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# Cognitive Grammar and English nominalization: Event/result nominals and gerundives

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**Abstract:** This article develops an analysis of event/result nominals and gerundives from a Cognitive Grammar perspective. By reviewing the previous research, we first point out that these phenomena are much more flexible than the extant research claims. Moreover, widely accepted generalizations concerning the phenomena are, at best, only partially true. We demonstrate that the said flexibility is ascribed to two different types of construals: [1] mass-like construal accompanied by reification and [2] zone-activation or metonymic shift. Event nominals arise, without respect to the types of the nominal affixes, when the relationship profiled by a verb takes an internal perspective. Result nominals arise through zone activation or metonymic shift in addition to the reification of the verbal base. Several grounding strategies apply to both event and result nominals, thereby yielding different realizations of instances such as (in)definite and possessive. We show that our analysis can be systematically extended to gerundives, which permit limited grounding methods. We also demonstrate that V-to-N converted event nominals are accounted for unproblematically in our analysis because the rise of event nominals does not rely on the nominalizing affixes.

**Keywords:** Cognitive Grammar, event nominals, gerundives, grounding, result nominals

## 1 Overview

The relationship between affixes and the argument structure of event nominals such as *assignment* and *examination* in (1) has puzzled researchers for decades.

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- (1) a. *The constant **assignment** of unsolved problems is to be avoided.*  
(Grimshaw 1990: 50)
- b. *The instructor's **examination** of the papers took a long time.*  
(Grimshaw 1990: 51)

Over the course of time, two main approaches to this issue have emerged: the structural model and the event-based model. In the structural model (Alexiadou 2001; Borer 2005, 2014; Embick 2003; Marantz 2001), the presence of argument structure is attributed to the existence of a VP within the nominal structure. This approach stipulates that exponents such as *-ing*, *-(a)tion*, and *-ment* express nominal categories, but they are different with respect to the height of affixation; the higher the affix is in the structure, the more verbal properties the derived noun exhibits. The *-ing* targets a high position, resulting in event nominals, while the V-to-N conversion occurs at the root level. As a result, conversion does not exhibit argument structure, because it does not contain verbal projections. Other affixes such as *-(a)tion* and *-ment* can be attached either to the root or at a higher position.

By contrast, the event-based theory (Grimshaw 1990, 2004) assumes that the presence of argument structure in a nominal is the consequence of the existence of an event structure in its base verb. The grammar, then, stipulates that some affixes preserve the verbal property of having argument structure while others do not. Despite many differences concerning matters of implementation, both models assume that there is a tight connection between argument structure and affixes. That is, nominalizing affixes are somehow responsible for the derivation of event nominals.

We challenge this view by arguing that the connection between the two is more loose than the previous models assumed; affixes do not even have to be present in the derivation of event nominals. The theoretical framework we adopt is Cognitive Grammar (CG) developed by Langacker (1987b, 1991, 2008, 2009). What we propose is that these seemingly sharp delineations concerning argument structure and affixes are merely symptomatic of the fundamental function of deverbal nominalization – construing the verbal relationship from the internal perspective, in the sense of CG. We argue that deverbal nominalization comes to light via two different types of construals: [1] mass-like construal accompanied by reification and [2] zone-activation or metonymic shift. When the base event structure (a relationship) takes an internal perspective, the relationship is construed as mass-like and homogeneous. The relationship is construed as an unbounded event as a direct result of the internal perspective. At the same time, this perspective makes it possible to preserve the relationship between two entities, resulting in nominals with base-verbal arguments.

The other possible construal is to use the speaker's zone-activation or metonymic shift ability. For example, though the profiled portion of *destruction* in (2) is the landmark of the relationship, the whole reified relationship (active zone) corresponds to the trajector of the predicate *was awful to see*, exhibiting a profile/active-zone discrepancy. Since the profiled portion is a thing (noun), it is devoid of argument structure and is construed as a result nominal.

- (2) *The **destruction** was awful to see.*  
(Grimshaw 1990: 52)

If this is the case – and we argue that it is – the result nominal devoid of argument structure is not a “semantic side effect” occurring when event nominals' mass-like properties are altered to those of count nouns, as suggested by Harley (2008: 339). Rather, result nominals lacking argument structure are just a common product of our conceptual and linguistic system.

In some sense, our view is a reflection of Alexiadou (2008) and Harley (2008), both of whom recognize the importance of the mass/count distinction in dealing with event nominals. The gist of their claims is that event nominals are similar to mass nouns, while result nominals are like count nouns. That said, we believe their approaches are somewhat inconclusive and speculative without providing the motivation behind the creation of a mass noun from a verbal base. More importantly, contra the authors' claims, we demonstrate that event nominals can be used as count nouns as illustrated in (3),<sup>1</sup> where they are modified by temporal adjectives and presented with argument structure.

- (3) Count noun use of event nominals
- a. *These findings suggest that gallstones are **a frequent late complication of heart valve replacement**.*  
(*American Heart Journal* 1978)
  - b. *[...] application of the control pressure [...] produced a gradual rate of deformation (creep), probably caused by **a continuous removal of water** from the interstitial spaces as mentioned above.*  
(*Journal of Rehabilitation Research and Development* 1999)
  - c. *European civilization was portrayed as **a continuous development of one civilization**, whereas Asian histories emerged inert and isolated, as if they had been the debris of an atomic bomb, showing no continuous development.*  
(*Social Studies* 2003)

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<sup>1</sup> These examples are extracted from the Corpus of Contemporary American English (Davies 2016).

- d. *Further analysis of these sequences [...] showed evolution of these genotype B strains over time, which resulted in a ladder-like structure, suggesting **a continual replacement of lineages** over the study period.* (Emerging Infectious Diseases 2013)

These examples strongly suggest that the claim that the function of deverbal nominalization is to create a mass noun from its base verb is only a partial story. The intermediate stage of event-nominal creation indeed exhibits mass noun-like properties due to the imposed internal perspective. Yet this stage does not produce full nominals, lacking a grounding element, such as *the*, *this*, or *that*. The deverbal nominalization is completed upon the application of the grounding mechanism. We further demonstrate that the *-ing* nominals are parallel to deverbal event nominals in that they, too, need to be grounded to be full nominals, whether it be overtly or covertly.

Our view is compatible with Langacker's (1991, 2008) and Heyvaert's (2000, 2008). Langacker (1991) provides foundational CG work on gerundives, and Heyvaert (2000, 2008) further develops Langacker's ideas. However, as is often the case for most research, their work still can be improved upon to capture a wider range of data. For example, just as Grimshaw (1990) does, Langacker (1991: 25) suggests that *-ing* nominals are mass nouns and cannot be pluralized; we find this to be too strong a statement. More importantly, neither Langacker (1991) nor Heyvaert (2000, 2008) provide analyses of gerundives in conjunction with event nominals, leaving event nominals a lesser-examined topic within CG. We believe examining the work done by both formal and cognitive linguists helps enhance our understanding of the phenomena.

As for the data used in this article, most of the examples are extracted from COCA (The Corpus of Contemporary American English, Davies 2016) unless otherwise specified. As such, we attempt to provide the context as much as we can, with the belief that speech contexts provide a better understanding of the data. Concerning the terminology, different scholars use different terms in dealing with nominalization, often leading to unnecessary confusion. To avoid this, we will streamline the terms used in this article. Six distinct terms will be used to describe the phenomena provided in (4–9). Respectively, they are event nominal, result nominal, *ing*-OF gerund, POSS-gerund, ACC-gerund, and subjectless-gerund. When needed, the last three will be grouped together under the term *clausal nominalizations* or *clausal gerundives*.

- (4) Event nominal: ***The examination of the child's literary works**, written over a period of four years, allows for invaluable insight into the sensitivities of a growing precocious child.* (Report Review 2004)

- (5) Result nominal: “Yes, Ms. Bradbury?” “Is this going to be on **the exam**?”  
Schonfield scowled.  
(Analog Science Fiction & Fact 2009)
- (6) ing-OF gerund: Do you think **the killing of this Jordanian pilot** could somehow backfire here?  
(CBS 2015)
- (7) POSS-gerund: I never tired of seeing their awe at **my performing** the simplest tasks.  
(‘Til the Well Runs Dry 2014)
- (8) ACC-gerund: I imagine **him performing these jobs defiantly**, daring dangerous molecules to trespass his flesh, inviting them to step outside and trade blows.  
(The Kenyon Review 2005)
- (9) Subjectless-gerund: **Playing the guitar** is weird. When your hand comes up the neck, the whole guitar takes off sideways because the guitar is actually just floating in front of you.  
(Science News 2013)

This article is organized as follows. Section 2 discusses some challenges the two competing models face. Section 3 demonstrates how our construal-based semantic approach overcomes the difficulties left by previous models. Section 4 is devoted to clausal nominalizations with emphasis on their difference from ing-OF gerunds despite certain similarities. Section 5 discusses how the two cognitive linguistic notions, metonymy and zone activation, can be utilized to account for the rise of result nominals from relations and processes. Section 6 concludes this article by providing a summary of different types of nominalizations and their conceptual structures.

## 2 Challenges

Alexiadou and Grimshaw (2008: 4) provide a core set of generalizations concerning event nominals.

- (10) Generalizations of event nominals
  - a. Only nouns which are related to corresponding verbs have argument structure.
  - b. Nouns that are identical in form to verbs do not generally behave like complex event nominals.

- c. *-ing* nominals are always complex event nominals
- d. *-(a)tion* and *-ment* nominals are frequently ambiguous between eventive and non-eventive (result) readings.

Generalization (10a) is based on examples like *\*my car for three weeks*, where *car* does not exhibit an event structure due to the lack of a verbal base. (10b) states that V-to-N conversions cannot be used as event nominals as shown by *\*my kill of the time*. As in (10c), *-ing* nominals are transparent to their verbal base and can take obligatory arguments. (10d) is based on an observation like *the examination of the patients took a long time* vs. *the examination was on the table*. While *examination* in the former denotes an event structure of the base verb, *examination* in the latter simply refers to the result of an event.

Of these four generalizations, (10a) is unproblematic. In English, argument-bearing nominals are derived from verbs, preserving their base event structures. However, the other three generalizations pose significant challenges to the two models addressed above.

## 2.1 Conversion with event structure

Let us begin our discussion with the second generalization described in (10b). Neither model we discussed earlier, the structural model and the event-based model, allows V-to-N conversions as event nominals. In the event-based model, the preservation of the base event structure is mediated by affixes. These nominals cannot have an event structure, then, simply because they are affix-less. The handling of the case of conversion becomes more complicated in the overall structural model. In her exo-skeletal model – one type of structural model – Borer (2003, 2005, 2014) argues that conversions arise by merging the root verb with a functional head to directly transform it into a nominal, which is a derivation process that does not produce argument-bearing nominals. Another structural model, distributed morphology (Alexiadou 2001; Embick 2003; Halle and Marantz 1993; Harley 2008; Marantz 2001), assumes that V-to-N conversions must already contain all they need to denote complex events. The infelicity of the eventive reading of result nominals is then attributed to the “packager” à la Jackendoff (1991). When the conversion occurs, the packaging head imposes a boundary on the conversion, yielding a resultative count noun.

Nevertheless, V-to-N conversions can be used as event nominals, as illustrated in (11a–g). These examples are re-cited from Bauer et al. (2013: 208).

## (11) V-to-N conversion with event structure

- a. *Last year, just before the 50th anniversary of **Sir Edmund Hillary's climb of Mount Everest**, the Sherpas wanted to put up an Internet café at 18,500 feet, base camp on Everest.*  
(Denver Post 2004)
- b. *Technically, in Pennsylvania, you only have to have one license plate on your car, so the officer was improper on **his stop of this car**, but while he stopped the car, he observed in the back seat over 200 pounds of cocaine.*  
(PBS\_Newshour 1995)
- c. *But, of course, the fact that he was involved or may have been involved in that robbery two weeks before the crime doesn't really support **his murder of your mom** two weeks later.*  
(Ind\_Geraldo 1992)
- d. ***Bolivia's swap of \$650,000** is tiny in comparison to the overall commercial debt of \$500 million.*  
(Environment 1990)
- e. *We need to learn to understand our technological behavior as **a constant blend of these very different modes of consciousness**.*  
(American Heritage 1998)
- f. *If you often or sometimes have any of the symptoms listed below, see your doctor to have your breathing checked; [...] Bouts of coughing unrelated to colds or **the frequent spread of any symptoms** to the chest when you do have a cold.*  
(Consumer Reports 2007)
- g. *"[...] I can smell a skunk that was killed, and I know how many hours before it was killed," he said, in a conversation punctuated by **the frequent crash of beer empties** in a trash can behind the bar.*  
(San Francisco Chronicle 1991)

There is no denying that the conversions in bold in examples (11a–g) are interpreted eventively because they display full argument structure and/or can be modified by temporal adjectives like *constant* or *frequent*. Based on Smith's (1972) report about conversions, Grimshaw (2004) argues that Germanic-origin V-to-N conversions never preserve the original verbs' event and argument structures. According to her, because Germanic verbs nominalize only through zero affixation, Germanic-origin conversions cannot be complex event nominals. However, though the base verbs of all conversions in (11a–g) are indeed of Germanic origin, the conversions are all event nominals with full argument structure. This phenomenon is not limited to the few nominals described

above. Rather, it is a widespread phenomenon, and for this reason, the event-based model faces a serious challenge.<sup>2</sup>

These examples pose an issue for the structural model as well. Conversions with argument structure are not permitted in Borer's exo-skeletal model because the height of the conversion in the tree structure is too low to contain event structures. Albeit similar to the exo-skeletal model, it seems that Distributed Morphology (DM) can handle this issue by positing two zero affixes: one in relation to a result interpretation of the conversion, and the other for an eventive interpretation. However, many scholars warn against the use of a zero form without rigid justification. For example, Pullum (1991: 775–776) suggests that null constituents should not be utilized unless they meet the criteria laid out in (12).<sup>3</sup>

(12) Three conditions for positing phonologically null constituents

- a. The empty category is syntactically bound to another constituent in an unbounded dependency construction (i.e., extraction trace).
- b. The empty category is anaphorically linked to another constituent (i.e., null anaphor or controlled PRO).
- c. The empty category is associated with independently justifiable semantic content (e.g., a construction-specific semantic rule such as [<sub>NP</sub> *the rich* [<sub>N</sub>  $\emptyset$ ]]).

The potential DM solution does not meet any of the three criteria for its use of a zero affix, yielding a less-appealing analysis in our evaluation. In fact, though working in a similar framework to DM, Borer (2014) provides a strong set of arguments against zero affixes. We will not delve into the details here, but what she argues in evaluating DM is that there are no zero realizations categorically equivalent to *-(a)tion*; i.e., conversion is not a result of a zero derivation. The theoretical framework we adopt in this article is, of course, drastically different from Borer's. Nonetheless, we see a great similarity between CG and Borer's model in this particular claim. We don't need category-altering zero affixes for the process of nominalization in English. Given the conceptual content of a certain entity, its category would have to be contextually determined through interlocutors' construals. This is the position that both Borer and CG agree upon.

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<sup>2</sup> Newmeyer (2009) also discusses that zero-derived nominals can have argument structure. He attributes this behavior of V-to-N converted nominals to the historical development of the vocabulary of English.

<sup>3</sup> Of course, from a CG perspective, the question emerges whether a zero element should be posited at all. For example, even Pullum's justifiable case of positing the empty category (12c) can be avoided by assuming a simple conversion pattern.



## 2.2 On the ambiguity of the affixes

Alexiadou and Grimshaw's (2008) generalization (10d) poses some challenges as well. First, the structural model assumes that the affixes *-(a)tion* and *-ment* are underspecified. As a result, it can be stipulated that these affixes occur in both root and outer cycles. Setting aside some potential theoretical problems with this type of analysis (see Embick 2003), this two-cycle approach does not address the reasons why this widespread ambiguity exists. Against the underspecification approach, Grimshaw (2004) proposes that the apparent ambiguity is due to the two-step nominalization. An event nominal is created by the affixation of *-(a)tion* or *-ment* (Step 1 – partial nominalization) followed by a null affixation (Step 2 – full nominalization) that wipes out the event structure properties of the base. These affixes are neither ambiguous nor underspecified; the affixes are always complex event nominalizers.

We are not sure if Grimshaw's two-step nominalization approach is crucially different from the structural model's two-cycle approach. Additionally, positing another layer of zero affixation on top of the complex event nominal structure is hard to justify because the zero affix is neither semantically contentful nor syntactically bound. Moreover, we are not sure how the elimination of the internal event structure operates in Step 2. Even if we assume that Grimshaw's approach is justifiable, we cannot explain why the zero affix cannot be attached to *-ing* nominals to derive a result nominal.<sup>4</sup> Alexiadou and Grimshaw are aware of this weakness, and they acknowledge that neither the event-based nor the structural model answers the question of why only these affixes allow two-step nominalizations. As it turns out, these affixes are not that special; other affixes including *-ing* also allow "two-step" nominalizations.

As will get clearer in Section 5, our position concerning the ambiguity of nominalizing affixes is that the two interpretations of these affixes are not associated with their structural properties, i.e., affixation at different cycles or two-step nominalization. Rather, they are due to the metonymic shift in nominalization or the speaker's zone activation ability. It should be clear that we are not assuming that metonymy comes about by attaching an affix to its base on the syntagmatic axis; suffixations are not the result of metonymic operations. What we are assuming is, as Panther (2005) and Brdar and Brdar-Szabó (2014) argue, metonymy is a paradigmatic operation.

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<sup>4</sup> Note that *-ing* nominals can be used as result nominals, as will be discussed in Section 2.3.

## 2.3 On -ing event nominals and gerundives

Alexiadou and Grimshaw's (2008) generalization (10c) is roughly accurate in that the -ing affix preserves the event structure. In a different piece of work, Grimshaw (1990: 56) firmly states that "... the nominal -ing affix is unambiguous. [... -ing nominals] allow only the definite determiner, never are pluralized, and never occur predicatively" as illustrated in (13).

- (13) a. ***The shooting of rabbits is illegal.***  
(Grimshaw 1990: 56)
- b. \* ***A/one/that shooting of rabbits is illegal.***  
(Grimshaw 1990: 56)
- c. \* ***The shootings of rabbits are illegal.***  
(Grimshaw 1990: 56)
- d. \* ***That was the shooting of rabbits.***  
(Grimshaw 1990: 56)

However, Grimshaw's statement is too strong, since -ing nominals allow the indefinite determiner and occur predicatively. This is shown below, taken from Borer (2005).

- (14) a. ***There was a capsizing of a boat by Mary.***  
(Borer 2005: 78)
- b. ***There was at least one pushing of the cart to New York by John.***  
(Borer 2005: 78)

Our corpus/internet search further shows that the patterns illustrated in (14) are widespread, as shown with some additional examples in (15).<sup>5</sup>

- (15) a. ***"This" was bamboo splinters under the nails. "This" was a beating of the knuckles.***  
***"This" was being strung up by the wrists.***  
(Atlantic 1993)

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<sup>5</sup> Similar to Grimshaw (1990), Langacker (1991: 25) suggests that -ing nominals are mass nouns because they cannot be pluralized as shown in \* *My cat does several sleepings every day*. However, we find this type of general claim too strong because -ing nominals can be pluralized in a certain context as shown in *Since it is polyester, will it be slippery? Will the blankets still stay put? Will the top sheet remain tucked in during sleeping or several sleepings?* (Amazon.com review).

- b. *For example, every two hours there was **a feeding of one and a half ounce of formula**, and I took up the job for almost a year before I realized that I was close to a nervous breakdown.*  
(Google Books: *Families Living with Chronic Illness and Disability* 2004)
- c. *On the second day, there was **a tasting of microbrews**, including Anchor, Liberty Ale, Samuel Adams, and Allegheny Cream.*  
(*Denver Post* 1997)

Borer's (2005) position concerning the examples in (14) is that Grimshaw's statement is correct for atelic argument-bearing nominals, but not for telic argument-bearing nominals.<sup>6</sup> Relying on previous research (Borer 2005; Cappelle and Declerck 2005; Filip 1996; Jackendoff 1991; Krifka 1992; Verkuyl 1993), Alexiadou (2008) also proposes that the problem of pluralization of argument-bearing nominals has to do with unboundedness; plurality, unboundedness, and mass nouns are all related. She (Alexiadou 2008: 279) proposes this generalization in (16), stating that pluralization can apply to bounded nominals to yield unbounded nominals, which is the function of pluralization. Since nominals derived from the verbs of unbounded events are like mass nouns, pluralization cannot apply.

- (16) a. Count nouns are similar to bounded events.  
b. Mass nouns are similar to unbounded events.

Though this is indeed true, Alexiadou's generalization is far from being novel. Langacker's CG (1987a, 1991, 2008) provides in-depth discussion on significant parallels between nouns and verbs as well as between nominals and finite clauses. The reason the examples of our own creation, (17a–b), are not acceptable is relatively straightforwardly explained in CG, although Langacker does not discuss these types of examples directly. The base verbs in (17) are all imperfective verbs in CG terms, which is the same concept as Alexiadou's unbounded events. While imperfective verbs exhibit great conceptual similarities to mass nouns – both of them are unbounded – perfective verbs show conceptual affinity to count nouns – both of them are bounded. The nominalized verbs in (17) cannot be pluralized or be used as indefinite singulars, both of which are the properties of bounded nouns. This is so, because the bases of these nouns are imperfective verbs that are more similar to mass nouns as opposed to count nouns. This is, in fact, very similar to Alexiadou's observation

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<sup>6</sup> Alexiadou (2008: 279) states that this pattern holds across languages.

stated in (16), although she does not cite Langacker's work, which was more thorough than hers and appeared much earlier.

- (17) a. *\*The congregation's constant doubtings of the minister lasted for several years.*  
 b. *\*The candidate's frequent believings of the new justice system received much support from various minority groups.*

Langacker's position concerning the noun-verb parallelism has been successfully adopted by various researchers, particularly in dealing with English (Davidse 1991; Heyvaert 2000, 2003, 2008). Independent of Langacker and CG, a similar position is also observed in Schachter (1976). These researchers do not deal with event nominals directly, but the main idea behind their analyses is identical to Alexiadou's generalization.

It is worth noting that the grammatical behavior of *-ing* nominals, such as pluralization, is a reflection of their conceptual properties. Generally, imperfective verbs like *doubt* profile a stable situation with no intrinsic endpoint. In certain situations, however, these verbs can be construed as events that constitute a change. Indeed, some imperfective verb-based *-ing* nominals behave like count nouns as in (18), though these situations are rare and highly contextualized.<sup>7</sup> For example, *doubting*, in the context of Christian belief, is often viewed as a stage of spiritual growth (McGrath 2007) that we believe has a soon-to-come terminal stage. In this context, *doubting* exhibits a conceptual similarity to perfective verbs.

- (18) a. *And all of my lovings of birds and beasts and men and angels will be still greater things of joy and pride to you.*  
 (Google Books: *The Bride of the Sky* 1976)  
 b. *It tends to bereave our souls of all assurance of our salvation and all solid comfort which is the life of religion, and makes us subject to continual doubtings of the love of God toward us.*  
 (Google Books: *The Baltimore Literary and Religious Magazine* 1841)

Another disappointing aspect of Alexiadou's proposal is that her analysis is not fully developed. Although her later research (Alexiadou et al. 2010) provides a more detailed cross-linguistic analysis based on Number and Aspect projections, it still lacks an explanation of how and why nouns and verbs exhibit parallel patterns concerning boundedness.

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<sup>7</sup> We thank one of the reviewers who pointed out this property with the examples provided in (18).

The examples of *-ing* nominals we discussed thus far are all instances of the so-called *ing*-OF gerunds or ACTION *-ing* nominalizations in terms of Lees (1960). Other types of gerundive nominalizations<sup>8</sup> have been less-frequently discussed in the context of event nominals. To see the full picture of *-ing* event nominals, however, we need to incorporate these other types of gerundive nominalizations in our analysis. As previously discussed, *ing*-OF gerunds, as in (19), can optionally take a plural form and may be modified by an adjective. The other gerundive nominalizations, in (20–22), contrast with (19) in that the subjectoid cannot be replaced by a determiner. Unlike *ing*-OF gerunds, they cannot take adjective modifiers. Rather, they may be modified by either an adverb or the verbal negator *not* as shown in (20) and (21) respectively. All of these examples involve complex event nominals with full argument structure.

- (19) *Virginia told us about **her/the/Ø previous sightings (of the Blue Fox)**.*  
(Kaiser 1999: 2)
- (20) *Flo counted on **them quickly finding her lost dog**.*  
(Kaiser 1999: 2)
- (21) *They were shocked by **his not having called me up sooner**.*  
(Kaiser 1999: 2)
- (22) ***Smoking cigarettes** is unhealthy.*  
(Kaiser 1999: 3)

Perhaps one of the reasons examples like (19) have been discussed more thoroughly in dealing with event nominals may come from the assumption that they are different from other types of nominalizations, i.e., the *-ing* in (19) is different from those of (20–22). However, several scholars (Jackendoff 1977; Kaiser 1999; Yoon 1996; Yoon and Bonet-Farran 1991) observe that when a language has both an *ing*-OF gerund as in (19) and clausal gerunds as in (20–22), the same form often appears in both. In our analysis, we show that the instances of *-ing* in (19–22) are identical in their form and function. The difference resides in different grounding mechanisms. While (19) allows all types of grounding strategies, (20–22) allow only the covert or indirect grounding method. These examples of clausal nominalizations will be revisited in Section 4 for more detailed discussion.

One phenomenon conspicuously less-discussed in the literature is the use of *-ing* nominals as result nominals. Different from Alexiadou and Grimshaw's

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<sup>8</sup> Rosenbaum (1967) categorizes four types of gerundive nominalizations: *ing*-OF gerund, ACC-*ing* gerund, POSS-*ing* gerund, and PRO-*ing* gerund. The latter three are examples of gerundive nominalization in Lees's categorization.

(2008) generalization (10c), *-ing* nominals can be used as result nominals as shown in (23).

(23) *-ing* nominals as result nominals

- a. “You’re saying that Kaille used his witchery on Gordon? That’s why?” “I did not!” “I sensed **a conjuring**, Kaille,” Mariz said.  
(Dean Man’s Reach 2015)
- b. The **gathering** at the hall was a rare display of collective political assertion by the Rohingya in Malaysia, many of whom wore red T-shirts proclaiming their ethnicity.  
(New York Times 2015)
- c. This reduces the risk of contamination from rotting leaves or **droppings** from birds and insects in the trees.  
(Mother Earth News 2003)
- d. Although Medicare now reimburses the cost, insurers Highmark and UPMC Health Plan do not cover **the screenings**, so they are not being used regularly.  
(Pittsburgh Post-Gazette 2015)

These examples show that Alexiadou and Grimshaw’s generalization (10c) needs to be reconsidered; some nominals created with the *-ing* affixation are not complex event nominals. We observe that the use of *-ing* nominals as result nominals is often accompanied by a metonymic shift. In its function, the *-ing* affix is similar to other affixes such as *-(a)tion* and *-ment*. These two groups are indeed similar, but each is distinct in their own right. Whereas *-ing* nominals tend to gain a new result meaning through metonymic shift, result nominals with other affixes emerge through either zone activation or metonymic shift. The difference between these two processes and their applications in facilitating the creation of result nominals will be discussed in Section 5.

### 3 A construal-based semantics

In the previous section, we discussed the challenges that the two major models – event and structural – face concerning conversion, affixal ambiguity, and the *-ing* nominals. We will illustrate how our analysis overcomes these challenges in this section. In doing so, our presentation will be given in the reverse order: *ing-OF* nominals, affixal ambiguity, and conversion. This is because, as will be discussed, *ing-OF* gerunds exhibit more general patterns than the other two cases.

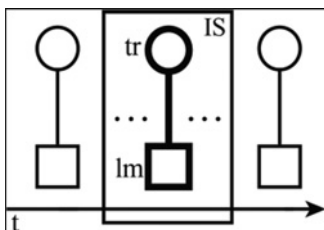
### 3.1 Grounding and the case of ing-of gerunds

We will focus on *ing-OF* gerunds in this section as illustrated in (24), postponing the discussion of clausal *-ing* nominalizations until Section 4.

(24) *ing-OF* gerunds

- a. Screenwriter Jason Hall's **recounting of his tricky meeting with Kyle** and subsequent talks with Kyle's widow, Taya, are as engaging as anything in the film.  
(People 2015)
- b. It may even be a time for the courts to allow **organizing of lower managerial ranks**.  
(Hospital Topics 1994)
- c. So there's a lot of things that are below the radar of police, a lot of signaling and intimidation that's going on all the time, and then there are occasional assaults and very, very occasional **killings of witnesses**.  
(NPR 2015)
- d. At Prete Plaza, the program will include **the reading of a mayoral proclamation**.  
(Austin American Statesman 2015)
- e. **A singing of the state song** concluded the ceremonies.  
(American Indian Quarterly 1998)

Stated in CG terms, a verb profiles a process, which is “a complex relationship that develops through conceived time and is scanned sequentially along the axis” (Langacker 2008: 112). That is, the base verbs in (24) all profile processes. Participles, then, are elements that invoke a certain vantage point for viewing the processual content. More specifically, *-ing* in (24a–e) provides an internal vantage point by imposing a limited immediate scope (IS) in the temporal domain. The consequence of the imposition of IS is the exclusion of the beginning and end of the verbal process, yielding an atemporal mass-like construal, which is shown in Figure 1. The ellipses (...) in this figure indicate the viewing of the focused states as effectively equivalent. Here, we would like to clarify the two CG notions, immediate/maximal scope and atemporal construal. The verb is viewed as a succession of events evolving over time, which conceptually includes starting and end points. This whole viewing frame is called a maximal scope, where the entire bound event is included in the frame. Viewers, however, put a smaller portion relevant in a discourse context “onstage”. This “onstage”

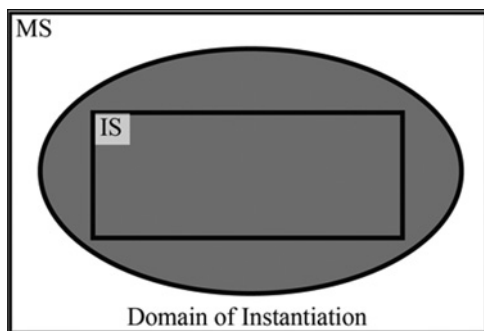


**Figure 1:** The imposition of IS, redrawn after Langacker (2008: 121).

This is slightly different from Langacker's original figure. In his figure the *lm* is not marked. Technically, the *lm* square can be represented as a circle because the relation is between two things, but we left it as it is.

region is called an immediate scope. Although the maximal scope contains the bounded event, the immediate scope imposed in Figure 1 excludes the beginning and end points of the bounded event; hence this construal becomes atemporal.

Returning to the imposition of IS, one important point is the choice of the term *mass-like*. The result of the imposition of IS shown in Figure 1 clearly resembles a mass noun – shown in Figure 2 – as it is internally homogeneous and brings the process/relationship into immediate and exclusive focus. Both Figures 1 and 2 show a case of an unbounded element in which its boundary exists outside of the speaker's focus of attention, i.e., IS. Here, *domain of instantiation* is equal to space.



**Figure 2:** Mass noun, redrawn after Langacker (2008: 133).

Yet the result of the IS imposition in Figure 1 does not create a noun, because what is profiled is still a relationship, not a thing. Through the additional higher-



level organization, conceptual reification,<sup>9</sup> it becomes a noun.<sup>10</sup> Note, however, that noun is a type specification, as opposed to an instance. A noun becomes a nominal through grounding, which is needed to direct the speaker's attention to the intended discourse referent. It is important to stress that while nouns are classificatory, grounded nouns – nominals – are referential. Without grounding, interlocutors cannot make a distinction between the “talked-about” member and the rest of the members in the same category. The most obvious grounding method is to utilize an overt grounding element, which is the case in (24d) and (24e). In (24d), *-ing* imposes the IS on the process profiled by the base verb *read*, yielding a mass-like interpretation. Then, *reading* combines with *a mayoral proclamation*. Since *reading* loses its verbal property by being atemporalized and reified, it cannot directly combine with another nominal. This is resolved by the preposition *of*, which invokes a schematic relationship between two things. When *reading* and *a mayoral proclamation* are combined via *of*, the internal structure of *reading* is still visible, and the landmark is elaborated<sup>11</sup> by *mayoral proclamation*, yielding an object-like interpretation of the base verb *read*. The outcome, *reading of a mayoral proclamation*, however, is not a full nominal, as it still lacks grounding. The grounding in (24d) occurs, then, through the use of the definite article *the*. Example (24e) shows a slightly different case with the indefinite article *a*. In (24e), the IS is imposed on the process profiled by the base verb *sing*, followed by the combination with *the state song* via the preposition *of*. In this case, the result, *singing of the state song*, is construed as a count noun by expanding the IS as in Figure 3, rendering the boundary visible within the IS. As a count noun, it can be grounded by the indefinite article.

Not every grounding method is overtly realized; grounding can be achieved covertly or indirectly. Mass nouns and proper nouns/pronouns are examples of this, though they differ from each other. While mass nouns are grounded by directly shifting the speaker's attention from a type to an instance, proper nouns/pronouns are intrinsically grounded without any kind of shifting.

(24a) represents a case of indirect grounding, which is often achieved with a possessive. Here, *recounting of his tricky meeting with Kyle* is indirectly grounded via the intrinsic grounding of *Jason Hall*. In this case, *Jason Hall* corresponds to

<sup>9</sup> When reification occurs, as is often the case with *nomina actionis*, a general tendency for metonymic shift is observed “from the activity in general to a specific single act of performing the activity” (Brdar and Brdar-Szabó 2014: 335). This type of metonymic shift, however, will be not be discussed in this article.

<sup>10</sup> In other words, as Heyvaert (2000: 105) argues, “*-ing* does not create a noun, but preserves the verbal character of the verb it attaches to.”

<sup>11</sup> *Elaboration* is a CG term, which is roughly the same as the head-complement or the subject-predicate combination in a traditional sense.

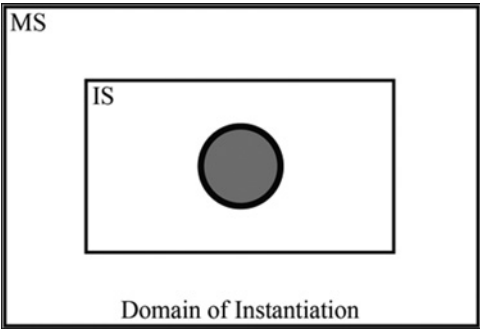


Figure 3: Count noun, redrawn after Langacker (2008: 133).

the trajector of the relationship profiled by the base verb *recount*. As a consequence, it is interpreted as the subject of the relationship, which is depicted in Figure 4. Note that Figure 4 shows the result of the indirect grounding of *recounting* via *Jason Hall*, in which the landmark of the reified process is elaborated by *his tricky meeting with Kyle* (htm).<sup>12</sup> In this figure, the IS portion is identical to that of Figure 1. Different from Figure 1, however, the internal part of the IS is reified as indicated by the bold ellipsis, which is the target (T) of the

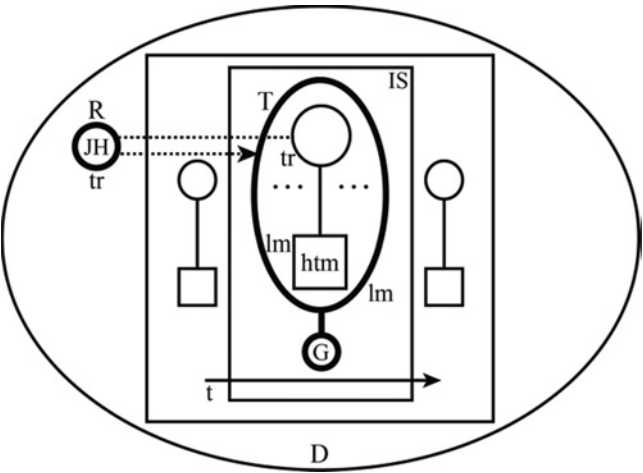


Figure 4: CG description of *Jason Hall's Recounting of His Tricky Meeting with Kyle*.

<sup>12</sup> For a discussion on *of* in CG, please refer to Langacker (1991: 37–42) and Langacker (1992).

reference point<sup>13</sup> (R), *Jason Hall* (JH). As a reference point, JH functions as a mental address to access the reified event (T). As for the notations used in Figure 4, the grounded element is indicated by the circled G. D stands for dominion, which is defined as a set of potential targets. The bold circles denote profiled things to which attention is directed.

The pluralized form *killings* in (24c) functions as a mass noun grammatically, and thus can be grounded covertly. The difference between (24c) and (24e) is illustrated using CG diagrams in Figure 5. For the simplicity of exposition, only the final stages of the compositions are shown, and trajectors and landmarks are not labeled. Figure 5(a) shows that each instance of *killings of witnesses* is grouped to be a plural nominal. The group of instances is grounded covertly in this case. Figure 5(b) shows the grounding of one particular instance, *singing of the state song* with the indefinite article.

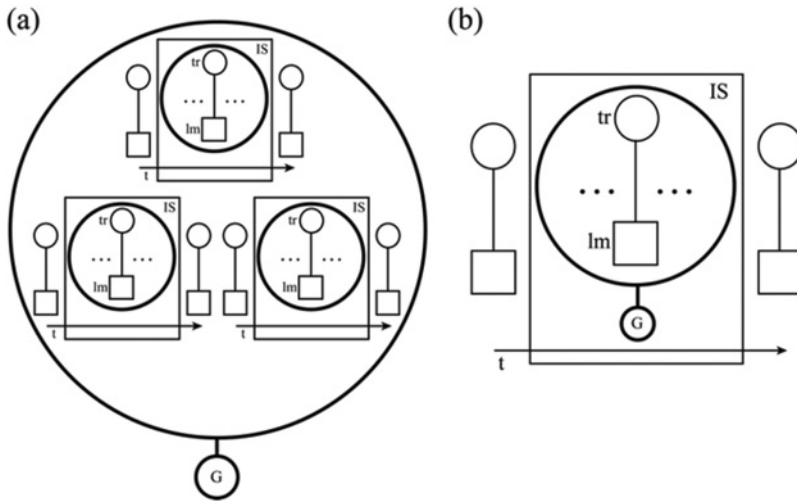
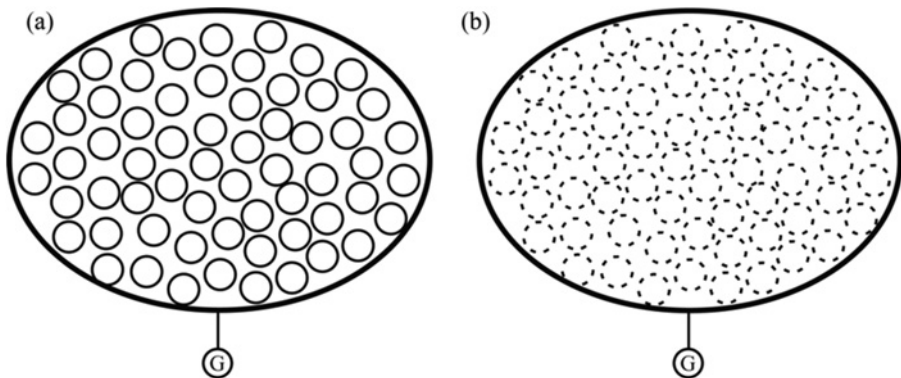


Figure 5: Plural mass and count noun interpretations of the *-ing* nominal.

<sup>13</sup> A very rough analogy of reference point would be bird watchers looking for falcons in a densely wooded area. One bird watcher spots a bird immediately and notifies his companion. The companion, not seeing the bird right away, would ask exactly where the bird is, since the heavily wooded area provides many places for a falcon to perch. The first bird watcher would then likely provide some kind of reference point for the companion, perhaps with the aid of a preposition phrase: *The bird is near the big rock*. In this example, *the big rock* is a reference point, *the bird* is the target, and other potential targets form a dominion.

For the purpose of comparison, Figure 6(a) illustrates grounded plural nouns such as *books*, and Figure 6(b) depicts a grounded mass noun. According to Langacker (2008: 131), bare plural nouns resemble mass nouns. For this reason, Langacker (2008: 131) calls plural nouns ‘plural mass nouns’ and mass nouns ‘non-plural mass nouns’. The difference between the two is what they foreground. While mass nouns foreground the perceived continuity of the mass at the expense of constitutive entities as notated by dotted inner circles in Figure 6(b), plural nouns foreground the whole through individual elements notated by solid inner circles in Figure 6(a).



**Figure 6:** Plural Vs. mass noun, redrawn after Langacker (2008: 131).  
The grounding notation is our modification.

In sum, the *-ing* affix imposes an IS on the profiled process of the base verb, which results in a mass-like entity. After undergoing reification, this entity needs to be grounded to be a full nominal. If it is grounded covertly, it is indeed construed as a mass noun. On the other hand, it can be construed as a count noun when IS is zoomed out. When this happens, the entity can be grounded by the indefinite article. Alternatively, it can be grounded indirectly in the possessive construction. Grounding by the definite article can occur to both mass/plural and count construals. The count noun uses of *-ing* event nominals are observed when the base verbs of the reified nominals are perfective. Event nominals of the *-ing* type created from imperfective verbs generally resist the count noun construal.

### 3.2 The case of event nominals

Event nominals like *examination* and *replacement* behave very similarly to the *ing-OF* gerundives. Just like *-ing*, the nominalizing affixes impose IS on the

process profiled by the base verb, and the result of the IS imposition is an atemporalized mass-like entity. All five types of grounding methods used for -ing nominals are observed in event nominals as well, as shown in (25).

(25) Event nominals

- a. *The Board found Dr. Nguyen failed to meet the standard of care in **his treatment of a pediatric patient** with a fractured wrist.*  
(Houston Chronicle 2011)
- b. *These difficulties do not lead to discouragement or **abandonment of the effort** for ultimate unity, for we hope for and believe in help from above.*  
(Journal of Ecumenical Studies 2013)
- c. *Assignments of commercial deposit accounts are governed by Revised Article 9, although **assignments of deposit accounts** in consumer transactions remain excluded [...].*  
(ABA Journal 2001)
- d. *The novelty of this study lies in **the demonstration of the influence of class-level homophobic attitudes**, not individual homophobic attitudes.*  
(School Psychology Review 2012)
- e. *However, **a computation of effect sizes** using the formula indicates moderate magnitudes ranging from .10 to .25.*  
(College Student Journal 2010)

Event nominals can also be grounded by demonstratives, which is different from what previous researchers have claimed (Grimshaw 1990; Zucchi 1993), as illustrated in (26).

(26) Event nominals grounded by demonstratives

- a. ***That examination of management practices** at dozens of US-based corporations became a runaway hit, 5 million copies were sold, making it one of the most widely read business titles of all time.*  
(NPR Morning 1993)
- b. *[...] the artist had to attempt to reproduce **that destruction of use-value and traditional intelligibility** that was at the origin of the experience of shock.*  
(October 2004)
- c. *I hope that **this arrangement of 50 Democratic senators and 50 Republican senators** can be made to work for the American people, and I genuinely believe that it can [...].*  
(U.S. News & World Report 2000)

Although previous research focused on the two affixes, *-(a)tion* and *-ment*, we observe the same event nominal formation with the less-productive affixes *-al*, *-ance*, and *-ure* as in (27).

(27) Event nominals with less productive affixes

- a. ***A refusal of such a request*** should be interpreted as a warning sign that your new renter has something to hide.  
(Black Enterprise 1991)
- b. But extant sources suggest that ***his performance of Sinners*** was part of a week-long series of traveling revival meetings that were promoted by a half dozen local clergymen.  
(Church History 2005)
- c. *The West's standoff with Russia over **its seizure of Crimea**, analysts and former administration officials said, could complicate American efforts to curb Iran's nuclear program [...]*  
(New York Times 2014)

Although the basic function of these affixes is identical to that of *-ing*, *-(a)tion/-ment* and *-ing* are different in three notable ways. First, *-ing* is more flexible than *-(a)tion/-ment* in that it can impose IS either at the lower or at the higher level. The imposition of IS by *-ing* can occur either before or after the elaboration of the landmark of the relationship profiled by the verb, as shown in (28a) and (28b), respectively. By contrast, *-(a)tion/-ment* exhibit a restricted pattern by allowing the imposition of IS at the lower level only – before the elaboration of the landmark, as in (29). All examples in (28) and (29) are our own.

- (28) a. ***Jane's singing of the song*** shattered all the glass in the conservatory.  
b. ***Jane's singing the song*** shattered all the glass in the conservatory.
- (29) a. ***Jane's examination of the newly discovered artifacts*** took several months.  
b. ***\*Jane's examination the newly discovered artifacts*** took several months.

Second, as we demonstrated in Section 2.3 and elsewhere, the count noun use of *-ing* event nominals is dependent upon the base verbs' perfectivity. This dependency is not observed among event nominals created with the aforementioned nominal affixes. If the affixation is permissible in English morphotactics, the resulting event nominals may be used as either count or mass nouns. The base

verbs of *appreciations*, *detestation*, and *denials* in (30) are all typical imperfective verbs. But they all can take a plural or an indefinite singular form.

- (30) a. [...] *the dead do care at all for their name and fame, then how must the souls of Shakespeare and Webster have been stirred, after so long converse with things that stopped their ears, whether above or below the soil, at **his exquisite appreciations of them** [...]*  
(Raritan 2000)
- b. *Expulsion of those with sexual differences from the sacred precincts of the church and expunging their acts and gifts from our institutional memory may express **a detestation of intrinsic evil**, but it also carries with it an effective denial of common humanity.*  
(America 2004)
- c. *Later in the year, Charles Dolan, a former national propagandist for the BUF, claimed that **Mosley's previous denials of antisemitism** had always been "for political reasons only."*  
(History Today 2015)

The last difference between these affixes and *-ing* is observed when they create result nominals. As we already mentioned in Section 2.3, while *-ing* nominals tend to gain a new result meaning through metonymic shift, result nominals with other affixes emerge through either zone activation or metonymic shift. This issue will be revisited in Section 5.

### 3.3 The case of conversion

As explained in Section 2, both the event-based and the structural models must block V-to-N conversions, but they are frequently observed. Imposing IS on the process without the help of an affix like *-ing* is nothing unusual. Let us consider the examples in (31) from Dancygier and Sweetser (2014) and Langacker (1987a).

- (31) a. *I've got cat all over my skirt.*  
(Dancygier and Sweetser 2014: 131)
- b. *After I ran over the cat with our car, there was cat all over the driveway.*  
(Langacker 1987a: 67)

Normally, *cat* is a count noun, and is therefore bounded within the immediate scope in the domain of instantiation as described in Figure 2. In (31a), as Dancygier and Sweetser (2014) state, "one might imagine, for example, large

accretions of shed cat fur on my skirt – more than a few individual, countable hairs”. Langacker’s well-known and somewhat gory example (31b) can be explained in a similar way. After the accident, the poor cat is not identifiable anymore, and he became formless and boundary-less. Using count nouns in the mass noun context alters the meaning of the count noun, which becomes possible by zooming in the IS. The result here is that the focus of viewing is confined to the IS, excluding a boundary from the specific focus of attention. One important matter here is that this alteration of the focus of attention does not have to be accompanied by grammatical elements. Conversion is another example of semantic alteration without grammatical encoding.

## 4 Clausal nominalizations

In this section, we extend our analysis of event nominals to clausal nominalization. We demonstrate that the function of *-ing* in clausal nominalizations is identical to that of *ing-OF* gerunds. The crucial difference between *ing-OF* gerunds and clausal nominalizations comes from the grounding methods the two types of gerundives adopt. We demonstrate that clausal nominalization is completed by indirect grounding or by the construal of the reified event as the maximal extension.

### 4.1 Some background on clausal nominalizations

For the sake of convenience, we reintroduce Kaiser’s three types of clausal nominalization examples with new numbers here.

- (32) *Flo counted on **them quickly finding her lost dog**.*  
(Kaiser 1999: 2)
- (33) *They were shocked by **his not having called me up sooner**.*  
(Kaiser 1999: 2)
- (34) ***Smoking cigarettes** is unhealthy.*  
(Kaiser 1999: 3)

The gerundive nominalizations described above have been extensively discussed from diverse theoretical perspectives, e.g.: generative linguistics (Abney



1987; Baker 1985; Yoon 1996), HPSG (Malouf 1998), amorphous morphology (Kaiser 1999), DM (Alexiadou et al. 2010), word grammar (Hudson 2007), cognitive linguistics (Heyvaert 2000, 2003, 2008), and formal semantics (Chierchia 1984; Portner 1991; Zucchi 1993), among many others. All of these proposals provide valuable insights on the gerundive phenomena, though due to space constraints, we cannot discuss them in depth. We note that two research proposals, Alexiadou et al. (2010) and Heyvaert (2000, 2008), are particularly germane to our proposal. Although these authors do not cite each other's work, both proposals treat gerundives as similar to mass nouns, which is also our view. In their DM-based approach, Alexiadou et al. propose a hierarchy of functional projections that include nominal (Num, Class) and verbal (Asp, VP). Alexiadou et al.'s approach to gerundives is thus nominal-over-verbal, which is the most widely accepted view. By contrast, working from a functional perspective, Heyvaert (2008) adopts Halliday's (1966) notion of rankshift. In this view, gerundives involve the shift of a clausal configuration of functions, from clausal to nominal rank, while maintaining their internal clause-like structure. Furthermore, based on Schachter (1976), Heyvaert proposes a nominal analysis of gerundives by claiming that gerundive nominalizations fit in with the nominal paradigm internally. Her evidence comes from the subcategories of gerundives: "the system of gerundive nominalizations draws on two basic nominal-constructive options, viz. those of specific (definite or indefinite) and non-specific (viz. generic) reference" (Heyvaert 2008: 57). Although we believe Heyvaert's choice of the words "a nominal analysis of gerundives" is somewhat of an overstatement,<sup>14</sup> we are generally in support of Heyvaert in that we also believe specificity plays an important role in understanding different types of clausal gerundives.

That being said, we believe Heyvaert's analysis needs more clarification in dealing with examples like (35).<sup>15</sup> Heyvaert (2008: 69) argues that "the presence of the oblique, non-generic subject *you* turns the gerundive nominalization into the conception of a specific instance rather than a type and the downranked unit *you being a Cowboy fan, an old boy from Arkansas* functions as an inherently

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<sup>14</sup> This is because, no matter what, gerundives exhibit both verbal and nominal properties to some extent; gerundives are different from prototypical mass nouns. Also, we are not sure how the object of the base verb is treated in her nominal gerundive approach. She argues that the combination of the object with the verb does not create an instance. This is true and we agree with her. But the object is still the object of the verb, elaborating the landmark of the process profiled by the verb, in terms of CG. If so, there exists a verbal property, at least at this stage.

<sup>15</sup> Alexiadou et al. (2010) do not include ACC-gerundives in their discussion.

definite nominal.” This means, as far as definiteness is concerned, (35) is identical to (36), which is also identified as an example of the specific subcategory of gerundive nominalizations, exhibiting inherently definite nominal properties.

- (35) *We’re behind you because you’re a winner and a champion. Appreciate **you being a Cowboy fan**, an old boy from Arkansas.*  
(Heyvaert 2008: 69)

- (36) ***Magic Johnson’s having the AIDS virus** is just as great a national catastrophe as the assassination of President Kennedy and the Challenger disaster.*  
(Heyvaert 2008: 65)

This is true when the gerundives appear in the subject position. However, when they appear in the complement position with a non-factive matrix verb, they allow different interpretations. Let us consider examples (37–39) from Portner (1991). In these examples, as Portner demonstrates, only the (a) examples with the POSS-gerundive have a familiarity presupposition. In the (b) examples, it is not necessary that the familiar situation of *John coming to visit Mary* be actual. Put differently, when the ACC-gerund occurs with a non-factive matrix verb in the complement position, it can be interpreted as non-definite, while POSS-gerunds are always definite without respect to factivity or their syntactic position.

- (37) a. *Mary didn’t discuss **John’s coming to visit her**.*  
Portner (1991: 110)  
b. *Mary didn’t discuss **John coming to visit her**.*  
Portner (1991: 110)
- (38) a. *If Mary contemplated **John’s coming to visit her**, she didn’t tell me.*  
Portner (1991: 110)  
b. *If Mary contemplated **John coming to visit her**, she didn’t tell me.*  
Portner (1991: 110)
- (39) a. *It’s unlikely that Mary discussed **John’s coming to visit her**.*  
Portner (1991: 110)  
b. *It’s unlikely that Mary discussed **John coming to visit her**.*  
Portner (1991: 110)

A similar observation is found in Kaiser (1999). According to her, only examples like (40a)<sup>16</sup> presuppose the existence of the events they denote. While (40a) allows only one interpretation of “I heard a false rumor which was in some way related to the fact that John smoked stogies” (i.e., John smoked stogies), (40b) has another interpretation in addition to that: “I heard a false rumor that John had smoked stogies” (i.e., it is not necessarily the case that John smoked stogies).

- (40) a. *I heard a false rumor about **John’s smoking stogies**.*  
 b. *I heard a false rumor about **John smoking stogies**.*

In relation to the presupposition issue, the difference in case marking between POSS-gerunds and ACC-gerunds should not be treated lightly. This is because this formal difference is not accidental; it is a close reflection of the functional differences. These issues need to be incorporated to provide a full-fledged picture of gerundives.

## 4.2 A CG-based analysis of clausal nominalizations

Our proposal concerning clausal nominalizations is summarized in the following. The function of *-ing* is identical to that of *ing-OF* gerundives; the *-ing* used in clausal nominalization imposes IS on the profiled process as well. The difference is that the IS is imposed at a later stage in the case of clausal nominalizations, after the landmark of the verb is elaborated by its object. This is so far basically the same as Langacker’s (1991) treatment of gerundives. The resulting relationship of the IS imposition can turn into a noun by reification. This is a noun in the sense that it specifies a type, not an instance. As a type specification, it needs to be grounded to be a full nominal. The important part of our proposal resides in the grounding methods adopted in clausal nominalizations. When an event denoted is factive, the reified process is grounded indirectly by the possessive. When an event is non-factive, the speaker has another option, i.e., grounding the reified entity locationally. The gerundive portion in (40b), *John smoking stogies*, may thus be interpreted as “in John’s domain of experience, there exists a reified event in which John participates as a trajector,” where the reified event is non-definite. Note that the non-definite construal is available

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<sup>16</sup> Kaiser’s original examples are *I heard a false rumor about Bill getting fired* and *I heard a false rumor about Bill’s getting fired*. We slightly modified her original examples to include the landmark of the base verb in the gerundive.

only when the gerundive appears with the non-factive matrix verb; the default construal of these gerundives is still the definite interpretation. This means that (40b) can be identical to (40a) in their definiteness-related predictions under a non-factive context. In this case, the only difference between the two becomes the case pattern of the subjectoid, which will be explained later in this section.

To illustrate what exactly we mean by locational grounding, we first need to discuss the location and the existence schemas. Figure 7(a) illustrates the location schema that roughly translates to “an entity is located in a delimited region”. Figure 7(b), which is the existence schema, is interpreted as “an entity is located in the domain of existence”. Not surprisingly, these two schemas exhibit great similarities.

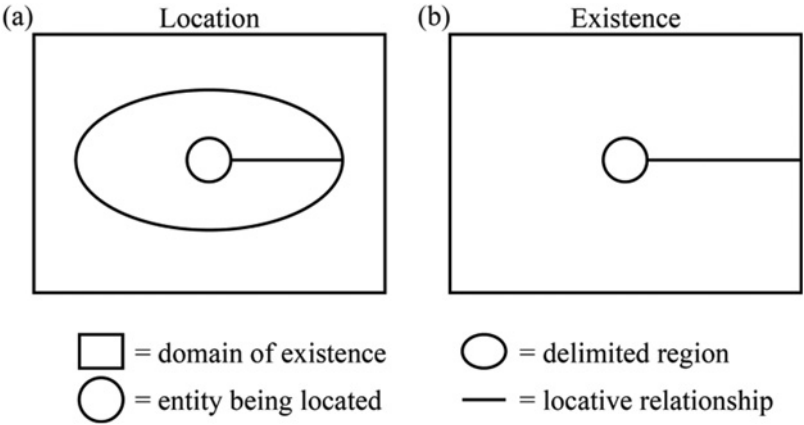


Figure 7: Location and existence, redrawn after Langacker (2009: 99).

The location schema – Figure 7(a) – can be extended to the locative schema depicted in Figure 8, where R refers to reference point; T, target; C, conceptualizer;

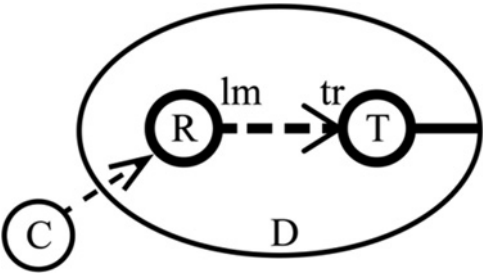


Figure 8: The locative schema, redrawn after Langacker (2009: 100).

and D, dominion. This figure is a representation of the situation in which the target occupying a location is accessed via a reference point.

Perhaps the best example that can be analyzed by the locative schema is the Japanese example in (41), where *magô(-ga)* ‘grandchild’ matches the target (T) in the locative schema, and *iru* ‘exist’ represents the existence relationship indicated by the bold horizontal line on the right side of T. At the lower level of organization (not shown here), *magô(-ga)* is grounded independently of *Watashi(-ni-wa)* ‘I’ as the trajector of the clausally grounded existence relationship. Then, *magô-ga iru* combines with *Watashi(-ni-wa)* via the locative schema to yield the final composite structure in (41), where only *magô-ga iru* is profiled.

- (41) *Watashi-ni-wa magô-ga iru.*  
 I-to-TOP grandchild-SUBJ exist  
 ‘To me, there is a grandchild./I have a grandchild.’  
 (Langacker 2009: 99)

The important observation is the independence of the target (*magô*) in grounding. Different from the possessive construction – a case of the regular reference point construction – the locative-schema-induced structure does not utilize the indirect grounding method.

With this background, we return to the ACC-gerundive example (40b), which is diagrammed in Figure 9. The grounding strategy adopted here is the locational grounding in which the reified event is grounded independently of *John*.

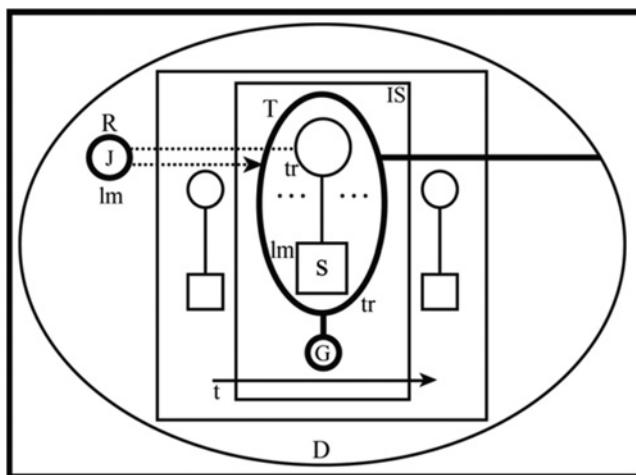


Figure 9: Accusative grounding.

In other words, the reified event is not grounded via the intrinsic grounding of *John*. As a consequence, the reified event does not have to be definite. Nonetheless, *John* corresponds to the trajector of the relationship profiled by the verb, yielding the subjectoid interpretation of *John*, although it is accusative case-marked. The order of operations is critical here – the IS was imposed only after the elaboration of the landmark (*stogies*) of the relationship profiled by *smoke*. Owing to the later stage of the IS imposition, this construction naturally exhibits more verbal properties than *ing-OF* gerundives. In Figure 9, the reference point, *John*, is a landmark in relation to the trajector *smoking stogies*. This is so because, as shown in the rough rephrase above, *John* does not directly participate in the existence relationship; what exists is the reified relationship, not *John*.

Figure 10 illustrates a typical indirect grounding strategy that is applied to (40a). The reified event *smoking stogies* is rounded indirectly by *John* as shown by the circled G, which becomes possible owing to *John*'s becoming a reference point trajector in relation to *smoking stogies*. This is therefore identical to the *ing-OF* depicted in Figure 4, though the compositional pathways of the two figures are different. In Figure 10, *smoke* and *stogies* are combined before the imposition of *is* to yield the structure, which is different from Figure 4. Regardless, *John*'s *smoking stogies* functions like an inherently definite nominal owing to the definite grounding of the reified event through *John*.

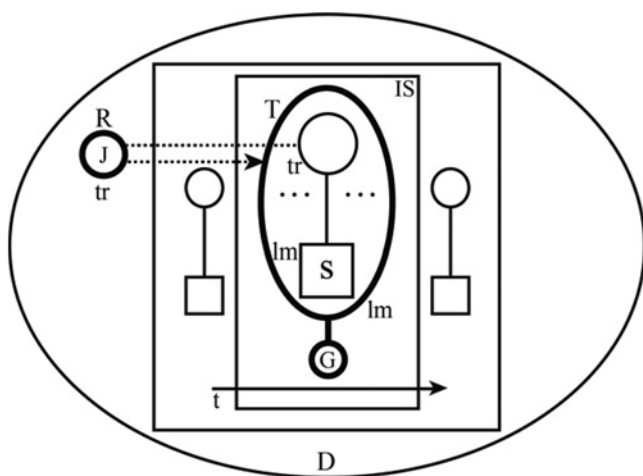


Figure 10: Possessive grounding.

While the subjectoid is realized with the possessive marking by being a trajector of a reference point relationship in Figure 10, it is realized with the accusative case in Figure 9. This is because the subjectoid in ACC-gerundives is a landmark, which receives the default case. In English, as MacFadden (2007) and Schütze (2001) demonstrate, the accusative case plays this role.

In both cases, the internal structures are well-preserved, as shown by the depiction that the reference point corresponds to the trajector of the relationship profiled by the base verb. The preserved internal structure of clausal gerundives leads to the interpretation of a set of reified events (before grounding) or a specific reified event (after grounding). Owing to this preserved eventivity, clausal gerundives are modified by adverbs. This is not a surprising consequence, particularly considering the traditional treatment of adverbs. For example, in (Neo-)Davidsonian semantics (Davidson 1980; Parsons 1990), adverbs are interpreted by predicating them not of an individual or a property, but rather of an event. As a result, a sentence that includes an adverb is interpreted as an event that has an adverbial property. This view tells us that adverbial modifications are more likely semantics-based, as opposed to grammatical category-based. Our treatment of clausal gerundives as reified events naturally explains adverbial modification of gerundives in that what the adverb modifies is an event. Morzycki (2016: 199) illustrates the parallelism between adverbs and adjectives in the Davidsonian semantic approach. If we interpret his position in CG terms, adverbs modify relationships, while adjectives modify things. Since reified gerundives are not typical things with their internal structure fully preserved (with their objects fully realized, for instance), adjectival modification is often not preferred or not permitted at all.

Concerning ACC-gerundives, Taylor (1996: 282–283) cautiously suggests that the accusative-marked subjectoid might be due to the ungrounded status of the nominalized clause. As an ungrounded clause, the gerundive lacks an intrinsic aspect of subject-verb agreement, and the subjectoid is realized as a non-nominative form, the default case in our terms. Although his suggestion is reasonable, there are a couple of problems in Taylor's treatment of ACC-gerundives. First, the nominalized clause does not need a clausal grounding that involves a tense marking on the finite verb because it is a full nominal. So, Taylor's clausal grounding-based suggestion is somewhat irrelevant to this case.

Second, as a nominal type specification, nominalized clauses need to be nominally grounded, instead of clausally. In the earlier example (40a), for instance, the nominalized clause *smoking stogies* needs to be nominally grounded by *John's*. Similarly, *smoking stogies* needs to be nominally grounded in (40b). In both cases, the form and function of *smoking stogies* is identical. The

difference resides in the different nominal grounding mechanisms, which we explored already in this section.

### 4.3 Subjectless gerundives

Before moving on, we would like to discuss the third type of clausal nominalizations: subjectless gerunds as described earlier in (34). Heyvaert (2008) provides an informative categorization of these, summarized in (42).

(42) Heyvaert's categorization of subjectless gerundives

- a. Specific
  - i. Retrievable subject  
Ex: [...] *had decided to boycott me for the mere fact of having written a book on Franco.*  
(Heyvaert 2008: 65)
  - ii. Retrievable and reinsertable subject  
Ex: *Of course, I regret getting pregnant.*  
(Heyvaert 2008: 67)
- b. Non-specific (Generic)
  - i. Controlled subject (clausal type specification is instantiated)  
Ex: *Having an ugly wife makes a man mean.*  
(Heyvaert 2008: 65; Postal 1970: 462)
  - ii. True subjectless (clausal type specification)  
Ex: *Eating vegetables is healthful.*  
(Heyvaert 2008: 65)

According to Heyvaert, while (42ai) and (42aii) denote a specific and single instance of a process type, (42bii) denotes a clausal type specification. In the latter case, no single event reading is possible. (42bi) allows either a generic or a specific reading.<sup>17</sup> We agree with Heyvaert in that (42ai) and (42aii) have specific interpretations particularly when the subject can be retrievable (and reinsertable) whether the process is anaphoric or exophoric. This is naturally accounted for in our analysis based on grounding. In (42ai) and (42aii), the gerundives are indirectly grounded by the retrievable (and reinsertable) subject, thereby leading to proper noun-like definite descriptions. However, we believe (42bi) and (42bii) need more clarification.

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<sup>17</sup> A specific reading is possible when the subject is retrievable.



Let us consider (42bii) first, in which *eating vegetables* is a clausal type specification in terms of Heyvaert. If this is the case, how does this function as a full nominal? Abney (1987: 172–173) provides several syntactic tests to prove that true subjectless gerunds behave like full canonical nominals. We provide the same set of tests with the made-up examples in (43–48).

- (43) *I learned about **eating vegetables**.* (Object of a preposition)
- (44) *Is **eating vegetables** healthy?* (Subject-Auxiliary Inversion)
- (45) *I believe that **eating vegetables** should be more encouraged.* (Subject of embedded sentence)
- (46) *Perhaps, **eating vegetables** has more health benefits we are unaware of.* (Subject following initial adverb)
- (47) ***Eating vegetables** I can't abide.* (Topic position)
- (48) *It's **eating vegetables** that I can't abide.* (Cleft position)

(42bi) faces a similar problem. Heyvaert states that (42bi) can be interpreted specifically or generically. This is because the subject of the gerund *Having an ugly wife* can be recovered as a specific person or it can just denote a type rather than an instance. In other words, Heyvaert generally equates genericity with a type, and specificity with an instance. However, genericity/specificity and type/instance are separate notions. Consider the examples in (49) from Krifka et al. (1995). The nominals *the potato* and *potatoes* in (49a) and (49b) refer to a kind, as opposed to some individual potatoes or a specific group of potatoes. (49c) is slightly different in that it is a generic sentence that expresses a generalization about potatoes. In all three cases, the subject nominals express genericity, even though they are grounded instances. Genericity does not require a type specification; instances can express genericity too. The difference between the instances in (49) and others is actuality. As Langacker (2008: 526) describes, “[i]nstead of being actual, an instance of a type can be conjured up for a special purpose, one of them being a general statement”. The instances in (49) are all conjured-up entities to express genericity, which makes them distinct from typical instances. Nevertheless, they are clearly different from type specifications concerning their grounding and meaning; they are indeed instances.

- (49) a. **The potato** was first cultivated in South America.  
(Krifka et al. 1995: 2)
- b. **Potatoes** were introduced into Ireland by the end of the 17th century.  
(Krifka et al. 1995: 2)
- c. **A potato** contains vitamin C, amino acids, protein, and thiamine.  
(Krifka et al. 1995: 3)

Our solution for true subjectless gerunds is to adopt the notion of maximal extension. Langacker defines maximal extension as follows:

[Maximal extension] reflects a number of conceptual phenomena [...] Through grouping and reification, conceived instances are “pulled together” and viewed as a unitary entity. The maximal extension further represents a conceptual blend, combining properties that cannot actually coexist – in particular, those of both count- and mass-noun referents. On the one hand, it is conceptualized as a mass of indefinite extension. [...] At the same time, we conceptualize it as a bounded entity, one that is somehow limited in extent. (Langacker 2008: 279)

The properties of subjectless gerundives we have discussed thus far fit this description of maximal extension. As a maximal extension, they are virtual; speakers are not referring to any actual instances. Rather, what they are referring to are fictive instances. A maximal extension is clearly an instance grounded somewhat differently from other types of grounding methods. The genericity represented by subjectless gerundives is not a sign of their type properties, but a result of their being grounded as a virtual unitary entity.

## 5 Zone activation and metonymy

This section discusses how result nominals arise through zone activation (profile/active-zone discrepancy) and metonymy. First, we would like to clarify what we mean by these two terms.

### 5.1 Is zone activation a species of metonymy?

Metonymy is an extensively researched subject in recent cognitive linguistics, covering a wide range of data.<sup>18</sup> We do not intend nor pretend to review the

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<sup>18</sup> Some examples include Croft (1993), Dirven (1999), Panther and Radden (1999), Kövecses and Radden (1998), Littlemore (2015), and Radden and Kövecses (1999).

large body of research on metonymy here, as it is beyond the scope of this article. What we are interested in is ascertaining the difference between metonymy and zone activation and their roles in the rise of result nominals from different types of nominalizations.

Zone activation and metonymy are frequently discussed notions in Langacker's CG-related publications (Langacker 1987b, 1991, 1993, 1995, 2008, 2009). These notions, seen in (50) and (51), seem to be intricately connected. While (50) is a typical instance of zone activation, (51) is a clear example of metonymy. In the former, we observe the profile/active-zone discrepancy because the profiled portion of *your dog* is actually *your dog's teeth*. Instead of *your dog's teeth*, however, *your dog* (active zone) plays the trajector role in the relationship, leading to a discrepancy between the two; *your dog's teeth* is cognitively activated by virtue of linguistic context. (51) is a case of metonymy, where *the red shirts* exhibits a reference shift from a physical entity to another characteristic associated with it, i.e., a sports team.

- (50) *Your dog bit my cat.*  
(Langacker 1984: 177)

- (51) *The red shirts won the match.*  
(Geeraerts and Peirsman 2011: 94)

The concept of metonymy becomes more prominent in Langacker's later work. He (2009: 41) claims that "[...], grammar is basically metonymic, in that the information explicitly coded does not itself establish the precise connections apprehended by the speaker and hearer in using an expression." He then emphasizes the connection between zone activation and metonymy in multiple publications. Overall, Langacker (2000: 67) argues that "profile/active-zone discrepancy is a special case of metonymy".

Unfortunately, Langacker does not always clearly distinguish between metonymy and zone activation, and other scholars interpret these notions differently. Paradis (2004), for example, argues that some of Langacker's zone activation examples must be situated somewhere between metonymy and zone activation, positing a new categorization called facetization. By contrast, Ruiz de Mendoza (2011: 106) describes facetization as "another level for what Croft (1993) called domain highlighting". Because of the different uses and definitions of the notion, Geeraerts and Peirsman (2011: 91) describe zone activation as "[maybe] one of the least homogeneous concepts of Cognitive Linguistics". To avoid

confusion in our analysis, we would like to clarify what we mean when we use metonymy and zone activation.

We adopt the view of Geeraerts and Peirsman (2011). They argue that zone activation is a completely different phenomenon than metonymy based on the observation that there is a lack of necessity of the reference shift in zone activation, while this is required for typical metonymy, such as (51). Additionally, in zone activation, the profiled portion and its active zone may not be interchangeable in a certain grammatical context, while a metonymically shifted expression is almost always interchangeable with its original expression. As shown in (52), the profiled thing, *your dog's teeth*, is incompatible with the verb *bite*, because it requires a volitional subject. The predicate *bit the cat* is only compatible with the active zone, *your dog*. By contrast, (51) and (53) show that both *the red shirts* and *the team* are compatible with the same predicate. Barcelona (2011: 51) maintains a similar position by stating that “some instances like *your dog bit me* are doubtfully metonymic,<sup>19</sup> since it is difficult to claim that *the dog's teeth* are perspectivized from *the dog*”. According to him, (52) shows a contrast with (54) in which *United States* is clearly perspectivized from *America*.

(52) \* *Your dog's teeth bit my cat.*

Barcelona (2011: 32)

(53) *The team won the match.*

(54) *America will prevail over terrorism.*

Barcelona (2011: 32)

Although there are some borderline cases, we believe the observations and claims made by the aforementioned scholars are valid. Following their elaborated definitions of zone activation and metonymy, we use the term metonymy when there is a reference shift and the shifted sense is still compatible with the predicate. Zone activation, by contrast, does not require a reference shift, and active zone and profile are not always interchangeable. We believe this type of separation between the two notions is on a par with Paradis's (2011: 81) definitions of metonymization and zone activation: “metonymization is a construal that operates *between senses*, while active zone operates *within senses*”.

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<sup>19</sup> Kövecses and Radden (1998: 70) view this as WHOLE FOR PART metonymy.

## 5.2 Result nominals through zone-activation or metonymy

Result nominals created with *-(a)tion* or *-ment* often exhibit a zone activation property.<sup>20</sup> In (55a), the profiled portion is the landmark of the relationship denoted by the verb *announce*. However, the whole reified event (active zone) becomes the trajector of the relationship profiled by the predicate *has shaken its shares on the New York Stock Exchange*. This shows a profile/active-zone discrepancy. While the active zone, *announcement*, is compatible in (55a), the profile, *announcement's content/outcome/result* as seen in (55b), is unnatural or unacceptable in the same context, where the landmark of the reified event is grammatically expressed as *that Alex Ferguson will retire in two weeks' time after almost 27 years as manager of Manchester United*. The same is true for (56a–b). The grammatical context in which the profiled portion of an event relationship (landmark) is overtly expressed is compatible only with active zone.

- (55) a. *The sudden **announcement** on Wednesday that Alex Ferguson will retire in two weeks' time after almost 27 years as manager of Manchester United has shaken its shares on the New York Stock Exchange, to say nothing of its effect around the sporting world.* (New York Times 2015)
- b. *# The sudden **announcement's content/outcome/result** on Wednesday that Alex Ferguson will retire in two weeks' time after almost 27 years as manager of Manchester United has shaken its shares on the New York Stock Exchange, to say nothing of its effect around the sporting world.*
- (56) a. *This institutional regime meant that companies were compelled to share a greater proportion of the wealth they generated with the people who contributed to its **creation**.* (Atlantic 2015)
- b. *# This institutional regime meant that companies were compelled to share a greater proportion of the wealth they generated with the people who contributed to its **product/result of creation**.*

Some result nominals created with the said affixes may gain a new meaning through metonymic shift. In (57), *development* is not a simple result/product or a target of developing, and thus profile/active-zone

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<sup>20</sup> As explained in Section 2.2, result nominals with these affixes may be construed metonymically as opposed to zone-activationally.

discrepancy is not observed. Instead, *development* refers metonymically to the idea within the field of study in which the protagonist is participating. This example seems to involve RESULT FOR ACTION metonymy. Similarly, *sensation* in (58) is not the object of sensing. Rather, it describes a widespread reaction caused by something perceived, which might have resulted from CAUSE FOR EFFECT metonymy.

(57) *There are moments, he admits, flashes that come and go as fast as a blinking light, when he sees news reports about some new **development** in the field and it hits him. Wait a second, they're saying that we've melted a lot.*  
(Esquire 2015)

(58) *Mr. Douglas-Hughes came from a very old and wealthy family, and I well recalled the **sensation** it had caused when he had married an American dancer named Mamie Allen.*  
(Death Wears a Mask 2015)

While -(a)tion/-ment-affixed nominals become result nominals through either zone activation or metonymic shift, -ing-affixed result nominals gain new meanings mainly through metonymy. As shown in (59), *viewing* undergoes a referential shift from “a reified relationship of seeing” to “a ceremonial act of paying one’s respect to a corpse”. Similarly, (60) shows the reference shift of *hearing* from “a reified relationship of perceiving sounds” to “an act of listening to evidence in a court of law”.

(59) *Stephanie has a grandma that's a really great old lady but kind of a couple cans short of a case and she goes to funerals, she goes to funeral parlors for recreation, you know? Four or five nights out of the week she'll be at a **viewing**.*  
(CNN\_SunMorn 2000)

(60) *I was fascinated by it. I watched the **hearings** when I was on vacation in Michigan. I loved it. That we're still dealing with the aftermath of that 40 years later.*  
(ABC 2014)

Perhaps the rise of new meanings of *viewing* and *hearings* in (59) and (60) can be accounted for by the SUBEVENT AND COMPLEX EVENT metonymical pattern described by Peirsman and Geeraerts (2006: 290). This pattern, according to the authors, “comprises two actions, events or processes, one of which is

conceptualized as a part of the other”. In examples (59) and (60), *viewing* and *hearings* are reified subevents that are parts of complex events; e.g., *hearings* in (60) includes the action of physical hearing, but that is only a part of the complex process that includes other court activities. Nevertheless, the speaker picks out one subevent from a complex event to refer to the complex event as a whole.

Here, we would like to emphasize that we are not claiming that suffixes exhibit metonymy, which is different from Janda’s (2011) view on metonymy and word formation. Rather, as extensively argued by Brdar and Brdar-Szabó (2014) in response to Janda (2011), a metonymic shift does operate on a whole derived word as a source. *Viewing* in (59) gains a new meaning not because of the *-ing* affix, but because of the metonymic shift facilitated by the newly formed word *viewing*. This shift is possible due to the choice of a subevent of a complex event.

Although the diachronic development of result nominals is beyond the scope of the present article, it is also worth noting that many of the result nominals presented in this section are strongly lexicalized forms over time. This type of lexicalization is not available for all nominalizations, at least not to the same degree. This means many of these highly lexicalized nominalizations have been shaped by usage, especially when they are highly frequent. Naturally, then, zone activation and metonymy are not only processes that guide the synchronic interpretation of nominals, but also important driving forces in the diachronic semantic development.

### 5.3 Converted nominals

Conversion within the context of metonymy has been discussed by many scholars, notably Dirven (1999), Kövecses and Radden (1998), Radden and Kövecses (1999), and Schönefeld (2004). Radden and Kövecses (1999) argue that N-to-V and V-to-N (nominalization) conversions “can be seen as two complementary morphological processes leading to the two types of reversible metonymies” (Radden and Kövecses 1999: 37). In Schönefeld’s (2004: 143) interpretation of Radden and Kövecses, this means that the N-to-V conversion facilitates the WHOLE EVENT FOR PARTICIPANTS metonymy, whereas the V-to-N conversion facilitates the PARTICIPANTS FOR THE WHOLE EVENT metonymy. Schönefeld, however, disagrees with this treatment of conversion. She claims that conversion is a special case of metonymy, and not all conversions should be considered metonymies. We believe Schönefeld’s point is valid, particularly in the case of V-to-N converted nominals as shown in (61).

- (61) a. *Thankfully, about a year before I learned I had osteopenia, my mom gave me **a kick** in the butt that inspired me to take control of my health.*  
(*Prevention* 2013)
- b. *This evening, as always, there will be four events: **a run, a jump, a throw** and an agility drill.*  
(*Denver Post* 2013)

The converted noun *kick* in (61a) is identical in its content to its base verb, and *run*, *jump*, and *throw* in (61b) have the same content as their base verbs. In both cases, these nominals denote a reified relationship between two things, exhibiting maximal transparency between pre- and post-conversion. These nominals created by V-to-N conversions do not show a profile/active-zone discrepancy nor do they facilitate a noticeable metonymic shift other than the general shift from the activity in general to a specific single act of performing the activity, which is observed not only in this particular case, but also in action nominalizations in general.<sup>21</sup>

Langacker (1991: 25) notes that nominalization does not add anything to the conceptual content of the verb; “the semantic contribution of nominalization is limited to profiling (an aspect of construal)”. By contrast, he views the N-to-V conversion as “generally accompanied by the addition of conceptual content” (Langacker 1991: 25). What Langacker means by nominalization is not limited to conversion only, since he is discussing deverbal result nominals like *explosion*. We cannot fully agree with Langacker in that, as we observed, some nominalizations seem to add some conceptual content such as *assignment*, which exhibits added content in addition to simply *something assigned*. However, the V-to-N conversion seems to support Langacker’s claim. It does not add anything to the conceptual content, other than some changes in profiling. Although the issue warrants further exploration, the data presented here and elsewhere seem to support the view that V-to-N converted nominals generally do not facilitate a metonymic shift, other than the general shift mentioned above.

One final note on conversion: Many V-to-N conversions have a genuine resultative interpretation as illustrated in (62).<sup>22</sup> As one of the reviewers of this article pointed out, *offer*, *show*, and *catch* have a resultative interpretation. Sometimes, conversions profile the agent trajector as in *the cook* in (62d) and the instrumental landmark as in *the clasp* in (62e).

<sup>21</sup> The conversions in (61) qualify for episodic nominalizations that profile “a region whose constitutive entities are the component states of a process” (Langacker 1991: 24).

<sup>22</sup> We thank one reviewer who pointed this out with the examples provided in (62).



- (62) a. *They just kept upping **the offer** until I had to say yes.*  
 b. *She's the star of **the show**!*  
 c. *He's **a good catch**.*  
 d. ***The cook** made scrumptious meals for homeless people.*  
 e. *You don't have to worry about messing with **the clasp**!*

These examples belong to the simplest type of nominalization in terms of Langacker (1991: 23). In this type, nominalization occurs by shifting the profile of a verb to a nominal, where the nominal can be either a trajector as in (62d) or a landmark as in (62e). Similar to other cases of conversions, no new content is added to the base verb's conceptual content; the nominalization occurs through the shift of profiling.

## 6 Conclusion

Throughout this article, we demonstrated that generalizations proposed by Alexiadou and Grimshaw (2008) are too strong to capture the flexible nature of event, result, and gerundive nominalizations, although these are generally agreed-upon observations, at least in the formal linguistics enterprise. In fact, many grammatical constructs often treated as infelicitous by previous researchers are observed in naturally-occurring discourses. We observed that event nominals exhibit great similarities to gerundive nominalizations in that both of them utilize the speaker's ability to construe an event as a mass-like entity. Be that as it may, they are different concerning the grounding strategies they adopt. While event nominals and the *ing*-OF gerundives adopt all grounding strategies, clausal nominalizations permit only two strategies: indirect grounding through a reference point and grounding by maximal extension. Event nominals and *ing*-nominals also contrast in their result nominal uses. We observed that result nominals with *-(a)tion/-ment* or other similar affixes arise due to zone activation or a metonymic shift. By contrast, *-ing*-affixed result nominals tend to be created only through a metonymic shift. Here, we would like to emphasize that these are just tendencies we observed with a limited set of data, instead of a principled guideline. V-to-N converted nominals are different from the two aforementioned cases. Neither zone activation nor a metonymic shift, other than a general shift observed in nominalizations, is utilized in conversion. In that sense, converted nominals exhibit the most transparent case among the three.

This article was a small attempt to develop a uniform analysis of event, result, and gerundive nominals from a CG perspective. As mentioned in the

overview section of this article, these topics have been thoroughly examined from various formal linguistics perspectives. It is somewhat surprising that relatively little attention has been paid to these phenomena within the purview of cognitive linguistics. A more surprising finding is that formal linguists and cognitive linguists do not seem to communicate enough in dealing with these phenomena, although both groups provide good insight and can learn from each other's research. We tried to incorporate these two groups' views with the hope that understanding each other's view will enhance our understanding without respect to our theoretical persuasions.

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