In the first part of the paper, I have compared the verbal nouns in Amharic with the gerunds in English to show that the verbal nouns in Amharic too are nominal/gerundive categories. In this second part, I will first present different avenues for the analysis of gerunds–reviewing what directs people have taken to solve some of the challenges the gerunds (and nominalization) poses to the theory of grammar. I will also sketch out a preliminary proposal on the gerunds in Amharic could be analyzed.

In the third part of the paper, I will delve into deeper theoretical problems such as the selection, control, agreement and case; and how each of these modules interact with the nominalization. The outcomes of the study on the selection might lead to a modification, even rejection of the proposals sketched in this paper.

1   Lines of Analysis

1.1   The transformational theories

The transformation theories developed in the earlier dates of Transformational Grammar attempted to derive English gerundives from sentences or sentence like structures Lees (1960). Lee's analysis of the English gerundives specially generated a profound impact in the analysis of gerundives across languages. The only two works on Amharic gerundives, Fulass (1966) and Demissie (1977) attempted to transformationally derive the gerundives from clausal basis due to his work.

1.2   Lexicalism

While Chomsky 1970 fully adopted Lee's analysis of gerunds, his new more lexicalist looking theory sparked a new line of thinking about all kinds of derived nominals. Chomsky analyzed the nominals in English in two separate domains. The new theoretical framework, bisected the derivation of the gerundives into lexical domain and syntactic domain. That is, for the *ing-of* gerundives (also called *mixed nominalizations*), syntax is not responsible for deriving them from clausal bases to a nominal category. The derivation rather proceeds within the lexicon.

There are two major issues entertained in correlation with nominalization in the history of GB: the first is the domain of derivation; while the second is the categorial status of the derived constructions themselves.

?, replying to some of the developments of the generative semantics,tackles the first issue by explicitly rejecting the syntactic (transformation) derivation of derived nominals. He puts their derivation into the lexicon–and question the status of the Possings. The work opened a door for making a distinction between the lexical component of the derivation and the syntactic (transformational) component.

The issue emphasized in that work has been to demarcate the syntactic (transformational) part of the grammar from the lexical component. He advocated the lexicalist analysis for the derived nominals—yielding in the proliferation of lexicalist theories in the 80's and 90's. Due to the

influence of that work, for the rest of the GB theory, the dominant view for the derivation of the derived nominals has been the lexicalist approach.

Following the same line of thought, Schachter (1976) rejects the derivation of gerundives from sentences altogether and proposed a new line of analysis. Chomsky latter (1981) adopts his theory.

Within the lexicalist framework, Grimshaw (1990) has been the most important work for the derivation of English nominalizations. In earlier works, the classification of nominals into two major classes; process nominals and result nominals is well established; see Grimshaw (1986, 1990), Lebeaux (1986), Roeper (1987b), Zubizarreta (1987) and Yimam (1987) for Amharic.

(1) a. the instructor's (intentional)examination of the students (surprised the director)(=EN)
      b. the frequent collection of mushrooms (by the students)(=EN)
      c. the instructor's examination/exam (is lying on the table)(=RN)
      d. John's collections

The major contribution of Grimshaw's 1990 work is the argument that the event nominals themselves are two major types: *Complex event nominals=CENs*(process nominals) and *Simple Event nominals=SENs*.

As Grimshaw stressed, even both of the event nominals bear event interpretation, the complex event nominals (CENs) are different from the SENs for they are endowed with aspectual structures. She groups the simple event nominals with the result nominals for their lack of aspectual properties.

 (i) **Aspect-less nominals** = result nominals & simple event nominals: e.g. *exam/examination, table, race*

 (ii) **Aspectual nominals** = Complex event nominals : e.g. *examination, collection*

Her main contention is: predicates lacking aspectual structure also lack argument structure. Only predicates which have the aspectual structure, such as the complex event nominals, have argument structure. For argument structure, she takes the thematic hierarchy to be "he organizing principle" for it. She takes the following hierarchy as the hierarchy of the arguments: **(Agent (Experiencer (Goal/Source/Location (Theme))))**

She also takes the aspectual structure as another dimension of the organizing principle of arguments. In this dimension, the arguments are fitted into (Cause (Others)) format. That is, arguments which are associated with causation appear in higher position than the non-cause associated arguments. External argument in her theory is the argument which is prominent both aspectually as well as thematically.

—What is the "Aspectual" in her theory? She is using Veldler's theory of verbal aspect (internal aspect) to map the arguments into a hierarchy (prominence). For an *accomplishment* predicate, it is taken a composition of *activity* and *state/result* sub-aspects (subevents)

 • Accomplishment= Activity + Result(State)—based on Pustejovsky 1988

 • *X break Y* = the activity is one in which X engages in the event in such a way that Y will be in a broken state.

The argument which participants in the first subevent (the activity) is taken as more prominent than the participant in the result subevent.

Simple event nominals, lacking the aspectual structure, also lack the argument structure. She used this logic to explain why a nominal like *exam* does not force internal argument while *examination* allows so. The *examination* is taken as ambiguous between the simple event and complex event nominal. She takes the *exam* as an example of a simple event nominal version of *examination*.

(2)   a.   They tore up their examination/exams
           b.   The examination/exam took place at 6pm
           c.   We witnessed the examination/exam
           d.   They examined the patient carefully
           e.   The careful examination of the patient revealed that he was healthy
           f.   *The careful exam of the patient revealed that he was healthy

(Grimshaw 2011, her 13)

The first example is to show the derived nominals functioning as result nouns. The second example, being argument of the eventive predicate *took place* shows that these arguments have event interpretation. Having an event interpretation, however, doesn't guarantee that the nominal will contain full argument structure. *Examination*, contra to *exam* is a CENs. Therefore, it displays properties of its base-verb by combining with the typical arguments of the base as the e example shows. But, *exam*, being a simple event verb, Grimshaw stressed, doesn't have argument structure. Hence, it cannot license arguments, as shown in (2-f).

Notice, the focus is on the comparison of (2-b) & (2-c) with (2-f). (2-b) & (2-c) show that both exam and examination have event interpretation. But, having event interpretation, doesn't enable the simple event predicate *exam* to have an argument, as (2-f) shows.

Simple event nominals:

- they are derived from verbs

- they refer to events

- but, they don't maintain the argument structure of the verbal base

That event interpretation is responsible for much of the properties that the derived nominals display. RNs, on the other hand, are ordinary nouns both distributionally and semantically.

While Grimshaw's theory of verbal aspect as the source for licensing of arguments is widely accepted, it is repercussions to the syntactic theory at large has not been fully been investigated. Take the current Minimalist understanding of syntactic derivations, for example. In BPS, the operation responsible for the introduction of the internal argument with the verb is supposed to be Merge. Merge is taken either as a blind force of combinatorics, or motivated by other independent forces like the EDGE feature. Merge in its current form doesn't sense lexical semantics, nor any semantic units of any kind. If Merge is a blind force to verbal aspect, then, the prediction is, predicates with verbal without verbal aspect will be as capable of having arguments as those with it. This is a wrong prediction if Grimshaw's theory is correct. Then, we have to show either that Grimshaw's theory is wrong, or need to modify the Minimalist means of combinatorics, the Merge, to fit the facts presented in Grimshaw's theory. Since Grimshaw's theory is well-established and that, has been confirmed language after language that the verbal aspect

is a crucial factor for the introduction of arguments, it seems clear, then that our conception of Merge is on the wrong track. In this dissertation, I will argue that Merge needs to be modified in such a way that it will be made compatible with Grimshaw's work. I will argue that, Merge, if it has to apply at all, should be sensitive to semantic factors.

It will be argued that not only Grimshaw's discovery, Chomsky's original idea deriving both the verb and the nominal gerund direct from the category neutral root–also in its recent implementations in the DM; Marantz 1997; Alexiadou 2001;Harley 2009; Borer 2003) leads to the same conclusion. That is, roots, since they lack syntactic features (properties), they cannot be combined by standard Merge which operates on syntactic features (a problem known by the "Deepest Sisters problem" in some circles). It will be shown, an operation which is sensitive semantic units is better suited both the verbal aspectual selection shown in Grimshaw's work, as well as the combinations of roots in the rest of the literature.

Even if the lexicalist approaches have little direct application on the analysis of gerunds at large, Grimshaw's framework has played a prominent role in the understanding of nominalization at large. She analyzed nominalization as a form of passivization where the arguments are suppressed in the course of nominalization. Since the gerunds seem to be formed with the same process of nominalization (they are a class of CENs), one cannot help but to notice, a framework devised for the derivation for the low level nominalization should also be applicable to higher level nominalization. Since gerunds are a class of CENs, a general theory developed for them should also work for verbal gerunds. Since they are in the same class, it is incumbent on any nominalization theory developed for action nominals be able to handle the gerund nominals too; or, at least, should be adaptable with no major havoc to the framework. This should apply to Grimshaw's theory too. If nominalization of the action nominals is analyzed as a form of passivization, the mechanism should apply to the gerunds too. I will contend, that is a possibility. I will show that gerunds are not formed by truncation of some functional heads in the higher domain; and, present evidences that the passivization approach is the right approach for analysis of gerunds too.

I will, however, assume that the thematic hierarchy that her theory is highly reliant on, is a derivative hierarchy. It is not the primitive of the grammar.By now, there is clear evidence that the theta-role levels themselves: such as Agent, Theme, Patient, etc. are not part of the argument structure of the verb–nor are they the primitives of the grammar Rappaport and Levin 1986; and Zubizarreta 1987. They rather emerge as the result of the semantic combinatorics between the predicates and their arguments, in a very similar sense to Chomsky (1986*b*, 1995). For the hierarchy of the arguments, I will rather adopt a system like Ramchand 2008 where the hierarchy of the arguments is the reflex on the hierarchy of the subevents (aspectuals).

Even if the lexicalist (Chomsky's 1970, Grimshaw's 1990 and other works) analysis has been the most dominant framework for lexicon-internal looking derivations like nominalization until the early 1990s, Hale & Keyser's (1993) important contribution on the application of syntactic tools within the lexicon, there is a reinvigoration of the syntactic analysis for word-internal combinations. Another important work of the time which argued against the division labor between the lexicon and the syntax, Borer (1991, 1993), made a lasting impact in the field. She argued against the modularity of the lexicon; argued for the syntax to take care of all types of combinatorics. The *syntax all the way down* frameworks since have been gaining grounds in the past two decades. Hence, the lexical analysis forwarded toward argument taking nominals in Grimshaw's work has been questioned and reinterpreted in the syntactic terms recently, Borer (2009).

I will, however, attempt to show that the lexicalist approach and the syntactic approaches should not be taken as two alternative approaches to the same problem. They can work in tandem; to the same unified effect. Firm discoveries made on the lexicalist camp should influence and shape the syntactic theory; and vice versa. I will attempt to show that the lexicalists have some inevitable facts and discoveries that the syntactic theory needs to accommodate. The accommodation of these facts, however, won't come without costs. We need to rethink how the syntactic mechanism operates. One of the rethinking that I want to call attention to is the role of semantics in the syntactic operations. Re-conceive the Merge operation to be sensitive to the semantic units, the discoveries made in the lexicalist camps will certainly be accommodated into the syntactic theory.

The second issue entertained in correlation with the nominalization is the categorial status of the derived constructions. The issue of syntactic categories has a long history and one of the most important topics in linguistics, obviously. And the long and extended debate about syntactic categories, hybrid categories like gerunds and nominalization present their own special challenge, and, a special opportunity to understand about syntactic categories. In the pre-Chomskian linguistics, and also within the functionalist theories which we will discuss in the subsequent sections, distribution in a sentence is a crucial indicator of the category of a certain linguistic object. If two linguistic objects, say, α and β appear in the same position in the sentence, they are assumed to be of the same category. In that sense, since the gerunds typically appear in the same position with the nouns, they are directly predicted to be nominal categories (or, classed with nouns).

(3) a. [The game] impressed the tourists
     b. [Mary's winning the game] impressed the tourists

Since the *the party* and the *Mary's running the marathon* fill *the game* slot in the sentence, they are considered to fal.

When Chomsky came along, the distribution uniformity, or the fact that the elements fill up the same slot, is taken to be an phenomenon rather than as a primitive of some sort. That is, Chomsky's early works argue that the fact that two elements appear in the same position should be due to some common property the two are endowed with. That is, the distribution is rather the result of an inherent, internal common property they have. Then, the work of the linguist it to discover what those internal properties could be.

In the earlier GB, these properties are usually marked simply by $[+N]$, $[+V]$ like features. The prediction is, both of the noun and the gerund in the above example would contain the $[+N]$ property. That property then determines their syntactic distribution. Virtually all the theories under the GB umbrella share this basic assumption. If the gerunds are similar in distribution with the nouns, it should be because they share some common features with the nouns. That feature is denominated as NOM, D, n, N or other level. Still, the basic assumption is the same. That specific feature is what makes the gerunds act as nouns. The functionalist theories don't share this assumption.

Within the GB, the lexicalist theories automatically derived constructions into the nominal category, as categories are supposed to be part of the lexicon. They, however, have little to say about the higher level derivatives like the gerunds. At this point, it might be necessary to mention how the term "lexicalism" has been used here. The term "lexicalism" has been employed in two different senses. In one sense, call it the narrow sense, the lexicon is the level of derivation. There are lexicon internal processes; and there are lexicon external processes. That is what

Chomsky 1970 advanced. When the term is used in its broad sense, it meant to represent the situations where derivations are motivated by lexical properties. It is in this broad sense that the whole of Minimalism is sometimes considered as a lexicalist theory. I am using the term in its narrow sense when I say that lexicalist theories have little to say about gerunds.

Newer Minimalist sub-theories have rejected the classification of linguistic derivation into syntax and lexicon (DM, **?**, Exo-lexicalist Borer (2003, 2005*a*) and Nanosyntax Starke (2009)) levels. Because these theories assume that every kind of derivation (whether word/morpheme-internal or external) are supposed to be syntactic in nature, they introduce nominalizer heads in the syntax to derive the gerunds, as other types of nominalizations (derived nouns). Following this breed of theories, I will generally accept the rejection of the lexicon and syntactic levels of derivations. But, first, let us see what these theories look like.

1.3 Truncation theories

1.3.1 Abney 1987 and its predecessors

(Jackendoff (1977), Abney (1987), Milsark (1988), Horn (1975), Schachter (1976))

What I call the "truncation theories" are those classes of theories which assume a certain layers of the verbal functional projection has been truncated out in the process of gerundive construction. They build on the assumption that at least some part of the clausal fseq is embedded within the structure of the gerunds. This is the class of theories that Rozwadowska (2005) calls "neo-transformational theories"

This class of theories seem to originate somewhere between Jackendoff (1977), **?** and Horn (1975). What Jackendoff calls *de-verbalizing Rule Schema* is specially the direct precursor of the idea of cutting at a certain point in a certain X-bar projection. The Schema is devised to solve some of the challenges that gerundives and other mixed categories pose towards the X-bar theory.

In *Uniformity Three Label hypothesis*, Jackendoff postulated that every X^0 category projects to X^3; and every X^3 projection is headed by an X^0 head. He immediately realized that gerunds and other mixed categories are challenges to this hypothesis. He then developed the de-verbalizing Schema to capture the exceptional properties (derivations) of the mixed categories, and the challenge they pose to his uniformity hypothesis. He specifically argued that the Possings are derived at the X^2 label.

Even if Jackendoff has developed the idea of cutting at a certain point in the X-bar hierarchy, it seems Horn 1975 who explicitly argue for the presence of a nominal category on top of the clausal projection. Horn's analysis also focused the possing gerunds in English. He introduced a lexical noun on top of the clausal projection.

Other important studies of the English gerunds before Abney 1987 include Reuland (1983) and Schachter (1976).

Reuland (1983) focuses on the Acc-ings; the gerundives which he classifies to have clausal structure. For him, Acc-ings are S (CP in the current terms) with null a complementizer. The nominalizer *ing* heads the INFL projection. It is Reuland who first introduced case as an explanation for PRO vs lexical subject in the gerundives. He assumes that the requirement of the Acc-ing gerundives to receive case emanates from the nominal feature of the *ing* head on INFL.

He also assumes that the *ing* head lowers to the verb either in the syntax or in the post-syntax PF domain. If the head lowers latter in the PF, after receiving case from the matrix verb, it shares the received case to the subject–marking the subject accusative. If the head lowers early in the syntax, however, the received case will not be shared to the subject. This incapability of the INFL head to share the case to the subject forces the appearance of ungoverned subject, namely PRO. Reuland's use of case as an explanation for the presence of PRO in gerundives as been one of the most influential theories in the GB theory–as it has been adopted to explain the PRO in infinitives in Chomsky and Lasnik 1993–and still stands as the standard analysis. As I will show in the latter sections, this explanation, even if it has been very influential–is inefficient to explain the cross-linguistic data. The theory at large attempts to explain an issue that needs to be explained. That is, as correctly noted in Pires (2006), the overt lexical subjects are not in any way in competition with the PRO-subjects in a large number of constructions even within English. The two constructions have different numerations that deriving one from the other is rather a mistake.

I have already mentioned above that Schachter's (1976) theory has been extended and used in Chomsky's later works. For Schachter, the whole gerundive structure, excluding the subject, is a VP structure dominated (overwritten) by a nominal head–a NOM.

(6)
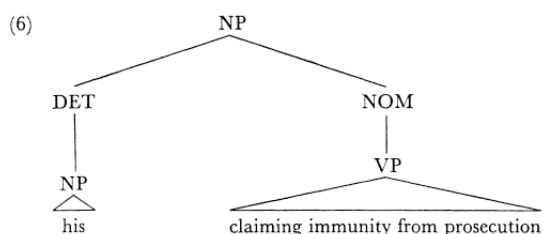
This theory has served as the standard theory gerunds to the emergence of Abney's work.

Abney then picked the ideas from the these important works and applied the technology to the other category shifting derivation such as Acc-ing gerunds and action nominals. Using the new theoretical innovations emerging in the late 1980's– the emergent functional projections such as T, Agr, and his own theory D, Abney argued that what is merging on top of the clause is not a lexical head N; rather a nominally specified functional head–D, headed by the gerundive marker *-ing*. For him, what really makes Poss-ings distinct from the acc-ing from *ing-of*s is the scope of the nominal functional category–*ing*.

Abney's main objection against Schachter's (Chomsky's) theory is on labeling. That is, 'how can a verbal category head a nominal category?" Horn 1975 somehow alleviates the labeling problem by assuming that the *ing* head is a noun selecting the VP domain. Abney's major contribution is recasting the category of Horn's *ing* head from a lexical to an inflectional one. He takes Reuland's (1983) theory of the category of *ing* as a functional head and argues that *ing* to be the head of the INFL projection for Acc-ing gerundives) and applies it in the nominal category for Possings.

Reuland's analysis, by taking the *ing* item as INFL, emphasized that the accings belong to the clausal category while the possings behave like nominal categories. Why does Reuland (and, also Horn) conclude that possing gerunds belong to the nominal category while Acc-ings are clauses? What criteria does he use to classify the gerundives into nominal and clausal classes?

Possing gerunds behave like noun phrases in their external distributions:

1. object of PPs
2. subject of sentences: in subj-aux inversion environments
3. subject of embedded clauses

Acc-ing gerunds display clausal properties to a large extent with the exception of their external distributions.

- the subject receives structural case
- the subject position could be filled by PRO
- wh-movement from the subject is possible
- anaphora could be licensed in the subject position
- the Acc-ing clause can be selected
- should appear in case position
- no raising from subject
- no overt complementizer

All the attributes that are used to classify possing to the nominal category are distributional, Abney contended. Abney also noted that Acc-ings are also fine in these environments except some degrading which could be ascribed to the accusative case marked subject. [1].

To explain their highly clausal nature, and, uniquely nominal distribution of the acc-ing gerunds, Abney proposed for the projection of DP (without D head) headed by the *ing* on top of the clausal base.

```
        DP
       /  \
   -ing    IP
          /  \
       John   I'
```
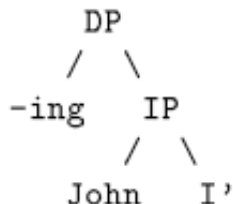
Abney's theory is not completely different from the three earlier important works, Reuland's on Acc-ings, Schachter and Horn's on Possings. But, he had a unified theory of all the main types of gerundives. He makes the distinction between the acc-ings and the Possings on the lexical specification of the *ing* head. He assumes the *ing* head to be underspecified for nominal features in general. He then assumes the *ing* of the Possings (also action nominals) to head a D head with [+N] feature specification. As for the acc-ings, he assumes them to be headed by a [-N] specified category.

Abney claims the *ing* of all the three kinds of gerunds to be the same (constant[2]). What makes the three constructions, he assumes, just like Jackendoff did, is where the nominalizing head merges in. "the three types of gerund differ only with regard to the points in the s-projection path of V that the conversion to the nominal category occurs: at V^0, at VP or at IP".
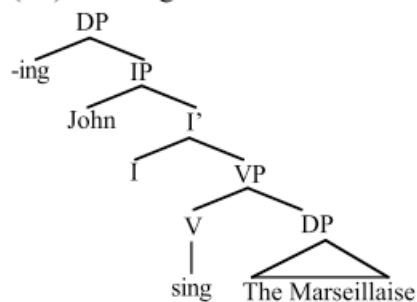
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[1] **?** supports Abney's simplification of the gap between the possing and accing gerunds

[2] His claim of a constant *ing*, however, is not true throughout his analysis. He indeed attributed different properties for the *ing* item in fixing some details.
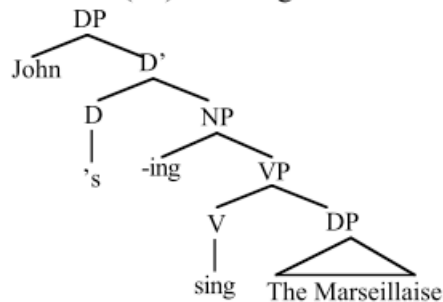
Accing gerunds are derived by adjoining the nominalizing functional category *-ing* (= with nominal feature +N) at IP; Possings at VP and action nominals at V. Abney doesn't assume that the converter head *ing* heads its own projection—his proposal is "converting it directly into a nominal projection, without projecting any structure of its own".

The nominalizer head adjoins to verbal categories of IP, VP and V and converts them to DP, NP and N, respectively.
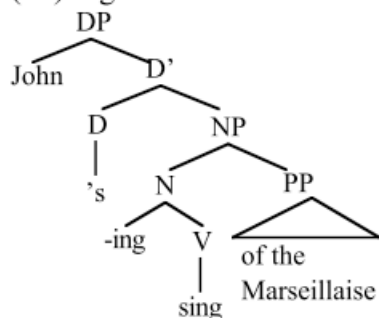
(17) Acc-ing:

```
           DP
          /  \
       -ing   IP
             /  \
          John   I'
                /  \
               I    VP
                   /  \
                  V    DP
                  |    /\
                sing  The Marseillaise
```

(18) Poss-ing:

```
           DP
          /  \
       John   D'
             /  \
            D    NP
            |   /  \
            's -ing  VP
                    /  \
                   V    DP
                   |    /\
                 sing  The Marseillaise
```

(19) Ing-of:

```
           DP
          /  \
       John   D'
             /  \
            D    NP
            |   /  \
            's  N    PP
               / \   /\
            -ing  V  of the
                  |  Marseillaise
                sing
```

The adjunction of the nominalizer head *-ing* on V shifts to N giving out what we call *ing-of* gerunds.

Abney analyzed the action nominals to be derived by the adjunction of the nominalizer on the lexical verb–the *ing* head is doing nothing but a morphological derivation of the kind frequently applied to regular deverbal nouns. He argued that they don't contain any verbal functional structure beyond the lexical verb. His analysis of these structures has been highly influential and has been widely assumed in many subsequent works on the topic (Alexiadou (2009), Milsark (2006), Iordăchioaia (2013).

Abney's theory solved some of the major challenges that the earlier theories faced.

First, the claim that the gerundive is headed by a nominal functional category, unlike the lexical noun of Horn's theory, successfully excludes categories that are licensed under lexical nouns such as determiners, adjectives, quantifiers and even pluralization (even if the issue of pluralization never surfaced in the discussion of gerundives until Pullum (1991)). Second, a functional head selecting the VP immediately solves the labeling problem that Schachter's (Chomsky's) theory faces. Having a nominal feature without having a lexical noun turns out to be an ef-

fective strategy to bring some of the nominal characteristics of the gerundives home–while at the same time excluding the attributes related with lexical nouns that the gerundives fail to display. The nominal feature, for example, can assign the genitive case to the subject without further stipulations (as the nouns are argued to assign genitive case on independent grounds, Chomsky).

His theory clearly solves the distributional problem as all the three gerundives are ultimately headed by a DP projection. Having a DP on top is sufficient to explain why they behave regular nouns in their distribution.

Even if Abney's system has served as the precursor of the truncation theories, the major weakness of his analysis, in my view, is his consideration of adjunction as a way of category conversion. Adjunction, both in the GB Chomsky (1986a), and current theories (Minimalism), never changes the categories of its hosts. As Chomsky (2004) succinctly put it– the "central property of adjunction is that adjunction of α to β does not change the properties of β". That means, if we remove the service of adjunction as the mechanism for category conversion, his system falls back to the labeling problem that it is purported to improve (solve) from the earlier analyses. The labeling problem, as I noted at the beginning of this chapter, is indeed one of the main challenges mixed categories like gerunds pose to the GB (P &P) theory at large.

Alexiadou (2001b), Schueler (2004), Siloni (1997) attempted to solve the labeling problem by taking the *ing* head as a proper functional head taking phrasal complements.

Since Abney's work, the distinctive property of the neo-transformational theories becomes the assumption that the attachment site of the nominalizer head determines the syntactic (and semantic) properties of the derived nominal. If the attachment site is high enough to include syntactic projections such as the TP and AspP, these theories predict a temporal event interpretation in the nominal domain. That is what are the acc-ing supposed to be. If the truncation happens high enough to include the event domain of the VP, but lacks the higher domains such as the TP, the structure gives rise to eventive interpretation, yielding less clausal categories such as action nominals–*examination of the students*. Even lower truncation (attachment of the nominalizer head) on the other hand, would give rise to even smaller, non-eventive nominals–*examination on the table*.

Almost all the works on nominalization in the standard GB framework then followed some version of Abney's analysis. Certain part of the verbal functional projection is assumed to exist inside the derived nominal category.

Within this general framework, still, at least two brands of sub-theories are detectable. One branch posits that the mere absence of the higher verbal categories such as Tense and Aspect is sufficient to provide the nominal property for the derived nominal. Pires (2006) is an instance of such a line of works. This branch of theories have been quite effectively applied in the analysis of defective categories, much beyond the derived nominals–including infinitives, small clauses and restructuring clauses Wurmbrand (2003), Bošković (1996). In these accounts, the infinitive or gerund is distinct from regular clauses for it lacks some of the higher domains of the VP-spine (fseq). Wurmbrand for instance argues that the infinitives in German lack all the projections above vP.

The unavailability of a tense auxiliary, sentential (sentence initial) adverbs and modals has standardly served as the main argument for the inexistence of higher projections in the gerundive structures since Schachter (1976).

(4)   a. *I acknowledged perhaps my having been mistaken
       b. *John's may winning the game....
       c. *John' may(ing) win

The second class, more in alignment of Horn's (from which Abney developed) original idea are those which introduce an external nominalizer category on top of the (truncated) functional verbal projection. In this brand of theories, some kind of noun or nominal feature merges on top of the clausal base. This latter brand of analysis is more popular; and has been widely applied in many areas of syntactic analysis of derived nominals.

I will take, the major insights of Abney , and the subsequent works of that sort, that the merging position of the gerundive head could be at variable positions in the fseq. It could target lexical projection V(F0 in Grimshaw and Schueler); or the maximum projections like the TP or AspP.

1.3.2   DM and Other Current Minimalist Theories

There is, however, a second approach which still could be called a Truncation approach, but seems to grow from a different line of theories, mainly the lexicalist theories than the syntactic theories per se. Just like the dedicated derivational morphemes advanced in the lexicalist theories, this approach assumes a dedicated derivational functional head to the nominalization process. In this approach, the *ing* nominalizer of the gerundives in English would be taken as the head of a functional projection, nP, which takes the verbal functional projection as its complement and converts it to a nominal functional projection. This line of analysis is quite prominent in recent syntactic works mainly due to the influence of the DM theory Borer (2005b), Alexiadou (2001b), Marantz (2001).

To make the distinctions between the two approaches as concrete as possible: let's call Abney's strategy *adjunction nominalization* while the later one *head nominalization*

  - *adjunction nominalization*: nominalizes by adjoining a nominalizing element on the syntactic head

  - *head nominalization*: nominalizes by projecting a nominal on top of the verbal projection. Horn and Jackendoff assume this type of system. Most of the latest Minimalist theories adopt head nominalization.

For a reason it will be clear in the course of the analysis, in this paper, I will advance an analysis of the latter sort. But, unlike the standard view, I will take the gerundive head to be neither a regular syntactic head nor as an adjunct. I rather take the gerundive head, the nominalizer item, as a head of a special categorization projection while emphasizing that categorization is a different sort of projection than the standard syntactic projection.

This class of theories apply the general conceptual developments made in the 80s; mainly Abney's; with the new developed tools. Kratzer (1996) is the standard, the archetypal analysis of this brand of theories. I will focus on Harley's (2009) recent implementation of Kratzer's original theory; and further developments she herself made. The objective is always to explain the well-known distinctions observed among the gerunds. The majority of the distinctions were already clear from Lees (1960). In this case, Harley, based on Kratzer's theory, focuses on comparing the two extreme types of *ing* gerunds: the acc-ings and the OF-ings.

Acc-ings: have accusative case assignment; adverbial modification:

(5)   Belush('s) foolishly mixing drugs and alcohol....

Of-ings: *of*-case assignment and adjectival modification:

(6)   Belushi's foolish mixing of drugs and alcohol.....

The proposal is that the distinction between the two types of nominals has to do whether the nominalization happened inside or outside of the external argument introducing VoiceP. If the nominalization happens inside the VoiceP (if the *ing* attaches inside the VoiceP), the result is the OF-ing nominals. If the nominalization happens outside of the VoiceP, the acc-ings are the result.

'PRO/Belushi('s) mixing drugs and alcohol'
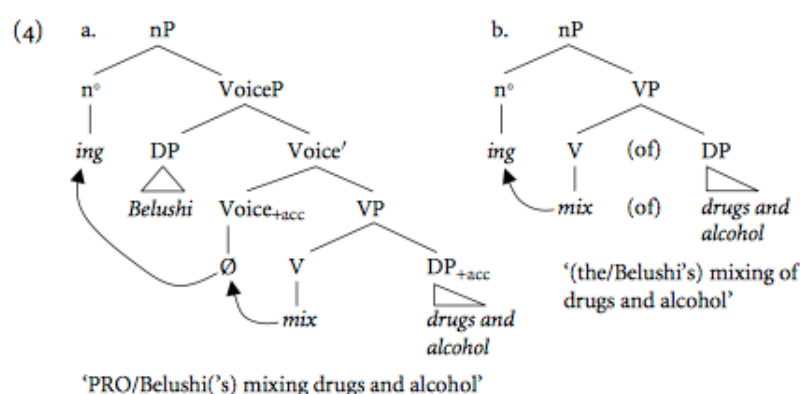
As shown in the figures, the *ing* element is taken to attach with the VP for the OF-ing gerunds (nominal gerunds = NGs) and with the VoiceP in the derivation of verbal gerunds.

Kratzer's original association of the nominal derivation with the VoiceP [3] is meant to be compatible with the long-standing observations about external arguments and accusative case assignment. The idea is: given Burzio's generalization, the accusative case assignment of the internal argument is correlated with the presence of the external argument. VoiceP is the sole projection responsible for the assignment of the accusative case and the introduction of the external argument. Hence, for the OF-ing nominals, they lack the VoiceP straightforwardly explains why they cannot assign accusative case to their internal argument. The propositional *of* is inserted as a laster resort strategy. Kratzer's work (as articulated in Harley's recent paper) stressed that the seemingly subject-like arguments of the OF-ing nominals do not have to be true external arguments. They might not get agent interpretation; contra to the subjects of the verbal gerunds which always get agent interpretation.

To show the distinction between the subjects of these two types of gerunds, take a look at the examples presented above once more:

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[3]Kratzer's VoiceP is the same with Chomsky's vP: they are both the projections which introduce the external argument. The vP, however, has been argued to be also a verbalizer head in a circle of DM linguists. I don't think that is a correct way of thinking about it. The morphological evidence suggests that verbalization happens much earlier than the introduction of the agent argument. Just to avoid the confusion of the agent introducing head with the verbalizer head that the DM people claimed to be, I will consistently use VoiceP to mark the head. I assume a distinct head, something like Ramchand's ProcP to be the projection where the verbalization happens; while assuming VoiceP and InitP be to be the same heads.

(7) a. The Belushi's mixing of drugs and alcohol...
    b. The Belushi's mixing drugs and alcohols...

The nominal gerund in (7-a) gives rise to two types of readings:

(i) Belushi is an actual participant: agent of the mixing event

(ii) Belushi is a mere associate either by owning the mix or by being a spectator of the mixing event = the genitive nexus interpretation

The verbal gerund in (7-b), however, offers only the reading in (i). That means, only the agent reading is available for verbal gerunds while the nexus possessive reading is possible for the nominal gerunds. From this she deduced that the EA of the clausal gerunds is a true subject; while that of the EA of the nominal gerund is not. The EA of the nominal gerunds is taken as regular possessor DP introduced in the spec of DP (as largely assumed position for possessors in English DP).

A similar analysis is developed in Adger and Rhys 2002. The focus in this work, again is the comparison of the verbal gerunds against the nominal gerunds. Dividing the three standard classes of gerunds, acc-ings, possings and action nominals (of-ing) into verbal gerunds and nominal gerunds (the OF-ing being the nominal gerunds), Adger & Rhys (2000) argued that the two types of gerunds differ significantly in their argument structure.

(8) a. Jo's devouring of cakes
    b. Jo's devouring cakes
    c. Jo devouring cakes

Following the standard truncation approach, they argued that the nominal gerunds lack argument structure while the verbal gerunds have it. Assuming the modularity between syntax and morphology as in Chomsky 1970 they then claimed that the nominal gerunds lack the argument structure for they are generated inside the lexicon while the syntax is responsible for the generation of the verbal gerunds. For them, the nominalizer head *ing* attaches inside the lexicon in the nominal gerund while acting as a standard functional head on the verbal gerunds. This understanding of the OF-ing nominalizations is actually not different from Chomsky's 1970 (and many other subsequent works; Milsark (2006) for the summary) analysis of the nominal gerunds. They take the nominal gerund as nothing but a noun; and the derivation as lexicon-internal.

In summary, recent syntactic theories which attempt to address nominalization at large fall into three major classes, in terms of their focus:

1. focusing only on the verbal gerunds: Pires

2. focusing only on the nominal gerunds: Alexiadou 1999

3. focusing on comparison of the two types: Kratzer, Harley, Adger and Rym

Most of the theories on gerunds do not ignore the theory of nominalization at large mainly because one class of gerunds, the OF-ing gerunds, are traditionally included under the class of gerunds, invite them to consider the theory of nominalization at large. There are very few works targeting only on the verbal gerunds. Pires is one of these works. We will look at it in a separate section.

Majority of the works attempt to compare the two types of nominalizations. Those studies usually, in attempt to derive the distinctive properties the clausal gerunds display against the nominal gerunds, underplay the complexities of the nominal gerunds. Take Kratzer's (Harlye's) theory presented in the above paragraphs, for example. She has shown that the verbal gerunds require arguments. But she doesn't show that the nominal gerunds lack argument structure. Notice, in the examples like (7-a), she claimed that the agent argument is not obligatory. She, however, didn't rule out the agent arguments altogether. Indeed, she has explicitly noted, agent reading with the OF-ings gerunds is still available. Then, the question is: where do these agents come from, if we say that these nominal gerunds lack the VoiceP projection. Harley acknowledges the problem. But it is Moulton (2004) who clearly articulated it.

(9)   a.   Michael's running the marathon
       b.   Michael's running of the marathon

his 2

If both the accusative case and the external argument are introduced by the same head, the presence of both the external argument and the accusative case in (9-a) clearly shows the presence of the VoiceP. (9-b) is problematic. The external argument is clearly a participant of the event; suggesting the presence of the VoiceP projection. The absence of the accusative case, on the other hand, tells the absence of the projection. This clearly shows that the theory of VoiceP which was developed having Burzio's generalization in mind, faces serious problems with the nominal gerunds.

Take the second class of theories which focus on the nominal gerunds, typically in comparison to the result nouns. These theories, again, in attempt to explain the distinctive properties that the Complex event nominals (nominal gerunds being one of them) contra to the pure result nouns and simple event nouns, put a lot of syntactic material into the nominal gerunds. One case in point is Alexiadou's 1999 analysis of the complex event nominals. In that work, Alexiadou (1999) (summarized in Rozwadowska (2005)) puts, not only the VoiceP(vP) but also other higher projections like the AspP into the complex event nominals.
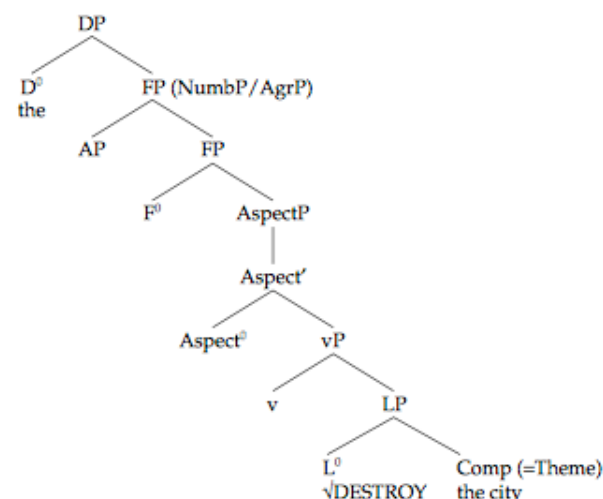
These different works focusing on the different types of nominalizations give contradicting analyses. Those works attempting to the solve the nominalization at the base level put a lot of

verbal functional material into the complex event nominals to explain their difference from the simple event nominals. People who are focusing on the distinctions between the gerunds and the complex event nominals, on the other hand, undermine the verbal element of the latter to explain their difference from the verbal gerunds. Where does this contradiction come from? If the functional structure is the reason why the different types of nominalizations made distinct, shouldn't the theories agree to each other? Or, should the question be an empirical one; where exactly the cutting points of the nominalization be determined independently of theory internal stipulations?

Even if these nominalization theories seem on the right track, the truncation theories, have these and many more specific problems that we will see in the latter sections. One issue still persisting is the labeling problem. Pires recently raised arguments against the *nominalization*(DM/Minimalist theories discussed here) theories for their failure to solve the labeling problem. The other issue I will raise correlates with agreement. I will show that, contra to subject agreement, object agreement typically fails in nominalization. In a language where object agreement is consistently marked, neither the direct object nor the indirect object can trigger agreement in gerundive clauses. If the nominalization happens at higher levels, why does the object agreement, which is supposed to happen at the base of the VP projection, fails.

While the truncation approach (syntactic approach) is quite elegant in its predictions, and fairly successful on a number of points, there are number of other areas that the truncation approach fails at. Since the system relies on the rigid verbal fseq, which quite universally attested to be so, the nominalization, however, allows languages to nominalize in an unexpected ways. The reliance of the rigid fseq make the truncation theory not to allow the parametrization of the nominalization systems across languages. Due to this, the truncation theories usually make too strong predications. In the following sections, I will propose a more flexible way of capturing idiosyncratic styles of nominalizations attested across languages.

1.3.3 Gerunds as Defective Verbs

This is one of the recent proposals forwarded by Pires (2006, 2007). He urges for a clear distinction between clausal gerunds (acc-ings) and Possings. Targeting mainly on the clausal gerundives of English (acc-ings), he argues that these categories have no nominal property of whatsoever. What looks nominal from outside is rather a defective TP projection which cannot assign case to its subjects. He shows that clausal categories (CGs) are clausal categories except their distribution. Their seemingly nominal (DP) distribution, he argues, come from the Case requirement (unvalued Case feature) endowed to their defective TPs.

In the next sections, I will show that the purely clausal category Pires attributed to the CGs is not tenable. There are, indeed, evidences to the Abney's kind of analysis; that is, they have nominal properties apart from their distribution. I will show that, apart from their nominal distributions, clausal gerunds have internal nominal properties.

1.4 Functionalist Theories

It is Ross 1973 who ordered categories into a continuum of "nouniness" from tensed clauses to concrete nouns with increasing degree of nouniness. All other categories fall in between the two extremes.

tensed S > indirect question > infinitives > Acc-ings > Poss-ings > action nominal (ing-of) > derived nominal > concrete nouns

1. Concrete Noun: <u>The chair</u> bothered me

2. Derived Nominal: <u>His movement of the chair</u> bothered me

3. Action nominal: <u>His moving of the chair</u> bothered me

4. Possing: <u>His moving the chair</u> bothered me

5. Acing: <u>His moving the chair</u> bothered me

6. Infinitive: <u>To move the chair</u> was an arduous task

7. Indirect Question: I asked <u>who moved the chair</u>

8. Tensed CP:<u>He moved the chair</u>

Ross (1973), cited in Berger (2012)

The continuum has dangerous theoretical consequences for the theory at large; that people working under GB immediately rejected his hierarchies. It was Reuland who first rejects the squashy ordering advocated by Ross, and argued for putting demarcations between the nominal and verbal categories. He claimed that the Acc-ings belong to the clausal category while the Poss-ings fall to the nominal class. While this kind of clear cut demarcation is necessary for formal theories, his classification of Acc-ings and Poss-ings into different categories; and putting the mark in between the two closely similar kinds of gerundive is one of the highly contested theories–and its relevance for the formal theories cannot be underestimated b/c these theories take it for granted that a clear bifurcation between the nominal and verbal categories is possible.

Even if his continuum has little acceptance in the GB framework, functionalists have welcomed the idea. Indeed, the functionalists argued, on various occasions, that Ross's continuum is the right construal of lexical categories in general, and gerunds in particular Wetzer (1996). Various incarnations of Ross's ideas are still entertained in the functional frameworks for the analysis of gerunds. Hudson (2003) for example argues that gerunds are both verbs and nouns, at the same time.

2   Theoretical Problems

In this section, I will spell out two of the core theoretical problems that nominalization brings about. Any successful theory of nominalization; including gerunds, needs to solve each of them.

2.1   Nominalization and the extended projection

In this section, I will spell out one of the two foundational problems, already touched in the first section that gerunds (nominalization at large) pose to the Minimalism theory (for any sort of compositional theory, for that matter).

Let me start from a quotation from : "Building a phrase involves at least three tasks: combining diverse elements, labeling the resulting combination, and imposing a linear order on the elements so combined." (Hornstein2005). The first stage is combining two or more elements into one. The method of combination would definitely the type of output. Human language is known to have different kinds of phrase structures. Phrases could have a complementation relation, an adjunction relation or a function-application relation, **?**.

(i) Complementation

(ii) Argument Assignment (function application) = Second Merge

(iii) Adjunction

Complementation relation is a type of relation which puts heads of phrases with their complement items. The function application relation puts together a head is its modifier items: what was known by specifiers in the X-bar theory. Finally, adjunction relations are relationships between phrases of no inherent selection relationship between them. The relationships syntactic objects and their adjuncts are known to be nothing like the first two. The relation here seems much freer, and optional than in the first two relations.

This the first step of phrase combination is achieved by a single operation, Merge, in the Minimalism, this operation needs to give out all types of phrase types attested in human languages.

The second kind of Merge (the functional application) doesn't create meteorological relationships; it adds arguments to the peripheries of the verbs. In the X-bar theory, the distinction between the two types of relationships was captured by assuming a different layer in the projection. The first layer, or the complement layer is the relationship between a head and its complement; while the second layer is assumed to be where the specifier projects. BPS unifies the two under a single Merge operation. Subjects are made distinct from objects (complements) only for the reason that they merge latter. They merge with the combined structure of the head and its complement. While the simplification has conceptual attractiveness, it is known to miss some known generalizations. Take the relationship between a transitive verb and its object; and an intransitive verb and its subject. Since the first merge combines the transitive verb with its object; and also the intransitive verb with its subject (since the latter has no complement), the BPS merge predicts that the relationships would be of the same type. This turn out to be empirically incorrect; at least with regard to unergative intransitives. The relationship between a head and its complement is tighter; closer than the relationship between a head and its specifier. The selectional relationship between the head and its complement is more rigid–take selection to be either semantic or syntactic. Objects are known to coarse the verbal semantics much more than the subjects do. This is translated as the verb and its complement have a different type of relationship than with its subject since Marantz (1984). The BPS Merge cannot make this distinction as it puts the subjects of intransitives in the same as the objects of transitive (First Merge in both cases) predicates. To capture this distinction between internal arguments and external arguments under the standard Merge, different strategies have been devised. Some have abandoned BPS view of Merge. They put some kinds of restrictions on the Merge so that it will always put the specifiers latter (by assuming some empty projection where the verb will combine before the subject merges—to guarantee that all subjects are merged at the second stage). Others have preferred to attribute to the type of relationship the argument has with the head. In this approach, the strategy is to increase the inventory of Merge. One type of Merge, First Merge, combines the complement and its head; and a different type of Merge; call it the Second Merge, does combine the specifier with the already-built structure of

the First Merge. The second Merge is what we are calling here the Function Merge. The idea is, the relationships established in the First Merge are complementation. They are fundamentally different from the relations established by the second Merge. The relationship of the latter is a functional application.

Two sub-variants of the complementation relation are widely assumed in the P & P framework. One is where a lexical item combines with its obligatory argument. For the verbal categories, this complement is assumed to be the internal argument. In this type of relation, the task of Merge is putting the verb with its internal argument. The second variant of the complementation relation is assumed between functional heads and their complement categories. When T projects on aspect head, the relationship between the two heads is assumed to be a complementation relation. Even if it is widely assumed to be a complementation relation, it is not clear if the complementation of this latter type is exactly the same to the lexical complementation we have between the lexical verb and its argument.

In this complementation type 2, which out main focus in here, the role of Merge is to build up different layers of functional items. Merge in this latter case seems to combine SO of the same category. As carefully demonstrated in Grimshaw (1990)'s Extended Projection theory, every functional projection merges on top of the V has a verbal category. The same is true with the DP. Merge introduces different elements of the same category. In this case, Merge doesn't shift or mix categories. That is why we have the whole fseq of verbal extended projection without intervening nominal or adjectival categories. The same goes with the nominal domain. We know no case of where Aspect selects NP; or a tense projection complementing NumP in the DP domain. Category uniformity within an extended projection is maintained quite consistently across languages. This is a well-attested empirical fact about human language.

To make this notion more concrete, let's call this property of Complementation *Extended Projection Uniformity Principle*, EPUP in short. EPUP[4] is rather formalization of Grimshaw's extended projection principle. I assume it to emerge from a more fundamental nature of human language.

As already mentioned, the relationship between functional heads and their complements is assumed to be complementation relation. The relationship between a functional head and its complement is understood as complementation type. As such, since nominalization is widely taken as category conversion by introducing a functional head, at least in the Minimalist theories (syntax all the way down approaches) nominalization is taken to fall into the Complementation relation (Merge type 2). That is, the nominalizer head is assumed to merge on top of the verbal fseq like any other verbal functional head merges.

The problem with this analysis for nominalization, however, is that, nominalization, unlike regular functional projections, shifts the category of the base. That is, in regular clauses, EPUP never gets violated because verbs and other verbal projections are always selected by verbal elements. The only occasion where the principle of extended projection (EPUP) seems to be violated is in the case of recategorization operations. Nominalization is one of those operations. This poses a major challenge to the universal generalization that categories grow by adding up SOs of the same category.

Why does nominalization suddenly violate the Extended Condition Principle, EPUP? In the latter

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[4]Panagiotidis (2015) has a similar principle which formalizes Grimshaw's Extended Projection which he calls "biuniqueness". The notion is the same. But, I prefer to use EPUP rather than his term because the "bi" part is suggestive of two domains; the DP domain and the VP domain; while the principle of the Extended Projection, principally, applies to other domains like the PP and AP. For that reason, I prefer to adopt a more generic terminology.

sections, I will argue that nominalization indeed doesn't violate the EPUB.

The story goes like this. Phases are Spell Out domains. They send every linguistic substance they pile up to that point. if phases are indeed Spell Out domains; and that every linguistic category merged under them is spelled out and forgotten, we then expect for non-verbal category (or category of any kind of element) would select them b/c their category is also sent to Spell Out that they are no more categorized. In other words, EPUP applies with the syntactic operation where elements have categories. Spell-out domains lose their categories since they have been Spell Out; and the Spell-out ships everything into the interfaces. Therefore, phase heads can be selected by any category. Indeed, that is what is happening with gerundives, I will show. The nominal functional category, *ing* is a phase head, or is selecting a phase projection where its category is canceled at the Spell Out.

- recategorizers are phase heads; both the gerundive heads and complementizers are phases

- show that the encyclopedia is accessed every time re-categorization is made; showing the evidence that re-categorization happens at Spell Out domains.

- the encyclopedia is accessed only at Spell Out domains: and show that the encyclopedia is indeed accessed at the re-categorization stages, proofing that the (re)categorization heads are phases (Spell Out domains)

2.2 Nominalization and labeling

The second stage of phrase construction, as out quotation in the above subsection shows, involves the labeling of the merged categories. In the standard version of Minimalism, Merge operates by putting two elements together into a set. The reason why the combinations are restricted to two items comes from the Minimalist thesis that linguistic operations operate only under the least possible, most bare bone form to satisfy the strict economy conditions. Combining two elements, into a set, is supposed to be the most economical way of combination. Take a simple sentence like *Mary kissed Josef*; the Merge operation runs from bottom up building each phrase from the lexical items, step by step. The object first combines with the verb.

kiss, Josef The two elements are now in a set. They have no hierarchical relationship between them. The principle of Egocentricity (headedness), which forces one category to dominate another, the Merge need to identify which of the two elements will be the head of the new built structure. That is what the labeling is about. The Merge has to label the new structure, so that further operations will see the label of the formerly formed construction. Since the Egocentricity forces one of the elements to be a head, we then have two options for the above structure: either *kiss* or *Josef* should be the label of the construction. We know from the empirical and indirect evidences that the head of the new construction will be the verb. But, the question is: how blind operation like Merge could determine the verb as a head?. There are various suggestions in the literature how the Merge accomplishes the labeling. One dominant view is to attribute some kind of feature into the verb where Merge would use that feature as an algorithm to determine the label. The feature is sometimes taken as the subcatorization feature of the earlier version of Minimalism; or the Edge feature in Chomsky's later suggestions. In any of the ways, the strategy is: the element which carries the feature projects (becomes the head). The identify of the Edge feature is less understood; and, highly obscured suggestion. Rather, a sensible approach is to assume that the lexical item which selects the other lexical item (the one motivating the

merger) projects, Adger (2003). In this version of the story, the verb projects because it selects the object.

Now ,the problem with the nominalization is that we don't seem to have straightforward evidence with of the items are the true heads. Since nominalizations are hybrid categories, they display the properties of both verbs and nouns. That means, the indirect evidence about the headness of the verb we mentioned above, is not readily available for the hybrid categories. One of the well-recognized evidence, for example, to determine that the verb is the head, in the above combination is the semantics. The combination *kiss* and *Josef* has clearly an event semantics–not just an individual. Since gerunds also have event semantics, this leads one to put them on the verbal side. That might suggest that they are the heads of their projection, just verbs are typically are. The selection, on the other hand, tells that the gerunds are not verbal. They are selected as arguments of verbs suggesting again that they might not be heads of their combination they are involved in. We are getting contradicting evidence to take the nominalization as head or not. This conglomeration of properties what led some linguists to consider the gerunds both as nouns and verbs Hudson (2003).

To make clear how nominalization poses challenge to the labeling, take Adger's 2003 implementation of subcat features mechanism as labeling algorithm to determine the head. When the lexical verb combines with the vP, it must be the V which selects the v. The system would pick the wrong head otherwise. Since the lexical verb is visible to higher domains, the projection of functional materials on top of it doesn't mean that these functional items are heads. It is widely agreed that the lexical verb is the head of the verbal domain. By some means, then, the labeling system needs to pick the lexical verb as the head. So, the clear avenue for implementing Adger's theory is to assume that, the lexical verb selects each of the functional items, the v, TP etc. That guarantees that the lexical verb runs as the head of the whole clausal projection. So, in this system, every time the verb combines with the functional item, it projects (because it is the selector). Now, the problem with the nominalization is why the verb suddenly stops projecting when it combines with a nominalizer item like *ing/mä* (assuming that the DP/Minimalist theories of the nominalization are correct that the nominalizer item is the head). Put it more concretely, if the verb is able to project when combined with the nominal category, its object, why does it fail to projection when combined with another nominal category, the *ing*.

One way out of this problem, which I will ultimately suggest, is to reverse the direction of the selection. That is, to assume that the verb selects its object; but the nominalizer item selects the verb. Since the primary principle is that the selector projects, there is no problem with this type of assumption. It seems natural to assume gerund nominalizers subcategorize for verbal categories. For English, it seems even more clear that, as some people suggest, that the gerund nominalization might even be the same element with the progressive marker *ing*. For Amharic too, assuming the nominalizer item subcategorize for verbal category doesn't sound an absurd idea; as the prefix always attaches on the verb.

2.3 Hybrid category

Linguistic objects have been grouped into certain classes since ancient Greek. One of the most profound fact about human language, is the fact that all the major lexical categories–nouns, verbs, adjectives– exist in every language Baker (2003), Chung (2013). Some minor categories, like adverbs and prepositions, might not manifest in a certain specific language. But, once they are lexicalized, the way they behave is always clear.

Hybrid categories like gerunds are the maverick in this family of grammatical categories. The hybrid properties of the gerunds is one of their puzzling features. It has been well-attested by now that they display the properties of both nouns and verbs. Even more puzzling and interesting part is, not just they display the properties of both nouns and verbs, but, they display the properties of verbs and nouns in a certain specific pattern. They behave like verbs in their internal structure while they behave like nouns in their external distribution. Since I have already spent a lot of space in the first part of the paper discussing the hybrid nature of gerunds, I will not repeat it here. But, it is necessary to stress that any successful theory of the derivation of gerunds needs to address this profound fact about them.

3   Preliminary Proposal

> This is a proposal based on the accepted/standard analysis of nominalization in the Minimalism. I will tentatively develop it as a proposal in here. But, will ultimately show the leaks and holes of this analysis; and propose an improved version.

What looks common to both the Amharic infinitives and the English gerundives is that they behave like DPs in their external distribution while their internal structure look a lot like verb phrases. Their mixed characters can be exploited to shed a new light on how different features behave in nominal and verbal domains. From the two approaches advocated to analyze the hybrid category, a truncated verbal category dominated by a nominal category of the sort— the approach advocated in Abney and latter applied in different areas, in acquisition (Rizzi 1994), infinitives (Wurmbrand (2003)) and nominalizations Alexiadou (2001*a*), seems more promising than the defective category approach. This is mainly because these categories don't just lack verbal features such as tense and modality–they include at least some properties of nominals. Abney implemented the concept by embedding clausal categories of various sizes into the constant nominalizer category[5]

But, unlike the previous works, I will take the gerundive head to be neither a regular syntactic head, as Schueler assumes, nor an adjunct. I rather take the gerundive head, the nominalizer item, as a head of a special categorization projection; as nP in the sense of Marantz (1997).

Gerundive heads are like complementizers. This is the one main point I want to forward in this paper. Or, rather, complementizers are part of a grander class of functional items that convert categories. In this sense, gerundivizers and complementizers belong to the same class of derivational functional heads–recategorizers. Recategorizers themselves are kinds of categorizers except that they recategorize already categorized linguistic objects while typical categorizers categorize (transform) categoriless roots into linguistic categories (objects).

v, n and c are categorizers; unlike Marantz, I assume the v is not a categorizer that transforms roots to verbs. There are reasons to assume that the verbal projection has a category before the vP projects. I am maintaining the v to Chomsky's original conception of vP (or Kratzer's voiceP). There are a number of aspectual elements across languages that merge before the v; and transform roots into verbal categories Travis (2010, 2000), Amberber (1996). Travis and many others have also identified a number of verbal projections below the v-layer. In Ramchand's

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[5]This idea of nominalizing a phrase or clause of various sizes also seems to recast itself in the Nanosyntax theory of lexical size; where a morpheme lexicalizes syntactic trees of various sizes as advanced in Starke (2011).

sense too, the Proc head is the heart of the dynamic verb. The Init projection is necessary only if the predicate is causative. Otherwise, the verb is available before (without) the InitP (since the sense of process/dynamicity has been claimed to be what makes verbs distinct from other categories in a number of works, it rather makes sense to assume Proc head as the core verbal head than the Inti head). Therefore, we can safely assume that the verbalization of the root doesn't happen at the v-layer (contra to Marantz contention); rather earlier. Therefore, I assume the v (Cause) projection as re-categorization projection, rather than a categorization projection.

A notational remark: to make a distinction between re-categorizers from non-categorizer (since I don't have much to say about categorizers in this paper), I maintain the DM notion of categorization to be done by the small heads–vP and nP. vP will be a recategorizer of non-verbal categories to verbal category; nP would be a projection of recategorizer of non-nominal projections into nominal. For the categorization, I will assume ProcP or aspP (Ramchand and Travis/Amberber respectively) while class/gender/N being the primary nominalizer of roots Ferrari (2005), Kramer (2009), Kihm (2001).

Note that, in addition to assuming a recategorization rather than categorization, I am using nP in a more generic way than the standard theory of the projection. Whether the recategorization is happening at a higher level; say on the TP projection or at a very early, lexical level, say V; the recategorizer head n is considered to be the same element, much to the same Abney's view of the nominalizer head.

That means, I am unifying complementizers as well as nominal heads at the derivational morphology level in the traditional sense, are all the kinds of nP projections. And, this unification is the reason why I consider gerundivizers as the same class to that of the complementizers. They are different only on the fact that the complementizers take the whole propositions (TP) and transform it into an argument (DP) while gerundivizers take smaller size categories and transform them to nominal categories.

What all the works under the truncation approach are trying to capture is the fact that different types of nominalizations embed different layers of the verbal fseq within themselves. As we saw in the Part I of the paper, the gerunds both in Amharic and English (accings, possings, nomings) lack the major portion of the DP-spine.

(a) they cannot be modified by adjectives, quantifiers, numerals

(b) they cannot be pluralized

(c) they cannot be modified by relative clauses

(d) they rarely take determiners like the demonstrative determines and definite articles

This suggests that even if they are nominal at the distributional level, they lack the internal constituency of a nominal phrase. They, on the other hand, contain a number of verbal projections.

Now, take the latest theories which project a nominalizer head on top of the verbal functional projection. The nominalizer head is like regular functional head. It however is supposed to shift the category from verbal to nominal. The interesting challenge for this line of analysis, which have been barely noticed, is why, if the verbal projection has been truly converted to nominal category, the nominal modifiers cannot project on the newly created category. That is: why cannot adjectives modify the gerunds, if the gerunds are truly nominal categories.

how can I solve the fact that the adjectives cannot merge with the gerunds if I am proposing a complete removal of the event domain at phase spellout? The presence of adverbial modifiers is not a problem because we are assuming that the VP is still embedded inside. But, if we are assuming a full category conversion, from the verbal to nominal by the time the nominalizer item merges, why cannot adjectives merge afterwards is a mystery. Abney's system can avoid this problem because it is the D which is converting the base: and adjectives are supposed to merge lower than the D head–> this easily avoids the problem of adjectival and other modifiers. Having a dedicated nominalizer like nP is in this sense troublesome; specifically given that the nominalizers do their job at the very base of the DP hierarchy. But, the deep truth about the adjectival merger seems the semantics, to me. They don't modify gerunds because they are eventive; they are not entities/individual categories. Now, the trouble is how to incorporate the semantic facts to the existing theory of syntax which does things by rigid selection: and hierarchy; which barely cares about the semantics. The derivational theory of syntax doesn't seem to help on this. But, the theory I am suggesting on the **Merge inspects SEM** approach seems to solve the problem b/c the categories merging with the noun are only the nominal modifiers like adjectives for semantic reasons.

The standard approach is now to project a nominal head on top of the verbal base. The common questions entertained within the syntactic approaches of nominalization are:

a. what element nominalizes the verbal category = the identity of the nominalizer

b. how/where (at what layer) does this category conversation proceeds = the layer of nominalization

The first question asks on what head exactly projects on top of the verbal domain. Is it a standard functional material, as we already know them by now–like D or NumP of the sort; or we need to assume a distinctive type of nominalizer head. The second question is about the layer of the merger of the nominalizer. The truncation theories explain distinctions among the gerunds by using the layer of the merger of the nominalizer head. Hence, the answer for this question should be geared towards solving the identified distinctions and congruences among the classes of gerunds.

For the first question, Abney's theory postulates DP to project on top of the verbal fseq. Abney doesn't propose a distinct nominalizer head. He argued that the D head is the same element that we find in other cases in the nominal domain; the definiteness article taken to be the standard lexicalization of the D head. The nominalizer head projects on D, in this approach. Hence, the theory predicts that the definite article and the nominalizer head will be in complementary to each other, as they would compete for the same head. The problem with this approach is the fact that the gerunds seems to have determiners in some contexts both in English and Amharic; the definite article in Old English was even more prevalent, according to some sources, without much effect on the properties of the gerunds themselves).. The definite article, specifically, could mark the gerunds, regardless of the nominalizer head. If the definite article projects on top of the gerunds means, that the gerunds are nominalized independent of the D head. Facts like this suggest that the *ing/mä* head is not a D head. Therefore, I will not take the nominalizer item to be D.

If we reject the D-hood of the nominalizer elements, the alternative approach is to take them as lexicalization of dedicated nominalizer heads. This approach has been the dominant strategy of categorization in the last two decades mainly due to the success of Syntax all the way theories (DM). I will tentatively take the recategorizing head to be the head of a dedicated nominalizer projection. I will further propose that the nominalizer head, the nP which merges on top of the verbal functional projection, imposes a phase boundary.

One crucial question which barely raised in the syntactic theories is this: *are all the observed properties of the nominalized category explained by the proposed theory?* That is, given the layer where the nominalization is supposed to proceed, and given the type of nominalizer head assumed, does that fully explain the majority, if not all, of the properties of the nominalized category displays? If the theory cannot explain of the properties, then, is incomplete theory. That is what I think are the majority of the theories we have right now.

Before we pin out how exactly the above ideas get implemented into Amharic gerunds and how the proposal might explain the different types of gerunds; and the noticed properties, let us first make the ground ready for the merging position of the nominalizer head. That is, to answer the second question we raised above, we first need to know what the verbal projection and the nominal projection look like in Amharic. For that end, in the following sections, I will present a short overview of the structure of the nominal and verbal fseqs.

3.1 The structure of Amharic clauses

In the above sections, I claimed that the truncation approach is the most promising one of the approaches we looked at. Most of the works on nominalizations in recent times favor the truncation analysis.

In this approach, the hight of the attachment of the nominalizing head is what determines the properties of the nominal clauses. Nominalizers which attach low in the functional sequence don't allow the nominalization category to carry much materials from the verbal domain. Derivational morphemes which produce derived nouns,for example, are assumed to be generated in this kind of low-level nominalization. Nominalizers can attach even at the root level which take the bare root to convert it to a nominal category Marantz (2001). Contrary to the low (root)-level nominalizers, some nominalizers attach quite high in the functional sequence. This kind of nominalization manages to engulf a lot of verbal material into the nominal. The nominalizer in Amharic verbal nouns turn out to be such a nominalizer. The verbal nouns exhibit a number of verbal properties, as a result.

The questions I want to entertain in this section are: *where exactly they attach?* and *can the attachment position be a sufficient explanation for the verbal properties they display?*

To determine the attachment site of the nominalizers, first, we need to decode the structure of Amharic clauses starting from the base (root) position. We will then look at which of these materials in part of the verbal nouns. Even before doing the structure of the Amharic clauses, we need to map out syntactic structure the clauses.

Even if huge effort has been exerted to map out how different elements in the clause map to a functional projection; and how the arguments might be introduced in this structure, little consensuses has been arrived yet. Things the base of the verbal structure specially look much murky and obscured.

I am not going to present how the structure of the verbal domain evolved throughout the history of GB. Rather, i will focus on the recent developments in the field which might of use for the mapping of the verbal structure of Amharic; and the nominalization of these clauses at last.

Some of the most important works in the recent years within the Minimalism on the structure of the verbal clause include , but not limited to, **?**Borer (2005*b*), **?**), Kratzer (1996), Pylkkä-

nen (2008), Harley (2006). Here, I will rely on the **?** and **?**, Pylkkänen (2008)to map out the base areas of the verbal projection and on Pylkkänen (2008) for the rest of the verbal projection.

A major shift on how we the verbal functional layer is conceived; a s well as how arguments are introduced in the verbal domain came about when Hale & Keyser (1993) introduced their L-syntax and S-syntax. The L-syntax (contra to S-syntax, which is supposed to be the narrow syntax) is where the seemingly lexical features such as CAUSE, DO, BECOME interact for the derivation of different types of verb classes. In the L-syntax, they derive intransitives into transitive by introducing causative heads; suppress the transitive/causative to derive the intransitive counterparts etc.

Their L-syntax is a type of syntax; but a distinct type. The process of the derivation are exactly like the standard syntax. But, they a claim the L-syntax to be a different domain than the narrow syntax. Other latter work, then, notice what they call the L-syntax is just the same system as the narrow syntax argued for the unification of the derivations to the same domain. The derivations Hale & Keyser (1993) proposed in the L-syntax then started to be incorporated into the narrow syntax. As already mentioned, Kratzer make the first move in this line of thought. The important insight in Kratzer's paper is the observation that languages such as Japanese have light verbs dedicated for the agentivization of non-agentive predicates. Chomsky 1995 has called this agentivizing agent the "little v". This agentivizing light verb, has been noticed, does agentivize by adding the subevent "cause" into the derivation. Take the verb like *bring* in Amharic. It is the agentivized version of the verb *come*. That is: it is the made by the addition of the agentivizing morpheme on top of the non-transitive; activity predicate.

(10) **Bring = CAUSE [come]**
    a.   Lij-u mät-a
         boy-Def come-3msS
         'the boy came'
    b.   Lij-u ïkaw-u-n a-mät-a
         boy-Def item-acc-def A-come-3msS
         'the boy bring the item'

(11) **clean (trans) = CAUSE [clean]**
    a.   wälläl-u tsäd-a
         floor-Def cleaned-3msS
         'the floor cleaned'
    b.   wälläl-u-n lij-u a-tsäd-a-w
         floor-acc-Def boy-def A-cleaned-3msS-3msO
         'the boy cleaned the floor'

The causative version of the verbs are generated by adding the causative prefix on the unaccusative bases.

This led Kratzer and other to believe that the verbal domain is not a mere VP; but made of more fine grained projections of at least the VoiceP(her little v; where the agentivizing head projects) and the standard VP. Kratzer then suggested that the agent theta role is assigned not by the main verb, but by this agentivizing light verb. She suggested for the external argument to be introduced on the specifier of this projection. Chomsky 2001 further suggested that the VoiceP (vP) is not only where the external argument is introduced but also where the accusative case

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is assigned to the internal argument (the latter due to Burio's 1986 generalization).

While the VoiceP is one of the well-established projections in the verbal projection by now it is not however the only functional projection attributed to introduce external arguments. Other functional projections like Applicative heads (Appl) of varies types and external causative heads like CauseP have also been suggested to introduce different kinds of external arguments Pylkkänen (2008), Kim & Sells (2011). Since Amharic has overt morphological markers for applicatives and causatives, it is worth considering how these projections might re-shape the verbal projection. They might also give some insight where the nominalization process actually shifts the verbal functional projection into nominal projection.

One of the classes of applicative heads to project in the verbal functional domain to introduce the applicative function and the applicative arguments is known by high applicative. This projection (ApplP) is sometimes also taken to play the roles that the VoiceP is standardly assumed to play in the introduction of the external arguments. Pylkkänen (2008) identifies three types of applicatives: High applicatives, Low recipient Applicatives and Low source applicatives while Kim argues for another applicative she calls peripheral applicative.

Applicatives introduce non-agentive arguments.

Source and Recipient Appl projections are dedicated to the source and recipient middle arguments respectively.

Kim's order of applicative heads with regard to VoiceP: **peripheral Appl** > **VoiceP** > **high Appl**.

>not only are agent and non-agent external argument roles mapped into different positions, but different types of non-agent roles are also mapped into different positions.

Note, while Kratzer's VoiceP is developed based on the observation of agentivizer morphemes (internal causative elements), herself and others packed all types of external arguments into the projection: from agents, to holders, to actors to experiencers; by assuming different semantic flavors of the Voice(vP), Harley 1995, Folli and Harley 2007, Arad 1998. As we will discuss this when dealing with the Amharic clauses, such an approach turn out to be problematic.

While it is true that different functional layers like CausP, AppleP and the like do project in the clausal domain, the structure building in Amharic clauses seems to start earlier; some where in the aspectual frames. Semitic verbs are known for their root and pattern structure. The existence of roots is less debated. But, their identity is not always clear. We known about them only after categories are formed; only via backward abstraction from the well-formed categories. What we know from the surface form of the verbs, they appear either in perfective or in imperfective forms. There is no verb appearing outside of the two forms. The two verb forms are distinguished by their vowel-consonant structure, pattern of gemination, affixation and also some semantic clues.

The perfective verb form in Amharic has a typical structure of the form: $C_1äC_2C_2äC_3$ where C_1 is the firs consonant; C_2 denotes the second consonant, gemination marked by the double C_2 ; and C_3 for the last consonant. All the three consonants (also called roots) are separated by the high lax vowel, *ä*. The perfective form, in addition, take suffixes for subject and object agreement while the imperfective take both prefixes and suffixes. The pattern of the imperfective verbs is a bit complicated. As a principle, though, they lack the middle gemination, and the first vowel. Some momentum among the Semitic linguistics is lately heating up lately to analyze the middle vowels as verbalizer head. This is mainly due to the theoretical advances made in the

DM in which the derivational and inflectional derivations are sought to be unified. Let's follow the trend, and assume that the consonants are the category neutral roots where the categorizer elements, the vowels insert in.

Traditionally, the vowel insertion is taken not to be hierarchal; nor as such systematic.
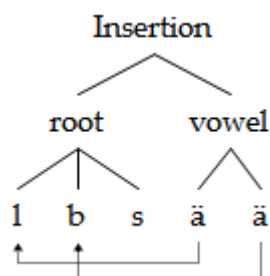
But, recently, there are some attempts to put the vowel insertion in line with the standard syntactic insertion mechanism—hierarchal rather an flat.

For Amharic verbs, the first vowel, one could claim, is what makes the verbs distinct from the nouns.

(12)   Läbbäsä ≠ läbs ≠ lïbs

In this example, the first is the perfective form of the verb; the second is the imperfective and the third is the nominal. The first two are different from the noun for they have a common, first vowel. I take it to be the verbalizer element. If the first vowel failed to verbalize the root, then, the rest of the vowels won't follow. Therefore, there is still some hierarchy. These vowels, not only verbalize the root, but also determine the *verb form aspect*. The perfective (CäCCä) forms behave differently from the other forms (the imperfective forms).

The verbalized categories then take other prefixes and suffixes outside of the verb forms. Our example lexeme, in its perfective form, *läbbäs*, semantically gives some sense; but, is not precise until it inflects for agreement features. That is why the 3ms format is usually taken as a citation form. Dictionaries use this, inflected form, to describe the verbs because, without the agreement element, the verbs are still incomplete. All other types of inflection can proceed after then.

(13)   a.   läbbäs-ä = he wear
          b.   läbbäs-äçç = she wear

Since the aspectual frames appear at the very root; and are the category defining units, I assume the process to be at the base of the derivation. Proper grammatical derivation has to proceed on categorized, syntactic objects. Roots cannot be syntactic objects; as they have no categories. Therefore, alongside with ?Amberber (1996), Travis (2010), I assume that verbalization of the roots happens earlier than the merger of the vP (contra to the DM approach). I take the aspectual vowel *ä*, which is the common element of the verb forms, to be the head of the root categorizer head, aspP(ProcP).

I have also already mentioned that other elements such as the transitivizer head, the causative,

and passivization materials are available in Amharic clauses. It is now more or less a convention in the field now that the transitivizer heads are the heads of the vP, Chomsky (2001). The Voice element has also been associated with the same projection.

Amharic also has causative elements which clearly show the hierarchy of the functional projections. The insertion of the causative heads is argued to be a syntactic derivation. Amberber, and Workneh 2014, show that the causative heads in the clause merge into the clausal derivation with the standard (narrow) syntactic means. There is a direct causative marker, also called the transitivizer, which shifts the unaccusative verbs into causative; and, there is the indirect causative marker which shows the indirect causation of an event from a causer to a causee.

Since the direct causative and the indirect causative are in complementary distribution with each other; and, each of them have something to do with addition or reduction of an argument into and from the derivation, one might argue that both of the functional items belong to the same vP. There are, however, a number of reasons to believe that the indirect causative is in a different layer than the two–the direct causative (transitivizer) and the voice. The most important of these reasons is the fact that both passives and transitive actives could be embedded inside the indirect causative **?**Amberber (1996). For that reason, I assume the indirect causative head projects higher than the transitiver and the passive heads. For the latter two, I assume them to head the same projection Kratzer (1996), Chomsky (2001).

To make things short, all in all,based on the order of the functional elements in the clause, a sentence like (14) would have a structural projection like Figure 1.

(14) Mariam lïjj-u-n   k'umt'a ïyy-as-läbbäs'-açç-w   näw
      Mary   boy-def-acc shorts   prog-AS-wear-3sfS-3msO is
      'Mary is causing the boy wear a pair of shorts' (active)

Figure 1: The VP fseq

```
                              TP
                    ┌─────────┴─────────┐
                  Spec                  T'
                   │          ┌─────────┴─────────┐
                Mariam_i     AspP                  T
                        ┌─────┴─────┐              │
                       t_i         Asp'           näw
                             ┌──────┴──────┐
                            Asp          CausP
                             │       ┌─────┴─────┐
                           ïyy-     t_i        Caus'
                                        ┌───────┴───────┐
                                       Caus           VoiceP
                                        │        ┌──────┴──────┐
                                       as       Spec         Voice'
                                             ┌───┴───┐   ┌─────┴─────┐
                                           lïjjun    –  –          perf
                                                          ┌─────────┴─────────┐
                                                          –                 perf'
                                                                      ┌───────┴───────┐
                                                                    Spec            perf
                                                              ┌──────┴──────┐   ┌────┴────┐
                                                            k'umt'a        vP  ä
                                                                       ┌────┴────┐
                                                                       ä       √P
                                                                                │
                                                                               lbs
```
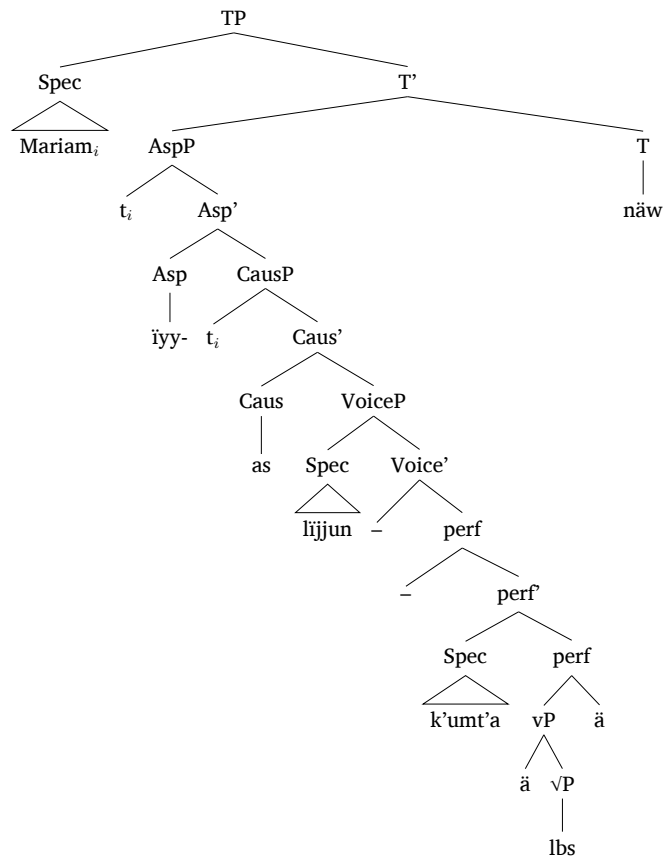
perf is VP in the traditional GB labeling = ProcP in Ramchand = AspP in Amberber and Travis It is a perfective verb form which automatically verbalizes the root. The other two methods of verbalization the root are inserting the imperfective frame (imperf head, I assume) and projecting light verbs (both transitive or intransitive variant).

Now, the next step is, if we have to follow the truncation theories, to determine where exactly the nominalizer category cuts the verbal spine illustrated here.

3.2 A cutting point

Given Burzio's generation which correlated accusative case assignment with the presence an external argument in the derivation, the standard analysis within Minimalism has been associating both the merger of external argument and case assignment into a single head. This specific head has been named differently in different works– VoiceP in Kratzer (1996), vP in Chomsky (2001),still InitP in **?**. Whatever the name be, this projection where the (agent or holder) subject is introduced and the case assignment to the object is achieved.

Therefore, within the theory of nominalization, the latest theories contend that, a nominalization which allows assignment of an accusative case to its internal argument should contain

this specific functional head. Nominations which cannot assign structural case to their internal arguments should not contain vP.

Take the distinction between the nominal and verbal gerunds in English for instance.

(15)   a.   [John's washing the car] pleased Mary.
          b.   [The washing of the car] (by John) pleased Mary.

In (15-b), the internal argument is not marked by structural case; *of* is inserted as a last resort whenever the predicate taking the argument is unable to assign structural case (or, simply, when the predicate is nominal). (15-a) on the other hand, the internal argument has received structural case. In correlation to the case assignment, an external argument is obligatorily introduced.

The explanation has been, cases like (15-b) lack the vP projection. That is why both structural case assignment to the internal argument as well as the introduction of the an external argument fails. (15-a) on the other hand, contains the relevant projection vP that both the introduction of an external argument and the assignment of accusative case are part of the system.

Generally, the obligatoriness of the external argument, the assignment of structural case to the internal argument and adverbial modifiers have been taken as the core defining properties to distinguish verbal gerunds from nominal gerunds Lees (1960), Alexiadou (2001*c*), Chomsky (1970), Heyvaert (2008).

Since the Amharic verbal nouns satisfy all the three requirement, as I have shown in the first part of the paper, these classes of studies predict that the verbal nouns would contain the vP projection. This prediction is born out.

As I have already mentioned, the transitivizer head in Amharic, which is the vP head, can project within the verbal nouns.

(16)   Mariam mäkinayitun mä-a-mït'at   fällägäçç
           Mary   car.acc.def.acc CM-Caus-come want.3fsS
           'Mary wants to bring the car'

The voice morpheme, another element associated with the same projection, for a clear reason that it is complementary distribution with the transitiver head, also could appear withing the verbal nouns.

Not only the items associated with the vP, but also other higher materials such as the indirect causatives could be embedded into the verbal nouns.

(17)   Mariam mäkinayitun mä-as-mït'at   fällägäçç
           Mary   car.acc.def.acc CM-Caus-come want.3fsS
           'Mary wants to get the car'
           lit:'Mary wants to make sb else to bring the car'

From this structure, the verbal nouns embed all the elements to the vCauseP.

There are other functional elements also which give us further clues about the merger positions of the nominalizer head. The causative markers might be preceded by grammatical aspect markers. **li**, the prospective aspect marker, and *ïyyä*, the habitual aspect marker, are specially

transparent imperfective aspect markers prefixing outside of the causative heads. We can safely assume that these aspectual markers project AspP (grammatical aspect). The aspectual markers can be dominated by the tense auxiliary *näbbär*, again confirming the cross-linguistic, Cinqual hierarchy of functional projections—Tense projecting on top of AspP.

(18)   Yosef mäkinayitun   ïyyä-as-at'äb-ä-at   näbbär
        Josef car.fem.def.acc Prog-Caus-wash-3msS-3fsO was
        'Josef was getting the car washed'

From the aspectual prefixes, the progressive marker cannot appear with the verbal nouns. But, since I have argued that the *li* prospective aspectual prefix is the same element to the so called 'infinitive marker" *lä*, we can conclude that the nominalizer head comes below the aspectual markers. Negation also offers a clear evidence for the position of the nominalization in relative to aspectual markers. The negation prefix could appear inside the aspectual prefixes.

(19)   lï-ay-hed   näw mässäl
        pros-neg-go is   looks
        'it seems he is not going'

The negation marker, when appearing with the nominalizer prefix, on the other hand, appears outside of it.

(20)   al-mä-hed-u   asgärräm-ä-ñ
        neg-MÄ-went-3msS surprise-3msS-1sO
        'his not going surprised me'

We can therefore, based on the order of the functional elements, we can safely conclude that the nominalizer head projects on top of vCauseP but below the AspP and Neg.

The order of functional heads in Amharic is: TP > AspP > Neg >|NOM|> CauseP > VoiceP > VP

From this heirachy, the order of the morphemes shows that the nominalization cuts just over CauseP.

This means that the gerunds in Amharic nominalize in lower projection than the English gerunds. The gerunds in English are known to take not only the negation polarity items but also higher functional items like the aspectual and tense auxiliaries.

(21)   a.   I'm very proud of *having been a reporter* [...] (CB)
        b.   And then there is the problem of *having to clean up afterwards* [...] (CB)

(Heyvaert 2008, p:41)

This suggests that the gerunds in Amharic and English, even if there is a lot of similarities on a number of areas, still have significant differences. The gerunds in English are able to embed more verbal functional material than that of Amharic. This leads us to a more inventory of gerunds: and different stages of nominalization as a consequence. Not all gerunds are cut equal. We need to have a more fine grained view of nominalization at large to understand the distinctions and unities among the gerunds. .

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4 Failures of the truncation approach to nominalization

4.1 Object agreement fails early

One crucial observation for the theory in here lies on the distinction between the subject agreement and the object agreement.

The subject agreement doesn't fully fail; it changes from standard nominative agreement to a genitive agreement. It also turns from an obligatory agreement to optional agreement; just like the genitive possessors of DPs. In other words, the whole shift is from clausal subject agreement to nominal subject agreement. The shift includes not only the case of the subject but also the agreement. The shift both in case and agreement seem to happen at the same stage of nominalization. Once the subject is genitive, the agreement is also possessive. One way of thinking about it is to assume that the shift in case and agreement happen at the same (in one stage). One sweeping shift. The other way of thinking about is by subsequent operations. First, the case shifts to genitive, then, the agreement has to follow because nominative agreement with the genitive subject is impossible. It is indeed, sufficient to shift the case assignment and expect the agreement to follow. In either of the two ways, the two operations seem to happen in close proximity or in one or two cycles of operations.
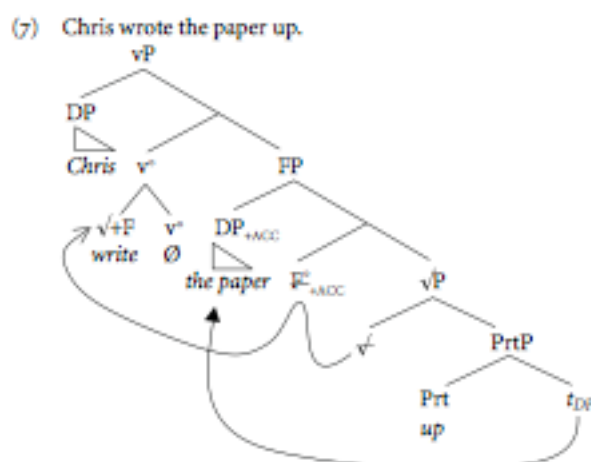
The same is not true of the objects. The object agreement seems to fail much earlier than the case of the object. In the above steps of failure of each of the elements, the most mysterious of all is the object agreement. If the process is supposed to be a step by step; given that the nominalization of the verbal gerunds doesn't affect the sub-vP domain, it is mysterious why the object agreement fails at the first stage.

In truncation theories, the only way to solve this kind of puzzle is by assuming some missing head in the fseq. Indeed, that is how the well-known puzzling situation of particle-shift in English is solved by Harley and Noyer

In his argumentation that verbal gerunds are distinct from nominal gerunds, Chomsky 1970 mentioned some interesting curious facts on particles-shift in English.

(22) a. Cris wrote the paper up
      b. Chris wrote up the paper.

(23) a. Cris's writing the paper up...
      b. Cris writing up the paper

(24) a. Cris's writing up of the paper
      b. *Cris's writing of the paper up

Verbal gerunds are like regular clause: they allow the particle shift, Chomsky showed. This is prohibited in the nominal gerunds. Then, the question remains, how this distinction can be explained using the truncation approach. Harley and Noyer 1997 tackled this problem by calling for an object movement in the verbal gerunds. They did so by opening up a projection for landing of the objects. This projection, they called it FP, sticking between the VoiceP and the root, serves as the landing site for object movement.

(7) Chris wrote the paper up.

```
                    vP
          ┌──────────┴──────────┐
         DP                    
         △                      
       Chris  v°                FP
           ┌──┴──┐      ┌────────┴────────┐
        √+F    v°    DP_{+ACC}           
       write   Ø       △                  
                    the paper  F°_{+ACC}   vP
                                  │       
                                 v°      PrtP
                                    ┌──────┴──────┐
                                   Prt           t_{DP}
                                   up
```

The presence of the FP, they claimed, opens a possibility for the raising of the object from in the Prtp (ResP in Ramchand's) to it. This gives the possible particle movement position where we get the preposition at the end: *write the paper up*; taking the *write up the paper* as the base position. For the nominal gerunds, they lack this projection that they cannot have object raising. For that reason, the only option is the base position: *write up*.

The interesting point here is that they are assuming the FP to be the accusative case assigning head, distinct from the VoiceP. They separate the projection of accusative case assignment from the position of external argument introduction. Still, the solution is: the nominal gerunds lack not only the VoiceP but also the FP (the accusative case assigning head).

Harley and Noyer explicitly suggested that the FP could be the old AgrOP. This clearly suggests that the object agreement is probably assigned by this projection. It is also interesting for Baker and Kramer recently suggested that the object agreement markers are copies of the objects (they are advocating for clitic doubling analysis). This copy, they claimed, sits somewhere outside of the VP. Then, the two theories seem to conspire to give a clear image of where the position of the object marker could be–somewhere outside of the VP (ProcP); probably in FP (AgrOP). If the object marker could then be higher in the verbal fseq, the fact that it fails early won't be a surprise. It is then imaginable that the object marker could be truncated with the rest of the clausal materials.

The matter, however, becomes more complicated when we look closely. Take the highest position the Object marker can take: probably Spec-vP (VoiceP) according to Baker and Kramer's suggestion. Now, take the situation with the nomings. The subject of the noming is still able to get proper structural case. Accusative case assignment to the object is still intact. For the object marker to be truncated, the object agreement head (or the position of the clitic in Baker and Kramer's theory) should be, as to the truncation theories, higher than the subject and the accusative case marker head. Given the position of the subject is largely assumed to be at SpecTP, this predicts that the position of the clitic (or the object agreement head) would be higher than the TP. This is impossible.

Now, assume the same type of projection is available in the Amharic clauses. AgrP is responsible for the object agreement. Nominalization cuts somewhere below this projection

4.2 TP/AspP and the nominative case

The assignment of the nominative case of the subject is associated with the TP. The standard view, which emanates from Abney's analysis is, the acc-ing gerunds in English are able to have structural case on their subject because they contain the TP projection. Since the ING merges on TP and turn the clause into DP, in this class of gerunds, the subject is on SpecTP. Hence, is able to check a structural case with the TP projection, as expected. As for the possings, the ING merges in the VP area that the TP projection is not part of the projection of the possings. The subject of the possing merges in SpecDP, the standard analysis has it. Pires (2006) also supports the claim that the Accing gerunds contain TP projection while arguing the possings lack it.

Four reasons why the Accings are claimed to have the TP contra to the possings

- they can have sentential adverbs: (25)

- accings allow long distance wh-extraction out of their complements; contra to possings; (26)

- *there*-expletive subject: (27)

- case assignment: they have nominative case

(25)   Mary(*'s) probably being responsible for the accident was considered by the DA.

(26)   a.   What did everyone imagine Fred(*'s) singing?
         b.   Who did you defend Bill(*'s) inviting?

(27)   You may count on there(*'s) being a lot of trouble tonight.

Unfortunately, none of these points actually tell the absence of tense in the possings.

- there cannot be possessive in English in general: the ungrammaticality is independent of being the subject of possings. *There* cannot be a possessor subject. - the possibility of long distance extract on the clausal gerunds rather offers a reverse reasoning: probably the clausal gerunds lack the CP (phasal domain); while the possings have the phasal domain (CP). This point is invalid to tell whether the possings have or lack the TP projection.

The last point is circular reasoning. It is something one needs to explain; not evidence for the absence of TP in possings. The assignment of the nominative case by the TP is not also correct. WE know have sufficient evidence to tell that nominative case is independent of TP.

The subject of all the gerunds indeed seem to project within the VP spine; as Alexiadou 2009 noted:

>To the extent that an external argument is present in -ation nominals and nominals gerunds, this is argued to be a possessor in Spec,DP. The external argument in the case of verbal gerunds, on the other hand, is projected in Spec,VoiceP.

One of the arguments Pires offers for the presence of tense in the clausal gerunds, contra to the defective gerunds, is possibility of having independent time adverbs, can indeed be used to claim that the possings also contain tense projection.

The fact of the matter for English gerunds seems that both of them contain the aspectual projection (and the negation) while both of them lack the TP. They both avoid tense auxiliaries. They both seem to lack the TP projection. That is the reason why the tense auxiliaries cannot appear on them–simple and straightforward.

Still, the accings are able to have a structural case while the possings cannot have structural case. While both of the gerunds contain equal amount of fseq material, they behave different in their case assignment to their subjects. Unless there is a solid evidence that the tense does exist in the accings, the truncation theory fails to explain the distinction.

Even if there is concrete evidence that the TP in English accings does exist, it is more than obvious that both the possings and accings contain the AspP (Alexiadou 2009, 21). The possings of English contain the AspP projection. The Nomings of Amharic, on the hand, lack the TP as well as the AspP projection. Still, having smaller fseq material, the latter able to assign nominative case to their subject while the former failed to do so. The truncation approach gives wrong prediction. Case assignment doesn't follow the fseq: why nomings of Amharic are more verbal than the possings of English

Looking into the gerunds of English, there is difference on the amount of fseq they contain. Both of them contain the projection until CauseP; while both of them lack the rest of the fseq above CausP. Still, one of them assigns structural case to its subject while the other fails to do so. if not some absurd stipulation, there is no evidence that the nomings contain more material than the possings. Again, the truncation theory gives wrong predications.

4.3   VoiceP and the accusative Case

As the quotation given by Alexiadou above suggests: not only the gerunds but also other action nominalizations (complex event nominals) have agent arguments. Agents are assumed to merge in VoiceP in the standard view.

(30)   a. [DP [Asp [VoiceP[vP √]]]   *verbal gerunds*

     b. [DP [NumberP [VoiceP [[vP √]]]   *nominal gerunds/-ation nominals*

(Alexiadou 2009, 22)

VoiceP is also associate with the assignment of the accusative case, given Burzio's generalization. Both Chomksy and Krazer have associated the VoiceP (merging position of the subject) with the assignment of the accusative case. Then, the truncation theory predicts that not only the gerunds but also other complex event nominals, which contain agent arguments, hence the VoiceP, are able to assign accusative case. This is a wrong prediction. Only the verbal gerund are capable of assigning accusative cases to their object. Nominal gerunds (complex event nominals) all fail to assign accusative case.

Having VoiceP doesn't exactly tell that the projection will be able to assign accusative case. This is another wrong prediction of the truncation solution.

In the next sections, I will propose that the best way of looking at these facts is via the derivational timing: not on the rigid hierarchy, as presently assumed.

4.4 periphrastic arguments and case

5 Stages of nominalization

Nominalization stage 1: At this stage, everything is like a regular clause except the distribution of the whole clause. Both subjects and objects receive structure case. Agreement proceeds as in the normal clauses. eg. English accings.

Nominalization stage 2: everything remains clausal as in Stage 1: except one change–object agreement fails. Eg. Amharic nomings.

Nominalization Stage 3: Everything is like the stage 2 nominalization: except the case of the subject now turns to genitive. The turn from the nominative to the genitive case is accompanied by the shift in the subject agreement. Eg: English possings; Amharic possings

At this point, even if the subject looks like a possessor, syntactically; it is still an agent at the semantic level. It is a true argument. It cannot be dropped; nor can it have non-agent reading.

—result interpretation is impossible at this stage

(28)   Yä-Yosef makinayitun   bäfit'nät mä-at'äb   adäsätägn
        of-Josef   car.def.fem.acc MÄ-wash pleased.me
        'Josef's quick washing of the car pleased me'

(29)   *Yä-kassa mäkinayitun bäfit'nät ïtbät asdäsägägn
        of-Yosef   car.def.acc   quick   wash pleased.me
        'Josef's wash of the car pleased me'

When gerundive is replaced with a result nominal *ït'bät* ('wash'). The sentence is unacceptable. That means, argument structure is fully alive at this stage of nominalization.

Nominalization stage 4: accusative case fails + external argument becomes optional : English OF-ing (we still have a subject and object). The *syntactic OF-ing* in Moulton's term. The agent interpretation of the external arguments is optional. It is also not obligatory that they would merge.

The optionality of the argument is the failure of the argument structure, according to Grimshaw 1990. Grimshaw's theory predicts that not only nouns (non-eventive) categories lack argument structure; but also categories with simple events lack argument structure.

A-structure is what forces verbs such as *kill* have **obligatory (internal) argument**. As Girmshaw put it, having a complex event structure (aspectual structure) is crucial for a category to have an argument structure. How she defined or diagnosed the complexity of the event is something to be seen.

Every lexical category such as verbs or nouns has lexical semantics. Their lexical semantics (LCS) might include an event or activity and participants. Not all the participants, however, will project as arguments. The ability to project, map, the participants to the arguments is restricted to complex event categories (event nominals; processes which are categorized as verbs): "an a-structure is a lexico-syntactic representation assembled from a set of elements identified by the lcs of the predicate". Page 6 of Grimshaw.

Grimshaw's theory made it clear that non-event or simple event categories lack argument structure.

Nominalization stage 5 Event interpretation is still intact, plus, the internal argument is still available. But, modifiers turn from adverbial to adjectival. Eg. Grimshaw's complex event nominals: Example: *examination*; look at the following example.

Grimshaw emphasized that a number of complex event predicates are ambiguous between simple event and complex event reading. Whenever their reading is complex event, she claims, the arguments are obligatory.

(17) a.

(30)   a.   The frequent appointment of unqualified workers for extended periods of time damaged the company.
        b.   *The frequent appointment (for extended periods of time) damaged the company. (17 in her)

She takes event aspectual modifiers like *frequent, habitual, constant* to delineate complex event readings.

Nominalization stage 6: argument structure fails. The whole of argument structure looks just like nouns: both the internal and external arguments have failed. Event interpretation is still available. This is the stage of simple event nominals, in Grimshaw's theory. Eg: *exam.*

(31)   a.   They tore up their examinations/exams
        b.   The examination/exam took place at 6 pm.
        c.   We witnessed the examination/exam.
        d.   They examined the patient carefully.
        e.   The careful examination of the patient revealed that he was healthy.
        f.   *The careful exam of the patient revealed that he was healthy. (Grimshaw 2011, 1300)(13 in her)

Here, the focus is on the comparison of (31-b) & (31-c) with (31-f). (31-b) & (31-c) show that both exam and examination have event interpretation. But, having event interpretation, doesn't enable *exam* verb to take an argument, as the example in (31-f) shows.

Nominalization stage 7: both event interpretation and argument realization is gone at this stage. There is just an evidence that the nominals are derivatives: be it from the root or from the verb. Grimshaw 2011 identifies 3 types of these nominals:

  i) Participant nominals: writer, destroyer, creator, etc.

  ii) Result nominals: building, collection

  iii) Others : eg: transportation, proposal, referral, conference

[₁ **Distribution**] »[₂ **object agreement**] » [₃ **Subject Case + agreement**] |»| [₄ **Object Case**] » [₅ **argument structure becomes optional**] » [₆ **argument structure fails**] » [₇ **event interpretation fails**]

The stages are just orderings of the nominal categories based on their internal properties. The nominals are ordered in these stages in accordance to the verbal and nominal properties they

display–on agreement, case assignment, argument structure and event interpretation. It is a way of putting the nominalized categories from the most verbal to the least verb ones: much similar to Ross's hierarchy of nouniness. The nouniness hierarchy (stages of nominalization here) has important implications for the analysis we propose. The interesting part is: the nouniness hierarchy doesn't exactly fit with the verbal fseq. There are clear discrepancies between the two orders. In the nouniness hierarchy (stages of nominalization), for example, the nomings of Amharic come more verbal than the possings of English. This is due to the fact that the former mark their subjects with structural case (clausal case) while the latter mark their subjects genitive (nominal case). The latter are more nominal. In the verbal fseq on the other hand, we have seen that, the Amharic gerunds generally have less material in the verbal fseq than the English gerunds. This is unexpected for the truncation approach. If the truncation theories are right, that the stage where the nominalization cuts fully explains nominalization, we would have the English gerunds being more verbal than the Amharic gerunds across the board. But, that is not true. Even if the gerunds in Amharic contain less verbal material across the board, the nomings of Amharic are more verbal than the possings of English, as their case marking of the subjects clearly shows.

Therefore, there is something missing that the truncation theories cannot explain. Explaining this discrepancy, I suggest, offers a new window for understanding how nominalization works, as well as, how the grammar operates at larger level. In the following section, I will propose how to explain the discrepancy; and, how this proposal would solve some of the persisting issues on nominalization.

There is also another interesting fact that the gerunds in Amharic bring to the table–the early failure of object agreement. Why does the object agreement fails much earlier than the subject agreement and other clause internal relations?

6   Proposal

6.1   Derivational syntax

Based on the above stages, I will argue that **it is the order of derivation; not the hierarchy what really matters**.

Basically, what I am going to present is: the derivational theory of syntax is able to better explain nominalization than the representational theory. That is, the hierarchy is the representation; the output of the derivation. Observing the hierarchy per se is not sufficient. The history of the derivation gives the correct explanation. The truncation theories should be re-conceived in terms of the derivation to give the correct output. I will first show cases where the truncation theories will give wrong predictions. I will then show how this could be fixed with the derivational approach to syntax.

this is the point I am thinking to argue for as the main thesis of the dissertation.

The best way to understand these stages is by their order of operations in the syntax. The first victim of nominalization is the last operation in the derivation syntax layer of derivation. The latter you merge, the more likely nominalization (suppression) will catch up on you. This is not specific to nominalization. Other argument suppressing operations like passivization also known to target the highest (latest) element than the internal argument.

6.2 Case » Agree

There is a strong evidence already that subject case assignment precedes subject agreement; object case assignment precedes object agreement. At the stage of the derivation, the case assignment precedes the agreement. This, however, doesn't happen in the whole clause in one sweep. That is, there is no universal principle which puts Case before Agree. There is a principle which puts Case before Agree on cyclic basis.

It also has a grander motivation: if there is an event, there must be a subject. All types of verbs have subjects: but, very few types of verbs have objects. Subjects are obligatory so far as there are events.

Maybe there is a general cognitive tendency which forces to have Subject participants in all events–given the presence of subjects in all clauses, the agreement with them becomes equally more important (consistent). Objects are less reliable; restricted to types of predicates. Their agreement properties are also equally less reliable—trying to explain why object agreement is less common than the subject agreement.

if that type of shift is possible in case of the objects, then, it is possible that the reason the object agreement fails is because, the object agreement is not a true agreement, as Baker and Kramer 2016 forcefully argued.

The above stages shows that the object agreement happens much later than all other operations. Agree seems to proceed from top to down; at the representational level. The subject agreement happens before the object agreement. The object case assignment happens earlier than the subject case assignment. The upward nature of agreement has been attested in the DP, across different types of modifiers; as well as among different types of objects in the VP. There is an upward competition. The highest always gets the item. Therefore, the direction of the agreement seems to run from higher to lower.

6.3 Relativized case assignment

I will accept Baker's 2013 view that structural Case is assigned on relative terms: not associated to specific functional projection. Inherent case is associated with specific inherent case assigners (really; inherent case is more of a preposition which inserts as a last resort in the absence structural case)

6.4 Two kinds of nominalizations

In part I of the paper, I have shown that the verbal nouns are two kinds:

- Nomings
- Possings

The facts presented in the above sections show that both types of gerundives seem to have a nominalization at the same cut point, which is VoiceP or vP. This is because all the elements in the Voice domain do project inside the gerundives. During passivation, both the internal causative and indirect causative project within the gerunds in both types of gerundives. From

this I conclude that the nominalization cuts at the VoiceP head. The issue is then, if the projection is cut at the same place for both kinds of nominalization, where does the distinction come from.

In this subsection, I will sketch how they might be analyzed in the framework suggested above. But first the summary of the facts on these classes of nominals.

4 main distinctions:

- the case of the subject: possings have possessive subjects while the nomings have nominative

- optionality of agreement: the possings have optional subject agreement

- form of agreement: the form of the agreement elements is possessive on the possings while the nomings have standard subject agreement markers

- the position of the accusative case is different in the two kinds of nominalizations. The accusative case marker targets the genitive subject in the possings while it targets the lexical verb (the verbal noun) in the nomings

A proper syntactic analysis should be able to explain why and how each of the distinctions emerged. But, before we worry about their distinctions, it is also necessary to question what would be the best type of analysis for each of the verbal nouns.

Let us start from the possings: how they behave, and how and where could the nominalization happen in the possings.

6.4.1 Possings

Genitive marked subjects are the hallmarks of poss-ing gerunds. The subjects of the possings gerunds look just like standard possessor DPs of the regular noun phrases, so far as syntax is concerned. With the exception of the agent like role they have in the verbal nouns, they behave like regular possessor DPs in all aspects. The analysis, therefore, follow this basic promise.

An immediate consequence taking their subjects as regular possessor DP is the predication that the subjects merge in the extended projection of the N; rather, in the extended projection of the V. That is, if there is any position they merge, it should be the position where the standard possessor DPs merge at. For independent reasons, I have shown in Workneh (2011) that possessor DPs are composed of DPs embedded under a CP layer. The reason for the CP layer, as has been presented in chapter 4 of the thesis, is due to the fact that all possessive DPs are preceded by the relativizer (genitive case marker) element *yä*, which is similar to the English *of*, except that *yä* is not a prepositional element unlike *of*. It doesn't specifically target nominal categories. It could attach on both verbs and nouns equally; and turn them to modifiers of the noun. All the elements containing the *yä* prefix argued to be headed by CP projections.

Relative clauses: $[_{CP} [_{TP}]]$
Possessive phrases: $[_{CP} [_{DP}]]$
Complement phrases: $[_{CP} [_{NP}]]$

(32)   tïnant   yä-mät't'-a-u   lïjj   (relative clause)
         yesterday Yä-come-3ms-Def child

'the boy who came yesterday'

(33)   yä-yosef mïst (possessive phrase)
         Yä-Josef wife
         'Josef' wife'

(34)   yä-brät   wänbär (complement phrase)
         Yä-metal chair
         'chair of metal' (chair made of metal)

The genitive subject of the verbal nouns are also marked by the same element.

The distribution of this functional items is of another interesting matter about the possessor elements and the relative clauses. The pattern of the distribution of the *yä* exactly emulates that of the rest of the functional items in the DP–patterns we saw in the above sections. If the possessor is a single possessor noun, it appears on the noun itself. If the possessor contains modifiers, however, it migrates to the modifiers, just like the definite article, the case and gender markers.

(35)   yä-lïjj-it-u   addïs bet
         Yä-child-Fem-Def new   house
         'the girl's new house'

(36)   yä-räjjïm-it-u   lïjj   addïs bet
         Yä-tall-Fem-Def-acc child new   house
         'the tall girl's new house'

This distribution property of the functional items is also evident on the subjects of the verbal nouns. If the genitive subject of the verbal noun has modifiers, the genitive case marker *yä* would target the modifier.

(37)   yä-räjjïm-u lïjj mä-hed....
         Yä-tall-Def boy CM-going
         'the going of the tall boy'

All these facts confirm the similarity between the subject of the possing verbal nouns and the possessor DPs of the regular nouns.

From these similarities, it seems natural then to extend the analysis we have for the possessor DPs into the genitive subjects.

To start from the position of the possessors in the DP, for Indo-European languages, it is more or less now a consensus to project possessors in the Spec-DP. This is mainly because of the complementarity of the possessor pronouns with the elements which are purported to project in the Spec-DP. I claimed, it cannot be the case for Amharic. One evidence comes from the type of competition we see in these patterns. As already explained, whenever a number of modifiers are part of the derivation, the functional items target the higher ones. Then, by putting each element into the DP, by observing if they compete for the functional items, it is possible to deduce which of the elements are true modifiers and which are not. The pattern clearly shows that the possessor DP behave like the rest of the modifiers, in that regard. In this context of

competition, what makes it clear that the possessor DP doesn't appear in the Specifier of the main DP is its position in relative to the other modifiers.

Adjectives, relative clauses and quantifiers could precede the possessor DP.

(38)   Addis-u yä-yosef bet
       New-Def Yä-Josef house
       'Josef's new house'

(39)   Sost-u-n   yä-yosef lijj-oçç ayähuwaçäw
       Three-Def-acc Yä-Josef child-pl see.1sS.3plO
       'I saw Josef's three children'

Examples like this suggests that the possessor DP cannot be as high as the Spec-DP. The suggestion I made was , the possessor DP merges just on top of the NumP.

(40)   Addis-u yä-lïjj-it-u   bet
       New-Def Yä-child-Fem-Def house
       'The new house of the girl'
       'The girl's new house'

(41)
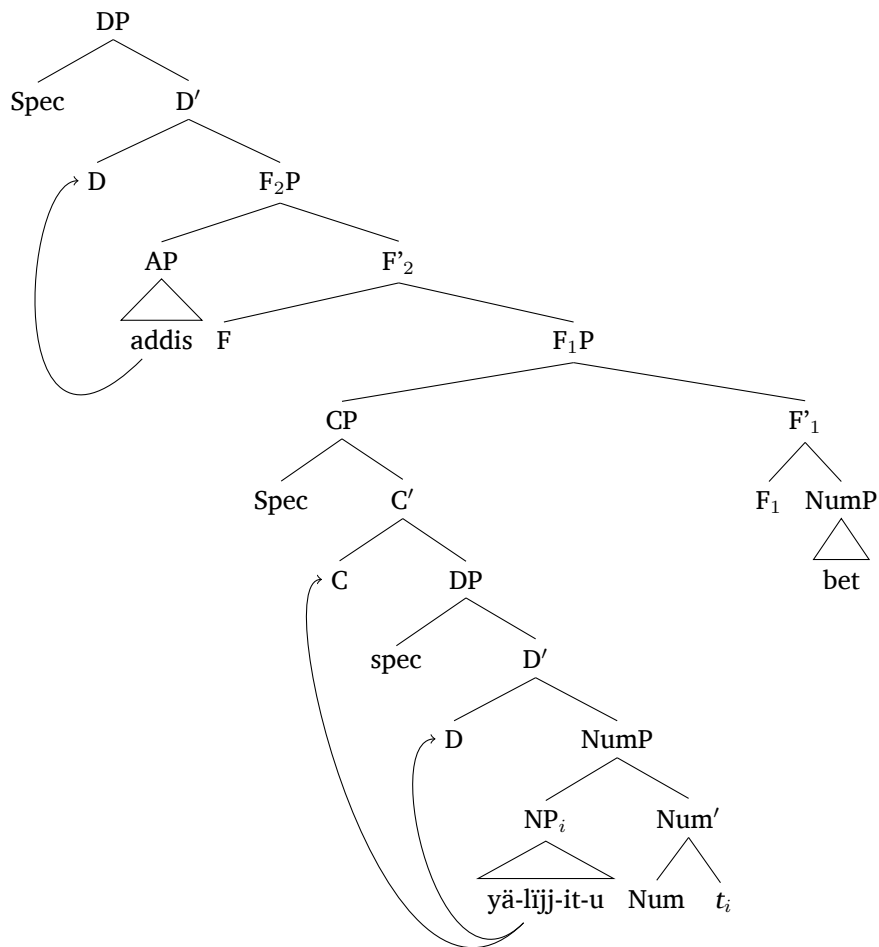
Note that the position of the possessor DP is not always lower than the adjective. The reverse position is also fine. Like standard adjuncts, either of them seems to merge before or after the other. There is a subtle semantic effect in accordance to their positions. In any event, the point is, the possesor could merge either in lower or higher positions.

Since we are entertaining the idea that the relationship between the possessive subject and the verbal noun is the same as that of the possessor DP and the head noun, we are in a position to analyze the genitive subjects in line with the possessors.

That means, the subject merges into the derivation after the eventive predicate nominalizes. The point in this line of argumentation is then what makes possing gerunds distinct from the nomings is the fact that their subjects are just like possessors. They are like the possessors because they merge with a more nominal category. There are two ways of reasoning why the subjects of the possings look like possessors: (contra to that of the nomings)

1. the verbal nouns are more nominal in the possings than in the nomings

2. the timing of the derivation: that is, the subjects of the possings merge later, after the nominalization

The two explanations are not fully distinct; but, they have different implications. In the truncation theories, a category is more nominal as the nominalization happens earlier. The *ing-of* gerunds seem more nominal in their properties because they packaged little verbal material. They are nominalized at the base of the VP tree. This distinction cannot be true for Amharic gerundives, however, as we have seen above, both types of gerundives packaged the same layers of functional materials.
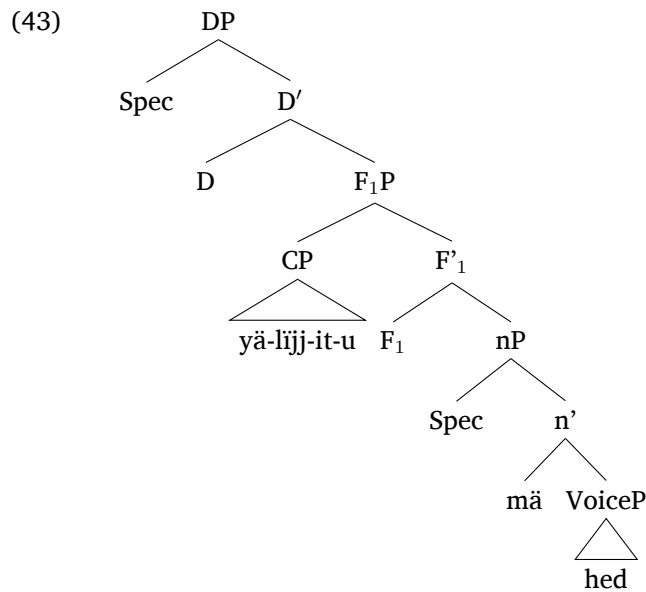
this idea into a proper syntactic terms: one consequence of this idea is then, they look like possessors because the verbal noun is probably more nominal in the possing gerunds than the nomings; or, there is the difference between the two types of gerundives by the order of the derivation.

I propose that the distinction comes from just one fact—that is, **whether the subject merged before or after the nominalization.**For independent reasons, the subject is claimed to merge in Spec-VoiceP in the standard clauses. Then, if the subject merges after the nominalization of the VoiceP projection, we have a subject merging with a nominal category. That is the case of possing nominals. In the possings, the whole relationship between the nominal head and the subject becomes a matter of possessor - possessum relationship just like standard nouns.

I have taken these signs to mean that the relationship between the subject and the rest of the clause is exactly the relationship between the possessor DP and the NP in the standard DP structure. All the three properties can be explained if assume that the genitive subject is just the genitive possessor subject of the standard NP.

Now, replacing the verbal noun with the head noun in the above structure is just a straightforward process.

(42)   yä-lïjj-it-u   mä-hed
         Yä-child-Fem-Def CM-went
         'The going of the girl'

(43)

```
                    DP
                ┌────┴────┐
              Spec       D′
                      ┌───┴───┐
                      D      F₁P
                          ┌───┴───┐
                         CP       F′₁
                       ┌──┴──┐  ┌──┴──┐
                   yä-lïjj-it-u F₁    nP
                                   ┌──┴──┐
                                 Spec   n'
                                      ┌──┴──┐
                                     mä   VoiceP
                                            │
                                           hed
```

Agreement between the genitive subject and the gerundive head is exactly the same in all its properties to the agreement between the noun and its possessor.

(i) the form of the agreement is the same (cf.(44) & (45))

(ii) agreement is optional (cf.(44) & (45) against (42) & (40))

(iii) if the agreement is overtly marked on the head, the subject (possessor) is best left silent = pro-drop property

(44)   yä-lïjj-it-u   mä-hed-wa
        Yä-child-Fem-Def CM-going-3fsPoss
        'The going of the girl'

(45)   yä-lïjj-it-u   bet-wa
        Yä-child-Fem-Def house-3fsPoss
        'The house of the girl'

These similarities with the possessor DP merit a unified analysis for the possessive DP arguments and the genitive subjects of the gerundives. They also confirm that the subjects of the possing gerunds indeed merge after nominalization of the verbal element. Had it been not so, the subject would have displayed some of the properties of the verbal subject.

There are still a number of questions and clear problems. One question is the status of the nominalizing head. Is it a true syntactic head? If it is true syntactic head, why doesn't the verbal element project, as in standard clauses where category identity is maintained to the top of the projection. The other question is, we are here saying that the genitive subject is behaving like the possessor because the verbal category has already been nominalized by the time it merges. We have said that the agreements are possessive agreement. Now, the question

is, how does exactly the agreement happens? That is, Agree is always a relationship between heads. is the Agree between the possessor DP and the n head, or is it between the possessor (genitive) DP and the nominalized, lexical verbal element. The answer to this latter question is correlated with the answer to the first question. If we assume the nominalizer projection just like typical syntactic head, we have to assume that the agreement is between the nominalizer head itself and the genitive DP. But, if we think that the nominalizer head is something special type of category, that it projects in a different way than regular syntactic categories project, we have to devise other strategies of agreement.

My suspicion is, nominalization is not a standard way of putting syntactic objects one on top of the other. There is something different about it. Standard syntactic Merge would build materials one on top of the other. The building process, adding a syntactic object X on top of syntactic object Y doesn't much alter or affect the identities of Y. Y remains intact in the process of Merge, in the standard syntactic derivation. Nominalization, on the other hand, seems to have a downward effect on the already introduced elements. That is, when X merges on top of Y, X seems to have some kind of effect on the identity of Y. It seems to alter or shift the properties of Y. If this intuitive observation is correct, it is possible that nominalization (and, probably all types of re-categorization) is probably accomplished by a different species of Merge.

The other challenge we have here exactly like the problems lately noticed in analysis of English gerundives. The problem in the analysis we have here is how the subject appear after the nominalization. That is, if the VoicP is said to introduce a subject argument, how could the introduction of the subject be postponed to the point that the projection will be nominalize (another higher projection merged) before the introduction of the subject. In the BPS, and, all other derivational system, the derivation proceeds on a step-by-step basis. By the time the VoiceP is introduced, there is no way of looking ahead and knowing that the clause will be nominalized. Nothing stops the merger of the subject of the VoiceP. We don't however take double subjects. If the introduction of the subject is motivated by some kind of feature, say the Edge feature, then, the fact that the SpecVoiceP remains empty means that the feature is unsatisfied. In a proper derivation, this would trigger a crash.

Another problem is when the indirect causatives are part of the derivation. Note that the indirect causatives introduce a projection one level higher than the VoiceP. A nominalization which proceeds exactly VoiceP would leave the indirect causative head outside of the nominal. But, this is not true. All the causative elements come inside the nominalizer head. This suggests that, probably, the nominalization is probably happening even higher; at the CauseP layer rather than the VoiceP layer. If that is true, then, the situation with the subjects at SpecVoiceP becomes even severe.

Still another problem, given Burzio's generalization, the introduction of the external argument has been correlated with the accusative case marking. This correlation is explained by associating the two into the same head in the Minimalism. The VoiceP (vP) is taken as the projection which assigns accusative case and introduces the external argument. Taking this hypothesis seriously, studies in the English gerundives argued that *ing-of* gerundive fail to assign accusative case because they lack the vP (VoiceP) projection.

(46)   John's running of the marathon impressed the guests

Presence of vP in the clausal gerunds, on the other hand, is taken as an explanation for the external subject and the accusative case.

Here, the internal argument clearly not getting a structural case from the verbal projection: suggesting that the vP is not part of the projection. But, the gerundive still contains a subject element. How is this possible if we said that subjects are introduced at vP; and vP is should introduce a subject (note that we are talking about the agentive/causative v; not the other *v).

Moulton (2004) raised the above problem and concluded that "lack of accusative case does not always indicate the absence of an external argument. "Does that it mean that external arguments could completely dissociated from accusative case? if that is so, how about the Burzio generalization would hold? Or, we need to revise our theory of gerunds where the *of-DP* taking gerunds (mixed nominalization) should not be considered to lack a vP in the first place?

For Amharic gerundives, the presence of the vP projection is very obvious. Still, the genitive subject seems to act like a possessor DP rather than as a true subject poses a challenge on the Burzio's generalization.

A third, and more of an Amharic internal problem is on the distinction between the two types of nominals. The functional items embedded inside the nominalizer element are the same both to the possing gerunds as well as the noming gerundives. From this similarity, we suggested that the nominalization cuts at the same point for both types of gerundives. Then, the question is, if the nominalization cuts at the same place for both kinds of verbal nouns, where does the distinction come from?

On the one hand, the agreement and case assignment facts seem to show that the possings are more nominal than the nomings. The embedded functional material, on the other hand, suggests that the two gerundives are embedding the same amount of material from the verbal fseq. How can we solve this contradicting information about the two types of gerundives.

- the reason the subject gets the genitive is because the case is assigned by a nominal category

- the agreement becomes optional for the fact that the subject is a possessor. Possessors agree only optionally with the possessum in the language.

- How about the case? well, the Case targets the possessor in the way I analyze in 2011, where the modifiers of the noun pick the case and the article. Since the possessor is one of the modifiers of the noun, the accusative case targets the modifier. In that sense, I can assume a DP projection on top of the possessor.

But, to understand what is exactly happening in the nominalization, we need a solid theory of the nominalization itself.

the data:

The explanation why these nominal possessor properties are displayed by the subject is because it merges (or moves out of the voiceP) just **after the nominalization** (before agreement and case assignment). The subject merges latter, after the nominalization is done on the VoiceP projection.

Nominalization » Subject Merging » Subject Agreement (Case Assignment)

There are two possible merging positions for the subject. It can merge in the Spec of VoiceP. In this case, the subject moves out of the VoiceP after the nominalization.
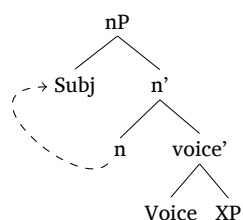
Edge-Subj at VoiceP: the steps:

1. merge everything of the voiceP projection, including the subject

2. move the subject outside of the voiceP

3. nominalize the VoiceP

4. proceed with the Agree/Case finally

The second alternative is to introduce the subject at spec-nP.

Edge-Subj at nP

1. merge everything of the VoiceP projection, except the subject

2. nominalize the VoiceP (merge nP)

3. Merge the subject with the nominalized category, say nP

4. proceed with the Agree/case

```
              nP
             /  \
          Subj   n'
                /  \
               n    voice'
                    /   \
                 Voice   XP
```
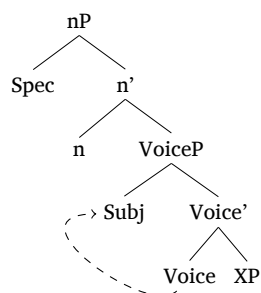
6.4.2   Nomings

The subject raises (or still remains inside) VoiceP after the nominalization. That is, after the agreement of the subject with the verb and the assignment of the nominative case by the Voice head (or the V itself). Note that I am assuming that the Voice head is able to assign nominative case. We noted that T doesn't exist inside the verbal nouns. Under the raising analysis, it is possible to assume that the nominative case is assigned by the matrix verb.

Subject agreement/case assignment » nominalization » subject raising

The agreement and case assignment happen before the nominalization of the verb (the clause). The result is a standard verbal agreement and case assignment with/to the subject.

```
             nP
            /  \
         Spec   n'
               /  \
              n    VoiceP
                   /   \
                Subj    Voice'
                        /   \
                     Voice   XP
```

For raising (PRO) verbs: the steps

Edge-Subj at VoiceP

1. merge everything of the voiceP projection, including the subject

2. Agree/Case with the subject

3. move the subject outside of the voiceP

4. nominalize the VoiceP

Since the subject agreement and case assignment happens inside the nP, it is mandatory for the subject to merge at SpecVoiceP in the nomings. This means that the Edge-sub of the VoiceP is not touched by the nominalization process in the nomings.

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