

## Questioning the manner/result complementarity

Rappaport Hovav and Levin (in press) (RHL) have recently argued that verbs fall into (at least) two classes: those entailing a result (e.g. *break*, *smash*, *crush*) and those entailing a manner (e.g. *run*, *walk*, *swim*). No verb, they claim, entails both, so that the manner in which something comes to be broken is underspecified for *break*-type verbs, while the result is underspecified by *run*-type verbs. This supposedly follows from how verb meanings are built up in the lexicon: a lexicalized root can either modify an underlying ACT predicate, giving a manner reading (1a), or be an argument of a BECOME (1b), giving a result reading.

(1) a. [ x ACT<sub><ROOT></sub> ]      b. [ [ x ACT ] CAUSE [ y BECOME < ROOT > ] ]

We argue against this on empirical and theoretical grounds. Empirically, a critical issue is isolating appropriate diagnostic tools for discerning what verbs entail manner. In this paper we develop and review a number of such diagnostics, and argue that manner of death verbs — including *crucify*, *drown*, *hang*, *electrocute*, *decapitate*, *asphyxiate*, *behead*, and *suffocate* (Krohn 2008) — entail both a result and a manner, and thus present a robust counterexample to RHL's generalization. Furthermore, the property of RHL's theory that they argue explains the complementarity, once spelled out in more detail, does not in fact predict it. Rather, it predicts that there should exist classes of verbs entailing both manner and result.

For change-of-state, we believe it uncontroversial that a verb entails change if it cannot be denied that a result state for some participant obtains, usually due to a scalar change (Beavers 2008). By this diagnostic, manner of death verbs, as shown in (2), clearly encode change.

(2) #Mary crucified/drowned/hanged/electrocuted Joe, but nothing is different about him.

The same obtains for canonical result verbs (#Shane broke the vase, but nothing is different about it), but not uncontroversial manner verbs (*Shane shouted loudly*, but nothing is different about her).

RHL define manner as non-scalar (non-measurable) change, including temporary changes that define actions, such as the movement of arms and legs during running. Restricting ourselves to this notion of manner, we diagnose this meaning component by adapting tests for actionhood from Cruse (1973) and Gaylord (2007). For example, result verbs, but not manner verbs, can be followed by a clause that denies an action occurred. Crucially, manner of death verbs pattern like canonical manner verbs:

- (3) a. Jim destroyed his car, but didn't move a muscle (rather, he neglected his regular maintenance).  
b. #Bob ran, but didn't move a muscle.  
c. #Jen crucified/drowned/hanged/electrocuted/beheaded Al, but didn't move a muscle.

Furthermore, manner verbs are unambiguous under negation (negated manner) while caused change of state verbs are ambiguous: either the cause is negated or the result is (or both) (Dowty 1979):

- (4) a. Negated Manner: Jim didn't run — he swam instead.  
b. Negated Cause: Jim didn't break the vase — you broke it!  
c. Negated Result: Jim didn't break the vase — he fixed it!

Verbs of death are multiple ways ambiguous, suggesting they contain manner and result components:

- (5) a. Negated Manner: Jim didn't drown Bob — he electrocuted him instead!  
b. Negated Cause: Jim didn't drown Bob — he held his head under, but he really died of a stroke!  
c. Negated Result: Jim didn't drown Bob — he choked on the water but survived!

These diagnostics, and others we discuss (including further entailment tests and scope facts, subject selectional restrictions, and lack of anticausativization), suggest that verbs of death have both manner and result components. Furthermore, we argue that verbs such as *cut* and *climb*, which RHL claim are polysemous between manner and result uses, in fact do have uses encoding both simultaneously, as do incremental theme verbs such as *mow* that entail result states (contra RHL). Thus empirically the categorical ban on manner/result complementarity is not supported, even if many verbs tend to only encode one or the other.

Theoretically, we argue that RHL's proposal — that a root can only modify ACT or be an argument of BECOME — is a stipulation. In a neo-Davidsonian framework, “argument” roots are predicates of states, while “modifier” roots are predicates of events. There is no a priori reason why a single lexeme cannot have two roots in this sense, and in fact caused change-of-state verbs impose constraints on causing events and the result states simultaneously by definition. This suggests that manner/result complementarity cannot follow from any formal property of verb meanings, a welcome result given our empirical observations.

## Selected references

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