Agent entailments induce manner properties*

Josep Ausensi
josep.ausensi@upf.edu

Universitat Pompeu Fabra

Abstract

Rappaport Hovav and Levin (2010) argue that verbs fall within two wide semantic classes, i.e. result verbs which encode a result state (e.g. *kill*), and manner verbs, which encode a manner of action (e.g. *exercise*). A single verb however cannot encode both a result state and a manner of action (i.e. Manner/Result Complementarity). In this respect, Beavers and Koontz-Garboden (2012) discuss a series of verbs of killing which they claim to be counterexamples to this complementarity. Nonetheless, Rappaport Hovav (2017) argues that most of these verbs (i.e. *crucify, guillotine* and *electrocute*) are not relevant since they are not monomorphemic or morphologically simple and Manner/Result Complementarity is actually a restriction on root meaning, not verb meaning. In this paper, I focus on monomorphemic verbs of killing and argue that *murder* and *slay*, in contrast to the verbs of killing discussed by Beavers and Koontz-Garboden, are more convincing counterexamples the complementarity between manner and result. More specifically, I argue that *murder* and *slay* have both manner and result entailments, and therefore pose a problem to Manner/Result Complementarity since, despite being monomorphemic, encode both a manner of action and a result state. Thus, the analysis of *murder* and *slay* as manner-result encoding verbs suggests that encoding an intentional action, i.e. agent entailments, appears to be sufficient for a verb to encode a manner of action, as I argue that these agent entailments are responsible for inducing the manner properties in *murder* and *slay*.

Keywords: *lexical semantics, verb meaning, manner, result, verbs of killing, agent entailments, intentionality.*

*I am grateful to several people for our discussions which turned out to be really helpful for the development of the present paper. In this respect, I wish to thank Jaume Mateu, Toni Bassaganyas-Bars, Vítor Míguez and Alexandra Spalek. I am especially grateful to Josep Maria Fontana and Louise McNally for reviewing earlier versions and for providing valuable comments which were crucial to improving the final version. I am also grateful to audiences at the Workshop Endpoints 2018 for their comments and feedback.

1 Introduction

Over the last twenty-five years, Levin and Rappaport Hovav (1991, 2006, 2013, 2014; Rappaport Hovav and Levin 1998, 2010; Rappaport Hovav 2017) have been arguing that eventive verbs fall into two wide semantic classes: manner verbs (1a), which encode the manner in which some action is carried out, but not any result state from that action, and result verbs (1b), which encode a result state, but not the manner in which the result state is attained.

(1) a. Manner verbs: *run*, *swim*, *blink*, *sweep*, *poison*, *wipe*, *scrub*, etc.
b. Result verbs: *break*, *kill*, *clean*, *destroy*, *arrive*, *go*, *shatter*, etc.

More specifically, Rappaport Hovav and Levin (2010) (RHL henceforth) argue that no single verb[1] encodes both meanings, i.e. a single (nonderived/monomorphemic) verb cannot express both a manner of action and a result state. This was formalized as Manner/Result Complementarity (MRC henceforth).

(2) Manner/Result Complementarity: Manner and result meaning components are in complementary distribution: a verb lexicalizes only one. (Levin and Rappaport Hovav 2013: 50)

RHL argue that MRC is a consequence of how roots are inserted into the event structure, i.e. a single root can only be inserted as a modifier of the so-called ACT predicate (3a) (i.e. manner), or as an argument of the so-called BECOME predicate (3b) (i.e. result).

(3) a. [x ACT <ROOT>]
b. [[x ACT] CAUSE [y BECOME <ROOT>]]]

Crucially, though, RHL argue that how roots are inserted into the event structure depends on their root ontology, manner and result taken to be root ontologies.[2] Thus,

[1] Rappaport Hovav and Levin (2010: 26) insist that Manner/Result Complementarity does not apply to verbs *per se*, but to roots. The motivation for this claim comes from the structure of verbs in other languages (e.g. Lakhota) in which a single verb can encode both manner and result but they are clearly bi-morphemic in that prefixes and stems combine to form complex verbs (see Rappaport Hovav 2017). In this respect, Rappaport Hovav and Levin (p. 23) understand root as "[...] an idiosyncratic component of verb meaning, [...]." which is "common to a wide variety of uses of a verb" (Rappaport Hovav 2017: 83). More specifically, they argue that "each root has an ontological categorization, chosen from a fixed set of types, including state, result state, thing, stuff, surface/container, manner, instrument." While it is reasonable to assume that roots have an ontological classification which is relevant when determining grammatical properties (Rappaport Hovav and Levin 1998 *et seq.*), this does not necessarily imply that manner and result cannot be part of the entailments of a single root.

[2] For root ontologies see Rappaport Hovav and Levin (1998), Reinhart (2002), Ramchand (2014), Alexiadou, Anagnastopolou, and Schäfer (2015), Rappaport Hovav (2017), amongst others. Instead, the view that roots have an ontological classification relevant when determining grammatical properties is rejected in Borer (2003, 2005), Acquaviva (2008, 2014), Mateu and Acedo-Matellán (2012), Acedo-

MRC also holds as a restriction on the entailments that a root can encode, as a single root either encodes a manner of action or a result state, but never both.

Nonetheless, MRC has been challenged and shown to not hold categorically (Férez 2007; Zlatev & Yangklang 2004; Goldberg 2010; Husband 2011, and see Levin & Rappaport Hovav 2013, 2014; Rappaport Hovav 2017 for some responses). An important contribution in this respect is that of Beavers and Koontz-Garboden (2012) (BKG henceforth) as they argue that what they call manner of killing verbs (i.e. *drown*, *guillotine*, *hang*, *electrocute* and *crucify*) counterexemplify MRC since manner of killing verbs encode both a manner of action and a result state. However, Rappaport Hovav (2017) has recently argued that manner of killing verbs are not relevant to MRC in that they are denominal, and therefore morphologically derived despite not displaying any overt morphology (i.e. *guillotine*)[3] or they are not monomorphemic (i.e. *crucify, electrocute*), and therefore irrelevant to MRC as this is a restriction on root meaning. In a similar vein, Rappaport Hovav argues that *drown* does not encode any manner of action, but only a result state, and therefore it does not counterexemplify MRC.

In the present paper, I focus on the monomorphemic verbs of killing *kill*, *murder* and *slay* and I argue that these last two are more convincing counterexamples to MRC since whereas *kill* only encodes[4] a result state, *murder* and *slay* encode both a manner of action (i.e. an intentional action) and a result state, and thus pose a problem for MRC as I show that a nonderived/monomorphemic verb can encode both a result state and a manner of action. Thus, the analysis of *murder* and *slay* as manner-result encoding verbs supposes that the role of intentionality within the study of verb meaning seems to be of more importance than previously acknowledged, as I argue that agent entailments, i.e. performing an intentional action, are sufficient to induce manner properties.

This paper is structured as follows. In Section 2, I briefly summarize the proposal by RHL to equate manner verbs with nonscalar changes and result verbs with scalar changes. In the same section, I follow Rappaport Hovav (2017) in arguing that the series of manner of killing verbs by BKG are not relevant for MRC, since as noted above, most of the verbs of killing by BKG are not monomorphemic or morphologically simple.[5] In Section 3, I will discuss first some preliminary data and then use the result

Matellán and Mateu (2014), amongst others.

[3]See Kiparsky (1997) for an analysis of verbs named after a specific machine.

[4]I use *encode* as in Levin and Rappaport Hovav (2013: 49) to make reference to those "[...] facets of meaning that are strictly contributed by the verb [...]." Thus, this includes a verb's core meaning which is consistent across all uses of such verb, i.e. regardless of context, a verb always includes its specific entailments. *Encoded meaning* is to be differentiated from what Levin and Rappaport (2013: 49) call "additional facets of meaning that can be inferred from a particular use of that verb in context and from the choice of noun phrases serving as arguments of the verb."

[5]BKG also include two other verb classes (i.e. ballistic motion and manner of cooking verbs) which they claim to be counterexamples to MRC as well. However, verbs of killing are the main case study they consider when arguing against MRC. Thus, I focus on this verb class and center on the idea that agent entailments are enough to induce manner properties, as I show that this is the case in both *murder*

and manner diagnostics as implemented in RHL and BKG to show that *murder* and *slay* encode both manner and result entailments, and therefore counterexemplify MRC. I argue that lexically encoding intentionality, as in *murder* and *slay*, is enough for a verb to encode a manner of action, i.e. that agent entailments are sufficient to induce manner properties. Lastly, Section 4 concludes the paper.

2 Manner and Result

RHL argue that the crucial difference between result and manner verbs is that whereas the former encode scalar changes, the latter encode nonscalar changes. A scale is formed by a set of degrees (which specify measurement values) on a specific dimension, i.e. width, length, alive-dead etc., with an ordering relation.[6]

In this respect, a scalar change then "[...] involves a change in value of this attribute in a particular direction along the scale, with the direction specified by the ordering relation." (RHL p. 28). For instance, the verb *die* is related to an attribute (i.e. *dead*) which holds of an argument when it undergoes a dying event. Thus, a result relates to a change in some property of a patient. Roughly put, when a patient participates in a change of state event (i.e. a scalar change), at the end of it, there is a modification in the degree of some value/property of the patient (e.g. a soup becoming cooler/warmer after an event of cooling/warming).

In contrast, nonscalar changes are defined as "any changes that cannot be characterized in terms of an ordered set of values of a single attribute." (RHL p. 32). Manner verbs thus encode nonscalar changes since they relate to complex combinations of various changes, but these complex combinations do not constitute an ordered relation and therefore no scalar change follows (e.g. *run*, *walk*, *exercise*). In short, "a manner is a complex sequence of separate changes that collectively define an action, but do not necessarily add up to a single cumulative change along any one dimension." (BKG p. 343).

In the next section, I briefly review BKG's manner of killing verbs as counterexamples to MRC and I follow Rappaport Hovav (2017) in arguing that these verbs are not relevant to such complementarity since, as discussed above, these verbs are not monomorphemic or morphologically simple and therefore irrelevant to MRC, in that this is taken to be a complementarity on root meaning.

---

and *slay*.

[6]For scalar change and scale structure see see Hay et al. (1999), Kennedy and McNally (2005), Beavers (2008, 2011), Kennedy and Levin (2008), Rappaport Hovav (2008, 2014b), Rappaport Hovav and Levin (2010), Beavers and Koontz-Garboden (2012, 2017), amongst others.

2.1 Manner of killing verbs

Verbs of killing are often divided into those which only encode a result state, but not a manner of killing (e.g. *kill*), and those which encode a manner of killing, but not a result state (e.g. *poison*) (see Levin 1993). However, regarding some manner of killing verbs, Levin (1993: 232) herself acknowledges that "[...] as means verbs, these verbs need not entail that the action they denote results in death; however, some of them do appear to have this entailment." Drawing on Levin's disclaimer, BKG argue that some of the verbs previously classified as manner by Levin encode both a result and a manner of action, i.e. what they call manner of killing verbs. Nonetheless, as pointed out before, Rappaport Hovav (2017) argues that manner of killing verbs do not actually pose a problem for MRC "If MRC is a constraint on what is encoded in roots" (Rappaport Hovav 2017: 83), since they are not monomorphemic (i.e. *electrocute*, *crucify*) or morphologically simple (i.e. *guillotine*). In this respect, Rappaport Hovav (p. 84) points out the following:

> An analysis in the case of the first two verbs [*crucify*, *electrocute*] would determine the contribution of each morpheme to the meaning of the verb, and in the case of the latter [*guillotine*], the contribution of the nominal root and the derivation of the verb.

Regarding *drown*, Rappaport Hovav argues that it does not encode a manner of action, but only a result state.[7] Rappaport Hovav argues that *drown* does not encode any manner of action in that, among other things, it permits the anticausative in English and natural forces as causers, where the notion of an action (of an agent) is irrelevant.

(4) a. John drowned.
b. The water drowned him. (adapted from Rappaport Hovav 2017: 85)

Last, regarding *hang*, BKG (p. 338) argue that it encodes a result since it is contradictory to utter that *#John just hanged Joe, but nothing is different about him*. They argue that what exactly the result is is not important; the important fact, according to them, is that it involves some result, and they add "we believe it to be death" (p. 339). Following Rappaport Hovav (2017), I argue that death in *hang* is an inference from the context in that, amongst other things, someone can survive being hanged.

(5) Iranian man who survived execution [hanging] must be hanged again, judges say.[8]

[7] Rappaport Hovav argues that the result state is not death, by rather death is an inference from the context, as "not all uses of the root DROWN involve a manner of killing" (p. 83).

[8] https://www.theguardian.com/world/2013/oct/16/iranian-man-execution-hanged-alireza-meth

In addition, *hang* is compatible with a *to death* resultative, whereas killing verbs that clearly encode this result do not permit it (*murder*, *slay*, *assassinate* etc.). Although BKG argue that some of their manner of killing verbs allow *to death* resultatives redundantly specifying death, these verbs permit *to death* resultatives since they do not encode the death of their patient as this is an inference from the context.

(6) a. #John murdered/slew/assassinated the president to death.
b. They were hanged to death.[9]
c. Man 'electrocuted to death' when cherry picker hits power lines.[10]

This is in line with what Arsenijevic (2010: 18) argues regarding BKG's manner of killing verbs:

> This [the result of death] is rather a matter of inference relying on real world knowledge, than a real entailment of the verb. In other words, manner of killing verbs are certainly manner-incorporating verbs, but the result incorporation is not so certain.

In a similar vein, it could be argued that, as BKG argue for *crucify*, the result in *hang* could be related to a change of location. However, while it seems to be the case that in order to *crucify* somebody they must be placed in a cross (as BKG note), and therefore a change of location follows, it is not clear whether this is also the case with *hang*.

Having concluded that manner of killing verbs are not relevant for MRC, in the next section I argue that *murder* and *slay* pattern as both manner and result verbs, and therefore counterexemplify MRC. I first discuss some preliminary data on *kill*, *murder* and *slay* as they are relevant for the analysis of *murder* and *slay* as manner-result encoding verbs. I then turn to the result and manner diagnostics as implemented in both RHL and BKG to show that *murder* and *slay* are (monomorphemic/nonderived) verbs encoding both a manner of action and a result state. I claim then that agent entailments appear to be sufficient to induce manner properties, since I argue that such entailments are what induce the manner properties in *murder* and *slay*.

3 The semantics of kill, murder and slay

It has been long acknowledged that *kill* does not impose any kind of selectional restrictions upon its subject, whereas *murder* and *slay* do. This has been said to follow from the fact that whereas *murder* (and also *slay*) encodes agentivity, *kill* does not (Van Valin

[9] https://www.theguardian.com/world/2016/mar/25/malaysia-hangs-three-men-for-in-secretive-execution

[10] http://metro.co.uk/2017/11/21/man-electrocuted-to-death-when-cherry-picker-hits-power-lines-7097446/

and Wilkins 1996). This is shown in the following examples, in which the presumed agentivity in *kill* can be either canceled or reinforced (since it is an inference from context), something not possible with *murder* or *slay* (since agentivity, in this case, is a lexical entailment of these verbs).

(7) a. John killed Tom unintentionally/by accident.
b. #John murdered/slew Tom unintentionally/by accident.

(8) a. John killed Tom intentionally/on purpose.
b. #John murdered/slew Tom intentionally/on purpose.

Roughly speaking, then, intentionality is understood here as a verb entailment which relates to performing an action intentionally. Thus, such an entailment is part of the lexical semantics of *murder* and *slay*, but not of *kill*, as shown in (7) and (8).

Another difference between *kill* and *murder* and *slay* relates to the fact that *murder* and *slay* can appear in some specific syntactic positions whereas *kill* cannot appear in these same environments or is pragmatically odd without a specific context.[11]

(9) a. ??John lies killed on the beach.
b. Marat, in Jacques-Louis David's masterpiece, lies murdered in his bath.[12]
c. The priest lay slain on the sacristy floor.[13]

(10) a. ??The killed boy was John.
b. Detectives believe the murdered man in Clocaenog Forest was 54 when he died.[14]
c. The slain soldier's mother and father publicly rebuked the then Republican presidential nominee at the Democratic National Convention in July.[15]

In this respect, Barkai (1972: 377) notes the following:

> Those verbs which can be shifted [before the noun as a past participle] are to be analyzed at a deep level as containing a "core" verb [...] plus some kind of modifier, usually one of manner, degree, or instrument. Thus, *murder* is 'kill in a manner which is intentional and premeditated.'

[11] The fact that some past participles (and *kill*) cannot appear prenominally is commented on by Lakoff (1965) and Barkai (1972).

[12] https://www.theguardian.com/artanddesign/2015/feb/22/forensics-the-anatomy-of-a-crime-cornelia-parker-review-wellcome-collection-whitworth-manchester)

[13] http://www.telegraph.co.uk/culture/books/authorinterviews/8565764/Roberto-Saviano-interview-and-extract-from-Beauty-and-the-Inferno.html

[14] https://www.thesun.co.uk/news/3034044/man-in-black-serial-killer-claims-to-know-identity-of-mystery-murder-victim-found-rotting-in-woods/)

[15] http://edition.cnn.com/2017/02/26/politics/navy-seal-father-donald-trump/

This seems to be correct, since *kill* appears to be pragmatically odd as a complement of *lie* (9a) or as a prenominal adjective as in (10a).[16] Crucially though, *kill* becomes pragmatically felicitous when an adverb is introduced as a modifier, also noted by Barkai.

(11) a. Nameless victim lying brutally killed.[17]
b. She lay savagely killed.[18]

(12) a. The brutally killed schoolgirl.[19]
b. A violently killed German soldier.[20]

In short, following Barkai, *kill* needs to be modified by an adverb (usually a manner adverb) to appear in these positions as a prenominal adjective, or as a complement of *lie*. This contrast with *murder* and *slay* as they do not need any adverb (or any specific context) to be able to appear in these positions, as they already have this manner component as part of their lexical semantics.

Lastly, *murder* and *slay* are compatible as a complement of a *by*-phrase in the context of *x* killed *y*. This is relevant for the present purposes insofar as manner verbs can be used in this *by*-phrase in order to describe how a specific result state (expressed by a result verb) was attained (this is noted by RHL (p. 22): "When a verb lexically specifies either manner or result, the other component can be expressed outside the verb"), as shown in (13). The fact that *murder* and *slay* can be introduced in this *by-phrase* is significant in that it suggests that they encode a manner of action as this adjunct expresses the manner of action that was performed in the event of killing to cause the death of the patient (13b), (14).

(13) a. John cleaned$_{\text{result}}$ the table by wiping$_{\text{manner}}$ it.
b. John killed$_{\text{result}}$ Tom by stabbing$_{\text{manner}}$ him.
c. John broke$_{\text{result}}$ the vase by hitting$_{\text{manner}}$ it.

(14) a. John killed Tom by murdering/slaying him.[21]
b. [...] to show the real picture of us, who are intended to be killed twice –

[16]There seem to be cases of *killed* as a past participle in prenominal position, but only in a specific context in which extra information (i.e. killed in some specific manner) is inferred; without a specific context, i.e. out of the blue, *killed* as a prenominal adjective seems to be pragmatically odd, as pointed out by Lakoff (1965) and Barkai (1972). The same kind of restriction seems to be to apply to *killed* appearing as a complement of *lie*.

[17]https://www.pressreader.com/new-zealand/the-dominion-post/20161022/282544427838920

[18]*A murder in Wellesely* by Tom Farmer and Marty Foler (p. 17).

[19]http://www.dailymail.co.uk/news/article-2024157/Suspect-arrested-1984-murder-schoolgirl-Tina-Falez-DNA breakthrough.html

[20]*Kierkegaard and the Paradox of Religious Diversity* by George B. Connell (p. 117).

[21]Even though there is some variation with this example amongst speakers, this is generally accepted, especially when the speaker wants to emphasize that the killing was intentional (i.e. when the manner of action is emphasized). 10 out of the 15 native English informants (both British and American) I consulted accept both *murdering* and *slaying* in this context.

first by murdering us, then by accusing us of terror.[22]

c. Krueger [...] was a villain who hunted and killed teenagers by murdering them in their dreams.[23]

In the following section, I take into account the anticausative as this construction has been widely used as a diagnostic for differentiating verbs which encode a manner from those which encode a result; manner verbs do not generally permit the anticausative, whereas result verbs generally do.

3.1 Anticausative *kill* vs. nonanticausative *murder*

The anticausative (e.g. *The vase broke*) has been taken as a diagnostic to tell manner and result apart (see Levin & Rappaport Hovav 2013; Rappaport Hovav 2017) as it is generally claimed that result, but not manner verbs, permit it.

The anticausative form of a verb relates to an unaccusative use of such verb, where the actions (of agents) are unimportant (Rappaport Hovav 2017), thus result verbs generally permit this as no action is encoded by the result root. In contrast, since manner verbs encode (manners of) actions they do not permit this use.

In this respect, although *kill* does not permit the anticausative in English, it does in a number of languages (Romance languages, Hebrew, Greek etc.), especially when the anticausative is morphologically marked (Rappaport Hovav 2014a). In this respect, consider the following examples from Spanish and Greek respectively.

(15) a. Juan se mató (en un accidente).
Juan REFL killed (in an accident)
"Juan was killed (in an accident)." [24]

b. I Maria skotothike (apo/me ton sismo).
The Mary killed.N.ACT (by/with the earthquake)
"Maria was killed (by the earthquake)." [25] (Schäfer 2008: 13)

Crucially, however, *murder* nevers permits the anticausative cross-linguistically (Rappaport Hovav 2014a). This is relevant since I argue that *murder* does encode an action of an agent (i.e. a manner of action), and thus its lack of unaccusative uses is evidence in favor of the claim that *murder* encodes a (manner of) action, since as pointed out by Levin and Rappaport Hovav (2013: 55) "a hallmark of manner verbs is their lack of anticausative uses."

[22] http://www.independent.co.uk/Voices/drone-attacks-yemen-war-bombs-daughter-was-killed-a7820566.html.

[23] https://www.cbr.com/radical-toys-from-the-80s-and-90s/

[24] REFL refers to the reflexive clitic in Romance languages such as Spanish, in this case, which is used to form anticausative uses.

[25] N.ACT refers to the non-active clitic, i.e. "the morphological device for anticausatives in Greek" (see Schäfer 2008: 24)

In the next two sections, I make use of the result and manner diagnostics as implemented in RHL and BKG in order to show that *murder* and *slay* encode both a manner of action and a result state, which contrasts with *kill* in that this verb only encodes a result state. Contra RHL, this strongly suggests that manner and result can be part of the lexical entailments of some roots.

3.2 Encoding result states

The first result diagnostic relates to the fact that, since result verbs encode scalar changes, if a participant engages in an event involving a change along a scale, at the end of the event, the participant must have an altered degree of some property/value. Thus, denying this change results in a contradiction with result verbs as they encode a result state (RHL; BKG). BKG make use of the diagnostic as implemented in Beavers (2011), i.e. *something is different about x*.

(16) a. #John has broken the vase, but nothing is different about it.
b. #John has shattered my wine bottle, but nothing is different about it.
c. #John has destroyed the city, but nothing is different about it.

In contrast, the same diagnostic with manner verbs does not result in a contradiction, as only a manner of action, but not a result state, is encoded.

(17) a. John has wiped the table, but nothing is different about it.
b. John has hit the wall, but nothing is different about it.
c. John has swept the floor, but nothing is different about it.

BKG (p. 338) note that "these diagnostics are insensitive to manner encoding; a verb passing one of these tests may also encode manner". Thus, this diagnostic simply picks out verbs which encode a result, regardless of the fact that the same verb could also encode a manner of action.

In this respect, *kill*, *murder* and *slay* pattern like result verbs in that it is contradictory to claim that nothing is different about the patient or that the patient referent does not die after the event.

(18) a. #John killed/murdered/slew Tom, but nothing is different about Tom.
b. #John killed/murdered/slew Tom, but Tom didn't die.

The second diagnostic follows from the claim that result verbs are argued to permit a narrower range of possible result XPs, whereas manner verbs tend to allow a wider range, and this is taken as a diagnostic by RHL to tell manner and result verbs apart.[26]

[26] As Goldberg (2001) already notes, result XPs with result verbs may not be as restricted as initially thought. For instance, result path phrases are compatible with result verbs:

Roughly put, this difference follows from the fact that result verbs already have a specific result state in their lexical semantics, whereas manner verbs do not.[27] Thus, manner verbs permit a wide range of result XPs predicated of their object (19a), as well as result XPs predicated of a nonselected object (19b) or predicated of a fake reflexive (19c).

(19) a. John wiped the table clean/dry/shiny/spotless.
b. John ran his shoes ragged.
c. John laughed himself silly.

This contrasts with result verbs since the only result XPs they permit are those that further specify the result state encoded by the verb (20d). Thus, result verbs do not permit result XPs which introduce a new result state different from the one encoded by the verb (20a) and result XPs predicated of a nonselected object (20b) or of a fake reflexive (20c).

(20) a. *John broke the vase off the table/valueless.
b. *Kim dimmed her eyes sore. (BKG p. 340)
c. *John broke himself tired.
d. John broke the vase into pieces.

In this respect, *kill*, *murder* and *slay* also pattern like result verbs in showing limited result XPs.

(21) a. *John killed/murdered/slew Tom into pieces/off the cliff.
b. *John killed/murdered/slew himself tired.

The last result diagnostic relates to the claim by RHL that manner verbs permit more argument realization options as they can appear with nonselected objects and permit the deletion of the object, whereas result verbs cannot. This is shown in (22) where we can see that manner verbs permit nonselected objects (e.g. fake reflexives (22a), *way*-construction (22b), etc.) and constructions which involve the deletion of the object (e.g., *out-* prefixation (22c)), whereas this is not generally possible with result verbs (23).

(22) a. John laughed himself silly.
b. John kicked his way into the concert.

(i) a. John broke the eggs into the bowl.
b. The machine melted the chocolate into the bowl.

[27] According to Rappaport Hovav (2008: 22) this restriction in limited result XPs is due to the fact that verbs "with no lexically specified scale [manner verbs] can appear with a variety of results. [...] In contrast, verbs which have lexically specified scales [result verbs] [...] are very restricted in the kinds of resultatives they can appear with."

c. John outscrubbed Tom.
d. John swept.

(23) a. *The toddler broke his hands bloody. (RHL p. 22)
b. ??John destroyed his way into the concert.
c. ??Kim outshattered the other bottle-shatterer. (BKG p. 339)
d. *John killed.

As pointed out by BKG, the motivation for this claim can be found in Rappaport Hovav (2008: 24) as she argues that object deletion (and also nonselected objects) in result verbs is not possible because "[. . .] scales require that the participant whose property is measured out by them is overtly realized."

In this respect, *murder* and *slay* pattern like manner verbs in that they permit nonselected objects (i.e. *way*-construction (24)-(25)) and *out-* prefixation (26)-(27), an object deletion process). This is relevant since both are manner configurations, and therefore not expected if *murder* and *slay* are to be treated as result verbs.

(24) a. He schemed, shagged and slew his way up the ranks of the Italian aristocracy.[28]
b. [...] she slashed and slew her way through an advance copy of "Tekken Tag Tournament" for the PlayStation 2.[29]
c. Sand then took her daughters and slew her way through the Dornish royal household to sit on their throne.[30]

(25) a. Farmer's son who bribed and murdered his way into drugs [...].[31]
b. Mafia's 'last don' murdered his way to the top.[32]
c. Europe's first serial killer who raped and murdered his way across continent to Britain.[33]

(26) a. Mao outmurdered Hitler and Stalin combined.[34]
b. Saddam's fascist ba'athists outgunned and outmurdered them.[35]

[28]http://www.telegraph.co.uk/culture/books/bookreviews/10943707/Painting-Death-by-Tim-Parks-review-unbalanced-by-satire.html

[29]http://edition.cnn.com/2000/TECH/computing/10/23/ps2.hype/index.html

[30]https://screenrant.com/game-of-thrones-most-twisted-evil-characters-ranked/

[31]http://www.independent.co.uk/news/world/farmers-son-who-bribed-and-murdered-his-way-into-drugs-neither government-forces-nor-other-drug-1465001.html

[32]https://www.scotsman.com/news/world/mafia-s-last-don-murdered-his-way-to-the-top-court-told-1-532556

[33]http://www.dailymail.co.uk/news/article-3337785/Did-serial-killer-raped-murdered-way-Europe-claim-victims-UK-Police-investigate-Pole-daubed-bizarre-phrases-woman-s-naked-body-sickening-crime-spree-six-countries.html

[34]http://news.nationalpost.com/full-comment/robert-fulford-mao-outmurdered-hitler-and-stalin-combined

[35]https://www.economist.com/node/21014788/comments

c. HBO's Game of Thrones Just Out-Murdered George R.R. Martin.[36]

(27) a. One team outslays the other through skill and gets the rockets.[37]
b. Surprisingly outslaying their opponents, they won 250-225.[38]
c. Saints and crew completely outslayed OpTic, as no player on the Green Wall had over 12 kills in the third map of this series.[39]

The fact that both *murder* and *slay* appear in the *way*-construction is relevant since as Rappaport Hovav (2017: 96) argues:

> [...] the *way* construction generally selects manner verbs because it is supposed to specify the kind of action which brings about or accompanies a certain COS [change of state verbs] (Goldberg, 1995). Precisely because result verbs do NOT specify any manner of action, they typically do not appear in this construction. Only in heavily contextualized environments, where the action can easily be recovered, are COS verbs compatible with this construction.

In contrast to pure result verbs like *break*, verbs like *murder* and *slay* easily appear in the *way*-construction since they do not require "heavily contextualized environments". This suggests that the (manner of) action is lexically encoded, and thus it makes these verbs compatible with nonselected objects and object deletion processes.[40]

It is important to note that even when *murder* and *slay* are used in manner configurations, they still specify the result state that they encode (following Goldberg 2001; Rappaport Hovav 2017), since it is not possible to deny such result state even in manner configurations, as shown in (28).

(28) a. #John murdered/slew his way out of prison, but nobody died.
b. #John outmurdered/outslew Tom, but nobody died.

---

[36] https://www.follownews.com/hbosgame-of-thronesjust-outmurdered-george-rr-martin-1awrz

[37] https://www.halowaypoint.com/en-us/forums/d76f090378914a9bb85312f87cf09b99/topics/tell-me-why-random-weapon-locations-are-good/51d27d1a-0ca6-488f-82e1-b7b95992bf57/posts?page=2

[38] https://www.dexerto.com/news/13129/13129

[39] https://dotesports.com/call-of-duty/news/echo-fox-optic-cwl-new-orleans-saturday-20173

[40] *Kill* also appears in both the *way*-construction and *out-* prefixation but only when it is inferred that an action has been performed (i.e. a manner of action). This seems to be the case, as it is not possible to deny that an action is carried out accidentally or without the control of the agent. (cf. *#John killed his way out of prison accidentally*).

(i) a. ??This automatic machine gun outkills that old pistol.
b. ??The typhoon outkilled the earthquake.

(ii) a. ??The giant rock killed its way out of the city.
b. ??Cancer has killed its way to the top 10 leading causes of death.

In short, it has been shown that whereas *kill*, *murder* and *slay* pattern like canonical result verbs, *murder* and *slay* also pattern like manner verbs in permitting the deletion of the object (i.e. *out-* prefixation) and nonselected objects (i.e. *way*-construction). This is expected if *murder* and *slay* are analyzed as manner-result encoding verbs, as they encode a manner of action, i.e. an intentional action.

I argue in the following section that this is precisely the manner component in *murder* and *slay*, i.e. there is a participant *x* that is performing an action *y* intentionally and by doing so, *x* causes the death of the patient. This, however, is not the case with *kill*, as such an action (or any action) does not need to take place in order for *x* to cause the death of the patient (as with other pure result verbs, e.g. *break*, no action need take place in order to attain the result state specified by the result verb).

3.3 Encoding manners of action

The first manner diagnostic BKG propose relates to selectional restrictions manner verbs impose on their subjects. In this respect, BKG (p. 344) argue that if a verb encodes a manner of action then it restricts the range of subjects it can appear with since "result but not manner verbs require no specific action of their subjects." This is shown in (29) in which the result verbs *break* and *destroy* do not place selectional restrictions upon its subject, whereas the manner verbs *wipe* and *sweep* in (30) do.[41]

(29) a. John accidentally broke/destroyed the vase.
b. The wind broke/destroyed the vase.
c. The hammer broke/destroyed the vase.

(30) a. #John accidentally wiped/swept the floor.
b. #The wind wiped/swept the floor.
c. #The mop wiped/swept the floor.

Roughly put, if a verb encodes some manner of action then that verb restricts the types of subjects it permits according to that manner of action (see Beavers and Koontz-Garboden 2017). Result verbs are not restricted in this sense, as no manner of action is encoded.

In this respect, *murder* and *slay* pattern like manner verbs since they restrict their subjects depending on the (manner of) action encoded: only human subjects performing an intentional action are permitted, contrasting with *kill*, since this verb does not encode any manner of action and therefore it does not impose any kind of selectional restrictions upon the subject. Thus, *kill* can appear with nonintentional causers (31a), natural forces (31b), general causers (31c) and instruments (31d) as subjects, whereas

[41] BKG (p. 244) state that there may be exceptions to this. For instance, certain machines or instruments can appear with manner verbs, especially when the instrument is being controlled by the agent, as in *I like how this mop scrubs the floor*.

this is not possible with either *murder* or *slay* (32).

(31) a. John killed Tom by accident.
b. The floods killed thousands.
c. Cancer killed two million people last year.
d. The mouse traps killed the mice in my house.

(32) a. #John murdered/slew Tom by accident.
b. #The floods murdered/slew thousands.
c. #Cancer murdered/slew two million people last year.
d. #The mouse traps murdered/slew the mice in my house.

Thus, *murder* and *slay* pattern like manner verbs in restricting their subjects according to the manner of action encoded, this not being the case with *kill*, as no manner of action is encoded and thus no selectional restrictions arise.

The second diagnostic by BKG relates to what they consider to be the most prototypical kind of manner of action, i.e. moving parts of the human body when carrying out an action, what they call *actor-oriented manner*. BKG argue that if a subject is an actor, then "it should be impossible to assert that they performed the action specified by the verb and yet didn't move a muscle." (p. 345) This seems to be a correct intuition since in prototypical manner verbs the *didn't move a muscle* diagnostic results in a contradiction.

(33) a. #John ran, but didn't move a muscle.
b. #John wiped the table, but didn't move a muscle.
c. #John exercised at the gym, but didn't move a muscle.

As BKG argue, with result verbs then it should be possible to deny that any action has been performed in causing a change, as the verb encodes causation but not any (manner of) action. However, BKG (p. 345) in this respect note the following:

> if all result verbs encode is a result but not (any specific type of) action, then it should be possible to deny that action occurred. [...] But, [...] how can one cause something without acting in some way? [...] an example might be negligence –failing to act in some (expected) way to prevent a change from occurring, thereby being responsible for it.

Thus, result verbs should be compatible with the *didn't move a muscle* diagnostic, especially in a negligence context, as they lexicalize causation but not any sort of action. This is shown in (34).

(34) Jim destroyed his car, but didn't move a muscle – rather, after he bought it he just let it sit on his neighbor's lawn on cinder blocks, untouched, until it

disintegrated. (BKG p. 346).

In this respect, *murder* and *slay* pattern like manner verbs in that it is not possible to deny that an action has been performed. This contrasts with *kill* as no action is encoded and thus it is not contradictory to deny that an action has been performed.

(35) a. John killed Tom, his son, but didn't move a muscle - rather, he did not give consent to his operation on his tumor due to religious beliefs.
b. #John murdered/slew Tom, his son, but didn't move a muscle - rather, he did not give consent to his operation on his tumor due to religious beliefs.

Other similar scenarios would include ones in which John, for instance, leaves his son at Sue's place so that she watches him while John works, but Sue, instead of watching him, lets him run around her place until he fells down a window and dies. In this scenario, Sue can be accused of having killed John's son by negligently failing to prevent it, and therefore she is responsible for it; crucially, though, she cannot be accused of having murdered/slain him, as no (manner of) action was performed when causing the death of John's son.

In short, as BKG argue, this does not mean that in (35b) John cannot be held accountable for the death of Tom, but what is not possible is to express this with *murder* or *slay*. More specifically, BKG (p. 347) claim that "one cannot be accused of electrocuting, hanging, drowning, or crucifying someone simply by negligently failing to prevent it [...]." I propose to include here *murder* and *slay*: whereas one can be accused of killing someone simply by negligently failing to prevent it, as in (35a) or in the John's son-Sue scenario, this is not possible with *murder* or *slay*.

The last diagnostic by BKG derives from the fact that most manner verbs are complex, as they encode nonscalar changes. Thus, BKG assume that complex manners should be durative, and this is taken as a diagnostic.

BKG follow Beavers (2008) and the diagnostics laid out by Kearns (2000: 206) to capture durativity, namely the *take-time* diagnostic, considered to be a standard durativity test. The *take-time* diagnostic conveys an *after x time* reading with punctual events and both an *after* and a *during x time* reading with telic events with duration. Durative predicates which are atelic only have the *during x time* reading in the *spend x time* test.

Thus, BKG argue that simplex actions (i.e. simplex manners) correlate with punctuality and complex actions with durativity. This is shown in (36) (from BKG p. 348).

(36) a. It took John five minutes to blink (once). (*after* five minutes, punctual)
b. John spent five minutes running. (*during* five minutes, durative)

Murder and *slay* encode a two-point scale, i.e. alive-dead, and, therefore, they are expected to be punctual, since as Beavers (2008) shows, scales which are open typically involve durative predicates, whereas closed scales (i.e. two-point scales) involve

punctual predicates by default (e.g. *break*. More precisely, BKG (p. 348) argue the following:

> [...] if we know independently that the change for some verb is simplex, so that the scale has only two points, then if the predicate is durative, it must be because there is a complex manner."

This seems to be the case with *murder* and *slay*, as both have a *during* and an *after* reading, proving that the events these verbs describe are durative despite encoding two-point scales.

(37) a. It took John 5 minutes to murder Tom. (*after/during* 5 minutes)
b. It took John 5 minutes to slay Tom. (*after/during* 5 minutes)

Murder and *slay* then pattern like manner verbs in this last diagnostic too in that the events they describe are durative, despite encoding nongradable scales. The change of state encoded by *murder* and *slay* is simplex, since the scale has only two points, but they are durative, which strongly suggests that they encode a complex manner as well. Roughly put and following BKG, the result state in *murder* and *slay*, i.e. death, is nongradable and therefore this result cannot be contributing the durativity in these two verbs. Consequentially, the manner of action encoded in *murder* and *slay* (i.e. performing an intentional action) is actually the component which contributes the durativity. This in line with the observation by Beavers and Koontz-Garboden (2017: 862) that "some manners force a predicate to be durative even if the scale is nongradable."

In short, I have shown that *murder* and *slay* when making use of the diagnostics by both RHL and BKG pattern like both manner and result verbs. More specifically, *murder* and *slay* pattern like manner verbs in permitting nonselected objects and object deletion, in restricting their subjects depending on the manner of action encoded, and with these verbs it cannot be denied that an action has taken place. Lastly, *murder* and *slay* pattern like prototypical manner verbs (e.g. *run, wipe*) in describing durative events despite encoding nongradable scales. This contrasts with *kill* since in being a pure result verb, it only encodes a result state, but not any manner of action. Thus, the analysis of *murder* and *slay* as manner-result encoding verbs poses a problem for MRC since these are monomorphemic/nonderived verbs that have both manner and result entailments encoded in a single root. Thus, I conclude that agent entailments, i.e. intentionality in this case, are sufficient to induce manner properties, as these agent entailments are responsible for inducing the manner properties in both *murder* and *slay*.

Lastly, an important caveat is in order: following what BKG (p. 349) note for manner of killing verbs, it could be argued that *murder* and *slay* encode a manner which is somewhat different from the pure manner encoded by prototypical manner verbs (e.g. *run, wipe*). However, BKG (p. 349) note that the diagnostics they laid out "were rooted

in canonical manner and result verbs, and thus it seems clear that the relevant components that give rise to these behaviors are the same." They continue arguing that "these verbs [manner of killing verbs] really do encode exactly the type of content found in both pure manner and pure results." Thus, in one of its possible many senses, manner simply relates to a subject carrying out an action (this not being the case with result verbs), and this sense is also encoded in prototypical manner verb such as *run*, *wipe* or *sweep*. Of course, the manner component can be more complex in other verbs, but the canonical manner component stays constant, i.e. that of performing an action. Other manner verbs such as *run* or *swim* have a more detailed manner component since they encode an action (in this case, a manner of movement) in a specific way (running differs from jogging, walking and swimming since the movement and pace are different). In this respect, RHL (p. 33) note that "verbs of non-scalar change [manner verbs] need not always be so specic about the precise changes [manners] they involve." Hence, manner verbs can encode specific manners of actions or leave this manner of action not so specified, yet regardless of the degree of specification, manner verbs always encode an action.

In a similar vein, one could object to the claim that *murder* encodes a manner of action by arguing that it is possible to provide "actual" manners of action (i.e. murder someone by poisoning/shooting/hanging/etc. them).[42] I argue that this is parallel to the fact that one can also provide more specific manners with some prototypical manner verbs such as *exercise* (e.g. exercise by running/swimming/jumping/etc.). However, the fact that *exercise* can be modified by more specific manners does not mean that it does not encode a manner of action; it simply tells us that its manner component is highly unspecified (as with other manner verbs like *work*). As a matter of fact, RHL (p. 33) note that the manner of action in *exercise* is not so specific:

> The verb *exercise*, for example, requires an unspecied set of movements, whose only dening characteristic is that they involve some sort of activity, typically physical, but on occasion mental.

Thus, this low degree of specificity of the manner of action is found in *murder*. Although it is true that you can murder someone by poisoning/shooting/crucifying/etc. them, these means are just extra modifiers of the manner of action encoded, i.e. carrying out an intentional action, and they simply provide the specific means the subject employs when performing the intentional action encoded by the root. Thus, as expressed above, what is relevant is whether the verb encodes an action, and this is the case for *murder* and *slay* (and for any other manner verb) as I have argued, employing

[42]The case of *slay* is more complex in that it seems to have more specific entailments apart from encoding an intentional action since it does not seem to be possible to slay someone, for instance, by poisoning or hanging them. According to native informants, this verb seems to involve a violent contact or violence in the act of killing or the use of a sharp instrument.

the diagnostics as laid out in BKG and RHL, that these are monomorphemic/nonderived verbs which have both manner and result entailments encoded in a single root.

4 Concluding remarks

This paper has focused on two verbs of killing, namely *murder* and *slay*, in order to argue that it is possible for some roots to encode both a manner of action and a result state. Subsequently, this poses a problem for MRC, as a hypothesis on what entailments can be encoded in a single root, as I have argued that both *murder* and *slay* encode a manner of action, i.e. an intentional action, and a result state, i.e. the death of their patients, which contrasts with *kill* as it only encodes a result state. Crucially, however, these verbs are not polysemous between manner and result uses, as Levin and Rappaport Hovav (2014) argue for *clean*, in that the manner "drops out" in result uses and viceversa, as I have shown that both manner and result stay constant in any use of these verbs, e.g. the result state is specified even in manner configurations (e.g. *way*-construction).

The analysis of *murder* and *slay* as manner-result encoding verbs has consequences for the role that intentionality and agent entailments play within the analysis of verb meaning, as intentionality appears to have more significant consequences than previously acknowledged. As it has been argued, encoding intentionality, i.e. agent entailments, appears to be sufficient to induce manner properties, since such entailments are responsible for inducing the manner properties in both *murder* and *slay*.

Lastly, I agree with BKG and Mateu and Acedo-Matellán (2012) that MRC does hold at the event structure level in that a single root cannot be inserted into two different positions, or the same event structure cannot have more than one root. Thus, at this level there exists a complementarity between manner and result. However, the data seem to show that, contra RHL, manner and result can be both part of the lexical entailments of some roots. This strongly suggests that MRC does not hold as a restriction on the lexical entailments of roots, as roots generally encode a result state by leaving unspecified how such result state was brought about or they encode a manner of action without specifying any result state from that action, but there are some roots that can indeed encode both a manner of action and a result state.

5 References

ACEDO-MATELLÁN, V., AND MATEU, J. 2014. From syntax to roots: A syntactic approach to root interpretation. *The Syntax of Roots and the Roots of Syntax*, ed. by A. Alexiadou, H. Borer, and F. Schäfer, 14-32. Oxford University Press, Oxford.

ACQUAVIVA, PAOLO. 2008. *Lexical plurals: A morphosemantic approach*. Oxford: Oxford University Press.

ACQUAVIVA, PAOLO. 2014. The roots of nominality, the nominality of roots. In *The syntax of roots and the roots of syntax*, ed. Artemis Alexiadou, Hagit Borer, and Florian Schaefer, 33–56. Oxford: Oxford University Press.

ALEXIADOU, ARTEMIS, ELENA ANAGNOSTOPOULOU, AND FLORIAN SCHÄFER. 2015. *External arguments in transitivity alternations: A layering approach*. Oxford: Oxford University Press.

ARSENIJEVIC, BOBAN. 2010. On the syntactic nature of manner-incorporation. Unpublished ms. Barcelona: Universitat Pompeu Fabra.

BARKAI, ADAM. 1972. On the Shiftability of Past Participles in English. *Linguistic Inquiry* 3, 377-378.

BEAVERS, JOHN. 2008. Scalar complexity and the structure of events. In *Event structures in linguistic form and interpretation*, ed. by Johannes Dölling, Tatjana Heyde-Zybatow, and Martin Schäfer, 245-265. Walter de Gruyter.

BEAVERS, JOHN. 2011. On affectedness. *Natural Language and Linguistic Theory* 29, 335-370.

BEAVERS, JOHN AND ANDREW KOONTZ-GARBODEN. 2012. Manner and result in the roots of verbal meaning. *Linguistic Inquiry* 43(3): 331-369.

BEAVERS, JOHN AND ANDREW KOONTZ-GARBODEN. 2017. Result verbs, scalar change, and the typology of motion verbs. *Language* 93(4), 842-876.

BORER, HAGIT. 2003. Exo-skeletal vs. endo-skeletal explanations: Syntactic projections and the lexicon. In *Explanation in linguistic theory*, ed. Masha Polinsky, and John Moore, 31–67. Stanford: CSLI.

BORER, HAGIT. 2005. Structuring sense. Oxford: Oxford University Press.

FÉREZ, PAULA C. 2007. Human locomotion verbs in English and Spanish. *International journal of English studies* 7, 117-136.

GOLDBERG, ADELE E. 1995. *Constructions: A construction grammar approach to argument structure*. University of Chicago Press.

GOLDGERG, ADELE E. 2010. Verbs, constructions and semantic frames. In *Syntax, Lexical Semantics, and Event Structure*, ed. by Edit Doron, Malka Rappaport Hovav, and Ivy Sichel, 39-58. Oxford: Oxford University Press.

HAY, JENNIFER, KENNEDY, CHRISTOPHER, AND LEVIN, BETH. 1999. Scalar structure underlies telicity in 'degree achievements'. *SALT* 9.

HUSBAND, E. MATTHEW. 2011. Rescuing manner/result complementary from certain death. *Proceedings of the 47th annual Chicago Linguistics Society*. CLS.

KENNEDY, CHRISTOPHER AND LOUISE MCNALLY. 2005. Scale structure, degree modification, and the semantics of gradable predicates. *Language* 81, 345-381.

KENNEDY, CHRISTOPHER AND LEVIN, BETH . 2008. Measure of change: The adjectival core of degree achievements. In *Adjectives and Adverbs: Syntax, Semantics and Discourse*, ed. by Louise McNally and Cristopher Kennedy, 156-82.

KEARNS, KATE. 2000. Semantics. New York: St. Martin's.

KIPARSKY, PAUL. 1997. Remarks on denominal verbs. In *Complex Predicates*, ed. by Alsina, A., Bresnan, J. and Sells, P, 473-499. Stanford: CSLI.

LAKOFF, GEORGE. 1965. *On the nature of syntactic irregularity*. Doctoral dissertation, Indiana University, Bloomington. Published as *Irregularity in syntax*. New York: Holt, Rinehart and Winston 1970.

LEVIN, BETH. 1993. *English verb classes and alternations: A preliminary investigation*. Chicago: University of Chicago Press.

LEVIN, BETH, AND MALKA RAPPAPORT HOVAV. 1991. Wiping the slate clean. *Cognition* 41, 123–151.

LEVIN, BETH, AND MALKA RAPPAPORT HOVAV. 2006. Constraints on the Complexity of Verb Meaning and VP Structure. In *Between 40 and 60 puzzles for Krifka*, ed. Hans-Martin Gärtner, Sigrid Beck, Regine Eckardt, Renate Musan, and Barbara Stiebels. Berlin: ZAS.

LEVIN, BETH, AND MALKA RAPPAPORT HOVAV. 2013. Lexicalized meaning and manner/result complementarity. In *Studies in the composition and decomposition of event predicates*, ed. Arsenijević, Boban, Berit Gehrke, and Rafael Marín, 49-70. Springer Netherlands.

LEVIN, BETH, AND MALKA RAPPAPORT HOVAV. 2014. Manner and result: The view from clean. In *Language Description Informed by Theory*, ed. By Pensalfini, Rob, Myfany Turpin, and Diana Guillemin, 337-358. John Benjamins Publishing Company.

MATEU, JAUME AND VÍCTOR ACEDO-MATELLÁN. 2012. The manner result complementarity revisited: A syntactic approach. In *The end of argument structure? Syntax and semantics*, Vol. 38, ed. María Cristia Cuervo, and Yves Roberge, 209–228. New York: Academic Press.

RAMCHAND, GILLIAN. 2014. *On structural meaning vs. conceptual meaning in verb semantics*. Linguistic Analysis 39, 1–2.

RAPPAPORT HOVAV, MALKA, AND BETH LEVIN. 1998. Building verb meanings. In *The projection of arguments: Lexical and compositional factors*, ed. By Miriam Butt and Wilhelm Geuder, 97-134. Standford, CA: CSLI Publications.

RAPPAPORT HOVAV, MALKA, AND BETH LEVIN. 2010. Reflections on manner/result complementarity. In *Syntax, lexical semantics, and event structure*, ed. By Edit Doron, Malka Rappaport Hovav, and Ivy Sichel, 21-38. Oxford: Oxford University Press.

RAPPAPORT HOVAV, MALKA. 2008. Lexicalized meaning and the internal structure of events. In *Theoretical and crosslinguistic approaches to the semantics of aspect*, ed. by Susan Rothstein, 13-42. Amsterdam: John Benjamins.

RAPPAPORT HOVAV, MALKA. 2014a. Lexical content and context: The causative alternation in English revisited. *Lingua* 141, 8-29.

RAPPAPORT HOVAV, MALKA. 2014b. Building scalar changes. In *The Syntax of Roots and the Roots of Syntax*, ed. by A. Alexiadou, H. Borer, and F. Schäfer, 259-281.

Oxford University Press.

RAPPAPORT HOVAV, MALKA. 2017. Grammatically relevant ontological categories underlie manner/result complementarity. *Proceedings of IATL 32*, Hebrew University of Jerusalem.

REINHART, TANYA. 2002. The theta system – an overview. *Theoretical Linguistics* 28, 229–290.

SCHÄFER, FLORIAN. 2008. The causative alternation. *Language and Linguistics Compass* 3(2), 641-681.

VAN VALIN, ROBERT D., JR., AND DAVID P. WILKINS. 1996. The case for "effector": Case roles, agents, and agency revisited. In *Grammatical constructions: Their form and meaning*, ed. by Masayoshi Shibatani and Sandra A. Thompson, 289–322. Oxford: Oxford University Press.

ZLATEV, JORDAN, AND PEERAPAT YANGKLANG. 2004. A third way to travel: The place of Thai in motion-event typology. *Relating events in narrative 2: Typological and contextual perspectives*, ed. by Sven Strömqvist and Ludo Verhoeven, 219–57. Mahwah, NJ: Lawrence Erlbaum.