET}\ [_{vP}\ [_{v}\ \sqrt{BREAK}\ v_{CAUS}\ ]\ [_{\theta P}\ [_{\theta}\ ST\ \theta_{\ THEME}\ ]\ DP\ ]\ ]\ ]$

The interpretation of the abstract predicate of states ST is context sensitive, as illustrated in (2):

(2) $[\![\ ST\ ]\!] = \begin{cases} \lambda s.\ broken(s) & /\ [_{vP}\ [_{v}\ \sqrt{BREAK}\ v_{CAUS}\ ]\ [\ \_\_\ ]\ ] \\ \lambda s.\ bury(s) & /\ [_{vP}\ [_{v}\ \sqrt{BURIED}\ v_{CAUS}\ ]\ [\ \_\_\ ]\ ] \\ \ldots & \ldots \end{cases}$

Its denotation is a function of the identity of the root that c-commands it. This context sensitivity is treated as a case of contextual allosemy (see Wood & Marantz 2017 for a motivation of contextual allosemy in the analysis of event structure and argument structure in Distributed Morphology).

The ST predicate combines with the thematic head $\theta_{\ THEME}$ by event identification (Kratzer 1996). The resulting function is then applied to the denotation of the theme:

(3) $[\![\ \theta P\ ]\!] = \lambda s.\ broken(s)\ \&\ theme(s) = [\![\ DP\ ]\!]$

I assume following Kratzer (2000) that the RES_{TARGET} head denotes a function whose domain consists of curried relations between events and states, and I define the denotation of the causative head v_{CAUS} as a function of type $\langle\langle v_s t\rangle,\langle v_s,\langle v_e t\rangle\rangle\rangle$, which maps a property of states (type $\langle v_s t\rangle$) to a curried relation between states and events (type $\langle v_s,\langle v_e t\rangle\rangle$):

(4) a. $[\![\ RES_{TARGET}\ ]\!] = \lambda R.\lambda s.\ \exists e[R(s)(e)]$

b. $[\![\ v_{CAUS}\ ]\!] = \lambda P.\lambda s.\lambda e.\ cause(e,s)\ \&\ P(s)$

The event argument of $[\![v_{CAUS}]\!]$ must be identified with that of the property denoted by its adjoined √BREAK root. The two heads are combined using a generalization of the principle of event identification. The generalized event identification principle in (5) states that if an expression β has only one event argument and another expression γ is a property of events, one can combine them by identifying their event arguments:

(5) Generalized event identification (GEI):[1]

If *y* and *w* are the only variables of type v_e in $\vec{x}y\vec{z}w$, β and γ are of type *t*, and y is free in γ then:
$GEI(\lambda w.\ \gamma, \lambda\vec{x}\lambda y\lambda\vec{z}.\ \beta) = \lambda\vec{x}\lambda y\lambda\vec{z}.\ \gamma[y/w]\ \&\ \beta$

1 Note: $\vec{x}$ is a sequence of variables $x_1, \ldots x_n$, so is $\vec{x}y\vec{z}w$. If $\vec{x} = x_1, \ldots x_n$, $\lambda\vec{x}\varphi = \lambda x_1 \ldots \lambda x_n \varphi$.

(6) a. $[\![\sqrt{\text{BREAK}}]\!] = \lambda e.\ \text{breaking}(e)$

b. $[\![\sqrt{\text{BREAK}}\ v_{CAUS}]\!] = \lambda P.\lambda s.\lambda e.\ [\ \text{breaking}(e) \ \&\ \text{cause}(e,s) \ \&\ P(s)\ ]$

In the absence of a target stativizer, the state argument of a causative vP would be bound by default existential closure:

(7) Existential Closure (EC):

$EC(\lambda u.\lambda \vec{v}.\beta) = \lambda \vec{v}.\exists u \beta$

In (1) however, the target stativizer binds the event argument of the function denoted by the little vP:

(8) a. $[\![vP]\!] = \lambda s.\lambda e.\ \text{breaking}(e) \ \&\ \text{cause}(e,s) \ \&\ \text{broken}(s) \ \&\ \text{theme}(s) = [\![DP]\!]$

b. $[\![AspP]\!] = \lambda s.\ \exists e\ [\ \text{breaking}(e) \ \&\ \text{cause}(e,s) \ \&\ \text{broken}(s) \ \&\ \text{theme}(s) = [\![DP]\!]\ ]$

This shows that our analysis of the structure of Mbyá resultative predicates supports a compositional interpretation.

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