On (im)possible verb meanings: the role of intentionality

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Abstract

An important question in lexical semantics relates to (im)possible verb meanings, i.e. whether there are constraints in the lexical entailments of verbs. In this respect, Rappaport Hovav and Levin (2010) argue that verbs are constrained in terms of truth-conditional content insofar as a single verb encodes a manner of action or a result state, but never both. In the present paper, I defend the view put forth in Beavers and Koontz-Garboden (2012) regarding the claim that verbs are actually not constrained in terms of lexical entailments, insofar as the truth-conditional content of verbs can indeed make reference to both a manner and a result. To this end, I focus on what I call *murder* (i.e. *murder*, *slay*, *assassinate*, *massacre* and *slaughter*) and *manner-of-stealing* verbs (i.e. *rob*, *mug*, *seize* and *snatch*) and argue that these verbal classes encode a manner of action that brings about a result state. Regarding the manner of action, I argue that such verbal classes encode an intentional-type action that is performed in order to bring about a specific result state. Thus, I contend that agent entailments, in this case, intentionality, are sufficient to induce manner properties. Last, by making use of sublexical modification, I show that the manner and result entailments of *murder* and *manner-of-stealing* verbs are encoded in a single root and therefore showing that root meanings can be more complex than previously assumed.

Keywords: lexical semantics; verb meaning; roots; manner; result; intentionality; sublexical modification

1 Introduction

The question of (im)possible verb meanings, i.e. whether there are constraints or limitations in the lexical entailments of verbs, has been a recurrent question in linguistics (at least) since Lakoff (1965) and Dowty (1979). Prima facie, there does not seem to be any reason why there should exist constraints or limitations regarding the complexity of actions or states verbs denote, since, as Grimshaw (2005) already suggests, verb meanings, or more specifically, the semantic content of verbs does not seem to be constrained in terms of complexity. Consider what Grimshaw (2005: 85) notes in this respect.

Suppose there is a manufacturing process that involves pulverizing something then mixing it with molten plastic, allowing it to harden, and then encasing it in steel. Of course we can label the entire process with one verb: to *smolt*, for example.

However, there is an alternative option, namely assuming that the idiosyncratic meaning of verbs is actually constrained in that verbs can only encode a (manner of) action or a (result) state, but never both, i.e. there are no verbs that encode a type of action that gives rise to a specific state.[1] In fact, this is the assumption taken by Rappaport Hovav and Levin (2010), as they argue that actions and states are in complementary distribution insofar as a single verb can only encode a (manner of) action or a (result) state, but never both.

In this paper, following recent claims in the literature by Mateu and Acedo-Matellán (2012) and Beavers and Koontz-Garboden (2012, 2017a, 2020), I argue that verbs are not constrained in terms of idiosyncratic meaning, i.e. in truth-conditional terms understood as the lexical entailments of a verb (see Dowty 1989). In other words, there are no limits in the semantic content of verbs, as per Grimshaw (2005). In this respect, I argue that some of the *murder* verbs by Levin (1993: 230-232), i.e *murder*, *slay*, *assassinate*, *slaughter* and *massacre*, encode a manner of action that gives rise to a specific result state, i.e. *death* in this case. Regarding the type of manner of action these verbs encode, I take on a modest goal and simply isolate a type of action that is common across all *murder* verbs. In this respect, I claim that these verbs encode an intentional-type action that is carried out intentionally in order to bring about the result state encoded by the verb. Other verbs in the same class, however, may have more complex manner entailments. For instance, as I discuss in §5, *massacre* also involves magnitude of killing and *slay* further requires violence and the use of a sharp object, yet *murder* verbs all have in common this type of manner of action, namely an intentional action that is carried out intentionally with a specific purpose, i.e. the bringing about of the death of a theme.

The analysis of *murder* verbs as manner-result encoding verbs makes the prediction that if a verb encodes a result state and also intentionality, it is predicted then to pattern as both manner and result. I show that this prediction is actually borne out by analyzing some of the *steal* and *cheat* verbs by Levin (1993: 128-130), which I call *manner-of-stealing verbs* in a broad sense, and include *rob*, *mug*, *seize* and *snatch*. I argue that this class of verbs also pattern as both result and manner as they pass standard result and manner diagnostics. More specifically, as Levin (1993: 128-129) notes, these verbs encode a change of possession, which is a type of result. Yet, they also encode intentionality, i.e. they encode an intentional action that is carried out intentionally in order to bring about a specific (result) state, and therefore pattern as manner verbs as well. Of course, as with *murder* verbs, some *manner-of-stealing* verbs may have more complex manners of actions than simply the carrying out of an intentional action, yet such a manner of action is common across all *manner-of-stealing* verbs.

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[1]In the present paper, I use *encode* to make reference to lexical entailments of verbs. Thus, a verb encodes a result state or a manner of action if it entails it (cf. *#John killed the men, but the men did not die*).

After analyzing both *murder* and *manner-of-stealing* verbs, I conclude that agent entailments (Dowty 1991), in the present case intentionality, are sufficient to induce manner properties, and therefore showing that intentionality has more important consequences for the study of verb meaning than previously acknowledged.

This paper is structured as follows. In §2, I present the claim about (im)possible verb meanings known as Manner/Result Complementarity. In §3, I briefly summarize one of the most influential approaches against Manner/Result Complementarity (as a claim on the lexical entailments of verbs), i.e. the account by Beavers and Koontz-Garboden (2012). In §4, I present the analysis of *murder* and *manner-of-stealing* verbs and note that they pattern as manner-result encoding verbs when subject to relevant diagnostics. I argue then that such verbal classes encode both a manner and a result and therefore violate Manner/Result Complementarity as a claim on the truth-conditional content of verbs. In the same section, I make use of sublexical modification in order to show that manner and result entailments in such verb classes are encoded in a single root insofar as sublexical modifiers cannot take scope over the manner to the exclusion of the result, further showing that manner and result can be part of the entailments of some verbal roots. §5 presents some final remarks on manner and result. §6 concludes the paper.

2   Manner/Result Complementarity

One of the most influential claims regarding (im)possible verb meanings is probably the so-called Manner/Result Complementarity (Rappaport Hovav and Levin 2010), the claim that holds that simplex verbs fall into two wide semantic classes, i.e. manner verbs, which encode a manner of action, but not any result state from that action, and result verbs, which encode a result state but not the manner of action that brought about the result state.

(1)   a.   Manner verbs: *wipe*, *run*, *poison*, *scrub*, *sweep*, etc.
        b.   Result verbs: *clean*, *arrive*, *kill*, *clear*, *remove*, etc.

It is important to note that Manner/Result Complementarity crosscuts the transitive and intransitive distinction, in the sense that transitive and intransitive verbs can be further subdivided into (in)transitive manner and result verbs. As Rappaport Hovav (2017) notes, semantic classes can be also subdivided into verbs which encode a manner of action, but not any result state, and verbs which encode a result state, but not any manner of action. Compare this in the semantic classes of motion (2), change of state (3) and speech (4) (adapted from Rappaport Hovav 2017: 77-78).

(2)   a.   Manner verbs: *run*, *jog*, *walk*, *swim*, *dance*, etc.
        b.   Result verbs: *arrive*, *fall*, *go*, *rise*, *approach*, etc.

(3)   a.   Manner verbs: *hit*, *beat*, *rub*, *scrub*, *wipe*, etc.
        b.   Result verbs: *break*, *kill*, *clean*, *empty*, *remove*, etc.

(4)   a.   Manner verbs: *whisper*, *yell*, *murmur*, *scream*, *below*, etc.
        b.   Result verbs: *say*, *propose*, *declare*, *proclaim*, *admit*, etc.

Rappaport Hovav and Levin (2010) (see also Levin and Rappaport Hovav 1991, 1995, 2005, 2006, 2013, 2014; Rappaport Hovav and Levin 1998; Rappaport Hovav 2014, 2017; Levin 2017) make the strong claim that a simplex verb, i.e. a nonderived, monomorphemic verb, cannot encode both a manner of action and a result state. In other words, there are no manner-result encoding verbs, as manner and result meanings are argued to be in complementary distribution (5).

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

More specifically, Rappaport Hovav and Levin (hereafter, RHL) argue that Manner/Result Complementarity is a claim regarding root meaning, in the sense that it is a claim not necessarily about verbs, but more specifically about the nature of root meaning. Thus, although there are languages in which verbs clearly express a manner of action that brings about a result state, RHL note that in these cases prefixes and stems combine to form complex verbs, i.e. manner and result are not expressed by a single verb, but instead by prefixes with combinations with stems. For instance, RHL (p. 26) note that in Lakhota, there are verb stems that describe result states such as –*blecha* 'be shattered' and a group of prefixes that describe different manners of action, e.g. *ya*– 'with the mouth'. In Lakhota, prefixes and stems can combine to form complex verbs such as *yablecha* 'break or cut with the teeth', which would express both a manner of action and a result state. However, such cases would not violate Manner/Result Complementarity in the sense that it is a hypothesis on root meaning, and those verbs are clearly bimorphemic.

Regarding the formal implementation of Manner/Result Complementarity, RHL argue that such a complementarity follows from the architecture of event structure (see Rappaport Hovav and Levin 1998), in the sense that roots are inserted as modifiers of the so-called ACT predicate (6-a), or as arguments of the so-called BECOME predicate (6-b), but never as both. In other words, a single root cannot occupy two different positions at the same time, i.e. be an argument and a modifier at the same time.

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

More specifically, RHL argue that "there is a constraint on how roots can be associated with event schemas, which in turn constraints the meaning that a root can lexicalize." The constraint RHL refer to is the one known as 'The lexicalization constraint', which is defined as follows.

(7)   The lexicalization constraint: A root can only be associated with one primitive predicate in an event schema, as either an argument or as a modifier.

RHL conclude then that Manner/Result Complementarity follows since the roots of manner verbs (e.g. $\sqrt{\text{WIPE}}$) are always inserted as modifiers as the root encodes a manner, whereas the roots of result verbs (e.g. $\sqrt{\text{BREAK}}$) are always inserted as arguments as the root, in this

case, encodes a (result) state. RHL assume then that it is the ontological-type classification of the root that determines how such a root is inserted in the event structure, taking manner and result as basic ontological types (see Rappaport Hovav and Levin 1998). RHL thus assume that each root has an ontological type that constraints and/or determines the syntactic structures they can appear in. In other words, RHL propose that roots have two basic ontological types, manner and result, which determine then that roots are inserted as modifiers or as an arguments, but never as both.[2]

It is important to note that, as Beavers and Koontz-Garobden (2012: 333) point out, Manner/Result Complementarity is actually a twofold claim insofar as (a) it constraints 'how much' meaning roots can have and (b) it determines how roots are inserted in the event structure (see also Mateu and Acedo-Matellán 2012). Thus, Manner/Result Complementarity can be now (re)defined as in (8) (adapted from Beavers and Koontz-Garboden 2012: 354).

(8)   a.   A single root is inserted as a modifier or as an argument, but never as both.
       b.   A single (simplex) verb can only encode a manner of action or a result state, but never both.

In the next section, I briefly summarize the proposal by RHL to equate manner and result with so-called scalar and nonscalar changes. In this respect, there is a (recent) growing body of literature that has proposed to analyze changes of state and location, i.e. result states, as scalar changes since both changes of state and location are argued to involve the transition of a theme along a scale.

2.1   Manner and result as (non)scalar changes

Recently, many linguists have proposed that changes of state or location, i.e. result states, can be represented as scales of change. The motivation for this can be found in the work of Tenny (1994) (see also Verkuyl 1972; Krifka 1989). In this respect, Tenny characterized the direct object as the argument that "measures out" the event, i.e. "progress in the development of the described event can be monitored through the extent of the referent of the direct object" (Rappaport Hovav 2014: 259). In other words, in an event, for instance, of *eating an apple*, the progress of the development of the event can be monitored through the extent of the apple. As Rappaport Hovav (2014: 260) points out, many linguists then formalized the notion of "measuring out" by Tenny as a scale of change due to the fact that the properties that are associated with both change of state and direct motion verbs can be formalized as scales of change (Dowty 1991; Tenny 1994; Ramchand 1997; Hay et al. 1999; Kennedy and McNally 2005; Beavers 2008, 2011b, 2013; Kennedy and Levin 2008; Rappaport Hovav 2008;

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[2]For root ontologies, see Rappaport Hovav and Levin (1998); Harley and Noyer (2000); Reinhart (2002); Ramchand (2008, 2014); Alexiadou et al. (2006, 2015); Rappaport Hovav (2017), amongst others. Instead, the view that roots have an ontological-type classification relevant when determining grammatical properties is rejected in Borer (2003, 2005); Acquaviva (2008, 2014); Mateu and Acedo-Matellán (2012); Acedo-Matellán and Mateu (2014), amongst others. While it seems reasonable to assume that roots have an ontological-type classification that determines syntactic distribution, this does not necessarily imply that manner and result cannot be part of the entailments of roots.

Rappaport Hovav and Levin 2010; Rappaport Hovav 2014; Beavers and Koontz-Garboden 2012, 2017a, a.o). In other words, in the events described by both classes of change of state/location verbs, a participant necessarily moves from an initial state or location to a different one at the end of the event, which results then in a change of state or location. It is important to note that in the approaches that represent changes of state and location as scalar changes the only difference between change of state and directed motion verbs has to do with the type of scale lexicalized and not with differences in their event structure (Beavers 2011b). In this respect, Beavers (2011b) proposes that direct motion verbs lexicalize location scales, describing changes of location (e.g. *arrive, send, go*), and change of state verbs lexicalize property scales, describing changes of state (e.g. *die, flower, shatter*), yet both change of state and directed motion verbs denote scalar changes.[3]

Within this scalar approach to changes of state and location, a scale is assumed to be 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. For instance, a warming and a cooling event differ in the ordering relation of the degree of temperature, i.e. in the increasing and decreasing of the temperature that holds of the theme (Kennedy and McNally 2005). Similarly, the verb *break* is also related to an attribute, i.e. *broken*, which holds of a theme when it participates in a breaking event. In more formal terms, a scale is usually defined in terms of a triple relation (from Beavers and Koontz-Garboden 2020: 37), as in (9).

(9)   a. δ = some property/dimension (e.g. for height, length, straightness, temperature, proximity to some reference point)

        b. S = a set of (intervals of) degrees for having property δ

        c. R = an ordering of members of S (determining directionality)

In addition, the type of scale, whether it is a two-point (i.e. closed), e.g. *kill*, or a multi-point scale (i.e. open), e.g. *warm* (Beavers 2008), is argued to determine gradability, telicity and durativity (Beavers 2008, 2011b). For instance, the scale lexicalized by *die* is a two-point scale, as it involves the transition from *alive* to *dead*, and this is reflected in a nongradable attribute (10-a), in telicity (10-b) and in durativity (10-c). Multi-point scales, e.g. *cool*, are, on the other hand, generally gradable (11-a), can have variable telicity (11-b) and can be durative (11-c).

(10)   a.   #More dead/#deader.

        b.   John died in 1 hour/#for 1 hour.

        c.   John will die in 1 hour/It took John 1 hour to die. (*after* 1 hour reading)

(11)   a.   Cooler.

        b.   Jon cooled the soup in 1 hour/for 1 hour.

        c.   John will cool the soup in 1 hour/It took John 1 hour to cool the soup. (*af-*

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[3]Beavers (2011b) proposes a third type of scale, i.e. extent scales, selected by consumption (e.g. *eat, drink*) and creation (e.g. *build, write*) verbs. However, Rappaport Hovav (2008) argues that consumption verbs do not lexicalize any type of scale, since verbs such as *eat* pattern like manner verbs. For the present purposes, I leave aside extent scales, since verbs of consumption and creation fall outside the scope of the present paper, but see Rappaport Hovav (2008) and Beavers (2008, 2011b, 2013).

ter/during 1 hour readings)

In this vein, RHL propose to equate result and manner verbs with scalar and nonscalar changes, respectively, where a scalar change is understood to involve "a change in value of [an] attribute in a particular direction along [a] scale, with the direction specified by the ordering relation." For instance, as expressed above, the verb *die* is related to an attribute, namely *dead*, which necessarily holds of a theme when it participates in a dying event. A scalar change then involves a change in some property or value of a participant, e.g. be *dead/cool/broken* after an event of *dying/cooling/breaking* or be in *x* location after an event of *arriving/descending/rising*. In other words, scalar changes involve the transition of a participant along the scale lexicalized by the result verb and therefore a modification in the degree of some value or property of that participant, e.g. a soup becoming cooler or warming after an event of *cooling* and *warming* respectively. Within verbs that encode directed motion (i.e. a type of result), e.g. *arrive*, *fall*, *go*, etc. the scalar attribute is understood to be related to the location of a theme in respect of a reference object (RHL p. 29). More specifically, note what Rappaport Hovav (2014: 267) argues in this respect:

> Being located relative to a reference object (RO) is the relevant scalar attribute in all cases. When the theme and the RO are displaced in space, the set of contiguous points of location between them form a path. The path can be considered a multipoint spatial scale consisting of this set of points [...] and being located at one of these points on the path is the relevant gradable property.

Crucially, the path encoded by directed motion verbs constitutes a scale, and therefore directed motion verbs encode a result state, since its points are ordered (RHL p. 29). In this respect, RHL (p. 29) argue that English directed motion verbs can be classified into two classes depending upon how such ordering relation is constituted. In directed motion verbs like *ascend* or *fall* the ordering relation is completely specified by the verb. For instance, in *fall* "the points on the path are ordered in the direction of gravity, while with ascend they are ordered against it" (RHL p. 79). In other directed motion verbs like *arrive* or *leave* "the points on the path are ordered according to whether they are closer to or further away from [a reference] object." Thus, though directed motion verbs differ with respect to how the points on the path are established, both types of directed motion verbs encode a change of location (i.e. a result state) since an entity necessarily traverses the path lexicalized by the verb. That an entity necessarily traverses the path in the case of directed motion verbs and therefore undergoes a change of location can be illustrated by making use of the the *x is somewhere else* diagnostic by Beavers (2011b), which picks out changes of location. As shown in (12) such a diagnostic results in a contradiction if the verb encodes a change of location.

(12)   a.   John just descended (to the cave), #but he is not somewhere else.
        b.   The rocket just fell (into the hole), #but it is not somewhere else.
        c.   Sally just arrived (in the UK), #but she is not somewhere else.

In contrast to result verbs as verbs that encode scalar changes, RHL characterize manner verbs as verbs encoding nonscalar changes, where nonscalar changes are defined as "any changes

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that cannot be characterized in terms of an ordered set of values of a single attribute." (RHL p. 32). Thus, nonscalar changes relate to complex combinations of various changes, but these complex combinations do not constitute an ordered relation and therefore no scalar change follows, as the verbs do not lexicalize any scale of change. In this respect, note what RHL (p. 33) argue for a manner verb like *jog*, considered a canonical verb encoding nonscalar changes.

> The verb *jog* involves a specific pattern of movements of the legs, one that is different, for example, from the pattern associated with *walk*. Furthermore, even though there is a sequence of changes specified by *jog*, collectively these changes do not represent a change in the values of a single attribute, nor is any one element in the sequence of changes privileged as being the necessary starting point of motion; that is, one can start jogging by moving one's left leg first or one's right leg first.

Such manner of motion verbs thus do not encode a result state, in this case a change of location, which is illustrated by the fact that verbs like *jog* do not constitute a contradiction in the diagnostic by Beavers (2011b), which contrasts with directed motion verbs as in (12).

(13)   a.   John just jogged for hours, but he is not somewhere else.
       b.   John just ran for hours, but he is not somewhere else.
       c.   John just swam for hours, but he is not somewhere else.

In short, whereas scalar changes are simple in the sense that they involve "a directed change in the values of a single attribute" (RHL p. 32), nonscalar changes instead involve "complex sequence[s] of separate changes that collectively define an action, but do not necessarily add up to a single cumulative change along any one dimension." (Beavers and Koontz-Garboden 2012: 343).

3   Against Manner/Result Complementarity

Over the years, Manner/Result Complementarity has been challenged in the sense it has been argued to not hold categorically (Férez 2007; Zlatev and Yangklang 2004; Goldberg 2010; Husband 2011, and see Levin and Rappaport Hovav 2013, 2014 and Rappaport Hovav 2017 for some responses). The most influential contribution in this respect is possibly the one by Beavers and Koontz-Garboden (2012) (hereafter, BKG).

BKG focus on what they call *manner-of-killing* verbs (i.e. *drown*, *guillotine*, *hang*, *electrocute* and *crucify*) in order to make their main argument against Manner/Result Complementarity as a claim on the truth-conditional content of verbs. In this respect, it is important to recall that verbs of killing are often divided into those that only encode a result state, but not a manner-of-killing (e.g. *kill*), and those that encode a manner of killing, but not a result state (e.g. *poison*), i.e. what Levin (1993) calls *poison* verbs. However, regarding some *poison verbs*, Levin (1993: 232) herself acknowledges that "[...] 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 *poison* verbs previously

classified as manner by Levin actually encode a manner of action that brings about a result state, i.e. what they call *manner-of-killing* verbs.[4]

BKG thus argue that there exists a third class of verbs, i.e. manner-result encoding verbs, and therefore that manner and result can be part of the entailments of some roots, contra RHL. To this end, BKG first develop several manner and result diagnostics following the definitions of result and manner by RHL and show that *manner-of-killing* verbs pattern as both manner and result when subject to relevant diagnostics. In addition, they also make use of sublexical modification with *again* and *re-* (see von Stechow 1995, 1996; Beck and Snyder 2001; Beck and Johnson 2004; Marantz 2007, 2009) in order to show that manner and result are part of the meaning of the roots of *manner-of-killing* verbs. In this respect, BKG note that sublexical modification in the case of the roots of *manner-of-killing* verbs cannot pick manner and result entailments apart since such meanings are encoded in a single root, or, in their words, "packaged together".

Rappaport Hovav (2017), however, has recently argued that *manner-of-killing* verbs are not relevant to Manner/Result Complementarity in that they are denominal, and therefore morphologically derived despite not displaying any overt morphology (i.e. *guillotine*) or they are not monomorphemic (i.e. *crucify, electrocute*), and therefore irrelevant as Manner/Result Complementarity is a claim about root meaning.[5] In a similar vein, Rappaport Hovav argues that *drown* does not encode any manner of action, but only a result state, and therefore that it does not present a counterexample. More specifically, Rappaport Hovav argues that *manner-of-killing* verbs do not actually pose a problem if Manner/Result Complementarity "is a constraint on what is encoded in roots" (p. 83). 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, though she argues that the result state is not death, but rather death is an inference from context, since "not all uses of the root $\sqrt{\text{DROWN}}$ involve a manner of killing" (p. 83). It seems then that *drown* does not encode any manner of action, since, as Rappaport Hovav points out, it permits the anticausative in English and natural forces as causers, where the notion of an action (by an agent) is irrelevant.

(14)   a.   John drowned.
           b.   The water drowned him. (adapted from Rappaport Hovav p. 85)

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[4]BKG also include two other verb classes when arguing against Manner/Result Complementarity, namely ballistic motion (i.e. *flip*, *throw* and *toss*) and manner of cooking verbs (i.e. *braise*, *poach* and *sauté*), which they claim to be counterexamples as well. In the present section, I only mention manner-of-killing since such a class is the main case study they consider when arguing against Manner/Result Complementarity.

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

Regarding the last *manner-of-killing* verb, *hang*, although Rappaport Hovav does not develop a full analysis of such verb, she nonetheless suggests that a similar analysis could be derived for this verb, as she takes it to be a result verb, rather than a manner verb. In this respect, it is important to note that Beavers and Koontz-Garboden (p. 338) argue that *hang* encodes a result since *John just hanged Joe, but nothing is different about him* is judged to be a contradiction according to them. 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 that they "believe it to be death" (p. 339). It seems, however, that death in *hang* is also an inference from context in that, amongst other things, someone can survive being hanged, and naturally-occurring examples are not hard to find.

(15)   Iranian man who survived execution must be hanged again, judges say.[6]

In addition, *hang* is compatible with a *to death* resultative, whereas verbs of killing that clearly encode this result do not permit it, as illustrated in (16-a). Although Beavers and Koontz-Garboden argue that some of their *manner-of-killing* verbs allow *to death* resultatives redundantly specifying death, these verbs appear to permit *to death* resultatives since they do not seem to encode the death of their patient; rather, this is an inference from context.

(16)   a.   #John murdered/assassinated the president to death.
           b.   They were hanged to death.[7]

This is in line with what Arsenijević (2010) argues regarding *manner-of-killing verbs*, i.e. that the result of death "is rather a matter of inference relying on real world knowledge, than a real entailment of the verb" (p. 18).

In short, Manner/Result Complementarity is one of the most influential claims about possible verb meanings, insofar as it makes some interesting, and testable, predictions about verb meaning. Upon closer inspection, such a complementarity is actually a twofold claim, one about the possible lexical entailments of roots, and another about the architecture of event structure.

With this background in mind, in the next section, I defend the view initially put forth by Beavers and Koontz-Garboden (2012), namely that Manner/Result Complementarity is contrary to fact in the sense that the truth-conditional content of roots can have both manner and result entailments at the same time, contra RHL and Rappaport Hovav (2017). In order to make my case, I focus on monomorphemic, nonderived verbs, i.e. simplex verbs, from two different verb classes, i.e. some of the *murder* verbs by Levin (1993) and what I have called *manner-of-stealing* verbs, i.e. which include some of the verbs from the verb classes that Levin calls *steal* and *cheat* verbs, as briefly mentioned above.

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[6]https://www.theguardian.com/world/2013/oct/16/iranian-man-execution-hanged-alireza-meth
[7]https://www.theguardian.com/world/2016/mar/25/malaysia-hangs-three-men-for-in-secretive-execution

4 Agent entailments induce manner properties

In this section, I focus first on some of the *murder* verbs by Levin (1993: 230-232), i.e. *murder*, *slaughter*, *massacre*, *slay* and *assassinate*, which I simply call *murder* verbs, in order to argue that simplex verbs can encode both a manner of action and a result state, contra RHL and Rappaport Hovav (2017). In this respect, I contend that *murder* verbs encode an intentional-type action that brings about a result state, despite being simplex, therefore providing further evidence in favor of the initial claim put forth by Beavers and Koontz-Garboden (2012). The analysis of *murder* verbs as manner-result encoding verbs has further consequences for the role that intentionality plays within the study of verb meaning, since I argue that agent entailments (Dowty 1991), in this case intentionality, are sufficient to induce manner properties, and therefore that intentionality appears to be of more importance than previously acknowledged.

Regarding intentionality, it is rather an uncontroversial fact that verbs such as *murder* entail intentionality, whereas verbs like *kill* do not (Talmy 1985; Dowty 1991; Van Valin and Wilkins 1996; Lemmens 1998; Van Valin 2005; Rooryck 2011; Grano 2016; Solstad and Bott 2017; Ausensi 2019a, a.o). This difference can be illustrated by the fact *murder* verbs require their subject to be intentional, whereas *kill* does not. This is shown in the following examples, in which the presumed intentionality in *kill* can be either canceled or reinforced (17) (since it is not a lexical entailment), something not possible with *murder* verbs (18)-(19), as they encode intentionality (it is a lexical entailment of such verbs).

(17)   a.   John killed Tom unintentionally/by accident.
        b.   John killed Tom intentionally/on purpose.

(18)   a.   #John murdered Tom unintentionally/by accident.
        b.   #The wizard slew the ogre unintentionally/by accident.
        c.   #The sniper assassinated the president unintentionally/by accident.
        d.   #Noah massacred the civilians unintentionally/by accident.
        e.   #The army slaughtered innocent civilians unintentionally/by accident.

(19)   a.   ??John murdered Tom intentionally/on purpose.
        b.   ??The wizard slew the ogre intentionally/on purpose.
        c.   ??The sniper assassinated the president intentionally/on purpose.
        d.   ??Noah massacred/slaughtered the civilians intentionally/on purpose.
        e.   ??The army slaughtered innocent civilians unintentionally/by accident.

Intentionality is understood here as a verb entailment that relates to performing an action intentionally, where the entity denoted by the subject acts volitionally when performing an action with a specific intention, in this case, the causing of the death of the entity denoted by the patient. That *murder* verbs require intent by the subject when performing an action with a specific intention, whereas *kill* does not, is illustrated in the following examples, in which denying that the subject of *murder* verbs does not show intent when causing an event generates a contradiction.

(20)　　a.　John killed Tom, but didn't intend to.
　　　　b.　John killed Tom, but it wasn't his intention.

(21)　　a.　#John murdered Tom, but didn't intend to.
　　　　b.　#John murdered Tom, but it wasn't his intention.

(22)　　a.　#The wizard slew the ogre, but didn't intend to.
　　　　b.　#The wizard slew the ogre, but it wasn't his intention.

(23)　　a.　#The sniper assassinated the president, but didn't intend to.
　　　　b.　#The sniper assassinated the president, but it wasn't his intention.

(24)　　a.　#Noah massacred the civilians, but didn't intend to.
　　　　b.　#Noah massacred the civilians, but it wasn't his intention.

(25)　　a.　#The army slaughtered innocent civilians, but didn't intend to.
　　　　b.　#The army slaughtered innocent civilians, but it wasn't their intention.

Thus, *murder* verbs do require intent by the subject, whereas verbs like *kill* do not. In the next two sections, i.e. in §4.1 and §4.2, I make use of the result and manner diagnostics as implemented in RHL and Beavers and Koontz-Garboden (2012) in order to argue that *murder* verbs are simplex verbs that encode a manner of action that brings about a result state. *Murder* verbs contrast then with *kill*, in that the latter patterns as a canonical result verb. Thus, contra RHL and Rappaport Hovav (2017), this shows that manner and result can be part of the lexical entailments of some simplex verbs.

4.1   Result entailments

In this section, I introduce the result diagnostics as proposed by RHL, and further developed by Beavers and Koontz-Garboden (2012), and show that *murder* verbs pattern like canonical result verbs when subject to such diagnostics. It is important to recall that the notion of result assumed by RHL relates to scalar change, i.e. a change of some value or property of a participant along a scale, and therefore the result diagnostics by RHL boil down to identifying whether a single verb encodes scalar change.

4.1.1   Result diagnostic 1: Denial of result

The first result diagnostic relates to the fact that since result verbs encode scalar changes, as argued by RHL, if there is a participant that engages in an event involving a change along a scale, at the end of the event, such a participant must have an altered degree of some property or value. In other words, in a scalar change event, the participant undergoing a scalar change necessarily has a different degree of a property or value at the end of the event. Thus, an event of warming a soup necessarily involves a different degree of the temperature of the soup at the end of the event than at the beginning. One diagnostic in this respect is to deny the result state encoded by the verb by denying the past participle form of the verb (RHL;

Beavers 2011b; Beavers and Koontz-Garboden 2012).[8]

(26) a. #Noah just broke the vase, but it is not broken.
      b. #Noah just destroyed the city, but it is not destroyed.
      c. #Noah just died, but he is not dead.

Nonetheless, Beavers and Koontz-Garboden (2012: 337) note that the original diagnostic by RHL could be subject to the criticism that it does not show that all result verbs encode the 'same' notion of result. Thus, I also make use of the diagnostic as implemented in Beavers (2011b), as well as in Beavers and Koontz-Garboden (2012), namely the *something is different about x* diagnostic in order to capture that a participant has undergone a more general change (of state). For changes involving displacement, as in directed motion verbs (e.g. *arrive*), Beavers (2011b) proposes the *x is somewhere else* diagnostic, as discussed before. In short, the *something is different about x* by Beavers (2011b) identifies a notion of change (of state) which is not specific to a particular verb's entailments. Thus, transitive result verbs generate contradictions in this context, as shown in (27). Note that unaccusative verbs encoding changes of state also generate the same contradictions, as shown in (28).

(27) a. #Noah just broke the vase, but nothing is different about it.
      b. #Noah just destroyed the city, but nothing is different about it.
      c. #Noah just shattered the glass, but nothing is different about it.

(28) a. #Noah's tree just decayed, but nothing is different about it.
      b. #Noah's cat just died, but nothing is different about it.
      c. #Noah's flower just wilted, but nothing is different about it.

In contrast, the same diagnostic with canonical manner verbs, transitive (29) or unergative (30), does not result in a contradiction, consistent with the fact that they only encode a manner of action, but not any result state from that action.

(29) a. Alex just wiped the table, but nothing is different about it.
      b. Alex just hit the wall, but nothing is different about it.
      c. Alex just swept the floor, but nothing is different about it.

(30) a. Alex just worked hard, but nothing is different about her.
      b. Alex just swam quickly, but nothing is different about her.
      c. Alex just exercise for hours, but nothing is different about her.

It is important to note, however, that as Beavers and Koontz-Garboden (2012: 338) point out, "these diagnostics are insensitive to manner encoding; a verb passing one of these tests may also encode manner" and therefore this diagnostic simply picks out verbs which encode a result, regardless of the fact that the same verb can also encode a manner of action.

In this respect, *murder* verbs pattern like canonical result verbs in that they generate

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[8]Following BKG, I also use *just* in order to mitigate the effects of a possible reversing of the change, i.e. breaking something and then fixing it (cf. *John broke the vase, but nothing is different about it since Sam fixed it yesterday*).

contradictions in these contexts, i.e. explicitly stating that nothing is different about the patient or that the referent of the patient does not die after a murdering event generates a clear contradiction.

(31) a. #Tommy just murdered his brother, but he is not dead.
      b. #Tommy just slew the dragon, but it is not dead.
      c. #Tommy just assassinated the president, but she is not dead.
      d. #Tommy just massacred civilians, but they are not dead.
      e. #Tommy just slaughtered civilians, but they are not dead.

(32) a. #Sally just murdered her brother, but nothing is different about him.
      b. #Sally just slew the dragon, but nothing is different about it.
      c. #Sally just assassinated the president, but nothing is different about him.
      d. #Sally just massacred civilians, but nothing is different about them.
      e. #Sally just slaughtered civilians, but nothing is different about them.

4.1.2 Result diagnostic 2: Object deletion

The second result diagnostic relates to the interesting claim by RHL that the distinction between manner and result is grammatically relevant, since RHL argue that transitive manner and transitive result verbs further differ in argument realization. In this respect, only transitive manner verbs permit their objects to be omitted, whereas object deletion is argued to be disallowed by transitive result verbs. The facts (generally) bear this out, since, as shown below, canonical manner verbs such as *sweep* or *scrub* permit object deletion and constructions involving the deletion of the object such as *out*-prefixation, whereas canonical result verbs like *dim* or *break* generally do not.

(33) a. John swept the floor.
      b. All last night, John swept.
      c. Cinderella outswept her stepsisters.
          (from Rappaport Hovav and Levin 2002: 275)

(34) a. John scrubbed the floor.
      b. All last night, John scrubbed.
      c. Cinderella outscrubbed her stepsisters.
          (from Rappaport Hovav 2008: 23)

(35) a. John broke the vase.
      b. *All last night, John broke.
      c. *Kim outbroke the other vase-smasher.
          (from Beavers and Koontz-Garboden 2012: 339)

(36) a. John dimmed the lights.
      b. *All last night, John dimmed.
      c. *Our stage-hand outdimmed your stage-hand.
          (from Rappaport Hovav 2008: 24)

In this respect, as Beavers and Koontz-Garboden (2012: 338-339) note, Rappaport Hovav (2008: 24) proposes that disallowing object deletion follows from the fact that result verbs lexicalize scales of change, and therefore she suggests that scales "require that the participant whose property is measured by them be overtly realized". It follows, then, that result verbs do not permit object deletion, since this would involve that the participant whose property is being measured out is not overtly expressed. Similarly, from this it also follows that result verbs disallow nonselected objects since such objects also involve the deletion of the 'true' object (see Levin and Rappaport Hovav 1995). In this vein, Levin (2017: 583) also argues that the objects of result verbs must be expressed "because to know that a state holds requires looking at the entity it holds of", what she calls the 'patient realization condition.' Levin further argues that in an event of scalar change, the patient whose property is being measured out "must be expressed due to the patient realization condition and further it must be expressed as an object." From this it follows then that, as Levin (p. 584) argues, result verbs "cannot be found with unspecified objects or nonselected objects, nor can they be found in constructions where anything but their patient argument is the object." This is shown below, where canonical result verbs also disallow nonselected objects, whereas nonselected objects are permitted by manner verbs.[9]

(37)   a.   Kim scrubbed her fingers raw.
            (from RHL p. 21)
       b.   The joggers ran the pavement thin.
            (from Levin and Rappaport Hovav, 1995: 53)
       c.   The child laughed herself silly.

(38)   a.   *The toddler broke his hands bloody.
            (from RHL p. 22)
       b.   *We dimmed the room empty.
            (from Rappaport Hovav 2008: 23)
       c.   *John destroyed himself tired.
            (to mean that destroying made him tired).

In short, RHL strongly argue that if a verb encodes a result state predicated of a participant, such a participant must be given syntactic expression. As Beavers and Koontz-Garboden (2012: 338) note, this constraint might follow from Rappaport Hovav and Levin's (2001: 779) Argument-Per-Subevent Condition.

(39)   Argument-Per-Subevent Condition: There must be at least one argument XP in the syntax per subevent in the event structure.

In this respect, recall that manner and result verbs differ with regard to the subevents they involve: manner verbs are simplex as they only involve one subevent (40-a), whereas (transi-

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[9]Although RHL argue that result verbs systematically disallow object deletion and nonselected objects, there have been some authors that have shown that result verbs permit, at least, some classes of nonselected objects as well as object deletion (see Goldberg 2001; Mittwoch 2005; Mateu and Acedo-Matellán 2012; Ausensi 2019b, to appear b).

tive) result verbs are more complex insofar as they are composed of two different subevents (40-b), i.e. the causing and change-of-state event.

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

Thus, according to the Argument-Per-Subevent Condition, in result verbs the patient whose property is measured out must be expressed, since a result state involves a change-of-state (i.e. a BECOME) subevent of which a patient is the unique participant. Similarly, object deletion and nonselected objects occur with manner verbs since manner verbs do not encode a result state and therefore they do not have that additional subevent (further see Rappaport Hovav and Levin 1998).

In this respect, *murder* verbs pattern like result verbs in that they generally disallow the deletion of the object (41) and nonselected objects (42). Although *out*-prefixation is generally disallowed, there are some examples of *murder* verbs in *out*-prefixation structures, which may give further evidence to the current claim, i.e. that these are manner-result encoding verbs.

(41) a. *All last night, John murdered.
      b. *All last night, John slew.
      c. *All last night, John assassinated.
      d. *All last night, John massacred.
      e. *All last night, John slaughtered.

(42) a. *The spy murdered his hands bloody.
          (cf. Kim scrubbed her fingers raw)
      b. *The knight slew his sword bloody.
          (cf. John ran his shoes ragged)
      c. *John assassinated himself tired.
          (cf. John laughed himself tired)
      d. *John slaughtered his fingers raw.
          (cf. Kim scrubbed her fingers raw)
      e. *John massacred himself into prison.
          (cf. He effectively talked himself into prison)[10]

(43) a. He outslaughtered the Wahhabis themselves.[11]
      b. Eventually he [...] outmassacred all his rivals.[12]
      c. Mao outmurdered Hitler and Stalin combined.[13]

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[10]From *Google Books*.

[11]From *Google Books*.

[12]https://newleftreview.org/I/24/l-r-the-secret-history-of-the-mongols

[13]https://nationalpost.com/full-comment/robert-fulford-mao-outmurdered-hitler-and-stalin-combined

4.1.3 Result diagnostic 3: Restricted resultatives

The third result diagnostic relates to RHL's claim that result verbs permit a narrow range of possible result phrases, 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.[14]

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. In this vein, Rappaport Hovav (2008: 22) argues that this restriction in limited result phrases boils down to lexicalizing or not a scale of change:

> 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.

Manner verbs thus permit a wide range of result phrases predicated of their object (44-a), as well as result phrases predicated of a nonselected object (44-b) or predicated of a fake reflexive (44-c). In contrast, result verbs, such as *break* or *freeze*, are argued to only permit result phrases that further specify the result state encoded by the verb, and therefore disallow result phrases that introduce a result state distinct than the one encoded by the verb, as well as result phrases predicated of nonselected objects or fake reflexives, as illustrated below in (45) and (46) (further see Simpson 1983; Tenny 1987, 1994; Goldberg 1991, 1995; Levin and Rappaport Hovav 1995; Tortora 1998; Rappaport Hovav and Levin 2001; Wechsler 2005; Matsumoto 2006; Rappaport Hovav 2008, 2014; Beavers 2008, 2011b; Ausensi 2019b, to appear b).

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

(45) a. *John broke the vase off the table/valueless.
     b. *John broke his hands bloody.
     c. John broke the vase into pieces/in half/open.

(46) a. *John froze the soup onto the table/tasteless.
     b. *John froze himself tired.
     c. John froze the soup solid.

Regarding *murder* verbs, it does not seem to be possible to combine them with any type of result phrases. *Murder* verbs, thus, show a contrast with canonical result verbs like *break* or *shatter*, which, as discussed above, do permit some result phrases, especially those that

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[14]As Goldberg (2001) already notes (see also Goldberg and Jackendoff 2004; Ausensi in preparation), result phrases with result verbs may not be as restricted as initially thought. For instance, result path phrases are compatible with result verbs:

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

further specify the result state by the verb. Note that explicit contexts that provide further information do not appear to rescue the examples below.

(47)   a.   [John throws the man into the cold waters of the ocean]
                ??John murdered the man blue.
        b.   [John slashes the dragon several times with a sword]
                ??John slew the dragon into pieces.
        c.   [John throws rocks at the president until he dies]
                ??John assassinated the president black and blue.
        d.   [John gasses the civilians causing them to bleed]
                ??John slaughtered the civilians bloody.
        e.   [John bombs the civilians]
                ??John massacred the civilians up in the air.

In this section, I have introduced the result diagnostics as proposed by RHL and further developed in Beavers and Koontz-Garboden (2012), which are based on the notion of result as involving scalar change. Crucially, though, as expressed above, such diagnostics only pick out verbs that encode a result state, regardless of the fact that the same verb that has passed the result diagnostics could potentially encode a manner of action as well.

Thus far, I have only shown that *murder* verbs pattern like canonical result verbs when subject to the result diagnostics as developed in RHL. In the next section, then, I show that *murder* verbs also pattern like canonical manner verbs when subject to manner diagnostics as developed in Beavers and Koontz-Garboden 2012. I conclude then that *murder* verbs are manner-result encoding verbs despite being simplex, contra RHL and Rappaport Hovav (2017).

4.2   Manner entailments

Following the claim by RHL regarding the fact that manner verbs involve nonscalar changes, Beavers and Koontz-Garboden (2012) (hereafter, BKG) develop three manner diagnostics according to what they consider to be the most prototypical manner of action, i.e. moving some parts of the human body when carrying out an action, what they call being an 'actor' or 'actorhood' (further see Beavers and Koontz-Garboden 2020). BKG thus adopt RHL's definition of manner as nonscalar change, which recall, is defined as follows (RHL p. 32).

> A non-scalar change is any change that cannot be characterized in terms of an ordered set of values of a single attribute [...] The vast majority of non-scalar changes deviate from scalar changes in another, more significant respect: they involve complex changes—that is, a combination of multiple changes—and this complexity means that there is no single, privileged scale of change.

From the definition of manner as nonscalar change, BKG conclude that "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" (p. 343). In this vein, BKG note that a canonical case of nonscalar change, according to the definition of RHL, would be the

movement of arms and legs when running or walking in the sense that the several movements of the arms and legs do not constitute a particular change along any scale (p. 343). Yet, as BKG point out, although the notion of result is certainly a well-defined one in that it involves a change in the value or a property of a participant along a scale, and therefore it is possible to develop a battery of diagnostics that would pick out result entailments according to that definition, it seems that it is a difficult task to develop a battery of diagnostics that would pick out the same manner of action, since manners are more complex and diverse in the sense that they involve motion (e.g. *swim*, *jog*), ways of speaking (e.g. *whisper*, *murmur*), ways of making noise (e.g. *buzz*, *screech*) etc. (BKG p. 343). That is why BKG focus on what they call to be the most canonical manner of action, i.e. movement of the parts of the human body when carrying out a specific action. BKG note that this manner of action does imply change, as it involves movement, it is nonetheless nonscalar since it involves a series of distinct movements with no ordering relation. Thus, it qualifies as nonscalar change according to RHL.

In short, if a specific verb entails 'actorhood' as well as entailing a result state, then it is safe to conclude that there are manner-result encoding verbs. As I show next, *murder* verbs pattern like canonical manner verbs in the sense that they appear to encode 'actorhood'. More specifically, they encode an intentional action which is carried out with the intention of bringing about the result state of death of the patient.

4.2.1 Manner diagnostic 1: Selectional restrictions

The first manner diagnostic BKG develop relates to selectional restrictions that 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". Result verbs, such as *break* or *destroy*, on the other hand, place fewer selectional restrictions on the subjects and therefore allow unintentional agents, natural forces as well as instruments as subjects, whereas canononical manner verbs such as *wipe* or *sweep* disallow them.[15] Compare this in (48) and (49).

(48)   a.   The child accidentally broke/destroyed the vase.
            b.   The earthquake broke/destroyed the vase.
            c.   The hammer broke/destroyed the vase.

(49)   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 a manner of action, then that verb is predicted to restrict the type of subjects it permits according to the manner of action the verb encodes (further see Beavers and Koontz-Garboden 2017a), e.g. a verb like *wipe* only permits subjects that denote

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[15]BKG (p. 344) note that there may be exceptions to this. For instance, certain machines or instruments can appear as subjects with manner verbs, especially when the instrument is being controlled by the agent, as in *I like how this mop scrubs the floor.*

entities capable of carrying out the action denoted by the verb, i.e. capable of *wiping*. Result verbs are not restricted in this sense, as no manner of action is encoded, and therefore place no (or fewer) restrictions on their subjects.

In this respect, *murder* verbs pattern like canonical manner verbs since they restrict their subjects according to the manner of action they encode: only intentional agents that are capable of performing an intentional action (with the intention to cause the death of the patient) are permitted as subjects. Thus, unintentional agents (50), general causes (51), natural forces (52) and instruments (53) are systematically disallowed.

(50)   a. #John murdered the men unintentionally/by accident.
            b. #The spy assassinated the president unintentionally/by accident.
            c. #The knight slew the dragon unintentionally/by accident.
            d. #Kim slaughtered the civilians unintentionally/by accident.
            e. #Tim massacred all the citizens unintentionally/by accident.

(51)   a. #Cancer murdered every man in that hospital.
            b. #Pneumonia assassinated every US president.
            c. #That magical dust slew the dragon.
            d. #A terribly drought slaughtered the inhabitants in that town.
            e. #Hunger massacred the civilians.

(52)   a. #Floods murdered five US citizens.
            b. #Strong winds assassinated the president.
            c. #The magical storm slew the dragon.
            d. #The earthquake slaughtered all the inhabitants in that town.
            e. #The hurricane massacred the civilians.

(53)   a. #That machine weapon murdered my brother.
            b. #The poison from that snake assassinated the president.
            c. #The magical sword slew the dragon.
            d. #The bombs slaughtered all the citizens in that town.
            e. #This gun massacred the civilians.

In this respect, it is worth noting that *murder* verbs contrast with *kill*, since this verb does not encode any manner of action and therefore it does not impose any kind of selectional restrictions upon its subject. Thus, *kill* permits unintentional agents, natural forces, general causes, as well as instruments as subjects. Compare this in (54).

(54)   a. John killed Tom unintentionally/by accident.
            b. Floods killed thousands.
            c. Cancer killed two million people last year.
            d. That machine weapon killed thousands.

Like canonical manner verbs, *murder* verbs restrict their subjects according to the manner of action encoded, i.e. only subjects capable of performing an action intentionally with the intention to cause the death of the patient are permitted. This contrasts with *kill*, since no

manner of action is encoded and therefore it does not restrict its subject to any type.

4.2.2 Manner diagnostic 2: Denial of action

The second manner diagnostic BKG develop relates to the entailments of manner verbs encoding actorhood. In this vein, BKG argue that if a subject qualifies as 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). Thus, the *didn't move a muscle* diagnostic is the manner equivalent of the result diagnostic *something is different about x*. This seems to be a correct intuition, since in canonical manner verbs encoding actorhood, such a diagnostic generates clear contradictions.

(55)   a. #John ran, but didn't move a muscle.
        b. #John wiped the table, but didn't move a muscle.
        c. #John worked, but didn't move a muscle.

With result verbs, as BKG argue, then it should be possible to deny that an action has been performed in causing a change, since the verb encodes causation but not any manner of action or actorhood. Yet, consider what BKG (p. 345) note in this respect.

> If all result verbs encode is a result but not (any specific type of) action, then it should be possible to deny that an 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.[16]

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; in Beavers and Koontz-Garboden (2020: 176) words "if result verbs entail causation but not actorhood per se, then they should in principle be compatible with *didn't move a muscle* in a negligence context, even if other prerequisites for actorhood (e.g. being animate or human) obtain." This is shown in (56).[17]

(56)   a. 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)

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[16]It is important to point out that, as BKG note (p. 346), failing to act in some way in order to prevent a change does not always constitute causation. For instance, sentences such as *John emptied the tank* are not true if John is simply present but doing an activity that is completely unconnected with what is happening with the tank (Talmy 2000, *apud* BKG).

[17]Some of the examples of result verbs in negligence contexts may sound contradictory at first if a specific scenario is not provided, as in (56). Similarly, examples like *John killed Tom, but didn't move a muscle* may also sound contradictory without a negligence context since the default reading for result verbs with agent subjects is that an action was carried out. Yet, this is not an entailment of such verbs, but rather a pragmatic inference, as already noted by Holisky (1987), namely that human subjects are, by default, interpreted as intentional agents if the contrary is not asserted.

b.   Kim broke my DVD player, but didn't move a muscle — rather, when I let her borrow it a disc was spinning in it, and she just let it run until the rotor gave out! (BKG p. 346)

In this respect, *murder* verbs pattern like manner verbs in that it is not possible to deny that an action has been carried out when bringing about the result state encoded by the verbs. This is explicitly shown in contexts in which causation, but not actorhood, is entailed, as below. It is worth pointing out that such a diagnostic does not result in a contradiction with *kill*. This is predicted under the present account, since *kill* does not encode a manner of action, but only a result state, and therefore it is not contradictory to deny that an action has been performed, as *kill* encodes causation but not actorhood.

(57)   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 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.

(58)   a.   That soldier killed the congressman, but didn't move a muscle — rather, he refused to alert the Secret Service to the hidden bomb.
        b.   #That soldier assassinated the congressman, but didn't move a muscle — rather, he refused to alert the Secret Service to the hidden bomb.

(59)   a.   The knight killed the dragon, but didn't move a muscle — rather, he tacitly refused to feed it.
        b.   #The knight slew the dragon, but didn't move a muscle — rather, he tacitly refused to feed it.

(60)   a.   The mayor killed all the citizens, but didn't move a muscle — rather, he refused to warn them about the incoming hurricane.
        b.   #The mayor massacred all the citizens, but didn't move a muscle — rather, he refused to warn them about the incoming hurricane.

(61)   a.   The police officer killed all the passersby, but didn't move a muscle — rather, he failed to alert security services to the car bomb.
        b.   #The police officer slaughtered all the passersby, but didn't move a muscle — rather, he failed to alert security services to the car bomb.

As BKG note, this does not mean that in the aforementioned scenarios the subject cannot be held accountable for the death of such people, but what is not possible is to express this with *murder* verbs. 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* verbs as well: whereas one can be accused of killing someone simply by negligently failing to prevent it, as in the examples above, this is not possible with *murder* verbs, thus showing that these verbs encode actorhood, and therefore, a manner of action.[18]

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[18]As a reviewer points out, there appears to be some variation amongst speakers about whether it is possible

4.2.3 Manner diagnostic 3: Complexity of action

The third and last diagnostic BKG develop relates to the fact that most manner verbs are complex, as they encode nonscalar changes, as RHL argue. 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) to capture durativity. In this respect, the *take-time* diagnostic, considered to be a standard durativity test, yields an *after x time* reading with punctual predicates and both an *after* and a *during x time* reading with telic events with duration. Atelic predicates that are durative only have a *during x time* reading in the *spend x time* diagnostic. Compare this in (62) (adapted from BKG p. 348).

(62) a. It took John five minutes to jump (once).
          (*after* five minutes, punctual)
      b. It took John five minutes to build a house.
          (*after/during* five minutes, durative)
      c. John spent five minutes swimming.
          (*during* five minutes, durative)

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

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

However, a caveat is in place here since, as Beavers (2008) shows, the type of scale also has consequences on durativity in the case of result verbs. In this respect, Beavers (2008) shows that scales that are open (i.e. multi-point scales) involve durative predicates, whereas closed scales (i.e. two-point scales) involve punctual predicates by default. In other words, result verbs encoding complex changes involve durative predicates, whereas result verbs encoding simplex changes are punctual. For instance, result verbs like *break* that encode a simplex change (i.e. a two-point scale) have only an *after* reading, whereas result verbs like *cool* that encode a complex change in the sense that the scale lexicalized by the verb is open (i.e. a multi-point scale) have both an *after* and *during* reading.

(64) a. It took John five minutes to break the vase.
          (*after* five minutes, punctual)

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to deny that an action has been performed in the case of *murder*. More specifically, a reviewer notes that if a doctor tacitly refuses to treat a patient with the intention of letting the patient die, it can be then categorized as a murdering event by some speakers. I disagree with the reviewer's judgment, but I acknowledge that there may be some variation amongst speakers, especially with *murder*, since its manner is highly unspecified and therefore subject to variation, as discussed in detail in §5. Other *murder* verbs such as *massacre*, which encode a manner that has more specific entailments about the causing of the result state (i.e. in this case, it refers to magnitude of killing) do not seem to allow such variation, since (as the same reviewer points out) sentences like *John massacred the city by refusing to alert the people about the hurricane* are clearly out.

b. It took John five minutes to cool the soup.
(*after/during* five minutes, durative)

In the case of verbs that potentially encode both a manner a result, the picture is more complex. In this respect, consider what BKG (p. 348) note:

> A punctual predicate could encode either just a simplex manner or just a two-point change, or both, but nothing about its punctuality indicates which. A durative predicate allows more possibilities: it may encode either a complex manner (where the change can be simplex, complex, or nonexistent) or a complex change (where the manner can be simplex, complex, or nonexistent). But durativity does not tell us which it is. However, 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.

In this respect, states on closed scales (i.e simplex changes) typically involve nongradable adjectives which are not compatible with comparative morphology. States on open scales (i.e. complex changes) involve gradable adjectives, compatible with comparative morphology, as the scale has more than two values and therefore different degrees of a property (e.g. being more or less warm) (BKG p. 342). Compare this in (65) and (66) (adapted from BKG p. 342).

(65)   Two-point scales, nongradable.

        a.   shatter, return, die.
        b.   #more shattered, #returned, #dead.

(66)   Multi-point scales, gradable.

        a.   warm, cool, dry.
        b.   warmer, cooler, drier.

BKG (p. 348) conclude then that if a verb encodes a simplex change, i.e. a change in a scale that only has two points, and yet the predicate is durative, it is because that verb encodes a complex manner, since only the manner of action can be contributing the durativity.

    In this respect, *murder* verbs encode a two-point scale, and therefore a non-gradable state, as shown by their incompatibility with comparative morphology. This is expected, since *murder* verbs encode the death of the patient, and the state of *death* is generally nongradable (BKG) (cf. *#more dead/#deader*).

(67)   a.   #more murdered.
        b.   #more assassinated.
        c.   #more slain.
        d.   #more massacred.
        e.   #more slaughtered.

The change of state encoded by *murder* verbs is simplex, since the scale has only two points, but as I show, they are durative, which suggests that they encode a complex manner as well.

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(68) a. It took John 5 minutes to murder Tom.
          (*after/during* five minutes, durative)
      b. It took the CIA spy 5 minutes to assassinate the senator.
          (*after/during* five minutes, durative)
      c. It took the knight 5 minutes to slay the dragon.
          (*after/during* five minutes, durative)
      d. It took Tommy 5 minutes to slaughter the citizens.
          (*after/during* five minutes, durative)
      e. It took Noah 5 minutes to massacre the passersby.
          (*after/during* five minutes, durative)

In other words, the result state in *murder* verbs, i.e. death, is nongradable and therefore this change cannot be contributing the durativity, since verbs encoding simplex, nongradable changes are punctual by default, as Beavers (2008) shows. Consequently, the manner of action is the only component that can be contributing the durativity. This is in line with the observation by Beavers and Koontz-Garboden (2017: 862) with regards to the fact that "some manners force a predicate to be durative even if the scale is nongradable."

   In short, in this section, I have introduced the manner diagnostics as developed in BKG, based on the notion of manner as involving nonscalar change, as proposed by RHL. As I have shown, *murder* verbs pass such manner diagnostics, thus testing positive for manner; yet, they also pass canonical result diagnostics, thus showing that *murder* verbs encode both a manner of action that brings about a result state. Hence, *murder* verbs, despite being simplex, monomorphemic verbs, violate Manner/Result Complementarity as a claim about (im)possible verb meanings, i.e. as a claim on the truth-conditional content of verbs.

   In the next section, I focus on what I have called *manner-of-stealing* verbs in order to show that other simplex verbs from a different verb class that encode intentionality and a result state also pattern as manner-result encoding verbs, consistent with the present claim, namely that intentionality is sufficient to induce manner properties.

4.3 Manner-of-stealing verbs

In this section, I argue that some of the *steal* (e.g. *seize*, *smuggle*, *steal*) and *cheat* (e.g. *rob*, *dispossess*, *drain*) verbs by Levin (1993) also pattern as both manner and result as they pass standard result and manner diagnostics. Such verbs, which I call *manner-of-stealing* verbs in a broad sense, include *rob*, *mug*, *seize* and *snatch*. *Manner-of-stealing* verbs encode intentionality, i.e. they require intent by the subject, and therefore pass manner diagnostics. This is illustrated in the following examples, in which intentionality cannot be cancelled (69) or reinforced (70), consistent with the fact that it is a lexical entailment of such verbs. Further, denying that the subject does not show intent generates a contradiction (71).

(69) a. #Those criminals robbed the bank unintentionally/by accident.
      b. #That felon mugged Sally unintentionally/by accident.
      c. #Police officers seized a box of cocaine unintentionally/by accident.
      d. #That thief snatched a luxury watch unintentionally/by accident.

(70) a. ??Those criminals robbed the bank intentionally/on purpose.
      b. ??That felon mugged Sally intentionally/on purpose.
      c. ??Police officers seized 100kg of cocaine intentionally/on purpose.
      d. ??That thief snatched a luxury watch intentionally/on purpose.

(71) a. #Those criminals robbed the bank, but didn't intend to/but it wasn't their intention.
      b. #That felon mugged Sally but didn't intend to/but it wasn't his intention.
      c. #Police officers seized a box of cocaine but didn't intend to/but it wasn't their intention.
      d. #That thief snatched a luxury watch but didn't intend to/but it wasn't his intention.

Manner-of-stealing also encode a result state, namely a change of possession. In this respect, Levin (1993: 129) notes that *manner-of-stealing* verbs "primarily describe the removal of something from someone's possession" and that "they typically describe depriving someone/something of an inalienable possession (in a broad sense)." Following what Levin notes, I show next that *manner-of-stealing* verbs do encode a result state, namely a change of possession, as they pass result diagnostics.

4.3.1 Result entailments

Manner-of-stealing verbs pass the first result diagnostic, namely denying that a change has occurred. Recall that *something is different about x* picks out changes of state, whereas *x is somewhere else* picks out changes of location. Regarding *manner-of-stealing* verbs, and following what Levin (1993: 129) notes, these verbs encode a change of possession, i.e. some goods move from one individual or place to another one at the end of the event. In this respect, Beavers (2011b) does not develop a diagnostic that identifies changes of possession (though see Beavers 2011a). Thus, following Beavers (2011a) (also Beavers and Koontz-Garboden 2020), I propose the *x gets something* diagnostic, which, if a verb encodes a change of possession should generate a contradiction. As I show in (72), this is actually the case for *manner-of-stealing* verbs, consistent with the fact that these verbs encode a change (of possession), as Levin (1993) notes.

(72) a. #Those criminals just robbed that bank, but they didn't get anything (from it)
      b. #That felon just mugged Sally, but he didn't get anything (from her).
      c. #Police officers just seized a box of cocaine, but they didn't get it.
      d. #That thief just snatched a luxury watch, but he didn't get it.

Further, like canonical result verbs, *manner-of-stealing* verbs disallow object deletion and *out-* prefixation.

(73) a. ??All last night, John robbed.
      b. ??All last night, John mugged.
      c. ??All last night, John seized.

d. ??All last night, John snatched.

(74)   a. ??These criminals outrobbed those felons.
        b. ??This group of thieves outmugged that one.
        c. ??US officers outseized Canadian officers
        d. ??That band of criminals outsnatched this one.

Last, while *manner-of-stealing* verbs may allow result phrases that further specify the result state they encode (cf. *They robbed him poor*), they do not allow result phrases that introduce distinct result states (75).

(75)   a. ??Those criminals robbed the bank empty.
        b. ??That felon mugged John black and blue.
        c. ??These police officers seized a box of cocaine apart.
        d. ??The thief snatched that boy's watch valueless.

In addition, result phrases predicated of nonselected objects do not seem to be permitted either, as shown in (76).

(76)   a.   [While robbing a bank]
           ??Those criminals robbed themselves tired.
        b.   [While mugging a man]
           ??That felon mugged his arms sore.
        c.   [While seizing goods at the border]
           ??These police officers seized their hands dirty.
        d.   [After snatching luxury watches]
           ??These thieves snatched themselves into prison.

In short, *manner-of-stealing* verbs encode a result state as they pass canonical result diagnostics as developed in both RHL and BKG.

4.3.2 Manner entailments

As discussed above, *manner-of-stealing* verbs encode intentionality, i.e. the subject is intentional when performing the action encoded by the verb. Thus, it is predicted that they should pattern as manner verbs, insofar as the current account predicts that agent entailments, intentionality in the present case, are enough to induce manner properties. As I show below, this prediction is certainly borne out since *manner-of-stealing* verbs pass manner diagnostics.

    Regarding the first manner diagnostic, *manner-of-stealing* verbs clearly impose selectional restrictions on their subjects according to the manner of action encoded, i.e. they only permit intentional agents, as illustrated below.

(77)   a.   The thief (#accidentally) mugged Tom with a knife.
        b. #The knife mugged Tom.
        c. #A strong earthquake mugged Tom.

(78)   a.   These criminals (#accidentally) robbed this bank with these guns.
       b.   #These guns robbed the bank.
       c.   #A toxic cloud of gas robbed the bank.

(79)   a.   Police officers (#accidentally) seized this illegal car with this crane.
       b.   #This crane seized this illegal car.
       c.   #Strong winds seized this illegal car.

(80)   a.   The thief (#accidentally) snatched luxury watches with a bag.
       b.   #The bag snatched a luxury watch.
       c.   #A gust of wind snatched this luxury watch.

Regarding the second manner diagnostic, i.e. denying that an action has been performed, *manner-of-stealing* verbs generate clear contradictions, which cannot be saved by negligence contexts as those below. Recall that this diagnostic does not generate contradictions with canonical result verbs, since result verbs only entail causation, but not actorhood, and therefore do not generate contradictions in these contexts.

(81)   a.   #John mugged Tom, but didn't move a muscle — rather, during the mugging, he stood still, observing it and tacitly refused to alert the police.
       b.   #Bank employees robbed the bank, but didn't move a muscle — rather, during the robbing, they sat on their chairs and tacitly refused to call the police.
       c.   #US police officers seized this illegal car, but didn't move a muscle — rather, during the seizing, they stood still and tacitly refused to stop it.
       d.   #The train passenger snatched this luxury watch, but didn't move a muscle — rather, during the snatching, she sat on her seat tacitly refusing to alert the inspector.

Before turning to the last manner diagnostic, it is important to show what type of change *manner-of-stealing* verbs encode, i.e. a simplex or a complex one. In this respect, recall that if a verb encodes a simplex change, the state will generally be nongradable and therefore incompatible with comparative morphology, as in *murder* verbs. *Manner-of-stealing* verbs also appear to encode nongradable states, as illustrated by their incompatibility with comparative morphology.

(82)   a.   #More mugged.
       b.   #More robbed.
       c.   #More seized.
       d.   #More snatched.

Thus, the change encoded by *manner-of-stealing* verbs is simplex, since the scale has only two points, yet they are durative, as illustrated below, which suggests that they encode a complex manner as well. In other words, the result state in *manner-of-stealing* verbs, i.e. a change of possession, is nongradable and therefore this change cannot be contributing the durativity. Thus, I conclude then that it is the manner of action that contributes durativity, as BKG argue.

(83)	a.	It took the thief 5 minutes to mug Tom.
		(*after/during* five minutes, durative)
	b.	It took the band of criminals 5 minutes to rob the bank.
		(*after/during* five minutes, durative)
	c.	It took the police officers 5 minutes to seize this illegal car.
		(*after/during* five minutes, durative)
	d.	It took the train passenger 5 minutes to snatch this luxury watch.
		(*after/during* five minutes, durative)

In short, *manner-of-stealing* verbs pass manner diagnostics, and therefore pattern like canonical manner verbs in encoding actorhood. Yet, they also pass result diagnostics, thus showing that they encode both a manner of action that brings about a specific result state.

4.4   Intentionality and root meaning

In the previous section, I have argued that *murder* and *manner-of-stealing* verbs encode both a manner of action and a result state as they pass standard manner and result diagnostics. Such classes of verbs, thus, violate Manner/Result Complementarity as a claim on the truth-conditional content of verbs. In this section, I show that such manner and result entailments are actually encoded in a single root, i.e. the roots of *murder* and *manner-of-stealing* verbs inherently comprise as part of their entailments manner and result meanings, contra RHL.

A standard way to test what lexical entailments are encoded in a single root is by making use of sublexical modification. In this vein, at least since Dowty (1979), it is a well-known phenomenon that there exists a class of modifiers that can modify subparts of the event structure. For instance, the modifier *again* introduces a presupposition that the event it modifies has occurred before, thus allowing different interpretations depending on the structural height of its attachment site (see von Stechow 1995, 1996, 2003; Beck and Johnson 2004; Beck 2006; Marantz 2007, 2009). Thus, as BKG note, sentences like *John opened the door again* have (at least) three readings, namely the restitutive reading that John is restoring the door to its previous state of being open (84) and (at least) two repetitive readings, that John is causing the door to undergo an opening event that the door had undergone in a previous stage (85) and the repeating of the same event in which John was also the causer (86). Compare this in the examples below (adapted from Beavers and Koontz-Garboden 2020: 17).

(84)	a.	John opened the door again, and it had been open before. (Restitutive)
	b.	[[John $_{\text{CAUSE}}$ [the door $_{\text{BECOME}}$ <**AGAIN** $\sqrt{\text{OPEN}}$>]]

(85)	a.	John opened the door again, and it had opened before. (Repetitive #1)
	b.	[[John $_{\text{CAUSE}}$ [**AGAIN** the door $_{\text{BECOME}}$ <$\sqrt{\text{OPEN}}$>]]

(86)	a.	John opened the door again, and he had opened it before. (Repetitive #2)
	b.	**AGAIN** [[John $_{\text{CAUSE}}$ [the door $_{\text{BECOME}}$ <$\sqrt{\text{OPEN}}$>]]

It is important to note that in examples such as those in (84), *again* only has the meaning of the root in its scope , i.e. the truth-conditional content of the root. Thus, as BKG argue,

if manner and result entailments are encoded in a single root, sublexical modification with *again* should not be able to scope over the manner with exclusion of the result and vice versa. Instead, if manner and result are encoded in separate roots, as with resultative constructions, sublexical modification with *again* should be able to scope over the result with exclusion of the manner (see BKG).

In resultative constructions such as *hammer the metal flat*, it has been shown that *again* can scope just over the result with exclusion of the manner (Beck and Snyder 2001; Beck and Johnson 2004; BKG). This is expected since manner and result entailments are encoded in two different roots, and *again* can scope over one to the exclusion of the other, as in the example below.

(87)   Mary made a sheet of metal that is flat, but it later accidentally became bent. Fortunately, John hammered the metal flat again. (BKG: 357)

Thus, the reading in (87) is restitutive since the metal does not need to have been hammered in a previous stage or even flattened (BKG: 357), as *again* is scoping just over the result.

(88)   [[John $_{\text{ACT}}$<$\sqrt{}$HAMMER>] $_{\text{CAUSE}}$ [the metal $_{\text{BECOME}}$ <**AGAIN** $\sqrt{}$FLAT>]]

Crucially, though, *again* modification with *murder* verbs necessarily scopes over both meanings insofar as they are encoded in a single root and therefore *again* cannot scope over just the result to the exclusion of the manner as with resultative constructions with two separate roots (examples adapted Ausensi to appear a).

(89)   The elf murdered/assassinated the monster king again.
         OK The elf caused the monster king to become dead by intentionally killing it again.
         # The elf caused the monster king to become dead again by intentionally killing it but the last time it was killed by accident/unintentionally.

(90)   The knight slaughtered/massacred the monsters again.
         OK The knight caused the monsters to become dead by intentionally killing them again.
         # The knight caused the monsters to become dead again by intentionally killing them but the last time they were killed by accident/unintentionally.

(91)   The warrior slew the dragon again.
         OK The warrior caused the dragon to become dead by intentionally killing it again.
         # The warrior caused the dragon to become dead again by intentionally killing it but the last time it was killed by accident/unintentionally.

Compare this to *kill*: insofar as such a verb only encodes a result state in a single root, but does not specify how such a state is caused, sublexical modification *again* allows presuppositions where the result state of *death* need not be brought about by an intentional-type action.

(92)   He killed the monsters again.
         OK He caused the monsters to become dead by intentionally killing them again.

OK He caused the monsters to become dead again by intentionally killing them but the last time they were killed by accident/unintentionally.

Manner-of-stealing verbs show the same behavior.

(93)   The thief robbed/mugged the man again.
OK The thief got some goods from the man by intentionally taking them from him again.
The thief got some goods from the man by intentionally taking them from him, but the last time the thief got them from him by accident/unintentionally.

(94)   The passenger snatched the watch again.
OK The passenger got the watch by intentionally taking it again.
The passenger got the watch by intentionally taking it, but the last time the passenger took it by accident/unintentionally.

(95)   The police patrol seized the box of cocaine again.
OK The police patrol got the box of cocaine by intentionally taking it again.
The police patrol got the box of cocaine by intentionally taking it, but the last time they took it by accident/unintentionally.

In short, both *murder* and *manner-of-stealing* verbs encode manner and result entailments in a single root insofar as sublexical modification with *again* cannot scope over the result with the exclusion of the manner. In BKG's words, manner and result are 'packaged together' in a single root and therefore sublexical modifiers cannot scope over one meaning to the exclusion of the other

In addition, the contrasts above further show that root meanings can be more complex than previously thought, as they can include meanings such as intentionality. In this respect, in theories of event structure, it is widely assumed that roots simply provide world-details about the event, i.e. they provide conceptual information about the state or action they denote, whereas it is actually the event templates (e.g. BECOME) that introduce meanings such as change or intentionality (see Rappaport Hovav and Levin 1998; Borer 2003, 2005 Embick 2004; Folli and Harley 2005; Ramchand 2008). The present paper thus provides further evidence in favor of the claim initially put forth by Koontz-Garboden and Beavers (2017), namely that root meanings can be more complex insofar as they can introduce templatic meanings. The roots of *murder* and *manner-of-stealing* verbs thus further show that roots can indeed introduce templatic meanings, insofar as intentionality is often assumed to be introduced by functional projections such as *v*DO (Hale and Keyser 1993; Folli and Harley 2005, 2007, 2008 or *Voice* (Kratzer 1996; Pylkkännen 2008; Alexiadou et al. 2015), but never by roots. For further discussion on the nature of root meaning see Koontz-Garboden and Beavers (2017); Beavers and Koontz-Garboden (2017b); Beavers et al. (2017); Beavers and Koontz-Garboden (2020); Ausensi (to appear a); Ausensi et al. (to appear).

5 Final remarks on manner and result

Some final remarks are in place. Following what BKG (p. 349) note for *manner-of-killing* verbs, it could be argued that *murder* and *manner-of-stealing* verbs encode a manner which is somewhat different from the manner encoded by canonical manner verbs such as *run*, *wipe* or *sweep*. In this respect, BKG (p. 349) note that the manner and result diagnostics they develop "were rooted in canonical manner and result verbs, and thus it seems clear that the elevant components that give rise to these behaviors are the same". In other words, insofar as *manner-of-killing* verbs pass standard manner and result verbs, BKG conclude that such verbs have the same lexical entailments found in canonical manner and result verbs.

Thus, in one of its possible many senses, manner simply relates to carrying out an action, and this sense is also encoded in canonical manner verb such as *run*, *wipe* or *sweep*. Of course, manner entailments can be more complex in other manner verbs, but the canonical manner component stays constant, i.e. that of performing an action. For instance, manner verbs such as *run* or *swim* have a more specific manner 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 of the legs and hands and pace are different). In this vein, it is worth pointing out that RHL (p. 33) themselves note that "verbs of non-scalar change [manner verbs] need not always be so specific about the precise changes [manners] they involve." Hence, manner verbs can encode specific manners of actions (e.g. *waltz*, *mop*, *jog*) or leave this manner of action (highly) unspecified (e.g. *work*, *touch*, *exercise*), 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* verbs encode a manner of action by noting that it is possible to provide 'actual' manners of action. For instance, one can murder someone by poisoning, shooting or hanging them. I argue that this is parallel to the fact that one can also provide more specific manners with some canonical manner verbs such as *exercise*, i.e. one can exercise by running, swimming or jumping. However, the fact that *exercise* can be modified by more specific actions does not suppose that it does not encode a manner of action, it simply shows that its manner is highly unspecified. As a matter of fact, RHL (p. 33) themselves note that the manner of action in *exercise* is not so specific.

> The verb *exercise*, for example, requires an unspecified set of movements, whose only defining 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 encoded in *murder*. Although it is true that you can murder someone by poisoning, shooting or crucifying 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 action encoded by the verb.

In short, I have isolated a manner of action that is common to all *murder* and *manner-of-stealing* verbs. However, this does not exclude the possibility that some *murder* verbs have more specific manner entailments, as pointed out above. For instance, it seems that *slay* not only refers to a manner of action related to an intentional action, but it also seems to

involve violence or even the use of a sharp object. Similarly, *massacre* also appears to have some more specific lexical entailments than simply encoding an intentional action, i.e. it also refers to magnitude of killing (Husband 2011), whereas *slaughter* appears to refer to an act of killing which need be violent. Compare this in (96).

(96)   a. ??John slew the dragon by poisoning it.
              (cf. John killed the dragon by poisoning it)
       b. ??The army slaughtered the civilians by cutting the supply of water.
              (cf. The army killed the civilians by cutting the supply of water)
       c. #John massacred Tom/the citizen.

Thus, what is relevant regarding manner entailments is whether a verb encodes an action, and this is the case for *murder* and *manner-of-stealing* verbs (and for any other canonical manner verb) as I have shown, employing the diagnostics as laid out in BKG and RHL, that *murder* and *manner-of-stealing* verbs are simplex verbs and yet have both manner and result entailments encoded in a single root.

6   Conclusion

In the present paper, I have argued that both *murder* and *manner-of-stealing* verbs encode a manner of action that gives rise to a specific result state, contra RHL. The analysis of *murder* and *manner-of-stealing* verbs as manner-result encoding verbs violate Manner/Result Complementarity as a claim on the truth-conditional content of verbs. As I have shown, *murder* and *manner-of-stealing* verbs are simplex, monomorphemic, nonderived verbs that have both manner and result entailments encoded in a single root. In this vein, recall that Rappaport Hovav (2017) argues that *manner-of-killing* verbs by BKG are not relevant to Manner/Result Complementarity since they are not monomorphemic or morphologically simple. Thus, even if one assumes that the verbs under discussion in BKG are actually irrelevant (for the aforementioned reasons) in order to defend Manner/Result Complementarity, as Rappaport Hovav does, *murder* and *manner-of-stealing* verbs are nonetheless true counterexamples.

More specifically, I have proposed that agent entailments are sufficient to induce manner properties. In the present case, this relates to entailing intentionality. The present account thus predicts that a verb entailing intentionality should pattern as a manner verb, despite the fact that the same verb may also encode a result state. I have shown that this is the case for both *murder* and *manner-of-stealing* verbs: both classes entail intentionality, and therefore pass manner diagnostics, but they also encode a result state, as they pass result diagnostics, thus showing that *murder* and *manner-of-stealing* verbs are manner-result encoding verbs. In short, I have shown that the role intentionality plays within the study of (im)possible verb meanings appears to be of more significant importance than previously acknowledged, since entailing intentionality is sufficient for a verb to have manner entailments.

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