

# Distinguishing between POSS-*ing* and ACC-*ing*: evidence from *with(out)*

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This handout also contains a complete list of references.  
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## 1 Introduction

- **POSS-*ing*** and **ACC-*ing*** are two types of verbal gerunds in English. Both take direct complements but differ in the way their external argument is encoded. It appears in genitive case in POSS-*ing* and accusative case in ACC-*ing*:

- (1) a. POSS-*ing*: Clay's/his winning the match  
b. ACC-*ing*: Clay/him winning the match

- Apart from verbal gerunds, English has a **nominal gerund**:

- (2) -*ing*<sub>of</sub>: Clay's/his/the winning of the match

Vendler (1967) notices that verbal gerunds and nominal gerunds have different distribution when occurring with a set of predicates he calls **narrow containers**, such as extensional adjectives (*be fast, be slow*) and eventive predicates (*happens, occurs at night*):

- (3) a. #Clay('s) winning the match was fast/happened on Saturday.  
b. Clay's winning of the match was fast/happened on Saturday.

- The distributional fact motivates an ontological distinction between verbal and nominal gerunds assumed by many theories. POSS-*ing* and ACC-*ing* have always been analyzed as **denoting the same kind of ontological object**, which distinguishes them both from event-denoting nominal gerunds. Verbal gerunds are said to denote facts (Vendler, 1967); propositional entities (Portner, 1992); facts or possibilities (Asher, 1993); fluents (Hamm & van Lambalgen, 2002); event kinds (Grimm & McNally, 2015). Some do not **distinguish between their semantics** (Asher, 1993; Hamm & van Lambalgen, 2002) and some do (Portner, 1992; Grimm & McNally, 2015).
- In this talk I will present new data where verbal gerunds appear as **complements of *with(out)***. I will first provide a semantic and pragmatic analysis for the structure *without* + POSS-*ing*. Then I argue that an asymmetry between POSS-*ing* and ACC-*ing* that occurs as complement of *with(out)* supports assigning different semantics to POSS-*ing* and ACC-*ing*.

## 2 Proposed differences between *POSS-ing* and *ACC-ing*

- Some theories do not distinguish between *POSS-ing* and *ACC-ing*. Asher (1993) develops a theory of gerunds within DRT (Kamp & Reyle, 1993) and introduces referents for possibilities and facts. Hamm and van Lambalgen (2002) treat verbal gerunds as fluents, which are temporal abstracts: they can be argument of the predicate *Holds* and a fluent can be true of certain time intervals. For those that distinguish two verbal gerunds, I will discuss Portner (1992) and Grimm and McNally (2015).
- Portner (1992) proposes that both *POSS-ing* and *ACC-ing* are **propositional entities** defined in the Semantics of Situations (Kratzer, 1989), and the difference lies in that ***POSS-ing* is definite and *ACC-ing* is indefinite**.
- Portner **relates definiteness to presupposition and factivity**. He generalizes that gerunds used as subjects or complements of factive verbs are factive. The difference is that *POSS-ing* is always factive, but when *ACC-ing* serves as complement of a non-factive verb, it is non-factive:
  - (4) a. George imagined *Clay's winning the match*.  $\rightarrow$  Clay won the match, or *Clay winning the match* is under discussion
  - b. George imagined *Clay winning the match*.  $\nrightarrow$  Clay won the match.
- He argues that ***POSS-ing* in a factive environment carries a familiarity presupposition** that an actual situation described by it is familiar; in a non-factive environment, the presupposition is that there is a possibly hypothetical entity under discussion. (Portner, 1992, p. 111)
- Grimm and McNally (2015) propose that *POSS-ing* and *ACC-ing* are both **event kind** (see Carlson, 2003; Gehrke, 2019) descriptions. In analogy to kinds in the entity domain (Carlson, 1977), event kinds are sortal concepts that may be instantiated via the **R** relation to produce an event token, which is an actual happening of the event in the relevant world:
  - (5)  $\mathbf{R}(e, e_k)$
- *POSS-ing* and *ACC-ing* **take different paths to become referring expressions**. *ACC-ing* may continue denoting an event kind (6a), or, when combined with certain predicates and **anchored to the tense** of the main clause, may entail a token event (6b):
  - (6) a. *Clay winning the match* is what all his fans expect to see.  $\rightarrow$  Clay won the match.
  - b. *Clay winning the match* upset George.  $\rightarrow$  Clay won the match.
- ***POSS-ing* contains a possessive relation** and therefore carries **Possessive Existential Import (PEI)** (Peters & Westerståhl, 2013): if the possessive relation exists, the possessee must exist. The authors take this to facilitate the inference of a token event from the kind described by *POSS-ing*.
- However, (i) Peters and Westerståhl (2013) explicitly exclude *POSS-ing* from their discussion because it does not have freedom of interpretation (i.e. the possessor is always interpreted as subject); (ii) *POSS-ing* does not necessarily carry a token implication. For example:

(7) Nicholas prevented *Clay's winning the match*. → Clay won the match.

and also in the cases that will be discussed in this talk.

- I propose that PEI should be reinterpreted for verbal gerunds. What necessarily exists is not an event token, but the event kind. For a kind to exist, it usually requires that there is an instance that realizes it. However, in the nominal domain, we also take about kinds without instances (like *unicorns*) because they are well-established in the discourse (Mueller-Reichau, 2011). It is plausible to therefore consider event kinds to “exist” if they are familiar in the discourse, just like what Portner (1992) argues.
- In the following sections, I will discuss an asymmetry involving POSS-*ing* and ACC-*ing* used as complements of *with(out)*, which will support establishing a difference in their semantics, but I will first propose an interpretation for the use of *without* + POSS-*ing* which has not been accounted for in the literature.

### 3 *Without* + POSS-*ing*: data and analysis

#### 3.1 Data

- I collected from a dependency-parsed version of the BNC (2007) all the cases of POSS-*ing* while excluding potentially confusing cases like those having *her* or a noun in plural as the external argument. **About 5% of the cases are selected by *without*:**<sup>1</sup>
  - (8) a. She had been very ill and suddenly taken to hospital *without Darren's knowing why*.
  - b. He was most anxious to know the result of his investigation and whether the cause of his pain could be treated *without his having more time off work*.
  - c. This allows your sleeves to be knitted, weaving as you go, *without your having to consider any shaping at the sides*.
- *Without* and its counterparts in other languages have various senses, and some of them have been formally discussed (Bosque, 1980; Feigenbaum, 2002; Müller, Roch, Stadtfeld, & Kiss, 2012; Castroviejo, Oltra-Massuet, & Pérez-Jiménez, 2015), but the use of *without* + POSS-*ing* **has not been well described or accounted for**.
- In this use, POSS-*ing* is obviously not factive or implying a token event: in (8a) there is no token instantiation of *Darren's knowing why*.
- In (8b) and (8c), the *without*-PP modifies a VP that is embedded. I am going to treat the *without*-PP in all these cases as a **VP modifier**. Specifically, I would like to avoid the free adjunct reading (Stump, 1981) in which the *without*-PP is prosodically separate from the main clause, and the adjunct may interact with main clause tense, modal, etc. This can be seen in the following example, where the *without*-PP modifies *to win* and describes the way the opponent wins. The reading is changed when the *without*-PP moves to the left periphery.

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<sup>1</sup>Unless otherwise noted, examples are from the BNC.

- (9) To do so is to help the opponent to win without his having to hit you with a single scoring technique.  
 $\neq$  Without his having to hit you with a single scoring technique, to do so is to help the opponent to win.

- The modified VP and the *without*-PP form a whole, as suggested by Bosque (1980) in his discussion of *sin* in Spanish: the hearer infers that both parts connected by *sin* form one activity.

### 3.2 Semantics of *without*

- The **basic interpretation** of *without* + POSS-*ing* is that of **temporal overlap**: in (8a), Darren's ignorance is simultaneous with her being rushed to hospital, but it does not negate that Darren might know why soon afterwards.
- Assuming the event kind analysis of Grimm and McNally (2015), this means **the event kind described by the modified VP is instantiated** (in a possible world) **while at the same time there is no instantiation of the event kind described by the POSS-*ing***. (I will follow the event kind analysis in this talk, but it can possibly be remodeled with Portner's analysis.)
- *Without* connects two event kinds<sup>2</sup> and produce a complex event kind such that any instantiation of the complex event kind means that the event kind described by the modified predicate is instantiated, and that at the same time, the event kind described by POSS-*ing* is not instantiated. The runtime of the complex event token is identical to that of the modified VP event token.

$$(10) \quad \llbracket \text{without} \rrbracket = \lambda P_{k2} \lambda P_{k1} \lambda e_{k3} \exists e_{k1} \exists e_{k2} [P_{k1}(e_{k1}) \wedge P_{k2}(e_{k2}) \wedge \forall e_3 [\mathbf{R}(e_3, e_{k3}) \rightarrow \exists e_1 [\mathbf{R}(e_1, e_{k1}) \wedge \neg \exists e_2 [\mathbf{R}(e_2, e_{k2}) \wedge \tau(e_1) \circ \tau(e_2)]] \wedge \tau(e_3) = \tau(e_1)]]]$$

in which  $P_k$  is a predicate of event kinds and  $\tau(e)$  is the time (interval) in which the event  $e$  occurs.

- Derivation of the sentence *Clay won the match without George's supporting him*:

$$(11) \quad \text{Clay won the match without George's supporting him.} \\
= \text{PAST}(\llbracket \text{Clay win the match without George's supporting him} \rrbracket) \\
= \text{PAST}(\llbracket \text{without} \rrbracket(\llbracket \text{George's supporting him} \rrbracket)(\llbracket \text{Clay win the match} \rrbracket))$$

$$(12) \quad \text{a. } \llbracket \text{Clay win the match} \rrbracket = \lambda e_{k1} [\mathbf{win}(e_{k1}) \wedge \mathbf{Agent}(\mathbf{Cla}, e_{k1}) \wedge \mathbf{Theme}(\mathbf{m}, e_{k1})] \\
\text{b. } \llbracket \text{George's supporting Clay} \rrbracket = \lambda e_{k2} [\mathbf{support}(e_{k2}) \wedge \mathbf{Agent}(\mathbf{Geo}, e_{k2}) \wedge \mathbf{Theme}(\mathbf{Cla}, e_{k2})] \\
\text{c. } \llbracket \text{without George's supporting Clay} \rrbracket = \lambda P_{k1} \lambda e_{k3} \exists e_{k1} \exists e_{k2} [P_{k1}(e_{k1}) \wedge \mathbf{support}(e_{k2}) \wedge \mathbf{Ag}(\mathbf{Geo}, e_{k2}) \wedge \mathbf{Th}(\mathbf{Cla}, e_{k2}) \wedge \forall e_3 [\mathbf{R}(e_3, e_{k3}) \rightarrow \exists e_1 [\mathbf{R}(e_1, e_{k1}) \wedge \neg \exists e_2 [\mathbf{R}(e_2, e_{k2}) \wedge \tau(e_1) \circ \tau(e_2)]] \wedge \tau(e_3) = \tau(e_1)]]] \\
\text{d. } \llbracket \text{Clay win the match without George's supporting him} \rrbracket = \lambda e_{k3} \exists e_{k1} \exists e_{k2} [\mathbf{win}(e_{k1}) \wedge \mathbf{Ag}(\mathbf{Cla}, e_{k1}) \wedge \mathbf{Th}(\mathbf{m}, e_{k1}) \wedge \mathbf{support}(e_{k2}) \wedge \mathbf{Ag}(\mathbf{Geo}, e_{k2}) \wedge \mathbf{Th}(\mathbf{Cla}, e_{k2}) \wedge \forall e_3 [\mathbf{R}(e_3, e_{k3}) \rightarrow \exists e_1 [\mathbf{R}(e_1, e_{k1}) \wedge \neg \exists e_2 [\mathbf{R}(e_2, e_{k2}) \wedge \tau(e_1) \circ \tau(e_2)]] \wedge \tau(e_3) = \tau(e_1)]]]$$

<sup>2</sup>I follow Grimm and McNally (2015) in assuming that the main predicate begins on the kind level and is instantiated by tense.

- e. PAST:  $\lambda P \lambda t \exists e, e_k [t < \mathbf{now} \wedge P(e_k) \wedge \mathbf{R}(e, e_k) \wedge \tau(e) = t]$   
 (Grimm & McNally, 2015, p. 91)
- f.  $\llbracket (11) \rrbracket = \lambda t \exists e_3, e_{k3} [t < \mathbf{now} \wedge \exists e_{k1} \exists e_{k2} [\mathbf{win}(e_{k1}) \wedge \mathbf{Ag}(\mathbf{Cla}, e_{k1}) \wedge \mathbf{Th}(\mathbf{m}, e_{k1}) \wedge \mathbf{support}(e_{k2}) \wedge \mathbf{Ag}(\mathbf{Geo}, e_{k2}) \wedge \mathbf{Th}(\mathbf{Cla}, e_{k2}) \wedge \forall e_3 [\mathbf{R}(e_3, e_{k3}) \rightarrow \exists e_1 [\mathbf{R}(e_1, e_{k1}) \wedge \neg \exists e_2 [\mathbf{R}(e_2, e_{k2}) \wedge \tau(e_1) \circ \tau(e_2)]] \wedge \tau(e_3) = \tau(e_1)]]]] \wedge \mathbf{R}(e_3, e_{k3}) \wedge \tau(e_3) = t]$   
 $= \lambda t \exists e_3, e_{k3} [t < \mathbf{now} \wedge \exists e_{k1} \exists e_{k2} [\mathbf{win}(e_{k1}) \wedge \mathbf{Ag}(\mathbf{Cla}, e_{k1}) \wedge \mathbf{Th}(\mathbf{m}, e_{k1}) \wedge \mathbf{support}(e_{k2}) \wedge \mathbf{Ag}(\mathbf{Geo}, e_{k2}) \wedge \mathbf{Th}(\mathbf{Cla}, e_{k2}) \wedge \exists e_1 [\mathbf{R}(e_1, e_{k1}) \wedge \neg \exists e_2 [\mathbf{R}(e_2, e_{k2}) \wedge \tau(e_1) \circ \tau(e_2)]] \wedge \tau(e_3) = \tau(e_1)]]] \wedge \mathbf{R}(e_3, e_{k3}) \wedge \tau(e_3) = t]$

- This analysis accounts for the assumption that *without*-PP modifies the VP - therefore, an event kind description instead of a token event, so that the resulting complex event kind can be embedded in, e.g. modals, or instantiated on its own. It captures the intuition of Bosque (1980) that the two events connected by *without* are now seen as one.
- The proposal of a complex event kind is due to the difficulty to simply modify the main clause event kind by adding a restriction on its runtime without trying to instantiate the kind. This suggests that it is a non-monotonic process, i.e. **the resulting complex event type is not a subtype of the “modified” kind**, but a different kind with distinct implications, c.f. in a context in which *Clay play piano at 10 p.m.* normally leads to his neighbor being disturbed, *Clay play piano at 10 p.m. without his neighbor’s hearing it* does not.

### 3.3 Implicature of *without*: generic incausality

- The other important intuition about *without* + POSS-ing is that it implies that **normally, when an event of the modified VP occurs, there should also be an event described by the POSS-ing**. The use of *without* + POSS-ing states an exception to such a regularity.
- The interpretation of *without* proposed above does not put any restriction on the two event kinds that it connects, but when the hearer fails to interpret a relation between two events, the sentence will likely be anomalous. For example, given that Clay is a modern gamer and does not believe in the Ancient Egyptian god Thoth, the following is anomalous:

(13) #Clay won the match without Thoth’s helping him.

- I propose that *without* is **similar to concessive connectors** like *however* in giving this implicature. This can be shown by the possibility of inserting *however* between *without* and POSS-ing:<sup>3</sup>

(14) She had been very ill and suddenly taken to hospital *without, however, Darren’s knowing why*.

- I apply the **generic incausality** analysis of Zieleke (2020) for German concessive connectors to account for the implicature derived from *without*. The author proposes that concessive connectors like German *dennoch* carry the **conventional implicature** of generic incausality: **a regularity which generalizes over entities, predications and/or situations and accepts exceptions**.

<sup>3</sup>This works better when the modified VP is not embedded; though both embedded, (8c) is much better than (8b) after inserting *however*. The use of *however* may have independent restrictions that are not considered here, but the point is to illustrate the similarity between concessive connectors and *without*.

Therefore, *p dennoch q* asserts  $p \wedge q$  and produces the implicature that  $\text{GEN}(v)[P_p(v); \neg Q_q(v)]$ , in which  $P$  and  $Q$  are predicates and  $v$  an unrestricted variable, which may be entities, predications and/or situations, and may vary according to context, world knowledge and the hearer's understanding.

For example, (11) may have an implicature that generally for a player to win, his teammate should support him (15a); or that normally when Clay plays, George supports him (15b):

- (15) a.  $\text{GEN}(x, y)[\text{player}(x) \wedge \text{teammate}(x, y) \wedge \text{win}(x); \text{support}(y, x)]$   
 b.  $\text{GEN}(x, y)[x=\text{Clay} \wedge y=\text{George} \wedge \text{play}(x); \text{support}(y, x)]$

- The implication involved is a conventional implicature because (i) it is not a presupposition: its failure does not invalidate the assertion and is dismissable (ii) it is not a conversational implicature: it is triggered by the word *without* and is hard to cancel.

## 4 Asymmetry between POSS-ing and ACC-ing

### 4.1 Data

- Out of a total of 818 POSS-ing cases from the BNC (2007), 39 are selected by *without*. In contrast, only 3 are complements of *with*. The only one in which *with* is not selected by the main predicate involves a modifier of the noun *dialogue*:

- (16) It led to a dialogue with Montefiore, *with my telling him about my friend who has had AIDS now for six years and who, thanks to AZT, is still alive*.

- **Replacing *without* with *with* leads to infelicity:**

- (17) a. #She had been very ill and suddenly taken to hospital *with Darren's knowing why*.  
 b. #He was most anxious to know the result of his investigation and whether the cause of his pain could be treated *with his going back to work immediately*.  
 c. #This allows your sleeves to be knitted, weaving as you go, *with your ignoring the shaping at the sides*.

- This asymmetry also forms **a contrast with ACC-ing**, which is **compatible with both *with* and *without***:

	POSS-ing	ACC-ing
(18) <i>with</i>	a. ??Clay won the match with George's supporting him.	c. Clay won the match with George supporting him.
<i>without</i>	b. Clay won the match without George's supporting him.	d. Clay won the match without George supporting him.

- The existence of such asymmetry already supports the claim that POSS-ing and ACC-ing should be treated differently. I propose **two hypotheses to account for the infelicity of *with* + POSS-ing**: one is the redundancy of information and the other is POSS-ing's inability to be temporally anchored.

## 4.2 Infelicity of *with* + POSS-ing: information redundancy

- I assume that *with*, as the positive counterpart of *without*, would have the following denotation in combination with POSS-ing:

$$(19) \quad \llbracket \text{with} \rrbracket = \lambda P_{k2} \lambda P_{k1} \lambda e_{k3} \exists e_{k1} \exists e_{k2} [P_{k1}(e_{k1}) \wedge P_{k2}(e_{k2}) \wedge \forall e_3 [\mathbf{R}(e_3, e_{k3}) \rightarrow \exists e_1 [\mathbf{R}(e_1, e_{k1}) \wedge \exists e_2 [\mathbf{R}(e_2, e_{k2}) \wedge \tau(e_1) \circ \tau(e_2)] \wedge \tau(e_3) = \tau(e_1)]]]]$$

It creates a complex event type whose instantiation equals the simultaneous instantiation of the event kinds contributed by both the modified VP and POSS-ing. This in principle does not prevent *with* from taking POSS-ing as complement.

- There is an interesting **parallel in the nominal domain**. The felicity of *without*-PP as a noun modifier depends on whether the complement is an entailed part of the modified noun:

- |      |                        |                             |
|------|------------------------|-----------------------------|
| (20) | a. #lion with a tail   | d. lion without a mane      |
|      | b. lion without a tail | e. lion with a crossbow     |
|      | c. lion with a mane    | f. ?lion without a crossbow |

- Being a lion entails having a tail, so (20a) is infelicitous due to redundancy, unless in specific discourse conditions (cf. the maxim of Manner of Grice, 1975). (20b) is felicitous though the kind of lion it describes is unnatural.

Being a lion does not entail having or not having a mane, so both (20c) and (20d) are informative, thus felicitous.

When the *without*-PP contains something that is understood, according to context or world knowledge, to not be a component of the modified noun, like a crossbow for lions, (20e) refers to a uncommon or imaginative kind of lions that use a crossbow, while (20f) is infelicitous unless in specific discourse conditions, such as in a discussion where lions with a crossbow are relevant.

- I also assume that ***with* does not carry an implicature that triggers contrast, as *without* does** because negation is more likely to trigger specific implicature than affirmation (Umbach, 2005). If the speaker would like to convey a contrast between the co-occurrence of events and some generic rule, like *without* does, a better alternative is *despite*. Therefore, this use of *with* is blocked.<sup>4</sup>
- However, *with* may still **interfere with the maxim of Manner**, if the co-occurrence of event kinds contributed by the modified VP and POSS-ing has been established. In an extreme example, somebody winning the game entails his playing in the game:

- (21) #Clay and George won the match as a team with George's playing in the game.

<sup>4</sup>*Despite* may not be identical in denotation to the supposed *with* because it has been argued that *despite* presupposes the happening of its complement. See Libert (2016) for a discussion.

For POSS-*ing*, which is definite according to Portner (1992) and therefore familiar, its relation with the matrix clause event kind is likely known in the context. In this case, *without* is informative because it introduces an exception, but *with* is not. For example, in a context where one of the regularities in (15) is entailed, it is uninformative to utter *Clay won with George’s supporting him*.

- ACC-*ing* is compatible with both *with* and *without* because according to Portner (1992), it is indefinite and does not require to be presupposed in the context. Therefore, it introduces a new event referent and whether or not it temporally overlaps the matrix event is always informative.
- **An analysis based on pragmatics does not rule out the cases in which the co-occurrence of the two events are optional and thus informative**, like those in (17). It also predicts that, in the same context, if *with* + POSS-*ing* is rejected for redundancy, then *with* + ACC-*ing* should be redundant as well.<sup>5</sup> I will discuss next a different source of infelicity that roots in the different temporal anchoring abilities of POSS-*ing* and ACC-*ing*.

### 4.3 Infelicity of *with* + POSS-*ing*: temporal anchoring

- The proposed denotation of *with(out)* (10)(19) anchors the (in)occurrence of a POSS-*ing* token event to that of the modified event. I argue that POSS-*ing* is not compatible with *with* because it **cannot be temporally anchored**.
- I follow both Portner (1992) and Grimm and McNally (2015) in assuming that **POSS-*ing* is syntactically a possessive structure, which contributes to its definiteness**. ACC-*ing* is not necessarily indefinite as Portner (1992) assumes, because it can (very rarely) take a definite article (as is observed by Grimm & McNally, 2016), but I do not distinguish between indefinite and the kind-level bare singular/plural which ACC-*ing* potentially corresponds to here.
- As a definite, POSS-*ing* is not as easily accommodated as regular possessives:

- (22)
- This morning, Mary had her breakfast at home and took the usual bus to school.
  - Mary’s dog was taken for a walk.
  - ?Mary’s giraffe was taken for a walk.
  - ?Mary’s being hit by a car shocked her family.

As an owner-dog relation is more common than an owner-giraffe relation, *Mary’s dog* is more easily accommodated than *Mary’s giraffe*. As for POSS-*ing*, one could say it conveys a participant-event relation, but the relation of anyone being a participant of any event is not commonly assumed, so it is also hard to accommodate.

- When not accommodated, POSS-*ing* should be anaphoric to either a token event or the event kind, or is entailed by the context. When it refers to a token event, which is fixed in time,

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<sup>5</sup>In a pilot study I conducted, most native speakers show a strong preference for ACC-*ing*. They prefer *without* + ACC-*ing* even if the original sentence in the corpus uses POSS-*ing*; when appearing as complement of *with*, the vast majority agree that only ACC-*ing* is available, but I did not offer the option of “neither POSS-*ing* nor ACC-*ing*”, so I am not sure whether ACC-*ing* would also be rejected for redundancy.



it cannot be temporally anchored again. When it is the event kind that is under discussion, it should not be temporally anchored.<sup>6</sup> Since in my analysis *with* creates a complex event kind which contains two event kinds as parts and it is often unnatural to have a part identified before identifying the whole, it is possible that *with* + *POSS-ing* is rejected in the formation of the kind.

- *ACC-ing* can easily be anchored to the main clause tense because it is always newly introduced and, since it is not the main predicate, does not carry its own temporal index. A piece of evidence comes from their compatibility with temporal prepositions. Though Vendler (1967) claims that fact-denoting nominals (which include both *POSS-ing* and *ACC-ing*) do not serve as complement of temporal prepositions, I find examples like the following in the BNC (2007):

(23) This concept met resistance in Tehran, particularly as Iraq underlined its position with another offensive just after *Iran's accepting the principle of a cease-fire*.

while *POSS-ing* may be marginal in this case, *ACC-ing* is clearly impossible.

- If temporal anchoring is the answer, then it does not reject all the cases of *with* + *POSS-ing*. For example, it will be fine if *POSS-ing* is not temporally anchored to the modified VP. In the following example, Clay's victory is marked by (therefore, temporally dependent on) his killing of the dragon, and it is perceived to be more acceptable than (17):

(24) Clay won the match with his skillfully killing the dragon.

This analysis does not eliminate other senses of *with* (e.g. "on the basis of" or "making use of") that are potentially compatible with *POSS-ing*.

## 5 Conclusion

- I found from the BNC (2007) that a number of *POSS-ing* cases combine with *without*, a use that had not been discussed in the literature. I proposed a denotation for *without* which connects two event kinds and produces a complex event kind, and applied the approach by Ziegle (2020) to account for the implicature.
- My data also showed that *ACC-ing* can be selected by *with* or *without*, but *POSS-ing* is only compatible with *without*. I discussed two possible explanations: one is motivated by information redundancy; the other one is derived from the different temporal anchoring abilities of *POSS-ing* and *ACC-ing*, following the proposal of Portner (1992) that *POSS-ing* is definite and *ACC-ing* indefinite.
- The claimed difference between *POSS-ing* and *ACC-ing* in their discourse function needs to be tested empirically.

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<sup>6</sup>I note a problem here, because being a kind does not prevent the entailment of a token of its kind that is temporally anchored.

## References

- Asher, N. (1993). *Reference to abstract objects in discourse*. Dordrecht: Kluwer Academic Publishers.
- Asher, N., & Lascarides, A. (2003). *Logics of conversation*. Cambridge: Cambridge University Press.
- Bosque, I. (1980). La preposición *sin*. *Lingüística hispánica*, 3, 71–85.
- Carlson, G. (1977). *Reference to kinds in English* (PhD thesis). University of Massachusetts, Amherst. (Published in 1980 by Garland Press, New York.)
- Carlson, G. (2003). Weak indefinites. In M. Coene & Y. D’hulst (Eds.), *From NP to DP* (pp. 195–210). Amsterdam / Philadelphia: John Benjamins.
- Castroviejo, E., Oltra-Massuet, I., & Pérez-Jiménez, I. (2015). Bare PPs and the syntax-semantics interface: The case of SIN+ bare nominal structures in Spanish. In J. Smith & T. Ihsane (Eds.), *Romance Linguistics 2012. Selected papers from the 42nd Linguistic Symposium on Romance Languages (LSRL), Cedar City, Utah, 20-22 April 2012*. (pp. 201–214). Amsterdam: John Benjamins.
- Feigenbaum, S. (2002). A contrastive analysis of French and Hebrew prepositions. In S. Feigenbaum & D. Kurzon (Eds.), *Prepositions in their Syntactic, semantic and pragmatic context* (pp. 171–191). Amsterdam: John Benjamins.
- Gehrke, B. (2019). Event kinds. In R. Truswell (Ed.), *The Oxford handbook on event structure* (pp. 205–233). Oxford: Oxford University Press.
- Grice, H. P. (1975). Logic and conversation. In P. Cole & J. Morgan (Eds.), *Syntax and Semantics, Vol. 3: Speech Acts* (pp. 41–58). New York: Brill.
- Grimm, S., & McNally, L. (2015). The *-ing* dynasty: Rebuilding the semantics of nominalizations. In S. D’Antonio, M. Moroney, & C. R. Little (Eds.), *Proceedings of the 25th Semantics and Linguistic Theory conference (SALT)* (Vol. 25, pp. 82–102). Ithaca, NY: LSA and CLC Publications.
- Grimm, S., & McNally, L. (2016). *The+VPing* as anaphoric event-type reference. In K.-m. Kim et al. (Eds.), *33rd West Coast Conference on Formal Linguistics* (pp. 167–175). Somerville, MA: Cascadilla Proceedings Project.
- Hamm, F., & van Lambalgen, M. (2002). Formal foundations for semantic theories of nominalisation. *ZAS Papers in Linguistics*(27), 1–21.
- Kamp, H., & Reyle, U. (1993). *From discourse to logic*. Dordrecht: Kluwer.
- Kratzer, A. (1989). An investigation of the lumps of thought. *Linguistics and philosophy*, 12(5), 607–653.
- Libert, A. R. (2016). Adpositions and presuppositions. *SpringerPlus*, 5(1), 858.
- Mueller-Reichau, O. (2011). *Sorting the World: On the Relevance of the Kind/object-distinction to Referential Semantics*. Berlin: Walter de Gruyter.
- Müller, A., Roch, C., Stadtfeld, T., & Kiss, T. (2012). The annotation of preposition senses in German. In B. Stolterfoht & S. Featherston (Eds.), *Empirical Approaches to Linguistic Theory: Studies in Meaning and Structure* (p. 63). Berlin: Walter de Gruyter.
- Peters, S., & Westerståhl, D. (2013). The semantics of possessives. *Language*, 89, 713–759.
- Portner, P. (1992). *Situation Theory and the Semantics of Propositional Expressions* (Unpublished doctoral dissertation). University of Massachusetts at Amherst, Amherst, MA.
- Stump, G. T. (1981). *The formal semantics and pragmatics of free adjuncts and absolutes in English* (Unpublished doctoral dissertation). The Ohio State University, Columbus, OH.
- The British National Corpus, version 3 (BNC XML Edition). (2007). Distributed by Bodleian Libraries, University of Oxford, on behalf of the BNC Consortium. Retrieved from <http://www.natcorp.ox.ac.uk/>
- Umbach, C. (2005). Contrast and information structure: A focus-based analysis of *but*. *Linguistics*, 43(1), 207–232.
- Vendler, Z. (1967). *Linguistics in Philosophy*. Ithaca, NY: Cornell University Press.
- Wągiel, M. (2018). *Subatomic Quantification* (Unpublished doctoral dissertation). Masaryk University, Brno.

Zieleke, R. (2020). *The incausality of dennoch and trotzdem*. Conference presentation at Sinn und Bedeutung 25, 2020 Sept 3-9, London.