

Grammatically relevant ontological categories underlie manner/result complementarity

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1. The validity of Manner/Result Complementarity (MRC; RHL 2010), as a constraint on the truth-conditional content of roots, has recently been challenged. BKG (2012) argue for the existence of classes of verbs whose use entails both a change of state (a kind of result) and a manner. MAM (2012) argue that manner and result are relational notions defined over positions in syntactically encoded event structures. MRC has nothing to do with the semantic content of roots: these are interpreted as encoding manner in one configuration and result in another and a given root can appear on both manner result contexts. MRC follows trivially from the fact that roots, as morpho-syntactic objects, cannot simultaneously appear in both configurations. This talk takes on the arguments of BKG and MAM and argues that MRC is a condition on what is semantically encoded in roots. I assume that UG provides a small set of **grammatically relevant ontological categories** (GROCs); every root comes with one such categorization; manner and result are GROCs; semantically, result roots are predicates of states and manner roots are predicates of events. MRC derives from the fact that a root can belong to one GROC. A stative root can in principle be embedded in a larger structure, deriving an eventive verb, frequently fully compositionally. The use of such a verb in particular contexts can lead to manner inferences, which are not lexically encoded, thereby giving an impression of a MRC violation. The distinction between what is lexically encoded in the root and inferences drawn from the root in structural and pragmatic contexts is at the heart of the analysis in the case study I present. The case study does not "prove" the validity of MRC, but rather shows how careful lexical semantic analysis leads to a validation of MRC in a particular case and also a deeper understanding of the compositional process of building verb meaning.

2. BKG claim that the use of manner of killing verbs (MKVs; *crucify*, *drown*, *electrocute*, *guillotine*, *hang*) entails a resulting death by a lexically specified manner. I argue that denominal verbs and other morphologically complex verbs (*guillotine*, *electrocute*, *crucify*) are not relevant since they are morphologically derived (denominal verbs often violate MRC, which holds of roots) and I analyze *drown* as an in-depth case study. Many of BKG's diagnostics for manner (e.g., *The governor drowned the prisoner, but didn't move a muscle*) diagnose general actions, for which sentences with the root *drown* **used** as a MKV test positively. The root however does not specify any such action, as proven by the fact that *drown* participates in the causative alternation (*John drowned the boy/The boy drowned (#by hanging) (?but the paramedics got to him before he died)*) which is excluded from verbs which specify a manner of action (LRH 1995; Reinhart 2000). However, *drown* often comes with inferences of both submersion in water and death. The question is whether the root lexicalizes both, and whether these are a result and a manner according to the definitions assumed here. To the extent possible, we will say that the root lexicalizes only those aspects of meaning that are specified and entailed in all uses of the verb, regardless of context.

There are many uses of *drown* with no entailment of death, even with an animate theme (*The model is drowning in fabric/compliments*); if death were encoded in the

root these uses would violate monotonicity (RHL 1998; Koontz-Garboden 2007). I suggest that *drown* lexically encodes the state of submersion in an ambient substance (with some other felicity conditions). Evidence that *drown* is based on a stative root comes from sentences such as: ... *when I thought it was still too frozen ... , I set it under a faucet of hot water and drowned it for a couple of minutes* (web), where the time adverbial modifies the embedded state. Certain contexts promote a strong inference of death (a second result), but this inference is not necessary even with an animate theme (...*I poured [water] on his head and water filled his eyes... I did what I had to do and drowned him again* (web)).

drown is basically a locative state, with two internal arguments: theme and ambient substance. It can form a verb with two types of argument realization, corresponding to two well-established classes of locative states: a. *The lettuce is drowning in oil* (cf. *The lettuce is lying in oil*); b. *The oil is drowning the lettuce* (cf. *Oil is covering the lettuce*); when the ambient substance argument is not expressed it is interpreted as water by default: *John was drowning*; Inference: he was drowning in water. cf. *John is drowning # (in work)*; *the lasagna is drowning * (in cheese)*. Evidence that the arguments are internal: the verbs form only adjectival passives and a genuine external argument can be added. In the talk I explain why the root has these two argument realization options. *lie* and *cover* are interval statives ((Dowty 1979) allowing present progressive), and so is *drown*. As with other statives, an inchoative reading is available, depending on context (*Snow is covering the mountain* – inchoative reading possible/*The cloth is covering the table* – inchoative not possible) and the verbs can further be causativized. *John drowned*, is then an ellipsis of *John drowned in water* and the inference of death, which is contextually restricted, is derived from the special felicity conditions on *drown*, as I will show. *Drown*, then, is a root which can be found in verbal structures which express (caused) change of state, but which itself encodes only a locative state, conforming to MRC.

3. Despite the flexibility in the distribution of manner and result roots, there are some categorical constraints on this distribution (e.g., manner roots never form underived adjectives), not accounted for by the MAM approach. If roots distributed in syntactic structures freely, it is not clear how the generalization of MRC, originally formulated as a constraint on the semantic context of verbs in the lexicon, would have come about. It is, however, possible to recognize a relational notion of manner as an event modifier à la MAM. Manner (in the GROC sense) roots are prototypically found in manner (in the relational sense) positions (as in *wipe* the table clean), but result roots can also, under certain circumstances (as in *break* the bottle open). Crucially, in these cases, result verbs maintain their result truth conditions and preserve MRC by not specifying lexical information beyond the lexicalized result thus conforming to the truth-conditional notion of MRC.

References: Beavers, J. and A. Koontz-Garboden (2012) "Manner and Result in roots of verbal meaning," *LI* 43 (BKG). Koontz-Garboden, A. (2007) *States, changes of state, and the Monotonicity Hypothesis*. PhD, Stanford. Mateu and Acedo-Matellan (2012) "The manner result complementarity revisited: a syntactic approach," *In The End of Argument Structure, Syntax and Semantics*, 38 (MAM). Rappaport Hovav, M. and B. Levin (2010) "Reflections on manner result complementarity," In: Rappaport Hovav, M., Doron, E., Sichel, I. eds., *Syntax, Lexical Semantics and Event Structure*. OUP (RHL) Reinhart, T. (2000) *The Theta System: Syntactic Realization of Verbal Concepts*, *OTS Working Papers in Linguistics*