Passive of the unaccusatives[*]

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Abstract

Most modern theories take transitivity to be the main factor for passivization of clauses. A careful consideration of the different sub-classes of transitive verbs, however, reveals that the general notion of transitivity is too general to explain the fine details that various verb classes display with regard to passivization. Concentrating on unaccusative verbs in Amharic which transitivize with a morphological transitivizer, I show that only sub-class of the transitivized unaccusative verbs can be passivized. To explain the distinction among these verb classes, I argue that transitive verbs could denote either direct agency or indirect agency. Direct agency denotes a direct relation of the event of the verb and the external argument; while indirect agency induces the event via intermediary ways. The passivization targets only verb types which denote an immediate agency. For the syntactic derivation to proceed, the combination has to pass through semantic filters. I finally propose the S-select to be the prime determining factor whether a passivization would be possible on a certain verb, or not.

1 Introduction

The non-active morpheme in Amharic, *tə*, expresses a number of semantic notions–from reciprocal, to impersonal passive, intensive, personal passive and middle. Each of the notions appears stronger in accordance to the lexical semantics the marker appears with. What the meaning will be: would it be the passive, the unaccusative or the middle type, is the matter of combination of the meaning of the morpheme and the lexical semantics of the verbs.

Many causative verbs marked with the non-active morpheme ((Nact, henceforth)) are ambiguous between the personal passive and the middle interpretations. Most intransitive verbs give rise to either the middle or impersonal passive interpretation.

The morpheme is by large non-selective. Most classes of verbs in the language allow the prefixation of this marker. This non-selective nature the morpheme makes one think if the traditional assumption that passive, reciprocal, anticausative, etc., as primitives of grammar derived in different ways in the syntax is the correct representation for Amharic.

One of the primary reasons for postulating the passive transformation in the GB was the observation that passivization targets only transitive verbs. Given a certain assumption on the argument structure and domains of argument positions, the syntactic approach derives the passive by suppressing and promoting different arguments of the active.

[*]Thank you

Due to the theoretical shifts Minimalism brought about, the discussion on passive has lately abated. All the talks of the passive: transformation, argument promotion and demotion which has been proposed, advocated and advertised has gone out of favor lately. Linguistic theory is sometimes like a fashion. But, even if the interest has faded, it is still not impossible to extrapolate some of the GB-style transformation into the new frameworks; from the already developed analyses. One important proposal on for transitivization and passivization is the theory of the little v developed in Chomsky (2001, 2000). The anticausative and causative clauses are assumed to project different types of *little v*. The unaccusative counterpart, marked as bare *v*, is assumed to be a defective head. It contains incomplete phi-features. As a result of that, it is argued to have no specifier potion where external arguments could have been introduced; plus, induces no phase boundary. The causative counterpart, *v**, is taken to be a phi-complete; hence, contains both a specifier position and a phrase boundary.

The traditional idea that the passive form the active can then be implemented by assuming some kind of derivation which turns the causative *v** into the anticausative *v*. The derivation has to demote the external argument and–probably with some other independent tool, say the EPP–promote the internal argument to the subject position.

The implementation, however, couldn't be easy. How could exactly the external arguments be demoted and what kinds of process does exactly turn the causative *v** into the intransitive *v* type–the task needs probably a complete reconfiguration of the theory at large.

Given principles like *Full Interpretation*, derivations like demotion of the EA won't be easy to adapt to the modern system. Another related problem is:in a large number of languages, on empirical grounds, it has already been noted that the passive is not a special type of grammatical transformation. The morphemes which generate the passive also do other multitudes of functions: like the anticausativization and reciprocal. If the passive is transformed in the syntax, how about the others?Should we transform the anticausatives from the causatives all the way, including all those which seem to derive from the transitive form?

The derivation of anticausatives which themselves from intransitive base verbs would specially pose a major challenge because, since they already contain the unaccusative type of v, the further transformation would be superfluous-or, the theory would predict that such a transformation would be impossible.

One of the main purposes of this paper involves the derivation of the passive from unaccusative verbs. I specifically focus on one proposal which was developed under the *Aspects*, Chomsky (1965), framework for the derivation of the passive from the unaccusative verbs.

The proposal, which I call the *Bender-Fulass hypothesis*, from Bender and Fulass (1978), advocates that the passive derives from the transitivized counterpart of the unaccusative verbs. The focus is on the core inchoative class of verbs. This class of verbs appear unmarked in their unaccusative function, (1). The causative and the passive counterparts of the verbs both appear marked by different morphemes–*a* and *tə* respectively, as shown in (2) and (3).

(1) k'ɨbe-w k'əllət't'ə (unaccusative)
butter-def melt-3msS
'the butter melted'

(2) yosef k'ɨbewn a-k'əllət't'-ə-w (causative)
Josef butter-def-acc CAUS-melt-3msS-3msO
'Josef melted the butter'

(3) k'ɨbe-w tə-k'əllət't'ə (passive)
butter-def Nact-melt-3msS
'the butter is melted'

This class of verbs are specifically interesting for the fact that no middle interpretation arises when the Nact morphology is prefixed on them. The middle (anticausative) meaning is already coded in the basic form, as in (1), that only passive reading arises on the marked form, (2).

Given the standard assumptions, also cross-linguistic observation, that the passive is derived from transitive verbs, what exactly is the direction of derivation for these above structures. The question is then what the directions of the derivations are.

Then, the question is on the direction of the derivation. Does the passive derive from the causative or the unaccusative base: or, it directly derives from the roots?

One way to think about the directions of the derivation is just to follow the morphological clues. If we take the morphological signals seriously, both the passive and the causative seem to derive from the unaccusative. The reason for this, as already known, the simpler forms are generally assumed to be more basic; while more complex forms are derivatives by either causativization or decausativization, Levin and Hovav (1995); Chierchia (2004); Koontz-Garboden (2009). If we follow this analysis, then, we are going to assume that both the causative and the passive are derivations from the unaccusative base. This seems the position of the most of the lexicalist theories. They take the morphological clues seriously.

(4) **Lexicalist Derivation**
- (1) → (2)
- (1) → (3)

An alternative approach, quite a trend now in the Minimalism streams like DM, is to derive all the forms from the basic, common roots. The idea behind this line of analysis is to derive all causative and unaccusative forms from a common basic roots. The passive forms are also usually directly derived from the roots, Alexiadou and Doron (2012). The idea is quite attractive, specifically given the fact that all the forms are independently known to have common roots (well known in Semitic languages).

(5) **DM: Minimalist Derivation**
- $\sqrt{root}$ → (1)
- $\sqrt{root}$ → (2)
- $\sqrt{root}$ → (3)

Enter the classical GB analysis, that the *Bender-Fulass hypothesis* holds, the derivation is from the unaccusative base to the causative form; then finally to the passive form.

(6) **Bender-Fulass hypothesis**
- (1) → (2) → (3)

Indeed, there are also some minimalist works which support the GB-style analysis. Weighting these different directions of derivation, Bruening (2013) for example claimed that the passive

in English derive on top of the active voice projection.

The main advantage of the GB-style analysis is that it naturally captures the robust cross-linguistic generalization passivization is more common, if not restricted, to transitive (causative) clauses, Siewierska (1984). Both the morphology based (the lexicalist) and the root-based (Minimalist) approaches have no way of capturing this generalization.

In the next section, we are going to see how the GB-style analysis is devised to generate the passive from the unaccusative verbs. As Amberber (2002) stressed, while the general proposal is promising, the hypothesis still faces a number of drawbacks. We will look the drawbacks; and how to tackle them.

2 Bender-Fulass Hypothesis

Observing that the unaccusative verbs can be transitivized in Amharic; and also, accepting the cross-linguistic observation that passivization is restricted to transitive verbs,Bender and Fulass (1978) suggested that the passivization proceeds on top of the causativization for unaccusative as well as for causative verbs.

Their claim is:the passive presented in (2) is derived neither from the roots nor from the unaccusative base presented in (1). They claimed that the derivation proceeds after the unaccusative verb *k'əllət'* has been transitivized by the causative marker *a*.

(7) k'ɨbew-u tə-a-k'əllət'ə (underlying form)
butter-Def Nact-CAUS-melt-3msS
'the butter is melted'

This hypothesis contends that the passivization is motivated by the transitivization of the unaccusative verbs. This is universally well-confirmed hypothesis: that many languages allow passivization of the transitive verbs. Even if there are always complications when we look closer into the individual languages Siewierska (1984), it is widely attested that intransitive verbs generally fail to passivize in many languages.

While this hypothesis is interesting and a perfect alignment with the recent progress on how passivization is introduced into the syntactic structure,Collins (2005); Bruening (2013), there are still a number of problems associated with it.

To be specific, there are two issues with this approach of passivization. The first problem involves the morphology of the derivation. The transitivizer item *a* never appears on the passive forms. The one presented in (7) is the underlying form. The actual form of the verb is *tə-k'əllət'ət'* (**tə-ə-k'əllət'ət'*). Then, the problem is; if the passivization is a derivation on top of the transitivization, why does the transitivizer item cannot appear alongside the passive morpheme. This issue, as Amberber stressed, has never been properly addressed: neither in the original work nor in any other subsequent work. Even if they hypothesized that the passive derivation proceeds after the causativization, the morphological evidence doesn't support their claim.

Another more serious challenge for the hypothesis comes from selection. The challenge is based on the observation that only some of the transitivized unaccusative verbs can be passivized. That is, from the unaccusative verbs which can be transitivized with the *a*, only some of them

can have passive form. This problem is rather more theoretical to the point that some transitive verbs resist passivization, a GB-type of theory needs to explain why some transitive verbs resist passivization. In section 5, I will show that the problem of selective passivization could best be explained from the semantic properties of the lexical verbs.

But, first, let us see the morphological problem.

As already noted, the morphological problem is about the absence of the causative marker in the passive form. This problem, however, turns out to be not so threatening to the hypothesis: as similar types of assimilation of functional elements is quite prevalent in the language. There are many cases where a continuum of functional items are supposed to appear; but, one of them remain silent at the surface.

First, when a prepositional case marker and the relative (possessive) marker *yə* appear on the same head, the relative marker remains silent.

(8) lə-~~yə~~-yosef lɨj dəbdabe lak-u-lət
to-of-Josef child letter send-1sS-3msBen
'I send a letter to Josef's son'

(9) dɨngay-u-n wədə-~~yə~~-yosef lɨj wərrəwər-ə-w
stone-def-acc towards-of-Josef child throw-3msS-3msO
'He threw the stone towards Josef's son'

The above is the underlying form. In actually, the possessive marker *yə* remains silent. The ~~strikethrough~~ is to show the surface absence of the morpheme.

A similar case where one of the functional items disappears from a sequence of functional items comes from the passive and the indirect causative marker. As Ayalew (2011) argued, the passive forms in Amharic can be causativized. In this case, though, passive marker disappears from the surface.

(10) yosef təmari-u-n bə-məmhɨru as-~~tə~~-gərəff-ə-w
Josef student-Def-acc by-teacher-def CAUSE-Pass-punish-3msS-3msO
'Josef had the student punished by the teacher'

While the structure and the meaning is clear that sentence is causative of the passive, the passive maker remains unpronounced.

Another similar morpheme silencing happens when the passive prefix appears alongside the aspectual prefixes. When the passive morpheme appears among the aspectual prefixes, which normally happens in the imperfective aspect, the passive marker remains silent.

(11) lɨjjoču hulgize yɨ-~~tə~~-gərrəf-alu
children always 3pl.imp-Pass-whipped-3pl.imp
'the children are always being punished'

What is striking about the disappearance of the morphemes is that it is always the morpheme deeply embedded into the structure which gets assimilated (silenced). The same is true for the transitivizer item. It remains silent because it is stuck between the lexical verb and the passive marker. The reason why these morphemes disappear cannot be phonology–as all types

of prepositions, for the relative marker for example, can make it remain pronounced. Syntax doesn't seem the factor because, if the position of the functional items is in prefix and suffix positions, both can be pronounced. Even if the phenomenon is very widespread there is no study addressing this issue. Taking insights from Neeleman and Van De Koot (2005), in Workneh (2011), as a side-note, I suggested that some type of feature haplology to be the responsible operation for the disappearance of the morphemes. In any event, any explanation given to the rest of the cases would explain the transitivizer item. It is not a surprise that it disappeared from the surface. It is a universal phenomenon in the language.

Moving on the second problem for the *Bender-Fulass* hypothesis, the issue is related to a more general problem of selection and lexical idiosyncrasy. If passivization targets transitive verbs, given that most of the unaccusative verbs can be transitive with *a*, why do some transitivized unaccusative verbs resist the passivization?

Take a look at some of the following sentences:

(12) k'ibe-w k'əzək'k'əzə
butter-Def cool-3msS
'The butter cooled'

(13) yosef k'ɨbewun frij wust' asgəbto ak'əzək'k'əz-ə-w
Josef butter-def fridge in putting A-cool-3msS-3msO
'Putting into a fridge, Josef cooled the butter'

(14) k'ibew (bə-Yosef) tə-k'əzək'k'əz-ə
butter-def (by-Josef) Nact-cool-3msS
'The butter is cooled (by Josef)'

(15) muz-u šaggət-ə
banana-Def decay-3msS
'the banana decayed'

(16) yosef muz-u-n bə-lastik ašɨgo a-šaggət-ə-w
Josef banana-def-acc by-plastic packing A-decayed
'Packing with a plastic, Josef decayed the banana'

(17) *muzu (bə-Yosef) tə-šaggət-ə
banana-def (by-Josef) Nact-decay-3msS
'The banana is decayed (by Josef)'

The example in (12) is the unaccusative form of the 'freeze' verb in Amharic. This verb has a transitive counterpart as shown in (13).The sentence in (14) is to show the passive form of the same verb. *Bender-Fulass hypothesis* correctly captures derivations of this sort. According to their hypothesis, the unaccusative form we have (12) is first transformed to transitive form. Then, this transitive form of the verb functions as the base for further derivation; this time passivization.

(18) **Passivization of the 'freeze' verb**

- *k'əzək'k'əzə* → *ak'əzək'k'əz-ə* → *tə-k'əzək'k'əz-ə*

Verbs which behave like 'freeze': *fənnəda* ('explode'), *fərrəsə* ('collapse'), *k'əlla* ('redden'), *muwa-muwa* ('dissolve'), *k'əllət'ə* ('melt'), *tənnənə* ('evaporate') etc

The problem is with the examples given in (15)–(17). The 'decay' verb, even if it can be causativized like the 'freeze' verb, it resists the passive formation, (17).

Some of the verbs which behave like 'decay' include *dəbəzzəzə* ('dim'), *t'ət'ərə* ('crystallize'), *fəggəgə* ('brighten'), *bəssəna* ('decompose'), *t'əffa* ('vanish'), *kəssa* ('emaciated') etc.

(19) s'omu lɨjjun a-kəss-a-w
fasting boy-def-acc A-emaciate-3msS-3msO
'the fasting emaciated the boy'

(20) *lɨjju tə-kəss-a
boy-def-acc A-emaciated-3msS
'the boy is emaciated'

The *Bender-Fulass hypothesis* then wrongly predicts that a passive form would be available to all types of unaccusative verbs, at least to the point they are transitivize-able. Then, the question is why do some of these verbs resist the passivization.

In the following sections, I will attempt to show that the culprit is the type of transitivization induced at each of the lexical verbs. I will show that not all types of transitivization is the same sort. The type of causation between the agent and the event could come in different flavors and these different flavors of causation lead to different possibilities of passivization. We need to make distinctions among the types of agency (causation). Elucidating that what we traditionally know of as direct causation could have subtypes, I will then move on to propose on how to solve the selection problem by incorporating this notion of causation into the system.

3 Direct and Indirect Agency

Many languages make a marked distinction between lexical causatives which come in the form of standard transitive verbs and synthetic causatives which introduce causation by affixation or prefixation on the non-causative verbs. The synthetic causatives, on the other hand, might encode different senses into the meaning of an existing verb. As Shibatani and Pardeshi (2002) noted, different terms like 'direct' vs 'indirect'; 'contact' vs 'distance'; 'manipulative' vs 'directive' have been used by different authors for these different notions of causation that the synthetic causative markers introduce. Even if the terms are usually loosely applied, the intuition behind the distinction between direct causation and indirect causation is real; and relevant distinction to understand on how causative markers work across languages. The difference on the direct and indirect causation usually involves on how causation is induced from an agent argument to patient argument of a (derived) causative verb.

Direct causatives show direct, even physical manipulation of the entity denoted by agent argument towards the entity denoted by patient argument. While the exact specification of direct causatives is problematic, there are common notions which repeatedly appear in the description of the grammatical items.

Lexical causatives typically denote direct causation. Typical lexical transitive verbs like *break, hit, kill* denotes direct causation from the agent argument to the patient argument. In addi-

tion to the usual lexical transitive, some languages also have other means of inducing direct causation–direct causative markers. These elements are sometimes called *transitivizer*, Good (2005); Ramchand (2011); Jelinek (1998), because their main function is turning intransitive verbs into transitive. It is necessary to make it clear that not all transitivizers are direct causative markers. It is possible for a functional item to transitivize a verb while inducing indirect causation, Davis and Matthewson (2003).

Unfortunately, it is not uncommon to assume that all transitivizer items as direct causative markers: or to loosely take the transitivizer items as direct causative markers without making a distinction between direct and indirect causation effects of them.

As such, the *a* causative marker in Amharic is universally taken to be a direct causative marker without much careful consideration of its effect on different types of verbs. It is true that it typically transforms intransitive verbs into transitive. It is also true that it typically adds a sense of direct caution. While the standard function of this marker is introducing direct agents by introducing causative interpretation into the intransitive verbs, there are still some cases in which the marker seems to induce non-direct causation.

Take a situation like this:

(21) ?yosef muzun wuč' rəstoo a-dərrək'-ə-w
Josef banana-def-acc outside forgetting A-dry-3msS-3msO
'Forgetting outside, Josef dried the banana'

Here, Josef has no intention, nor the direct effect on the actual event of the drying. The immediate cause of the drying of the banana is probably the heat from the sun. Josef cannot be a direct agent; and the causation associated with him cannot be a direct causation. Exactly the same senses could potentially be expressed by indirect causative marker as well.

(22) ?yosef muzun wuč' rəsto bə-s'ihay as-dərrək'-ə-w
Josef banana-def-acc outside forgetting by-sun AS-dry-3msS-3msO
'Forgetting outside, Josef have the banana dried (by the sun)'

Cases like this makes one wonder if the so-called direct causative marker *a* is always a direct causative marker.

To be precise, the indirect caution that *a* presumably cannot be fully equated with the indirect causation that *as* introduces. There is a clear stronger sense of indirectness on the clauses that *as* appears on than those with *a*. Rather, what seems to me is that the type of causation that *a* introduces comes in different varieties within the direct causation major class.

To make the differences clear, look at the following English examples from Minkoff (2004)

(23) The **tornado** drew us out of the barn.

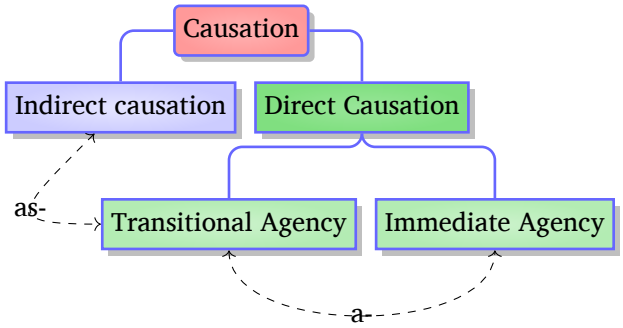
This sentence has two senses, as Minkoff noted.

(i) the direct causation: The tornado physically drew us out of the barn

(ii) the direct causation: We came out of the barn to see the tornado

The second sense shows a typical indirect causation. This type of indirect causation cannot be expressed by the *a* causative marker. The point I am trying to make involves more on the fine details of the type in (i). To make a distinction between the traditional indirect causation from the type I am talking about, I will use the phrases *immediate agency*[1]

(24)



Leaving the details of the types of causation at a larger level for another work, for now, it suffices to show that the *a* causative marker is capable of inducing both *transitional agency* alongside the *immediate agency*. The *transitional agency* is much more similar to the indirect causation. But it is not a standard indirect causation. Since the transitivizers are always considered as agency inducing, I will not bother to show that *a* introduces *immediate agency*. But, the *transitional agency*, as a distinct type of agency/causation, is a new claim. I will justify such function of the transitivizer marker in the next paragraphs.

Based on this classification of agency, I propose that the problems associated with the passivization can be solved by closely scrutinizing the subtypes of agency that *a* induces and that of the lexical items. After offering some evidence for the *transitional agency* that *a* introduces, I will finally conclude that passivization is possible only when the *immediate agency* semantics emerges from the combination of the meaning of the causative head and the lexical items. In the other types of relation, the indirect causation or the transitional agency, the relationship between the agent and the event is indirect of sorts. As such passivization is blocked in these relations.

Note, however, that in giving evidences for the indirectness of the causation that *a* introduces, I don't mean that the causation that *a* introduces can be clearly demarcated in each of the cases. Indeed, identifying whether causation is immediate or indirect won't be an easy task; nor will I attempt to do so. What I rather will attempt is to show that at least some level of indirectness is still available on the causation that *a* introduces.

A number of evidences are given for the indirectness of some the effects that *a* introduces–that is, what I called *transitional agency* is part of the causative component of *a*.

The first involves relation of the instrumental arguments inside gerunds (coverbs) with causative clauses.

Direct agency involves the direct affecting of the agent into the patient. Lexical causative verbs such as *kill* have the most prototypical direct causation. The direct causation that configurational causative items introduce usually has a similar level of directness. But this is not the

[1]Agency of the clause is sometimes associated with the property of the participants: where the event come to existence on intention of some sentient entity or not. I don't think agency of the clause is determined by the property of the participants. The participants are rather selected based on the type of event the clause denotes.

usual case of the causative marker in Amharic. The type of causation that *a* introduces has some level of indirectness when compared with the causation introduced by lexical verbs like *kill*. We can see this difference when we consider how instrumental phrases used in gerunds (coverbs).

The gerunds in Amharic are similar in their function to the participles in English. Both participles and gerunds offer some additional information on the main event of the clause.

Take a simple transitive sentence: *John killed the rabbit*, the participle can add a further information on the methods or ways of the 'killing' event.

(25) a. ?Shooting it with a gun, John killed the rabbit
b. ?Shooting by a gun, John killed the rabbit
c. Shooting a gun, John killed the rabbit.

The 'gun' has an instrumental role in the first two sentences. The gun is the instrument of killing. This is an *instrument causative*(Talmy, 2000, p.472–3). The last one doesn't imply that the gun is an instrument of the matrix event. This is a *causing-event causative*. It is merely a patient argument of the event denoted by the participle phrase. It is conceivable that John was shooting the gun for another purpose, just for entertainment, say, for the sentence in (25-c). In the first two examples, on the other hand, the shooting of the gun is done to kill the rabbit. In the first two sentences, the instrument is an important part of the event of the matrix event.

A similar type of relationship between two events and an argument is also expressed by Amharic gerunds (coverbs). In these structures, the direct agency of the *killing* event type, the internal argument strategy we have in (25-c) is strongly preferred. The pattern where the instrument is marked by the *by phrase* is marginal, if not fully out.

(26) t'ɨyt təkuso t'ɨnjəl-u-n gədəl-ə-w
gun shooting rabbit-def-acc kill-3msS-3msO
'Shooting a gun, he killed the rabbit'

(27) ??bə-t'ɨyt təkuso t'ɨnjəl-u-n gədəl-ə-w
by-gun shooting rabbit-def-acc kill-3msS-3msO
'Shooting by a gun, he killed the rabbit'

That is, when the event has the matrix a direct agency type, the instrument appearing in the gerund has to appear as the internal argument of the predicate of the gerund. It cannot appear with a preposition form. Why exactly this happens? Since the event of the matrix denotes a direct agency, if an instrumental PP has to appear, it has to appear with the matrix clause. Otherwise, an instrumental noun in another clause cannot serve as modifier to immediate agency.

If the agency is indirect, on the other hand, the instrument can appear marked by a prepositional phrase, in the gerund clause.

(28) bə-č'ərk šəfno məbrat-u-n a-dəbəzəz-ə-w
by-cloth covering light-def-acc dimmed-3msS-3msO
'Covering with a cloth, he dimmed the light'

(29) *čərk' šəfno məbratun adəbəzəzəw
cloth covering light-def-acc A-dimmed-3msS-3msO
'Covering a cloth, he dimmed the light'

The intuition is, in the event of dimming the light, the instrument is part of the system of the actual event. At least it can be. The agent doesn't bring the eventuality directly; it has caused the event via the intermediary means–the instrument. That is, the person is not the actual agent of the dimming: the actual agent of the dimming is the cloth covered on the bulb. But, in the immediate causation system which is represented by verbs like *kill*, the agent either directly applies force on the patient, or to the instrument to get the required effect on the patient.

This intuition is structurally encoded on how the instrument appears within the gerund structure. In (26), the instrument appears as internal argument of the coverb. As such, it appears without the instrumental marking *by*, (27). In (28)-(29), being an important participant of the matrix event, the instrument appears marked with the preposition.

More examples:

(30) bə-ɨsat amuk'o k'ɨbewun ak'əllət'əw
by-fire heating butter-def-acc A-melt-3msS-3msO
'Heating with fire, he melted the butter'

(31) ɨsat amuk'o k'ibew-u-n ak'əllət'-ə-w
fire heating butter-def-acc A-melt-3msS-3msO
'Heating fire, he melted the butter'

(32) bə-lastik ašɨgo muzun a-šagətəw
by-plastic packing banana-def-acc A-decay-3msS-3msO
'packing with plastic, he decayed the banana'

(33) *lastik ašɨgo muz-u-n a-šagət-ə-w
plastic packing banana-acc-def A-decay-3msS-3msO
'packing plastic, he decayed the banana'

In the indirect agency system, the external argument is not an immediate agent[2]. In decaying the banana (32), *Josef* doesn't accomplish the actual event of the decaying the banana. What he does is packing the banana with a plastic. Then, the packing would suffocate the air in such a way that the banana would go to a decay state. The causation is indirect type.

The second reason to believe that the *a* causative marker cannot always denote direct agency comes from activity verbs. Activity verbs, as widely know, have human agents. Given their unergativity (causative) property, most of them cannot be marked by the *a*. A couple of them, however, can be transitivized by this morpheme.

(34) fərrəs-u rot't'-ə
horse-Def ran-3msS
'the horse ran'

[2]I am not saying that the external argument of the *a* always has indirect relation. What I am saying is such a indirect agency is an option when the causation encoded by *a*.

(35) yosef fərrəs-u-n a-rot'ť-ə-w
Josef horse-def-acc A-run-3msS-3msO
'Josef run the horse'

These verbs, clearly don't denote direct causation where the entity denoted by the external argument would directly affect the patient participant. In the situation like (35), for example, Josef probably have hit the horse for the horse to run. That might sound a direct caution. But it is also possible that Josef has no direct contact with the horse. Sentences like (35) do not necessarily imply a contact between Josef and the horse. Assume a situation where Josef doesn't have direct contact with the horse. What he does is just make some noise for the horse to run. A situation like this can also be expressed with the *a* causative.

Exactly like their indirect causativity, these verbs also resisted the passivization, suggests that that the transitivization is associated with direct agency.

(36) *fərrəsu (bə-yosef) tə-rrot'ť'ə
horse-def (by-Josef) Nact-run-3msS
'the horse is run (by Josef)'

A third evidence comes from the verbal nouns (gerundives). I have noticed, for independent reasons that verbal nouns cannot be agent arguments in the language (probably across many languages). Even if gerundives form proper syntactic DPs, they cannot function as agent arguments of strongly agentive verbs.

(37) yə-bet-u muk'ət təbayočun gəddəl-ə-ačəw
of-house-def heat insects-def-acc kill-3msS-3pl
'the heat of the house killed the insects'

(38) *yəbetu mə-mok' təbayočun gəddəl-ə-ačəw
of-house-def VN-heat insects-def-acc kill-3msS-3plO
'the heating of the house killed the insects'

As above example shows that the verbal nouns (or, any argument with event interpretation) cannot be a true agent argument. They can only be causer arguments. Because of this, they are incompatible with the truly agentive verbs. Given this generalization on verbal nouns, we can use it to test if the verbs derived by the *a* also require agentive arguments. As expected, unlike the strong agentive verbs like *kill*, the verbs derived by the *a* causative marker don't reject the verbal noun arguments.

(39) yəbetu mə-mok' təbayočun a-t'əf-ə-ačəw (cf.(38))
of-house-def VN-heat insects-def-acc A-disappear-3msS-3plO
'the heating of the house exterminate the insects'

Sentences such as (37) and (38) have similar meaning. The causer arguments represented by the verbal nouns in (37) are blocked while they are welcomed with the *a* derived verb. This clearly shows that the verbs causativized by *a*, unlike those of the lexical causatives, do allow causer arguments. Given causers are associated with the causation, which is distinct from strong agency, this suggests that the type of agency they introduce is weaker type.

Another interesting distinction between the causation introduced by *a* from those of lexical verbs comes from the so-called 'natural force causer' entities. Some languages mark natural force causers like *rain, hunger, flood, storm* differently from true agents like humans and animals objects, (Koontz-garboden, 2009). In the active voice, in Amharic, arguments denoting these natural causers behave the same with the intentional agents.

(40) təbayoč-u-n gorf-u gəddəl-ə-ačəw
insects-def-acc flood-def killed-3msS-3plO
'the flood killed the insects'

(41) təbayoč-u-n gorf-u a-t'əfačəw
insects-def-acc flood-def A-disappear-3msS-3plO
'the flood exterminated the insects'

In the passive form, however, a different pattern emerges based on the types of the verbs these arguments combine with. If the verb is a true agentive verb, the natural causers remain implicit agents of the passive voice.

(42) təbayoč-u bə-gorf tə-gəddəl-u
insects-def by-flood Nact-killed-3msS
'the insects are killed by a flood'

In the above sentence, the flood is conceived as the actual killer agent of the insects.

(43) təbayoč-u bə-gorf tə-t'əff-u
insects-def by-flood-def Nact-killed-3msS
'the insects are exterminated by a flood'

In this latter case, suddenly, the natural force causer is not conceived as the implicit agent of the even of the passive clause. The implicit agent is some human body which used the flood as an instrument to exterminate the insects.

This clearly shows the relationship the natural causers have with the event of the predicate in the two types of clauses–causative clauses with lexical verbs and unaccusative verbs causativized by the causative marker. The fact that the active subjects get an instrumental role in the passive forms of the latter type suggests that they are not in a typical agentive relationship with the event of the predicate in the first place. Had they been true agents, or that their relationship would be a true agency type (immediate agency), they would have appeared as implicit agents in the passive too. Even if they seem to have the same agent role, they are rather mere causers and the causative relation is not immediate agency

Based on these evidences I would like to conclude that the causation encoded by the configurations causative marker *a* is not exactly the same type of causation to that of the causation encoded by the lexical verbs. Even if the causative marker is transitivizers which turn the intransitive clause into transitive;and, that typical transitivizers usually introduce direct causation, it doesn't always introduce as strong and immediate agency as the causative lexical verbs do. The transitivizer marker induces a weaker form of agency which I called a *transitional agency*.

This conclusion is the key for explaining the distinctions on the passivization patterns among the unaccusative verbs. Relying on this conclusion, the proposal I would like to espouse is

then that the type of causation is the reason why some unaccusatives fail to passivize. But I will not take the causative marker *a* to be the sole determinant of the causation at the clausal level. The verbs themselves contribute on what type of causative will ultimately come out of the combination of the ambiguous causative interpretation *a* has (both immediate and transitional agency) and the lexical semantics of the verbs.

That is, passivization is possible only when the agency is immediate type. Verbs which allow the direct agency relation generates true passive which turn their agents arguments in the active to implicit agents in the passive. When the agent introduces the causation by indirect means, passivization is blocked. How the different types of agency interpretations emerge; and how exactly they determine the passivization—we will look into it in the following sections.

4 Passivization and the Voice Projection

The main idea behind the hypothesis is the claim that passivization is a process on top of causativization. Even if challenges do exist, I believe, the *Bender-Fulass* hypothesis is the right analysis for the passive of unaccusative predicates. The main reason for this is the cross-linguistic persistent association of passivization with transitivization. To explain why we have a persistent association of the passive voice with the transitive verbs, what I am suggesting is that the conceptual or the semantic ground is the main reason behind it. Before moving on to the actual proposal, in this section, I will set the hypothesis in modern syntactic settings–what does the *Bender-Fulass* hypothesis amounts to when set into the Minimalist terms.

As already noted above, the standard Minimalism offers two versions of the v to introduce transitive (causative) and intransitive clauses. The v*, which is equivalent to Kratzer's Voice is what projects with transitive verbs. It introduces the external argument; as well as assigns accusative case to the internal argument. The intransitive variant, on the other hand, is a defective v; hence, contains no spec position. The external argument is not introduced by it. The sole argument of an unaccusative predicate merges as internal argument to the verbal head, V (ProcP). The unaccusative v introduces no external argument; and assigns no accusative case.

Since *a* is obviously an external argument introducing item, in this sense, it is the head of the v*P (VoiceP). This Minimalist system can easily be adapted to accommodate the BF hypothesis by projecting PassP over the transitive VoiceP (v*). This makes sure that the Pass head always project over the transitive verbs–let them be transitivized or lexical.

(44) **PassP over VoiceP**

- PassP > VoiceP > V(ProcP)

From the recent Minimalist works, Bruening (2013); Collins (2005) present a similar proposal for the passive voice.

The above structure correctly captures the cross-linguistic pattern that passivization selecting only transitive verbs. By Pass selecting only the transitive variant of the little v*, which is presented as VoiceP in here, we have a principle mechanism of deriving the passive forms from transitive verbs only.

An issue, however, emerges when languages put further fine-grained requirements for passivization. As we saw in page 6, not all transitivized verbs can be passivized. There is a more fine-grained, idiosyncratic-looking requirement associated with groups of lexical items. Some of the transitivized verbs block passivization.

The syntactic approach as presented in (44) would incorrectly predict that the passivization of the transitivized verbs such as *ašaggətə* would be possible. This, however, is not the case.

There are two approaches of addressing problems like this as Pesetsky (1995) quite extensively discussed. One way is to fine-tune the syntax. We can say that the agency is coded in different ways at v*. We can specify this by assuming different versions of the v*. Assume one variant of the v* induces a direct agency interpretation: call it v_1* while the other variant imposes only transitional agency, v_2*. We can then proceed from this to postulate that the passivization, or the Pass head, selects only one variant of the v*. For ease of reference, call the solution *fine-tuned v* hypothesis.

The fine-tuned v is a solution based on local selection. It solves the problem by imparting different features on the v* head because it is the v* head which will be selected by the Pass head. The *fine-tuned v* hypothesis assumes that the distinctions of the causation fall solely on the causativizer item. The *a* has to induce direct agency on one type of verbs; and indirect agency on the other type of verbs. It assumes some type of polysemy on the part of *a* to explain the differences on the passivization patterns.

While this hypothesis seems a smart hack to alleviate the challenges, it lacks the most important insight why these verbs cannot have passivization in the first place. The passivization is blocked on these verbs not because *a* behaves differently on them. The reason why these verbs block the passivization has something to do with their lexical semantics as the property of the transitivizer. The interpretation of direct agency and indirect agency cannot be solely the function of the functional head *a*. It is rather a complex interplay between the default causation that *a* induces and the lexical semantics of the verbs. The passivization is blocked not because *a* has different properties with the *decay* verbs than with the *melt* verb.

The second approach for solving the problem, which I take it to be the genuine solution, is to allow the semantics to interface with the syntax.

Look closely of some of the verbs which give rise to the direct agency semantics and that of indirect agency.

- redden
- melt
- decompose
- decay

They are all change of state verbs–they denote an entity undergoing some change of state. They are all the same to this level. They are, however, different at fine details of their meanings–on how the change is induced. If one imagines the situations on the events of these verbs: the sense of causation *decay* is pretty much different from the that of *melting*. For *melt*, it is possible to imagine a situation where an individual having a partially solid, melt-able object in her/his hand in front of a heating object and melting the object. It is possible to imagine a video-record of one person melting butter this way. But it is harder to imagine a similar situation for verbs like *decay*. An event of decaying is much removed from an external agency.

It is more internal to the undergoer undergoing the decaying process. If there is a causation for an object to undergo the event of decaying, the causation can only be indirect. A direct force application on the decaying of an object is hard to imagine. The impossibility of the direct application of force on the decaying event is what makes the passivization of the verb difficult. The conceptualization of the *decaying* event makes it harder to imagine a direct agency to the event. This conceptualization is what makes the direct agency impossible on the verb like *decay* while it is fully acceptable for the verbs like *melt*. Therefore, a mere, formal feature specification on the v* would not truly explain why one class of verbs lack direct agency–hence blocking of passivization. In the next section, I will show how the MIS (Merge Inspecting SEM) model–which is devised to have the Minimalist computational system work hand in hand with the semantic computation–could explain how the meanings of the lexical items restrict the passivization patterns.

5 Interfacing Meaning Into the Computational Syntax

What I call *MIS* (Merge Inspecting SEM) model is the Minimalist reiteration of the *interactionist* models, according to Scheer (2009, 2010), developed in the late 1970's and 1980's in attempt to closely interface the semantics and phonology alongside the syntax. It is a proposal for a tighter interaction among the three domains of grammar. While it is usually taken for granted that syntax determines semantics, the opposite has rarely been acknowledged. The MIS model is devised in an acknowledgment that syntax cannot be designed to completely ignore the nuanced meanings of the lexical verbs impose into the computation. In the designing of the syntactic computation, it is necessary to acknowledge that such possible infiltration of semantic effects into the syntax. Therefore, the right approach to capture the effects that the lexical semantics of the verbs imparts into the syntactic composition would be to adopt a system like MIS where the syntactic composition would be sensitive to the semantic combinations.

In importing the notions like *S-select* in the Minimalist framework, I am not attempting to take the S-select to be the core part of the syntactic derivation. I don't assume S-select to trigger Merge nor Move. Another version of the selection, C-select picks the SOs to combine. What will be the role of the S-select in the core combination is constraining them. The core computational combination can be constrained if the semantics of the merging items turn to be compatible with the "interfaces". This direct constraining of the core syntactic operation using semantic principles becomes possible under the Direct Compositionality hypothesis. DC has been developed on the semantic side of the system, Jacobson (2002, 2014); Barker and Jacobson (2007) to allow the direct interfacing of meaning and syntax. To be precise, DC is not a theory of semantic compositionality. The primary proposals concern the interface between the syntax and semantics. The actual implementations, however, always go pretty with the Categorial Grammar. Due to the core assumptions Minimalism has been making, such as the LF and PF interfaces (the T-model specifically), using DC under the Minimalist approach has been impossible, Jacobson (2002). But, lately, sufficient progress on the Minimalist has been made, (Uriagereka, 1999, 2008; Epstein et al., 1998; Epstein and Seely, 2002), implementation of the direct interfacing between the syntax and the semantics, as envisioned in the DC, are becoming a possibility. That is what I am trying to do in the *MIS* model. The core proposal is that Syntax and semantics work in tandem. The syntax is able to read, and also get influenced, by the outputs of the semantic composition: and vise versa.

The type of syntactic derivation I am proposing looks the following:

(45) **Syntactic derivation under MIS**

(a) α SELECT β

(b) MERGE (α,β) = γ

(c) INTERPRET γ

α and β are the two syntactic objects that Merge combines. One of them, α in here, comes with the unsaturated (unvalued) property which motivated the combination with another syntactic object β. The unvalued feature associated with the α triggers the selection. Once β is selected, Merge combines them into a new syntactic object, γ. Assuming the α and β are having a first merge, each comes with lexical semantics of their own. γ is a product of the combination of the two syntactic objects as such, its interpretation will be the combination of the lexical meanings of the two syntactic objects (and, some more if the semantic composition is proven to add more than the sum of the parts, Jackendoff (1990)).

There are a few important implicit claims to this proposal. To start with the SELECT part, unlike the standard Minimalism, I am assuming that Selection to proceed before Merge, Velde (2005); Belder and Craenenbroeck (2015); Collins and Stabler (2016). Second, I am taking SELECT to be a more complex operation. In 1970's and 80's,Grimshaw (1979); Pesetsky (1982) selection has been argued to be both categorial and semantic. Further works under the GB and HPSG frameworks showed that a full reduction of one type of selection into the other is not possible (Chomsky and Lasnik, 1993; Pollard and Sag, 1987; Odijk, 1997). Based on these arguments, I am taking the SELECT part to have two components—the categorial and the semantic components. I take the categorial selection to be the primary engines for combination while the S-select functions as a constraint. That is, I take the C-select to pick the SOs in the initial step. C-select is the "operation that introduces lexical items into the derivation" to quote (Collins and Stabler, 2016, p.44). It is the engine which makes the combination proceed in the first place in much similar fashion to the unvalued features in Svenonius (1994); Adger (2003). S-select, on the other hand, serves as a constraint for the Merge. Items picked by the C-select can combine only if there will not be semantic conflict between them. For Merge to happen, the S-select should be satisfied. The lexical semantics of the SOs has to pass through the S-select for a semantically sensible structure to be built by Merge.

Another important part of the proposal is that every syntactic object is interpreted by the semantics. That is, there is no waiting for a distinct domain or interface to read the combinations. The interpretation goes alongside the combination. First, the syntactic objects have lexical semantics. The product of the Merge also gets interpreted online. To be specific, assume α and β to be a verb and its internal argument. The internal argument, if merging as simple noun, for example, has a lexical semantics; and the verb has its own. The lexical semantics of the verb and the object would, first, pass through the selection mechanism so that the Merge will not generate garbage. Second, the lexical semantics of the verb and its object determine the meaning of the γ. I don't assume γ to be a syntactic level. Rather, it is a mere placeholder to represent the output of the Merge. What the SEM interprets is not the syntactic level of the VP type. The semantic output we have at the VP level is the sum of the meaning of the verb and its object.

Finally, the interpretation generated at the first stage of the derivation, say Der_1, functions to feed the SELECT at the next stage of the derivation, Der_2. Assume the operation *INTERPRET* γ gave us a meaning like θ, in the next round of derivation, Der_2, the θ is compared with the meaning of the next merging item, say v, if the semantics would not cause conflicts. S-select filters the incompatible mergers based their semantic specifications. Obviously, not every element of

the meaning of the θ will serve in constraining the Merge. Only linguistically relevant elements of the meaning do serve such purposes, Pinker (1989); Levin and Hovav (2005); Talmy (2000). It won't always be easy to filter the linguistically relevant parts of meaning from the irrelevant ones. But, there are known candidates, already. *Agency* is clearly one of the components of meaning which plays a major role in the combination of external arguments.

Let us look at now how this system could explain the passivization patterns of the two types of unaccusative verbs we saw in page 6. I start from the assumption that the causative marker *a* doesn't fully determine agency of the clause. Had the agency been fully determined by the transitivizer, the lexical distinctions among the two verb classes would never arise. The causative marker contributes some into the causation of the whole clause; but, never fully realizes it. The direct agency semantics materializes only when lexical semantics of the verbs contributes towards such an effect. Take verbs like *decay*, as already noted above, they cannot denote a direct application of force from an agent to a patient. A human agent can only be a causer.

(46) Packing with a plastic bag, John decayed the banana.

A sentence like this doesn't imply that John is directly applying force on the banana. As such, even if direct agency is induced by *a*, the real world interpretation of the verb doesn't allow such direct application of force. Therefore, the lexical meaning is the contributing factor for the absence of direct agency on the ultimate vP (VoiceP) level semantics.

To make a distinction between the direct agency and transitional agency, let us mark the two notions as [IA] and [TA] respectively. These properties come out as properties of the Voice level semantics due to the combination of the meaning of the verb and the causative marker.

Assume the causative marker comes with a default specification like *[+C]*,$a_{[+C]}$[3]. [+C]is a generic form of causation (=transitional agency). And, assume that the lexical item *decay* comes underspecified for causativity, $decay_{[0]}$.

(47) **Der$_1$: the transitivization of *šaggətə***

(a) i) $a_{[+C]}$ C-SELECT šaggətə$_{[0]}$
ii) S-SELECT ✓

(b) MERGE ($a_{[+C]}$,šaggətə$_{[0]}$) = *a-šaggətə*

(c) INTERPRET *a-šaggətə* = $\theta_{[+C]}$

The meaning output, θ, at the last step of the derivation, the *INTERPRET* γ operation, contains the combined value of the causative of the lexical item, $decay_0$ and that of the functional item $a_{[+C]}$. The causative is not the only output of the combination; but it is part of it. Since the lexical items is not specified with causative value, the ultimate result of the combination won't be different from the causative value that the functional item already contained, which is a generic *cause* which I take it to be the *transitional agency*.

Now, we are in position to introduce the Pass head into the derivation. The passive combines only with the immediate agency predicates. Indirect agency is not tolerable with the passive morphology. Why passivization is possible on agency verbs could not be syntactic. Therefore, the requirement should be set in the semantic domains of the derivation. The requirements that the Pass head imposes are more stringent than the usual type of semantic conflict. The passive blocks both transitional agency and indirect causation at large (indirect causatives cannot be

[3] I make a distinction between semantic properties from syntactic features by marking them with small capitals.

passivized). Absence of causation is also not tolerated (that is why the unaccusative verbs cannot direct be passivized). Only SOs with the meaning of immediate agency are permitted to combine with the Pass head. Instead of putting a generic *pass* and *fail* S-select principle, we can directly specify the S-selection property into the Passive head; like *tə*$_{[IA]}$ to mean that it semantically selects only immediate agency SOs.

S-select uses the products of the first stage of the derivation, *Der*$_1$ to either permit or block the combinations at the next stage of the derivation, Der$_2$.

(48) **Der$_2$:Passivization of *a-šaggətə***

(a) i) tə$_{[v]}$ C-SELECT ašaggətə$_{[v]}$
ii) tə$_{[IA]}$ S-SELECT $\theta_{[+C]}$ ✗

(b) …

Since the Passive head is specified to select only items which have immediate agency interpretation; and that the compositional semantics of the *decay* verb never produces immediate agency, the derivation stops at the S-select. Here, in the (ii) step of the SELECT operation, the selection doesn't look into the actual syntactic features of the verb—whether they are transitive or intransitive— rather to the semantic output the previous combinations gave out, which is $\theta_{[+C]}$ from the derivation generated in *Der*$_1$((47)).

This correctly blocks the verbs which denote no direct force application. For the verbs like *melt*, since they allow a semantic denotation of direct force application, the type of composition that comes out must have an *[IA]* property. This will make them compatible with the passive head which itself requires for such semantic specification.

6 Conclusion

In this paper, I looked at the factors which determine the passivization of transitivized unaccusative verbs in Amharic. Identifying two classes of unaccusative verbs, in one group passivization is possible and while the other resist passivization, I have shown that the group resisting the passive form has a different lexical semantics which blocks the passivization. The main reason why some transitivized causatives like *decay, decompose, dim* cannot have a passive form is associated with the lexical semantics of the verbs. Even if the transitivizer marker contributes a certain causation, the distinction of the two types of verbs ultimately falls into their meaning. Data like this poses a challenge to the syntactic mechanism which attempts to derive only on the formal features of lexical items. A system which allows the syntax and semantics to work in tandem, which I call the MIS model, built on Direct Compositionality and Semantic selection, captures the facts much better.

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