



**UiT** The Arctic University of Norway

Faculty of Humanities, Social Sciences and Education

## **The Voice system of Amharic**

Desalegn Belaynew Workneh

A dissertation for the degree of Philosophiae Doctor - December 2019





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*A thesis submitted for the degree of Philosophiae Doctor  
UiT – The Arctic University of Norway  
Center for Advanced Study in Theoretical Linguistics (CASTL)*

*December 2019*



# Abstract

This dissertation examines the voice system of Amharic. I have studied the voice features including an anticausative and a pair of causative functional items focusing on their selection, interpretation and syntactic projection.

The voice items display some interesting properties that made them worth an in-depth investigation. First, the single anticausative morpheme is associated with multiple constructions such as the passive, reciprocal, reflexive, middle and the like. This raises the foundational theoretical problem on the relation between form and meaning.

Furthermore, the causative items display quite striking contrasts with the anticausative in selection. The direct causative item filters verb classes. The indirect causative does a similar filtering, but mostly on the types of external arguments. The anticausative, on the other hand, imposes little selection restriction on the verb and argument types.

How the selection patterns are correlated with the interpretation and with the syntactic position of the voice items is the main concern of this study.

In this dissertation, I have proposed that all the crucial properties of the voice items, including the observed distinctions in selection, projection and interpretation, can be explained by understanding the voice items two types—those that belong to both the syntactic and semantic domains, and those belong to the syntax only.

The natural consequence of this understanding is that the syntax specific features could impose selection only within the syntactic component. They freely combine with all semantic classes of verbs. The interface features, on the other hand, impose selection both on the syntactic derivation as well as the semantic composition.

The causative items in Amharic are interface features—they merge with their semantic interpretations, as their syntactic categories. Because of this, they impose selection restrictions on the items they merge with not only in their syntactic properties but also on their semantic attributes.

The anticausative, on the other hand, is proposed to be a purely syntactic feature. That means, its distribution is fully determined by its syntactic category. Furthermore, I will argue that multiple decausative constructions associated with the anticausative morpheme such as the passive, reciprocal, reflexive, and middle, etc., are not coded into the morpheme itself. The morpheme comes semantically underspecified. The decausative constructions get associated with the morpheme only later in the derivation/composition due to syntax internal contextual factors. This is to mean that the passive, the reflexive, the reciprocal, etc., constructions are grammatically irrelevant in this language. They are simply alloemes that get assigned later in the semantic component.



# Acknowledgments

I would like to express my deep and sincere gratitude to my advisor, Peter Svenonius who singlehandedly made this dissertation a possibility. The last few years have been extremely challenging to me. As my relationship with the Norwegian immigration system deteriorates, I would have given up pretty early if not for Peter's assistance. Both on the academic and the administrative side, he has been my only light to see the end of this challenging experience. We had so regular appointments and, every meeting we had, he shared his profound insights with me and made eye-opening comments on my drafts. Problems that felt deadly to me come out a way easier once I talk to Peter. Even when I was stuck and frustrated, he has always been supportive and patient. Without his constant encouragement and assistance, I would not have been able to complete this project. I am eternally grateful for his help.

I am also thankful to the other CASTL professors such as Tarald Taraldsen, Michal Starke and Gillian Ramchand for their insightful and interesting lectures they taught me over the years. It is especially Gillan Ramchand who taught me to look for solutions outside of the syntactic box when it is appropriate to do so. I also learn a lot from other members of the CASTL community. I want to thank them all for producing such friendly environment.

I am also indebted to leadership in the linguistic department. I would like to forward my special thanks to Eystein Dahl, Nina Norum, Mayvi Johansen, Beathe Paulsen for letting me have some extra time to finish up this dissertation. Had not been to their patience, I would never be able to shape the work the way I want it to be.

I also would like to thank Florian Schäfer for taking his time to comment on the draft of the dissertation. He generously agreed to read and comment on the dissertation without ever meeting me, and provided a detailed commentary that greatly improved the work. His sharp questions made me rethink of much of the analysis.

I also want to forward my special thanks to Eba Teresa for reading part of this dissertation and judging on the grammaticality of the Amharic sentences. Many thanks to him.

My time in Tromsø would have been boring if I didn't have such dear friends as Etaferahu Tesfaye, Ruhama Teshome, Daniel Legbanu, Abebaw Admassie, Mimi Adane, Terje Mo Hansen, Ruben Mo Hansen, Yanet Abebaw & Eliab Abebaw. I want to forward my special thanks to them for supporting me to do better not just on my dissertation, but in my life in general.





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# Abbreviations

1	first person
2	second person
3	third person
acc	accusative
aux	auxiliary
ben	benefactive
CAUS	indirect causative
caus	direct causative
comp	complementizer
def	definite
dup	duplicate
f	feminine
ipfv	imperfective
it	iterative
m	masculine
mal	malffective
Nact	nonactive
neg	negative
nmlz	nominalizer

O	Object
pl	plural
poss	possessive
prog	progressive
recp	reciprocal
S	Subject
sg	singular

# Acronyms

← **L** Label 156, 157, 180, 181, 215–217, 231

**Int** Interpret 155, 157, 215–217

**S** → s-select 156, 295

**g** assign value to variable 156, 215–217, 231

**Con** Concatenate 155, 158

**In** Insert 155, 158

**M** Merge 155–157, 180, 181, 215–217, 231

**S** → c-select 95, 156, 178, 294

**S** → Select 155–157, 180, 181, 215–217, 231

**AS** Argument Structure 38

**BF** Bender-Fulass hypothesis 186–189

**BPS** Bare Phrase Structure 157, 282

**C-I** Conceptual Intentional 175

**CU** Conceptual Unit 154, 156, 157, 208, 241, 248, 249, 293, 299, 300, 304, 352, 353

**DC** Direct Compositionality 127, 150, 153, 156, 157

**DM** Distributed Morphology 41, 85, 98, 104, 203, 249, 267, 345

**DU** Derivational Unit 154, 156, 201, 293, 352, 353

**EA** External Argument 143, 144, 312

**ECCOS** Externally Caused Change of State 134

- fseq** Functional Sequence [xiii](#), [42](#), [46](#), [253](#), [265](#), [282](#), [311](#)
- ICCOS** Internally Caused Change of State [134](#), [135](#), [149](#)
- IE** Interpretive Economy [248](#), [249](#)
- IP** Impersonal Passive [114](#), [218](#)
- LCS** Lexical Conceptual Structure [47](#)
- LE** Lexical Economy [248](#)
- LI** Lexical Item [345](#), [347](#)
- Lin** Linearize [155](#)
- LO** Linguistic Object [86](#), [155](#)
- LSF** Lexical Semantic Framework [208](#), [214](#), [249](#)
- NRT** Non-Lexicalist Realization Theory [85](#)
- NS** Nanosyntax [52](#), [85](#), [86](#), [88](#), [90](#), [91](#), [94–98](#), [100](#), [272](#), [345](#), [346](#)
- RRG** Role and Reference Grammar [143](#)
- SBP** Selection based projection [283](#)
- SO** Syntactic Object [101](#), [150](#), [151](#), [155](#), [157](#), [159](#), [205](#), [207](#), [208](#), [265](#), [282](#)

# Transcription

Amharic is traditionally written in Ethiopic script. For the transcription, I followed the conventions used in [Demeke \(2003\)](#), [Appendix II] & [Kramer \(2009\)](#) with slight modifications.

- a = low central vowel
- i = high front vowel
- e = mid front vowel
- u = high back vowel
- o = mid back vowel
- ɨ = high central vowel
- ə = mid central vowel

For the consonants, I have followed the IPA convention with a few exceptions. I have used replaced *dʒ* with *j*, *j* with *y*, *f* with *š*, *f* with *č* & *ŋ* with *ñ* to make the  $\LaTeX$  document readable.

symbol	IPA	symbol	IPA	symbol	IPA
b	b	m	m	z	z
d	d	n	n	š	ʃ
f	f	p	p	č	č
g	g	r	r	ñ	ŋ
h	h	s	s	c'	c'
j	dʒ	t	t	k'	k'
k	k	v	v	t'	t'
l	l	y	j	s'	s'





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## CHAPTER 1

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# Introduction

### 1.1 The aim and scope

Almost all languages have some ways of expressing voice. As a result, voice is one of the topics that gravitated the attention of linguists from ancient times, [Allan \(2013\)](#). It is also one of the first topics investigated under the Generative framework. Chomsky in his early works ([Chomsky, 1957](#)) already inaugurated the transformational method of deriving the passive voice from the active.

Even if the traditional GB literature contains an extensive discussion of grammatical voice, it was almost exclusively about the derivation of the passive from the active. It is only recently that linguists, mostly linguistics who take a careful look into the cross-linguistic data, started to realize that the transformational analysis deemed universal in the early GB literature, fails to capture the voice system of many languages.

According to the new studies, languages fall into at least in two classes—languages with voice alternation and without voice alternation, [Alexiadou and Doron \(2012\)](#). Languages with voice alternation themselves fall into two types: *active-passive* and *active-middle* languages.

*Active-passive* languages make a contrast between the active form and the passive form. In this system, the passive is the only or the main marked nonactive voice. English is a case in point for this.

*Active-middle* languages, on the other hand, make a contrast between the active and the middle voice. In this class of languages, the middle encompasses a broader area of meaning where virtually all types of nonactive forms fall into. In this system, the passive might not be distinctly relevant voice. It could simply appear as one of the many variants of the

nonactive (middle). Some Indo-European languages including Greek, Latin and Sanskrit, and a number of Semitic languages including Tigre, Akkadian, Syriac, etc. have this system of voice, [Klaiman \(1988, 1991\)](#); [Siewierska \(1984\)](#); [Andersen \(1989\)](#); [Steinbach \(2002\)](#). This is the type of voice rarely discussed in the mainstream GB literature.

Amharic belongs to this active-middle family of languages where the nonactive form covers broader semantic domains including what are known as the passive, reflexive, reciprocal, anticausative and other related semantic notions (constructions).

In this study, I will present analysis of the voice system of Amharic. I will investigate both the causativization and anticausativization derivations in this language.

Amharic provides an interesting case study on the middle-marking languages, not only because it has the middle morphology, but it also has a causative morphology to contrast it against. Amharic is one of the most prolific languages when it comes to voice morphology. It has a morphology not just for the active and the nonactive, but also has a number of ways of marking the causative as well.

Even if voice is standardly treated under the syntactic system, what will be clear in the course of the analysis of the Amharic voice is that the issue of voice is not entirely a syntactic issue. Comprehending the full picture of voice requires acknowledging an intricate interaction between the syntactic and semantic domains.

A study of voice must start from the study of verb classification because the verbal categories often determine the type of voice morphology. For many verb types, whether they would appear in the middle or the active form is lexically determined. Not only that, the verb classes also play crucial roles on the distribution of the causative morphology. For that end, the study of the verb classes is one of the main topics of investigation in this dissertation.

It is also clear a study of voice goes much beyond verb classification. Part of the system is controlled by the syntax internal mechanisms. That is where a study into the formal voice features becomes important.

A number of recent studies have focused on the formal side of voice, [Alexiadou et al. \(2015\)](#); [Schäfer \(2008\)](#); [Wood \(2015b\)](#). These works have great influence on the current analysis. These studies also lack completeness because they rarely consider both the causativization and anticausativization systems of languages.

By presenting the cases from Amharic, a language that contains morphological inflections for all types of voice derivation, in this study, I hope to present new challenges as well as insights on the nature of grammatical voice.

Even if I stressed the importance of semantics in the study of voice, I will not go deep into the formal semantic theories because that would push the study to unwanted territories. For that, I will minimize the semantic claims to bare minimum to the extent that a coherent

syntactic-semantic framework emerges.

Most of the problems I am dealing here are not specific to Amharic. The problems of polysemy that the voice items present, the relationship between the meaning of the voice items and their selection patterns, the effect of lexical semantics on voice alternations, etc. are general problems that any linguistic work has to tackle. The hope is that some of the solutions I will present in this work will be of function in the analysis of other languages as well.

Having that in mind, however, I still will not go deep into the voice systems of other languages because, I am afraid, that would dilute the focus of the study. I will cite evidences from other languages only when I want to evaluate the general theoretical (analytical) directions. In all other cases, I concentrate on the Amharic data.

## 1.2 Why Amharic?

It is well known that different languages use different forms to code voice alternation. The most exhaustive, in terms of cross-linguistic data, study of voice available today, [Haspelmath \(1993\)](#), has identified five different ways of coding voice.

- |       |    |                            |                                      |                          |
|-------|----|----------------------------|--------------------------------------|--------------------------|
| (1.1) | a. | fondre<br>melt (intr)      | faire fondre<br>make melt, melt (tr) | (causative; French)      |
|       | b. | katat'sja<br>roll (intr)   | katat'<br>roll (tr)                  | (anticausative; Russian) |
|       | c. | attum-aru<br>gather (intr) | atum-eru<br>gather (tr)              | (Equipollent; Japanese)  |
|       | d. | goret'<br>burn (intr)      | žeč'<br>burn (tr)                    | (Suppletive; Russian)    |
|       | e. | burn (intr)                | burn (tr)                            | (Labile; English)        |

Some of the cases of the alternation involve morphological forms. The causative form in French, and the anticausative variant in Russian are expressed with morphological markers. The suppletive form uses distinct roots; while the labile form uses exactly the same form to effect both the transitive and intransitive variants. Why language  $L_1$  uses an overt morphology to express the causative while another language  $L_2$  uses the bare form—is a difficult question. But, it is a reality of the world's languages that some languages use one form, while other languages or language families use the other form. It is, however, rare that a single language uses all the forms.

As we can see from Haspelmath's study, examples for each pattern are often cited from different languages. The marked causative is taken from the French, and the marked anti-

causative is cited from French. It is well known that individual languages have tendencies to mark either the causative or the anticausative variant. It is less common to see languages with morphological markers of both causativization and anticausativization.

This is one of the reasons that makes the voice alternation quite interesting and challenging at the same time. All the five voice patterns listed by Haspelmath are attested within this language.

- (1.2) *k'ibe-u k'allat'-ə* (unmarked unaccusative/anticausative)  
 butter-**def** melt-**3msgS**  
 'The butter melted.'
- (1.3) *məskot-u-n səbbər-əčč-(i)w* (unmarked causative)  
 window-**def-acc** break-**3fsgS-3msgO**  
 'She broke the window'
- (1.4) *k'ibe-u-n a-k'allat'-əčč-(i)w* (marked causative)  
 butter-**def-acc** **caus**-melt-**3fsgS-3fsgO**  
 'She melted the butter'
- (1.5) *məskot-u tə-səbbər-ə* (marked anticausative/unaccusative)  
 window-**def** **Nact**-break-**3msgS**  
 'The window broke'
- (1.6) a. *wuha-u bərmil-u-n moll-a-w* (Labile)  
 water-**def** tanker-**def-acc** fill-**3msgS-3msgO**  
 'The water filled the tanker'  
 b. *bərmil-u moll-a*  
 tanker-**def** fill-**3msgS**  
 'The tanker filled.'
- (1.7) a. *mott-ə* (suppletive)  
 died-**3msgS**  
 'He died.'  
 b. *gədəll-ə*  
 kill-**3msgS**  
 'He killed.'

The clause in (1.2) is intransitive containing the unmarked form of the *melt* verb. The transitive version of the clause is formed with the causative marked form of the same verb as shown in (1.4). The sentence in (1.3) contains another verb. In contrast to the *melt* verb, the *break* verb produces the transitive clause in its unmarked form, but it requires an anticausative

morpheme for the intransitive function, as shown in (1.3) and (1.5), respectively.

The sentences in (1.6) show a case for labile alternation where both the transitive and intransitive forms are generated with the same form of the verb. The example in (1.7) presents an example for the suppletion pattern.

Having all the alternation patterns makes Amharic an ideal language for the study of voice. A careful investigation of the complex derivational patterns, and the principles that govern the alternation, could offer new insights on the nature of grammatical voice. We will see that these patterns of alternation are not just the product of having multiple voice morphemes. It is also the result of having multiple, semantically classified, groups of verbs.

Amharic also contains multiple ways of marking causatives—including the periphrastic (light verb), direct causative and indirect causative. The way the anticausativization associates with multiple senses (construction) is also very representative many middle-marking languages.

And, finally, as a native speaker of the language, studying Amharic gives me the convenience to retrieve data with little effort.

### 1.3 The main issues

A study of voice needs to address a number of issues. Some of the issues are theoretical that arise due to the linguist's efforts to form general principles of language. Some of the issues are empirical—that the solutions need to be provided only on the language to language basis. The following are some of the central issues that a comprehensive study of voice needs to address.

- (1.8)
- a. **The derivational directions:** What is the derivational/hierarchical relationship between the causative/active forms and the nonactive forms?
  - b. **The selection of the voice items:** what kinds of objects the voice items combine with, and why?
  - c. **The interpretation of voice features:** Do the voice items come with fixed semantic interpretations? If they do so, how is the interpretation related with their syntactic function?
  - d. **Syntactic projection of the voice features:** How does the function (meaning or argument manipulation) of the voice items relate to their syntactic position? Does their meaning determine their syntactic position, or their syntactic position determines their meaning?
  - e. **Function of voice features:** What is the primary function of the voice items—adding interpretive values (the causative & anticausative meanings/features), or manipulating the arguments?

These are very complicated issues that could take a life time of hard work to resolve. No single study can fully address all of them. It is also equally unsatisfactory to focus on some of them and leave the rest aside because these are tightly connected issues. Any proposal that addresses just one of these issues, ignoring the other, cannot be taken as a complete proposal.

Each of these issues will surface throughout the dissertation. As such, in the following subsections, I will briefly explicate each the issues, and the proposed solutions.

### 1.3.1 The derivational directions

Intuitively, intransitive clauses such as (1.2) & (1.5) are somehow related with their transitive counterparts such as (1.4) & (1.3), respectively. The standard approach is to derive one of them from the other. The immediate question with this derivational approach is whether the causative or the anticausative should be considered as the derived form. This is the question of derivational direction.

The following three directions of derivation have been implemented in the literature, [Alexiadou and Rathert \(2010\)](#); [Márkus \(2015\)](#).

- **Causativization:** the transitive variant is derived from the intransitive variant, uniformly
- **Decausativization:** the intransitive variant is derived from the transitive variant, uniformly
- **Common base:** both are derived from a common base

According to the **causativization** approach, the unaccusative or the intransitive verb is the base where the causative counterpart is derived from. Since many languages mark the causative more often than the anticausative/unaccusative, this is probably the most common analysis suggested for many languages. [McCawley \(1968\)](#); [Dowty \(1979\)](#); [Pinker \(1989\)](#); [Jackendoff \(1990\)](#); [Amberber \(1996\)](#) and a number of other works consider the inchoative (unaccusative) as the basic form where the causative is derived from.

Both the lexical semantics of the verb and the morphological form of the two instances are used as evidence for the causativization derivation. Some of the causativization theories are known to run lexical decomposition on the causative counterparts. The decompositional theories derive the causative form by adding some type of CAUSE subevent on top of the event structure of the inchoative/unaccusative base.

- (1.9) a. [y BECOME ( $\alpha$ )]  
 b. [x CAUSE [y BECOME ( $\alpha$ )]]

Some Minimalist works also follow similar strategy of causativization. Many of the Minimalist analyses, focusing on the causative morphemes, also take the unaccusative as the basic form where the causative counterpart derives from. These theories, however, do not directly derive one verb form from the other via event decomposition. They introduce the causative component by a syntactic projection labeled variously as vP, VoiceP, InitP or CausP, Ramchand (2008); Kratzer (1996a); Pylkkänen (2008); Schäfer (2008).

Even if the lexicalist and syntactic approaches are distinct in their specific implementation, all the causativizing theories agree on the assumption that inchoative verbs are less complex than their causative counterparts. They consider the unaccusative verbs to have one less subevent or syntactic layer than its causative counterpart.

The causativization approach is successful in explaining the voice system of languages or verb classes where the intransitive verbs appear unmarked, and the causative analogues come with the morphological form. The marked causative in the French phrase in (1.1), for example, can be derived by taking the intransitive as the base, and introducing the causative component on top of it. The analysis is equally effective for the *melt* types of verbs in Amharic as well.

- (1.10)  $k'əllət'-ə \rightarrow a-k'əllət'-ə$   
 melt-3msg      caus-melt-3msgS  
 'melted' (int.)  $\rightarrow$  'melted' (tr.)

Where the causativization approach falls short is in situations where the causative appears in the basic form and the anticausative comes with overt morphology. For the causativization theory to work across the board, one has to assume that all the verb categories including *break* classes start out from unaccusative base and undergo causativization. We have to assume that all these causative verbs lack a causative component. If these verbs are assumed to lack the causative in their basic form, the question is then why they fail to causativize in some languages. For Amharic, for example, the *break* verbs cannot be marked with the (direct) causative morpheme. It is the unaccusative (anticausative) that requires an overt morpheme.

On the opposite side of the causativization theories lies the decausativization, also known as **anticausativization** analysis, which takes the causative as the basic form. According to this approach, the anticausative is derived from the causative Reinhart (2005); Levin and Rappaport Hovav (1995); Chierchia (1989).

In the lexicalist executions of the anticausativization analysis, the causative component, which is part of the lexical semantics of the verbs, is assumed to be deleted/removed/suppressed from the event structure of the verb in the process of the anticausativization.

Two options have been entertained with regard to the removal of the causative component.

On one side, some linguists such as Chierchia et al. (1989); Chierchia (2004) held the assumption that all transitive verbs starting out as causative. The intransitive counterpart of the alternating verbs is generated either by removing the causative component or creating some mechanism of co-indexation. The other side assumes that the causative component is available only to a specific class of verbs. Levin and Rappaport Hovav (1995) famously argued that only alternating verbs such as *melt* and *break* types of verbs start out as a causative verbs. Non-alternating verbs such as *die* and *fall* are considered noncausative.

The standard analysis of passive developed in the early GB framework is one of those anticausativization theories because the intransitive (the passive) clause is derived from the causative (transitive) base.

Finally, we have the currently popular **common base** analysis.

While most morphological and typological theories take the direction of derivation at the surface value where the morphologically simpler/unmarked form is taken as the basic and more complex one is as derived, some recent works coached under the Minimalist framework, (Hale and Keyser, 1993a; Alexiadou et al., 2006; Schäfer, 2008, 2012) have argued against the directional causativization or/and the anticausativization derivations. The claim in this class of theories is that both types of voices derive from a common base. They derive the causative and unaccusative variants of the verbs from underspecified roots. A causative syntactic head derives the causative clause while the nonactive syntactic heads derive the noncausative (anticausative) counterparts. Causativization and anticausativization, according to this class of theories, are taken as syntactic derivations. Whether a particular verb will act like a transitive or intransitive depends on the type of syntactic layer that projects on top of its roots.

While this group of theories promise an elegant solution for ages-old problem of causativization, there still remain some questions. One of these questions is whether the causative functional head, variously named as CausP, VoiceP, InitP, or vP, should be responsible for all types of causatives added to the verbs.

Some of the above works answer this question affirmatively. Pylkkänen (2008) for example, projects the CauseP for *kill* types of verbs, which are non-alternating causative verbs, as well as *open/break* types of verbs which are alternating. Ramchand (2008) also projects the InitP head on all types of causative verbs. They either partially or fully accept Kratzer's 1996a proposal that external arguments are introduced at a specific functional projection, VoiceP, across the board. The causative head is often equated with the VoiceP.

Under this framework, there still remains issues on why—if *kill* types of verbs and *open* types of verbs project their causative element in the same way and from the same functional projection—we don't see the causative alternation on the former as the latter.

What all these approaches try to capture is the linguistic tendencies for languages to derive



certain types of verbs in certain ways. There are clear tendencies that languages share with regard to causativization and anticausativization. The directions of the derivations have some grounds on lexical categories. The marked causativization is much more widespread on the unaccusative (change of state) verbs across languages; but, much more restricted on causative and unergative verbs. Morphological anticausativization, on the other hand, seems to target causative (agentive) verbs more often than unaccusative verbs. This universal tendency is hard to explain if we assume all verbs come with neutral roots. For that, we need to acknowledge that some classes of verbs do exist, regardless of the projection of the syntactic layers.

### 1.3.2 The selection of the voice items

Selection is one of the cardinal issues that will surface through the dissertation. The voice items behave differently in their selection. The two causatives impose selectional restrictions on the verb classes or/and argument types. The anticausative, on the other hand, rarely imposes selectional restriction. One of the questions I will raise is why this distinction exists in the first place.

One of those important observations here is the correlation of the selection pattern of the voice items with their interpretations. We will see where this correlation comes from, and its theoretical implications.

### 1.3.3 Polysemy of the voice items

As noted in (1.8), one of the main issues that need to be addressed is the interpretation of the voice items.

Amharic has three voice morphemes, the anticausative morpheme *t-*, and the two causative morphemes **a-** and **as-**, that come associated with multiple senses (interpretations).

How these functional items interact with each other, and with different verb and argument classes—how they determine the argument structure of the clause, how their internal characteristics determine their syntactic properties—and the like issues need to be explained.

Take the case of the anticausative morpheme, as an example. The single form serves as the marker of a large number of grammatical constructions including the passive, the reciprocal, the reflexive, the anticausative as well as the middle.

- (1.11) *yosef tə-dəssət-ə* (middle)  
 Josef **Nact**-please-3msgS  
 ‘Josef is pleased.’

- (1.12) *yosef tə-gərrəf-ə* (personal passive)  
 Josef **Nact-whip-3msgS**  
 ‘Josef is whipped.’
- (1.13) *məto metir zare tə-rot’-ə* (impersonal passive)  
 hundred meters today **Nact-run-3msgS**  
 ‘Hundred meter is run today.’
- (1.14) *yosef tə-at’t’əb-ə* (reflexive)  
 Josef **Nact-wash-3msgS**  
 ‘Josef washed (himself).’
- (1.15) *yosef inna mariyam tə-sa-sam-u* (reciprocal)  
 Josef and Mary **Nact-dup-kiss-3pl**  
 ‘Josef and Mary kissed (each other).’
- (1.16) *s’ihuf-u dəhna tə-nəbbəb-ə-ll-at* (dispositional middle)  
 Text-**def** well **Nact-read-3msgS-ben-3fsgO**  
 ‘The text read well to her.’

This raises a number of issues on the relation of the form and meaning. Is the nonactive prefix polysemous item? Or, is there any other reason why the single form appears with a number of constructions?

The causatives also raise similar questions because they could be semantically ambiguity just like the anticausative. The direct causative, for example, marks both direct causation (also called manipulative causative) as well as assistive causative. The indirect causative itself could have the regular indirect causative (directive) reading as well as the permissive reading.

- (1.17) *yosef k’ibe-u-n a-k’əllət’-ə-w*  
 Josef butter-**def-acc** **caus-melt-3msgS-3msgO**  
 ‘Josef melted the butter.’
- (1.18) *yosef təmari-očč-u-n t’inčəl a-g-gadəll-ə-aččəw*  
 Josef student-**pl-def-acc** rabbit **caus-dup-kill-3msgS-3plO**  
 ‘Josef assisted the students kill a rabbit.’
- (1.19) *yosef təmari-očč-u-n t’inčəl as-gədəll-ə-aččəw*  
 Josef student-**pl-def-acc** rabbit **CAUS-kill-3msgS-3plO**  
 ‘Josef made/let the students kill a rabbit.’

- (1.20) *yosef tāmari-očč-u-n t’iñčəl as-gədall-ə-aččəw*  
 Josef student-pl-def-acc rabbit CAUS-kill-3msgS-3plO  
 ‘Josef let the students kill a rabbit.’

Why and how the same causative is associated with multiple readings? Is the phenomena of polysemy we see on the causatives the same phenomena with that of the anticausative?

### 1.3.4 Syntactic projection of the voice

The syntactic projection of the voice items is supposed to be well established since [Kratzer \(1996a\)](#). But the fact is there remains a lot of issues that the proposal presented by Kratzer doesn’t address. One of the issues is the relative positions of each of the voice features. Kratzer’s proposal doesn’t say much about the relative position of each of the voice features such as the active, nonactive, direct causative and the indirect causative.

How each of these voice items map to the syntactic structure is one of the issues that I will deal in this dissertation.

### 1.3.5 The function of the voice items

Argument structure is sometimes studied independently of voice. This is specially true for the lexicalist theories where lexical semantics is assumed to determine argument structure. But, a study of voice cannot avoid argument structure because voice is after all about the projection of arguments (=diathesis). The only way to know if a certain morpheme in a language X is voice morphology or not is to check whether it controls argument projection or not. There is no other way of knowing it, otherwise.

Therefore, every study dealing with voice, in one way or another, has to deal with the argument projection. The current study is not an exception.

The situation in Amharic is even more serious because the two causatives, in combination with the standard active and nonactive verb forms, raise a number of complicated questions on the relationship between the voice morphology and argument structure.

One of the questions that will be the focus of the study is whether the causative and anti-causative items are argument introducers/reducers across the board, or not.

## 1.4 The proposals

The problems presented in the previous section are largely universal problems that any study of voice has to deal with. We cannot, at the same time, determine solutions without careful

consideration of data from the individual languages. What I am going to do in this dissertation is focus on the Amharic data to devise solutions to the problems. The solutions are distributed in three chapters, [chapter 5](#) through [chapter 9](#). At the risk of losing the interest of my reader to go deep into the details of the analysis, I have decided to provide a simplified map of the analysis by summarizing the core proposed solutions here.

To start with the problem of derivational approaches, I find the anticausativization approach, which works by deleting or removing a feature from the derivation, quite problematic. A derivational system that permits a free deletion of its inputs cannot be considered genuinely derivational because free deletion too powerful. Therefore, monotonicity constraint is taken as one of the principal constraints of the derivational system, [Bresnan \(1990\)](#); [Koontz-Garboden \(2009\)](#); [Härtl \(2013\)](#).

As a result, I will use only the approaches that don't require the deletion or removal of features from the derivation.

With regard to the other two approaches, I am pretty convinced that neither of the approaches is sufficient by itself to capture all the patterns. We will see that both the causativization and the common-base approaches are important to explain different data sets. In line with the common base approach, I will argue that the basic active and nonactive (anticausative) voice features are derived in a parallel plane selecting the vP as a common base. Morphological causativization (the direct causativization and the indirect causativization), on the other hand, is a much more complex process. The process could occur in parallel to the active and nonactive voices. It could also proceed on top of the basic active and nonactive voices.

As to the interpretation, selection and projection of the voice items, I have identified the feature ontology of the voice items to be the most profound determinant. Relying on the classification of features presented in [Svenonius \(2006b\)](#), I have identified the voice items to fall into two categories. One group of voice items are purely syntactic features. The basic active and nonactive voice features are purely syntactic. The other group are interface features. The causatives are interface features.

- (1.21) The ontologies of voice features
- a. The active and nonactive are syntactic features.
  - b. The causatives are interface features.

This classification turns out to be what we need to explain the distinctions between the causatives against the basic voice features such as the active & nonactive (anticausative). I will show that almost every issue raised above can receive a systematic explanation by categorizing the voice items into those ontologies.

As syntactic-internal features, active and nonactive, don't come with pre-specified seman-

tic interpretation. This means that all the various meanings of the nonactive morpheme we saw in the above section are not induced by the nonactive voice itself. I will show that these constructions such as the passive, the middle-reciprocal, the middle-reflexive, the anticausative, etc. are all meanings assigned to the nonactive voice later in the course of the derivation.

It will be shown that different syntax internal factors such as the types of arguments, lexical semantics of verbs, theta roles, and other factors determine the meanings (constructions) associated with the voice.

Accordingly, the polysemy of the anticausative is treated as a type of underspecification. The underspecified item receives interpretations later in the derivation. The polysemy of the causatives, on the other hand, is considered as genuine polysemy where multiple feature values are packaged into the single morpheme.

The selection parameters of the voice features are reflections of the feature ontologies. The interface features such as the direct causative and the indirect causative impose selection not only on the categorial basis, but also on the semantic basis. This explains why the causatives impose selectional restrictions on the verb classes and argument types; in contrast to the active and nonactive (anticausative) which never imposes similar selection restrictions.

The selection parameter itself has a direct repercussion on the syntactic distribution of the voice features. For the anticausative, which is a syntactic feature, the fact that it imposes only categorial selection means that its hierarchical position is fully determined by its c-selection parameter. It selects the vP. As a result, it always appears in a fixed syntactic position, standardly known as the VoiceP.

The projection of the causatives, on the other hand, is the product of their c-selection as well as their s-selection. The result is a very complicated distributional pattern. Depending on the types of verb they project on, they could appear higher or on VoiceP. This explains why the direct causative projects in multiple syntactic layers.

## 1.5 Outline of the Dissertation

The dissertation is classified into four parts. The first part includes chapters [chapter 2](#) through [chapter 4](#). These chapters contain just the empirical facts. [Part II](#) contain the architectural/theoretical foundations to be used in the rest of the analysis. The actual analysis starts in [part III](#). The two chapters included in [part III](#) offer the syntactic analysis of the anticausative. [Part IV](#) presents the analysis of the causatives. [Part V](#) finally puts the analysis given in from [part III](#) through [part IV](#) together to construct a coherent and complete picture of the voice system of Amharic.

The empirical facts on the causatives is presented in [Chapter 2](#). There, I present a description

of the causatives including the lexical causatives and morphological causatives. I spend the large portion of the chapter comparing the two types of causatives—the direct causative and indirect causative functional items with regard to their meaning, distribution, argument structure, etc. Finally, I will provide a brief summary of the state of the art analysis of the causatives in the Minimalist literature.

In [chapter 3](#), I lay out the basic empirical facts on the anticausativization in Amharic. I will explain that the single anticausative morphology in Amharic gives rise to different readings such as the passive, the reciprocal, anticausative and reflexive types of readings. I will finish of the chapter by revising the standard analysis of the anticausativization in the GB framework.

The classification of verbs plays an important role in the study of voice. The way the causative and anticausative voice features behave differs from one verb class to the other. For that, the verb classification is one of the important issues that will feature in the rest of the dissertation. To make the classes of verbs readily available for the reader, I have described the verb classes in [chapter 4](#). The chapter is set to serve as a reference to the verb classes as we go through the analysis.

Once I presented the facts, in [chapter 5](#), I start to establish the theoretical foundations for the upcoming analysis. After reviewing previous works, I construct new methods and theories that will serve as the foundations to the analysis I will present in the later chapters. Taking insights from the cognitive linguistics, I will defend what I call a causative hierarchy: a hierarchy of verbs on the basis of their causative properties. The classification of the verbs into these hierarchies will be of great service for the analysis of anticausativization as well as causativization. I will also explicate a configurational theory of theta assignment. Theta roles are other crucial tools I will make use of in the analysis of anticausativization. Finally, I will defend an architecture of grammar that permit direct interaction between the syntactic derivation and semantic interpretation. An architecture that permits direct interaction between syntactic derivation and semantic interpretation is necessary for effectively implement a derivation that is sensitive to lexical semantics of the verbs (semantic selection).

[Chapter 6](#) and [chapter 7](#) present the analysis of the anticausative (nonactive). In [chapter 6](#), I argue for a unified syntactic analysis of the nonactive voice. I will argue that none of the decausative constructions such as the passive, anticausative, middle or reciprocal, are relevant to the grammar. They are merely different interpretation of the same structure. I will argue that the syntax of all the decausative constructions is the same across the board. What these constructions differ is at the interpretive level.

How different interpretations arise from the same structure will be the topic of [chapter 7](#). In that chapter, I will elaborate that each of these ‘constructions’ arises as distinct semantic senses when the clause contains certain distinctive elements that serve as contexts for

meaning assignment. Clauses that have implied agents, for example, give rise to the passive interpretation of the nonactive clause. Pluractionality, on the other hand, licenses the reciprocal interpretation, and so on.

If I succeed in my analysis, the theoretical repercussion is nontrivial. I present a case that a universal generalization cannot be established on the basis of the individual decausative constructions such as the passive, middle or reflexive. The similarity of the decausative constructions across languages cannot be attributed to the movement of the object to the subject in the passive, nor by the suppression of the subject, nor the absence of the accusative case. What unifies languages at a deeper level is the presence of these interpretive units. Amharic doesn't employ any special grammatical form for the passive, so to speak, in contrast to English. What makes Amharic similar to English is not the presence of a specific type of passive structure (no such structure), nor the morphology of the passive (there is no passive morphology). It is this underlying interpretation that remains common regardless of the grammatical structure.

**Chapter 9** brings the grammars of the causative, the active and the nonactive together. I will put all the bits presented in the other chapters into a unified whole. For a reader who is more interested in the syntax, this chapter presents the picture in a holistic manner. But the chapter is not self-sufficient because it highly relies on the theoretical as well as analytical bases set in the earlier chapters. The relative hierarchy of the three voice items within the verbal fseq will be the main focuses of the chapter.

**Chapter 10** concludes the dissertation.

I organized the dissertation by thinking of two types of readers—those who are interested in the Amharic data; and those who want to see my analysis. For readers who are primarily interested in the data, **part I** gives it all. There is barely any new data in later parts. I attempted to put the facts there as exhaustive as possible. Some of the data presented in this part is already known in the previous works. [Amberber \(1996\)](#) has specially laid down the foundational works on the causatives. What I did on the causatives is add more details, and construct new generalizations. The data on the anticausative is completely new. Except a few pages description of the anticausative morphology in [Fufa \(2009\)](#), the anticausative is barely studied in this language. The classification of the verbs presented in **chapter 4** is also mostly new. But, some of the classes are already established by Amberber.

For readers who want to follow the analysis, the best approach is to go through all the chapters. But, if one doesn't mind being constantly reminded of the data sets, it is possible to start from **chapter 5**. That is where I began to set out the theoretical groundwork for the main analyses to come in **chapter 6** through **chapter 9**.





**Part I**

**The data**



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## CHAPTER 2

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# Causativization

## 2.1 Introduction

Amharic has two causative morphemes— known as ‘direct’ and ‘indirect’ causative markers. In this chapter, I will describe how these causatives behave—how they select the verb classes, how they affect the argument structure of the verbs, and how they compare to each other. We will also evaluate the current state-of-the-art treatment of causativization in the current GB framework.

The organization of the chapter is as follows. Before I move on to the main topics of the chapter, such as the direct and indirect causatives, I will start by a brief description of the other methods of encoding causation such as the lexical causatives and the periphrastic causatives. The next three sections of the chapter (from § 2.4 through § 2.5.5) describe on how the two causative morphemes behave in the language.

§ 2.6 contains an evaluation of the treatment of causatives in the GB framework. I will start with the latest Minimalist analyses such as Heidi Harley’s treatment of the causatives in Japanese and Ramchand’s analysis of the causatives in Hindi. I will also revise lexicalist approaches by taking Amberber’s analyses of the causatives in Amharic as a case in point. I will point out that the lexicalist approaches are basically on the right direction. But details need to be worked out to develop a consistent analysis of the causatives. The chapter ends by sketching out new directions to the analysis of the causatives.

To start with the description of the facts, the causativity can be encoded in two ways—either with independent morphological material or with the lexical makeup of the verbs. I will describe each strategy in the next sections.

## 2.2 Lexical causative

Like in most other languages, many verbs in Amharic are lexically causative. As we will see in § 4.1, a number of causative verbs such as *mätta* ('hit') and *səbbərə* ('break') and many others do not require any morphological marker to function as the main predicate of a transitive (causative) clauses. Th causative verbs have a number of sub-classes.

## 2.3 Periphrastic Causative

Light verbs such as *adərrəgə* ('do/does') could also be considered as a causative markers because they have the effect of transitivity non-transitive (and some transitive) verbs.

- (2.1) *muk'ət-u muz-u-n bisbis adərrəg-ə-w*  
 heat-def banana-acc-def decay does-3msgS-3msgO  
 'The heat decayed the banana.'

This light verb has some similarities with the indirect causative prefix *as-* which we will discuss in the next subsection. The difference is, the light verb acts as a (semi-)lexical verb as it can take tense modifiers, negation marker and all other types of clausal properties independent of the embedded predicate. It also embeds a predicate under a non-finite complementizer element *ind-*.

- (2.2) *yosef mariyam tərrara-u-n indī-ti-wət'a adərrəg-ə*  
 Josef Mary mountain-def-acc comp-3fsg.ipfv-climb do-3msgS  
 'Josef made Mary climb the mountain.'

## 2.4 Morphological Causatives

Amharic has two fairly studied causative prefixes—the direct causative **a-** and the indirect causative *as-*.

### 2.4.1 The direct causative **a-**

The causative prefix *a-* (also known as *internal causative*<sup>1</sup>) is a causative marker which adds a sense of causation by attaching on intransitive verbs. It is one of the most productive morphemes in this language. It typically occurs on non-agentive (intransitive) verbs and turns them to transitive (Amberber, 1996; Leslau, 1995; Yabe, 2007). That is why it is

often described as a ‘transitivizer’ element in some early works, Demoz (1964); Leslau (1995).

Take a typical intransitive verb such as *k’əllət’ə* (‘melt’), it can be transitivized by attaching the causative morpheme on it.

(2.3) *k’ibe-u k’əllət’-ə*  
butter-def melt-3msgS  
‘The butter melted.’

(2.4) *yosef kibe-u-n a-k’əllət’-ə-w*  
Josef butter-def-acc caus-melted-3msgS-3msgO  
‘Josef melted the butter.’

Observing the transitivizing property of it, the conventional wisdom has been to take the element as a simple syntactic transitivizer head. Amberber (1996) is the first to argue that the direct causative is not a simple transitivizer. He showed that it imposes some selectional restrictions on the verb classes based on their lexical semantics. The most important attribute for the distribution of the direct causative, according to him, is the unaccusativity of the verbs. In the current analysis, I also confirms that his generalization is accurate at the basic level. Almost all the unaccusative verbs do license the direct causative.

I, however, noted that the unaccusativity generalization is not sufficient to explain the distribution of the causative. There are a number of verbs that undergo causativization, but cannot easily be grouped under the unaccusative class. Take a verb like *mət’t’a* (‘come’), it can take the direct causative to form a verb that would be equivalent to the *bring* verb in English, (2.6).

(2.5) *wət’t’-a* → *a-wət’t’-a*  
went.up/out-3msgS caus-took.up/out-3msgS  
‘He went up/out’ → ‘he took up/out.’

(2.6) *mət’t’-a* → *a-mət’t’-a*  
come-3msgS caus-come-3msgS  
‘He came.’ → ‘he brought.’

(2.7) *yosef kə-bətəskiyan mət’t’-a*  
Josef from-church come-3msgS

<sup>1</sup>The other terms used to describe the causative include *enoder* in Bender and Fulass (1978), simply *voice* in Titove (1976) *internal causative* in much of Amberber’s works (Amberber (1996, 2002b)), *direct causative* in Dawkins (1969), *contactive causative*, *first causative*, *manipulative causative*, *immediate causative* as well as *transitive causative*. Each of the terms are meant to emphasize one or the other function of the marker.

‘Josef came from the church.’

- (2.8) yosef dabbo kə-bətəskiyan a-mət’t’-a  
Josef bread from-church **caus-come-3msgS**  
‘Josef brought bread from the church.’

- (2.9) \*yosef dabbo kə-bətəskiyan mət’t’-a  
Josef bread from-church come  
‘Josef come bread from the church.’

The causative transforms both the *come* and *going up/climb* verbs into transitive. In their intransitive uses, these verbs act like typical unergative. The verb in (2.7) is similar to *run* & *dance* verbs—where an agentive actor does some activity. As shown in (2.9), the verbs cannot contain an internal argument without the direct causative.

As we will see in later sections, there are also other unergative verbs that easily undergo causative alternation.

The restriction of the direct causative to unaccusative verbs also applies only under the condition that the verbs come with the perfective and imperfective aspect forms. When the verbs appear in the iterative form (which has a pluractionality interpretation), the verb class restriction doesn’t hold at all.

- (2.10) yosef lij-očč-u-n a-gaddəl-ə-aččəw  
Josef child-pl-def-acc **caus-kill.it-3msgS-3plO**  
‘Josef made the children kill each other.’

This facts make it clear that the unaccusativity generalization is by no means sufficient to explain the distribution of the direct causative.

#### 2.4.2 The indirect causative *as-*

The indirect causative marker *as-* seems a morphological composite of the internal causative marker *a-* and another element *s* added on it. Semantically, this prefix typically gives a sense of *a causer causing an individual to do some action* by giving a direction (forcing/persuading, etc.). This causative fits well with the characterizations of indirect causatives available in the literature. As Lyutikova and Bonch-osmolovskaya (2006) described, the indirect causative always denotes “a kind of command or demand given by the causer to the causee”. That is exactly the sense one gets with this causative. This sense of command or demand is also the reason why some linguists call it ‘compellent voice’, Titove (1976). It has the meaning of the causer compelling/influencing/permitting the causee to accomplish some action.

Kulikov (1993) calls the indirect causative a “second causative”. He also considers this causative as the “causative proper”, contrasting it with the direct causative which is often considered as a “transitive” or “transitivizer”. Other terms used to describe this causative in the literature include *second causative* taking the direct causative is the first causative, *external causative* again implying that the direct causative is the inner causative (in relative to their position in the syntax or verb morphology), as well as *mediated/intermediate causative* in contrast to the *immediate* causation of the direct causative.

The causer and the causee arguments associated with the indirect causative are typically humans. But the causer could be a nonhuman influencer as well.

Take the example we saw in (2.8). If the indirect causative is attached on the verb in place of the direct causative, the meaning will not be that ‘Josef brought bread from the church’. The interpretation would rather be ‘Josef made some other person bring bread from the church’. This is shown in (2.11).

- (2.11) yosef dabbo kə-bətəskiyan as-mət’t’-a (cf.2.8)  
 Josef bread from-church CAUS-come-3msgS  
 ‘Josef got bread brought from the church’  
 ‘Josef make somebody bring bread from the church.’

Any of the internal arguments, the causer, the causee or the theme, might be overtly marked. A pro-argument, an agreement marker could also represent any of them. In the above sentence, for example, the causee argument (‘somebody’) is not marked in the clause. The sentence in (2.12) contains only the causee. The causer is represented by the agreement marker.

- (2.12) mariyam-n dabbo kə-bətəskiyan as-mət’t’-ə-at (cf.2.11)  
 Mary bread from-church CAUS-come-3msgS-3fsg  
 ‘He made/let Mary bring bread from the church.’

In impersonal constructions, the causer is absent (or remains silent).

- (2.13) Bunna as-fəlləgə-ññ  
 coffee CAUS-want-1sgO  
 ‘It made me want coffee.’  
 ‘I feel like to have coffee.’

In terms of agreement and case assignment, both the causee and the theme arguments behave like regular objects. They can receive accusative case and trigger object agreement as shown in (2.12). But object agreement cannot index both of the arguments in the same clause.

The theme argument can trigger object agreement iff the causee argument isn't overtly projected.

Speaking of the arguments, it is also clear that the number of arguments available in the indirect causative depends on the original argument structure of the verbs. The indirect causative basically adds one more argument on top of the basic argument structure of the basic verb. Transitive verbs will contain three arguments under the indirect causative. Intransitive verbs such as *dance* would license two arguments when they are embedded under the indirect causative.

- (2.14) *mariyam yosef-n as-c'əffər-əčč-(i)w*  
 Mary Josef-acc CAUS-dance-3fsgS-3msgS  
 'Mary made/let Josef dance.'

There is no theme argument here because the basic verb doesn't contain an internal argument in the first place.

There are always at least two possible readings for the causative clauses marked by the indirect causative morpheme. The standard *causative* sense which implies forcing or persuading/influencing a participant is the primary meaning associated with it. A second reading which implies *permissive* reading is also often available. The sentence in (2.14), for example, could be interpreted as a situation where Mary would grant her permission for Josef to dance.

Based on the context, the sentence in (2.14) can mean she *made/forced/persuaded* him dance or *permitted* him to dance. I will use the term the *directive* reading for the first and *permissive* reading for the latter when making a distinction is important. Even if both readings are often associated with the morpheme, the *directive* is the most salient and prevalent meaning of it.

Clauses marked with the indirect causative can also be ambiguous between the causative of the active and the causative of the passive, Ayalew (2011). This ambiguity often arises when all the arguments are not overtly marked in the clause. It is also restricted to some verb classes. The examples in (2.12) and (2.14), for example, have only causative of the active reading; meanwhile, the one in (2.15) is ambiguous.

- (2.15) *yosef-n as-wət't'-əčč-(i)w*  
 Josef-acc CAUS-go.out-3msgS-3msgO  
 'She made/let Josef go out.'

The above sentence can have the meaning of , 'she made him go out' (=causative of the active), or 'she made him be taken out via some other intermediary person' (=causative of



the passive).

If oblique agent argument is explicitly marked, the passive of the causative is the only possible reading.

- (2.16) *yosef-n bə-lij-očč-u as-wət't'-ačč-(i)w*  
 Josef-acc by-child-pl-def CAUS-go.out-3fsgS-3msgO  
 ‘She made Josef be taken out by the children.’

Unlike the direct causative which targets specific classes of verbs, the indirect causative imposes little selection restriction on the types of verbs. As all the above examples show, the indirect causative can causativize all kinds of verbs—unergative, unaccusative or causative types.

This, however, doesn’t mean that the morpheme is totally oblivious to verb classification. In the following pages, we will see a couple of examples (2.33)–(2.37) where the indirect causative sounds absurd with some groups of verbs.

Here, I would like to mention another variant of the indirect causative that targets only a specific class of verbs (roots). This version of the causative has barely been mentioned in the literature. It, however, seems evident that the productive *as-* causative has a lexical, less productive counterpart which appears on a handful of verbs.

Most of the verbs which are selected by this lexical type of the indirect causative belong to the *please* class of verbs as we will saw in § 4.2.9.

Table 2.1: Lexical function of the indirect causative

root	base verb	causative form	meaning
gdd	–	as-gəddədə	‘force’
gnzb	–	as-gənnəzəbə	‘call attention to’
rd	–	as-rədda	‘explain’
dst	–	as-dəssətə	‘please’

The prefix on these verbs is different from the syntactic causative because it appears to be part of the lexical makeup of the verbs. While the indirect causative sense is still evident, it still displays some distinctive properties, in contrast to the productive counterpart. The two arguments available in the productive causative, such as the causee and the theme arguments, for example, are not available here. Only a causer and a theme (causee) arguments project here. The causer argument also doesn’t act like a typical causer argument. It is pretty similar to agent (direct causer) arguments.

Whilst *persuade* can be conceived as process of ‘causing someone to believe in something’

at a very abstract level, it is not very evident from the surface. This is specially true specially for verbs such as *as-radda* ('explain') and *as-gənəzzəbə* ('call attention to'). Furthermore, the permissive interpretation, which often emerge alongside the directive causative interpretation, is not available when the indirect causative is fixed as part of the lexical verb, (2.18).

- (2.17) yosef mariyam-n as-wə't-ə-at  
 Josef Mary-acc CAUS-go.out  
 a. 'Josef made Mary go out.'  
 b. 'Josef permitted Mary to go out.'
- (2.18) yosef mariyam-n as-gəddəd-ə-at  
 Josef Mary-acc CAUS-believe-3msgS-3fsgO  
 a. 'Josef forced Mary.'  
 b. \*'Josef permitted Mary...'

## 2.5 Comparing the two morphological causatives

In this section, I will make a comparison of the two causatives. The purpose is to make their differences and similarities clearer for the reader. An important disclaimer at this point, however, is that the comparison is made on the basis of the canonical functions of the two causatives. That is, the comparison is made by considering only the causativization of perfective and imperfective verb forms, and with the primary sense of the causative markers such as *directive* and *manipulative* meanings. It doesn't include the non-canonical meanings of the causatives such as the *assistive*, *permissive* and similar senses, and their projection in the iterative verb form. The non-canonical cases are discussed in [chapter 8](#) and [chapter 9](#).

### 2.5.1 Meaning

The most important unifying characteristics of the causatives across languages, as [Dixon \(2000a\)](#) stressed, is the extension of the argument structure of verbs. That is what makes them distinct from other functional items. They are "valency increasing devices", [Aikhenvald \(2011\)](#).

This valency-increasing characteristics of the causatives has oftentimes been understood as the byproduct of their causative interpretation. Other times, the causative interpretation is taken as the result of the valency-increasing process itself.

Under the first understanding, the indirect causative is supposed to add an indirect causative subevent where the causation is only indirectly imposed from the causer to the causee; while for the direct causative, the causation is taken to be direct, ([Shibatani, 1976](#); [Shibatani and](#)

Pardeshi, 2002; Dixon, 2000a). Because of the relation of the causer to the event, the indirect causative is also called *distant* and the direct causative *contactive*, Saksena (1982).

As I already described, the direct causative *a-* typically denotes an event directly imposed from the causer to the theme. The causation may also imply a direct (physical) contact between the causer and the theme arguments. The indirect causative *as-* denotes indirectly induced causation. There is no contact between the causer and the theme arguments because an intermediary argument (causee) exists. With regard to the semantic difference between the two causatives, Amberber wrote “with the causative *a-*, the causer is directly involved in the event, e.g. the causer physically transports the causee...with the causative *as-*, the causer is not directly involved in the event, e.g. the causer can simply issue an order” (Amberber, 1996, p.23). So, generally, in their most typical uses, the two causatives are differentiated by their interpretations.

Let us look at some examples to make the semantic distinction between the two causatives clearer.

(2.19) *yosef mət't'-a*  
Josef come-3msgS  
'Josef came.'

(2.20) *mariyam yosef-n a-mət't'-ačč-(i)w*  
Mary Josef-acc caus-come-3fsgS-3msgO  
'Mary bring Josef.'

(2.21) *mariyam yosef-n as-mət't'-ačč-(i)w*  
Mary Josef-acc CAUS-come-3fsgS-3msgO  
'Mary made/let Josef come.'

The sentence in (2.19) contains no causative element. It contains a simple activity predicate where the agent does the activity denoted by the verb. Now, compare it with the causativized version of the same verb, presented in (2.20). Once a direct causative is prefixed on the predicate, one more argument is introduced on top of the already existing argument of the verb.

In the direct causation, the external argument 'Mary' is the direct *effector*<sup>2</sup> of the eventuality.

<sup>2</sup>I use the term 'effector' throughout the dissertation as a cover term for arguments that are direct participants of the eventuality, in the sense of Van Valin and Wilkins (1996). Other similar terms used in this sense in the literature include 'agent', 'causer' and 'initiator', Ramchand (2008); Williams (2015). I will make distinctions among these terms. I understand the term 'initiator' as the broadest of all. It is used to express participant arguments (immediate causers) such as the subjects of agentive verbs as well as non-participant arguments such as the stimulus subjects of psych verbs and causers arguments of indirect/direct causatives. I reserve the term

When the prefixed item is the indirect causative, as shown in (2.21), there is an addition of an argument (in comparison to the basic verb) as well as a further proliferation of the possible semantics of the clause. As already noted, the meaning this the clause could mean *permission* where Mary allowing Josef to come who otherwise could have been prohibited; or *causative/directive* type in which Mary influences/encourages/forces Josef to come.

Here are some more examples to compare the two types of causatives.

(2.22) *yosef tārara-u-n wət't'-a*  
 Josef mountain-**def-acc** climb-**3msgS**  
 ‘Josef climbed the mountain.’

(2.23) *mariyam yosef-n tārara-u-n a-wət't'-ačč-(i)w*  
 Mary Josef-**acc** mountain-**def-acc** **caus-climb-3fsgS-3msgO**  
 ‘Mary climbed Josef up the mountain.’  
 ‘Mary climbed the mountain taking Josef.’

(2.24) *mariyam yosef-n tārara-u-n as-wət't'-ačč-(i)w*  
 Mary Josef-**acc** mountain-**def-acc** **CAUS-climb-3fsgS-3msgO**  
 ‘Mary make Josef climb the mountain.’  
 ‘Mary let Josef climb the mountain.’

In (2.23), Mary is conceived as the participant of the event of climbing. She either has carried or drove him up the mountain. By all means, Josef is simply an inactive participant of the climbing process. With the indirect causative (2.24), on the other hand, the role of Mary is provoking, persuading or forcing Josef to climb the mountain. She herself isn’t by any means involved in the event of the climbing.

The causee (theme) argument in the direct causative is only a passive participant, where the causee argument of the indirect is the actual effector of the event. Josef is effector of the event of climbing in (2.24). But, in (2.23), Josef is not the effector of the event of climbing. He is not an active climber. His role then cannot be the typical agent type. From the traditional labels of thematic roles, *Patient*<sup>3</sup> is the closest theta role attributable to theme argument in the direct causative.

Even if the two causatives could be differentiated on the types of relations between their arguments and the event of the verb, the situations are admittedly more complex than this. Even the very claim that the causer of the direct causation is the direct participant of the event is not always true. The causative meanings mentioned above such as ‘carrying her’ or

‘effector’ only for the participant arguments.

<sup>3</sup>To be precise, the patient role might not be the exact thematic role of the ‘Josef’ in here because he is not a receiver/patient of the caused event. There is no sense of affectedness that is typically attributed to the patient arguments.

‘driving her up the mountain’ are only the prominent interpretations of the direct causative that come to mind. Other, less direct meanings of the direct causative are not impossible. Assume a situation where Mary is the controller of some kind of machine, say a cable car that takes people up the mountain. Assume that Josef doesn’t know how to ride the cable car. Mary sets the controlling board on the machine and fires the cable car to take Josef to the top of the mountain. She basically doesn’t carry or drove him up the mountain herself. She only manipulated the machine in such a way that the machine will take him up the mountain. A situation like this can be expressed by the direct causative.

Here a similar sentence simpler to produce in Amharic.

- (2.25) *gənzəb kəfla yosef-n kə-isirbet yə-a-wət't-ačč-(i)w mariyam n-əčč*  
 money paying Josef-acc from-prison of-caus-out-3fsgS-3msgO Mary is-3fsgS  
 ‘Paying some money, it is Mary who took Josef out of the prison.’

In this example, ‘Mary’ is not directly involved in the event of taking Josef out of the prison. Her role is only indirect—paying the money for him to be released. Situations like this don’t express direct causation in the real world sense of the term. The sentence, however, is a perfectly normal with the direct causative prefix as well as with the indirect causative.

- (2.26) *gənzəb kəfla yosef-n kə-isirbet yə-as-wət't-ačč-(i)w mariyam n-əčč*  
 money paying Josef-acc from-prison of-CAUS-out-3mfS-3msgO Mary-3fsgS  
 ‘Paying some money, it is Mary who made Josef released out of the prison.’

In none of the situations is Mary conceived as the direct participant of the eventuality represented by the verb. She can be only indirect causer of the event. In that sense, there are no distinctions on the eventualities represented by the two types of causatives. If distinctions could be made, they are very subtle. The difference between the two sentences seems a matter of pragmatics.

The one in (2.25) seems to slightly emphasize how Mary’s participation is relevant to the event of Josef’s moving out of the prison while the latter sentence seems more neutral on the role of Mary. Otherwise, they are very similar.

Even abstracting away pragmatic factors, the meaning difference between the two causatives, or the role of the causer argument is not always easy to identify. Take a situation where Josef is riding a horse. The notion of Josef making the horse run could be expressed by either of the causatives:

- (2.27) a. *yosef fərəs-u-n a-rot'-ə-w*  
 Josef horse-def-acc caus-run-3msgS-3msgO  
 ‘Josef ran the horse.’

- ‘Josef made the horse run.’
- b. *yosef fəɾəs-u-n as-rot’-ə-w*  
 Josef horse-**def-acc** CAUS-run-3msgS-3msgO  
 ‘Josef made the horse run.’

Both of the sentences can describe a similar situation where Josef making the horse run by some means. One could think of a situation where Josef is hitting the horse to make it run.

This all, however, doesn’t mean that the clauses marked with the two causatives have identical meaning. They don’t. Even if the meanings are so similar, there is always a sublet semantic difference between the two.

To recap, the meaning difference between the two causatives is normally transparent. The indirect causative describes eventualities where the causer argument is conceived as the director/influencer of the causee while the direct causative denotes eventualities where the causer is conceived as direct effector of the event. Having these fundamental differences, we have seen a couple of situations where the two causatives describe quite similar eventualities.

## 2.5.2 Animacy restrictions

Another clear difference between the two causatives resides on the animacy restrictions of their arguments.

The direct causative imposes no animacy restriction on the theme argument.

- (2.28) *yosef lijj-u-n (məs’haf-u-n) wədə-tərara-u lay*  
 Josef boy-**def-acc** (book-**def-acc**) to-maintain-**def** on  
*a-wət’t’-a-w*  
**caus**-take.up-3msgS-3msgO  
 ‘Josef took the boy (the book) up the mountain.’

The indirect causative, on the other hand, licenses mainly human arguments as the causee argument. Other animals which are capable of motion and intention could also be mapped to the causee argument as the sentence in (2.29).

- (2.29) *yosef lijj-u-n (\*məs’haf-u-n) wədə-tərara-u lay*  
 Josef boy-**def-acc** (book-**def-acc**) to-maintain-**def** on  
*as-wət’t’-a-w*  
**CAUS**-take.up-3msgS-3msgO  
 ‘Josef make the boy (\*the book) climb up the mountain.’

- (2.30) *mariyam yosef-n inc'ət-u-n as-mətt-ačč-(i)w*  
 Mary Josef-acc wood-def-acc CAUS-hit-3fsgS-3msgO  
 'Mary made/let Josef hit the wood.'
- (2.31) *#mariyam inc'ət-u-n yosef-n as-mətt-ačč-(i)w*  
 Mary wood-def-acc Josef-acc CAUS-hit-3fsgS-3msgO  
 'Mary made/let the wood hit Josef.'

In a nutshell, the two causatives differ on the animacy restrictions they impose on the causee arguments. The direct causative imposes no restriction on any of its arguments. The causee arguments of the indirect causative are <+animate>.

### 2.5.3 Distribution

As already noted above, the direct causative typically attaches on intransitive (unaccusative) predicates.

The indirect causative is more productive than the direct causative. As we have seen in § 2.4.2, almost all kinds of verbs can combine with it.

There are, however, some restrictions that apply on this morpheme as well. Some unaccusative verbs which cannot combine with the direct causative, for instance, appear marginal with the indirect causative morpheme as well.

- (2.32) a. \*as-motəw ('CAUS-die')  
 b. \*as-wəddək'əw ('CAUS-fall')

There are even verbs which combine with the direct causative, but tend to resist the indirect causative morpheme. Here are two examples of this sort.

- (2.33) *wuha-u lij-u-n a-səffəf-ə-w*  
 water-def child-def-acc CAUS-float-3msgS-3msgO  
 'The water floated the boy.'
- (2.34) *??lijun as-səffəf-əčč-(i)w*  
 child-def-acc CAUS-float-3fsgS-3msgO  
 'She made the boy float' (intended)
- (2.35) *??as-šaggət-ə-w*  
 CAUS-decay-3msgS-3msgO  
 'He made/let it decay.'

Quite a handful of existential auxiliaries also resist the indirect causativization.

- (2.36) \*yosef lijun məmh̄ir as-hon-ə-w  
 Josef son.his teacher CAUS-become-3msgS-3msgO  
 ‘Josef made/let his son become a teacher.’

The indirect causative also comes out marginal a few unergative verbs.

- (2.37) \*kəbt-očč-u-n as-gəsəggəsə-ə-aččəw  
 cattle-pl-def-acc CAUS-walk.briskly-3msgS-3plO  
 ‘He made the cattle walk briskly.’

Impersonal constructions also resist the indirect causative.

- (2.38) \*mariyam-in as-dəkkəm-ə-at  
 Mary-acc CAUS-tired-3msgS-3fsgO  
 ‘It tired Mary.’

An important point to note here that the incompatibility of the indirect causative with some groups of verbs could be ameliorated by assuming different sets of contexts. With good contexts (or, another world semantics), many of the above sentences might be acceptable. For the sentence in (2.36), for example, if one assumes a situation in a movie or imaginary world where Josef permits his son to act as a teacher, the sentence could be judged acceptable. The only exception here is the case of existential auxiliaries. The indirect causative is fully ruled out with them.

The direct causative, on the other hand, almost always imposes rigid selection restriction on the verb classes. No change of context can improve its compatibility with the causative verbs, for example.

#### 2.5.4 Argument structure

The causative elements are generally known for their valency changing property. This property, however, is not always consistent across languages and across constructions.

Causative markers of some languages are reported to fail to add arguments in some situations. Consider the causatives in Hindi, for example. The two causative markers in Hindi/Urdu: *-vaa* & *-aa*, are similar to the indirect and direct causatives of Amharic. The inner causative marker in Hindi, *-aa*, is a transitivity element just like the inner (direct) causative *a-* in Amharic. The outer causative marker *vaa* also gives a sense of indirect causation just like *as-*. One would expect that causatives would always introduce further arguments.



As Ramchand (2006, 2011) remarked, the two causatives are not consistent with the number of arguments they introduce: “For some transitive predicates, attachment of a causative suffix increases the valency (the so-called ‘ingestive’ class), whereas for others, the valency is not increased” (Ramchand, 2006).

In the same manner, the direct causative in Amharic seems to fail to add arguments in some situations.

- (2.39) *his’an-u a-gəss-a*  
 baby-def caus-belch-3msgS  
 ‘The baby belched.’

The sentence in (2.39) is intransitive even if it contains the transitivizer item *a*. This suggests that the direct causative marker, arguably, fails to add further arguments.

But, the same claim cannot be made for the indirect causative. The indirect causative tend to add a causer argument quite consistently.

Looking into the other classes of verbs as well, the number and type of arguments that the two causatives introduce is not always the same. The number of arguments introduced by the indirect causative specially seems sensitive to the argument structure of the base predicate. Take the causativization of the intransitive verb *mət’t’a* (‘come’) we already saw in the above pages. Some of the examples are repeated here.

- (2.40) *yosef mət’t-a*  
 Josef come-3msgS  
 ‘Josef came.’
- (2.41) *yosef dəbdabe-u-n a-mət’t’-a*  
 Josef letter-def-acc caus-come-3msgS  
 ‘Josef brought the letter.’
- (2.42) *yosef dəbdabe-u-n as-mət’t’-a*  
 Josef letter-def-acc CAUS-come-3msgS  
 ‘Josef have (someone) brought the letter.’

The sentence in (2.40) is headed by a plain intransitive predicate. As such, it contains just a single argument. When the direct causative marker *a* attaches on the same verb as shown (2.41), the predicate functions as transitive, as expected. That is to say the prefix introduces one more argument on top of the argument structure of the basic verb.

The situation is slightly more complex for (2.42) where the indirect causative is attached. On the surface, the external causative marker seems to add one more argument just like the

direct causative. As in (2.41), we still have the external argument ‘Josef’ and the internal argument *dəbdabe-u* (‘the letter’). A closer inspection, however, reveals the presence of one more argument. There is an implicit argument serving as an intermediary between the theme argument (*the letter*) and the causer argument (‘Josef’). This argument is what is known as the causee<sup>4</sup> argument.

Even if a prototypical causee argument usually remains implicit, as in the above example, it can also appear overtly as in (2.43)<sup>5</sup>.

- (2.43) *yosef mariyam-n dəbdabe-u-n as-mətʔʔ-ə-at*  
 Josef Mary-acc letter-def-acc CAUS-come-3msgS-3fsgO  
 ‘Josef made/let Mary bring the letter.’

In this sentence, all the existing arguments are overtly marked. We have a patient (the direct object), a causee and a causer. So, it seems that the indirect causative adds two additional arguments on top of the basic argument structure of the verb. It turns the monadic predicate such as *mətʔʔa* (‘came’) into a triadic predicate as shown in the above clause. This seems to suggest that the indirect causative is capable of adding two arguments in one sweep on top of the basic argument structure of the verbs— in contrast to the direct causative which always adds a maximum of one argument. In later chapters, we will revisit if the indirect causative indeed adds two arguments in one sweep.

### 2.5.5 Event structure of the causatives

Whether causatives add their own event structure, or simply modify the event structure of the main verb is one of the contested topics in the literature. For languages which mark causation by inflectional items, specially, many evidences have been provided in support of either of the positions, (Harley, 2008; Baker, 1988).

Whether the causatives project their own clause or not is rarely discussed topic. But, from cursory observation of the event structure of the two causatives, one can say that they still differ on significant grounds. The indirect causative displays properties which support the biclausal analysis of it, while the direct causative doesn’t.

The causation introduced by the indirect causative can be shown to have two components. The scope ambiguity produced by the negative polarity items and manner adverbs can be

<sup>4</sup>Some people use the term ‘causee’ to describe the internal argument. But, the standard understanding is that the causee is the intermediate argument which lies between the causer (initiator/trigger) and the internal argument (patient/theme). I follow the standard approach.

<sup>5</sup>Note that, we are focusing only on the active sentence here. Examples like (2.42) could have a passive interpretation. In that case, the agent would be marked by the prepositional *by-phrase*. In the active forms, as in (2.43), the causee is a genuine structural argument.

given as evidence for dual component of the event structure introduced with the indirect causative.

- (2.44) *yosef-n mannim al-as-gərrəf-ə-w-m*  
 Josef-acc nobody neg-CAUS-whip-3msgS-3msgO-neg  
 ‘Nobody had Josef whipped.’

Concentrating on the causative of the passive<sup>6</sup>, the sentence in (2.44) has two readings :

- (2.45) a. nobody caused Josef’s whipping; nor is he whipped  
 b. nobody caused Josef’s whipping (but, he is whipped anyways)

The first reading emerges when the negative polarity item scopes over the whole clause—both the causing and caused events are negated. In the second reading, the negation scopes only to the causation subevent.

This shows that the negative polarity item can scope over either just to the causation subevent or to both of the subevents.

In the same manner, the manner adverb *quickly* projecting along with the indirect causative can also scope over either the single subevent or both.

- (2.46) *mariyam yosef-n bəfit’nət as-wət’t’-ačč-(i)w*  
 Mary Josef-acc quickly CAUS-go.out-3fsgS-3msgO  
 ‘Mary made/let Josef go out quickly.’  
 ‘Mary quickly made/let Josef go out.’

In the above example, it is possible to get the meaning of *quickly* scoping over either the causation subevent or the main motion event. In the first case, the interpretation is: *Mary was quick to cause* the event. In the second interpretation, the adverb scopes to the caused main event— ie, Mary caused the event in such a way that Josef would go out quickly (causative of the active).

In contrast to the indirect causative, as the following example shows, the verb marked with

<sup>6</sup>When the external causative occurs on transitive verbs, the reading is usually ambiguous between the causative of the passive and the causative of the active. For the sake of simplicity, I am abstracting away from the meaning that is associated with the causative of the active for now. More details on the causative of the active and passive are provided in [chapter 9](#).

the direct causative provides only a single interpretation—*she quickly took him out*.

- (2.47) *mariyam yosef-n bəfit'nət a-wət't'-ačč-(t)w*  
 Mary Josef-acc quickly caus-go.out-3fsgS-3msgO  
 'Mary took Josef out quickly.'

Even if the above examples are provided to show how the two causatives differ in their event structure, the evidence for the biclausality of the indirect causative is still inconclusive. There are many reasons to think of the clauses monoclausal.

First, the indirect causative, just like the direct causative, form are part of the morpho-phonological component of the verb. It, for example, undergo phonological allomorphy depending on the first sound of the verb.

- (2.48) *as-sallə* → /asəllə/ or /as-sallə/

In this example, both the first /s/ sound of the base verb and the last consonant of the causative can be fused to form a single /s/ sound.

The prefix is also a bound morpheme. It forms a phonological word with the host verbs. Furthermore, it may feed further productive syntactic prefixes. A nominalizer morpheme *mə-* has been prefixed outside of the indirect causative in (2.49), for example. In the same way, a progressive aspect marker *iyyə-* is also marked outside of the causative in (2.50).

- (2.49) *yosef təmari kə-kifl mə-as-wət't'at yi-wədd-al-Ø*  
 Josef students from-class nmlz-CAUS-go.out ipfv-like-aux-3msgS  
 'Josef likes to make/let students go out of class.'

- (2.50) *yosef təmari-očč-u-n iyyə-as-wət't'a nəw*  
 Josef student-pl-def-acc prog-CAUS-go-3msgS is  
 'He is making/letting the students to go out.'

From verbal movements (dislocation), cleft and other syntactic and phonological process, it is evident that the indirect causative marker is part of the word. The prefix can never move separately or left stranded behind when the host verb moves. Just to take one example, non-wh questions can be asked in Amharic by putting the complementizer *ində-* at the end of the sentence, (2.51). When the event is under focus, the complementizer in combination with the verb can raise to pre-subject position as in (2.52a). In this case, the causative prefix has to raise along with the verb, (2.52b). It cannot be stranded in the base position, as the

ungrammaticality of (2.52b) shows.

(2.51) *yosef mariyam-n as-wət't'-at ində?*  
 Josef Mary-acc CAUS-go.out-acc comp  
 ‘Did Josef make Mary go out?’

(2.52) a. [*as-wət't'-at ində*]<sub>i</sub> *yosef mariyam-n t<sub>i</sub> ?*  
 CAUS-go.out-acc comp Josef Mary-acc  
 ‘Did Josef make Mary go out?’  
 b. \**wət't'-ə-at ində yosef mariyam-n as-?*  
 go.out-3msgS-3fsgO comp Josef Mary-acc CAUS-?

Another evidence for the monoclausality of the causative constructions comes from the tense and aspectual markers. Tense in Amharic is marked by an auxiliary verb *nəw* for non-past and *nəbbər* for the past. The causative cannot take tense morphology of its own. It is not possible to have two independent tense markings for the causative and the lexical verb. The same is true of the aspectual morphology.

(2.53) *yosef lij-u-n səñño bə-mariyam as-məkkər-ə-w*  
 Josef child-acc-acc Monday by-Mary CAUS-advise-3msgS-3msgO  
 ‘Josef had the boy advised by Mary on Monday.’

Furthermore, temporal adverbs cannot scope to the causative subevent separately. In whatever syntactic position it appears, the time adverb *səñño* (‘Monday’) in (2.53) can modify only the event of the main verb.

A third evidence for the monoclausality of the causative constructions comes from coordination.

The possibility to have a disjunctive coordination under a single causative head has been taken as evidence for the biclausality of the causatives in Japanese, Harley (2008).

(2.54) *Hanako-ga Masao-ni uti-o soozisuru ka heya-dai-o haraw-aseru koto*  
 Hanako-NOM Masao-DAT house-ACC clean or room-rent-ACC pay-cause that  
*ni sita*  
 to did  
 ‘Hanako decided to make Masao clean the house or pay room rent’

(Kuroda, 2003; Harley, 2008)

The impossibility of this kind coordination under a single causative head in Amharic sug-

gests the monoclausality of the causative clauses.

- (2.55) *mariyam yosef-n beyt-u-n as-s'əd-ačč-(i)w inna libs*  
 Mary Josef-acc house-def-acc CAUS-clean-3fsgS-3msgO and cloth  
 \*(as)-at t'əb-əčč-(i)w  
 CAUS-wash-3fsgS-3msgO  
 'Mary made/let Josef clean the house and wash clothes.'

The causative element has to be distributed to both of the coordinates.

With the exception of the manner adverbs and negative polarity items, all the evidences suggest that causative elements do not introduce their own clausal domains.

Treating the causatives as monoclausal makes the analysis in alignment with current understanding of causatives in the mainstream theory. The standard Minimalist theory of argument introducing heads developed in Kratzer (1996a) and many others following her assume the causatives to project no separate clausal domain. Causatives are treated as argument structure adding syntactic heads, to wit, VoiceP and CauseP. Just like any other functional head in the clause they, simply merge as the extended projection of the single verbal projection.

Table 2.2: Summary of the distinction between the two causatives

	Direct Causative	Indirect Causative
Selection	verb classes only	argument types
AS	adds just one argument	might add more than one argument
Type of argument	adds an effector	adds a causer
Clause structure	clearly monoclausal	arguably monoclausal
Type of causation	manipulative/contactive	directive
Additional sense	assistive	permissive

## 2.6 Causatives in the GB

In the above sections, I have described the two causative prefixes in Amharic—the internal (direct) causative and the external (indirect) causative. The presence of two types of causative morphemes is not specific to Amharic either. A large number of languages are already known to have two types of causative elements. Svenonius (2005), for example, mentions languages such as Nivkh, Kitharaka, Hindi/Urdu, Northern Sami, Japanese, and Malagasy to have two types of causatives. Still, the number of works which analyze the dual-causative languages is very limited. The causatives in French, Hindi and Japanese are

probably the most investigated of all. Amberber's dissertation is the first serious investigation of the causatives in Amharic.

In this subsection, I am going to briefly review some of the important works within the mainstream GB literature.

On the syntactic the projection of causatives, at least three different approaches have been entertained in the GB framework. The first band of theories contains lexicalist theories, [Alsina \(1992\)](#); [Zubizarreta \(1985\)](#); [Folli and Harley \(2007\)](#). According to these theories causativization is a lexical operation. The causative morphemes are assumed to attach in the pre-syntactic layer within the lexical derivation. The lexical operation which is responsible for the combination of the causative elements is also considered the main factor for the modification of the argument structure of the base lexical verbs.

The syntactic approaches derive causatives fully in the syntax. The latest Minimalist theories specially derive every consistent morphological inflection within the narrow syntax. The causatives are not an exception. According to this approach, both of the causatives in Amharic must project in the syntax proper.

The third approach takes a middle ground between the lexicalist and the syntactic theories. [Hale and Keyser \(1993a\)](#) bifurcate the lexico-syntactic derivation into L-syntax and S-syntax. L-syntax is assumed to be some kind of interface layer between the lexical and the syntactic domains.

In the following sub-sections, we will revise some sample works from the syntactic and semi-syntactic approaches.

### 2.6.1 Minimalist approach

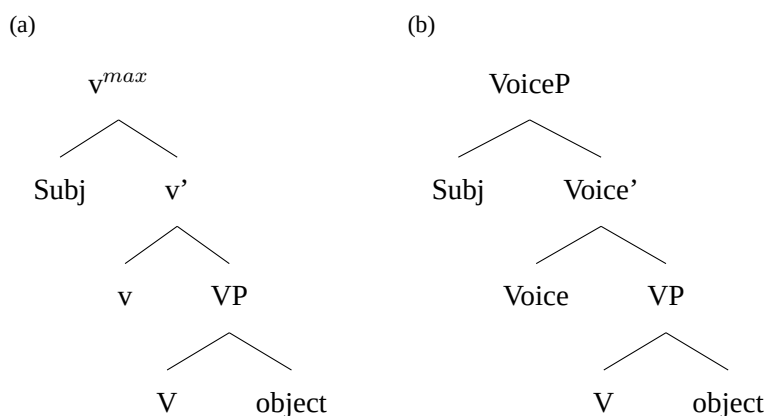
The latest Minimalist theories advanced in ([Kratzer, 1996a](#); [Harley, 2008](#); [Ramchand, 2008](#); [Marantz, 1997](#)) and many other similar works attempt to bridge the gap between the lexical and the syntactic domain by pushing the latter to its limits. They argued for all types of derivations, including causative and inchoative alternations, to occur within the narrow syntax.

The standard analysis of the causative that comes from Kratzer's and Chomsky's works assume that causativization is achieved by a single causative head, vP (VoiceP for Kratzer). According to [Chomsky \(2001\)](#), little v is not only the introducer of the external argument, it is also the accusative case assigner. He suggested that the accusative case marking is done by phi-complete v (he marks it as v\*). The phi-incomplete v is considered defective which cannot assign case leading to the formation of passive clauses, unaccusative and anti-causative constructions. He suggested that in the passive and unaccusative predicates, v is

defective that the direct object (patient) receives nominative case from T.

- (2.56) a. John sank the boat ( $v^*$ , Nom–acc)  
 b. The boat sank ( $v$ , Nom)  
 c. The boat was sunk (by John) ( $v$ , Nom)

Figure 2.1: Transitive clauses according to Chomsky (1995, 352) and Kratzer (1996a)



Abstracting away for the details that linguistic data presents us with, it is easy to see how this theory has successfully covered the core grammatical patterns of both transitive and intransitive clauses. The  $v^*$  which is capable of introducing an external argument is also capable of assigning the accusative case to the internal argument. This captures the universal generalization (also known as Burzio’s generalization) that transitivization go hand in hand with accusative case assignment.

The above general system has been further elaborated and streamlined in recent works.

In the following sections, I will revise some of these new developments. It would, however, be futile to attempt to revise all the works which apply the Minimalist method of causativization here— as the works are too many to handle in a few pages, (Ramchand (2011, 2015, 2008); Folli and Harley (2007); Harley (2008); Kulikov (2001); Kim (2011); Blanco (2011); Pylkkänen (2008); Wood and Sigurðsson (2014); Alexiadou and Iordăchioaia (2014); Horvath and Sioni (2011); Schäfer (2009)).

I will, therefore, focus only on works that are directly relevant to the current study such as Harley (2008) & Amberber (1996).



## 2.6.2 Harley’s study of the causatives in Japanese

One of the most attractive analyses of the causatives is the one presented by Heidi Harley and her colleagues in a series of publications, [Folli and Harley \(2007\)](#); [Harley \(2008\)](#).

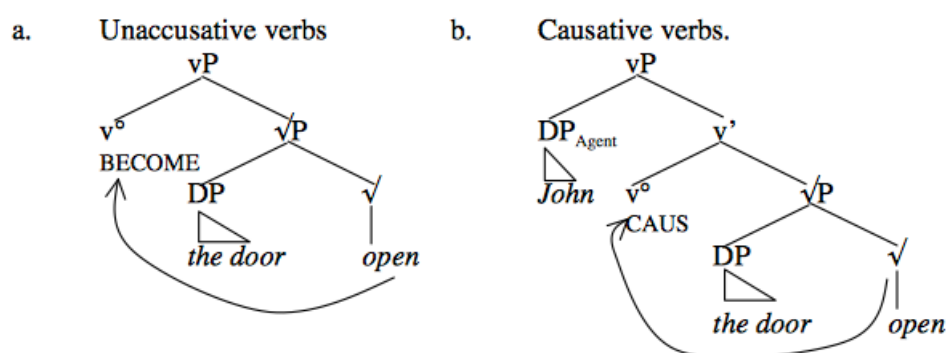
[Harley \(2008\)](#) specifically presents a clearer analysis of the causatives in Japanese. She discusses the two variants of the causative in Japanese—the lexical and functional variants. The lexical variant differs from the functional one for it is less productive, and more sensitive to lexical idiosyncrasies.

The most important proposal developed by her is the hypothesis that the (lexical) causative is a garden variety verbalizer. According to her, the causative is assumed to play the roles of both causativizing inchoative verbs as well as verbalizing roots. The causatives are assumed to head the vP projection, based on Marantz’s (1997) conception of verbalizers.

The original idea from Marantz and her own 1990’s works postulates that all roots are turned to verbs by a dedicated functional head, which they assume to be some version of Chomsky’s vP<sup>7</sup>.

As we have seen above, the head (vP) has two variants (flavors) in Chomsky’s own analysis. The defective variant (flavor) which is supposed to lack a position for an external argument and a case to assign to the internal argument, and the proper variant which projects an external argument and assigns case to the internal argument. In Harley’s works, the defective (unaccusative) flavor of little v is headed by BECOME subevent while the non-defective (transitive) flavor contains the CAUS subevent.

Figure 2.2: Causative and unaccusative verbs according to [Harley \(2008\)](#)



In the unaccusative clause, the root projection,  $\sqrt{P}$ , has a single specifier position where the

<sup>7</sup>The linguists in the **DM** camp are unfortunately inconsistent about their presentation of the little v. In some cases, they seem to take it as dedicated verbalizer distinct from Chomsky’s v—much comparable to the Asp projection in Travis’s theory. In other cases, they equate it with Chomsky’s own little v.

sole argument of the unaccusative predicate projects. That is, one argument comes as part of the root structure, regardless of the verb type. The CAUS head then plays an important role in introducing a further argument into the derivation. This is where the external argument is introduced, as well as the root is verbalized.

One interesting consequence of this schema, rarely appreciated, is the iterative projection of the little *v*. This type of vP analysis opens the possibility for introducing causatives in a recursive manner. Furthermore, as a garden variety of the little *v*, the causative item would be able to verbalize roots. As we will see in the later sections, both of these assumptions could be used to capture important facts about causatives. First, even if the iterative projection of the causatives is not possible in Amharic, the phenomenon has been reported in other languages such as Oromo. The iterative vP proposal naturally captures causatives of recursive types: that a rigid list of functional heads assumed in the majority of other theories cannot (note; Cinque’s own original *fseq* proposal, Cinque (1999), seems to assume a rigid list of functional projections).

Furthermore, the verbalizing capacity of the causative markers makes sense for at least some cases in Amharic.

Harley also proposed a similar  $v_2P$  projection on top of the regular vP where the syntactic causative is supposed to merge at.

### 2.6.3 Amberber’s analysis of the causatives in Amharic

Hale and Keyser (1993a) introduced L-syntax, a new level of grammar interfacing between the lexical and syntactic levels. Since the level has been introduced, some works (Travis (2010, 2000); Amberber (1996)) have suggested the derivation of some of the causatives within the L-syntax.

Amberber specifically used the bifurcation to analyze the two causatives in Amharic. He proposed that the direct causative is derived in the L-syntax while the external causative does project in the syntax proper (S-syntax).

First, Amberber groups the lexical verbs into two main classes—Pattern I and Pattern II. Pattern I verbs basically belong to the unaccusative class. Amberber assumes these verb classes to lack causative subevent from their roots. It is then causative head, morphologically realized as *a*, which transforms them to causative predicates.

His Pattern II verbs are quintessentially causative verbs. As they are inherently causative verbs, they do not require a causative marker for transitivity. Some strictly agentive verbs, such *gəddələ* (‘kill’) and *gənnəba* (‘build’) therefore avoid the attachment of the causative head *a*- as they are inherently endowed with a causative subevent.

Table 2.3: Unaccusative verbs, (Amberber, 1996, p. 33)

<b>Verbs of emission</b>	<b>Verbs of Existence and Appearance</b>
nəddədə ('burn')	norə ('exist, live')
fənnədə ('explode')	<b>Verbs of Spatial Configuration</b>
t'ənnəbə ('stink')	gəbbət'ə ('bend')
damma ('bleed')	<b>Verbs of Change of State</b>
<b>Verbs of Inherently Directed Motion</b>	nək'k'a ('crack')
dərrəsə ('arrive')	zaggə ('rust')
<b>Verbs of Manner of Motion</b>	
nət't'ərə ('bounce')	

What is crucial for Amberber's analysis is the decomposition of the events of the lexical verb into subevent components. It is based on this event decomposition that he explains the distribution of the causative item. Following much of the standard lexicalist event decompositions into CAUS, BECOME, INCH and the like subevent components, he used these events to constrain the selection of the direct causative.

He assumes Vendlerian aspectual classes (along with Dowty (1979); Jackendoff (1990); Levin and Rappaport Hovav (1995)) for attributing the CAUS and the INCH properties into the verb categories. He considers Pattern I to fall under the Vendler's class of achievements.

The distinction between Pattern I and II verbs, he argued, lies in the fact that the latter group have a causative subevent as part of their lexical component while the first group causativize only with the aid of the causativizer within the L-syntax. Both activities and achievements are assumed to contain the CAUS component.

I would like to argue that the distinction between the two Patterns is based on the lexical-semantic property of the verbs. The morphology is indicative of the underlying LCS of the verbs. I argue that the events encoded by Pattern I verbs are conceptualized as events which can take place spontaneously, without the necessary intervention of an external causer. On the other hand, the events encoded by Pattern II verbs are conceptualized as events which normally come about by an external causer. Thus, although both *mat't'a* ('came') (Pattern I) and *sabbara* ('broke') (Pattern II) are change of state events, the change of state expressed by the former is conceptualised as a spontaneous event, whereas the change of state expressed by the latter is conceptualised as a caused event. (Amberber, 1996, pp:35)

(2.57) **Event decomposition of the major verb classes according to Amberber**

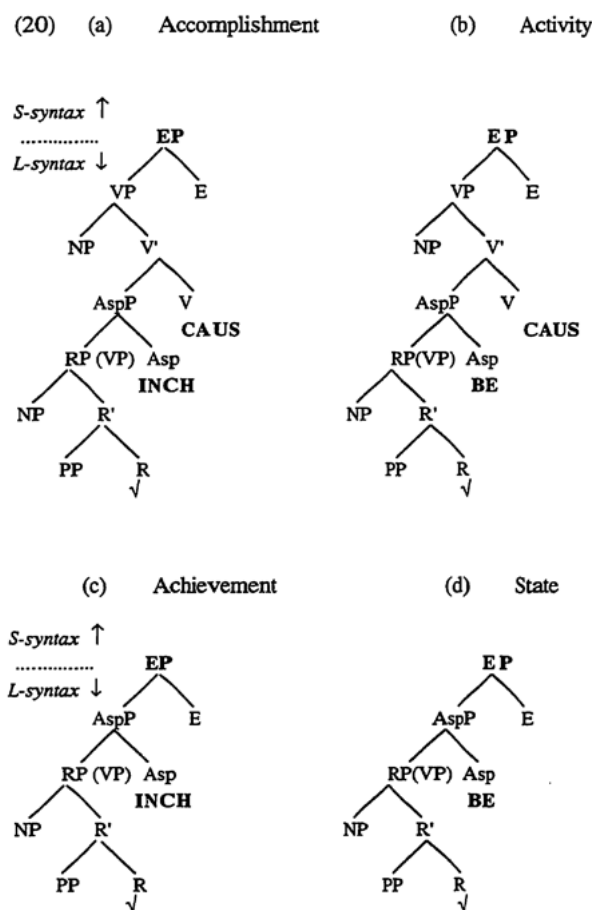
- a. *Accomplishment*= CAUS [INCH]
- b. *achievement*= INCH [State]
- c. *Activity*= CAUS [State]
- d. *State*=BE

Here, the INCH is the basic aspectual that all change of state verbs are supposed to possess. Unless there is a causativizer head on top, the predicates of this subevent are supposed to have a single argument. The introduction of the CAUS subevent on top of this INCH core subevent is responsible to add the causative subevent as well as open a position for introducing a further argument into the structure. The CAUS head is what the transitivizer prefix **a-** is supposed to add.

His pattern II verbs which include activities and accomplishments are assumed to contain the CAUS subevent (functor). Since these verbs already contain the CAUS subevent, they are not selected by the direct causative.

The structure of each of the four Vendlerian verb classes is given as follows.

Figure 2.3: Structure of the Vendlerian verb classes, (Amberber, 1996, p. 18)



The lexical subevent compositions proceed in the L-syntax. EP (event phrase) is the layer where the L-syntax finishes off and the S-syntax (narrow syntax) kicks in. AspP is similar to what recent Minimalist theories call verbalization head. It is supposed to be part of the lexical make up of the verbs. The AspP contains the core aspectual subevents namely INCH and BE.

Both accomplishments and achievements denote change of state. Their AspP head is headed by the core INCH functor. States and activities don't denote change of state. Their AspP heads are filled by BE subevent. Accomplishments and activities causative verb classes—their AspP contains the CAUS functor. The others don't.

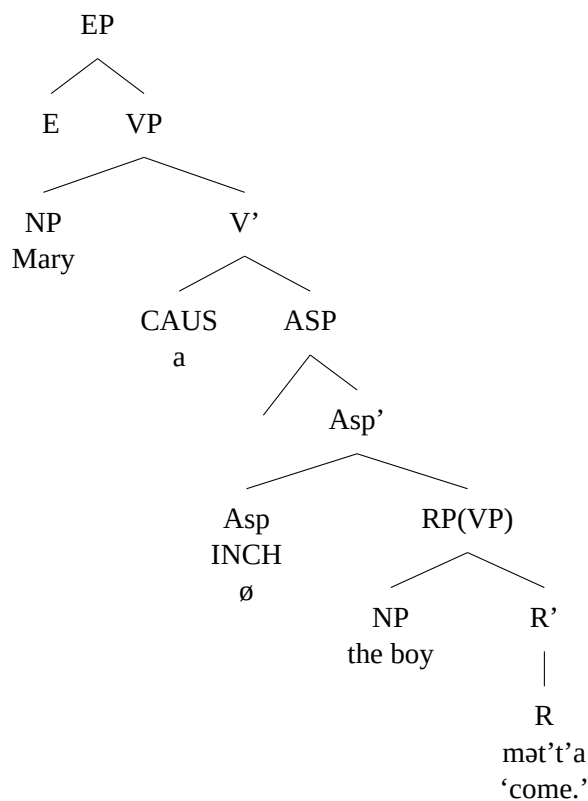
In Amberber's proposal, the task of the internal causative is deriving the causative counterparts from the unaccusative bases of the pattern I predicates. He takes the derivation to

be in the L-syntax, based on [Hale and Keyser \(1993a\)](#). Emphasizing the sensitivity of the transitivizer head to the verbal aspect, he then proposes that the internal causative merges in the L-syntax to introduce the CAUS subevent on those verb classes lacking the CAUS subevent.

Here is how Amberber projected the direct causative.

- (2.58) *mariyam lij-u-n a-mət't'-ačč-(i)w*  
 Mary boy-def-acc caus-come-3fsgS-3msgO  
 'Mary brought the boy.'

Figure 2.4: The direct causative in the *fseq* according to [Amberber \(1996\)](#)



As for the external causative, he claims that it merges in the S-syntax based on the observation that the causative displays little sensitivity to the verbal (lexical) aspect.

I generally agree with Amberber's system for that the lexical semantics, somehow, is deemed

responsible for the selectional restriction of the causative prefix. It is clear that the lexical semantics of the verbs features as the major factor for the distribution of the direct causative. I also agree with his point that unaccusative verbs permit the attachment of the direct causative. It is very clear that almost all change of state verbs permit the merger of the direct causative prefix.

There are, however, some details that need further investigation. One of these details is the status of some of the verbs that he treated under the unaccusative class. Take the verb like *mət't'ə* ('come') for example. Amberber calls this verb 'unaccusative' because it can combine with the direct causative. The question is whether this verb actually qualifies for unaccusativity. Look at its closest semantic counterpart such as *heddā* ('went'). Given the semantic uniformity of the two motion verbs, the LCS theory would predict that the two verbs behave the same. This, however, is not true. The *go* verb cannot take the direct causative, in contrast to the *came* verb. If the semantics of the verbs is responsible for this classification, it is a mystery why one the motion verbs fall to the unaccusative class and the other to the unergative class. Indeed, all the relevant diagnostics for the unaccusativity put the *come* and *go* verbs into one category.

Indeed, many people put these verbs into the unergative class, [Diercks et al. \(2011\)](#); [Deal \(2016a,b\)](#).

Furthermore, there exist a few clearly unergative verbs which still license the direct causative. The unergative verbs which I grouped under the *run* class specifically present a challenge the unaccusativity hypothesis presented by Amberber.

Table 2.4: Direct causative of transitive, unergative and inchoative verbs

transitive	unergative	unaccusative
*a-gəddələ ('kill')	*aheddā ('go')	a-səffa ('widen')
*a-gərrəfə ('whip')	*attəña ('sleep')	a-nət'ta ('whiten')
*a-səbbərə ('break')	*ac'əffərə ('dance')	a-k'allət' ('melt')
*a-gəffa ('push')	*azəllələ ('jump')	a-nədədə ('burn')
*a-k'orrət' ('cut')	a-mət'ta ('bring')	a-šaggətə ('decay')
*a-s'affa ('write')	a-rott'ə ('run')	a-dərrək'ə ('dry')
*a-sənət't'ək'ə ('split')	a-rammədə ('walk')	a-rassə ('wet')
*a-nədda ('drive')	a-gəsəggəsə ('walk briskly')	as'əwwələgə ('wilt')

Amberber's proposal wrongly predicts that these verbs would block the direct causative as they are unarguably unergative.

There are also a number of causative verbs which still license the direct causative. The so-called *ingestive* verbs are a case in point. The unaccusativity hypothesis clearly fails to

explain why the ingestive verbs license the direct causative.

Table 2.5: Ingestive verbs

basic	derived
bəlla ('eat')	a-bəlla ('feed, make eat')
t'ət'ta ('drink')	a-t'ət't'a ('make drink')
gat't'ə ('graze')	a-gat't'ə ('make graze')

Furthermore, there are verbs which fall to typical unaccusative class (hence contain no CAUS subevent in Amberber's terms) which resist causativization.

Table 2.6: Unaccusative verbs

basic	derived
motə ('die')	* a-motə ('make die')
wəddək'ə ('fall')	*a-wəddək'ə ('make fall')

Finally and most importantly, the whole idea of lexical semantics works only under the perfective and imperfective verb forms. As I will detail in [chapter 8](#), none of the semantic restrictions presented above hold if the verb appear in the iterative verb form. Under the iterative form, all the verb classes including the causative and unergative license the direct causative.

- (2.59) *yosef mariyam-n a-c'c'affər-ə-at*  
 Josef Mary-acc caus-dance.it-3msgS-3fsgO  
 'Josef danced with Mary.'

Why the iterative aspect removes the verb selection restriction of the causative is one of the puzzles that need to be solved.

#### 2.6.4 Towards a new analysis

In this dissertation, I will argue against the fixed position (cartographic) analysis of the causatives. I will show that none of the causatives have fixed position in the fseq. I will show that the position of the causatives is simply an epiphenomenon to their selection patterns. As such, there is no universal principle that puts the indirect causative higher than the direct causative, or the reverse. Their syntactic position is as flexible as their selection parameters. I will indeed show a number of cases where the two causatives project on the same functional layer. The fact that the indirect causative seems to higher is because its selection parameter



often dictates to project over the VoiceP. In situations where it selects verbal items, it could appear in the same layer as the direct causative.

## 2.7 Summary

The main purpose of the chapter has been, first presenting the facts on the two causatives, and then revising some of the important recent analyses of the causatives. On the factual side, I have shown that the two causatives in Amharic differ in a number of characteristics including their meanings, selection including verb class selection and argument selection (animacy restriction), argument structure as well as event structure. The direct causative denotes causative eventualities where the causer is conceived as the direct effector of the event. The indirect causative denotes situations where the causer is the initiator of the causee argument (not the effector of the event of the verb). In terms of selection, under the canonical cases, the direct causative selects intransitive verbs, while the indirect causative has little restriction on verb class. The indirect causative selects clauses where <+human> arguments are projected as external arguments. As for the argument structure, both of the causatives normally add one more argument to the structure. But, some cases have been shown where the direct causatives seem to fail to add an argument while the indirect causative sometimes seems to add more than one argument.

On the theoretical side, we have seen that Heidi Harley's recent study of the causatives in Japanese makes an important progress towards a unified and universal theory of causatives. We have also seen that Amberber's study, even if it lacks some details, puts important foundations in the study of the causatives in Amharic. In later chapters, I will attempt to work out all the missing details to complement his work.



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## CHAPTER 3

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# The anticausative

### 3.1 Introduction

As we have seen in the introduction, the anticausative morpheme in Amharic contains a plethora of senses ranging from the passive, to the unaccusative, middle, reflexive and the reciprocal.

In this chapter I will present the facts on the anticausative in Amharic. I will first describe those multiple constructions marked by the anticausative morpheme. Why the single is associated with multiple construction is one of the questions I will address in this dissertation. But, before doing so, I will first lay out just the empirical data in this chapter. This chapter also contains a review of some of the most important theories for the analysis of anticausatives.

In § 3.3, I will describe the distribution of the anticausative morpheme and the semantic flexibility it displays when encountering different types of verb categories. Following the explication of the multifunctionality of the anticausative, I will then move on to see what the standard theory has to say on multifunctional morphemes such as the anticausative in Amharic.

In § 3.4, I will also briefly review the standard analysis of the anticausativization derivation within the GB framework. I will point out a number of issues with the standard derivational theory of the passive if applied to all the cases of the multifunctional anticausative functional items. I will argue that the derivational theory of the passive is ineffective to capture the complexities that multifunctional anticausative functional items pose.

Rejecting the standard theory of the passive, I will follow up other promising recent developments to capture similar multifunctional items within the Minimalist framework. In § 3.5.1,

we will see if **NS**, as one of the recent developments in the Minimalist program can help us capture the polysemous anticausative item. Again, I will point out that **NS** lacks some of the necessary components to explain polyfunctional items.

Finally, in § 3.5.3, I will sketch a new direction for analysis, that I will ultimately develop in **chapter 7**.

## 3.2 Terminological clarification

Terms like *anticausative*, *decausative*, *unaccusative*, *intransitive*, *nonactive*, *middle*, *detransitive* etc., has been used to express similar notions throughout the history of modern linguistics. Some of these terms are often used in one sense in one study but in some other sense in another work. In addition to different use of the terms in different studies, they are often applied both for grammatical forms (morphemes) as well as for grammatical constructions (interpretations). This often leads to confusion and misunderstanding among linguists.

To avoid similar ambiguity/confusion, I will clarify how I use the terms in this study.

The use of the term *anticausative* was originally restricted to marked unaccusative verbs which have causative counterparts, [Gianollo \(2014\)](#); [Ottosson \(2013\)](#). Under the original sense, the notion of anticausative doesn't include lexical intransitives that contain no transitive counterpart. As such, verbs like *mottā* ('die') are not considered anticausative because they lack the transitive counterpart.

Recently, however, the term has been expanded to include the general meaning of unaccusativity regardless of form, (see this expanded function of the term in [Schäfer \(2009\)](#), for example).

In the current study, I have used both the original and the expanded senses of the term.

First, I use it in the interpretive sense to describe verbs that denote change occurring spontaneously, ([Haspelmath, 1993](#), p. 90). In this sense, the term is synonymous with the term 'unaccusative'. Second, I used it to describe a verb form. In this case, the term describes intransitive verbs that are marked by the nonactive morpheme *tā-*. In the verb form sense, the term is synonymous with the term 'nonactive'.

Another important term here is the term 'decausative'. I use this term strictly in the semantic (interpretation) sense only. I use the term to describe the broader area of meaning often, but not always, associate with the nonactive form. A closely related term used to describe a similar situation in the literature is the term *mediopassive*. The term has little to do with the verb forms. The dispositional middle in English (see § 7.5.1), for example, appears in the active form. But, it still is considered a decausative construction because it is a type of the middle (intransitive).

The term ‘middle’ has been used in two different ways in the literature (as well as the current work). In one way, it expresses the verb form which appears in the nonactive form. In this sense, the middle form/voice is synonymous with the nonactive form/voice. Another use of the term ‘middle’ is in the sense of interpretation or reading. In this sense, it is used in contrast with the passive, unaccusative and the like constructions. The latter sense of the term very complex; and the literature is not clear about it. It is sometimes assumed to cover broader areas of meaning such as the reflexive, reciprocal and the unaccusative. Other times, it is used in a more restrictive manner.

Further clarification of the two senses of the ‘middle’ is given § 7.5.

Another troublesome term used in the literature is *mediopassive*. One class of literature use this term in the sense that I use the term *middle-reflexive* where the reflexive sense is marked without any reflexive pronoun, Rice (2000). In other cases, it is used as a cover term when a language doesn’t make a distinction between the passive and the middle morphology, Bruening and Tran (2015). In this latter sense, we can say that the term ‘mediopassive’ is synonymous with the term ‘decausative’ in the current study. It covers all the voice constructions including the passive, reflexive, the middle, the reciprocal as well as the anticausative, (Klaiman, 1991, p. 45). Alexiadou and Doron (2012), on the other hand, consider the middle broader notion than the mediopassive. In their description, the mediopassive is considered as a class of the middle.

Because of this conflicting usage, I will avoid the use of the term ‘mediopassive’ in this work.

Here is a brief summary of my use of the terms in this work.

- The term ‘anticausative’ used to describe both form and meaning. In the sense of form, it is synonymous with nonactive verb form. It describes the use of the nonactive morpheme *tə-*. In the sense of meaning, it is synonymous with the *unaccusative*–describing spontaneous change of state.
- The term ‘nonactive’ is restricted to verb form. It is used in contrasted to the active voice (verb form).
- The term ‘unaccusative’ this is restricted to verb class or interpretation. It is related with eventualities denoting undergoing spontaneous change of state, regardless of the form of the verbs (active or nonactive form).
- The term ‘inchoative’ is reserved for verb classes that have the unaccusative interpretation in their basic (active) verb forms.
- The term ‘middle’ has two senses, just like the “anticausative”. In the sense of form, it is synonymous with the nonactive. In the sense of meaning, it is used as a cover term for a number of decausative constructions such as *reflexive*, *unaccusative*, *mediopas-*

sive etc. I will later argue that what we call the *middle* is just reading that cannot be easily classified to any of the known semantic groups.

- The term ‘decausative’ is strictly used for the interpretation. I take the liberty to re-define this term to cover all the intransitive (detransitive) constructions such as the passive, reflexive, middle, anticausative, reciprocal, etc. These constructions are considered decausative regardless of the verb form. If the middle or the unaccusative reading appears in the active form, it is still considered a decausative construction.

I could have restricted myself to some of these terms. But that would make it harder to quote or paraphrase the works of other linguists who use various terms to describe the same or similar notions. Therefore, the best compromise I have taken here is to adopt the terms in their very common usage, and slightly modify some of them.

### 3.3 Multiple functions of the anticausative

The function of the anticausative morpheme is very complicated. It is often hard to tell whether a certain construction is passive, or middle or some other sort because all of them appear marked with the same *t*-<sup>1</sup>prefix. In the following subsections, I will present a description of some of the constructions associated with the anticausative morpheme. The list of the constructions, however, cannot be considered exhaustive because each of the constructions could be shown to contain many more subcategories.

#### 3.3.1 The Passive

The passive is definitely one of a number of senses that the prefix signals.

- (3.1) *lij-u bə-astəmari-u tə-gərrəf-ə*  
 child-def by-teacher-def Nact-whip-3msgS  
 ‘The boy is whipped by the teacher.’

The passive interpretation is often associated with agentive verbs. In other cases where the verbs are not strictly agentive, the reading runs fuzzy between the passive and other related middle & anticausative interpretations.

Non-alternating verbs like *kill*, *hit*, *assassinate*, and alternating verbs like *break*, *open* and *melt*, all can give rise to the passive construction. In cases where the personal passive reading

<sup>1</sup>This morpheme is widely used across the whole Afro-Asiatic family. (Lipinski, 1997, p. 395-402) mentions more than 30 languages using this morpheme across Semitic, Chadic, Cushitic, Egyptian and Berber groups. At its most basic level, it seems to serve as the marker of reflexivity. But it has also evolved to cover a broader area of function including the passive and reciprocal in most of the modern Ethiopian Semitic languages such as Amharic, Tigre, Chaha, as well as some older Semitic languages such as Old Aramaic & Ge’ez.

is not readily available, as in the case of *stand* and *run* verbs, the impersonal passive comes out the prominent interpretation of the nonactive.

### 3.3.2 The Impersonal Passive

The impersonal passive is again closely related with the regular (personal) passive (Fufa, 2009, p. 121), (Leslau, 1995, p. 465), (Amberber, 2002b, p. 10). The impersonal passive typically appears as subjectless nonactive which typically derive from intransitive verbs. Unlike the personal passive, this one doesn't focus (topicalize) on the patient argument. While a participant can be mentioned alongside, the topicalized item of the impersonal passive is typically the event itself.

- (3.2) *zare timhirt-bet tə-waññito-al*  
 today school Nact-swim-aux  
 'Swimming has been done today in the school.'  
 'It has been swum today in the school.'

- (3.3) *sefer-ačč'in wust' bə-haylāññaw tə-sak'-ə*  
 neighbor-2pl.poss in by-forcefully Nact-laugh-3msgS  
 'It is laughed loudly in our neighborhood.'

The impersonal passive has been attested for many languages including many Germanic languages such as German, Icelandic and Dutch. The accepted knowledge in Germanic languages seems that the structure is available to intransitive verbs, the unergative group more specifically.

- (3.4) *Es wurde viel ge-arbeit-et.* German  
 EXPL become:3SG.PRT much PTCP-work-PTCP  
 'There was much working.'

(Primus, 2011, p. 80)

Even if the unergative verbs generate the most prototypical impersonal passive, the construction is not restricted to them in Amharic. First, the transitive verbs<sup>2</sup> can generate the impersonal passive.

<sup>2</sup>The formation of impersonal passive from transitive verbs might sound absurd. The fact of the matter, however, is that the impersonal is perfectly compatible with the transitive verbs. This is not even restricted to Amharic. Similar phenomena has been already reported for a number of other languages including Latin, Pinkster (1992); Napoli et al. (2013), Irish (Nolan, 2006, p. 145), Ukrainian, and Polish (Babby, 1998, p. 33) and many others.

- (3.5) *k'idame tə-sərra inde?*  
 Saturday Nact-work comp  
 'Is the Saturday worked on?'  
 'Was it worked on Saturday?'

In this example, the verb *sərra* ('work') is a transitive verb. But, it is able to form the impersonal passive construction.

Unaccusative verbs also do generate the impersonal passive reading, [Fufa \(2009\)](#).

- (3.6) *tə-nor-ə*  
 Nact-live-3msgS  
 'It is lived.'

### 3.3.3 Other Passive-like constructions

#### 3.3.3.1 Reportive Passive

The reportive passive is usually included either under the regular passive or the impersonal passive, ([Pinkster, 1992](#), p. 163). But some studies make a distinction. The nonactive formed with these verbs also has a distinctive sense in Amharic. There is an impression that they differ from the regular passive as the subjects inside the reportive passive lacks the sense of affectedness, in contrast to that of the regular passive. They represent a mere report of some event. This construction is often restricted to utterance and communication verbs, [Ørsnes \(2013\)](#).

- (3.7) *yə-mengistu wadə-harare məhed bə-rediyo tə-nəggər-ə*  
 of-Mengistu to-Harari going by-radio Nact-told-3msgS  
 'Mengistu's going to Harari is announced on the radio.'

#### 3.3.3.2 Pseudo-passive

[Quirk \(1985\)](#) used the notion "pseudo-passive" for some passive-like constructions to mean that only the "superficial form of the verb" resembles the passive. Adjectival passive sentences like *The building is already demolished* are presented as examples for the pseudo-passive construction.

Other people used the notion of "pseudo-passive" in more specific ways. ([Baker, 1988](#), p. 259) presented sentences like (3.8a) and (3.8b) as an example for the pseudo-passive.

- (3.8) a. Fred was talked about (last night).  
 b. John was spoken to (at last).



I am using the notion here in this latter sense.

(3.9) *alga-u bə-nigus-u tə-təñā-bb-ət*  
 bed-def by-king-def Nact-sleep-mal-3msgO  
 ‘The bed has been slept on by the king.’

(3.10) *yə-mariyam təmari-wa-n məsam tə-wərra-bb-ət*  
 of-Mary student-3fsgposs-acc kissing Nact-talk-mal-3fsgO  
 ‘Mary’s kissing of her student is talked about.’

The pseudo-passive is actually much better with the *by phrases* than the standard (personal) passive. In Amharic, the construction can be easily distinguished from the rest of the decausative constructions with the aid of the applicative morpheme<sup>3</sup>.

### 3.3.4 The middle

The middle construction is the most difficult to characterize. As I have already stated above, some diachronic (in Indo-European) and synchronic evidences suggest that the term ‘middle’ has been used to cover many types of grammatical notions. Accordingly, the middle could be taken as a grammatical category that includes the unaccusative, passive, reflexive, reciprocal and other related decausative constructions.

But, the most common approach among linguists studying middle marking languages such as Classical Greek is to treat the reciprocal and the reflexive as the types of the middle, while keeping the passive into its own category.

While I still assume Amharic as middle-active language and, as a result, the middle could be taken to cover all the other decausative constructions, I will attempt to use the term ‘middle’ in a narrower sense.

For further clarification of the middle construction, look at § 7.5. For now, I restrict the sense only to those constructions which Kemmer (1993) specified as typical middles. She listed around 11 types of typical middle constructions.

#### 3.3.4.1 Change in body posture

A larger number of motion verbs give rise to the middle interpretation in the nonactive form. One such class is the class of **body posture** verbs.

<sup>3</sup>Given the applicative morphemes, one might consider these constructions simply as the passive of the applicative. Whether these constructions should be treated as a type of the regular passive of the applicative construction or a distinct class of pseudo-passives is an issue beyond the scope of the current section.

(Kemmer, 1993, p. 55) calls the middle of this class of verbs ‘lexical middle’.

(3.11) *tə-k’əmmət’-ə*  
 Nact-sit-3msgS  
 ‘He sat.’

(3.12) **Change in body posture**

- a. *tə-k’əmmət’ə* (‘sit down’)
- b. *tə-nəssa* (‘get up/arise/wakeup’)
- c. *tə-gaddəmə* (‘lie down’)
- d. *tə-nbərəkkəkə* (‘kneel down’)
- e. *tə-nət’t’əfə* (‘recline’)

### 3.3.4.2 Non-translational motion

This group of verbs denote motion without any translational path, in contrast to the standard *translational motion* verbs like *walking, strolling, flying, running, leaping* etc, which involve motion along a path. Non-translational motion verbs carry a sense of inwards directed motion.

Table 3.1: Verbs of non-translational motion

<i>tə-t’amməmə</i> (‘get skewed’)	<i>tə-zawwərə</i> (‘turn around’)
<i>tə-t’anabbərə</i> (‘totter’)	<i>tə-at’t’əf</i> (‘get bended’)
<i>tə-nət’t’əfə</i> (‘flatten down’)	<i>tə-gonəbbəsə</i> (‘bow’)
<i>tə-ngallələ</i> (‘lay facing upwards’)	<i>tə-nk’ət’ək’k’ət’ə</i> (‘shudder’)
<i>tə-gələbbət’ə</i> (‘turn around’)	<i>tə-wəzəwwəzə</i> (‘waver’)
<i>tə-zərərə</i> (‘fall flat’)	<i>tə-rgəfəggəfə</i> (‘shake’)
<i>tə-zərəgga</i> (‘lie down flat’)	<i>tə-lfəsəffəsə</i> (‘wobble’)
<i>tə-nət’t’əfə</i> (‘lie down’)	<i>tə-wənaggərə</i> (‘stagger’)
<i>tə-komattərə</i> (‘clench’)	<i>tə-dənabbərə</i> (‘teeter’)

Most of the verbs in the above table belong to *body configuration* or *change in body posture* verbs which denote “moving the body without moving the overall position”, Kemmer (1993). They are supposed to be a class of the non-translational motion verbs.

### 3.3.4.3 Translational Motion

Some verbs involving motion along a path may also come with the nonactive form.

(3.13) a. *tə-fənət’t’ərə* (‘sprint away’)

- b. tə-wəɾəwɾə (‘move in a flashing fashion’)
- c. tə-ɾaməddə (‘walk’)
- d. tə-nkəballələ (‘roll down’)
- e. a-ndəɾəddərə (‘roll/ran down’)<sup>4</sup>

Since some of them could have active type of function, this group of middles can be included under the *deponent middle* (see § 3.3.4.8) category.

#### 3.3.4.4 Emotion middles

They denote mental state of animate objects, typically humans.

- (3.14)
- a. tə-nəddədə (‘get infuriated’)
  - b. tə-bəsac’c’ə (‘get frustrated’)
  - c. tə-k’ot’ta (‘get angry’)
  - d. tə-k’əyyəmə (‘hold a grudge’)

All the examples here have no basic verb forms. That means, the middles formed out of these psych (mental) verbs are mostly *media tantum* (‘middle only’).

#### 3.3.4.5 Cognition Middle

These are verbs denoting learning or understanding. In many languages, these might act as typical transitive verbs. But, in middle-active languages, they might appear in the middle form.

- (3.15)
- a. tə-rədda (‘understood’)
  - b. tə-gənəzzəbə (‘realize/recognize’)

#### 3.3.4.6 Indirect Middle

This is also called self-benefactive middle which usually denotes effecting some action which ultimately benefits the effector itself. The doer is the benefactor.

- (3.16)
- a. tə-t’ək’k’əmə (‘benefited’)
  - b. tə-k’əbbələ (‘accept’)
  - c. tə-rəkkəbə (‘receive’)

<sup>4</sup>The verbs in (3.13d) and (3.13e) express the same path of motion (downwards). But they differ on the manner. The verb in (3.13d) denotes motion in rolling manner of the motion. The one in (3.13e) expresses motion in successive abrupt jumps. The latter is often used for animate objects (It might also be used for objects as well.).

### 3.3.4.7 Spontaneous event middle

All the descriptions and examples of this category of the middle point to what is known as the anticausative construction. The difference and similarity of the middle and the anticausative is generally problematic as most linguists use both terms loosely. Whether the anticausatives (also called spontaneous even middles) should be treated as a class of the middle, or as their own category is an issue that we will come back in later chapters (§ 7.5 & § 7.8).

### 3.3.4.8 Other deponent middles

- (3.17)
- a. tə-mələkkətə ('watch')
  - b. tə-dəbbək'ə ('hide')
  - c. tə-naffət'ə ('blow his nose')
  - d. tə-s'əddada ('defecate') ('clean up', literally)
  - e. tə-nšuwakkəkə ('skulk')

Most of the verbs in this group are agentive verbs, but appear with the nonactive morphology. Most of these verbs act like regular activity verbs except that they appear with the nonactive. The *watch* verb, for example, behaves like a regular transitive verb. The anticausative morpheme could be considered as a simple dummy morpheme that doesn't carry its usual function.

There is a growing interest in this group of verbs lately because they pose major challenges to well-established analyses due to the apparent mismatch between the form and function (see Müller (2013); Grestenberger (2017) and the references cited there). Since they are smaller in number, and that they don't represent the most typical function of the middle form, I am not going to discuss them in the rest of the dissertation. For different types of deponents, see § 6.7.3.

### 3.3.5 The Reflexive

'Middle-reflexive' is a term used to represent the reflexive meaning of the anticausative (middle) morphology—in contrast to the pronominal way of expressing the reflexive meaning. The middle-reflexive, unlike the passive and the reciprocal, is mostly restricted to a very small class of verbs. It is not a productive system. The classes of verbs which give rise to the middle-reflexive construction, however, are not random assortments. They form some of semantic groups. Even more interesting, the types of verbs marked for the middle-reflexive are pretty consistent across many middle-marking languages.

The middle-reflexive (also simply 'reflexive' henceforth) is sometimes treated as a class of the middle. There is a bit of a debate within Amharic on whether to treat this (the reflexive sense appearing on this class of verbs) as a separate category of reflexivization; or, as a sub-category of the middle. Amberber takes them as a separate category of the reflexive

while Shimelis (2008), following the suggestions made in Kemmer (1993), considers them as a class of the middle. I agree with Shimelis’s treatment of the reflexive as a class of the middle because it evidently differs from the regular (pronominal) reflexive.

(3.18) *mariyam ras-wa-n      bə-məstawət təmələkkət-əčč*  
 Mary    self-3fsgO-acc by-mirror    watch-3fsgS  
 ‘Mary looked at herself in the mirror.’

(3.19) *mariyam ta-at’t’əb-əčč*  
 Mary    Nact-wash-3fsgS  
 ‘Mary washed (herself).’

The pronominal reflexive has no restrictions on the verb classes. It also requires an explicit marking of the reflexive pronoun.

The reflexive sense of the middle-reflexive is associated with the meaning of the verbs themselves. In most middle-marking languages, the reflexive interpretation is basically restricted to **grooming** verbs which denote “actions that are normally performed on the body or a body part” as Arnott (1970) noted. A similar pattern has been noted for many other middle-marking languages, Kaufmann (2007); Kemmer (1993). Ancient Greek, Djola, Latin, Bahasa Indonesia, Old Norse, Hungarian, Romanian, Quechua, German and Fula are some of the languages which have distinct class of verbs which give rise to the middle-reflexive reading.

The middle-reflexive in Amharic is also restricted to grooming verbs.

(3.20) **Grooming Verbs**

- a. tə-at’t’əbə (‘bath/wash’)
- b. tə-lac’c’ə (‘shave’)
- c. tə-labbəsə (‘put on cloths’)
- d. tə-jəbbonə (‘wear the whole body’)
- e. tə-konannəbə (‘cover one’s head’)
- f. tə-nək’k’əsə (‘tattoo’)
- g. tə-wabə (‘adorn oneself’)
- h. tə-k<sup>w</sup>allə (‘put a makeup’)

It is necessary to note that the reflexive function consistently emerges with the above class of verbs doesn’t mean that the other constructions such as the passive and the impersonal passive are impossible with them. As already mentioned, the reflexive interpretation is just one of the meanings of the anticausative (middle) morphology. Indeed, the personal passive is almost always available alongside the reflexive.

The meaning of the sentence in (3.21), for example is ambiguous between the passive and the reflexive. It can mean that Josef has shaved his own hair; or, he had his hair shaved by some other external agent.

- (3.21) *yosef s'əgur-u-n tə-lac'c'-ə*  
 Josef hair-def-acc Nact-shave-3msgS  
 a. 'Josef shaved his own hair.'  
 b. 'Josef has his hair shaved.'

### 3.3.6 The Reciprocal

The anticausative marked clause might also have a sense of reciprocity.

- (3.22) *lij-očč-u tə-dəbaddəb-u*  
 child-pl-def Nact-hit-3pl  
 'The children hit each other.'

Reciprocal constructions are similar to the reflexive construction as they might appear either in inflection or pronominal form. A language might use both the pronominal and inflectional forms, Nedjalkov (2007a). Languages that use just one of the two strategies are called *one form languages*; and the ones which use both strategies are *two form languages*, Kemmer (1993).

As we have seen above, Amharic uses both the verbal affix and the free pronominal to mark the reflexivity. This is not the case with the reciprocal, however. The pronominal cannot express the reciprocal sense by itself. Even if a pronominal can be used, it always comes in accompaniment with the anticausative morpheme.

- (3.23) *lij-očč-u (irs-bə-irs-aččəw) tə-t'all-u*  
 child-pl-def (self-by-self-3pl) Nact-fight-3pl  
 'The children fought each other.'

Since the pronominal cannot mark the reciprocal by itself, and that the anticausative morpheme doesn't always require the pronominal to denote the reciprocity, we can say that the reciprocal in Amharic is primarily signaled by the verbal prefix. For the majority of the verbs, the reciprocal construction requires further modifications on the verb forms, in addition to the attachment of the anticausative morpheme.

Two verb form modifications are typically employed—the reduplication of some parts of the verbal template and/or infixation of the vowel -a- into the template. For the *kiss* verb, for

example, the reciprocity is available only if the middle syllable is reduplicated.

- (3.24) *lij-očč-u tə-sasam-u*  
 child-pl-def Nact-kiss.dup-3pl  
 ‘The children kissed each other.’

If there is no reduplicated syllable, the reading would be only the passive. I take the reduplication and the **-a-** infix as some kind of aspectual markers. I will later present that both forms mark an iterative aspect.

### 3.3.7 The Unaccusative

The anticausative morpheme is also used to generate unaccusative reading from some classes of causative verbs. The *break* verbs are the ones which form the unaccusative (in addition to the passive) with the attachment of the anticausative morpheme.

- (3.25) *məskot-u tə-səbbər-ə*  
 window-def Nact-break-3msgS  
 ‘The window broke.’

## 3.4 Anticausativization in GB

Little work has been done on the general problem of anticausativization with the standard GB framework. The passive construction, which is presumably just one of the many instances of the anticausative, has remained the main focus of investigation. Chomsky’s early work Chomsky (1957) has been so influential that the derivation of the passive from the active sentence has remained the standard theory in linguistic textbooks. Almost all the subsequent works under the GB framework took this derivational system for granted. In the next few subsections, I will briefly revise how the derivational theory of the passive come to dominate the literature, and its disconcerting consequences to the general problem of anticausativization, especially for middle-marking languages.

### 3.4.1 Derivational theory of the passive

Chomsky (1957) is the first work which put out the idea of deriving the passive via transformational (rule-based) mechanisms from the active sentences. The main reasoning behind the transformational theory has been derivational economy. He presented the derivation under his general system of the phrase structure grammar, as in (3.26) (his 13, page 26).

- (3.26) (i) Sentence  $\rightarrow$  NP + VP

- (ii) NP → T + N
- (iii) VP → verb + NP
- (iv) T → the
- (v) N → man, ball, etc
- (vi) Verb → hit, took, etc

- (3.27) a. John admires sincerity.  
 b. \*Sincerity admires John.

Chomsky argued, on independent grounds, that there must exist some selectional restrictions to rule out the ungrammatical (unacceptable) sentences of the type in (3.27b). One restriction, for example, for a verb like *admire*, is that the subject must be animate (<+human>). The object can be both animate and inanimate.

He then noticed that the selectional restrictions imposed on the subject of the passive are the same selectional restrictions imposed on the object of the active sentence. The selectional restrictions on the arguments of the passive apply exactly as in the active except they are reversed.

- (3.28) a. Sincerity is admired by John.  
 b. \*John is admired by sincerity.

Based on this, Chomsky argued then that if we are to introduce the passive into the phrase structure grammar separately, we have to repeat these selectional restrictions on the subjects of the passive construction once more. This garners a redundancy into the grammar, he stressed. Based on this, he suggested not to introduce each construction into the grammar separately, and proposed to derive the passive from the active.

To quote him:

...in elaborating [(3.26)] into a full-fledged grammar we will have to place many restrictions on the choice of V in terms of subject and object in order to permit such sentences as: 'John admires sincerity', 'sincerity frightens John', 'John plays golf', 'John drinks wine' while excluding the 'inverse' non-sentences 'sincerity admires John', 'John frightens sincerity' 'golf plays John', 'wine drinks John'. But this whole network of restrictions fails completely when we choose *be + en* as part of the auxiliary verb. In fact, in this case the same selection dependencies hold, but in the opposite order. That is, for every sentence  $NP_1 - V - NP_2$  we can have a corresponding sentence  $NP_2 - is + Ven - by + NP_1$ . If we try to include passives directly in the grammar [(3.26)], we shall have to restate all of these restrictions in the opposite order for the case in which *be + en* is chosen as part of the auxiliary verb. This inelegant duplication, as well



as the special restrictions involving the element *be + en*, can be avoided only if we deliberately exclude passives from the grammar of phrase structure, and reintroduce them by a rule... (Chomsky (1957, 42-43))

This proposal has a lasting effect in the study of voice. Thereafter, the universal assumption remained to derive the passive from the active sentences. Whilst the analysis is undoubtedly successful for deriving the passive for languages like English which distinctively mark the passive form, there are some non-trivial challenges for languages which mark the whole decausative system (including the passive) with the same form.

What is interesting, from the historical perspective, about Chomsky's proposal for deriving the passive is that, even if the original mechanisms that he used to motivate the transformational analysis are no more considered relevant in the Minimalist framework, as semantic selection has been removed from the core syntax, the proposal still remains dominant. Under the Minimalist assumptions, the original motivation for deriving the passive is lost because the selectional restrictions<sup>5</sup> that Chomsky used to motivate the transformational analysis are deemed irrelevant in the new technology. Unacceptable sentences like (3.27b) are now supposed to be filtered only after the grammar finishes off ( in the LF interface).

Apart from losing the original motivation for the derivation, implementing the derivational mechanisms employed in the original work into the Minimalist architecture is a challenge. Chomsky originally derived the passive from the active by introducing foreign elements such as the auxiliary *be*, the participle element *en* and prepositional item *by* into the system.

If we consider this insertion in terms of strictly computational technology envisioned in the Minimalism, the insertion of these foreign elements which are not part of the numeration (inventory of the active sentence) is problematic. A strictly computational system cannot be leaky where new items are freely introduced and existing ones are freely deleted.

Once we are permitted to introduce foreign elements into the derivation, nothing stops us from deriving, for instance, the active itself from some, say, adjectives, or prepositions by adding verbs and nouns on it. Anyone anytime can drive anything from anything else if free introduction of foreign items is permitted. The system becomes unconstrained if introduction of new items is not blocked by some mechanism. As such, a strict derivational system should have a mechanism to block the generation of the passive from the active by inserting foreign elements like the 'be' verb and the 'en'.

Another interesting fact in the history anticausativization in the history of the GB is the fact

<sup>5</sup>One might consider these selectional restrictions as restrictions on  $\theta$  values of arguments. That, however, doesn't make much of a difference as  $\theta$  roles are still widely eliminated from the Minimalism, (Meinunger, 2006, p. 98). Minimalism is a program to eliminate different sub-modules like the  $\theta$ -theory. Even if one contends that the  $\theta$  theory cannot be eliminated from the grammar, we know no work so far that incorporated the GB framework roles in the Minimalist derivations. Therefore, the point is still valid even if selections are reinterpreted as  $\theta$  role restrictions.

that the derivation of the unaccusatives rarely makes into the syntactic theories—especially in the pre-lexicalist era. So far as I can tell, none of the formal syntactic theories attempted to generate the unaccusative forms like *the butter melted* in the same way to the passive construction. This is specially interesting because the main logic for deriving the passive from the active indeed apply for the unaccusative as well.

- (3.29) a. John melted the butter.  
 b. \*John melted his sincerity.  
 c. The butter melted.  
 d. \*The sincerity melted.

The selection requirements of the internal argument (object) of the verb *melt* in the active also applies on the subject of the unaccusative construction. Applying Chomsky’s logic for deriving the passive from the active, a separate grammar should not be stipulated for the unaccusative form as well because that would pose redundancy on the grammar. This means that, following the same logic, we are forced to generate the unaccusative transformationally in the same way to the passive.

Not just the selectional restrictions applying on the arguments. There are many common characteristics between the unaccusative and the passive that should have been taken more seriously. First, both the passive and the unaccusative have reduced arguments in comparison to the active (causative) counterpart. If we really care about the derivational economy, deriving only the passive from the active is not sufficient. The motivation to derive only the passive seems a result of a mirage that the morphology of English created since it groups the unaccusative with the active (causative). Furthermore, morphologies of many languages lump the passive and the unaccusative. [Haspelmath \(1990\)](#), for example, identified a large number of typologically unrelated languages syncretizing the passive and the unaccusative. He listed languages like Danish, Modern Greek, Kanuri, Tigre, Urdmur, Margi, Motu, Nimb-  
 oran, O’odham as a case in point. The same pattern has been reported for Palauan as well, [Nuger \(2016\)](#).

It remains a curious fact why the same derivation has not been used to generate the unaccusative from the active sentences we well.

Amharic is obviously one of these languages which use the same morphology for all the variants of the anticausative. For languages which use the same morphology for the passive and the unaccusative, a derivational proposal for the passive immediately extends to the unaccusatives. The merit of a linguistic theory is how it successfully makes correct predictions when applied on varieties of data coming from different languages. The problem with the transformational theory of the passive is that it is specifically designed to solve the problems of the passive where it has been distinctly marked with a dedicated form.

For the languages like Amharic where both the passive and the unaccusative are marked by

the same form—we have two options. We can assume that the two are unified only at the surface (just the phonology), or take them unified constructions at the derivational level as well. If we assume that the relationship between the two is a mere phonological coincidence, the unities these two constructions display both on the argument structure and meaning remain mystery. Further arguments have been given against *homonym* view in § 3.5. Then, in a more reasonable grounds, the choices available to us would be either to transformationally derive both the passive and the unaccusative in the same manner (as the analysis of the passive), or abandon the whole derivational theory in favor of the theories proposed along the lines of the unaccusative (lexical derivations).

Take a verb like *səbbərə* ('break') in Amharic which has unmarked causative and marked anticausative. The anticausative generates both the passive and the unaccusative constructions. If we are to treat the anticausativization as a unified notion, the derivational (transformational) theory would lead us to derive the unaccusative via the syntactic transformation as well. This would immediately lead us to problems because there are other verb classes which generate the unaccusative from the active form.

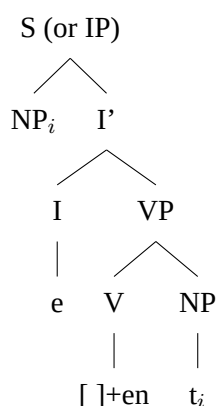
Following Chomsky's original proposal, a number of sub-theories of the general transformational theory have emerged over the decades. Since the lexicalist explosion following Chomsky (1970), more lexical sources were also attributed to the emergence of the passive construction. The  $\theta$  grids of the verbs were assumed to play a crucial role in the theory of the passive. One common strategy for the lexicalist approach was to take the passive morphology as either as some modifier which changes the argument structure ( $\theta$  grid) of the verbs, or just as an argument. Chomsky (1981) for example treated the passive morpheme as a modifier which changes the argument structure of the verbs. The passive morpheme is specially assumed to suppress the subject argument of the verb. This results in a lexical verb with only object argument. Some independent principles promote the object argument to the subject. Absence of the subject argument removes the capability of the verb to assign accusative case—ultimately explaining Burzio's generalization.

One popular implementation of the transformational theory of the passive along these lines is the one developed by Mark Baker and his colleagues, Baker (1985) and Baker et al. (1989). In their theory, the passive morpheme *-en* is taken as an argument, basically a clitic, which could satisfy the  $\theta$  criterion just like regular noun phrases. They assume this morpheme to be born on IP, the classic GB projection where inflectional items project. Projecting in IP, it then receives the  $\theta$  role of the 'logical' subject.

Then, the object of the active sentence (the logical object) moves to the specifier of the IP for case reason<sup>6</sup> because the position of the logical subject still remains unfilled.

<sup>6</sup>The way they motivated the object movement is a bit complicated. They assume that the VP assigns case to the argument *en* first that the object DP gets no case from it. As such, the object has to move to the subject position for case reason.

Figure 3.1: The passive derivation in Baker et al. (1989)



I will take some ideas from this analysis. Their treatment of the passive morphology as an argument is specially interesting as it easily explains why the passive form seems to have lesser number of arguments than the active counterpart. Having said that, their hypothesis to consider the passive (nonactive) morphology as argument of the nonactive clause cannot be applied on middle-marking languages such as Amharic. I am not going to explain the details here. I recommend the reader to check Embick (1998) for a detailed argumentation on the implausibility of Baker's (morphology as argument) analysis for middle-marking languages.

Here, I will focus on the more general problem of the derivational<sup>7</sup> theory of the passive. In the next subsection, I will briefly list down some of the issues of applying the transformational system in Amharic.

To understand the deep-rooted problems of the transformational theory of the passive even for English, I suggest the reader to look at Culicover and Jackendoff (2005).

### 3.4.2 Some issues with the derivational theory of the passive

The derivational theory derives the passive from the active by moving the internal argument of the active to the external argument of the passive. At the heart of the derivational theories lies this assumption of the correspondence between the passive sentence and the active transitive sentence. Almost all the syntactic theories attempt to capture this parallelism. The problem, however, is that there are always mismatches. Neither all transitive clauses generate passive constructions, nor all types of the passive are derived from transitive clauses.

<sup>7</sup>Criticizing the transformation theory of the passive in the age of Minimalist might sound a barking the wrong tree because there is little discussion on the transformational approach in recent works. But, I have two

### 3.4.2.1 Transitive verbs with no passive

The unavailability of the passive with some classes of transitive verbs has been repeatedly noted for English.

Huddleston (1984) noted a couple of examples:

- (3.30) a. John has three sons.  
 b. Her dressed reached the ground.  
 c. The French word ‘maison’ means ‘house’.
- (3.31) a. John resembles his father.  
 b. \*His father is resembled by John.
- (3.32) a. Kim married Cris.  
 b. ??Cris was married by Kim.

Huddleson stressed that the failure to passivize cannot be explained by attributing some kind of property to the verbs. Each of the verbs can have passive when used in different senses—*A good time was had by all*, *That isn't what was meant* etc.

Bresnan (1982) also lists a number of examples where subject oriented predicated are shown to fail to passivize.

- (3.33) a. He strikes his friends as pompous/\*his friends are struck as pompous (by him).  
 b. Max failed her as a husband/\*She was failed (by Max) as a husband.  
 c. Mary promised Frank to leave./\*Frank was promised to leave (by Mary).

(Quirk, 1985, p. 162) also list a number of example sentences that have only active form:

- (3.34) a. They have a nice house.  
 b. He lacks confidence.  
 c. The auditorium holds 5000 people.  
 d. The dress becomes her.

Beedham (2005) has further noted that the reason why some sentences are ‘grotesque curiosities’ is not just due to the verb classes themselves; rather due to properties of the arguments

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reasons why I focused on the transformational theory. First, it is the root of all the derivational approaches. As such, showing the foundational issues with the original derivational approach is like cutting the tree at its root. It breaks all the branches that offshoot to different directions from the foundations of the derivation. Second, the approach is still considered the standard theory of the passive voice in many modern textbooks, Radford (1997).

as well.

- (3.35) a. John likes girls.  
 b. ?The girls are liked by John.  
 c. Girls are liked by most men.
- (3.36) a. Hubert loves God.  
 b. ?God is loved by Hubert.  
 c. God is loved by everyone.
- (3.37) a. Peter deserves the prize.  
 b. ?The prize is deserved by Peter.  
 c. The prize is deserved by several contestants.

An interesting case for the dissociation of transitivity from the passive comes from experiencer verbs. English doesn't make grammatical distinctions between agent and experiencer arguments with the experiencer verbs. Look at the following sentence from (Frawley, 1992, p. 25).

- (3.38) Buddy smelled the flowers.

As Frawley explained, the above sentence contains an argument with an ambiguous theta role. In one sense, the sentence could be understood as a situation where Buddy intentionally smelled the flowers. That is the situation where Buddy is an agent (intentional doer). The other sense describes a situation where “the smell of flowers comes over Buddy and registers in his head”. This is the genuine experiencer role of the argument.

These two situations are expressed by the same structure in English. Now, turn the sentence into passive.

- (3.39) The flowers are smelled by Buddy.

The passive sentence now has lost the experiencer situation because it contains the meaning of the agent role of Buddy. This sentence cannot be a paraphrase to the second situation.

Amharic makes the difference even clearer because the two situations are presented in different structures. The experiencer argument appears as an object, while the agent argument appears as the subject.

- (3.40) *k'ošaša-u mariyam-n šattət-ə-at*  
 dirt-def Mary-acc smell-3msgS-3msgO  
 'The dirt smelled Mary.'
- (3.41) *mariyam k'ošaša-u-n a-šattət-əčč-(i)w*  
 Mary dirt-def-acc caus-smell-3fsgS-3msgO  
 'Mary smelled the dirt.'

The interesting part is only the sentence with the agent argument can form the passive, even if both of these sentences are transitive.

- (3.42) *\*mariyam bə-k'ošaša-u tə-šattət-əčč*  
 Mary by-dirt-def Nact-smell-3fsgS  
 'Mary is smelled by the dirt.'
- (3.43) *k'ošaša-u bə-mariyam tə-šattət-ə*  
 dirt-def by-Mary Nact-smell-3fsgS  
 'The dirt is smelled by Mary.'

These facts, both in English and Amharic, show that the passive formation is really not about transitivity, contrary to what the traditional derivational theory assumes. It is closely correlated with the agentivity of the arguments. We will come back to the relationship between agentivity and passive constructions in § 7.4.1.

### 3.4.2.2 Passives with no active counterpart

At the very foundation of all incarnations of the transformational theory of the passive lies the assumption that the passive is derived from the active base sentence. This assumption makes a prediction that passive constructions would always have an active counterpart where they derive from.

This prediction, however, turns out to be false in some cases. Even for English where the assumption is assumed to hold strongly, passive sentences with no active counterparts are attested.

(Huddleston, 1984, p. 440) has assessed a large number of cases, and concluded that “[j]ust as not all transitive actives have a passive counterpart, so there are passives with no active counterpart”. There is no active counterpart for sentences like (3.44).

- (3.44) He was said by his parents to have been a docile child.

Cases of this nature has been reported for Latin also where the passives is generated from

*media tantum* verbs (verbs lacking active forms), (Gianollo, 2014, p. 965).

A similar case can be given from Amharic as well. As already discussed in *please*, some psych verbs such as *fear* have no basic transitive verb forms. The transitive form of these verbs is generated with the help of the indirect causative.

- (3.45) *yosef lij-očč-u-n as-fərr-ačč-(ə)w*  
 Josef child-pl-def-acc CAUS-fear-3msgS-3plO  
 ‘Josef made the children fear.’  
 ‘Josef scared the children.’

Still, the passive can be generated out of the bound roots.

- (3.46) *yosef bə-lij-očč-u tə-fərr-a*  
 Josef by-child-pl-def Nact-fear-3msgS  
 ‘Josef is feared by the children.’

The sentence in (3.46) has passive interpretation. Still, the sentence in (3.45) cannot be its active counterpart because Josef in that sentence is not an agent of the fear. It is only an indirect causer or a stimulus.

Furthermore, we have evidences that the indirect causative cannot generate the passive across the board in this language.

One such evidence comes from the relative hierarchy of the two functional heads. As we will see in *chapter 9*, the relative hierarchy of the passive and the indirect causative is always the passive embedded inside the indirect causative. **There is indirect causation of the passive; but, there is no passive of the indirect causative.** That means, if there is a passive along with the indirect causative, it is always the case that the indirect causative embeds the passive, not the other way around.

Not just in the passive, in all other forms such as the reciprocal, commutative, etc. it is always the indirect causative morpheme that embeds the anticausative morpheme.

- (3.47) a. *As-tə-səbəssəb-ə-aččəw*  
 CAUS-Nact-gather-3msgS-3plO  
 ‘He made them gather.’  
 b. *\*Tə-as-səbəssəb-ə-aččəw*  
 Nact-CAUS-gather-3msgS-3plO

A further evidence comes from the fact that morphological deletion in this language always goes from the outside to inside (understood in terms of syntactic hierarchy). Amberber cap-



tured this under his Co-Affix Constraint, (Amberber, 1996, p. 90) where the outer (higher) morpheme is assumed to block the inner (lower) morpheme. Indeed, he has explicitly mentioned that a sequence of *as-* and *ta* silences the latter because it is lower in the syntactic hierarchy (the indirect causative is outside of the anticausative morpheme). As such, the indirect causative sentence in (3.45) cannot be taken the active base of the passive given in (3.46).

This all means that, if there exists a passive of the *media tantum* verbs (which lack the basic transitive form), then, that cannot be generated from the transitive of generated by the indirect causative. Given that these forms lack the causative form aside from the indirect causative, the passive must be generated directly from the roots (the bound forms). The passive is generated without any active transitive base.

### 3.4.2.3 Idioms

Some types of idioms like *kick the bucket* in English cannot undergo passivization while other types of idioms such as *spill the beans* do so, according to Jackendoff (2002) and Nunberg et al. (1994). For the former phrase, the passive form can have only literal interpretation.

- (3.48) a. Mary kicked the bucket.  
b. #The bucket was kicked (by Mary).

- (3.49) a. Mary spilled the beans.  
b. The beans were spilled by Mary.

According to Jackendoff the difference between the two types of idioms lies on whether the whole phrase gets the idiomatic interpretation or part of it. For *kick the bucket*, the whole phrase is interpreted as ‘die’. None of the parts of the phrase are interpreted individually. For the *spill the beans*, on the other hand, each of the parts of the phrase contributes its own idiomatic meaning to build the whole idiom. The *spill* is used to mean *reveal* and the *beans* stand for the *secret*—the combination generates the whole idiom, *reveal the secret*.

The passivization of the *kick the bucket* is not possible probably because the phrase as a whole stored as one lexical item, equivalent to the verb *die*. If we assume the passive is generated by simply suppressing the  $\theta$  role of the external argument (without consideration of the semantic packaging), as the syntactic theory assumes, given that these idioms are proper syntactic phrases, it is a mystery why the passive cannot be generated out of them.

Note that the object inside the idiom behaves like a typical object in terms of syntax (case assignment for example) Jackendoff (1997). Syntactically speaking, there is nothing distinctive about these idioms. The phrase (idiom) lacks internal argument only at the semantic

level. As such, the failure of the passive with the idiomatic expression can be explained only by assuming how these phrases are read in the semantic component—not simply from the syntactic structures. Had the syntax be a blind force which simply transforms the transitive active into passive sentences, regardless of meaning, the transitive idiom would have a passive form.

#### 3.4.2.4 Accusative case can be marked with the passive

The passive is standardly analyzed as a process where the passivization in some ways removes the capacity of the verb to assign accusative case. This is to explain Burzio's generalization on the correlation of accusative case assignment with the presence of overt subjects. The passive morphemes are assumed to directly absorb the accusative case, or remove it via absorbing the  $\theta$  roles associated with the subject; or by directly acting as arguments themselves in case of Baker's theory. In all the approaches, the removal of the capacity of the verb to assign accusative case is assumed to be important part of the passivization. All versions of the transformational theories of the passive assume that accusative case assignment is impossible with the passive. This assumption, which a lot of theory is built around, is not, however, always true. Passive sentences are not always incompatible with the accusative case.

Here is one example where the passive construction comes with an accusative marked argument.

- (3.50) *yosef s'əgur-u-n tə-lac'c'-ə*  
 Josef hair-def-acc Nact-shave-3msgS  
 'Josef has his hair shaved.'

This sentence has both middle interpretation and passive interpretation. In the passive sense, the sentence means that Josef has willingly had his hair shaved by some other person. Even if the construction has the passive interpretation (is passive in the standard sense), the theme argument is still able to get accusative case.

It might be helpful to mention that the Amharic sentence is by no means a complex predicate, unlike the English gloss seems to suggest. Therefore, the passive and the accusative case are not incompatible.

There are many more examples of this sort in Amharic where the passive sense is emerging alongside the accusative case. Take the case of what we call the causative of the passive. These constructions contain both subject and object arguments. The object argument gets the accusative case. Still, the passive sense is attributed to the clause.

- (3.51) *yosef mariyam-n as-gərrəf-ə-at*  
 Josef Mary-acc caus-whip-3msgS-3fsgO  
 ‘Josef had Mary (been) whipped.’

All this shows that the accusative case is not fully blocked from passive constructions.

### 3.4.2.5 Passive of intransitives

Nominal passive can be generated from unaccusative verbs which have no transitive counterparts, [Alexiadou \(2001\)](#); [Hamamatsu \(2013\)](#).

- (3.52) a. The system developed quickly.  
 b. The system’s development.
- (3.53) a. The authorities developed the system.  
 b. The system is developed by the authorities.

One of the readings of the noun phrase in (3.52b) is passive. We can test this with the usual *by phrase* diagnostics. *The system’s development by the authorities* is a fine sentence, according to ([Hamamatsu, 2013](#), p. 469). Note that this latter sentence cannot be the passive of the transitive given in (3.53a) because that sentence has its own passive form given in (3.53b).

If we follow the standard assumption of passivization, the possibility of the passive to emerge from the unaccusative base sentence of the type given in (3.52) poses a nontrivial problem because the general assumption is that the passive is derivable only from transitive sentences. The passive nominals can be generated from unaccusative bases as shown in (3.52).

I have also mentioned, based on the data given in [Fufa \(2009\)](#), that a number of unaccusative verbs in Amharic generate the impersonal passive. Look at the examples given in (3.6).

Unaccusative verbs are known to generate impersonal passive in Germanic languages as well including Icelandic [Maling \(2006\)](#) and Dutch [Zaenen \(1993\)](#).

### 3.4.2.6 Polyfunctionality of the passive morphemes

Even if some languages mark the passive distinctly, many other languages fuse the passive with other decausative constructions to the point that the demarcation between the passive and unaccusative remains fuzzy. Many middle marking languages such as Greek, Albanian and Amharic, etc. there is little formal distinction between the passive and the rest of the decausative constructions such as the middle. For Amharic specifically, apart from the semantic senses associated with the construction, no structural distinction can be made

between the passive and the anticausative or the middle. The appearance of these different constructions such as the passive, reflexive and middle in a single form is not without reason. The fact that these constructions appear with the same marker in many languages is indicative of the fact that passive is after all not that a distinct type of grammar.

### 3.4.2.7 Passive of nominals

Alexiadou (2001, p. 102) raised the case of resultatives as evidence for the absence of DP movement within passive nominals.

Resultative phrases are known to be predicated of the objects of transitive verbs—never with their subjects. This is usually taken to mean that only transitive verbs with objects can have resultative phrases. Unergatives are assumed to lack them.

In the same manner, it has also been demonstrated in a number of works that the subjects of passive and unaccusative clauses license resultative phrases—affirming the internal argumenthood of their surface subjects. The consensus within the derivational framework is the surface subjects of both unaccusative and passive clauses are moved out of the object position. This explains why the resultatives can attach with their subjects (because they are underlying objects).

The prediction of the standard theory of the passive is that the passive nominals would also have the resultative phrases because they are passives after all. In a sentence like *The city's destruction*, in the standard theory, the genitive DP is assumed to be raised from the object position just like regular passive structure. Therefore, it has been predicted that this noun would support a resultative phrase. This, however, is not borne out.

- (3.54) a. The collapse of the building apart...  
 b. \*The building's collapse apart...

These passive nominals do not support the resultative phrase. The derivational analysis of the passive which assumes the movement of internal arguments of the active to the external arguments in the passive either has to assume that these structures are not passives, which is not a plausible position as they are obviously passive—or it has to abandon the movement assumption just for the nominals. If the latter position has been taken, still remains a mystery how the passive is generated in these nominals; and, why the derivational assumption has to suddenly fail on the nominals. If the derivational approach has to be abandoned just for the nominals, that means, the theory has failed to accommodate part of the data. Hence, the theory is incomplete even for the English.

The movement (derivational) assumption also loses the generalization that can be made across all genitive nominals in English. All types of verbs, regardless of their transitivity,

permit the generation of the genitive nominal.

- (3.55) a. The train's arrival  
b. Yesterday's event

The right question would have been to ask why some of these genitive constructions give a passive sense; and others a possessive and still others a locative. It is very clear that the possessive genitives do not always have a possessive meaning. The exact sense that arises is dependent on many factors. Here are some examples of meaning relationship that arise in this construction listed in [Taylor \(1989\)](#).

- (3.56) a. John's son (kinship relationship)  
b. John's height (a property relationship)  
c. The table's leg (an object and its constituent part)  
d. The year's work (activity and its duration)  
e. John's book (the book John owned/read/wrote/published/carried... )  
f. John's train (the train John owned/rode/travels on/drives/designed...)

The emergence of different semantic senses from the possessive genitive construction has already been known. It is surprising why only the genitive possessive with the passive sense should be pulled to have a distinct structure, and derived in a different way. The passive reading is just one of the many readings that the possessive genitive generates given the right contexts. The right question that we need to ask is not whether the genitive DP is moved from the object position or not; rather why and how the passive sense arises in contrast to other senses in certain specific contexts. The whole debate on whether the genitive DP is a moved element or not is just flawed; and emerges as a consequence of a flawed understand of the passive. "Passive" is not movement; nor a result of movement. It is a semantic sense just like "possession", "kinship", "property", "reflexivity" etc. It is a reading that emerges when the right context arises. It is not something we can construct by moving nouns around.

A proper analysis of the passive and other types of genitive DP such as the *kinship*, *reflexive*, *possessive* etc would be the right approach to capture the structure in a unified manner rather than stipulating distinct structures for each of the interpretive values. That is exactly what [Williams \(1982\)](#) did. He has persuasively argued that the passive interpretation is just one of the wide varieties of meaning that could arise from the prenominal genitive DP. According to him (and also Grimshaw), the NP movement proposed for verbal passive cannot be sustained for the nominal passive.

Furthermore, unlike the standard assumption, the active and the passive are not perfect paraphrases (synonymous) to each other, [Beedham \(2005\)](#). The active and the passive convey different senses (meanings). As such, deriving one from the other misses the whole unequal-

ity of the meaning that the two constructions convey.

In fact, the contextual assignment of the passive is evident as the phrase *the city's destruction* is more likely to generate the passive sense, while the phrase *tank's destruction* is less likely to do so. It could read that the tank is responsible for the destruction of other items; as well as its own destruction. The passive interpretation that readily emerges with *the city's destruction* indeed seems due to our encyclopedic knowledge that cities are entities which themselves could be destroyed, but less likely to cause destruction on other things (as physical objects, cities can generate no force; they are motionless entities). If we simply replace the noun 'city' with 'Washington', for instance, we notice that the ambiguity immediately arises because this latter noun can be used in literal as well as figurative senses.

(3.57) *Washington's destruction in the West* is imminent.

With good context, the construction can mean that Washington, as an administrative center, is about to cause destruction on some countries in the Western hemisphere; as well as its own destruction as Western city is imminent. The verb *destruction* therefore, doesn't always give rise to the passive. The active reading is also available. It appears or disappears according to the sentential context. The passive structure attributed to the *destruction* types of verbs is only under certain assumption of the usage. Both the passive and the active are possible readings if some external contexts are set properly.

If the clause contains *by phrases* which typically embeds agent nominals, the role of the genitive possessive immediately gets fixed to undergoer (patient). The *by phrase* gives a context for inference where an agent participant is associated with the event. Given the configurational clue that agents do exist in the clause, the other remaining argument gets a patient role. This whole configuration gives the passive interpretation because what we call passive is a denomination to a semantic situation where an undergoer (a patient) is the external argument of a verb (the external argument is the destination of the force represented by the verbal event) with an implied agent.

(3.58) a. Washington's destruction by the barbarians...  
b. Washington's destruction in Iraq...

Each of the adjunct PPs promote one or the other types of construction to the role of the pronominal DP. In the  $\theta$  role calculation system I am explaining in [chapter 5](#), what the PPs do is contribute some meaning to the clause in such a way that the role of the pre-nominal DP will be fixed to either an undergoer or an agent. The adjunct phrases offer the configurational context to determine the indeterminate meaning of the genitive DP.

The adjunct *in Iraq*, on the other hand, doesn't contribute any relevant information that could be sufficient to fix the meaning to either of the positions because it adds location

meaning only. As such, the prenominal DP can still be read to have either agent or undergoer roles.

Clause internal contextual factors including theta roles are exactly the mechanism that gives rise to different readings of nonactive. This is the argument I will pursue for the decausative construction in Amharic in [chapter 7](#).

## 3.5 Polyfunctional morphemes in Minimalist approaches

One of the important issues already mentioned in the previous chapter is the multiple function of the single anticausative morpheme. In this section, I am going to revisit on how different types of formal theories could treat the multifunctional morpheme in such a way that it could provide different grammatical values associated with it.

Syntactic categorization of lexical items usually relies either with their lexical semantics (notional criteria) or their distribution in a sentence (distributional criteria), alongside possible language internal morphological evidences [Rauh \(2010\)](#). Even if the results are rarely perfect, the distributional tests usually align well with the notional classifications. Nouns generally have indexes, and at the same time have distinctive distribution in the syntax, in contrast to the verbs and adjectives. Furthermore, the forms are rarely ambiguous. Nouns can have plural markers; verbs can take tense inflection, etc. These formal criteria could easily help to group items into categories.

For functional items, on the other hand, categorization is a difficult task. First, there are no limited, universally known categories like the lexical categories. It is very clear that the list of functional items goes much more than a dozen, even hundreds. The morphological evidence doesn't much offer helpful clues as the functional items themselves rarely inflect to other features. The problem is specially severe when the same form contains a range of meanings, or different morphemes mean the same thing.

Many functional items come with multiple meanings. Whether to treat these different meanings as distinct categories or take them as a single category with different shades of meaning is a very difficult problem. Sometime, the linguist has to make an arbitrary decision on whether to classify the two senses of the same form as two or the same category. One heuristic, popular among the topologists, is to take evidences from other languages to determine the functional categories in any one specific language. The heuristic, originally attributed to [Ferguson \(1970\)](#), stipulates that if a certain semantic notion has dedicated morphological marker(s) in a certain language  $L_1$ , then, that notion should be treated as a distinct category in every other language. That is, for languages which use the same morphology for many of the semantic notions (which have distinct forms in other languages), it is the task of the linguistic to explain why they don't appear in distinct forms in those specific languages. According to this approach, morphological (formal) evidence from the typological source is

the crucial means of determining a category in any language.

A similar strategy has been used to posit multiple universal functional heads within the Cartographic approach, [Cinque \(1999\)](#); [Cinque and Rizzi \(2008\)](#). Having a morphological evidence in one language for a certain semantic notion has been taken as a sufficient evidence to posit a functional head at the universal level.

Take an example where a language, say Hausa, makes a distinction between a simple past and a remote past tense. According to the above heuristics, it is then incumbent upon the linguist of the English language to explain why the two categories are not distinctly marked in this language.

While the heuristic makes sense from the universal linguistic description, there still exists a conflict between the universalist assumption and actual linguistic data. That is, even if the categories do exist as distinct categories in language X, language Y might indeed fuse them as a single category where different senses are only determined from the context. In addition, even if the universalist strategy is genuinely attractive at the philosophical level, in practice the categories are usually imposed from more investigated languages into the less studied languages. Even if, say Hausa, makes a distinction between the remote past and simple past, it is common strategy to explain away why Hausa makes a distinction than trying to explain why English lacks the distinction. That is exactly the case for many middle-marking languages like Greek, Amharic and Fula, for instance. These languages seem to treat the middle, unaccusative and other decausatives as a single category. But, since the most studied languages such as English tend to have a distinct category for passive, the theoretical and descriptive works usually treat the middle (and, many other categories like the impersonal) just either a variant of the active or the passive (assuming the active and the passive as the two main classes of voice). It has been noted on a number of cases that the direct translation of the English examples led many linguists to use the term ‘passive’ in many cases where the middle or other category is more appropriate [Blevins \(2003\)](#). The middle is often confused with the passive ([Kemmer, 1993](#); [Manzini et al., 2016](#), p. 113) specially in the case of the so-called ‘get passives’. It is also common to assume the middle only in the sense of *dispositional* middles as that is the type of middle widely discussed in English linguistics, ([Lekakou, 2005](#)).

Studies which take the cross-linguistic pattern more seriously have noted that the middle is by no means a type of the passive nor the active. Nor does the demarcation of the middle and the passive and the rest of the associated categories is as clear as often assumed.

[Alexiadou and Doron \(2012\)](#) for example noted that the morphemes which mark mediopassive (nonactive voice) are associated with a plethora of other grammatical notions.

- anticausatives: *open*
- natural reflexive: *washed*



- reciprocal: *kissed each other*
- dispositional middles: *The book sells well*
- mediopassives
- passive: *The door was opened*

The challenge is then whether to treat these different functions as distinct categories of the grammar or just different instantiations of the same category.

The multifunctionality of morphemes has been one of highly contested issues in morphology. Take a well investigated case of nominalizer *-er* in English for example.

- (3.59)
- a. bake-er, write-er = agent
  - b. blotter, atomizer = instrument
  - c. feel-er, hear-er = experiencer
  - d. breath-er, disclaimer = action
  - e. dine-er, sleep-er = location
- (Booij, 2012, p. 220)

While all the above derivations are unified by the fact that the derived elements are nouns, the types of derived nouns are not the same. The same nominalizer item *-er* tend to give generate different types of nouns on different types of verbs. *Writer* is an agent (human) participant while an *atomizer* is a typical instrument. The question is then how these different types of nouns could be generated from the same form. Is the *-er* of the *writer* the same to that of the *-er* of the *atomizer*? If so, why are the produced nouns different type?

The standard view, at least up until the 1990's according to Beard (1990), has been to assume distinct but homophonous nominalizers like  $er_1$ ,  $er_2$  etc, where each of morphemes would produce a distinct type of noun.

If we extend this idea to the prefix in Amharic, the implication is that the prefix appearing on reflexive construction would have a distinct identity from that of the anticausative, and that of the reciprocal, etc. The unity is the accidental homophony. This is a **homonym** understanding of polyfunctional morphemes.

- **homonym**: unitary form, multi-function, multi-identity

The second approach, known as the *polysemy* approach, treats the multifunctional item to have unitary identity while still assuming distinct meanings. According to this approach, the multifunctional morpheme as a single marker with multiple meanings. In this approach, the phonological uniformity is taken as indicative of some truth about the marker– its core unified identity. For the strong form of the polysemy, each sub-meaning packaged into the single morphological form. One could consider these sub-meanings as atomic, or non-

atomic (continuum).

- **polysemy**: unitary form, multi-function, unitary identity

The third approach is to take the morphological items as monosemous. This approach assumes the morpheme to have the same meaning across the board. That is, if we assume identical meanings for the prefix, then, we have to assume that the senses of the reflexive, reciprocal and passive are not distinct senses at all. They are different instantiations of the same meaning. It is unitary in the sense that the prefix is assumed to contain just one semantic value. The distinctions between its different senses cannot be due to the meanings of the prefix itself, according to this approach. These senses should emerge from other sources. The different senses of the morpheme could be argued to emerge either from fully morpheme-external sources such as pragmatics, or from the combination of the single meaning of the morpheme and the rest of elements in the clause. The usual assumption is to take the morpheme to come with some generic meaning. Then, that generic meaning in combination of the lexical semantics of the verb and its arguments would give rise to different interpretations such as the reciprocity, the middle or the passive.

- **Monosemy**: unitary function: unitary form: unitary identity

There are also works which completely dissociate semantic values from the polyfunctional morphemes. We can call this the *nullisemy* approach to polyfunctionality. [Ryder \(1999\)](#) for example argued that the *-er* nominalizer suffixes in English lacks semantic representation. In her view, the multitudes of interpretations like the *agentive*, *patientive*, *locative* arise due to the lack of inherent semantics associated with the suffix. In this sense, the suffix is simply a grammatical operator without any semantic content. In [Svenonius's \(2006b\)](#) classification of features, this suffix could be understood to lack the semantic feature; containing just the formal and phonological features. It accomplishes only syntactic task of deriving the nouns from the verbs. It doesn't contribute on the semantic side. The actual interpretations are due to some external factors. For Ryad, these external sources are what he calls "salience" and "identifiability". This approach could be considered as an extension to the *monosemy* view because absence of meaning somehow suggests the unity of meaning (even if it is null).

Table 3.2: Approaches to multifunctionality

<b>Homonym</b>	each senses of <i>t-</i> are distinct : $t_{\partial_1}$ , $t_{\partial_2}$
<b>Polysemy</b>	multiple senses of <i>t-</i> are multiple meanings of the same <i>t-</i>
<b>Monosemy</b>	the prefix has only a single meaning mirroring its single form
<b>Extended polysemy</b>	multiple senses of a morpheme extend from one core meaning/function
<b>Nullisemy</b>	the morpheme contains no semantic sense at all

One can, of course, combine or modify any of the three main approaches to come up with

a new strategy of explaining polyfunctionality. One popular extension of the monosemy-polysemy approaches is to generate different functions of the morpheme from one core source. This approach known as **meaning extension** approach is predominant in the morphological studies, [Booij \(1986\)](#). This approach takes the different interpretations as extensions or expanded versions of one core meaning of the morphological item. It is different from the monosemy approach for it doesn't assume consistent meaning across combinations. This one acknowledges many meanings to the morpheme. But, these meanings are extensions of the one core meaning. The morpheme started out from one core meaning: and different extensions develop. For example, one can take passive interpretation to be the core meaning of the prefix. Then, the rest of the senses could be taken as extensions of this core meaning of the morpheme. One might think of the extensions as diachronic developments.

In fact, the meaning extension is the most dominant view among the grammaticalization studies. Not only that the idea is popular, it rather now seems unavoidable reality about language that different senses of the same morpheme could develop from a single core meaning to a number of other extensions as time progresses. Still what the diachronic studies cannot explain is why the meaning extension targets certain grammatical notions, but not others. That is, why the reflexive marker extends to give a reciprocal interpretation, but not to tense or negation. The explanation ultimately has to do how the different meanings are associated with each other in a human brain. It could be due to some linguistic internal principle or requirement (say the UG) that pushes the categorial association in a certain direction or, a general cognitive tendency where the reciprocal is cognitively associated with the reflexive/passive.

Not all these approaches are equally plausible to explain the multifunctional morpheme at hand. Take the *homonym* approach, for example. Even if the approach is widely adopted, as Beard affirms, I don't believe that this view is a tenable approach for the prefix in Amharic. The reason is that the meanings of the prefix when functioning in different senses are not completely disparate. There is some kind of unified sense that holds the passive, reciprocal and the reflexive together. At the very generic level, it contains one unified sense that, [Frajzyngier \(2000\)](#) for example described as "we know that the reflexive/passive marker is subject-oriented". It has also been taken as a detransitivizer ([Leslau, 1995](#), p. 463). It also qualifies as a typical middle marker if Kemmer's 1993 description of the middle is correct. In any event, there is an undeniable unity at the heart of different functions of the prefix, [Ayalew \(2011\)](#). Even if it has been hard to exactly point a finger on the function of the prefix, most linguists who look at it attributed a unified sense to it. The homonym approach leaves this relatedness of meaning unexplained. The systematic unity of these senses also evident from the cross-linguistic data. Many languages unify different functions like the reciprocal and reflexive/passive into the same morpheme. Most current studies on the *si/se* middle marker in Romance languages also attribute a unified identity to the morpheme when marking the passive and the reflexive/reciprocal [Rivero \(1990\)](#); [Manzini et al. \(2016\)](#); [Blevins \(2003\)](#).

The unified sense attributed to the morpheme also rules out the strong version of the polysemy approach. Given the general assumption that syntactico-semantic features/units cannot be deleted (Monotonicity hypothesis) in the course of combination, the polysemous view predicts that the passive interpretation would always be available alongside the reflexive, reciprocal as well as the middle. This, however, is empirically inaccurate. Whilst the ambiguity is evident in many cases, this is not always the case. There are many clauses where the middle reading is the only reading; that the passive reading would be unavailable, and vice versa. The polysemy view which assumed hardwired multiple meanings to the morpheme cannot be sustained, at least under the compositional (derivational) assumption of grammar.

Since the data is clear that the prefix *t-* is associated with multiple senses, a strong version of monosemy view is also hard to maintain. If a fixed, singular function is attributed to the prefix, it is hard to explain why different constructions are possible. How can the different senses would arise if we attribute just a single fixed meaning to the morpheme? There are also many typological and formal approaches which question the validity monosemy view. Most typological studies, naturally more interested on the surface data than imposed principles, made it clear such an isomorphism between form and meaning is more of rarity in natural language. Not even a single human language is shown to have a fully consistent isomorphic system (Downing and Stiebels, 2012, p. 405). Most functional items in most languages come with complex mapping from form to meaning. They show the *polysemy* to be more widespread than some formal theories would like to acknowledge. Along the same line, (Franz Rainer and Luschützky, 2014, p. 20) noted, modern cognitive morphology and construction morphology approaches also recognize the polysemy view as the default state of morphological patterns. It is widely reported now that many languages use the reciprocal markers ambitiously with other grammatical notions such as reflexive and even middle and passive, (Nedjalkov, 2007d, 455-844).

The monosemic view, however, is not without support. Many works within GB framework and outside of it advocated for one-to-one mapping between form and meaning. (Johns, 1992, p. 84), for example, has set the isomorphism as general principle of language: “Where morphemes are identical or similar in phonological properties, in the unmarked case, they are identical or similar in all lexical properties.”. According to this principle, the unmarked case is the form and the function have a one-to-one mapping: and deviations need to be explained. Functionalist theories also make the same assumption, according to Franz Rainer and Luschützky (2014).

For the monosemic approach, the challenge is to explain why and how multiple senses arise out of the same form.

A version of the monosemic approach treats the morphemes as underspecified items. One strategy to implement this idea is to associate the meanings later in the derivation, in the post-syntactic level. One of those brands of theories comes by the name *the realization approach*

to morphology (also called *Lexeme-Morpheme Base Morphology*). The main proponent of the approach, Beard (1990, 1995) argued that the functional affixes lack dedicated semantic substance. He explicitly proposed for the separation of form and function (contrasting the uniformity principle). According to separationist view, a single morphology is made of distinct morpho-syntactic and phonological components. Each of them could be associated with other on different stages of the grammar. Different phonological forms say the English *-er* and *-ant* might map into the same morpho-syntactic feature, [+agent], while different morphosyntactic features could also map into a single form as in the Amharic *tə-*.

- (3.60) a. **Abstract derivation**  
 (a)  $V \rightarrow N_{\text{subject}}$  (work-er, escapee-ee, typist, emigrant)  
 (b)  $V \rightarrow N_{\text{instrument}}$  (mix-er, lift-Ø, stimulant)  
 b. **Phonological insertion:**

The late insertion mechanism, associates the outputs of the above derivations with the semantically empty/underspecified *-er* to some of the stems which undergo the derivation.

The separationist framework itself can be classified into the Lexical Separationist into Non-lexical separationist systems. The former, represented by Beard's Realization theory, restrict the application of the realization theory to functional items. The **NRT** according to Haugen and Siddiqi (2016), such as **NS** and **DM**, on the other hand, attempt to apply the realizational theory across the board (both on the lexical and functional items).

There are two strategies within **NRT** to derive polyfunctional items—either a single morphological form is attached to the multiple features; or multiples semantic values are assigned to the single expression.

- (3.61) (a) **Derived monomorphy:** where the single form is derived from the multiple feature specifications. The unity of the form is derived of the multi-feature functional item.  
 (b) **Derived Polysemy:** multiple meanings are later associations to a single syntactic object.

Derived monomorphy is practiced in the **DM** and **NS** systems where multiple syntactic features are supposed to fuse/span/lexicalize into a single morphological item (monomorph) later in the PF part of the grammar. This is the standard strategy of deriving the polyfunctionality within **NRT** system.

Another strategy to derive polyfunctionality, however, has recently been suggested under the **DM** framework, Marantz (2013); Wood (2015b); Wood and Marantz (2017). Marantz has proposed what he calls an *allosemy* approach where multiple semantic values could be inserted on a single syntactic object, just like multiple morphemes could be inserted.

I am going to finally argue that the allosemy approach suggested by Marantz, in combination with the contextual interpretation suggested in Lieber (2016), better explains the polyfunctionality of the anticausative functional item in Amharic. But, before that, we are going to see how NS, one of the separationist models, captures the multifunctional morphemes.

### 3.5.1 Nanosyntax: voice values as structured features

Some minimalist theories such as NS work by enriching the semantic (feature) make up of the lexical (morphological) items. Since the anticausative morpheme in Amharic has multiple functions, under the NS framework it could be taken as a lexicalization of layers of features. Just like DM, NS takes the (inverted) Y-model as a starting point. As such, the phonological and semantic interpretations are assumed to associate with the syntactic features later in the derivation.

Unlike the standard Minimalist which takes lexical items as the basic inputs (atoms) of syntax, NS take the decomposition further and assumes syntactico-semantic features as the basic inputs (atoms) of syntactic derivation. The lexical items themselves are assumed to be built by regular syntactic derivation.

The morphological items like the Amharic anticausative *t-* would then be built by combining layers of features. Morphemes like *t-* (portmanteau morphemes) are treated as complex constructions which are built out of a number of submorphemic features. The morpheme appears as a single item only after the insertion of a single phonological item over the extended layers of features. Under the Late Insertion assumptions pursued in NS and DM, the phonological and the semantic components of the LOs are invisible to the syntactic derivation. The syntax has to first build the multiple features, and then, in a different level of the grammar, the phonological and semantic components get inserted.

Nanosyntax could therefore be taken as one of the theories which assumes polysemy (multi-feature, to be precise) as the basic properties of most lexical or morphological objects.

Take the multifunctional prepositions attested in some languages, as an example. Pantcheva (2011), for instance, noted English uses distinct prepositions to mark goal and location semantic interpretations; meanwhile French uses the same preposition for marking both concepts.

- (3.62) a. I ran at the stadium. (Location) (her 19: page 236)  
 b. I ran to the stadium. (Goal)

- (3.63) *J'ai couru au stade.* (her 23: page 238)  
 I.have run at/to.the stadium  
 'I ran at the stadium.' (Location)  
 'I ran to the stadium.' (Goal)

Based on [Svenonius \(2010\)](#), she analyzed the syncretism in the French preposition by proposing a fine-grained syntactic structure coded into the French prepositional item. Each of atomic feature such as the *goal* and the *location* are assumed to project as syntactic head. The features are hierarchically arranged in a functional sequence. As this arrangement is shipped to the phonological interface, individual phonological items could be inserted for each of the features. The lexicalization of the prepositions in English is taken an instance of this sort. Sequences of functional projections could also be mapped to a single phonological item. That is the case with the French preposition *au*. Both the *goal* and the *location* functional layers are packed into one phonological item generating the multifunctional *au*.

Given the multiple function of the anticausative prefix in Amharic, a similar strategy could be devised to analyze its complex property. Assume the anticausative marker is a span of a number of layers of features as in the French preposition. Each of grammatical values such as the *passive*, the *reflexive*, the *reciprocal*, etc. could be assumed to head their own functional projections. The anticausative morphology then can be assumed as the syncretism of each of the functional heads.

This way, the multifunctionality of the morpheme could be understood as the structural layering of each of the grammatical values.

One of the first questions we need to ask in pursuing such a position is if these features can be confirmed to have special associations in the verbal layer, across languages. This turn out to be true. Reflexive, middle and reciprocal features are known to be packaged into one morphology on a number of languages. It has been known by now that the reflexive markers in many languages are ambiguous between these different senses, [Kemmer \(1993\)](#); [Klaiman \(1991\)](#). This is a good lead towards a nanosyntactic analysis.

We also need further evidences on how each of the features might project in the syntax; and which of the functional items should figure lower in the syntax than the other. Still, cross linguistic data could offer evidence to such an end. As there are languages which packed all these related features into one morpheme, there are also languages which pack only some of them into one morpheme in exclusion of the others. Fula, a Niger-Congo language, for example, is known to have a distinct morphology for the middle. In this language, the middle is fully dissociated from the reflexive and the passive notions. This offers an evidence that the middle might be higher or lower in the fseq in exclusion of the passive and the reflexive.

Language internal evidences can also be used to map the features into the syntactic hierarchy. There are a couple of evidences within Amharic, for example, which show lower positions for the reciprocal, in relative to the passive. One of those evidences involves the relative position of the two constructions with the direct causative. The direct causative can project over the reciprocal; but never over the passive. That is, the causative of the reciprocal is borne out, the causative of the passive is not.

- (3.64) *Mariyam saw-očč-u-n a-(\*tə-)ddəbəddab-ačč-aččəw*  
 Mary person-pl-def-acc CAUS-recp-hit-3fsgS-3plO  
 ‘Mary made the people hit each other’

The reciprocal is also sensitive to the lexical aspects such as the iterative (pluractionality).

These facts suggest that the reciprocal might project lower in the verbal fseq.

There are also other cross-linguistic observations worth noting here.

The anticausative and the (middle)-reflexive are all sensitive to small classes of verbs.

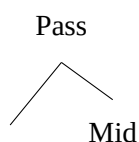
The sensitivity of the middle-reflexive and the anticausative meaning to the verb classes (semantic classes) suggests that these functional items might merge lower in the verbal hierarchy. Functional items which are sensitive to lexical idiosyncrasies are generally assumed to combine within the lexicon.

The passive, on the other hand, seems to have less sensitivity to lexical idiosyncrasy so far as the verbs are causative type.

The possibility for the causatives to project over the reciprocal (causative of the reciprocal), reflexive (causative of the reflexive), but not over the passive (\*causative of the passive) again suggests that the passive is higher up in the structure.

Combing all these evidences, one could conclude that these features are low-level features in contrast to the passive which projects higher.

Figure 3.2: Relative hierarchy of the passive and the middle



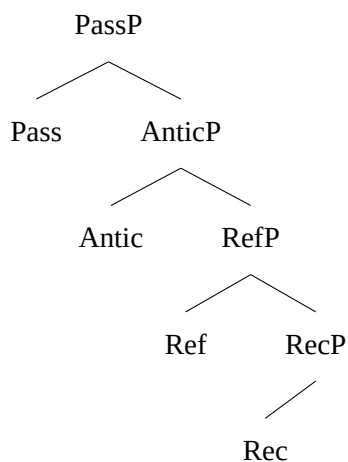
The middle, as we I explained above, covers all the three non-passive categories (reciprocal, anticausative and reflexive).

The sensitivity of the reciprocal to the verbal aspect (aktionsart) also offers another evidence for the lower position of the reciprocal, in relative to the other middle classes.

Given the Cartographic assumption, which the NS implementation relies on, that each of the syntactico-semantic features projects into separate functional heads, we can then projection each of the sub-features into a layer of heads.



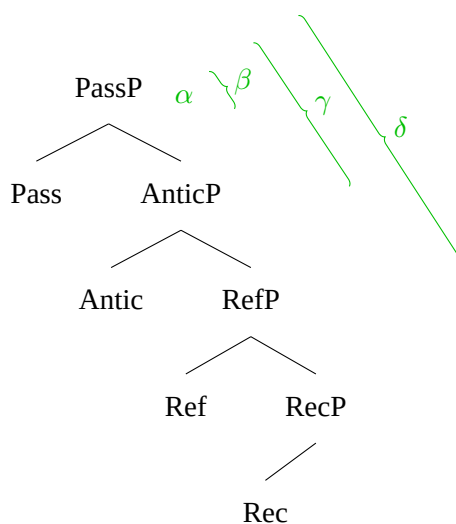
Figure 3.3: Relative hierarchy of the nonactive features



Once we establish the relative hierarchy of the features, then, we can show that different languages lexicalize different layers in the sequence.

In a similar fashion championed in the nanosyntactic studies to account parametric distinctions, [Starke \(2011b,a\)](#), we can assume different strategies of lexicalization in different languages. This elegantly explains the parametric differences among the agglutinative languages like Fula and fusional languages like Amharic, Tigre and Greek.

Figure 3.4: Lexicalization parameter



According to the Contiguity hypothesis, [Caha \(2009a\)](#), any of the sequence of the functional heads can be lexicalized by a single morpheme. A specific language  $L_1$ , for example, could have a single morpheme lexicalize two sequential layers bottom of the structure. In that case, we will have a morpheme denoting both the reciprocal and the reflexive meanings; but not the anticausative and the passive. Another languages  $L_2$  could lexicalize the middle functional layers with a single form, or just the top two. What the *contiguity* hypothesis predicts is the lexicalization of two nonadjacent layers into a single form would be impossible. If the structure given in [fig. 3.4](#) correct, for example, the syncretism of the Mid and Ref features, in exclusion of the Rec feature would be unpredicted.

The system also licenses the lexicalization of each of the layers into distinct forms. Even if this is a rarity in natural language, an extremely agglutinative language could send each layer to a distinct form.

Extreme cases like Amharic where every decausative function is fused into a single morpheme,  $\delta$  represents the lexicalization mechanism. The whole functional hierarchy from the base to the top would be mapped to a single morpheme.

To verify whether the analysis predicted in [NS](#) are born out or not, we can look at the data from a larger number of languages. Fortunately, such a data already exists in [Haspelmath \(1990\)](#). In table 3, page 36, Haspelmath has a data from 24 languages<sup>8</sup>. Rearranging the data, and removing some of the languages and features that are not relevant to the discussion here, we have a data as follows:

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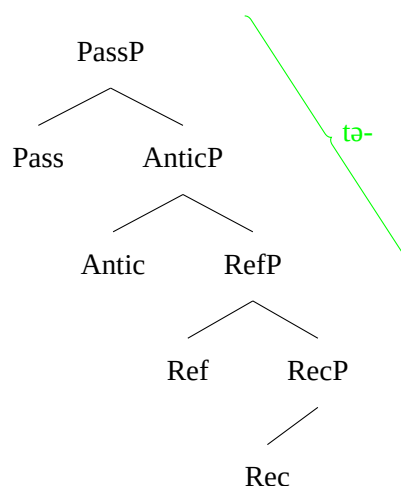
<sup>8</sup>Out of the sample of 80 languages, Haspelmath discovered that only 39 of them have passive markers. Out of those languages, only 14 use their passive morphemes just to mark the passive. The majority of them use it for other functions as well, including the reciprocal, the reflexive, anticausative and potential passive. I am excluding the potential passive from my list.

Table 3.3: Syncretism of the passive morpheme with other decausatives

Group	Language	Reciprocal	Reflexive	Anticausative	Passive
Group A	Amharic	✓	✓	✓	✓
	Tigre	✓	✓	✓	✓
	Motu	✓	✓	✓	✓
	‘O’odham	✓	✓	✓	✓
	Mod.Greek	✓	✓	✓	✓
	Udmurt	✓	✓	✓	✓
	Kanuri		✓	✓	✓
	Margi		✓	✓	✓
	Latin(r)		✓	✓	✓
	Latin(esse)			✓	✓
	Uigur			✓	✓
	Nimboran			✓	✓
	Danish(-s)			✓	✓
	Mwera(-k)			✓	✓
Group B	Slave		✓		✓
	Rukai		✓		✓
	Worora	✓	✓		✓
	Tuareg(mə)	✓			✓
Group C	Baluchi				✓
	Maithili(jə-)				✓
	Inuit(-tit)				✓
	Koho				✓
	Tahitian				✓

The first group of languages lexicalize the passive morphology with any of the other decausative constructions. As the data in the above table shows, the anticausative morphology is most syncretic with the passive, followed by the reflexive. Based on the hierarchy given above, the syncretism within this group of languages is the most straightforward to explain under the tools of **NS**.

The first four languages syncretise all the four constructions. This means that their anticausative morphemes are lexicalized like the  $\delta$  morpheme in **fig. 3.4**.

Figure 3.5: Lexicalization of the Amharic *tə-*

For languages like Margi, their anticausative morphemes target the highest three functional layers. The lexicalization of the anticausative morphemes in this group of languages is like the  $\gamma$  morpheme in given in [fig. 3.4](#). Language that use their morphemes exclusively for the passive (Group C languages) would have a lexicalization schema of  $\alpha$  type.

The derivational output of this analysis is a polysemous (=multi-feature) functional item for the first two groups of languages. The polysemy is constructed in a systematic syntactic manner. The features (the semantic bits) are hierarchically organized. Unlike the assumptions of the most typological studies, the polysemy in NS is a derivative property. It is due to the packaging of multiple features into the single phonological item that we generate the polysemy.

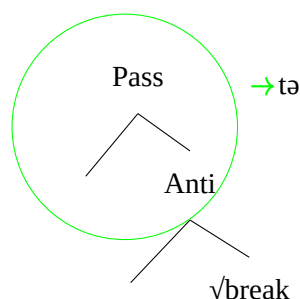
The strength of the nanosyntactic analysis, in contrast to the simple lexical-polysemy assumption rests on the idea that the functional item *t-* doesn't always have to release the whole hierarchy of features (semantics) in all the cases. Given the Superset Principle, [Caha \(2007\)](#); [Starke \(2005\)](#), the morpheme can lexicalize either the lower layer of the hierarchy, or higher layer of the verbal fseq. The Superset principle licenses the insertion of morphemes that are more complex (contain larger structure) to be inserted in a syntactic tree that is equivalent or smaller than its internal structure.

Nanosyntax also handles selection very well. Unlike the simple lexical polysemous assumption, the fine-grained analysis potentially offers a more direct selection relationship with the individual features and the verb classes (diacritics). Consider the verbs that we have been discussing in the previous chapters. We have seen that some of the grammatical values are associated to certain classes of verbs. The middle interpretation (value), for example, is

closely associated with verbs denoting body grooming such as *taking a bath*, *shaving one's hair*. The unaccusative sense, on the other hand, is closely associated with verbs classes which denote change of state such as *break*, *melt* and *decay* type. What we need to do then is to assume some selection, a semantic (feature) selection specifically, from the grammatical features to the verb classes. We can say that the Mid feature selects the *grooming* verbs. Since the features we are talking about here are semantic units of some sort, it makes sense to assume that some kind of selectional restriction applies from the Mid feature to the verb classes.

Another strength of nanosyntactic approach is how the ambiguity can be resolved. When the nonactive morphemes combine with some classes of verbs, an ambiguity arises. By way of illustration, the *tə*- marked *break* verb has interpretation of the passive as well as anticausative. The ambiguity can be resolved by assuming that the anticausative morpheme lexicalizing different features at different times. Given the Superset principle, the morpheme can lexicalize just the AnticP, the PassP or both. Depending on the functional layer lexicalized, one can assume ambiguity in meaning.

Figure 3.6: Hierarchy of the passive and the anticausative



Having all these analytical advantage, in addition to the precision of the system, it is very easy to be tempted to believe that the nanosyntactic analysis is the best solution for our problem. The truth of the matter, however, is that the nanosyntactic analysis falls short on a number of respects.

The first problem is the selection problem. For the (S-)selection to work, we need a system that puts the semantic objects –such as the lexical semantics of the verbs –and syntactic objects–such as the feature specifications–into a unified single domain. The Late Insertion (T-mode) system which the NS and DM relied put these elements in separate domains. As such, it is impossible for the Mid feature to ‘sense’ the interpretation of the lexical meaning of the verbs during the syntactic derivation.

Late Insertion is assumed not just for the phonological items, but, also for the semantic items to be inserted in the post-syntactic, separate domain. The kind of semantic (feature)

selection I suggested above cannot be implemented with the inverted T-model because by the time the features select the verbs, the semantic component is not yet available. As such, the features cannot see into the meanings of the lexical verbs.

A second worry with the nanosyntactic analysis— specially for semantically richer notions like middle and reflexive— comes on the relationship between the morpheme itself and the features. The critical question is: does the morpheme *t*- actually contain all of these features in cases where it gives rise to the ambiguous sense?

The strategy to deal with polysemous morphemes in **NS** is to enrich the inventory of features within the morpheme. Had not it contained the features, it won't be able to lexicalize it. If the morpheme contains the features, that means, the morpheme itself is internally complex.

If that is the case, then, the question arises on how the complex meaning doesn't arise when it is inserted targeting just the sub-tree. That is: when we insert the *t*- just to lexicalize the sub-Ref layer, for instance, why doesn't the complex meaning that the morpheme gets interpreted?

The assumption seems that the insertion is a PF operation. Since the PF layer doesn't interpret the semantic values (features) associated with the morpheme, then, we can avoid the problem of proliferation of meaning on every case where this morpheme attaches on a layer. The apparently solves the interpretation. But there is another problem in relation to the insertion (lexicalization) and interpretation. That is, if the insertion occurs just in the PF layer, how can the combination sees the (syntactico-semantic) features of the morpheme and the syntactic heads for the Superset principle to apply. In other words, since the PF has no information on the semantic units (the features), how a comparison of the type that Superset principle assumes would be possible. If the features are invisible to the PF domain, then, a systematic insertion would be impossible in the PF domain.

The system necessitates a redundant structure of features. First, we need the features to merge in the syntax and build the fseq, the kind we have seen in [fig. 3.3](#). The same type of feature structure should also be available inside the morphological item *t*- itself. The superset principle needs to compare the feature sets in the tree proper with the feature structure inside the morphological item. Late Insertion theories generally don't simply introduce morpho-phonological items in the PF. They still need a layer of features inside those morpho-phonological items so that principles such as the Superset or Subset (for **NS** and **DM**) to compare for insertion. That means, we have to assume a semantic (feature) structure in the syntax proper, as well as the on the morphological items themselves. This has two problems. First, it requires redundant feature structure—once the syntax proper and other times inside the morphemes. Second, the phonological component which inserts the phonological items still needs to read the semantic elements. Comparison for insertion won't be possible if the phonological domain cannot read the semantic features, so far as we are assuming the inser-

tion to occur in the PF side. This means that the strong bifurcation of the phonology and the semantic assumed by the Late Insertion framework cannot be sustained. The implementation of the system contradicts with the core assumptions held in the framework.

Another, more serious problem with **NS** is the absence of context for insertion.

As we will see the details in the coming chapters, the reciprocal interpretation (feature) is available only when plural participants and iterative aspectuals are available in the clause. These two elements are the requirement for the reciprocal interpretation to arise. The same can be said about the passive. The passive reading is restricted to contexts where agent theta role assigned to the arguments. Then, if we attribute the grammatical values like the passive and the reciprocal just to the formal features, it would be harder how other parameters such as the types of arguments and aspectual properties of the predicate contribute towards these constructions.

To clarify what I mean by “context”, consider the reciprocal more closely. It is empirical fact that the reciprocal is always associated with plural arguments and plural eventualities. If any of these are missing, the anticausative morpheme cannot have the reciprocal reading. Only other readings would be possible. The question is how can exactly capture this correlation in principled manner, using the feature based system of **NS**.

For a starter, we can assume that plural eventualities are informed by some kind of verbal feature. This is plausible because the iterative verb form is the one that marks pluractionality. Capturing the association of the [rec] feature with the pluractionality might not be that problematic because we can assume feature selection from the [rec] feature to the [it] feature.

Assume  $\boxed{S} \rightarrow$  is feature selection:

(3.65) Feature selection  
 Voice<sub>[rec]</sub>  $\boxed{S} \rightarrow$  v.it

This kind of feature selection guarantees that the reciprocal feature will always combine be available the iterative verb form.

The problem, however, is with the plurality of the participants. We have seen that the requirements of the reciprocal not even the plural DP. It requires plural participants at the semantic level that can be satisfied with coordinated singular arguments, or simply plural denoting singular DP. That is very hard to directly implement with the feature selection because the requirements don't involve the DP argument.

There is no ways of constraining/relating the Rec feature of the morpheme to the plurality the types of arguments in this system because these objects are not supposed to merge together in the first place. The feature (morpheme) selects and merges with the verbs; but has no

local relation with the arguments. As a result, the relevance/relation/effect of the plurality of the arguments is very hard to capture in the NS.

There are also other empirical challenges. The hierarchical organization of features within a head is a strong claim made by NS. The whole point of NS is an attempt to eliminate a bifurcation of grammar into lexical internal and lexical external (narrow syntax) by bringing the narrow syntactic methods and strategies in the analysis of lexical internal items. Then, one would wonder if this claim is correct in the first place. More practical to the problem at hand, how true is that the passive, anticausative and reflexive features organized into hierarchies. Since the nanosyntactic hierarchies basically come from the standard syntactic hierarchies, any evidence for or against the relative hierarchy of these heads in a language could be presented as evidence for or against the theory—also to the above proposal. In the above paragraphs, I have mentioned a couple of reasons why the passive might be higher than the other functional items. But, none of them are conclusive. Even if the passive could be higher, the relative position of the other features is less known.

There, however, exists an alternative, and equally plausible hypothesis that the features are different values of the same functional head. Indeed, this position has been argued for Greek in [Alexiadou et al. \(2015\)](#). According to this hypothesis, they are not hierarchically organized. They are complementary or in a competition to the same position.

But, what is important for NS, so far as we assume a hierarchal organization of the features as in [fig. 3.3](#), it must be the case that no semantic ambiguity should arise between the passive and the reciprocal, in exclusion of the other two. Phonological items can lexicalize only contiguous layers of features.

This prediction encounters problems from two directions. First, as the [table 3.3](#) shows, a number of languages have anticausative morphemes lexicalize nonadjacent functional layers. The morphemes in Slave, Rukai and Worora, for example, lexicalize the reflexive and the passive, while excluding the anticausative. The anticausative morphemes in Worora and Tuareg also lexicalize just the reciprocal and the passive, skipping the reflexive and the unaccusative.

Assuming a different hierarchy between the features doesn't also much help because not all of the features can be adjacent to the passive at the same time. We have to make any one of them closer to the passive. If we assume a hierarchy like *Passive > Reflexive > anticausative > reciprocal*, for example, the new arrangement solves the problem that Rukai and Worora raise, but not that of Tuareg. A new challenge will also arise from Uigur, Nimb-  
oran, and Danish because they will have the morpheme lexicalizing nonadjacent heads of the anticausative and the passive (skipping the reflexive).

Even within the languages that don't seem to pose direct challenge to the hierarchy, such as Amharic, the Contiguity hypothesis makes a strong prediction on how the morpheme would lexicalize the features within each verb class.



The theory makes a prediction on the possible ways that ambiguity could arise. A certain verb marked with the anticausative morphology cannot be infinitely ambiguity. According to the predictions of the NS, the possible ambiguities are limited and predicted.

A verb marked with the anticausative morpheme can have a reading of the passive, anticausative and reflexive at the same time. But, it cannot have only the passive and the reflexive, in exclusion of the anticausative, according to structure given above.

Based on the structure given in fig. 3.4, the predictions of the NS would be the one given in the second column. The actual possible ambiguities are given in the third column.

Table 3.4: Predictions of NS on anticausative ambiguity

Patterns	Predictions	Actual	Example
[reflexive [reciprocal]]	✓	✓	3.66
[anticausative [reflexive]]	✓	✗	3.67
[passive [anticausative]]	✓	✓	3.67
[anticausative [reflexive [reciprocal]]]	✓	✗	3.67
[passive [anticausative [reflexive [reciprocal]]]]	✓	✗	3.67
[passive [reflexive]] (excluding the anticausative)	✗	✓	3.68
[passive [reciprocal]] (ex. reflexive)	✗	✗	3.69
[passive [anticausative [reciprocal]]] (ex. reflexive)	✗	✗	3.69
[passive [reflective [reciprocal]]] (ex. unaccusative)	✗	✗	3.69

An ambiguity between the reciprocal and the reflexive is possible.

- (3.66) *lij-očč-u tə-t'at't'əb-u*  
 child-pl-def Nact-wash.dup-3plS  
 'The children washed each other.'  
 'The children washed (themselves).'

The unaccusative and the reflexive are complementary because the types of verbs they are available to are different classes. The reflexive is available only to *grooming* verbs while the anticausative restricted to change of state verbs.

- (3.67) *bərr-u tə-səbbər-ə*  
 door-def Nact-break-3msgS  
 'The door broke.'  
 'The door is broken.'  
 \*'The door break itself.'

- (3.68) *yosef tə-at'ɪ'əb-ə*  
 Josef **Nact-wash-3msgS**  
 'Josef washed (himself).'  
 'Josef is washed.'

The frequentative/iterative form doesn't seem to permit the passive reading. Only the reciprocal is licensed.

- (3.69) *lij-očč-u tə-waddəd-u*  
 child-pl-def **Nact-like.it-3plS**  
 'The children like each other.'  
 \*'The children are liked.'

Whether two readings will be available to an anticausative marked verb is a matter of verb class, rather than the functional hierarchy between the features. Other parameters like the verbal aspect such as the iterative, and the plurality of the arguments all affect on what readings could be associated with the nonactive. The contiguous lexicalization system espoused in the above structures under the **NS** analysis doesn't make correct prediction on the possible semantic ambiguities. One could attempt to alleviate the issue by turning the functional sequence around: like putting the anticausative at the base of the syntactic tree. But, that would be an antithesis to the stronger correlation of the passive and the unaccusative shown in the cross-linguistic data given in [table 3.3](#).

### 3.5.2 Voice values as flavors of voice

In this section, I will briefly review another approach adopted in the literature to explain multifunctionality in the formal theories. As an alternative to hierarchical mapping of the features assumed in the Cartographic system, the flavor analysis assumes that the features could be horizontally organized. Different features or feature values are projected as alternative values of the same functional head, competing to each other. The idea is the same with the traditional GB assumptions on IP / TP where different feature values were considered to map into the same abstract functional layer. The IP or TP is considered as a general place holder. Different values of the tense specification, such as the past, the present and the future, can project on this single place holder head. In the same manner, different values of the anticausative could be taken as different instantiations of the Voice projection. Similar system has been applied in recent **DM** literature.

In this sense, the passive, reciprocal, unaccusative and reflexive could be considered as alternative values competing for the same position.

To explain the correlation of each of the values with the verb classes, we can assume some mechanism of selection from the VoiceP (the projection where the voice values reside) to

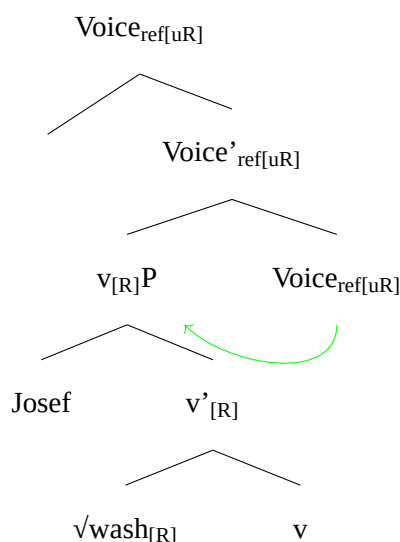
the vP (where the verbs project).

Then, based on the exact value of the VoiceP layer, selection can be imposed towards the verb classes or the vP types in the c-command layer of the VoiceP. The VoiceP specified with the anticausative, for example, can be assumed to select only those groups of verbs that give rise to the anticausative reading. Change of state verbs are the prime target for the anticausative. The passive is correlated with the agentivity of the verbs. The middle-reflexive specifically emerges with the *grooming* verbs. A selection from the VoiceP towards the vP layer could constrain the possible grammatical values and verb classes.

To exactly execute the selection, think of the VoiceP with the *reflexive* feature specification. The feature forces the VoiceP to combine only with a class of verbs a specific diacritic. The *grooming* verbs, like *bath*, *tattoo*, *shave*, are the ones with the diacritic for the reflexivity. This is a list of verbs that the child learner specifically learns (probably with the help of a distinctive semantics). Call the feature/diacritic that identifies this class of verbs from other classes the *r* property. Then, the selection can proceed on the formal feature basis. What we need to assume is that the verbalizer projection of these verbs, vP, contains this *r* feature to be selected by the reflexive-specified VoiceP head. Consider the standard Minimalist technology of unvalued features as the trigger for selection, we can assume that the Voice comes with an unvalued reflexive feature [uR] which forces the VoiceP to select only reflexive valued [+R] lexical verbs (or vP).

- (3.70) *yosef tə-at't'əb-ə*  
 Josef **Nact-wash-3msgS**  
 'Josef washed.'

Figure 3.7: Reflexive feature selection



This way, we could assume that the reflexivity is a flavor of the voice.

As to the relationship between the reflexive value and the morpheme  $t\bar{a}$ -, we can either follow the Late insertion approach where the morpheme inserts after the derivation finishes off; or directly associate the meanings value and the morpheme.

If we follow the spirit of the **NS**, without strictly adhering to it, for example, we can assume that the morpheme is a pack (structure) of all the possible interpretive values. It can lexicalize any of the possible values of the  $\text{Voice}P$ . As such, the  $t\bar{a}$ - is a realization of any of the values of the  $\text{Voice}P$ , without those features being structured in a hierarchical fashion. The superset principle can still apply to realize any of the features of the  $\text{Voice}P$  by the single morphological form.

In the same manner, if we specify the  $\text{Voice}P$  with the reciprocal value, the head again selects those specific verb (roots) classes which are compatible with the reciprocal head. A typical verb that has a reciprocal interpretation would be like *kiss*. But, as I have already mentioned above, verb class is less relevant to the reciprocal. It is the verbal aspectuals (the iterative aspect) and the plurality of arguments that matters most for the reciprocal.

Assume that *kiss* types of verbs come *Rec* feature from the lexicon. They can then be selected by the reciprocal valued  $\text{Voice}P$ . The unvalued  $[\text{Rec}]$  feature could force  $\text{Voice}P$  to target the  $vP$  with the iterative<sup>9</sup> aspect.

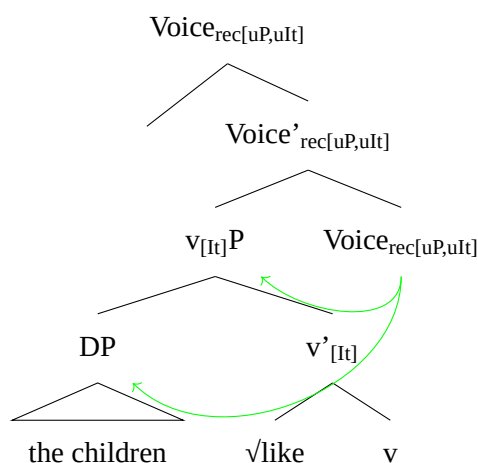
<sup>9</sup>Iterative aspect is one of the lost aspectual features. It appears lower than the  $\text{Voice}P$ ; within the  $vP$  layer.

The problem with the reciprocal, however, is that verbal category or aspect selection is not sufficient. As we have seen, the reciprocal interpretation also requires multiple participants/arguments.

To accommodate these facts, we can further assume additional requirements on the *reciprocal* on the properties of arguments. Since reciprocal is restricted to the iterative and the plural arguments, we can further assume that the VoiceP specified with the [rec] feature imposes selection on the number property of the arguments.

- (3.71) *lij-očč-u tə-waddəd-u*  
 child-pl-def Nact-like.it-3plS  
 ‘The children liked each other.’

Figure 3.8: Feature selection: reciprocal



The problem here is that the selection operation to both the verbal aspects and the plurality of arguments makes the analysis complicated. First, this kind of dual-directed selection is unusual. How can the functional head exactly impose selectional restrictions on two items at the same time is a serious challenge because selection is assumed to be a one-to-one relation between heads. A binary merge doesn't permit the feature to combine more than one item at a time. As such, the standard binary Merge cannot generate this kind of relation between SOs. Under the standard assumptions on Merge and Selection, there is no way that the functional item can impose selectional restrictions on multiple elements, aspectual specification of the verbs as well as their arguments, at the same time.

This is supported by the language-internal data in Amharic, as well as from the cross-linguistic studies such as Cinque (1999).

Even more troubling for the strict feature selection mechanism is that the reciprocal is not directly correlated with the syntactic plurality. As we will see in the next chapters, what genuinely matters for the reciprocal is the semantic plurality of the arguments. Arguments appearing in singular form (as well as triggering singular subject agreement on the verb, for example) can satisfy it.

- (3.72) *hizb-Ø-u*            *tə-waddəd-ə*  
 people-3msg-def Nact-like.it-3msgS  
 ‘The people liked each other.’

These problems probably could be solved by a chain of assumptions. The locality problem, for example, can be alleviated by assuming the selection to occur after the argument moved to the Spec, VoiceP. While the technical problems can be tacked, with all the assumptions and fixes, what would be an unfortunate fact of this type of explanation is that the whole attempt would lose the main reason why each of the grammatical values are associated with those specific constructions— why the reciprocal or the reflexive interpretations are associated with those specific verb classes; the reason why is the reciprocal appears only with the multiple participants; and that, why the reflexive is restricted to a specific class of verbs.

That is, while we might succeed by assuming and stipulating different formal features, the problem still remains if these features should be specified in this way. The strategy also goes against the core understanding of verb classification as a semantic concept that put them into categories. And, most importantly, the reason why a certain group of verbs is compatible with the reciprocal or reflexive is not determined on formal or listed features. These verbs form coherent groups on the semantic basis. It is known that reflexive, for example, emerge on *grooming* verbs. *Grooming* is not a syntactic or formal feature. It is a semantic property that ties these verbs giving rise to the reflexive sense together. It is not just by chance that we see similar groups of verbs being listed for being correlated with the reflexive and reciprocal interpretations across many languages. There must exist some abstract semantic value that holds them together. The right characterizing of this fact is not to stipulate arbitrary formal features. Rather, we need to acknowledge that the reciprocal, reflexive and the passive senses are associated with groups of verbs because the semantics that the verbs hold.

In the following chapters, I will propose an analysis that makes use of the lexical semantics of the verbs as an important contributor to determine the value of the anticausative. I will argue that neither the anticausative morpheme, nor the VoiceP, contains the actual decausative functions such as the passive, reciprocal, reflexive or passive. Each of these is a product of a number of interfacing factors within the clause.

As for the syntactic projection, I will adopt the general scheme that all types of voice properties are projected on the same functional head. The Voice head contains the underspecified

nonactive functional item. This nonactive feature plays an important role in determining the argument structure of the clause; but has little direct effect on the actual semantic values of the constructions. This is the allosemy approach to meaning/value specification.

The nonactive is important for the argument structure; but, less so for the interpretation of the nonactive. Dissociating the interpretive values like the passive and reflexive helps us to explain the cross-linguistic fact that languages contain these constructions regardless of morphological forms. It also provides a better direction on how and why the verb classes, the types of arguments and aspectuals contribute towards the specifications.

### 3.5.3 Underspecified voice

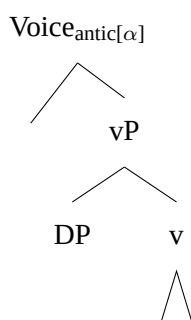
Alternative to the rigid grammatical value of the VoiceP suggested in the above subsections, I will argue in [chapter 6](#) that the anticausative comes with an underspecified feature value. Neither of the actual nonactive specifications is directly/lexically coded to any of the functional layers or the morpheme.

The functional item which controls the argument structure, the VoiceP, merges with underspecified features or interpretations. The role of the Voice is only controlling the argument structure of the clause. The interpretation is fully determined by other clausal factors.

Following the general understanding of IP in the GB, I consider the VoiceP as purely syntactic object which functions as a simple place holder. It hosts the purely syntactic features such as the active and nonactive. It contains no interface feature whatsoever.

Having underspecified semantic (feature) specification for the VoiceP, then, the actual nonactive values must come from some other sources. Most importantly for the data at hand, I will argue that the passive is merely one of the many semantic (grammatical) values assigned to the nonactive VoiceP from the syntactic context.

Figure 3.9: Underspecified voice



Here, the variable  $\alpha$  represents the unspecified feature value of the Voice. It gets the actual interpretation from the derivation (composition). This is similar to the alloosemy analysis suggested recent in the [DM Marantz \(2013\)](#); [Wood \(2015b\)](#); [Wood and Marantz \(2017\)](#) and other works such as [Lieber \(2016\)](#). I will come back to the details of these works in later chapters.

### 3.6 Summary

In this chapter, I have presented the basic facts on the nonactive voice of Amharic. I have described that the single anticausative morpheme *tə-* is associated with a plethora of grammatical constructions such as the passive, reflexive, reciprocal and anticausative. In this language, neither the passive nor the reciprocal or anticausative have a dedicated form of representation. They all are signaled by the same morphology. We have also seen that each of the constructions appear as the prominent reading, depending on the other elements types of verb selected, the types of arguments projected or the theta roles assigned. The passive reading is associated with agentive verbs. The reflexive also has its own listed groups of verbs that are known as *grooming* verbs, where it appears as the prominent reading of the anticausative. The unaccusative reading is also restricted to some groups of verbs, most prominently that of the *break* class.

I have also revised the transformational theory of the passive. I have argued that the standard analysis of the passive has foundational issues to explain the passive/anticausative alternation of middle-marking languages such as Amharic.

Not only the derivational system, I have also argued that most of the current Minimalist systems that work by assuming fixed feature specification on the morphemes are not best suited to explain the anticausativization in Amharic. I have hypothesized that the best approach to explain why the single anticausative morpheme is associated with multiple meanings is to consider it semantically underspecified. How exactly this hypothesis works to explain the multifunctionality will be the main focus of [chapter 7](#). But, before we start to see how the meaning is assigned to the underspecified voice, in the next chapter, I will start by laying out the theoretical backgrounds that we need to work out the meanings.



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## CHAPTER 4

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# The Verb Classes

Causativization and anticausativization differ in a number of ways. They also bear some commonalities. One common ground for both types of voices is the relevance of verb classification.

While the voice morphology is the most discussed topic in the study of voice, the classes of verbs are also important factors for the realizations of the voice morphemes. As such, the verb classes need to be properly listed and examined for a complete understanding of the voice system. In this chapter, I synthesize the verb groups that will frequently feature in the rest of the dissertation.

This chapter serves as a reference where the reader could look back when the verbs surface in the course of the analysis. Collecting most verb classes in a single chapter is also useful from the documentation point of view. Anyone interested in Amharic verb classes could refer to this chapter.

The verbs described in this chapter are classified primary on the basis of their causativization patterns. We will start with the lexical causatives in § 4.1, and move to the marked causatives in § 4.2.

The verbs are also grouped on the basis of their anticausativization. But this time, the basis for the classification is not whether a verb is selected by the morpheme, which is almost always the case, but on the interpretation (sense) of the construction associated with the anticausative form.

An important disclaimer to add at this point is that the verb classification given in this chapter is by no means exhaustive. I have provided only the most important classes. There are even verb groups I have deliberately excluded, most importantly the experiencer and psyche verbs, because I am worried that these verb classes would drag the discussion to unmanageable

peripheries.

It is also necessary to note that the discussion in this chapter takes a naive assumption with regard to the interaction between morphology and syntax. When I talk about the causatives being part of the lexical makeup of the verbs vs. syntactic, it might seem that I am already taking theoretical positions. Such a claim indeed already presupposes some analytical positions. They are, however, not meant to be theoretical statements. Even if the distinctions between the ‘syntactic’ causatives and the ‘lexical’ causatives are as real as anything could be, one needs to be careful when to make theoretical statements. The classification of the ‘lexical’ and ‘syntactic’ itself comes with a lot of complications. Still, we have no other, theory neutral means to describe these facts. If there were any theory neutral way of describing these, I would have been happier.

## 4.1 Unmarked causative

In this section, we will describe the lexical causative verbs.

### 4.1.1 Class 1: *hit*

This class contains one of the most typical lexical causative verbs.

As the basic (unmarked) form of the verbs is already causative (transitive), they don’t license the direct causative.

- (4.1) mariyam yosef-n (\*a-)mətt-ačč-w  
 Mary Josef-acc (caus-)hit-3msgS-3msgO  
 ‘Mary hit Josef.’

In contrast to their causative form which comes in bare form, the passive of this class of verbs appears marked with the anticausative morpheme, (4.2).

- (4.2) yosef tə-mətt-a-ə  
 Josef Nact-hit-3msgS  
 ‘Josef is hit.’

How one understands the passive has certain effects on how one would present the descriptive data. As I will explain in later sections, I don’t consider the passive as a grammatical primitive. The passive as an interpretive value which emerges as epiphenomena when certain configurational conditions are fulfilled. Therefore, the right way to describe the situation of the passive with this class of verbs would be to say that the anticausative morpheme appearing on this class of verbs generates the passive sense.

Table 4.1: Examples of *hit* class verbs

arrədə ('slaughter')	arrəsə ('till')	kərəkkəmə ('trim')	k'əbba ('paint')
samə ('kiss')	wəggə ('stab')	masə ('excavate')	məttə ('hit')
gəffa ('push')	rəggət'ə ('kick')	gənnəba ('build')	dəbəddəbə ('hammer')
gəddələ ('kill')	t'ərra ('call')	k'offərə ('dig')	gərrəfə ('whip')

### 4.1.2 Class 2: *break*

This group of verbs are similar to *hit* class because they form transitive clauses in their basic forms. They, however, differ from the *hit* class in their anticausative function. Unlike the *hit* class verbs which have only the (personal/impersonal) passive interpretation in the nonactive form, this group exhibit semantic ambiguity between the passive and the unaccusative.

I am going to use *bə-rasu* (*gize*) ('by itself', 'by its own time'), (Chierchia, 1989; Amberber, 1996)<sup>1</sup>, as a diagnostic to identify the unaccusative from the passive.

- (4.3) *lij-u bə-mariyam tə-mətt-a*  
 boy-def by-Mary Nact-hit-3msgS  
 'The boy is hit by Mary.'
- (4.4) *#lij-u bə-rasu tə-mətt-a*  
 boy-def by-himself Nact-hit-3msgS  
 'The boy is hit by itself.'
- (4.5) *dīngay-u bə-mariyam tə-fərrəkəs-ə*  
 stone-def by-Mary Nact-fragment-3msgS  
 'The stone is fragmented by Mary.'
- (4.6) *dīngay-u bə-rasu tə-fərrəkəs-ə*  
 stone-def by-itself Nact-fragment-3msgS  
 'The stone fragmented by itself.'

As shown in (4.5) and (4.3), both of the verb types are able to form the passive construction.

<sup>1</sup>Levin and Rappaport Hovav (1995) have noted that *by itself* is ambiguous between *alone* and *without outside help* interpretations in some language. Only the latter meaning is relevant for diagonalizing the unaccusativity. In Amharic, only the latter meaning is available.

As exemplified in (4.4), the *hit* verb doesn't license the *by himself/itself* construction. This shows that the nonactive form of the *hit* doesn't denote the unaccusative/anticausative meaning. The *break* verb, on the other hand, licenses *by itself* suggesting that the verb is able to form the unaccusative construction as well.

The verbs in this class are leveled as **Pattern II** verbs in Amberber (1996), and **Class A** verbs in Alexiadou et al. (2015).

A large number of verbs fall in this class.

Table 4.2: *Break* class verbs

k'orrət'ə ('cut')	səbbərə ('break')	bərrəggəda ('open wide')
kəsəkkəsə ('splinter')	fak'k'ə ('scratched')	bətənnə ('dispersed')
sənət't'ək'ə ('split')	šənəšənə ('fragment')	zərəgga ('straighten/unfold')
lət't'əfə ('stick')	rəc'c' ('spray')	nəsənnəsə ('scatter out')
kəfəllə ('divide')	gəməssa ('divide into two')	ləmət't'ə ('bend')
fəttə ('disentangle')	tərəttərə ('uncoil')	t'əməzəzə ('twist')

### 4.1.3 Class 3: *open*

*Open* verbs are similar to the *break* and *hit* verbs because they require no causative marker to form a transitive clause. The *open* class are similar to the *break* class and differentiated from the *hit* class due to the interpretations of the anticausative. Like *break* verbs, they generate both the passive and the unaccusative reading from the same nonactive form. They, however, differ from the *break* class because the unaccusative interpretation is not fully dependent on the nonactive form.

They are distinctive because of the fact that the unmarked form has an unaccusative as well as a causative function. The unaccusative can also be encoded with the anticausative morphology (4.9). Put it in other terms, the unaccusative function can be coded both with the unmarked (basic) form as well as the nonactive morphology.

(4.7) *mariyam bərr-u-n kəffət-əčč-(i)w*  
 Mary door-**def-acc** open-**3fsgS-3msgO**  
 'Mary opened the door.'

(4.8) *bərr-u (bə-mariyam/bə-rasu) tə-kəffət-ə*  
 door-**def** (by-Mary/by-itself) **Nact-open-3msgS**  
 a. 'The door was opened (by Mary).'  
 b. 'The door opened (by itself).'

- (4.9) *gīrgidda-u (bā-ras-u/\*bā-mariyam) kəffət-ə*  
 wall-def (by-itself/by-Mary) open-3msgS  
 ‘The wall opened up (by itself).’

The clause in (4.8) is ambiguous between the passive and the unaccusative. The sentence in (4.9) has only unaccusative reading.

The marked unaccusative and the unmarked unaccusative have subtle difference in meaning. Some contexts make the marked unaccusative preferable, while other contexts make the unmarked unaccusative more preferable.

The unmarked form seems to denote a permanent or more fundamental change of state on the undergoer. The opening of the wall in (4.9) is like a cracking event that fundamentally changes the nature of the wall. Walls are not normally made to open up. If they open up, it is due to fundamental change that affects the nature of the wall. The unmarked form is used to denote unaccusativity in this kind of permanent change of state situations. The unmarked form cannot be used in situations where the door opens in the usual sense that doors made for. It is the marked unaccusative that is used on events of opening under the usual function of a door.

The unmarked form is also associated with a long process of change of state. In this case, the form denotes non-episodic change of states that happens in an extended period that it is impossible to witness with the actual human senses.

- (4.10) *bizu amətat sīlā-tā-sərr-a-bb-ət wəggəl-u t’əfət’t’əf-ə*  
 many years as-Nact-work-3msgS-mal-3msgS colter-def flatten-3msgS  
 ‘As it has been worked with for many years, the colter has flattened.’

In this sentence, the flattening of the colter doesn’t occur in an episode of time. There is no single specific event where the flattening of the item occurs. It is a result of a long process of change. If we use the marked nonactive, *tā-t’əfət’t’əfə* (Nact-flatten), it denotes an episodic event.

- (4.11) **Open class verbs**
- a. *zəgga* (‘close’)
  - b. *dəffənə* (‘shut’)
  - c. *gəggərə* (‘solidify’)
  - d. *dəffədəfə* (‘coagulate’)
  - e. *t’əməzzəzə<sup>2</sup>* (‘coil’)
  - f. *t’əffət’t’əfə* (‘flatten’)
  - g. *k’əyyərə* (‘alter’)

A similar type of verbs have been reported in other languages as well, [Alexiadou et al. \(2015\)](#)<sup>3</sup>.

#### 4.1.4 Class 4: *fill*

This group of verbs are again similar to the *open* class as there is ambiguity of meaning in the basic verb form. In both classes, the unmarked form is associated both with the causative and the unaccusative functions. Compare the unmarked transitive in (4.7) and (4.12) with the unmarked unaccusative in (4.9) and (4.14).

In this sense, we can say that both the *open* and *fill* classes of verbs fall to what some linguists call *labile* (*ambitransitive*) because the causative and the unaccusative forms appear identical, as in the English *burn* verb.

The *fill* class, however, differ from the *open* class because the marked anticausative in the *fill* verbs gives only the passive reading, in contrast to the *open* class with give both the passive and unaccusative reading. Again, compare (4.8) with (4.13) to see the difference between these two classes.

(4.12) *mariyam bərmil-u-n moll-ačč-(i)w* (cf.4.7)  
Mary tanker-def-acc fill-3fsgS-3msgO  
'Mary filled the tanker.'

(4.13) *bərmil-u (\*bə-rasu) tə-molla-ə* (cf.4.8)  
taker-def (by-itself) Nact-fill-3msgS  
'The tanker is filled.'

(4.14) *bərmil-u (bə-rasu) molla-ə* (cf.4.9)  
tanker-def fill-3msgS  
'The tanker filled.'

Some more examples:

(4.15) *mariyam k'oda-u-n gəffəf-əčč-(i)w* (transitive)  
Mary skin-def-acc peel-3fsgS-3msgO  
'Mary peeled off the skin.'

<sup>3</sup>These are the **Class B** verbs in [Alexiadou et al. \(2015\)](#)

<sup>3</sup>This verb permits the direct causative in my dialect. I sense little difference between the marked and unmarked forms. But, I doubt if the marked causative is used in the rest of Amharic speaking regions at all. A Google search of the marked causative 'a-t'əməzzəzə' yields no results currently.

- (4.16) *yə-c'ark'-u k'alləm (bə-rasu gize) gəffəf-ə (unaccusative)*  
 of-cloth-def paint (by-self time ) peel-3msgS  
 'The paint of the cloth peeled off (by itself).'
- (4.17) *k'oda-u (\*bə-rasu) tə-gəffəf-ə (passive)*  
 skin-def (by-itself) Nact-peel-3msgS  
 'The skin is peeled off.'

Table 4.3: *Fill* class verbs

root	basic	caus	unaccusative	Nact	Reading
ml	molla (*a-molla)	molla	molla	tə-molla	passive
gff	gəffəfə (*a-gəffəfə)	gəffəfə	gəffəfə	tə-gəffəfə	passive

#### 4.1.5 Class 5: *dance*

Typical unergative verbs fall in this class. They are similar with the above four classes for they resist the marked causativization, (4.18). They differ from all the above classes, however, for the anticausative is associated with the impersonal passive.

- (4.18) *mariyam (\*a-)c'əffər-əčč*  
 Mary dance-3fsgS  
 'Mary danced.'
- (4.19) *Zare timhirtbet tə-c'əfro-al*  
 today school Nact-dance-3ms-aux  
 'It has been danced today at the school.'

Table 4.4: *Dance* class verbs

<i>zəffənə</i> ('sing')	<i>wañña</i> ('swim')	<i>zəmmərə</i> ('sing (church song)')
<i>sak'k'ə</i> ('laugh')	<i>heddə</i> ('go')	<i>fənət't'əzə</i> ('run with joy')
<i>zəllələ</i> ('jump')	<i>ləmmənə</i> ('beg')	<i>barrəkə</i> ('bless')
<i>šəllələ</i> ('sing a war song')	<i>s'əlləyə</i> ('pray')	<i>dahhə</i> ('crawl')

#### 4.1.6 Class 6: *shave*

These are known as *grooming verbs* in the literature, Kemmer (1993). They form a unified class by their anticausativization patterns. The nonactive form of these verbs is ambiguous

between the middle (reflexive) and the passive readings. They differ from the rest of verbs in the language for the anticausative morphology gives a sense of reflexivity.

- (4.20) *mariyam s'əgur-wa-n tə-lac'c'-əčč*  
 Mary hair-3fsg.poss-acc Nact-shave-3fsgS  
 'Mary shaved her hair.'  
 'Mary have her hair shaved.'

Table 4.5: *Shave* class verbs

Root	gloss	basic	caus	Nact	sense of the Nact
lc'	'shave'	lac'c'ə	*a-lac'c'ə	tə-lac'c'ə	passive/reflexive
at'b	'wash/bath'	at't'əbə	*a-at't'əbə	tə-at't'əbə	passive/reflexive
nk's	'tattoo'	nək'k'əsə	*a-nək'k'əsə	tə-nək'k'əsə	passive/reflexive
wb	'adorn'	–	*a-wabbə	tə-wabbə	passive/reflexive
kwl	'makeup'	k <sup>w</sup> allə	*a-k <sup>w</sup> allə	tə-k <sup>w</sup> allə	passive/reflexive
jbn	'wear fully'	jəbbonə	*a-jəbbonə	tə-jəbbonə	passive/reflexive
knb	'wear a hood'	–	a-konannəbə <sup>5</sup>	tə-konannəbə	passive/reflexive
lbs	'wear'	ləbbəsə	a-ləbbəsə	tə-ləbbəsə	passive/reflexive

## 4.2 Marked causative

All the classes of verbs we saw in the above subsections require no causative morphology to function as transitive verbs. They are lexical/root causatives. Each of the classes are differentiated based on their properties with regard to their anticausative marking or reading. In the following subsections, we are going to see the verb classes which could appear with the causative morphology.

### 4.2.1 Class 7: *run*

The verbs in this class are unergative just like the *dance* class we saw in § 4.1.5. They, however, differ from the *dance* class as they participate in causative alternation.

- (4.21) *fərəs-u rot'-ə*  
 horse-def run-3msgS  
 'The horse ran.'

<sup>5</sup>Two of the verbs here license the direct causative. Even if I am listing only unmarked causatives in this subsection, I am keeping these two verbs to avoid the proliferation of verb classes.



(4.22) *mariyam fərəs-u-n a-rot'-əčč-(i)w*  
 Mary horse-def-acc caus-run-3fsgS-3msgO  
 lit. 'Mary ran the horse.'

(4.23) *Arb tə-rut'-o-al (impersonal passive)*  
 Friday Nact-run-3msg-aux  
 'Friday, it has been run.'

Table 4.6: *Run* class verbs

rot'ə (run)	gəssəgəs ('walk briskly')	fət'tənə ('speed')
bərrərə ('fly')	mət't'a ('come')	zəmmətə ('campaign')
səggərə ('trot') (mule/horse)	k'ələt't'əf ('hasten')	wərrədə ('climb down')

#### 4.2.2 Class 8: cry

The verbs in this class form a distinct category because they lack the basic verb form. To function as a regular verb, they should be marked either with the causative or the anticausative morpheme. They start out as bound roots, and transform into verbs with the aid of the causative and anticausative morphemes.

As I will demonstrate in the later chapters, the anticausative morpheme, however, is not part of the root structure of the verbs. They are attached later in the derivation.

The other point that makes the verbs in this class distinct is the fact that the attachment of the direct causative doesn't transform them to transitive verbs. As exemplified in the following sentence, the clause still remains intransitive (unergative), (Ayalew, 2011, p. 58).

(4.24) *yosef a-lək'k'əs-ə*  
 Josef caus-cried-3msgS  
 'Josef cried.'

The nonactive form of *cry* verbs typically produce an impersonal passive reading. But, this is not uniform across all the verbs of this category. Some of them can have personal passive interpretation while some other groups have activity-like (=middle) senses.

(4.25) *tə-lək'k'əs-ə (impersonal passive)*  
 Nact-cried-3msgS  
 'It is cried.'

Table 4.7: Cry class verbs

root	basic	causative	Nact	Reading of the Nact
wy	–	a-wayyә ('consult')	tә-wayyә	impersonal passive
gwmr	–	a-g <sup>w</sup> ammәrә ('canter')	tә-g <sup>w</sup> ammәrә	impersonal passive
fc'	–	a-f <sup>w</sup> ac'c'ә ('whistle')	tә-f <sup>w</sup> ac'c'ә	impersonal passive
lk's	–	a-lәk'k'әsә ('cry')	tә-lәk'k'әsә	impersonal passive
nb	–	a-nәbәnnәbә ('murmur')	tә-nәbәnnәbә	impersonal/reportive passive
wr	–	a-wәrra ('talk')	tә-wәrra	impersonal/reportive passive
t'n	–	a-t't'әna ('study')	tә-t't'әna	impersonal/personal passive

The verbs grouped here are unified by the fact that they all lack the basic verb form. Semantically, they could also be considered as activity verbs (subclass of the unergative). That is why most of them give rise to the **IP** reading in their nonactive form.

### 4.2.3 Class 9: *belch*

The verbs in this group belong to a specific semantic class. They are known as *involuntary bodily process* verbs, Perlmutter (1978); Kuno and Takami (2004). They denote uncontrolled bodily action.

Formally, they are similar to the *cry* class in that the direct causative mostly targets the bound roots. The transitivization effect of the causative, however, is slightly different. With *cry* class verbs, even if the causative doesn't transitivize them, one can argue that it actually adds an external argument. This is because *cry* verbs are unergative, and that they contain an external argument.

But, in the case of *belch* verbs, the direct causative doesn't seem to add an external argument at all.

- (4.26) *his'an-u-n a-gәss-a-w*  
 baby-def-acc caus-belch-3msgS-3msgO  
 lit. 'It belched the baby.'

The clause in (4.26) is an impersonal construction even if it contains the causative morpheme. Impersonal constructions are often assumed to lack an external argument<sup>6</sup>. If that is the case, then, the causative appearing on the verbs, at least in the case of example (4.26), must be simply dummy form.

<sup>6</sup>Amberber (1996), following Pesetsky (1995), argues for the presence of implied external arguments for impersonal constructions. If his argument turn out to be right, this class of verbs could be grouped with the *cry* class.

The nonactive is barely functional in this class of verbs. In real-life contexts, this class of verbs is rarely used in the nonactive form. With contrived contexts, or fictional world assumptions, for instance, where people entertain themselves by coughing and belching, the impersonal passive reading might be available to the anticausative.

Table 4.8: *Belch* class verbs

root	basic	causative	Nact
nt's	–	a(s)-nət't'əsə ('sneeze')	–
fk'	–	a(s)-fak'k'ə ('hiccup')	–
gs	–	a(s)-gəssa ('belch')	–
fšk	–	a(s)-fašəkkə ('yawn')	–
sl	sallə ('cough')	a(s)-sallə	–
k'rš	k'ərrəšə ('burp')	a(s)-k'ərrəšə	–

Some of them have a basic form. There could be dialectical differences if the basic form is used as a verb or not. In my dialect (Wello), I find the *cough* and *vomit* verbs to have a functional basic forms.

#### 4.2.4 Class 10: *melt*

This class contains the most typical inchoative verbs in Amharic. They are unaccusative in their basic form. They require the causative morphology to form transitive clauses.

- (4.27) *k'ibe-u (bə-rasu) k'allət'-ə*  
 butter-**def** (by-itself) melt-**3msgS**  
 'The butter melted (by itself).'
- (4.28) *muk'ət-u k'ibe-u-n a-k'allət'-ə-w*  
 heat-**def** butter-**def-acc** **caus-melt-3msgS-3msgO**  
 'The heat melted the butter.'
- (4.29) *k'ibe-u bə-muk'ət (\*bə rasu) tə-kallət'-ə*  
 butter-**def** by-heat (by itself) **Nact-melt-3msgS**  
 'The butter is melted with heat.'

In everyday language usage, only the passive reading is available when the *melt* class of verbs are marked by the anticausative morpheme *tə-*, (4.29).

The verbs in this class are identified as **Pattern I** in Amberber (1996), and **Class B** in Alexiadou et al. (2015).

Table 4.9: *Melt* class verbs

unaccusative	causative	anticausative	reading of the <b>Nact</b>
k'əzzək'əzə ('freeze')	a-k'əzzək'əzə	tə-k'əzzək'əzə	passive
mu <sup>w</sup> amu <sup>w</sup> a ('dissolve')	a-mu <sup>w</sup> amu <sup>w</sup> a	tə-mu <sup>w</sup> amu <sup>w</sup> a	passive
tənnənə ('evaporate')	a-tənnənə	tə-tənnənə	passive
fənnədə ('explode')	a-fənnədə	tə-fənnədə	passive
nət't'a ('whiten')	a-nət't'a	tə-nət't'a	passive
fərrəsə ('rupture')	a-fərrəsə	tə-fərrəsə	passive
t'ək'k'orə ('blacken')	a-t'ək'k'orə	tə-t'ək'k'orə	passive
dək'k'ək' ('smash')	a-dək'k'ək'	tə-dək'k'ək'	passive
məššəkə ('shatter')	a-məššəkə	tə-məššəkə	passive
nəddədə ('blaze')	a-nəddədə	tə-nəddədə	passive

#### 4.2.5 Class 11: *decay*

The verbs in this class are known by the name *internally caused change of state* verbs. They are similar to the *melt* class in terms of the causative morphology. They have unaccusative basic and marked causative. Their distinction from the *melt* class of verbs is indeed unclear from the first glance. As I will see in § 7.4.1, however, this class of verbs significantly differ from the *melt* class on their causative properties. For the simple description of the data, however, it suffices to note that the nonactive of these verbs exhibits no passive reading, in contrast to the *melt* class. The *by phrase* functions as the diagnostics for the passive.

- (4.30) *yosef wuc'c' rəsto muz-u-n a-šaggət-ə-w*  
 yosef outside forgetting banana-def-acc caus-decay-3msgS-3msgO  
 'Forgetting outside, Josef decayed the banana.'
- (4.31) \**wuc'c' rəsto (tə-rəsto) muz-u (bə-yosef) tə-šaggət-ə*  
 outside forget (forgotten) banana-def (by-Josef) Nact-decay-3msgS  
 'Forgetting (forgotten) outside, the banana was decayed by John.'

Table 4.10: Decay class verbs

root	unaccusative	causative	anticausative
šgt	šaggətə ('decay')	a-šaggətə	–
t'wlg	t'əwəlləgə ('wilt')	a-t'əwəlləgə	–
ff	fəffa ('build up (grow)')	a-faffa	–
c'c'	c'ac'c'a ('dwindle')	a-c'ac'c'a	–
kss	kossəsə ('become thin')	a-kosəsə	–
wfr	wəffərə ('fatten up')	a-wəffərə	–
ks	kəssa ('become skinny')	a-kəssa	–
mnmn	mənəmmənə ('emaciated')	a-mənəmmənə	–

#### 4.2.6 Class 12: eat

These are another class of verbs with some distinctive properties with regard to causativization. They are known as *ingestive* verbs in the literature, Newman (2009b); Amberber (2009); Newman (2009a).

The ingestive verbs are the only transitive verbs that license the direct causative.

(4.32) *mariyam dabbo bəll-ačč*  
 Mary bread eat-3fsgS  
 'Mary eat a bread.'

(4.33) *mariyam lə-yosef dabbo a-bəll-ačč-(i)w*  
 Mary for-Josef bread caus-eat-3fsgS-3msgO  
 'Mary feed bread to Josef.'  
 'Mary feed Josef a bread.'

There are at least two readings to the causative in (4.33). First, it can imply direct causation/manipulation where Mary directly/physically putting the bread in Josef's mouth. In the sense, Mary doesn't directly put the bread in Jose's mouth; rather invites him to her bread. The first sense is closer to the standard function of the direct causation. The second sense is related with benefactivity sense where Josef is the benefactor of the event.

Table 4.11: *Eat* class verbs

root	causative	anticausative	meaning of the <b>Nact</b>
t't'	t'ət'ta; a-t'ət'ta	tə-t'ət't'a	passive
t'b	t'əbba; a-t'əbba	tə-t'əbba	passive
k'ms	k'əmməsə; a-k'əmməsə	tə-k'əmməsə	passive
wt'	wat'tə; a-wat'tə	tə-wat'tə	passive

### 4.2.7 Class 13: *stand up*

These are known as the *body posture* verbs, Berthele (2003); Newman (2002). They show a change in body position without any change of place. Most of these verbs have a marked causative form. The anticausative often selects the bound roots of the verbs, and has the middle (reflexive) reading.

(4.34) *maryam tə-nəss-ačč*  
 Mary **Nact-take.up-3fsgS**  
 'Mary stand up.'

(4.35) *maryam ik'a-u-n a-nəss-ačč-(i)w*  
 Mary item-**def-acc caus-take.up-3fsgS-3msgO**  
 'Mary picked up the item.'

Most of them start from bound roots and generate the causative and the middle using the causative and the anticausative morphemes, respectively.

Table 4.12: Nontranslational motion verbs

Root	basic verb	causative	<b>Nact</b>	reading of the <b>Nact</b>
k'mt'	–	as-k'əmmət'ə ('put')	tə-k'əmmət'ə ('sit')	passive/middle
ns	–	a-nnəsa ('pick up')	tə-nnəsa ('stand up')	passive/middle
gdm	–	a-gaddəmə ('lay down')	tə-gaddəmə ('lie down')	passive/middle
nt'f	–	a-nət't'əfə ('lay flat')	tə-nət't'əfə ('lie flat')	passive/middle
ndrdr	–	a-ndərəddərə ('roll down')	tə-ndərəddərə	passive/middle
nkbl	–	a-nkəballələ ('roll down')	tə-nkəballələ	passive/middle

### 4.2.8 Class 14: *know*

I am less confident on whether this group of verbs should be kept as a separate class or not. The motivation to keep them as a separate category comes from the observation that their roots might already contain the causative item. An /a/ vowel belongs to their root patterns. This vowel is arguably part of the root templates ('binyanim') of the verbs.

Table 4.13: *Know* class verbs

root	basic	anticausative
awk'	awwək'ə ('know')	tə-awwək'ə
ac'd	ac'c'ədə ('mow')	tə-ac'c'ədə
at'r	at't'ərə ('make fence')	tə-at't'ərə
ak'f	ak'k'əfə ('hug')	tə-ak'k'əf
afs	affəsə ('scoop')	tə-affəsə

The reason why this class of verbs could be assumed to contain the vowel as part of their root template comes from the other lexical categories derived from the roots. The adjectives and nouns derived from the above roots also contain the /a/ vowel. The noun form of the *ac'c'ədə* ('mow'), for example, is *ac'ədə* ('mowing').

### 4.2.9 Class 15: *please*

Most of the verbs in this class are experiencer verbs. None of them can take the direct causative **a-**. For this group, the indirect causativization is the only means of forming a transitive clause.

Two subclasses can be identified within this verb class. The first subclass includes verbs that have the basic verb form, but cannot take the direct causative. The verb *gərrəmə* ('surprise') forms an impersonal construction, as shown in (4.36).

- (4.36) *mariyam(-n) gərrəm-ə-at*  
 Mary(-acc) surprise-3msgS-3fsgO  
 'Mary is surprised.'  
 'It surprised Mary'

- (4.37) *mariyam(-n) tarik-u as(\*a)-gərrəm-ə-at*  
 Mary-(acc) story-def CAUS(caus)-surprise-3msgS-3fsgO  
 'The story surprised Mary'  
 'Mary is surprised of the story.'

The second subclass contains verbs that lack the basic (active) form altogether. For the *please* verb, for example, both the basic form *dəssətə* and the direct causative marked form such as *a-dəssətə* are ungrammatical.

- (4.38) *mariyam yosef-n \*(as)-dəssət-əčč-(i)w*  
 Mary Josef-acc CAUS-please-3fsgS-3msgO  
 ‘Mary pleased Josef.’

Table 4.14: *Please* class verbs

root	basic	caus	Nact form	Nact sense
grm	gərrəmə	as-gərrəmə (‘surprise’)	tə-gərrəmə	middle
dnk’	dənnək’ə	as-dənnək’ə (‘stun’)	tə-dənnək’ə	middle
c’nk’	c’ənnək’ə	as-c’ənnək’ə (‘distress’)	tə-c’ənnək’ə	middle
fr	fərra	as-fərra (‘frighten’)	tə-fərra	passive
dngt’	dənnəgət’ə (‘get scared’)	as-dənnəgət’ə (‘scare’)	tə-dənnəgət’ə	–
dst	–	as-dəssətə (‘please’)	tə-dəssətə	middle
rd	–	as-rədda (‘explained’)	tə-rədda (‘understood’)	reportive passive/?middle
gnzb	–	as-gənnəzəbə (‘give notice’)	tə-gənnəzəbə (‘notice’)	reportive passive/?middle

The analysis of the causative of this class of verbs has been presented in § 8.2.2.2.

As for their anticausative form, the default interpretation tend to be the middle. Under certain conditions, the passive reading is also a possibility for many of them.

## 4.3 Noncausative

### 4.3.1 Class 16: *wish*

This group also contains verbs which don’t take the direct causative morpheme. They also lack the basic verb form. They serve as verbs only after the anticausative morpheme attached on them.

- (4.39) *yosef lə-mariyam məlkam iddīl tə-məññ-ə*  
 Josef for-Mary good luck Nact-wish-3msgS  
 ‘Josef wished a good luck to Mary.’

Whether the nonactive has a causative counterpart at all is not clear to me. The attachment



of the indirect causative on the *wish* verb, generates an impersonal construction.

- (4.40) *kifu* (*nəggər*) *as-məññ-ə-w*  
 bad (thing) CAUS-wish-3msgS-3msgO  
 ‘It made him wish bad (thing).’

The *happen* verb doesn’t take the indirect causer at all.

Table 4.15: *Wish* class verbs

root	basic	causative	anticausative	meaning of anticausative
kst	–	–	tə-kəssətə (‘happen’)	middle
mñ	–	–	tə-məññə (‘wish’)	middle

### 4.3.2 Class 17: *fall*

The verbs in this group lack a causative form. This group contains non-alternating unaccusative verbs. The causative counterpart seems to be expressed with suppletive forms.

*Wəddək’ə* (‘fall’) and *motə* (‘die’) are the only two verbs of this class that I am aware of.

Under normal circumstances, the combination of the anticausative morpheme with this class of verbs appears pretty marginal.

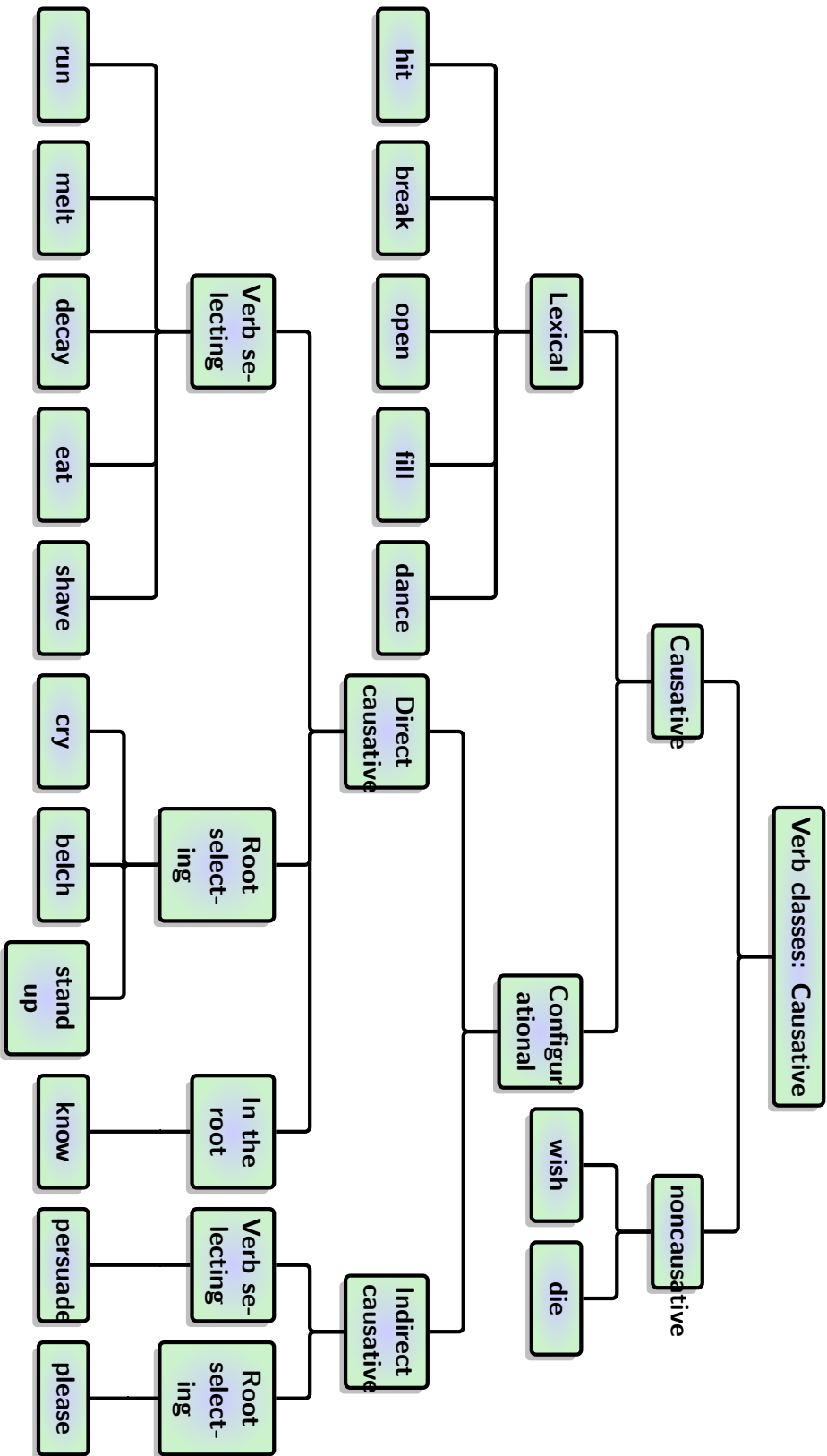
Table 4.16: *Fall* class verbs

root	basic (unaccusative)	causative	anticausative
mt	motə (‘die’)	–	impersonal passive
wdk’	wəddək’ə (‘fall’)	–	impersonal passive

## 4.4 Summary of the verb classes

Figure 4.1 summarizes the classes of verbs based on the notion of causativization. As shown in the diagram, the verbs fall into two types based on their causative properties. They either have causative (transitive) function or not. *Fall* class verbs lack causative component altogether (both lexical and configurational). Their causative functions are probably filled by suppletive verbs. In any event, these verbs cannot generate the causative by any means.

Figure 4.1: Classes of verbs based on causation



The rest of the verbs have some form of causative function. The second row shows the source of the causative property for causativizable verbs. For the verbs which have causative function, there are two options—the causation is either part of their lexical makeup; or is introduced configurationally. The verbs in 1-5 (see 4.17) contain the causative as part of their lexical makeup. The rest introduce the causative property by some configurational means.

Verbs themselves which introduce causation by configurational means fall into two groups based on their preferred causative marker. Most of them use the regular transitivizer item to add causative element to their roots. A limited group of verbs cannot have the direct causative. Therefore, their causative (transitive) function can be achieved only via the indirect causative. Verbs such as *wish* & *please* causativize this way.

The following summary includes the interpretation of the anticausative, as well. I would, however, like to stress that the interpretations I am assigning are only the most prominent ones. With good contexts, one might come up with more senses to the anticausative. We will return to the details on the multiple interpretations of the anticausative in chapter 6.

Table 4.17: Classes of verbs based on the causative (active) and unaccusative (anticausative) functions

class	root	gloss	causative	unaccusative	passive	middle
1	mt	hit	mætta	–	tə-mætta	–
2	sbr	break	səbbərə	tə-səbbərə	tə-səbbərə	–
3	kft	open	kəffətə	tə-kəffətə; kəffətə	tə-kəffətə	–
4	ml	fill	molla	molla	tə-molla	–
5	c'fr	dance	c'əffərə <sup>1</sup>	–	tə-c'əffərə	–
6	lc'	shave	lac'c'ə	–	tə-lac'c'ə	tə-lac'c'ə
7	rt'	run	a-rot'ə	–	tə-rot'ə	–
8	lk's	cry	a-lək'k'əsə	–	tə-lək'k'əsə	–
9	gs	belch	a(s)-gəssə	–	tə-gəssa	–
10	klt'	melt	a-k'əllət'ə	k'əllət'ə	tə-k'əllət'ə	–
11	šgt	decay	a-šaggətə	šaggətə	–	–
12	bl	eat	bəlla; a-bəlla	–	tə-bəlla	–
13	ns	stand (pick) up	annəsa	–	tə-nnəsa	tə-nnəsa
14	awk'	know	awwək'ə	–	tə-awwək'ə	–
15	dst	please	as-dəssətə	–	tə-dəssətə	tə-dəssətə
16	mñ	wish	–	–	–	tə-məññə
17	wdk'	fall	–	wəddək'ə	tə-wəddək'ə	–

<sup>1</sup> To simplify the picture, I am tentatively taking the basic form of the *dance* verb as causative.



**Part II**

**Architectural Issues**



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## CHAPTER 5

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# Theoretical background

## 5.1 Introduction

In [chapter 2](#) and [chapter 3](#) I have discussed the causative and anticausative morphological patterns in Amharic. Each of these chapters present the empirical facts, as well as a brief review of the most important literature.

As already stated in those chapters, there are also a number of intertwined issues that the causative-anticausative patterns pose to linguistic theory—why and how these patterns happen to appear in languages, how these patterns compare across languages, and ultimately why human languages have voice systems in the first place.

The voice systems of many languages show a lot of uniformities which gravitate the mind of the linguist who are interested in formulating universal principles. There are also undeniable diversities which equally require systematic explanations. Explaining these cross-linguistic uniformities and diversities is the task of the linguistic science. A systematic comparison of the cross-linguistic data, as well as in-depth analysis of the data of a specific language requires some theoretical frameworks which helps the linguist to narrow down the analytical options to manageable chunks. In this chapter, I will lay out the crucial theoretical frameworks that I will rely on in the rest of the analysis.

Most of the theoretical approaches I will use such as the lexicalist understanding of verbal semantics, the Minimalist conception of feature-based derivation and the like are already familiar for anyone who is currently engaged in the study of linguistics. These don't need any introduction. What is probably less familiar to the reader, and pretty important to the current study— is what I call the **DC** framework. As such, I will spend the latter part of the chapter explaining the framework. I will argue that the **DC** framework, a system of

grammar that permits direct interaction between syntactic and semantic derivations, offers a better system to explain the voice system of Amharic than the standard Y(T)-model.

In addition to the theoretical frameworks, I will also lay down my strategies and assumptions on important foundational issues that will surface throughout the dissertation. The following three issues will have special significance for the analysis to come:

- the classes of verbs, and the basis for the classification
- the classes of arguments, and the basis for the classification
- theta assignments: how theta role assigned to arguments

As to the lexical semantics of the verbs, I take the causative component of the verbs to be the most important characteristics that makes the verbs behave in a certain manner in the grammar (of voice). In § 5.2, I will classify the verbs into fine-grained groups on the basis of their causativity. I will suggest that the standard classification of verbs into two –the causative and noncausative types–is not sufficient to explain a number of phenomena. I will therefore develop a mechanism to dissect the verbs into fine classes. The verbs are arranged in a hierarchy, from high causative to low causative verbs. I will later rely on this hierarchy to explain a number of issues–most importantly that of theta role assignment and causative-anticausative alternation patterns.

The second issue I want flush out in this chapter involves theta roles. Theta values have crucial explanatory functions that I will extensively use in chapter 7. I will specifically propose that theta roles serve as determining factors for the interpretation of the underspecified nonactive voice. For that, using the relevant literature, I will present my strategies and assumptions on how theta roles are assigned to arguments.

I don't have any new proposal to defend because the theta role assignment system I will explicate here (the configurational theta theory) has already been defended in a number of previous works. What I will rather do here is make the assumptions more explicit, and modify them to construct a coherent system.

In a nutshell, I will contend that theta roles are neither listed as part of the lexical semantics of the verbs, nor are they universally rigidly associated with specific functional projections. I will argue that they are configurationally constructed. As such, different clause internal parameters–most importantly the causative property of the verbs and the animacy and motion properties of the arguments, as well as the syntactic heads contribute different degrees to the ultimate theta value assigned to the arguments.



## 5.2 Causative Hierarchy

It is well known that the causative-anticausative alternation targets specific classes of verbs. Based on the alternation patterns, the traditional strategy has been to group verbs into causative and noncausative classes. But, recent studies show that this two level classification is insufficient to explain the nuanced distinctions evident across the verb classes. As a result, improved classifications have been suggested. [Alexiadou et al. \(2006, 202\)](#) & [Schäfer \(2008\)](#), for example, have classified the verbs (their roots) into four categories:

- (5.1)
- a. agentive (murder, assassinate)
  - b. internally caused (blossom, decay)
  - c. externally caused (destroy, kill)
  - d. cause unspecified (break, open)

While the classification of the roots looks into four classes is much refined than the traditional dichotomy, there still remains a number of issues. One of those issues is the presence of a larger number of verb classes within some languages. As we have seen in [chapter 4](#), there are over a dozen of verb classes. There are more classes of verbs than these four groups can accommodate. All the derivational directions, even just the causativization derivation, cannot be fully captured by assuming only four classes of verbs or verbal roots. The actual empirical evidence tells that the categories of verbs is much more refined and nuanced.

To better explain the fine-tuned derivational patterns, here I am proposing the causative hierarchy as an alternative system for the classification of verbs. The system I am going to present here is very similar to what is known as Tsunoda’s [1985](#) transitivity hierarchy (also known as *Thunoda hierarchy*). Thunoda grouped verbs from least transitive to the most transitive in a one continuum hierarchy. His hierarchy is meant to explain why the accusative case targets the objects of some groups of verbs (groups 3 and 4), but not others.

Table 5.1: Tsunoda Hierarchy

1	2	3	4	5	6	7
Direct Effect	Perception	Pursuit	Knowledge	Feeling	Relationship	Ability
kill, break, hit	see, hear	search, wait	know, remember	love, afraid	possess, have	be able

Tsunoda hierarchy is an effective system in predicting which types of verbs would likely have an accusative or an oblique object. The top 4 categories of verbs almost always take objects with accusative cases. The 5th (*feeling*) category contains verbs which take objects with both oblique and structural cases. The verbs in the 6th and 7th categories are more likely to fail to assign structural cases to their object arguments.

The causative hierarchy I am going to lay out here is similar to Tsunoda's hierarchy, but focusing on the causative alternation of the verbs.

The idea behind the causative hierarchy is the understanding that the degree of causativity encoded by one verb might not be of equal status to that of the other verb. Causativity is a fine-grained notion which may manifest in different degrees on different verb groups. The purpose is to use the causative hierarchy (level) of verbs to explain the causative alternation, theta assignment, passive formation and similar linguistic phenomena.

Before we decide which of the verb groups are the most archetypal causatives, we need a system of diagnostics to put the verb classes into different layers. I will use some observations and theories set in the cognitive linguistics as diagnostics to lay the verbs into different layers in the hierarchy. The diagnostics for verb classification are often victims to circularity because we use the same observed patterns to classify the verbs into groups, as well as means of explanation, at the same time. It would definitely be circular to use the causative alternation patterns of the verbs as a means to classify the verbs, as well as means to explain the causative alternation itself. For that, I will rely on the evidences from the cognitive linguistics to fit the verb classes into the hierarchy.

I believe that the very foundation of verb-class formation, at least as far as the causative alternation goes, has something to do the very core causative meaning of the eventualities of the verbs. Many of the classes are uniform across languages. There are some persistent patterns (uniformities) that show up language after language. The patterns have to do with the general cognition of causation in the human mind. As such, the philosophical and psychological studies on causation could offer insights how the general cognition of causation might end up shaping the linguistic causation. Here, I am going to attempt to design the diagnostics for the verb classification from those sources.

Unfortunately, the causation debated within the philosophical literature seems to have little relevance to the study of linguistic causation, [Copley and Wolff \(2015\)](#). But, the study of causation within the cognitive fields has a potential to provide relevant inputs. I specifically find the cognitive theories which describe causation as reflection of the application of natural force to be quite convincing. Given the suggestion that the category of verbs has to do with their causative characteristics, the force-dynamic conception of causation developed in [Talmy \(2000a\)](#) and [Croft et al. \(1990\)](#); [Croft \(1991, 1995\)](#) provides useful tools to diagnostic and identify the verb types.

### 5.2.1 Causation as application of force

The force conception of the causal theory is first presented by various works of [Talmy \(1985, 2000b,a\)](#). This framework has then been extensively used to explain linguistic causation specially in the cognitive linguistics domain, [Croft \(1998, 2012, 2015\)](#); [Langacker \(2008\)](#).

The main idea of the force theory of causation (causal chain theory in Croft's works) is the representation of verbal events as chains of causations. The causal chain theory is basically a cognitive theory. As a cognitive theory, it is supposed to relate cognitive conceptions of causation to that of the real world causation. The linguistic verbal causation is assumed to be one part of a bigger cognitive causation conceptualized by the human mind. That is, the causation represented with the verbal meanings is just one of the components of the cognitive causation conceptualized by the mind.

Causal events are understood to conceptualize a transmission of force. The force has a source, the *initiator* participant, and a destination, the so-called *endpoint*. The force transmission is assumed to be an asymmetrical channel where the applied force flows from the *initiator* to the *endpoint*. As such, it is assumed to have both directions and magnitudes.

“[E]vents...have causal directionality, and they can be linked into a series of causally related events such that the endpoint or affected entity of the causally preceding atomic event is the initiator of the next atomic causal event.” (Croft, 1991, 169)

- (5.2) Sue broke the coconut for Greg with a hammer  
 Sue → hammer → coconut → Greg

The example in (5.2) shows a series of events connected with causal (force) chains. In its simplest form, it tells a story of sequence of events. Sue acts on the hammer, the hammer applies on the coconut, and the coconut then undergoes some change finally benefiting Greg. This transmission of the force from the primary source, Sue, to the end, Greg, is represented by the arrows in (5.2). This asymmetrical force dynamic conceptualization of the event is taken to offer explanatory powers for a number of linguistic phenomena including argument structure, and a number of other facts.

### 5.2.2 Force dynamics as diagnostics for causative hierarchy

The idea here is to use the force dynamics (action chain) conception of the causation to motivate the classification of the verbs.

First, Talmy's original classification of types of causation serves as a starting to learn how the types of causation might shape the classification of verbs. According to him, causation can be classified into four types:

- (5.3) a. physical causation: one physical object acting on another physical object; eg. *The wind broke the window*  
 b. volitional causation: a volitional entity acting on a physical object; eg. *John broke the window*

- c. affective causation: a physical object acting on another entity with mental capacity in such a way that the causation involves a mental effect; eg. *The weather scared Mary*
- d. inductive causation: a volitional entity acting on another entity with mental capacity; eg. *Mary convinced John to wash the car*

This classification of causation is based mainly on the properties of the participants. But, a more complete categorization of causation needs to consider the type of events themselves as well.

- (5.4) Two elements of causation
- a. the events
  - b. the participants of the events

Based on these parameters, we can formulate more refined subtypes of causation. In addition to further refine the types of causation, I will also put them into hierarchies, based on Langacker's (Langacker (1991b,a, 1987)) and also Hopper and Thompson (1980) characterization of prototypical (billiard ball) causation.

(5.5) **Hierarchy of causation**

- a. **Types of eventualities:** eventualities denoting *billiard ball* type of applied force are more typical than eventualities denoting non-billiard ball type of force, –based on Langacker's 1991b; 1991a characterization of *billiard ball* causation.
  - (i) *physical* » *psychological*: Causation denoting physically manipulation denotes more typical causation than non-physical (psychological) manipulation.
  - (ii) *+force (+motion)* » *motionless*: causation with applied force or motion denotes more typical billiard ball kind of causation than without motion. This is the *kinesis* property in Hopper and Thompson (1980).
  - (iii) *Contactive* » *non-contactive*: A physical causation denoting direct *contact* is more typical than that of non-contactive causation, (Langacker, 1991b, p. 13).
  - (iv) *External* » *internal*: Applied force from an outside initiator towards an endpoint denotes more typical causation than self-imposed or internally initiated causation
- b. **Types of participants<sup>1</sup>**
  - (i) *volitional* » *nonvolitional*: eventualities with volitional doers outrank those with nonvolitional doers, Talmy (1985); Hopper and Thompson (1980) and many others. A complete rank of the arguments is given in

- (5.12).
- (ii) *affected* » *nonaffected*: causation where undergoers affected by the event outranks where they are not affected, Hopper and Thompson (1980).

The idea in the ranking follows from the cognitive studies which state that the human mind takes the billiard ball types of events as the prototype for the conception of causation. Most of these cognitive-semantic attributes are mirrored into the linguistic verb semantics. We can then use these basic conceptual notions to judge which of the verbs should be considered more prototypical causative verbs than others. Verbs with eventualities that satisfy all the properties would be the most prototypical causative verbs. Events that don't satisfy some of these characteristics are considered less typical, and fall lower in the ranking.

Each of the attributes of the eventualities and arguments could be effectively used to classify the verbs into different classes. The attribute given in (5.5a-iv) for example helps us identify eventualities with external doers from others. If an eventuality of a verb necessarily requires an external actor, the verb ranks higher than those which don't require an external actors. I propose that this characteristic of events is sufficient to make distinctions between internally caused and externally caused verbs. Events associated with verbs like *hit* always require external causers. The eventualities associated with verbs like *crack*, *melt*, *decay*, *break* on the other hand, do not always require *external* effectors.

The diagnostics given in (5.5a-iii) also functions to make distinctions between direct causation and indirect causation. It is well recognized that direct causation involves contact between the participants, while indirect causation doesn't.

The property of the causation given (5.5a-ii) identifies events that involve actual applied force (with motion and energy) from events with no such applied force. The *break* class of verbs can be identified from the *melt* and *decay* class of verbs, for example, with this diagnostic because the breaking event could be effected with [+force] action.

We are going to see how put to rank the verbs into the causative hierarchy using the above diagnostics.

## 5.2.3 Verb Groups

### 5.2.3.1 Break vs. Hit

The distinction between the *hit* and *break* classes of verbs is well known in the literature. The first and most important study to systematically investigate these verb classes, Fillmore (1970), has already identified many distinctions between the two classes. Even if there is little consensus on the issue, recent studies, Levin and Hovav (2005), attribute the change

<sup>1</sup>A more elaborate classification of arguments is given in § 5.3.1. For now, the two attributes of the arguments such as the volitionality and affectedness are sufficient.

of state implied with the *break* class of verbs as the main source of distinction between the two classes. But, change of state is orthogonal to causative properties of verbs. As such, a more relevant property to identify them would be to use the diagnostics given above.

The two verb classes can be differentiated with the help of the two diagnostics given in (5.5). First, the *hit* class always require an external effector. This is to mean that event of the *hit* cannot denote a situation where the hitting undergoes within the internal parts of the participant. Breaking can occur due to internal processes (without external actor). In relation to this, the eventualities of *hit* class verbs also require applied force (+motion+force) while the realization of the events of *break* class of verbs don't require it.

Based on these two diagnostics in (5.5a-ii) & (5.5a-iv), the *hit* class of verbs would outrank the *break* class.

### 5.2.3.2 Break vs. Melt

Verbs such as *melt*, *break* and *decay* are often grouped under one category—namely, change of state verbs. Many works, most importantly Levin and Rappaport Hovav (1995), make further classifications within change of state verbs. Verbs such as *break* are called **ECCOS** because the change denoted by events of these verbs is assumed to have an external causer. Verbs such as *blossom/decay* are considered **ICCOS** because the internal property of the undergoer is considered the cause of the change.

The situation with the *melt* types of verbs is a bit complicated. Levin and Rappaport Hovav (1995) don't group these verbs with either of the verb classes. These verbs are considered to be compatible with both semantic classes.

As Levin and Rappaport Hovav noted, *melt* verbs share the properties of both **ECCOS** & **ICCOS** classes. This, however, doesn't mean that they belong to both or either of the two verb categories. They have some distinctive characteristics that warrant a separate class of their own. They differ both from *break* & *decay* verb classes on important grounds.

A useful strategy to understand the subtle conceptual differences between the causative properties of the *break* and *melt* verbs is to note how motion or force is relevant to the eventualities of the two classes. Consider the *break* verbs I described table 4.2. The eventualities of these verbs might denote some kind of applied force from the initiator to the undergoer. If the initiator is a human being, for example, cutting, splitting, disentangling, uncoiling, twisting or bending an object requires application of force (often with the use of one's hand).

In contrast to the *break* class, the events of the verbs listed in table 4.9 are highly unlikely to come to effect with the direct application of force (physical manipulation). This means that the *melt* class, the causation is effected with no directly applied force.

Adverbs that denote applied force make the distinction clearer.

- (5.6) a. John forcefully broke the window.  
 b. John broke the glass with a great force.
- (5.7) a. #John forcefully melted the butter.  
 b. #John melted the butter with great force.

Using adverbs like *forcefully* with the *melt* class of verbs sounds absurd. This is because the eventualities of these verbs don't normally realize with the application of force.

This shows that the force property is relevant/associated with the eventualities of the *break* class verbs, but not with the *melt* class verbs. This property is sufficient to rank the *break* class verbs higher than the *melt* class verbs.

### 5.2.3.3 Melt vs. decay

As I have already stated above, the *decay* verbs are considered **ICCOS** because internal property of the undergoer is assumed to be the cause for the realization of the eventuality. The blooming of the flower, or the decaying of the food, or the rusting of the metal, all are conceptualized to have the internal property of the undergoer as the primary cause of the change.

The point I want to make here is that the two verb classes cannot be grouped together under **ICCOS**.

There are a couple of evidences for the distinction between the two verb classes. But, for now, it would suffice to show that the two verb classes (or their eventualities) differ on the types of participants associated with them. As we will see later in more detail (also (5.5b-i)), the types of external arguments associated with the eventualities of the predicates reflect the nature of causation denoted by their eventualities.

The *melt* class and the *decay* class could be identified by the types of effectors. All *melt* verbs license human effectors. But the majority of the *decay* class of verbs cannot take human (volitional) effectors.

- (5.8) \*The gardener bloomed/blossomed/flowered the cactus early Levin and Rappaport Hovav (1995).

This ability of the eventualities of the *melt* class verbs makes them rank higher than the *decay*<sup>2</sup> class verbs in the causative hierarchy.

<sup>2</sup>Levin and Rappaport Hovav (1995) also ruled out nonhuman causers with the *decay* verbs citing examples

### 5.2.3.4 Open

The verbs in the *open* have ambiguous meaning. In one sense, they denote the usual motion sense where one opens a door or a window. In this sense, they behave like *break* class verbs because external force can be applied. This sense, however, still differs from the *break* verbs because it doesn't involve genuine change of state. The change is only a change of place or position.

But, the second sense, which seems unavailable to the *open* verb in English is the change of state sense. This sense denotes an internal change of state as in the *opening up* or *cracking* of a wall.

- (5.9) a. *nifas-u bār-u-n bəhayl kəffət-ə-w*  
 wind-def door-def-acc forcefully open-3msgS-3msgO  
 'The wind forcefully opened the door'
- b. *muk'ət-u t'ara-w-n (#bəhayl) kəffət-ə-w*  
 heat-def roof-def-acc (forcefully) open-3msgS-3msgO  
 'The heat (#forcefully) opened up the roof.'

Since force is relevant in one sense (motion sense) and irrelevant in the other sense (change of state sense), the open verbs display the properties of both the *break* and *melt* classes.

The internal process of opening of the roof doesn't require an external forceful causer. The process unfolds in the long run and changes the internal integrity of the roof. We can think of this as an internal chemical/mechanical change.

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like:

- (i) \*The bad weather decayed the logs

While the human causers are universally ruled out, natural causers are judged grammatical in other works. Cambridge Online Dictionary, for example, presents the following sentence:

- (ii) Pollution has decayed the surface of the stonework on the front of the cathedral.

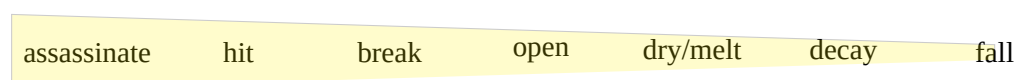


Table 5.2: Summary of the verb hierarchy

verb	physical	force	Contact	Ex. causer <sup>4</sup>	volition	affected
assassinate	✓	✓	✓	obligatory	obligatory	✓
hit	✓	✓	✓	obligatory	optional	✓
break	✓	✓	✓	optional	optional	✓
open (motion)	✓	✓	✓	optional	optional	✓
open (change)	✓	✗	✓	optional	✗	✓
melt	✓	✗	✓	optional	optional	✓
decay	✓	✗	✗	optional	✗	✓

This makes the *assassinate* class of verbs the most prototypical causative verbs, followed by the *hit* class, followed by the *break* class, and so on. The *open* class verbs are at equal level to *melt* class verbs. They satisfied more diagnostics in the *motion* sense, but less in the *change* sense. The *melt* class verbs rank higher than the *decay* class because of the licensing of the intentional causers<sup>5</sup>. This gives us a hierarchy of verbs as follows:

Figure 5.1: Causative hierarchy



According to this, the higher the position of the verb in the hierarchy, the more direct/prototypical is its causative property. As such, the *assassinate* type of verbs are assumed to have more direct causative than the *hit* type, and the *hit* type are supposed to have more prototypical causative characteristics than the *break* type, and so on.

In the following section, I will show that the causative hierarchy established can be used to explain theta assignment. First, I will establish the classes of arguments. Then, I will demonstrate the verbs that fall in certain causative layer select specific types of arguments. High causative verbs require/allow their arguments to have <+motion> and <+animate> attributes. Finally, I will use the causative hierarchy in combination with the argument types to explain theta assignment.

<sup>4</sup>Ob.Ex causer = obligatory external causer

<sup>5</sup>The events of the *melt* class also denote contact between the effector and the undergoer, in contrast to the *decay* class. But, I leave the issue of contact aside for now because it requires complicated argumentation on the conception of events in the two verb types.

## 5.3 Theta roles

As we will see in the later chapters, my explanation of the interpretation of the anticausative highly relies on thematic roles. For that end, I need to make my assumption on theta roles explicit.

The most important point I will make in this section is that  $\theta$ -roles are not lexically determined. They don't come pre-listed by the lexical meaning of the verbs (contra to the lexicalist assumptions). Nor the functional heads such as VoiceP/vP come pre-specified with a certain theta value (contra to the vP hypothesis). They are configurationally determined by considering a number of clause internal factors including the causativity of the verbs, the animacy and motion properties of arguments as well as other adjunct phrases.

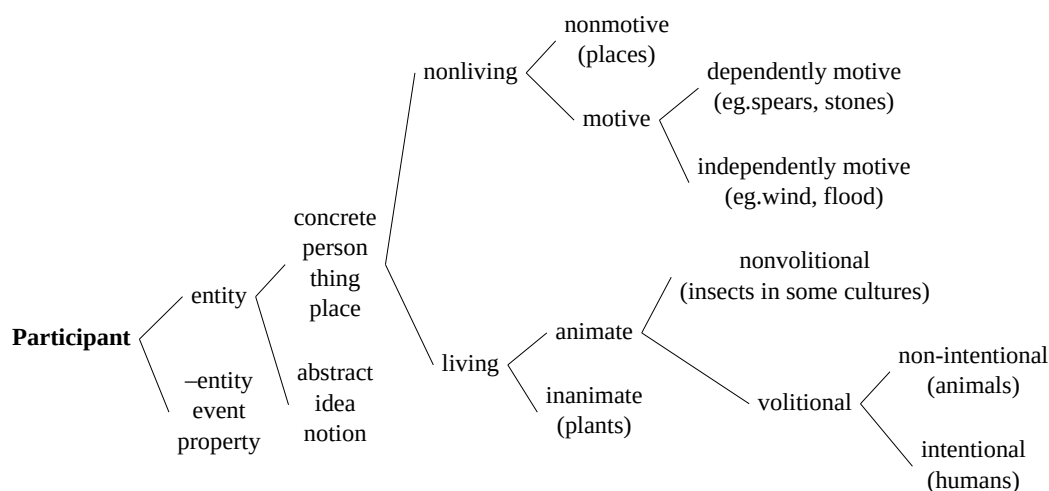
Since I have already discussed the important property of the verbs for theta role specification (which is their causative property), in this section, I will discuss the properties of the arguments. I will start with the presentation of the classification of arguments. Then, I will move on to show how the arguments are selected by different verb types. Finally, in § 5.3.3, we will see how these characteristics of the arguments, along with that of the verbs, conspire to determine the theta roles.

### 5.3.1 Classes of Arguments

The nature of arguments contributes to the grammar. A number of works have noted the importance of the properties of the arguments. Dowty (1979) famously has a long list of the properties attributed to participants (arguments) of events that he considered relevant to the grammar. *Activeness, animacy/human, completeness and definite* are some of the attributes of argument that he considered relevant.

Along these lines of animacy and activeness properties, Van Valin and Wilkins (1996) also have a classification of types of participants. They used the logical, our real-world knowledge to classify the types of participants.

Figure 5.2: Classification of participants according to Van Valin and Wilkins (1996)



Not every attribute listed in their classification is relevant to the grammar. Of all the properties listed in the above picture, the intentionality, volitionality, motion/activeness and concreteness properties appear important to the grammar. Furthermore, the relevance of the attributes is not universally equal. Some of the properties are more important than the others.

- (5.10) Ranking of the argument properties  
 <intention> » <volition> » <motion> » <concreteness>

Intentionality which is the property of human beings, and the volition which is the property of animals are considered very important attributes. Once an argument has these attributes, it surely to appear higher up in the argument hierarchy. The motion attribute comes next, and the concreteness follows.

Based on the above hierarchy of the crucial attributes, the argument themselves then can be arranged into groups.

- (5.11) **Groups of participants**
- Group 1: **Events:** *John's leaving; that he washed the car..*
  - Group 2: <+thing, –concrete>: **Abstract notions:** eg. his intelligence, their discussion
  - Group 3: <+concrete, –motion>: **Objects: non-movable** (places), eg. the mountain, Europe. They are different from group 4 for they cannot be used as instruments (they lack motion characteristics)

- d. Group 4: <+motion, –volition>: **Objects: dependently motive**: They move but require source of energy: eg. spear, stone, heat.
- e. Group 5: <+motion, –volition>: **Objects: Independently motive** (natural forces), eg. the wind, a flood, the pressure, a thunder
- f. Group 6: <+volition,–intention>: **Animals**, eg. the rabbit, the insects, a horse
- g. Group 7: <+intention>: **Humans**, eg. the boy, John

- (5.12) The hierarchy of the arguments on the basis of their agency  
 Group 7 » group 6 » group 5 » group 4 » group 3 » group 2 » group 1

Group 7 arguments stand highest in the argument hierarchy because they are intentional. In some cultures, children and incapable individuals are treated differently. But, in general <+human> participants outrank <–human> participants.

Arguments denoting nonhuman animals come next in the hierarchy. They are endowed with volition, as well as motion properties, [Van Valin and Wilkins \(1996\)](#). Volition is described as a property of an entity “which manifest nonconscious basic acts of will (such as a baby crying for milk)”. In this sense, volition involves controlled act; but not necessarily a deliberation (intentional).

Group 5 contains natural forces which undergo motion without any volition or intention. This group includes natural forces like *a tornado, rain, wind, flood, storm*. These participants are capable of instigating force without the help of an external source. They are sources of energy themselves. They are similar to animate participants since they can instigate causation/force. “Forces are inanimate effectors which share two crucial properties with human and animate effectors: they are capable of independent **motion** and action, and they are not subject to the control of another effector, animate or inanimate” [Van Valin and Wilkins \(1996\)](#).

As we will see later, the theta assignment system identifies these participants as a distinct category. Natural causers with motions and without motions should be made distinct because, distinct effects on the theta assignment system.

The distinction between <+motion> and <–motion> natural causers is also important for verb selection. Verbs denoting exertion of force such as *push, pull, slide*, etc., for example, cannot felicitously combine with regular (motionless) causers, ([Levin, 1993](#), p. 137).

- (5.13) a. Mary/the wind was pushing the cart to the driveway.  
 b. Mary/the current was pulling the log to the harbor.  
 c. #The heat was pulling the log to the harbor.

This again shows that distinguishing natural forces from motionless causers has important linguistic ramifications.

Instruments (group 4 arguments) are also conceived as sources of force without the capability to directly apply it. Instruments can apply forces only via secondary instigators. This is consistent with the linguistic observation that instrumental role tends to come with explicit or implied agents. They are dependent actors.

We will also later see that the classification of the arguments into <+motion> and <±volition> is important to explain a number of linguistic phenomena including the distribution of the causatives, and the theta assignment.

### 5.3.2 Argument selection

The semantic selection I will discuss in this subsection involves the general tendency of the verbs (or their eventualities) to pick certain types of arguments on the basis of standard language use. It should not be considered as a rigid grammatical requirement. Semantic incompatibility doesn't always lead to outright ungrammaticality. This is specially true for ungrammaticalized meaning. The restrictions can be overridden by assuming different world scenarios. But, in the standard language usage, a clear restriction hold on what types of arguments can act like causers of what types of events.

Our search to formal features often takes us back to these non-formal directions. Ignoring the semantic factors doesn't lead us to a sudden revelation of the unified, grand theory of formal linguistics. Human language is messy and complex. Actual usage, pragmatic and semantic factors undeniably interact with the grammar. The study of types of arguments often appears with types of verbs explains a lot of fact that the formal tools cannot explain.

High agentive verbs such as (*assassinate/slaughter/murder/write*), for example, almost always select their external arguments from group 7 and 6.

- (5.14) a. #The explosion assassinated/murdered the senator.  
 b. #My anger wrote a letter to the editor of the local newspaper.  
 c. #The windstorm built a sand dune. (Levin and Rappaport Hovav, 1995, p. 102)

The right level of analysis to explain why the sentence in (5.14) appears unacceptable should be explained by the selection, not by theta role. The *explosion* doesn't receive agent theta role from the *assassinate* verb because it is not selected in the first place. Theta role is assigned to arguments that are compatible with the verbal meaning. Theta role assignment is a consequence, not a prerequisite of well-formed construction. Selection is the prerequisite for well-formed constructions. Therefore, we need to look at selection, at least at a basic level to filter out these kinds of absurdities.

The selection properties also somehow create parallelism (correspondence) between the (causative) hierarchy of the eventualities and the hierarchy of the arguments. The higher causativity of the event, the higher the position of its external argument in the argument hierarchy.

Other high causative verbs like *kill* and *hit* do not require intentional agents. But, they select <+motion> arguments (groups 4-7 arguments).

As we go down the hierarchy of the arguments, we see that they are less favored by the higher causative eventualities.

- (5.15)
- |    |   |                             |
|----|---|-----------------------------|
| a. | <b>The boy</b> hit the elephant                         | (Group 7)                   |
| b. | <b>The horse</b> killed the rabbit                      | (Group 6)                   |
| c. | <b>The flood</b> killed the swimmers                    | (Group 5)                   |
| d. | <b>The spear</b> hit the target                         | (Group 4)                   |
| e. | <b>#The ocean</b> killed the swimmers                   | (Group 3)                   |
| f. | <b>#His brilliance</b> wrote the novel                  | (Group 2, Tsujimura (1999)) |
| g. | <b>#John's washing of the garage</b> killed the insects | (Group 1)                   |

Obviously, this is a semantic restriction. As I already explained above, high causative events denote applied force. They don't select low group arguments because these arguments are not sources of force. The *flood* is a better causer for the event of *kill* than the *ocean* because the former is conceived as a source of force due to its motion properties.

Event arguments and abstract ideas are the least favored causers for higher and middle eventualities.

- (5.16)
- |    |   |
|----|---|
| a. | ?#John's washing of the garage melted the plasters of the wall. |
| b. | #John's strength melted the plasters of the wall.               |

It is important to emphasize that the selection targets the types of arguments, not the  $\theta$  roles. As I already noted above, the roles are determined within the clause, in the course of the grammatical derivation and interpretation. The types of arguments, the ones we have in the above table are inherent properties of the arguments (participants they represent). Derivationally speaking, the selection has to proceed alongside or before Merge. The  $\theta$  assignment, on the other hand, is the product of Merge. Therefore, the selection cannot use the  $\theta$  roles of the arguments. The selection has to rely on the inherent properties of the arguments: the animacy, activeness (motion) and the like properties. Further, the selection is insensitive to the grammar internal operations such as case assignment and agreement; in contrast to  $\theta$  assignment which could be affected by these grammar-internal operations.

Van Valin and Wilkins (1996) showed that the  $\theta$  role of the causee argument in French and

Quechua languages are affected by the types of cases assigned to them. Accusative case assigned arguments, according to them, cannot receive agentive roles.

### 5.3.3 Computing $\theta$ -roles

The point I would like to make in this subsection is that thematic roles of the arguments are specified configurationally.

This kind of configurational<sup>6</sup> understanding of theta roles has already been suggested in Chomsky (1986a), as well as a number of other works, Marantz (1984); Chomsky (2000b); Hale and Keyser (1993a); Chomsky (1995).

- (5.17) a. John threw a party (threw a fit. threw the ball).  
 b. John broke his arm (broke the window).

In the first example, the same predicate *threw* could combine with either *fit*, or *ball*. The role of the subject depends on the semantic output of the combinatorics of the object and the verb. The combination of the *threw* with *a ball* gives a semantic output, such that the role of the subject becomes agent, but not when the verb combines with *fit*. The same is true of the example in (5.17b). When the object is *his hand*, the sentence has an interpretation of ‘John has his hand broke’, in this case, the role of the subject cannot be agent; even if the verb seems to lexically carry an agent and theme theta roles from its lexicon.

Chomsky’s example emphasized on the role of the object to determine the  $\theta$ -role of the EA. This kind of configurational theta assignment rejects the traditional assumption that the  $\theta$ -roles of arguments are determined solely by the lexical semantics of the verbs.

Even if the exact implementation varies, this configurational theta assignment has also been maintained in the main Minimalist program ((Chomsky, 1995)) as well as in the RRG. Van Valin and Wilkins (1996) have the most elaborate system of theta roles assignment under the configurational system. They extensively have argued that the agent role is not fully determined by the lexical meaning of the verbs, rather from the “intersection of the semantics of the clause and general principle of conversation”.

They further argued that the theta role of the logical subject can be determined by a number of factors including the adverbial phrases. They, for example, have explicitly stated that

<sup>6</sup>The notion of *configurational theta theory* has been used in two different senses in the literature. First, it has been used to mean that the theta role of the external argument is determined by the meaning of the verb and its object, and probably other elements in the clause. This the sense first suggested in Marantz (1984) & Chomsky (1986b). The second sense, which has been more common in recent years, associates theta roles with specific functional heads. According to this understanding, the theta role of the external argument is determined by VoiceP or vP, (look at Schäfer (2008) and the references there). Here, I am using the expression in its original sense.

causative and purposive phrases (eg. *because of, in order to, so that* etc.) do contribute for the agentive rendering of the EA “A grammatical construction may impose a particular interpretation on the effector argument which can lead to a strong agent reading or can preclude it. Two constructions with this property are causative and purposive constructions” (Van Valin and Wilkins, 1996, 311).

The proposal is that the theta roles of the external arguments (logical subjects to be precise) can be attributed to at least 4 kinds of factors.

(5.18) **Contributors for the theta role of the EA**

- (a) **Factor A:** Syntactic position
- (b) **Factor B:** The lexical property of the verbs
- (c) **Factor C:** The lexical properties of the arguments
- (d) **Factor D:** Other adjuncts such as causative and purposive phrases.

The traditional theta assignment system in the GB literature attributes the theta assignment solely on the lexical meaning of the verbs. Recent studies have shown this to be implausible. More and more evidences are coming out showing that other clause internal elements also shape the theta roles, specially that of the external argument. The same verb can be associated with different types of **EAs** give rise to different theta values. One example recently discussed in the syntactic theories is something like this:

- (5.19) a. **The hairdresser** dried my hair. (agent)  
 b. **The sun** dried my hair. (causer)

Cases like this clearly show that the internal properties of the arguments indeed matter to the theta system. The same verbs such as *dry* merging with different types of external arguments can assign different types of theta roles—such as an agent and a causer role for <+human> and <-animate> arguments, respectively.

The classification of arguments we saw in the above section also offers another interesting insight on how theta role assignment depends on the properties of the arguments. Out of these 7 types of arguments we have listed above, only the 5 types of argument can receive agent theta role. This is a new observation.

- (5.20) **Argument type- $\theta$ -role generalization** Events, propositions and abstract notions (group 1 & 2 arguments) cannot receive agent theta role.

I believe this generalization is universal because event arguments cannot be direct effectors of events. As a result, they cannot receive agent role.



Gerunds, for example, are cross-linguistically known to be proper syntactic (DP) arguments. But, my extensive search across the web, as well as the curated linguistic literature showed me that no previous work mentions or suggests the agent role assignment to gerund DP argument. This led me to believe gerunds don't receive agent theta role across languages. The same is true of CP arguments (propositions).

If the above generalization out to be correct, it offers a strong support on the importance of properties of arguments for theta assignment. It shows that the lexical semantics of the verbs is able to assign certain types of roles only to the point that the types of arguments are suitable to it. A theory which fully relies on verb semantics would predict the same  $\theta$  role would be assigned to all types of arguments.

Given evidences like above, one can go even further and argue that the verbal semantics play role only in selecting the right types of arguments. Whether the role of the argument will be an agent or a causer could be shown primarily a function of the property of the argument itself. Combine the causative verb with <+human> arguments, you have agents. Combine them with natural forces, you have force role, or causer role.

But, this extreme position of totally removing the thematic role from the lexical meaning of the verbs cannot be right. The reason is that high causative verbs always assign the agent theta role. If the verb semantics participates only on the selection, then, we would expect the same role for all types of verbs such *assassinate* and *break* and *frighten* so far as they have the same types of arguments. This, however, is further from the truth.

- (5.21) a. Mary assassinated the president. (agent)  
 b. Mary frightened the president. (stimulus/causer/#agent)

The agent role cannot be assigned to the arguments of *frighten* class of verbs regardless of the internal properties of the arguments. The situation with the *decay* class of verbs is same to the *frighten* verbs because all arguments receive causer/stimulus role, regardless of other factors.

This shows that the verbal meaning cannot be fully eliminated in favor of the properties of the arguments to determine the theta roles. They are still relevant to the theta specifications. Indeed, the lexical semantics of the verbs is one of the most important factor for the theta specification. It is just not the only factor. Furthermore, the verbal semantics plays a role at two different stages—first on the selection of arguments, second on the assignment of theta values.

Adjunct phrases such as adverbials, purpose phrases and other similar types of constructions are known to contribute to the theta assignment.

- (5.22) a. John intentionally rolled down the hill.

- b. John rolled down the hill to collect the ball.
- c. John rolled down the hill.

According to [Van Valin and Wilkins \(1996\)](#), ‘John’ necessarily receives an agent theta role in the first two cases because of the intentionality implicated by the adjunct phrases. The subject of the sentence in (5.22c), on the other hand, could be taken as an undergoer (or, underspecified) because of the absence of agency inducing adjuncts.

Finally, some recent syntactic works have also argued that syntactic layers determine the theta roles of the arguments. Some syntactic analyses specially remove the theta values from the lexical meanings and attribute it to the syntactic structure itself, [Kratzer \(1996a\)](#); [Schäfer \(2008\)](#). The whole vP-hypothesis assumes this syntactic head to be an external/agent theta role assigner, [Horvath and Siloni \(2002\)](#). There are also empirical evidences which support the effect of the syntactic layers on the theta roles of the arguments. We will see in [chapter 8](#) that arguments introduced by the indirect causative can never receive agent theta role. This supports the syntactic theories which associate theta roles with morphosyntactic heads.

Each of the factors listed under (5.18) have a potential to induce some effect on the ultimate theta values of the arguments. Even if the reductionist theories are the most attractive, thanks to their promise of simplicity, in my view, reducing any of the above factors will leave us with an incomplete theory (missing some of the cases) of theta role specification.

But, the difficult question is how each of the factors interact to each other in the clause in such a manner that the theta role of the argument will be fixed to one or the other type. That is to say that, which of the factors determine the theta value in cases where two or more factors manifest in the clause. That is where we need a further work the interaction of the factors.

Here, I would like to suggest that the factors listed above have different degrees of importance for the theta role determination.

As the traditional lexicalist theories extensively argued, the lexical semantics of the verbs is considered the most important factors for the theta valuation. Under the current analysis, the lexicalist theories translates to mean that the causative property of the verbs serves the main ingredient for the theta-role calculation. As we will see in the main analysis, this assumption is true so far as the syntactic structure kept out of the equation. That is to say that the lexical meaning of the verbs comes out very important factor under the condition that we are talking about the regular direct (active and nonactive) Voice head. If an argument is introduced by an indirect causative functional head, there is no possibility for any kind of verb to induce agent theta role to any kind of argument. This leads to the hypothesis that the syntactic heads are the most dominant factors for theta specification, [table 5.3](#).

As we will see later, there are also reasons to believe that the arguments and adjunct phrases

have significant effect on the theta calculation only to the point that the lexical meaning of the verbs remains ambivalent.

This leads us to a hierarchy of factors as follows:

- (5.23) **Relative hierarchy of the factors for  $\theta$  specification**  
 Factor A » Factor B » Factor C » Factor D

If we model the above hierarchy of factors with a system like Optimality Theory, McCarthy (2007), it means that the type of voice is the most dominant factor for theta valuation, followed by the lexical semantics of the verbs, characteristics of the arguments, and finally the adjunct phrases. The  $\blacktriangleright$  is to show the winner/dominant attribute.

Table 5.3: The domination of factors

	Voice	verbal meaning	argument type	adjunct phrase
Indirect voice	$\blacktriangleright$			
Direct ( $\pm$ active) voice				

The lowest three factors come to play under the condition that the syntactic head is a direct voice (active or nonactive). This part of the proposal is represented by the non-shadowed second row in the (above) table. When the syntactic condition permits it, the rest of the factors compete each other to influence the theta value. As I already explained above, the verbal semantics appears to be the most dominant of the three factors. This idea of competition (hierarchy) among the lower three factors is further elaborated in the following table.

Table 5.4: The domination of factors in the direct voice

	causativity of the verb	argument type	adjunct phrase
High causative verb	$\blacktriangleright$		
Low causative	$\blacktriangleright$		
Ambivalent verb		$\blacktriangleright$	
			$\blacktriangleright$

The above table shows that the lexical meaning of the verbs outranks/dominates the arguments and the adjunct phrases. If the lexical semantic of the verbs denotes high or low causativity, the arguments and adjunct phrases have no chance to determine the theta role. This explains why *murder* types of verbs can never have causer logical subjects, regardless of the type of argument or adjunct phrase. The hierarchy also explains why the logical subjects of *frighten* and *decay* (low causative) types of verbs can never receive agent theta role,

regardless of the type of argument projected with them.

The following table is to show how different theta roles are assigned by considering the lexical meanings of the verbs and that of the arguments.

Table 5.5: Contribution of the arguments to the  $\theta$ -values

deterministic $\theta$ -role	assassinate	hit	break/open	dry/melt	decay	fall
	agent	agent	agent	agent	causer	causer
+animate		agent	agent	agent		
+motion–animate		force	force	causer		
–motion–animate		X	causer	causer		

The X is to show that the argument type in question cannot combine with the predicate type. As we have seen above, this is a selection level exclusion.

The shaded part is to show dominated arguments. In these cases, the types of arguments have no effect on the theta specification. The dominant element, which is the lexical meaning of the verbs, is the sole determinant of the theta roles in these cases. The *assassinate* class of verbs always assign agent, and the *fall* and *decay* classes of verbs have only causer arguments. No argument kind can change this.

As noted above, the nature of arguments and associated adjunct construction such as purpose clauses contribute to the theta specification only when the lexical semantics of the verbs is not deterministic. The verbs at the middle of the causative hierarchy have neither a typical (high) nor atypical (low) causative properties. This is exactly the situations where the types of arguments comes out important for theta role determination.

As shown in the above table, the [+animate/+force] arguments are more likely to receive agent/force theta role, while low ranked arguments such as <–animate/–motion> types are more likely to receive causer theta role.

Non-argument purposive or causative adjuncts that add intentionality to the event seem to influence the clausal semantics in such a way that the arguments would be interpreted as intentional agents.

One consequence of this system of analysis, in contrast to the standard systems of theta assignment, is the rejection of the direct correlation of animate arguments with agent theta roles. According to this system, not all animate arguments receive agent theta role, nor all agents are animate. Animate arguments can receive causer role if they combine with lower causative verbs.

In the same manner, [–animate] arguments can be agents or causers depending on the types of predicates. Take arguments from [+motive] objects such as *wind*, *tornado*, *flood*. As we

have seen above, these objects are conceived as sources of force. As such, a theory designed to determine the  $\theta$  roles solely on the properties of the arguments would predict that they always come out as agents. This, however, cannot be right because these the force/motion property with the objects doesn't seem to have relevance with the low causative verbs such as *decay*.

- (5.24) a. The heat dried the plants.  
 b. The wind dried the plants.  
 c. The wind wilted/decayed the plants.

Even if the argument *wind* is endowed with the motion property, that exact property is inactive when the argument combines with weak verbs, as in the above example. There is no much meaning difference whether the drying event is effected by the wind or the heat. Even if the wind is natural force endowed with motion, the eventuality of the clauses in (5.24) doesn't presuppose or imply the motion. The fact that the wind has motion or force is irrelevant here. We can see the irrelevance of the force characteristic of the argument by putting force implying adverbs such as *forcefully*.

- (5.25) #The wind forcefully dried the plants.

The adverb is infelicitous within the sentence because the force property of the wind argument is not active with the low causative verbs.

As Levin and Rappaport Hovav emphasized, for ICCOS verbs, the change is ultimately internally caused. As such, the wind is just a trigger. The *wind* in the above sentences doesn't imply application of force. Hence, it is conceived as a simple causer, not as agent/force. Now, put, the same argument with higher causative verbs like *break*, the clause suddenly implies an applied force. With *break* class of verbs, not only the animacy but also the activeness of argument can push the  $\theta$ -role of the argument to an agent/force role.

- (5.26) *nifas-u məskot-u-n səbbər-ə-w* (agent/force)  
 wind-def window-def-acc break-3msgS-3msgO  
 'The wind broke the window.'

The force attribute of the wind is deemed important for the breaking of the window. In this case, the active, dynamic argument receives *force/agent* role. This is not possible for [–motive] natural forces even if they are the cause of the change.

- (5.27) a. The heat broke the wall.  
 b. The heat cracked the wall.

Here, given the motionless property of the argument *heat*, a direct application of force is not presupposed. Changes are slow and progressive, Talmy (2000b). The *cracking/breaking* event implies the point where the wall gives in for the long process of change due to the heat.

All these cases show that the  $\theta$  roles are products of a number of interacting factors. There is no single property that fully determines the roles.

## 5.4 Semantics-Free syntax?

The relation of semantics with syntax can be understood in 3 different ways:

### (5.28) Meaning on Syntax

- a. **No effect:** semantics has no effect on the syntax
- b. **Restriction (block) effect:** certain syntactic process would have applied if not for the semantic restrictions
- c. **Condition (Motivation) effect:** the syntactic process would have never occurred if not for the semantic factors.

The Y-model of grammar makes the first assumption. Meaning is assumed to have no effect on structure because the semantic interpretation is assumed to come in the post-syntactic domain. There are many reasons to be skeptical of this model. In this section, I argue that grammatical models which permit direct interaction between syntax and meaning are much more convincing than the Y-model. One of those models recently popularized among the semanticists, known as **DC**, has shown a great promise to capture both syntactic and semantic problems in a unified and coherent manner. In the following subsections, I will explain why this grammatical framework is superior to the traditional systems, and how it helps us explain a number of persisting problems. Grounding my analysis within this framework, I will argue that semantics plays a restricting effect (option(5.28b)) on the syntactic derivation.

### 5.4.1 Semantic selection

Linguistic objects have restrictions on what kinds of other linguistic objects they can combine with. One of the tasks of a linguistic theory is then explaining why a certain **SO** X combines with a certain other **SO** Y, but not with **SO** Z. For the causative morpheme in Amharic, for example, one needs to explain why certain classes of verbs such as *a-wət'ta* ('**caus**-climb up') combine with the causative marker, but not verbs like *\*a-təñña* ('**caus**-slept'). What determines this restriction?

This kind of combinatorial restriction of **SOs** is a question of selection. Unfortunately, selection turns out to be one of the least studied topics in the recent Minimalist program because

Minimalism attempts to minimize the number of syntactic derivations. Selection doesn't make it into the list of core derivational mechanisms (such as Merge, Agree and Move) proposed in the standard Minimalist program.

There are two views on how Merge is triggered in the Minimalism. One view, which is expressed in [Adger \(2003\)](#); [Collins \(2002\)](#); [Svenonius \(1994\)](#), takes the (unvalued) features of the SOs as the triggers for the operation. The second view, presented in [Chomsky \(2004\)](#), dispenses Merge from any sort of feature checking or relation of any sort. Merge is assumed to apply free of any restriction or triggers (hence, "Free-Merge").

Neither of these views makes a way to explore the effect of verbal semantics on the combinatorial properties of the higher functional items. It is presented as insensitive to both semantic and categorial properties of the mergers.

More importantly the Y-model architecture of the grammar considers syntactic combination to run fully independent of the semantic constraints. The problem of selection is often pushed as a problem of post-syntactic "filter at interface".

This strategy of postponing problems to 'interface' domains pretty unsatisfactory on a number of grounds. A proper theory of grammar needs to explain why certain expressions are permitted to combine in a certain way. There is a robust generalization on selection patterns that we need to explain. The causative functional items, for example, almost always select noncausative verbs. This is pretty universal generalization. A proper linguistic theory needs to capture this linguistic generalization straight out in the main grammatical principles. Accepting that some elements of the verbal meaning at play to constrain the combination of the selection, and building our theories to explain the generalization is, in my view, the right way to go.

Contra to the predictions of the Y-model grammar, a number of linguistic facts have been known which show the direct effect of meaning on syntactic derivation. In 1970's, [Grimshaw \(1979\)](#) indubitably demonstrated that the semantic selection is as important as the C-selection for phrase structure construction. [Chomsky \(1986b\)](#) took the position further and, even suggested the possibility of completely eliminating the C-selection in favor of S-selection. Semantic selection is a reality about language which has been independently demonstrated to play major roles in syntactic derivation. The Y-model renders these crucial discoveries, without even any explicit debate about it, useless. That is, while semantic selection has been acknowledged in these decades as the core engine for syntactic composition [Grimshaw \(1979\)](#); [Pesetsky \(1992\)](#); [Chomsky \(1986b\)](#), if not the sole system, the Y-model runs counter to this important discovery.

Further efforts in the 1990's have made it clear that neither semantic selection nor categorial selection are sufficient by themselves [Gelderen \(1993\)](#); [Pesetsky \(1995\)](#); [Odijk \(1997\)](#). Because of this, and many other reasons exhaustively explored in [Culicover \(2005\)](#), I find the system that postpones all of the meaning to post-syntactic domain very problematic for

selection.

So far as I am aware, nobody has offered any explanation for the s- selection patterns observed in Grimshaw (1979, 1981); Pesetsky (1992) within the Late Insertion framework.

What I want to argue here is : while the proposal of *Phonology-Free syntax* Zwicky and Pullum (1986) is more likely to be correct, the mirror hypothesis *Semantic Free syntax* cannot be.

Let's explicitly state one of the important assumptions/claims of the Y-model grammar.

- (5.29) Semantics-Free syntax  
 Syntactic derivation runs free of the semantic factors

The statement in (5.29) is a mirror of Zwicky and Pullum's 1986 popular *Phonology Free syntax*. The empirical support for the phonology-free syntax turns out to be overwhelming. The problem emerged when linguists extended the idea to the semantic side of the system. Unfortunately, few convincing cases have been provided to show that the syntactic derivation runs free of the semantics. Unlike the phonological generalization, no cross-linguistic evidences have been presented on the lateness of semantic interpretation. So far as nobody has explicitly defended it, the null hypothesis, therefore, is to assume the statement in (5.29) as false.

Considering the selection of the causative item I raised above, if the functional item discriminates among verb classes, according to the Y-model, the selection has to occur in LF module. This puts the crucial linguistic generalization irrelevant to the grammar. Postponing the semantic interpretations to the post-phase level renders lexical semantics irrelevant to the syntax (grammar), contrary to the cross-linguistic generalization. This is the unexpected consequence of the late interpretation model. A proper linguistic theory would filter incompatible items in the first place. That is how we can directly constrain proper combinations from the improper combination. This is the reason why the *immediate interpretation* possible under the interactionist models (including the Multiple Spellout systems) offers a better way of dealing with selection.

If combined items could be immediately interpreted, the lexical semantics of the individual items can constrain the combination. The interpretations of the assembled phrases in the first cycle serve as inputs to the next cycle of combination. The output of the first cycle derivation can constrain the selection of the next cycle of Merge.

Therefore, in the following pages, I will suggest a mechanism where the s-select could directly interact and influence the Merge operation.

For the s-select to work under the Minimalist derivational system, we need a system where the semantic interpretation could directly feed to the syntactic combinatorial system, and



vice versa. That is exactly what direct interpretive system such as **DC**, (Jacobson, 2002, 2014; Barker and Jacobson, 2007a), and interactionist models Scheer (2009, 2010) exactly do.

### 5.4.2 Direct Compositionality

The interactionist model is different from the rest of the grammatical architecture such as the Y-model on the assumption of the interaction of the interpretive and the concatenative modules. The T/Y-model, also known as the Late Insertion model, assumes late interpretation of the concatenated items. The concatenation system and the interpretive systems are sequential according to this model. The concatenative module always precedes the interpretive modules.

The interactionist model, on the other hand, permits close interactions between the concatenative and interpretive systems. Phase theory recently advanced in the Minimalist framework is considered one of the applications of the interactionist architecture, according to Scheer (2009, 2010). Unlike the traditional Y model which waits interpretation up until all concatenations finishes off, the phase theory permits more interactions between the two modules. The difference between the phase theory and the classical Y-model is where the interpretation takes place. The classical Y-model postpones the interpretation until of the concatenation finishes off (often the CP-level). Phase theory makes the interpretation faster by sending off selected syntactic layers into the interpretive domains. It is clear that Phase theory permits a better interaction between the semantic and the syntactic modules. Still phase theory doesn't permit the tight correlations between derivation and interpretation envisioned by the **DC** type of systems.

**DC** advocates that both the syntax and the semantics run in tandem for generating well-formed, meaningful expressions. Every constituent generated at every stage of syntactic derivation gets a semantic interpretation. As Barker (2002) put it “each linguistic constituent has a well- formed and complete denotation”.

The concatenative system feeds towards the interpretive domains; and, the interpretation assigned by the interpretive device constrains the concatenation system. There is not all the way concatenation. A looping back and forth between the two domains (syntactic and semantic domains) in direct interface, on cycle by cycle basis, offers all the information to constrain the selection. The semantic Interpretation of the cycle 1 serves as the basis for the selection of the combination at cycle 2, and so forth.

The motivation for adopting this kind of interventionist analysis comes from the empirical observation that the distribution of the functional items such as the causatives in Amharic is determined by the lexical semantics of the verbs (classes of verbs on semantic basis). There is an intricate interaction between different types of verb groups and the projection of the causative heads. To capture these interactions, stipulating unwarranted grammatical

features (diacritics) on each of the verb groups cannot be a true insight to understand how the grammar actually works to build structures. I will go for straightforward appreciation of the fact that the lexical meanings of the verbs play crucial role in shaping the grammar. Having the classes of the verbs and the semantic units that unify the verb classes in hand, I will then attempt to develop a model which naturally explains why and how the causatives discriminate among the groups of verbs.

In this work, I won't go to the details on how the semantic composition works. I rather use a general term of INTERPRET (INTER) to represent the semantic composition. SELECT is another general term used to denote selection. SELECT assesses if a certain combination will not lead to violation of semantic or economic conditions<sup>7</sup>. It serves as a precondition for a successful Merge. Semantically incompatible syntactic objects are filtered at the point of Merge due to SELECT.

### 5.4.3 Select, Merge and Interpret

Linguistic objects could be composed of phonological, syntactic and semantic properties (features). To make the idea more concrete, let us assume that the SOs are composed of discrete features. That means, the SOs would be composed from either individual or composite of features. The features themselves can be either semantic features (S), syntactic features (s), phonological features (P)<sup>8</sup> or interface features, [Svenonius \(2006b\)](#); [Adger and Svenonius \(2011\)](#).

#### (5.30) Feature<sup>9</sup>Types:

- a. S= semantic feature
- b. s= syntactic feature
- c. P= phonological feature
- d. l= interface feature

<sup>7</sup>Chomsky's legibility condition ("interface demands") seems to accomplish the same task with the selection. The issue with the legibility condition is that nobody has explicitly formulated how legibility constrains Merge. Further, it has been argued to be insufficient, even inaccurate, [Putnam \(2010\)](#); [Krivochen \(2012\)](#). Little empirical evidence has been given even for the existence of such "demands" in human language. The traditional selection is much more appropriate in the study of linguistics it enables the linguist to formulate explicit, falsifiable principles where combinations would be licit or illicit.

<sup>8</sup>One might also assume a further class of features—morphological ones. It is also possible to eliminate them altogether by assuming a fine-grained syntactic structure that goes beyond the morpheme level, as in Nanosyntax, ([Starke, 2010](#); [Taraldsen, 2010](#); [Caha, 2009b](#)) or, pushing some elements of the morphological component to the phonological domain, as in [Bye and Svenonius \(2012\)](#). Since my analysis hinges little on this assumption, I leave it aside.

<sup>9</sup>A similar kind of classification has been suggested in other works. For the semantic features, [Newson and Szécsényi \(2014\)](#) call them CU while [Collins and Stabler \(2016\)](#) call them SEM-F. For the features that are relevant only to the syntactic component, the term DU is used in [Newson and Szécsényi \(2014\)](#) and SYN-F in [Collins and Stabler \(2016\)](#).

I simply assume that the main trigger for clausal combination emanates from s-features (also known as the Edge feature (Chomsky, 2010)). Still, under this syntactic assumption, we have the option to constrain the syntactic combinatorial system from semantic properties of the mergers. That is, the way the actual combination proceeds can be constrained by semantic properties of the merging SOs.

The bonding capability (call it Edge or some other feature) of the SOs is what makes the derivation run. This bonding feature (*Edge Feature*) of the SO  $\alpha$  enables it to merge with another syntactic object  $\beta$ , Adger (2003). I, however, diverge from the standard Minimalist, still extremely stringent, view of syntactic derivation in assuming that the combinatorial mechanisms could be different sorts. Binary Merge, I assume, is just one type of the combinatorics—not the only way. That is, linguistic combination is not restricted to binary Merge. Combinations like Concatenate and Insert also exist as other variants of syntactic combination.

It is clear that languages vary on the position of the functional items in relative to the lexical heads. Some languages have functional items as prefixes; others have as suffixes. The type of Merge operation, as standardly conceived, doesn't put items into orders. An additional system is required to put the items into orders. Various types of linearization systems have been developed over the years to put the expressions into a proper order, (Kayne, 1994; Brody, 2003; Bye and Svenonius, 2012).

It is also conceivable that Merge is orderly from the very beginning. If the combination is conceived to put the SOs in order, the whole idea of Late Linearization could be minimized, if not eliminated.

It is also possible to assume that PF Linearization applies immediately after Merge applies, preceding Int. Linearizing features as soon as Merge generated the phrase marker is not inconceivable. There is a priori reason to assume that interpretation follows or precedes linearization. They could also be assumed to run in parallel.

(5.31) **Orders of Operations**

- a.  $\boxed{S} \rightarrow \boxed{M} \rightarrow \boxed{Int} \rightarrow \text{Lin}$   
 b.  $\boxed{S} \rightarrow \boxed{M} \rightarrow \text{Lin} \rightarrow \boxed{Int}$   
 c.  $\boxed{S} \rightarrow \boxed{M} \left\{ \begin{array}{l} \rightarrow \boxed{Int} \\ \rightarrow \text{Lin} \end{array} \right.$

(5.32) **Description of the symbols<sup>10</sup>**

- (a)  $\boxed{Int}$  is a semantic operation that assigns meaning (interpretation) to LOs.  
 (b)  $\boxed{M}$  is the usual syntactic merge operation. I will also adopt other subtypes of the Merge such as  $\boxed{Con}$  and  $\boxed{In}$  if necessary.

- (c)  $\boxed{S} \rightarrow$  stands for selection. I will break it down into semantic ( $\boxed{S} \rightarrow$ ) and categorial/feature ( $\boxed{S} \rightarrow$ ) variants when necessary.
- (d)  $\leftarrow \boxed{L}$  is for Labeling. I don't have any specific theory of labeling. But, since it is an important part of the grammar, I use this symbol to simply represent (the whole complex system of) labeling.
- (e) I use the marker  $\checkmark$  to mark legible (operations and constructions).
- (f)  $\times$  is used to mark illegible operations or constructions.
- (g)  $g$  is a variable assignment function that assigns meaning to variables.
- (h) Angled brackets are used  $[\ ]$  to identify formal features (both CUs and DUs) from non-formal semantic features. The non-formal semantic features are surrounded by  $\langle \rangle$ .

(5.31c) is similar to the standard Y-model except the selection ( $\boxed{S} \rightarrow$ ) part. The interpretive system and the linearization system run in different branches of the grammar. (5.31b) puts linearization before the interpretation. This would be the appropriate grammar in cases where linear order is demonstrated to affect meaning. Even if it is pretty clear that word order affects meaning, the evidence has been interpreted to mean that the syntactic structure (hierarchy) as a determinant of meaning in the modern grammar. The surface word order is also considered the product of this deep structural hierarchy [Kayne \(1994\)](#).

But a system such as DC is best compatible either with (5.31a) or (5.31c) because every Merge need to be followed by an immediate interpretation. The phonological linearization could run in parallel, as in (5.31c). But, it definitely cannot precede the interpretation because that would create a gap between the syntax and meaning.

The combination and interpretation apply cyclically. Most importantly for the DC, there is no shipping off information to interfaces; nor any barrier between the core derivational system and the interpretive system. As such, there is no reason why the interpretive outputs of the first cycle doesn't shape the combination of the second or third cycle of combination (unless, of course, independent principles like the locality of selection doesn't block it).

Both the syntactic derivation and semantic interpretation apply on every cycle.

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- semantic operations are shaded with red: eg.  $g$ .
- syntactic operations are framed: eg.  $\boxed{M}$ .
- Complex operations (when I don't need to separate) are double framed: eg.  $\boxed{\boxed{S} \rightarrow}$
- for operations that are assumed directional, I attach an arrow on them: eg.  $\boxed{S} \rightarrow$ .

Let's consider the combination of a lexical item and a functional item. A typical operation would run as follows:

(5.33) **A functional item selecting a lexical item: general scheme**

- ①  $\boxed{S} \rightarrow (X_f, Y_{lex})$ : where  $X_f$  and  $Y_{lex}$  are SOs, and  $X_f$  selects  $Y_{lex}$ .
- ②  $\boxed{M} (X_f, Y_{lex}) = \{X_f, Y_{lex}\} \leftarrow \boxed{L} \alpha$
- ③  $\boxed{Int} \alpha$

The syntactic derivation part is basically **BPS**. The first two steps mirror the steps of the derivation in the BPS implementation of minimalism. The numbers are supposed to show the steps of the process (derivations and interpretations). The process starts with the selection because I assume any syntactic derivation starts with selection, [Collins and Stabler \(2016\)](#). In the above derivation, the functional item considered is assumed to select the lexical item. The  $\boxed{S} \rightarrow$  in this case is an over-simplified form of the selection because selection involves a number of complicated semantic and feature selection relations (as we will see in [chapter 8](#) for the causatives, for example).

For semantically interpretable mergers (**CUs**), s-select filters the acceptable combinations from the unacceptable ones. The syntactic categories are also filtered by their respective operations (c-select in the traditional GB). If both filters of selection are satisfied, the operation passes to the next stage where the Merge operation combines the selector and the selectee.

My use of the operation 'label' in the above derivation should be understood in a more generic sense. I am not strictly following any specific flavor of labeling system as there are a lot of problems and disagreements among the methods. One can simply think of  $\alpha$  as a name given to the combined object. In that sense, the system of labeling used here would be compatible with Label-free system as in [Collins \(2002\)](#) as well as dependency grammar based systems developed in [Brody \(2003\)](#). Under Collins Label-free system, where the label of a certain constituent is determined by the semantically salient element in the constituent specifically, one can assume that the *Interpret*  $\alpha$  operation determines the actual label of the structure (see [Dowty \(2007\)](#) for a similar suggestion).

Finally, and most importantly for the current system, the combined object needs to get semantic interpretation on the spot. At this stage, we say one cycle of derivation is completed. This is where the **DC** differs from the Y-model. In the **DC** system, the merged objects don't have to be sent to another level or domain to get interpreted. There is no another level of grammar such as LF, so to speak. As such, derivation and interpretation takes place in the same domain.

As a general scheme, the above system presents each of the operations in a very generic

form. Each of the steps in the derivation could have different internal steps and complicated factors.

On the syntactic side, the Merge operation, for example, could have different variants (binary merge, non-binary merge, concatenate, combine, etc.). The type of merge operation under action could be considered the explanation for at least some of the morpheme arrangements. For the arrangement of non-concatenative morphology, for example, the variant of Merge operation under action could be assumed **In** which inserts some parts of the morphology into specific templates. For typical prefixes and suffixes, the variant of Merge applied would be **Con** which puts items side by side. **Con** is a variant of the binary (pair) Merge, Hornstein and Pietroski (2009).

On the semantic side, more advanced strategies of semantic interpretation could be considered to apply in parallel or on the side of the syntactic combination, as in Montague grammar, Jacobson (2014). Montague's *Universal Grammar*, for example, is known to accomplish the semantic combination by directly mirroring the syntactic combination. In that system, not only the objects are mapped; but also every step of the derivation is also mirrored by the semantic interpretation, Dowty (2007).

The actual implementation of the semantic composition is beyond the scope of the current study. The main point I am interested in here is the idea that the semantic composition, working in tandem with syntax, garners a better syntactic theory of selection than assumed under the Late interpretation frameworks. In chapter 8, I will make use of the framework suggested here to explain the selection patterns of the causative functional items.

## 5.5 Summary

In this chapter, I have presented theoretical and architectural backgrounds for the analyses to come in the next chapters. How verbs are grouped into verb classes on the basis of causativity, how theta roles are assigned, how arguments are selected, and how the internal properties of the arguments contribute to theta assignment, etc. were some of the issues prominently surfaced in the chapter. I have attempted to make my assumptions explicit; and make new proposals where I find gaps in the literature.

The causative hierarchy is a new proposal to dissect the verb classes into finer groups. I find the causative hierarchy more promising way of groups verbs than the traditional ways of grouping verbs into causative and unaccusative. I have used concepts from cognitive linguistics, most importantly the causal chain theory, to set the verbs into different layers in the causative hierarchy. The most prototypical causative verbs are set higher up in the causative hierarchy. Verbs representing less prototypical causative properties, verbs with eventualities denoting no applied force, for example, are set lower in the hierarchy. We have already seen how the causative hierarchy helps us to determine the theta roles of external

arguments. Following the configurational system for theta assignment, I have suggested that the causative properties of the verbs contribute some degree to the theta assignment. The animacy and motion characteristics of the arguments also add some degree of value to the theta roles.

In the last section of the chapter, I have suggested a way towards a new architecture of grammar on the basis of *interactionist* model, more specifically the direction compositionality framework developed in some semantic studies. The main point I made in the section is that semantic interpretation doesn't have to wait too long to assign interpretation to syntactic objects. Syntactic objects can be assigned semantic interpretations immediately. This way of direct meaning assignment helps us explain why some functional items select some classes of verbs but not others. With direct interpretation, the combination of any two **SOs** can be constrained not only from their syntactic features but also from their semantic properties.





## **Part III**

# **Anticausativization**



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## CHAPTER 6

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# The syntactic structure of the nonactive

## 6.1 Introduction

In [chapter 3](#), I have explained that the anticausative morpheme in Amharic is associated with a number of interrelated grammatical functions including the passive, unaccusative, reflexive, reciprocal and middle and other similar grammatical notions. Some of the examples are repeated here for convenience.

- (6.1) *yosef tə-gərrəf-ə* (passive)  
Josef **Nact-whip-3msgS**  
'Josef is whipped.'
- (6.2) *məto metir zare tə-rot'-ə* (impersonal passive)  
hundred meters today **Nact-run-3msgS**  
'Hundred meter is run today.'
- (6.3) *yosef tə-at t'əb-ə* (reflexive)  
Josef **Nact-wash-3msgS**  
'Josef washed (himself).'
- (6.4) *lij-očč-u tə-sasam-u* (reciprocal)  
child-**pl-def Nact-kiss-3pl**  
'The children kissed (each other).'

- (6.5) *s'ihuf-u dāhna tə-nəbbəb-ə-ll-at* (dispositional middle)  
 Text-**def** well **Nact-read-3msgS-ben-3fsgO**  
 'The text read well to her.'
- (6.6) *yosef bə-dagət-u tə-ndərəddər-ə* (translational middle)  
 Josef by-hill-**def** **Nact-roll-3msgS**  
 'Josef rolled down the hill.'

This raises the question on the identify of the anticausative item—should we treat each sense as a separate syntactic object, or as a single one in correspondence to the form. This is a problem of polysemy—whether to consider the form or the function/meaning as the defining property of a syntactic object.

All the decausative constructions marked with the anticausative morpheme display some common characteristics—they all are intransitive, and they all have the affected/undergoer argument as the structural subject. This suggests that the fact that they all appear marked with the same morphology cannot be an accident. A proper analysis needs to explain the core properties that wire these decausative constructions together.

In the previous chapter, I have proposed that the anticausative morpheme doesn't encode any of the specific meanings or senses. As such, the semantic senses cannot be the reason these constructions form a unity.

In this chapter, I will argue that the unified identity of the decausative constructions lies in their syntactic structures. I will show that the uniformity of the constructions can be explained by taking the nonactive feature as the common element that controls the syntactic position and argument structure of the decaustives.

## 6.2 Unity of the anticausatives

We can look at the unify of decausative constructions from two angle points.

- the cross-linguistic unity of a specific construction
- the language internal unity of the multiple constructions

The first involves the unity of the decausative constructions across languages. This is to say how a certain construction, say the passive, could be considered a coherent linguistic category across languages, given the difference in form from one language to the other. It is necessary to ask such a question because we could be speaking of different things when we think we talk about the same thing. Given the clear distinctions in morphological forms, what makes the linguist to classify a certain construction as middle, or passive in the first place is an important question.

Most linguists in the traditional descriptive linguistics, as well as the modern linguistics often group constructions in less studied languages by making comparisons with well-studied languages. This kind of system has often served as a great deal. But it is also known to have fundamental methodological flaws because the constructions that need no separate treatment in language X are often separated; or the constructions that need to be treated as separate categories are often fused as one category because of the influence of the model languages.

The main argument in this dissertation with regard to the passive, for example, involves showing that the construction is grammatically irrelevant in Amharic. But, traditional linguists, as well as the modern linguists often spend a lot of time discussing “the passive” in this language most probably because of the influence of English in modern linguistics.

The question that immediately follows this is then how we can call a certain construction “passive” if the construction has no grammatical patterns whatsoever in that specific language. What I would like to present in this and next few subsections is that the passive as well as other decausatives in Amharic have no distinct morpho-syntactic identities. They are simply different interpretations assigned to the same grammatical structure.

This, however, doesn’t mean that the “passive” of the English kind languages has nothing to do with the “passive” of the Amharic kind. By the use of the term “passive” in both kinds of languages, linguists have an intuitive understanding that the notion is still valid in both types of languages.

Given that the passive have no grammatical instantiation in Amharic, the common grammatical attributes often associated with the passive, such as the object raising, absence of accusative case, or suppression of the subject argument cannot be used to explain the common attributes. These facts might be true for English, but none of them can universally hold for Amharic. In [chapter 9](#), we will see that the passive indeed is compatible with the accusative case, as well as a nominative causer subject. What rather keeps the passive of Amharic in the same track to the passive of English is the fact that the effector argument of the eventuality is not uniquely projected as syntactic subject.

The second angle of looking at the unity of decausative constructions, which is the main focus of the section, is how all the decausative constructions relate to each other in such a way that we call them all “decausative constructions”, contrasting them with active constructions, in a specific language. This is about the abstract unity of all the decausative constructions including the passive, reciprocal, reflexive, anticausative and the middle, in contrast to the non-decausative constructions such as the active & the causative.

To understand this sense of unity, first we need to start by looking at how nonactive marked clauses are empirically different from their active (causative) counterparts.

Finding the exact level of abstraction that holds all decausatives together, in contrast to the

non-decausatives, is what a proper analysis needs to capture. For that end, first, we need to see how each of the anticausative constructions compare to each other to see what holds them as a unit, and what internal variations might exist among them.

But, tracking the exact property that keeps all decausative constructions together, and distinct from the active, is a very complex task because sometimes, the two constructions (the active and nonactive) could appear similar in meaning and form.

There are a couple of known cases where the distinction between the active and the nonactive becomes particularly difficult.

First, some middles could have active-like meanings. Some middle constructions are just like active clauses where the single participant seems to act as a regular actor. The appearance of the middle (nonactive) morphology sounds quite surprising because the clause is a typical activity (agentive) clause. We have already seen a couple of examples in § 3.3.4.

- (6.7)
- a. *tə-dəbbək'-ə*  
Nact-hide-3msgS  
'He hide'
  - b. *tə-naffət'-ə*  
Nact-blow-3msgS  
'He blew his nose'
  - c. *tə-gənəzzəb-ə*  
Nact-realize-3msgS  
'He realized'
  - d. *tə-k'əbbəl-ə*  
Nact-receive-3msgS  
'He received'
  - e. *tə-mələkkət-ə*  
Nact-watch-3msgS  
'He watched.'

It is unclear why blowing one's nose, or understanding a concept, or receiving an object needs to be expressed with the nonactive morphology. These events all look like regular actions that would be expressed with active clauses.

All the middles formed from the *translational motion* (presented in § 3.3.4.3) and others presented in § 3.3.4.8 are all deponent middles where the nonactive morpheme appears on unexpected positions. Deponent middles are known to pose major challenges the structural explanations because the form and the function are incongruent.

Second, the unaccusative/anticausative appears both in the nonactive and active forms. *Break* class verbs, for example, form the unaccusative with the nonactive morphology while the

*melt* class of verbs forms the unaccusative in the basic (active) form.

Having the anticausative construction in both forms makes it hard to explain the core differences between the active and the nonactive voice types—as well as the function of the anticausative morphology because the same meaning (unaccusativity) is expressed by both forms.

Not only the unaccusative, the middles can also appear with the active form. The dispositional middles, in a similar fashion to English, could be expressed both with the active and the nonactive forms.

All this shows that the form of the voice and the interpretations associated with it are not always one-to-one. The same meaning, say, unaccusativity, is able to appear both in the active and the nonactive voice patterns.

Still, canonical cases of the decausative constructions appear in the nonactive form. The passive, the typical middles<sup>1</sup>, reciprocal and reflexive normally appear in the nonactive form.

The important question is then what exactly makes the two voice forms appear the way they appear. Or, could deeper distinctions be abstracted by comparing the nonactive unaccusatives from the active unaccusatives?

As I have already noted in [chapter 4](#), the active (unmarked) and nonactive (marked) forms of the *open* class of verbs, for example, have some subtle semantic differences—even if both are still unaccusatives.

The relevant examples are repeated here.

- (6.8) *bərr-u* (*bə-mariyam/bə-rasu*) *tə-kəffət-ə*  
 door-**def** (by-Mary/by-itself) **Nact-open-3msgS**  
 a. ‘The door was opened (by Mary).’  
 b. ‘The door opened (by itself).’

- (6.9) *gīrgidda-u* (*bə-ras-u/\*bə-mariyam*) *kəffət-ə*  
 wall-**def** (by-itself/by-Mary) **open-3msgS**  
 ‘The wall opened up (by itself).’

The change of state denoted by the unmarked unaccusative has a sense of permanence while the one with the marked feels temporary.

<sup>1</sup>Regular middles typically appear in the nonactive in middle marking languages. There are, however, some languages which bundle the passive with the causative morphology, [Ljutikova and Bonch-osmolovskaya \(2006\)](#).

A similar kind of subtle semantic difference can be identified between the marked (nonactive) and unmarked (active) reflexive given in (6.16).

The problem is these subtle semantic differences are not generalizable to all types of marked and unmarked forms. While the unaccusative formed with the marked *open* class verbs has the sense of temporary change, the same generalization doesn't work on the *break* class of verbs. *Break* verbs marked with the anticausative morpheme could denote permanent change of state. This shows that the subtle semantic differences between the marked and unmarked forms noticeable in one class of verbs cannot be generalized to other classes of verbs.

Therefore, we need to find another means of singling out the fundamental characteristics that make nonactive constructions together as one class, and distinct from the active voice.

Observing the existing data, and assessing the existing literature, I have collected the candidate attributes that might help us differentiate the nonactive (marked) voice from their active (unmarked) counterparts:

(6.10) **Common characteristics of the nonactive clauses**

- (a) Morphological marking: the verbs are typically appear morphologically marked.
- (b) Active counterparts: the nonactive verb forms have active (unmarked) counterparts. The only exception to this are the deponent middles which might lack active counterparts.
- (c) Argument structure: the nonactive clauses typically have only one proper argument. In almost all the cases, the non clauses contain just one argument whereas the active clauses might contain one or more arguments.
- (d) Role of the argument: the single argument of the nonactive is non-agent

Even if the above characteristics are typical to the nonactive forms, none of them can be used to singularly filter out the nonactive from the active.

First, the both the active and nonactive voices could have morphological inflection. Even if the morphology is different between the active and the nonactive forms, morphology itself cannot be the reason to differentiate the two types of clauses. Both voice types have morphemes—sometimes, even the same morpheme could act as both causative and anticausative marker. Even if we have dedicated morphemes, the question on whether a certain morpheme X is an active voice marker or nonactive voice marker must be decided independently. That is also something that needs a theory (solution) rather than serving us a diagnostics to differentiate the two voice types.

The same is true with the theta roles. The single argument of the unaccusative verb appearing in the active form also receives non-agent theta role.



The argument structure also appears inconclusive. Active intransitive clauses such as unergative verbs as well as unaccusative verbs still have single arguments.

Therefore, none of these characteristics are individually able to characterize the decausative constructions distinctly from the active. The question is then how nonactive clauses could be identified from the active clauses if no single diagnostic can filter them out.

In the next subsection, I would like to entertain one promising direction of analysis using theories developed in the cognitive linguistics. I will suggest that the abstract unity among decausative constructions ultimately has to do with the linguistic representation of the arguments of the causation. Deep down across all decausative constructions lies the fact that the eventualities expressed by the verbs denote a causal chain relation from an antecedent to a subsequent. Nonactive constructions express real world situations where both effector and receivers of causation are presupposed—but only one of them is linguistically expressed.

### 6.3 Causal chain explanation of anticausativization

As we have seen in § 5.2.1, the force dynamics model eschewed within cognitive-linguistics studies, Talmy (1985, 2000b); Copley and Harley (2015), is one of the best models to understand the very basic nature of causation. The same model might be used to explain the anticausativization as well. If force dynamic model is successful in explaining causation in general, there is no reason why it cannot explain anticausativization either. The anticausative could be abstracted to have a consistent pattern on how the cognitive conception of force is expressed in the linguistic system.

To explain the fundamental differences between the two types of constructions, in this section, I entertain the hypothesis that the nonactive (anticausative) constructions are fundamentally differentiated from their active counterpart because of the failure of one-to-one mapping of the causal chain argument to the linguistic arguments.

The causal chain theory (which is an extension of the force dynamic system) suggests an argument structure mapping that follows the relation of the participants of the event. In normal situations, the antecedent of the causal chain is supposed to be mapped to the subject of the linguistic structure. The subsequent is supposed to be mapped to the object position. This mapping is proposed as Causal Order Hypothesis in Croft (1991). According to this hypothesis, “the subject is antecedent to the Object in the causal chain”, (Croft, 2012, p. 205).

- (6.11) Father beats his son with stick  
 Father —→ stick —→ son  
 SBJ            A.OBL    OBJ

Croft further classified the events into two types: the MAKE type and BECOME type. The first is represented by causative predicates; and the latter is represented by unaccusative predicates.

(6.12) **Event types**

- a. BECOME event: an event doesn't imply the application of force. This is supposed to be the event structure of the unaccusative predicates
- b. MAKE event: an event might imply the application of force. This is the event structure of typical transitive clauses, as in (6.11).

A plausible extension of the above system to explain the anticausativization is to assume anticausative as structural representation of the situations where the argument of the nonactive is the endpoint of the cause. This way, we can attempt to present a unified explanation of all the anticausative structures using the causal chain theory.

According to this system, the intransitive clauses, in principle, could be assumed to emerge from either of the following two possibilities:

(6.13)

- (a) Absence of applied force, as presented in (6.12a)
- (b) Mismatch of arguments from the causal structure to the syntactic structure

One attractive aspect of the causal chain theories is its ability to differentiate regular undergoers which are not the endpoint of the causation from the actual endpoint arguments.

The first situation where the undergoer is not the endpoint of force explains the nature of unaccusative clauses. It has already been suggested by Croft in his classification of events that unaccusatives represent a situation where no applied force is involved.

The second situation is the main interest, and the novel proposal here. This is meant to explain the common denominator of all the decausative constructions. The idea is, the non-active voice is the product of a mismatch between the arguments of the cognitive causation and linguistic causation.

- (6.14) **Nonactive voice as the failure of the realization the antecedent of the cause:**  
Nonactive voice is formed when the antecedent of the causal chain fails to have a unique proper linguistic representation.

That is, anticausative constructions are formed when the initiator of the force has not been *uniquely* realized as a syntactic argument. I am proposing this property to be the unifying

feature of all decausative constructions. All the cases where the antecedent of the cause is not projected as a distinct syntactic DP argument, the grammar uses the nonactive form.

The subsequent of the cause could also have its own argument projected into the syntax. Having a syntactic mirror of both the antecedent and the subsequent of the cause is where the exact mapping of the causal chain to the linguistic structure of the transitive clauses is possible. Had subsequent of the force miss from the syntactic argument projection, you have normal intransitive clauses such as unergative predicates. Both of these clause types have a DP mirroring the antecedent of the cause.

But, if you have the antecedent of the causal chain missing from the syntax, the whole system is reversed. The grammar uses a new system such as the nonactive framework to represent the fact that the antecedent of the cause lacks a structural counterpart. In this sense, the anticausativization is a way of representing a mismatch between the semantic causal chain and the linguistic argument structure.

Put it in other terms, the nonactive structure is a means of putting dyadic causal structure into monadic syntactic structure.

Two key terms in the above hypothesis are *unique* and *structural*.

The term unique is meant to map every causal role to every syntactic argument. If two causal roles are mapped to a single syntactic argument, the roles lack a unique counterpart in the syntax. That is, if the antecedent of the cause lacks a distinct DP argument representation, then, it is not uniquely represented. A distinct representation of the antecedent is necessary for the formation of active (causative) clauses.

In the reflexive and reciprocal constructions appear in the nonactive form because both the antecedent and the subsequent of the force are expressed by a single syntactic DP. In these constructions, both roles of the causal chain are linguistically represented because the single DP is somehow both the agent and patient of the event. But the representation is not one-to-one. According to the *uniqueness* condition, this results in the formation of the nonactive structure.

The condition of *structural argument* imposes a restriction on what kinds of arguments count as proper syntactic arguments. An argument is considered a proper structural argument when it is able to receive structural case, undergoes proper agreement, etc. An argument x is structural “iff it is subject to structural argument linking (such as incorporation, agreement, case, configurational adjacency). Otherwise x is oblique”, (Wunderlich, 1996, p. 11). The assignment of a structural case specifically serves as a diagnostic to identify structural arguments from oblique arguments. In this sense, a structural argument is simply a DP which receives structural case.

According to the *structural* condition, the antecedent represented with non-structural arguments such as prepositional phrases, still will not count as proper argument. It is only under

the condition that the antecedent is represented by proper structural arguments that active causative clauses can be formed.

The passive, for example, could have the antecedent of the cause linguistically represented as an oblique argument, typically embedded under PPs such as *by* in English. This, however, doesn't count as a projection of the antecedent, according to *structural* condition, because the argument cannot receive a structural case.

- (6.15) a. Mary kissed John  
b. John is kissed by Mary

The active and the passive are different ways of describing the same real world events. There are many differences between the active and the passive. But, the relevant difference that remains true to the other nonactive clauses, however, is the fact that the passive construction lacks a structural counterpart to the initiator of the cause.

Consider the reflexive construction as well.

- (6.16) a. *Mariyam ras-wa-n at'abb-əčč*  
Mary self-3fsgO-acc wash-3fsgS  
'Mary washed herself'  
b. *Mariyam tə-at'abb-əčč*  
Mary Nact-wash-3fsgS  
'Mary washed.'

The two sentences have virtually same meaning. They express similar real-world events. The difference lies on how the arguments of the event are realized into the grammar. In (6.16a), two distinct linguistic DP arguments stand for each of the arguments of causal chain. The antecedent of the force is mapped to subject 'Mary' and the subsequent of the force is mapped to the object 'herself'. Even if both of the arguments represent the same participant, the syntax contains two distinct arguments mirroring the initiator and the endpoint of the cause. This generates an active clause structure.

In (6.16b), on the other hand, the number of arguments in the syntax is less than the number of arguments in the causal chain. Both the antecedent and the endpoint of the cause are mapped to a single structural DP. This is a mismatch between participants of the causal chain and the arguments represented in the syntax.

The situation is the same with the reciprocal. Look at the following examples.

- (6.17) *təmari-očč-u ɪrs-bə-ɪrs-aččəw tə-dəbaddəb-u*  
 student-pl-def self-by-self-3plO Nact-hit.it-3pl  
 ‘The students hit each other.’
- (6.18) \**təmari-očč-u ɪrs-bə-ɪrs-aččəw-n tə-dəbaddəb-u*  
 student-pl-def self-by-self-3plO-acc Nact-hit.it-3pl  
 ‘The students hit each other.’

The duplicated reflexive pronoun *ɪrs*, which is equivalent to the English ‘each other’, is not a proper structural argument. There are two evidences for that. First, there is a prepositional item, *bə* (‘by’), attached to the second duplicate. Second, no accusative case can be attached on the pronoun, as shown in (6.18). This shows that the reciprocal construction indeed contains just one proper structural argument. As such, only one structural argument is represented in the clause mirroring both of the arguments of the causative event. This again conforms to the proposal given in (6.14).

In short, the proposal in (6.14) can explain all the cases where nonactive voice is used. They are all unified by the absence of a unique linguistic argument to the antecedent of the cause. If there is one property that unifies all these nonactive, it the mismatch of their arguments from the arguments of the causal chain which is denoted by their predicates. The active takes the initiator of the force as the external argument while the nonactive lacks the linguistic representation of the initiator of the cause. As a result of the absence of an external argument, the syntax internal principles such as the Projection principle, promote the existing argument to the subject position.

The important part of the proposal which has direct repercussion on our analysis of the structure of voice is that the active and the nonactive should not be structural derivations to each other. Contra to the usual assumption in the GB, the nonactive clauses are not syntactically derived from their causative (active) counterparts. There is no syntactic mechanism that derives the nonactive from the active, or vice versa. As I will further elaborate in [chapter 9](#), the active and nonactive are simply the alternative values of the same syntactic projection, VoiceP.

Before I turn to the structural implementation of the proposal, I would like to deal with one issue that could be raised against the causal chain-based analysis proposed here. That is the case of the nonactive form of the unaccusative verbs. As we have seen above, eventualities associated with the unaccusative verbs are considered BECOME type, according to Croft. These event types are considered noncausative; hence, the causal chain system is not supposed to apply on them. But, these same classes of verbs are able to appear in the nonactive form in Amharic. This poses a problem because the proposal presented here is over-applying on the unaccusative verbs as well.

That is, if the decausativization is the failure of the mapping of one of the arguments of

the force to the syntactic argument, as the above proposal suggests, it must be the case that the core meaning of the verbs involves causative property (applied force) in the first place. The assumption works fine for verbs which lexically denote causative events. But it cannot work for the unaccusatives because unaccusative verbs at no point represent causal chain relations.

To alleviate these issues, I will suggest that the causal chain theory specifies only the conceptual causation (causation at lexical semantics of the verbs). The causal chain system offers the core arguments at the lexical level while syntax-internal mechanism projects them into the actual syntactic layers. The arguments of the lexical verb that are specified by the causal chain are simply *potential arguments*.

I will explain the idea of potential arguments in the next subsection.

## 6.4 Lexical semantics contains the potential arguments

So far, I have stressed that none of the nonactive voice is derived from the active. It simply shares certain attributes of the active clause. The lexical properties of the verbs (the roots) is one of those shared attributes.

Following the lexicalist theories, I assume that the causative property is one of the shared lexical properties. The causative properties of the lexical verbs/roots, in turn, determine the possible list of arguments that could associate with the verbs. I call these lists of arguments *potential arguments*. The potential arguments are the participants listed in the event conceptualization of the predicate.

The idea of *potential arguments* is useful to make a distinction between the lexical arguments (arguments listed in the lexicon) and the actual structural arguments, [Ágel \(1993\)](#); [Massam \(1992\)](#); [Hale and Keyser \(1986\)](#).

### (6.19) **Potential arguments**

The arguments listed with the roots (lexicon) of the verbs are potential arguments

The idea of the potential arguments is similar to what [Ágel \(1993, 1995\)](#) (cited in [Vater \(2003\)](#)) calls ‘valency potential’. The potential arguments are basically the semantic arguments listed within the event conceptualization. A conceptual representation of the event of the verb such as *kill*, for example, would have two causal participants—the ‘killer’ and the ‘killee’. Each of the participants associate with the event are listed as potential arguments.

In this sense, the causative property (lexical semantics) of the verbs is not directly responsible for the syntactic projection of arguments. It only determines the number and types

of arguments at the lexical-conceptual level. The actual realization of these potential arguments into the syntactic arguments is determined by syntactic heads, [Kratzer \(1996b\)](#); [Schäfer \(2008, 2012\)](#).

Interestingly, a version of the idea of the potential arguments has already surfaced in the Minimalist literature. In [Chomsky \(2008\)](#), for example, the **C-I** is argued to contain a dual component of semantics—a generalized argument structure in one component and discourse and scope properties in another component. The generalized argument structure suggested as part of the **C-I** in Chomsky is the same to what I have called the *potential arguments*.

The important point of the idea of potential arguments is the understanding that not all the arguments listed by the **C-I** or the lexical semantics of the verbs have to appear as actual structural arguments. The potential arguments listed in the lexical specification of the verb will make it to the syntactic projection only under certain types of “formal licensers”, [Schäfer \(2012\)](#). The VoiceP is one of the formal licensers that serve to put the potential arguments into syntactic arguments. The vP is another formal licenser. A third, and probably less canonical formal licenser is the one which licenses causer arguments, which I level as Voice<sup>2</sup>P.

## 6.5 Voice as a formal licenser of arguments

We have seen how the lexical semantics provides the potential arguments. These potential arguments need *formal licensers* to appear in the syntax. The formal licensers are the functional heads which actually license the arguments to appear as proper syntactic arguments. The vP and VoiceP are the two core formal licensers of the arguments.

- (6.20) Argument mapping  
Potential arguments need formal licensers to appear as syntactic arguments

According to this proposal, the arguments listed with the lexical semantics of the verbs can appear in the syntax only under the condition that they are licensed by the syntactic licensers. As noted above, the VoiceP and vP two the important formal licensers which license arguments under certain specific conditions. For the Voice, it is often assumed that it licenses arguments when it is filled with the [act]ive feature, [Embick \(1998, 2004\)](#); [Alexiadou et al. \(2015\)](#).

The common assumption here is that the Voice head comes with at least two different feature specifications—the active ([+act]) and the nonactive (leveled either as [–act] or [Nact]). According to this, the classification of clauses into active and nonactive originally emanates from the feature specification of the VoiceP. These features of VoiceP determine not only the realization of the voice morphemes, but also the projection of the arguments.

The [+act] is assumed to license an argument while the [-act] doesn't.

- (6.21) The nonactive as argument licenser  
The nonactive specified Voice (Voice<sub>-act</sub>) doesn't license arguments

According to this, the nonactive voice differs from the other flavors of the voice because it fails to license arguments. To explain how exactly the [-act] feature manages to make the clauses intransitive, we can use at least two different strategies. The first is to assume parameterized prioritization of syntactic operations. The second is to assume that the feature itself is simply monadic.

- (6.22) **Why Voice<sub>[Nact]</sub> doesn't license arguments?**  
(a) A different priority in the syntactic derivations  
(b) Monadic Voice<sub>[Nact]</sub>

### 6.5.1 Move over Merge: Priorities in syntactic operations

The first strategy to explain how the [Nact] feature end up generating an intransitive clause is to assume different priorities on the syntactic operations. The merge and move operations applying in the nonactive and the active voices could follow different relative orders resulting in distinct types of structures. The Merge operation is widely assumed to precede the Move across the board. This, however, is not a universally accepted. An alternative approach exists where the Merge and Move could be assumed to apply in a reverse order, parametrically. If we accept such a system, individual features of the heads could be responsible on whether the Move or the Merge operation would apply first.

Assume that the nonactive prioritizes Move over Merge; while the active prioritizes Merge over Move.

Assume » marks precedent in operation:

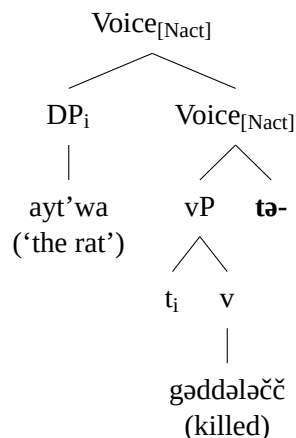
- (6.23) a. Voice<sub>[Nact]</sub>: Move » Merge  
b. Voice<sub>[+act]</sub>: Merge » Move

Assume that the active and the nonactive voice share the main verbal layer, the vP, and that the subsequent argument first combines with the vP. Under the assumption that the active voice prioritizes Merge, the potential argument which is not already part of the syntactic derivation gets the priority. As such, the antecedent argument is introduced with the VoiceP before the subsequent argument moves from vP to VoiceP. For the nonactive, on the other hand, as Move is prioritized over the Merge, we have a different result. The subsequent argument introduced in the vP layer is moved to the Voice layer before the antecedent argu-



ment of the lexical verb is introduced. Once the internal argument moves to Voice layer, the available space for the merger of the external argument is occupied. As a result, the external argument of the causative verb never gets introduced.

Figure 6.1: Move precedes Merge



This explains why the nonactive feature of the Voice end up producing intransitive clauses. The first argument that merges to the vP layer is moved to the VoiceP layer. As such, no further argument can merge to the derivation because the available space is already occupied.

I will, however, not follow this proposal for a number of reasons. First, for the operation prioritization to work, we need to accept that the functional heads themselves determine the order of syntactic operations. This is not a standard assumption on movement. Second, the analysis runs counter to the standard view held in the Minimalist analysis that the Merge universally precedes Move, Chomsky (1995, 2000a, 2013). If Chomsky is right in putting *Merge before Move*, the movement strategy suggested here fails because it relies on the inverse order of the derivations. But, most importantly, I find the assumption that every argument in the nonactive moves from the vP to VoiceP very unsatisfactory. Given the new discoveries on the relativized nature of case assignment Baker (2015), there left little motivation to assume movement of (subject) arguments out of the vP layer.

Therefore, I will present a second alternative—that is the monadic voice analysis.

### 6.5.2 Monadic Voice

The second alternative is to assume that the Voice<sub>[Nact]</sub> is simply a monadic head which doesn't license an argument. This option is similar to Chomsky's suggestion for the unaccusative vP (VoiceP in our terminology), as well as Schäfer's proposal for the nonactive

voice. In this system, the nonactive differs from the active flavor of the Voice as it never combines with a DP argument. To make this proposal work, one could assume that merger of DP arguments is determined by a specialized feature attribute of the Voice, as Schäfer's & Embick's D-feature.

- (6.24) a. Voice<sub>[Nact]</sub> is Voice<sub>{}</sub>  
 b. Voice<sub>[+act]</sub> is Voice<sub>{D}</sub>

This is to say that the active voice is endowed with D feature that makes the head trigger the merger of a DP argument, while the nonactive variant lacks it.

- (6.25) **The argument structure of the nonactive voice:**  
 The Voice<sub>-act</sub> is monadic

According to this proposal, the argument structure of the individual features of the Voice is what determines the argument structure of the clause. If the VoiceP is headed by a monadic feature, the whole clause would end up being intransitive. This effectively blocks the merger of the one of the potential arguments into the derivation.

- (6.26) **Argument structures of the flavors of Voice**  
 (a) Voice<sub>[Nact]</sub> S → {vP}  
 (a) Voice<sub>[+act]</sub> S → {DP, vP}

The Voice<sub>[-act]</sub> selects vP as its sole argument. The active variant of the Voice is dyadic<sup>2</sup>—selects a vP and a DP.

## 6.6 Syntax of the nonactive

According to the monadic proposal presented in (6.25), the nonactive voice is simply a monadic counterpart to the regular active VoiceP. The failure of the nonactive voice to license an external DP argument is sufficient to explain the consistent, universal properties shared by all decausative constructions.

In this sense, the nonactive voice differs from the other voices because it doesn't license an external argument. This unifies the function of the anticausative across the board. The unique and universal function of the nonactive is blocking of the merger of an external

<sup>2</sup> We will revisit the argument structure of the active voice in §9.3.2.

argument. The anticausative morpheme is simply the lexicalization of this monadic [Nact] feature.

(6.27) **The anticausative morpheme:**

The anticausative morpheme is an exponent of the Voice<sub>[Nact]</sub>

To see how exactly the proposal works, consider a transitive verb like *kill*. This verb has two potential arguments, listed in the lexical semantics of the verb—the killer and the killee arguments.

(6.28) **potential arguments of ‘kill’ :**

*kill* <killer, killee>

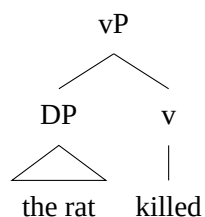
Whether both of these potential arguments will be introduced as syntactic arguments or not is dependent on the type of Voice that the verb is put together with.

Consider the active and nonactive clauses formed from the *kill* verb.

- (6.29) a. *mariyam t'inčəl-wa-n gəddələ-əčč-at*  
 Mary rabbit-def.f-acc kill-3fsgS-3fsgO  
 ‘Mary killed the rabbit.’  
 b. *t'inčəl-wa tə-gəddəl-əčč*  
 rabbit-def.3fsg Nact-kill-3fsg  
 ‘The rabbit is killed.’

In the first step of the derivation, the verb is put together with the first argument. This is universal for both kinds of voices.

Figure 6.2: The endpoint of the causal chain merges first



The above structure generates the basic foundational clause shared across both voice types.

Now, assume that Merge combines the Voice<sub>[+act]</sub> with the vP. As we have seen above, the

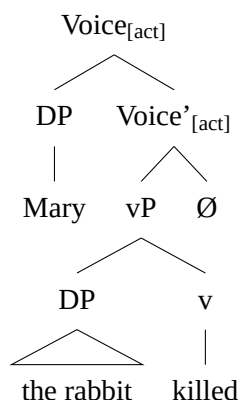
active specified voice ( $\text{Voice}_{[+act]}$ ) contains a  $\{D\}$  feature. As such, it is able to license an argument. In this case, the second argument realizes as actual syntactic argument.

(6.30) **Active transitive**

- ①  $\boxed{S} \rightarrow ([_v\text{kill}], [_{DP}\text{the rabbit}]) = \checkmark$
- ②  $\boxed{M} ([_v\text{kill}], [_{DP}\text{the rabbit}]) \Rightarrow \{[_v\text{kill}], [_{DP}\text{the rabbit}]\} \leftarrow \boxed{L} \text{vP}$
- ③  $\boxed{S} \rightarrow (\text{Voice}_{[act]}, \text{vP}) = \checkmark$
- ④  $\boxed{M} (\text{Voice}_{[act]}, \text{vP}) \Rightarrow \{\text{Voice}_{[act]}, \text{vP}\} \leftarrow \boxed{L} \text{Voice}'_{[act]}$
- ⑤  $\boxed{S} \rightarrow (\text{Voice}_{[act]}, [_{DP}\text{Mary}]) = \checkmark$
- ⑥  $\boxed{M} ([_{DP}\text{Mary}], \text{Voice}_{[act]}\text{P}) \Rightarrow \{[_{DP}\text{Mary}], \text{Voice}_{[act]}\} \leftarrow \boxed{L} \text{Voice}_{[act]}\text{P}$

This generates the clause in (6.29a).

Figure 6.3: Active transitive voice



If the nonactive version of the voice merges at the third stage of the derivation, however, no additional arguments can be introduced. One of the potential arguments of the lexical verb remains unmerged. The argument already introduced in the first stage of derivation remain to be the sole argument of the clause.

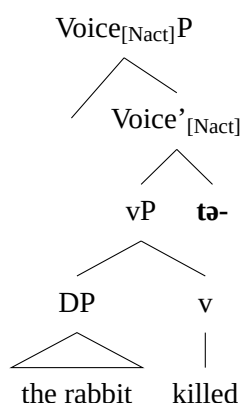
(6.31) **Voice<sub>[Nact]</sub> doesn't license an argument (cf. 6.29b)**

- ①  $\boxed{S} \rightarrow ([_v\text{kill}], [_{DP}\text{the rat}]) = \checkmark$
- ②  $\boxed{M} ([_v\text{kill}], [_{DP}\text{the rabbit}]) \Rightarrow \{[_v\text{kill}], [_{DP}\text{the rabbit}]\} \leftarrow \boxed{L} \text{vP}$
- ③  $\boxed{S} \rightarrow (\text{Voice}_{[Nact]}, \text{vP}) = \checkmark$

- ④  $\boxed{M}(\text{Voice}_{[\text{Nact}], \text{vP}}) \Rightarrow \{\text{Voice}_{[\text{Nact}], \text{vP}}\} \leftarrow \boxed{L} \text{Voice}_{[\text{Nact}]} \text{P}$   
 ⑤  $\boxed{S} \rightarrow (\text{Voice}_{[\text{Nact}]}, [\text{DP} \text{Mary}]) = \mathbf{X}$

This generates nonactive clauses such as (6.29b).

Figure 6.4: Nonactive voice



The anticausative morpheme then lexicalizes  $\text{Voice}_{[\text{Nact}]}$ .

The main point of the current analysis is the proposal that all the decausative constructions are generated from exactly the same syntactic structure such as (6.31).

- (6.32) Unified structure of the decausatives (USD hypothesis)  
 All the decausative constructions are generated from the same syntactic structure.

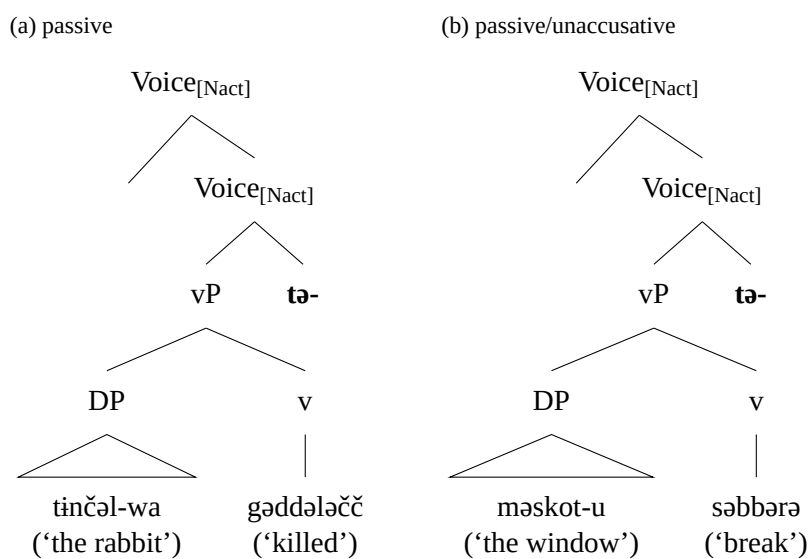
According to this hypothesis, all of the nonactive voices must have a syntactic structure of the type give in (6.31). Any nonactive clause, whether it has a meaning of passive, reflexive, reciprocal or unaccusative would derive from the same syntactic structure.

Look at more examples on how the passive and the unaccusative are generated from the same syntactic structure.

- (6.33) *t'inčal-wa tə-gəddəl-əčč* (cf. 6.29b)  
 rat-def.3fsg Nact-kill-3fsgS  
 'The rabbit is killed.'

- (6.34) *məskot-u tə-səbbər-ə*  
 window-def Nact-break-3msgS  
 ‘The window broke.’  
 ‘The window is broken.’

Figure 6.5: Passives and unaccusatives

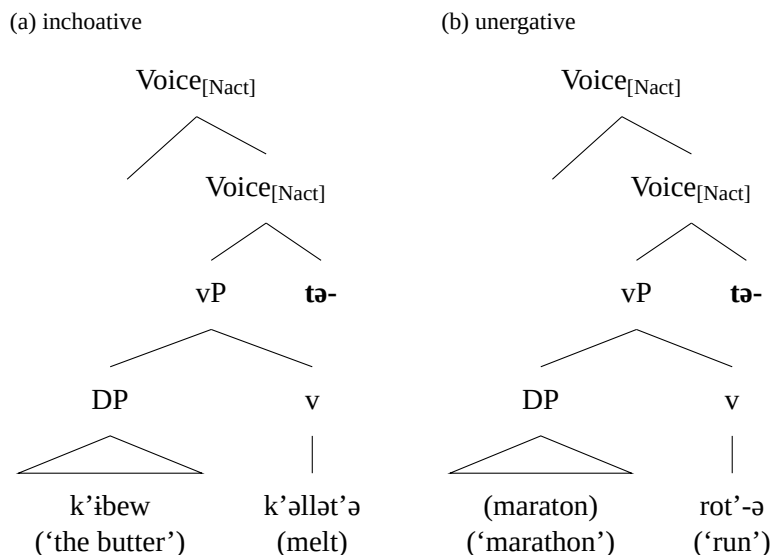


The structure in [fig. 6.5](#) shows the passive and the unaccusative of the verbs such as *break* and *kill*.

The anticausativization of the unergative verbs and unaccusative verbs is also generated with the same type of syntactic structure as shown in [fig. 6.6](#).

- (6.35) *k'ibe-u tə-k'allət'-ə*  
 butter-def Nact-melt-3msgS  
 ‘The butter is melted.’
- (6.36) (*maraton*) *tə-rot'-ə*  
 Marathon Nact-run-3msgS  
 ‘Marathon is run.’  
 ‘It is ran.’

Figure 6.6: Anticausative of the inchoative verb &amp; unergative verbs



Whether a verb is traditionally classified as transitive or intransitive, as unergative or unaccusative, so far as it appears in the nonactive form, it is generated by combining the nonactive voice with the lexical verb and its argument (the vP layer).

The main point of the hypothesis given (6.32) is explaining the structure of nonactive clauses in a unified manner. The proposal explains the unity by assuming a monadic argument structure to VoiceP<sub>[Nact]</sub>. There is no shortage of alternatives. One could, for example, attribute the unifying feature to the vP rather than the Voice. The question is why that unifying feature needs to be the voice. I would like to mention a few reasons why I want to explain it at the voice level.

First, the functional item, as I explained in the above pages, controls the argument structure. I have shown that the anticausative involved in blocking the projection of the external argument.

Second, the nonactive morpheme almost always selects verbs. No other functional item can intervene between verbs and the morpheme. This supports the idea that it immediately projects over the verbs (vP).

Finally, a consensus is emerging in the literature of middle-marking languages that the nonactive morphology is a realization of the voice head. Recent works including Embick (1998, 2004); Schäfer (2008); Alexiadou et al. (2015) have agreed on the nonactive morphology as a realization of the voice head. Given the similarity of the distribution of the nonactive

morphology of middle marking languages, it makes a lot of sense to apply the same analysis to Amharic (unless there is reason to assume otherwise).

## 6.7 Some problems with the unified syntax of the nonactive

In the above section, I have proposed that the anticausative morpheme uniformly projects in the same syntactic layer across all types of decausatives. All the decausatives including passive, reflexive, reciprocal or middle are all generated by combining the nonactive specified Voice head with the vP. The nonactive is considered simply alternative value of the active voice. This is neither the standard nor the dominant view on the structure of passive and other decausatives.

Apart from the theoretical positions, two empirical counter evidences can be presented against the unified treatment of the anticausative. One counter-evidence for the consistent projection of the anticausative on the Voice comes from root-selecting anticausative; and the second counter-evidence comes from the nonactive morphology which seems to select the causative. The first is a case of deponent middles. The second is a case of what I have called the BF hypothesis. We are going to see each in the following subsections.

### 6.7.1 The position and role of the DP in reflexive and reciprocal

The proposal given in (6.32) is pretty natural to the anticausative. But the analysis is slightly counterintuitive to the reflexive and reciprocal constructions because these constructions tend to have subjects with agent theta role. Given the assumption that agent theta role is assigned in the Voice layer (via configurationally determined from the meaning of the verbs), I need to justify why I am assuming them to lack their external arguments.

To start with, the middle-reflexives and middle-reciprocals are known to pose major challenges to theory of argument structure and theta theories because a single argument receives two theta roles.

The first issue these constructions pose involves the position of the subject argument. Having single DP argument, the question that arises with them is whether that single argument is introduced within the vP or on the VoiceP layer. Both approaches have been pursued in the literature, (McGinnis (1999); Steinbach (2002) and the references in there).

The second issue is about the theta role of the subject DP. Given the standard assumption that the agent theta role is assigned in the VoiceP, the proposal that the subject appears in the vP layer might be taken as a problem. Furthermore, the dual theta role of the argument is often an argumentative issue.



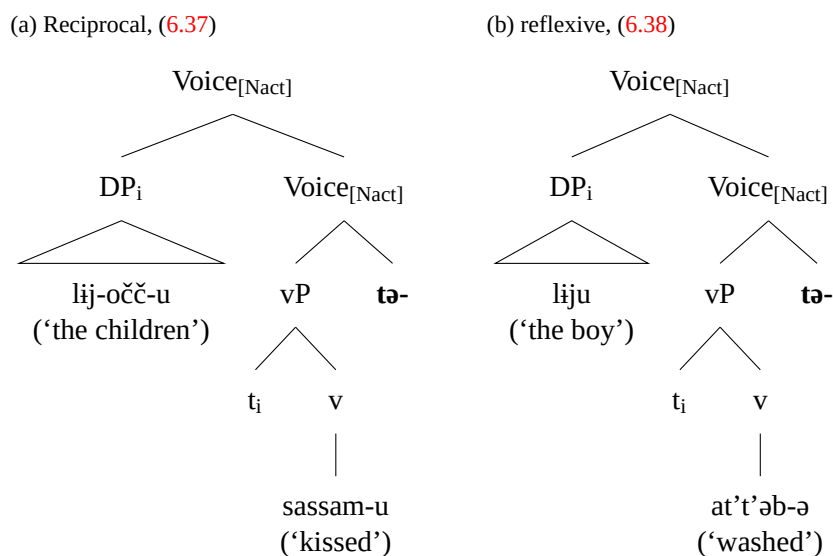
Concerning the first issue, the proposal given the (6.32) already makes a straightforward prediction on the origin of the subjects of reflexive and reciprocal constructions. Given that the reflexive and reciprocal assumed to have the same syntactic structure with the anticausative and passive, their subjects are predicted to merge in the vP layer. The current analysis supports those works that consider the subject of the reflexive and reciprocal constructions appear in the vP layer.

Concerning the second issue, I suggest that the single argument of these constructions merges in the vP layer just like the subjects of the rest of the nonactives. To explain the dual theta roles, I suggest that the subjects of reflexive-reciprocal constructions move from vP to the VoiceP. This leads to the assignment of the first theta role in the vP layer, and a second theta role in the VoiceP layer. In this analysis, we can make distinction between the subjects of reflexive and reciprocal, which receive double theta roles, from that of the passive and anticausative by assuming movement of the subject in the former group, but not in the latter group.

(6.37) *lij-očč-u tə-sasam-u* (reciprocal)  
 child-pl-def Nact-kiss-3pl  
 ‘The children kissed.’

(6.38) *yosef tə-at't'əb-ə* (middle-reflexive)  
 Josef Nact-wash-3msgS  
 ‘The boy washed.’

Figure 6.7: Reciprocals and Reflexives



### 6.7.2 Passive of the Inchoative & BF-hypothesis

Another problem for the unified syntax of the decausative constructions from the passive of unaccusative verbs. These constructions pose a challenge for the proposal from two angles. First, they have been considered as a strong case for the derivational theory of the passive. Second, why the passive reading is associated with them is a bit mystery once we dissociate the passive interpretation from the anticausative morpheme.

I will come back to the second issue in [chapter 7](#). In this section, I will evaluate what I call the **BF** hypothesis, a hypothesis that generates the passive on top of the unaccusative.

The issue that the **BF**-hypothesis attempts to address involves the passive of the unaccusative verbs. Many languages don't permit the generation of the passive from the unaccusative verbs. This, however, is not a universal. Some languages have the passive generated from the unaccusative verbs. Icelandic, German and Dutch, for example, are known to have the impersonal passive derive from unaccusative verbs, [Engdahl \(2006\)](#); [Maling \(2006\)](#); [Primus \(2011\)](#).

The passive is also licensed with the unaccusative verbs in Amharic. With the attachment of the anticausative morpheme, the unaccusative verbs of the *melt* class do generate the passive reading.

- (6.39) *k'ibe-u k'allat'-ə* (unaccusative)  
 butter-def melt-3msgS  
 'The butter melted.'
- (6.40) *k'ibe-u tə-k'allat'-ə* (passive)  
 butter-def Nact-melt-3msgS  
 'The butter is melted.'

In 1960's and 70's, linguists noted the problem that the passive of the unaccusative poses to the standard theory of the passive. Linguists working on Amharic developed a mechanism of derivation to resolve the issue by hypothesizing a way to derive the passive after an abstract causativization of the unaccusative, [Bender and Fulass \(1978\)](#).

- (6.41) Passive of the unaccusative (BF hypothesis)  
 The passive of the unaccusative verbs is formed after the verbs are causativized.

According to this hypothesis, the passive is derived from the unaccusative verbs after the causative first transitivized them.

- (6.42) *yosef k'ibe-u-n a-k'allat'-ə-w* (causative)  
 Josef butter-def-acc caus-melt-3msgS-3msgO  
 'Josef melted the butter.'

Put it in other terms, the passive given in (6.40) is considered a derivation of the sentence given in (6.42) rather than the one in (6.39).

The logic of their analysis goes as follows: The passive is universally assumed to be formed from the transitive verbs. This is the logic behind Chomsky's reasoning for deriving the passive from the transitive. Given that the unaccusative verbs are intransitive, the original theory wrongly predicted that they won't be able to generate the passive. To solve this problem, [Bender and Fulass \(1978\)](#) took the chance that these verbs can be transitivized with the causative marker. They argued that the passive is formed after the intransitive verbs are transformed to transitive with the aid of the causative head, as shown in (6.42). They then concluded that the passive we have in (6.40) is formed after the unaccusative verbs are transformed to transitive with the direct causative.

This analysis, if right, supports the higher projection of the Passive over the Voice because the direct causative selecting these unaccusative verbs is indeed a canonical voice head (look at § 8.1.2.3 on the position of the direct causative). The cross-linguistic generalization that passivization is restricted to transitive verbs, suggested that the passivization proceeds on top of the causativization for unaccusative as well as for causative verbs. I call the hypothe-

sis *Bender-Fulass hypothesis* (BF for short) because [Bender and Fulass \(1978\)](#) is the earliest work I am aware which suggests the derivation of the passive from the causativized unaccusative.

The hypothesis makes a claim that the passive presented in (6.40) has the underlying form which contains the causative, as shown below.

- (6.43) *k'ibe-u tə-a-k'allat'-ə* (underlying form)  
 butter-def Nact-caus-melt-3msgS  
 'The butter is melted.'

Interpreting the hypothesis into modern terms, it suggests a structure where the passive morphology would project over the causative (the active Voice):

- (6.44) The position of the passive according to BF hypothesis  
 [Passive [Active [ vP]]]

While this hypothesis is interesting and in a perfect alignment with some recent works which introduce the passive on top of the active, [Bruening \(2013\)](#); [Collins \(2005\)](#), the hypothesis is incompatible with the current analysis of the passive as simply variant interpretation of the same unified syntax of the nonactive.

In the following pages, I will present cases why the **BF** hypothesis cannot be maintained.

**6.7.2.0.1 The causative morphology** The first issue involves the morphemes. In contrast to the hypothesis the transitivizer item **a-** never appears inside the passive construction. Even if the hypothesis presents the causative to be embedded inside the passive construction, the causative morpheme actually never appears alongside the nonactive morpheme. The question is then why the causative item fails to lexicalize within the passive. This issue has never been properly addressed—neither in the original work nor in any other subsequent works.

**6.7.2.0.2 Passive of the non-transitivizing verbs** A rather more disturbing problem for the BF-hypothesis (and generally to the theories that generate the passive only from transitive verbs) is the presence of intransitive verbs that can generate the passive even if they lack both the basic and derived (causative) transitive form. Verbs like *fear* and *sit/set*, for example, generate the passive without licensing the direct causative.

Table 6.1: The passive from the non-causativizing verbs

root	basic verb	causative	passive (reading)
k'mt'	*k'əmmət'ə	*a-k'əmmət'ə	tə-k'əmmət'ə ('is put')
fr	fərra	*a-ffəra	tə-fərra ('is feared')

The verbs in *sit/set* class have no basic verb form at all. As such, they lack the basic transitive function. The anticausative morpheme always selects the bound roots. They also don't license the direct causative marker, as shown in the table. Still, the passive reading is available with the anticausative marker. The fact that the passive interpretation is available with these verbs shows that the passive interpretation is after all independent of the presence of the causative or the basic transitive.

The same applies for the *fear* class of verbs. Even if this class of verbs have the basic forms, they don't have transitive function in the basic form. They cannot also take the direct causative either. That is not surprising given that most psych verbs resist the direct causative. What is surprising is that the anticausative morpheme appearing with them gives rise to the passive reading.

- (6.45) *t'or-u bə-t'əlat-očč-u tə-fərto-al*  
 army-def by-adversary-pl-def Nact-fear  
 'The army is feared by its adversaries.'

The presence of verbs which generate the passive, while they never license the direct causative, offers a strong evidence for the dissociation of passivization from transitivization/causativization.

**6.7.2.0.3 Nonpassivizing causatives** Another challenge comes from verbs which have causative form, but never generate the passive. Internally caused change of state verbs such as *wilt*, *dwindle*, *decay*, *blossom* have the causative/transitive variants transparently derived from their unaccusative basis. These verbs, however, don't form a passive.

**BF** hypothesis relies on the traditional classification of transitive and intransitive verbs to make a claim on the passive of the unaccusative verbs. The assumption along the traditional theory of the passivization is that transitive verbs generate the passive; and passive are formed from transitive verbs. The problem is, the hypothesis both undergenerates and overgenerates at the same time, just like the derivational theory of the passive. The hypothesis predicts that the passive reading would be available to the internally caused change of state verbs so far as they can take the direct causative. This, however, is not borne out.

In contrast to the predictions of the BF hypothesis, only a subset of the transitivizable unaccusative verbs can form the passive.

Take a look at some of the following sentences:

- (6.46) *k'ibe-u k'əzək'k'əz-ə*  
butter-**def** cool-**3msgS**  
'The butter cooled'
- (6.47) *yosef k'ibewun firij wust' asggəbto a-k'əzək'k'əz-ə-w*  
Josef butter-**def** fridge in putting **caus-cool-3msgS-3msgO**  
'Putting into a fridge, Josef cooled the butter.'
- (6.48) *k'ibew (bə-yosef) tə-k'əzək'k'əz-ə*  
butter-**def** (by-Josef) **Nact-cool-3msgS**  
'The butter is cooled (by Josef).'
- (6.49) *muz-u šaggət-ə*  
banana-**def** decay-**3msgS**  
'The banana decayed'
- (6.50) *yosef muz-u-n bə-lastik aššigo a-šaggət-ə-w*  
Josef banana-**def-acc** by-plastic packing **caus-decayed**  
'Packing with a plastic, Josef decayed the banana.'
- (6.51) *\*muz-u (bə-yosef) tə-šaggət-ə*  
banana-**def** (by-Josef) **Nact-decay-3msgS**  
'The banana is decayed (by Josef).'

The sentence (6.46) contains the unaccusative form of the 'freeze'. This verb has a transitive counterpart as shown in (6.47). The sentence in (6.48) shows the passive form of the same verb. *Bender-Fulass hypothesis* captures derivations of this sort. According to their hypothesis, the unaccusative form we have (6.46) is first transformed to transitive form. Then, this transitive form of the verb functions as the base for further derivation; this time passivization.

- (6.52) **Passivization of the 'freeze' verb according to BF**  
*k'əzək'k'əz-ə* → *a-k'əzək'k'əz-ə* → *tə-k'əzək'k'əz-ə*  
freeze-**3msgS** **caus-freeze-3msgS** **Nact-freeze-3msgS**  
'freeze' (int.) → 'freeze' (tr.) → 'is frozen.'

Verbs which behave like 'freeze' such as *fənnada* ('explode'), *fərəsə* ('collapse'), *k'alla* ('redden'), *m<sup>w</sup>am<sup>w</sup>a* ('dissolve'), *k'allət'ə* ('melt'), *tənnənə* ('evaporate') etc, generate the passive, as their theory predicates.

The problem is with the examples given in (6.49)–(6.51). The ‘decay’ verb, even if it can be causativized like the ‘freeze’ verb, it resists the passive formation, as shown in (6.51).

Some of the verbs which behave like ‘decay’ include *dəbəzzəzə* (‘dim’), *t’ət’ə’ərə* (‘crystallize’), *fəggəgə* (‘brighten’), *bəssəna* (‘decompose’), *t’əffa* (‘vanish’), *kəssa* (‘emaciated’), and many other verbs (which seem internally caused change of state verbs) cannot generate the passive even if they can be causativized.

(6.53) *s’om-u yosef-n a-kəss-a-w*  
 fasting-def Josef-acc caus-emaciate-3msgS-3msgO  
 ‘The fasting emaciated Josef.’

(6.54) *\*yosef tə-kəss-a*  
 Josef Nact-emaciated-3msgS  
 ‘Josef is emaciated.’

If BF is correct that the passive can be generated from the causativized clause, it is a mystery why the passive cannot be generated from these low causative verbs as well.

The inconsistency of the passive with the internally caused change of state verbs has been noted for English as well. A number of these verbs resist the passive, even if their causative form is well-formed. Look at the following examples.

(6.55) a. Bright sun blossomed the cactus. [Potashnik \(2015\)](#)  
 b. \*The cactus was blossomed by bright sun.

(6.56) a. The hot sun grew the corn in the fields.  
 b. \*The corn was grown by the hot sun.

(6.57) a. Early summer heat blossomed fruit trees across the valley [Rappaport Hovav \(2014\)](#)  
 b. \*The fruit was blossomed by early summer heat

These facts make the BF hypothesis (or any theory that relies on transitivity to generate the passive) impossible to maintain. They also show that the passive is independent of the transitivity.

Based on the above reasons, I conclude that the BF hypothesis cannot be correct.

### 6.7.3 Deponent middles

Another point I would like to clarify with regard to the syntax of the anticausative is the case of deponent middles. I need to discuss them separately because they have some distinctive

properties that might be considered a problem for the current proposal.

To begin with, the term *deponent* has been used into two different senses in the literature. The original (strict) sense of the term describes verbs which behave like regular active verbs while still appearing in the middle (nonactive) form. In this sense, some of the verbs I discussed above, such as *tə-məlləkətə* (‘watch’), *tə-dəbbək’ə* (‘hide’) etc, are deponents because they behave like unergatives while they appear in the nonactive form. The *translational motion* described in § 3.3.4.3 and the others I described in § 3.3.4.8 also qualify as deponent middles. This class pose no special problem for the current proposal.

The broad sense of the term ‘deponent’ is used to describe all types of middle constructions that display a mismatch between the middle form and its function/meaning, Müller (2013); Grestenberger (2017); Zombolou and Alexiadou (2014). One subclass of this is the deponent verbs that happen to lack a fully formed verb without the voice items. These are the verbs often described as *media tantum* (‘middle only’) in the literature.

Kemmer (1993) and Klaiman (1991) claimed *media tantum* middles belong to certain semantic classes. They stated that they belong to verbs of emotion, cognition and motion. Quite surprisingly, their observation applies for Amharic as well. Most of the verbs in this class belong either to cognition or to non-translational motion classes.

The *middle only* verbs generate the middle directly from the bound roots. The anticausative directly selects the bound roots, rather than the verbs. A couple of verbs such as *tə-k’əmət’ə* (‘sit/put’), *tənnəsa* (‘get up’) etc., don’t have a basic (underived) verb without the anticausative morpheme, (Leslau, 1968, p. 410). The voice morphology directly select the bound roots. This poses a challenge to the current proposal which puts the nonactive feature on the VoiceP layer universally.

These roots of the *media tantum* verbs fall into two classes. One group of roots can be selected by both the anticausative and the causative. The other group are selected by the anticausative only.

Table 6.2: Two groups of *tantum* verbs

root	noun	basic verb	causative	antic
c’wt	c’əwata (‘play’)	*c’awwətə	a-c’awwətə	tə-c’awwətə
šgr	mə-šagər (‘crossing’)	*šaggərə	a-šaggərə	tə-šaggərə
rmd	rimja (‘walking/step’)	*rammədə	a-rammədə	tə-rammede
ns	mənəsət (‘standing’)	*nəssa	a-nəssa	tə-nəssa (‘stand/picked’)
k’mt’	k’imt’ (‘sitting’)	*k’əmmət’ə	*a-k’əmmət’ə	tə-kəmmət’ə (‘sit/put’)
mñ	mñot (‘wish’)	*məññə	*aməññə	tə-məññə (‘wish’)
kst	kistət (‘happening’)	*kəssətə	*akəssətə	tə-kəssətə (‘happen’)
gnzb	gñzabə (‘recognition’)	*gənnəzəbə	*a-gənnəzəbə	tə-gənnəzəbə (‘recognize/realize’)



As I already argued before, *deponent* middles are one of the reasons to reject the derivational theory of the anticausativization. Since they lack the basic active form, a derivational theory that derives the anticausative from the basic verbs cannot apply on them. But they also pose a challenge for the proposal presented in this chapter because the anticausative morpheme seems to select the bound roots –such suggesting a very low merging position.

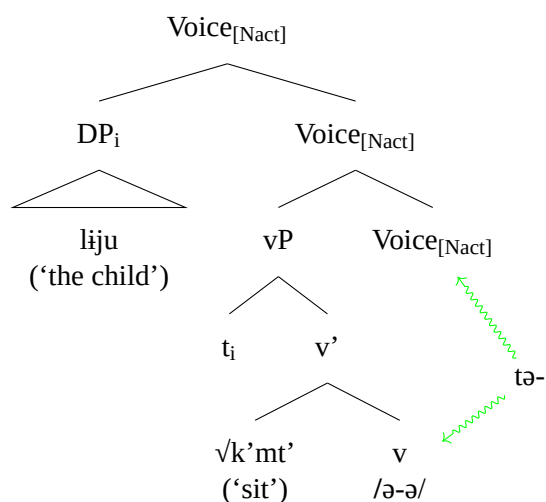
To maintain the hypothesis that the anticausative morpheme consistency appears on the voice layer, I entertain two alternative approaches why the anticausative morphology appears to select the bound roots with these tantum verbs. The first approach takes the anticausative to appear on the vP layer for this specific class of verbs as an exception. It explains the absence of the basic verb use the use of spans. The second approach rejects the low merger of the anticausative altogether.

**6.7.3.0.1 vP and VoiceP as spans** The idea is to entertain the possibility that the anticausative appearing as part of the verbalizer layer, the vP, for the media tantum verbs as an exceptional case.

Given that the anticausative morpheme directly selects the bound roots, it is natural to consider it as part of the verbalizer layer, the vP. This is naturally compatible with the raw data that the media tantum present, but poses a problem for my proposal here because the anticausative is proposed to be a lexicalization of a higher functional layer, the VoiceP. To rescue the proposal, one strategy is to use tools such as spanning, [Williams \(2003\)](#); [Abels and Muriungi \(2008\)](#); [Svenonius \(2012\)](#); [Taraldsen \(2010\)](#); [Svenonius \(2016\)](#). In this sense, the anticausative is considered as a span of the vP and VoiceP functional layers.

- (6.58) *yosef tə-k'əmmət'-ə*  
 Josef **Nact-sit-3msgS**  
 'Josef sat.'

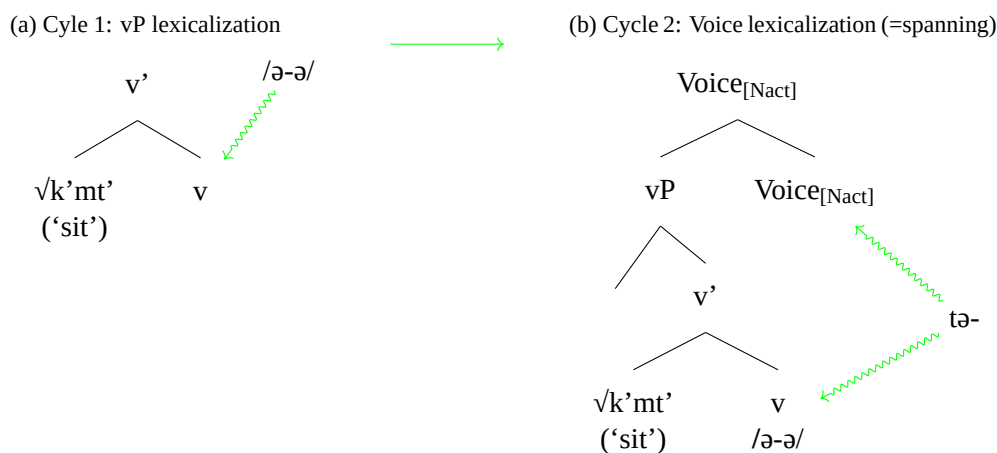
Figure 6.8: Spanning analysis of deponent middles



The syntactic spanning of the two functional heads into one functional head where the morpheme will ultimately insert could create the effect of bound root selection that we see with the media tantum verbs.

Note that the vowels /ə-ə/ in the above structure are considered the verbalizers of the roots. These vowel verbalizers are available in the tantum verbs, as any other verb. How exactly the lexical insertion occurs on the vP and VoiceP poses non-trivial challenges for the spanning because the vP has these vowels inserted for itself; and then shares the tə- with the voice head. Since the vowels are specific to the vP, and the tə- is shared between the two functional heads, we need some sort of cyclic insertion where the vowels would be inserted first just on vP, and then tə- would be inserted for both (spanned).

Figure 6.9: Cycles of lexical insertion

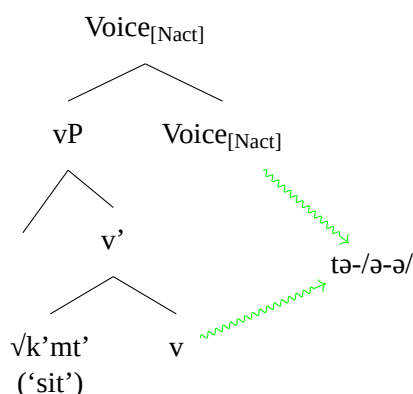


The problem with this lexicalization for spanning is that it is now inserting morphological items for functional heads that have already a morphological item inserted on.

Under the cyclic Spellout assumption, the first cycle of insertion has already inserted the vowels into the vP, as shown in the above figure. If we allow the spanning to unify the vP, which has been lexicalized in the first cycle, with the VoiceP, we are allowing lexicalization of a single functional head (vP) twice. This is not the way spanning is supposed to work in the normal cases. Permitting the spanning operation to span both lexicalized (vP) and non-lexicalized (VoiceP) into a single morphological item ( $tə-$ ) is unusual and too powerful because we are permitting an already lexicalized head vP to span with the Voice. That is, if we allow spanning to span already lexicalized heads with non-lexicalized head, we are making the operation too powerful. This would make a prediction that any contiguous functional items, regardless of their lexicalization stages, can be spanned into a single morphological item. Under normal conditions, spanning is assumed to span two contiguous non-lexicalized heads, (Williams, 2003, p. 241).

Assuming a non-cyclic Spellout won't solve the problem either. If we follow the Minimalist assumption that all the sub-VoiceP heads are spelled out at Voice, we are led to believe that both the verbalizer vowels and the voice morpheme are inserted in one sweep. Under this system, we can assume that spanning unifies the VoiceP and vP before the insertion, as shown in the following structure.

Figure 6.10: Spanning on non-cyclic spellout



The problem with this kind of spanning is that it complicated the process of linearization. For the non-concatenative morphology, attaching the anticausative morpheme directly with the verbalizer morpheme mismatches the root template that always expects two vowels.

As such, tantum verbs seem to pose a challenge to the spanning system, at least for the non-concatenative morphology where the verbalizers require a dedicated template and, at the same time, need to lexicalize with the Voice head.

Alternatively, one can implement a postsyntactic *fusion*<sup>3</sup> of the two functional heads. The fusion operation could be assumed to fuse the two functional items such that a single morpheme could be inserted on.

But, for the morphological fusion, this doesn't pose much of a problem because fusion is assumed to be a postsyntactic operation. As such, it probably never cares for the first cycle of lexicalization (insertion). Each of the functional items lexicalize with their individual morphemes, and finally fuse in the phonological component.

There is, however, one serious empirical issue with the *fusion* analysis itself (in addition to the other known metatheoretical problems discussed in a number of works including [Caha \(2009b\)](#); [Svenonius \(2012\)](#); [Haugen \(2015\)](#); [Haugen and Siddiqi \(2016\)](#); [Siddiqi \(2009\)](#)). The main problem emanates from the semantic basis of the deponent middle formation. As I have already mentioned above, [Kemmer \(1993\)](#) & [Klaiman \(1991\)](#) noted that deponent middles are not randomly generated. They form consistent semantic classes across languages. This means that the fusion of the two functional heads is not random morphology (or, purely PF phenomenon). Since the postsyntactic fusion (a PF operation) cannot be sensitive to the

<sup>3</sup>A third alternative is to use phrasal Spellout. Phrasal Spellout, unfortunately, has faced a serious challenge from the what [Embick \(2013\)](#) calls the *containment prediction*. Therefore, I am not going to consider it as a valid alternative to the problem in question.

semantic classes of verbs, it cannot be used to restrict the fusion to certain semantic classes of verbs.

We are a some sort of puzzle here. Postsyntactic operations are better for the morphology because they can fuse early spelled out vP with the later VoiceP. But they have the problem of over-generation because they cannot be restricted to certain semantic classes of verbs.

Syntax sensitive operations such as *spanning* are better at restricting where the fusion should apply because they can identify the verb classes. Under the spanning, we can assume that certain classes of vP require a unified lexicalization with the VoiceP, while others don't do so. The semantic classes can dictate the lexicalization system to lexicalize the functional heads in a certain way. But, the spanning has the problem of cyclic Spellout/lexicalization as discussed above. How the verbalizer morphemes insert after the spanning is specially unclear.

The fact that the vowel-verbalizers appear within the media tantum shows that the verbalizers are independently projected. The same is true of the Voice head. Both of the functional heads actually lexicalize with their own respective morphemes.

The relation between the vP and the VoiceP is like the relation between dependent clauses and finite clauses. Dependent clauses always appear within finite clauses. In the same manner, the vP of these media tantum verbs always appear with the VoiceP<sub>[Nact]</sub>.

Compare the following two middle constructions.

(6.59) *yosef fīrraš-u lay tə-zərrəga-ə*  
 Josef mattress-def on Nact-lie.flat-3msgS  
 'Josef lied flat on the mattress.'

(6.60) *yosef fīrraš-u lay tə-k'əmmət'-ə*  
 Josef mattress-def on Nact-sit-3msgS  
 'Josef sat on the mattress.'

The *zərrəga* ('lay flat') verb has a basic form, in contrast to the *sit* verb which lacks a basic form (\*k'əmmət'ə). Both of these verbs form the middle. The first one generates a regular middle. The *sit* verb forms *deponent middles* because the anticausative morpheme attaches directly on the bound root. The important distinction is the availability of the basic verb in the regular middle, and its absence in the deponent middle. The deponent middles are the problematic case because direct combination of the anticausative morpheme and the bound roots contradicts the proposal that the anticausative is a voice level item.

Since we have already established that the anticausative morpheme is an exponent of the VoiceP, and that the vowels in the verb, such as /ə-ə/ are the verbalizers of the root, what is surprising fact is why the base of the deponent middle cannot stand as a verb.

What we need here is some mechanism of showing that the anticausative item still appears on the VoiceP layer, while still explaining the fact that the anticausative selects the bound roots.

In whatever ways we understand the relation between the two functional heads, it is evident that both of the functional layers have their own morphemes inserted. This is a dependency relation rather than a mono-morphemic bundling, the sort of phenomena both spanning and fusing supposed to explain. In languages that lack dedicated verbalizer morphemes, the distinction between the head-dependency and morphological fusion (spanning) might look unclear. But, for Amharic where both of the functional heads clearly have dedicated forms, the dependency (selection) relation is conspicuously identifiable from the morphological/feature unification. The forms indicated that the features or functional heads are not fused in the syntax or post-syntax grammar, so to speak. They still lexicalize separately. But the vP is somehow dependent on VoiceP<sub>[Nact]</sub>. Therefore, what we need is then a system that blocks the realization of vP independent of VoiceP. Head movement might be the right operation.

**6.7.3.0.2 Head Movement** Movement is generally understood to be triggered by the higher (attractor) item in the Minimalism. If the subject moves from spec VoiceP to spec TP, it is the properties of the TP itself that is assumed to be responsible for the movement. This is known as the Attract/Greed assumption of movement, [Chomsky \(1995\)](#). This type of movement is hard to apply in this case because the deponents are generated due to the properties of the verbs itself (rather than the VoiceP). As we have seen above, the deponent middles are formed from some specific semantic classes of verbs.

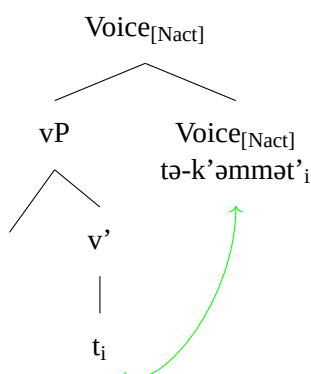
If we are going to propose a movement analysis, we need to take the lexical meanings or some diacritics of the vP as the trigger for the movement. This is important because the movement has to be restricted to a handful of verb classes that will generate the deponent middles. If we conceive Move in terms of the Attract operation where some feature of the VoiceP would attract the vP, we end up moving all types of verbs to Voice<sub>[Nact]</sub>, unless we make the Attract/Move sensitive to semantic classes.

Under the interactionist model, a movement operation sensitive to the semantic classes is not hard to imagine. But, none of the previous works have tried to propose semantics sensitive movement operations.

We can assume a self-initiated movement where the feature (semantic property) of the vP itself serves as a trigger for the movement of vP. The self-initiated type of movement has rarely been used in the current syntactic analysis. But, it can't be considered far-fetched because some previous works have already presented evidences for self-initiated movement. [Rodrigues \(2004\)](#), for example, have shown that the movement of some pronouns to Spec TP is triggered by the features of the pronouns themselves. The pronouns move for 'selfish' reasons (for checking case) without a probe/attracting feature on TP.

In the same manner, I assume that some internal property of this class of verbs somehow trigger the raising of the vP into the VoiceP layer. This obligatory movement creates a complex X<sup>0</sup> head on VoiceP. This creates the sort of dependency we need because the head movement creates an incorporated (unified) head of the two functional heads.

Figure 6.11: Head movement of v to Voice



The incorporation, which follows the head movement, makes sure that the vP of the restricted classes of verbs cannot lexicalize independently of the VoiceP<sub>[Nact]</sub>.

There is no actual morphological fusion or spanning. Each of the functional heads comes with its own morphological form. There is no reason to assume that any sort of morphological manipulation has occurred.

The head movement approach, in addition to solving some of the problems of both the spanning and fusion analysis face, it also helps us maintain a consistent position for the voice and v functional items. The anticausative *t̄-* appearing on Voice could still be considered the determinant of the argument structure, while the verbalizers still verbalize the roots. The only distinct property that the deponent middles bring forth, the dependency of the verb on the voice material to function as a property verb, is explained by the chaining of the two heads via incorporation.

The interesting part of this kind of incorporation is the fact that it permits the semantic class restriction, as well as the lexicalization of each of the heads by their own respective morphemes, while still explaining the dependency between the two heads.

## 6.8 Summary

In this chapter, I proposed a unified syntactic structure for all the decausative constructions. The hypothesis has been that all the decausative constructions are unified at an abstract level because all of them lack a structural counterpart for the antecedent argument of the cause denoted by the predicate. The constructions either lack the syntactic counterpart of the antecedent, or project it fused with the subsequent of the cause. Both are suboptimal ways of representing the causal chain relation where both the antecedent and the subsequent are supposed to have exact, unique mapping syntactic mirror arguments. The monadicity of the syntactic [Nact] feature which appears on the VoiceP is considered the ultimate cause for the failure of the projection of the antecedent arguments.

This means that the decausative constructions basically differ from their active counterparts in argument structure.  $\text{Voice}_{-\text{act}}$  is a monadic functional head that licenses no argument. Based on this, whether the ultimate interpretation turns out to be passive, or unaccusative or reflexive, the anticausative morphology always lexicalizes  $\text{Voice}_{-\text{act}}$  head across the board. Put it in other words, the syntax is oblivious about the distinctions among the decausative constructions. They are all generated in the same structure where the single argument is introduced in the vP layer, and the VoiceP merges with no argument. The distinction among the constructions exists only on the semantic domain. The interpretations of the passive, reflexive, middle types are assigned later, or in the course of the derivation based on other contextual factors in the clause. In the next chapter, I will explain how the clause internal contextual factors determine the exact interpretation of the decausative.



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## CHAPTER 7

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# Contextual interpretation of the nonactive

## 7.1 Introduction

In [chapter 6](#), we have seen that all the decausative constructions, which are signaled by the anticausative morpheme, are structurally unified. We have also seen that the anticausative morpheme is the lexicalization of the  $\text{VoiceP}_{[\text{Nact}]}$ . The  $\text{VoiceP}_{[\text{Nact}]}$  is different from other variants of the Voice because it licenses no structural argument (it is monadic). I consider this to be the unique and universal function of the anticausative that holds across all types of decausative constructions.

As I will further elaborate in [chapter 8](#) & [chapter 9](#), I have taken the traditional VoiceP as a general place holder where a number of specific features such as [+act], [cause] and [Nact] etc. appear on. That is to say, there is no single dedicated feature that could be taken as the sole realization of voice. Voice is a name given to a number of verb selecting & argument manipulating syntactic features (DUs). What exactly determines the argument projection is not the generic Voice itself. It is the specific feature values (the DUs) that fill up the Voice layer.

As I have noted in the previous chapter, a feature could be syntactic, semantic or phonological, [Adger and Svenonius \(2011\)](#). A subsequent question is then where each of the features of the voice belongs. The proposal I presented in [chapter 6](#) attempts to address this question regarding the nonactive feature. There, I have proposed that the nonactive feature ( $\text{Voice}_{[\text{Nact}]}$ ) is merely syntax-internal feature with no relevance to the semantic domain. As the anticausative has no semantic relevance, it is underspecified to any of the decausative constructions.

Then, the question is how the Voice<sub>[Nact]</sub> end up being associated with a large number of grammatical constructions.

We have already seen in [chapter 3](#) that a number of grammatical notions are systematically associated with the single anticausative morpheme. The relationship is pretty complex. In some cases, the nonactive voice comes with just one of the senses—say the passive or the reflexive. In other cases, it could have an ambiguous interpretation of two or more senses—such as the passive and the reflexive, or the reflexive and the reciprocal, etc.

- (7.1) *lij-očč-u tə-r<sup>w</sup>ar<sup>w</sup>at'-u*  
 child-pl-def Nact-run.dup-3pl  
 ‘The children chase one another.’  
 ‘The children are chased.’

The sentence in (7.1) is ambiguous between a reciprocal and a passive reading. The reciprocal sense expresses a situation where events are reciprocated from agent participant to the patient participate, and vice versa. The passive reading, on the other hand, represents a situation where the subject argument is the receiver of the action.

Like I already noted, the strategy I proposed to solve the ambiguity is to dissociate any of the readings from the anticausative item. According to the underspecification proposal, none of the grammatical senses are directly coded as part of the lexical specification of the anticausative morpheme. The passive, for example, is not the part of the feature inventory of the anticausative morpheme per se. It arises as a reading (or, ‘allosemy’, [Marantz \(2013\)](#)) of the nonactive voice when certain contextual factors exist in the clause. Each of the decausative constructions arises as interpretive values to the underspecified nonactive voice as different contextual factors influence the reading.

In this chapter, I will explain how clause internal syntactic contexts give rise to each of the readings of the anticausative.

The idea of “syntactic context” as a factor to determine the interpretations associated with certain functional items is not new. [Lieber \(2004, 2016\)](#) has already used syntactic context to set the interpretive values of the nominalizers in English. [Marantz \(2013\)](#); [Wood \(2015b\)](#); [Wood and Marantz \(2017\)](#) have also proposed a similar mechanism, contextual allosemy, as a means to explain polysemous morphemes similar to the Amharic anticausative marker.

The analysis I develop in this chapter follows the same strategy. For that end, I will briefly review and compare the two brands of studies that use syntactic context as means to determine the meaning of multifunctional morpheme.

## 7.2 Two approaches to contextual allosemy

### 7.2.1 Contextual Allosemy in DM

Contextual allosemy is one of recent developments within the **DM** framework. To understand why allosemy becomes important in the **DM**, one needs to look at how allomorphy is an important part of the framework, and how allosemy is considered a natural extension of it.

The study of the morphological realization of the past tense of English was what originally led to the development of DM's general framework of late insertion. The presence of different morphological realizations (namely,  $-\emptyset$ ,  $-t$  &  $-d$  for English past tense) for the same syntactic feature ([past]) was the major challenge that the **DM** linguists tackled early on. [Marantz \(2013\)](#) relates the story of the original hypothesis of late morphological insertion to Halle Morris's idea to dissociate the morphemes from their syntactic features.

What they have already noted early on was that the alternative morphemes (allomorphs) don't come as free alternatives of each other. Everyone of them are selected based on different types of morphosyntactic contexts.

As the contextual insertion of allomorphs in the PF side of the grammar becomes well established, a question arises on whether a similar kind of contextual insertion is possible on the LF side of the grammar. [Marantz \(2013, 2009\)](#) argues this to be the case. He showed a number of natural language examples where structural context determines the exact interpretation of certain functional items. Based on this, allosemy are proposed as the LF analogues of the allomorphs of the PF interface. He further argued that the contextual conditioning of the allosemy and allomorphs requires similar locality conditions.

#### (7.2) Locality conditions for allomorph insertion

- (a) **phase boundaries**: the feature that undergoes the allomorph assignment must be spelled out in the same Spellout domain to its context.
- (b) **surface adjacency**: the contextual factor that affects the realization of the allomorph must be in linear adjacency to the allomorph.

[Marantz \(2013\)](#); [Embick \(2010\)](#)

Marantz shows that the locality conditions that apply on the insertion of allomorphs on the PF side (such as 7.2) also apply on the insertion of interpretive values on the LF side of the grammar. “[O]nly material in the same spell-out domain should condition allosemy and this material should be semantically adjacent to the morpheme which semantic value is being determined”. The semantic adjacency is understood as “semantically combines directly”.

[Marantz \(2013\)](#) focuses on root allosemy. There, he argued that two distinct semantic vari-

ants could emerge from the same root when the root appears in different syntactic contexts. Take the noun *house* and its verbal analogue *to house*, the fact that they contain quite distinct meanings doesn't lead us to assume that they are distinct lexical items. The distinct meanings emerge from the syntactic contexts where the shared root occurs in. The nominal syntactic environment (the nominalizer syntactic head) and the verbal syntactic environment give rise to the distinct senses that the nominal and verbal items have, respectively.

Wood and Marantz (2017) further applied the contextual allosemy on vP items. They suggested that different flavors of v, such as the  $v_{CAUS}$ ,  $v_{DO}$ ,  $v_{BECOME}$  etc., could be contextually determined at the semantic interface. The roots adjoined with the v are supposed to serve as the context for the specification of the CAUSE, BECOME and the like values.

For the causative in Japanese, for example, they claimed that “the causative suffix is the contextually determined spell-out of v in the context of an external argument-introducing voice head.”

According to this specification, the causativity is not lexically coded to the causative morpheme, nor does it appear as a feature on the functional head vP, CausP or VoiceP. It is an interpretive value assigned to the v item in situations where it appears embedded inside a dyadic voice. What makes a clause causative is not lexical property, it is the projection with an external argument.

I will evaluate the validity of this analysis for the study of the causatives in [chapter 8](#). Here, I would like to point out one issue I have with the allosemy analysis envisioned in the DM framework. That is the stringent locality condition imposed by the morphology based system. A strict locality condition definitely works for the allomorphy assignment. But, I don't think a similar condition is necessary for the semantic assignment.

That is to say, the locality condition such as the adjacency requirement proposed by Marantz is too stringent to the semantic assignment. Unlike morphological objects which seem to “see” only close by morphological objects, semantic objects are known to link across a large layer of structures. Different forms of binding and anaphora relations are evidence for this. The same is true of the resolution of allosemes.

The evidence is quite clear that the interpretation of the VoiceP is not necessarily determined by the most local (or “directly combined”) element such as vP. Other not so local elements in the clause such as the arguments of the vP as well as that of the VoiceP do indeed impose relevant effects on the interpretation of the Voice.

As we will see in the following sections, the reciprocal reading, for example, emerges under two conditions—(a) that the verb (vP) must appear in iterative aspectual form, and (b) the argument of the vP need to be plural. Given the binarity of the semantic composition<sup>1</sup>, it

<sup>1</sup>Semantic composition is assumed to be a binary operation because it either, depending on one's favorite theory, depends on or mirrors the binary Merge. Look at [§ 5.4.2](#) on the relationship between semantic composition

is impossible for the same VoiceP to be adjacent (directly compositional) for the argument (to see the plurality) as well as the vP (to see the aspectual form). Therefore, one of the two factors must impose its effect from a non-adjacent position. Facts like this suggest the strict locality condition suggested by Marantz is too stringent to fully explain the semantic interactions between different objects in the clause.

I will therefore recourse to a more relaxed notion of “context”, much is quite similar to rather Lieber’s 2016 sense of contextual meaning assignment.

### 7.2.2 LSF and Contextual Coercion

According to Lieber, **SO** is built out of two types of information: the grammatical part which she calls the “skeleton” and the semantic and pragmatic part which she calls the “body”. The skeleton contains the main hierarchically arranged formal features of the **SO**. She considers the features specified in the skeleton as semantic information relevant to the syntax. The body mostly contains the unsystematic encyclopedic information.

The skeleton itself contains two components: the core semantic functions and the arguments associated with those functions, Lieber (2004). A function could have one or more arguments.

- (7.3) a. [F<sub>1</sub> ([argument])]  
 b. [F<sub>2</sub> ([argument], [F<sub>1</sub> ([argument]) ] ) ]

A monadic verb such as *yawn* and a stative dyadic verb such as *hear*, for example, would have skeletal structures as follows:

- (7.4) a. *yawn* [+dynamic ( [ ] )]  
 b. *hear* [–dynamic ( [ ], [ ] )]

The angled brackets represent the arguments of the verbs.

The functions themselves are structures of features with arguments annotated to them. Lieber proposes a number of features/functions relevant for lexical categorization such as [material], [dynamic], aspectuality such as boundedness ([B]) and countability ([CI]), path specification ([IEPS]), location ([Loc]), gradability ([scalar]) etc. The feature system is tripartite in the sense that three types of values could be attributed to one feature—a positively specified value, negatively specified value and with no (underspecified) value. Dynamic verbs, for example are specified with [+dynamic] feature, non-dynamic verbs like statives and, adjectives (under the assumption that they are also statives) are specified as [–dynamic]. If a verb

is not clearly marked either as dynamic or stative, it remains with unvalued dynamicity feature (= [dynamic]). The rest of the categories where the dynamicity property is not relevant, such as typical referential nouns would have no dynamic feature marked on them. Concrete nouns like *a chair* are specified with the feature [+material]. [-material] feature is assumed to identify the abstract nouns from concrete nouns.

Her theory also contains other classes of semantic items (part of the ‘body’ ) which are partially systematic and play some indirect roles on the structure. Some of these features are associated with the arguments (marked set as subscripts to the arguments of the functions). This class includes features such as <animate>, <+human>, <dimension>, <+motion> etc. They put semantic restrictions on the types of argument that could be selected by an affix or a lexical predicated. Put it in other words, the ‘body’ plays some functions for the argument selection. She also suggested the parametric possibility that the features set to the ‘body’ in one language could be the active part of the syntax of another language.

What is crucial for our purpose is how this system is put to solve the problem of polysemy in English nominalizations. The above general framework, first developed in Lieber (2004) has been further expanded in Lieber (2016) to the capture the polysemy involving nominalizers.

The main issue of nominalization she opted to explain is why and how a single nominalizer item such as *-ation* generates different types of nominals.

- (7.5) a. construct + *-action* = construction ← product  
 b. reserve + *-action* = reservation ← location  
 c. administer + *-action* = administration ← event/agent

Interestingly, Lieber extensively documented that almost all the morphological nominalizers in English could generate more than one type of nominal. While nominalizers like *-er, -ant, -ee* consistently generate concrete nouns, like *teacher, accountant, employee*, the roles of the generated nouns are variegated. *-er* usually generate agentive nouns, as well as patient nouns like *loaner* and *shooter*, according to Lieber. Even with the same noun, each of the types of roles can arise. A derived noun like *shooter* could be an agent who shoots, an instrument for shooting, or a patient that is shot. The question is how and why the same nominalizer item happen to generate different types of nominals.

The important innovation of Lieber’s work in this regard is the introduction of the notion of syntactic context or ‘derivational ecosystem’ as she would call it. “[O]ne of the central claims of this book will be that nominalizations exist within a kind of derivational ecosystem where everything bears a relation to everything else”. That is, the exact kind of nominalization generated is not fully determined by the nominalizing affixes themselves. It is a function of interplay between the base lexical items and the other elements in the derivational ecology (context).

The nominalizer affixes themselves are not the prime factors for the determination of the types of nominals because they are semantically underspecified objects. “[A]ffixal skeletons are often radically underspecified and that resolution of that underspecification is in part dependent on composition with bases of particular kinds.” (Lieber, 2016, 13)

In her system, the affixes are assumed to contain similar skeleton with the lexical items. The nominalizer affixes, for example, contain the features that a typical noun would contain.

- (7.6) a. -er= [+material, dynamic ([R<sup>2</sup>], <base>)]  
 b. war = [-material, dynamic ([R ])]

The difference between the nominalizer affixes and actual nouns lies in their body. The affixes are highly underspecified in their semantic content in contrast to the lexical items. Having little semantic content, the affixes have only a limited effect on the overall output of the derived nouns. The polysemy is the product of the composing of the morphemes to the syntactico-semantic “niches” that they appear in. To show that the actual meaning is fixed by the syntactic environment, in her latest theory, she left the [material] and [dynamic] features of **SO** underspecified. For the referential [-action] nominal affix, for example, the skeleton look like this:

- (7.7) -ation (Referential reading) [ $\alpha$  material,  $\beta$  dynamic ([R ], <base>)]

(Lieber, 2016, p. 104, example 10)

The  $\alpha$  and  $\beta$  are variables to be fixed (specified) in response to the types of factors in the clause. To see how the system works exactly, assume the affix combines with a base like *construct*, creating a nominal *construction*. Whether the reading of this new noun would be a concrete material or an abstract noun or an eventive (dynamic object) etc., depends on the other factors in the clause.

- (7.8) a. The construction on the hill was in ruins  
 b. Not long after the bridge’s construction it was already obsolete

her example 18, at page 104

In (7.8a), the underspecified value (the variable) of the constructed noun *construction* gets fixed to concrete ([+material]) because it is “inferred from its being equated with ruins”. The other noun in the sentence, *ruins* offers the syntactic context for the variable to be fixed to [+material] value. In (7.8b) on the other hand, the eventive context that “long after” and other clues lead one to attribute an abstract reading to the nominal.

<sup>2</sup>The R (referentiality) here is a special type of argument associated with the nouns to explain their referentiality. Actual structural arguments are represented by empty angled brackets.

The system she used to determine the exact value of the variables is called Contextual Coercion or “accommodation subtyping”. Contextual allosemy recently popularized within the DM is the same mechanism to Contextual Coercion. Lieber for example defines Contextual Coercion as a process involving in the “fixing of an inherently underspecified or unspecified semantic feature in context on the basis of other information available in syntactic context”.

In the following section, we will use a similar mechanism to for resolution of the semantic values of the nonactive voice. The main motivation for advancing such analysis comes from the observation that the anticausative morpheme, just like the nominalizer morphemes in English, has little bearing on the type of meaning or semantic value that ultimately associates with the nonactive clause. Whether the ultimate reading will be passive, reciprocal, reflexive or passive depends on the syntactic context rather than on the morpheme itself.

It is also important to note that the contextual allosemy (or contextual coercion) is quite similar mechanism to the configuration theta role system we saw in § 5.3.3. There, we have seen that lexical verbs don’t come with pre-specified theta role. The roles are determined in the course of the composition by taking evidences from the types of arguments, predicates and other clause-internal factors. The same works here. The syntactic atoms such as the nonactive voice merge with underspecified or undetermined semantic features (CU) from the lexicon. These values arise in the course of the composition on the basis of the items that are already part of the composition.

Furthermore, for the current analysis, it is very important for the nonactive voice specification process follows theta assignment process. This is because the theta roles themselves serve as contextual factors for the determination of the interpretation of the nonactive voice.

### 7.3 Contextual interpretation of the anticausative—a proposal

In the above sections, we have seen approaches for allosemy assignment. The DM literature treats allosemes simply as the LF analogues of allomorphs. Only adjacent SOs are assumed to influence the allosemy assignment/insertion. In other approaches, such as the Lieber’s LSF, even SOs that are not strictly in local adjacency are assumed to influence the meaning assignment. Considering both approaches, I have come to the conclusion that the strict locality requirement assumed in the DM is too stringent for the semantics.

In this subsection I follow a system similar to Lieber’s to determine the semantic specification of the nonactive voice.

We have seen that the nonactive voice is a monadic functional head which selects only the



vP. It doesn't select any argument. This is the reason why no slot for an argument is left in (7.9).

(7.9) **Skeleton of the nonactive voice**

$t\bar{a} = [\alpha \text{ -act } (<\text{base}>)]$

The [-act] helps to differentiate the nonactive voice from other variants of the voice such as the [+act] and [caus]. This is also the exact feature that determines the argument structure of the morpheme.

The variable  $\alpha$  presented in (7.9) is a place holder for the possible semantic values to be fixed in the course of the derivation/composition. Depending on the syntactic contexts, the variable could receive any of the following interpretive values.

(7.10) **Possible semantic values for  $\alpha$**

- (a) Personal Passive
- (b) Impersonal Passive
- (c) Unaccusative
- (d) Reciprocal
- (e) Reflexive
- (f) Middle

What contextual factors lead the reading to which of the interpretive values will be the focus of the rest of the chapter.

## 7.4 The passive

### 7.4.1 The personal passive

In this subsection, we are going to see the factors that are responsible to fix the interpretation the nonactive voice to passive.

First and for most, the passive interpretation is always correlated with the causative/agentive properties of verbs. Verbs which typically denote agent-patient relations are the ones often associated with the passive interpretation. This is where the traditional idea of the passive deriving from the transitive verb stems from. Causative verbs are normally transitive in the active form and give rise to the passive interpretation in the nonactive.

The correlation of the passive reading with the certain types of lexical meanings has been independently noted in the literature, as well. [Jelinek \(1998\)](#) for example noted for the passive in Yaqui: “we can predict whether or not a verb can occur with Passive -wa on

the basis of the lexical semantic features of the verb.” A similar pattern has been observed among many other languages as well, [Pinker \(2013\)](#); [Spencer \(1998\)](#).

Given this correlation, it then makes sense to consider the lexical semantics of the verbs is the prime source of the passive interpretation.

(7.11) **The passive from causative verbs**

The passive interpretation arises when the nonactive voice combines with causative verbs.

According to this proposal, the underspecified nonactive voice receives the passive reading when it selects a verb (vP) with a causative eventuality. Since the VoiceP directly selects the verb, the lexical semantics of the verbs (the roots) could serve as contextual factor for the meaning assignment. This kind of analysis has already been suggested for the voice in Icelandic in [Wood \(2015a, 2017\)](#).

The empirical evidence is, however, clear that the passive reading of the nonactive voice is not wholly dependent on the meaning of verbs (or eventualities). Other clause-internal factors influence the interpretation. The type of argument associated with vP is clearly a crucial contributor to the meaning. That is where a call for the theta role specification becomes important because we have already built a system where both the lexical semantics of the verbs and the properties of the arguments conspire to determine the theta values of the arguments. We don't need to call the causativity of the verbs twice to explain the same phenomena. We can simply assume that the passive interpretation is available with the higher causative verbs because of their capability to assign agent  $\theta$ -role. That is exactly the type of proposal I would like to defend here.

To be more precise, the conditions for the passive interpretation must be attributed to at least two distinct factors.

(7.12) **Two conditions for the passive reading**

- a. a logical subject which doesn't project as a proper syntactic argument.
- b. agent theta role

The second condition is what specifically important here because the first condition is universal to all nonactive voice variants (as we have seen (6.14)). According to this proposal, the semantic composition assigns the passive reading to the nonactive voice whenever it finds some argument with an agent theta role. The argument could be a syntactic argument (projects in some ways), or solely semantic argument (unreleased in the syntax). So far as the compositional system finds the agent theta role, it assigns the passive meaning to the underspecified voice.

Accordingly, the contribution of the verbal semantics cannot be direct. Neither their transitivity nor their causativity is directly responsible for the passive construction. We have seen that the causative property of the verbs contributes to the theta values of the arguments. The theta role assigned to the logical subject then ultimately determines the reading of the nonactive voice. For the voice to receive the passive reading, the presence an unrealized agent argument is all that matters.

As we have already seen how the different factors – such as the types of arguments and verbs– conspire to determine the  $\theta$ -roles of the arguments.

We have also seen that each of the factors have different degrees of effect on the ultimate theta value. The internal attributes of arguments, for example, influence the theta values only under the condition that the lexical semantics of the verbs is indeterministic. The verbs that fall highest and lowest in the causative hierarchy exclusively determine the theta roles to agent and causer, respectively.

For the low causative verbs such as *decay* and *fall* types, for example, no additional factor could be sufficient to turn assign agent  $\theta$ -role to the arguments of these verbs. Their arguments can only be causers. This makes a precise prediction that the passive interpretation would be impossible with them. This prediction is indeed borne out. It is empirically confirmed that the nonactive voice selecting a low causative verb cannot receive a passive reading.

(7.13) *yosef muz-u-n bə-lastik aššigo a-šaggət-ə-w*  
 Josef banana-**def-acc** by-plastic packing **caus-decayed-3msgS-3msgO**  
 ‘Packing with a plastic, Josef decayed the banana.’

(7.14) *#muz-u (bə-yosef) tə-šaggət-ə*  
 banana-**def** (by-Josef) **Nact-decay-3msgS**  
 ‘The banana is decayed (by Josef).’

Look at (6.55a) to (6.57b) in chapter 6 for English examples.

The high causative verbs such as *assassinate*, on the other hand, always assign agent  $\theta$ -role to their arguments. These verbs can never assign causer theta role. As a result, the nonactive voice always receives the passive interpretation.

The middle causative verbs such as (namely, *break, open* & *melt* classes) are indeterministic of the theta roles of their arguments. The roles within these classes of verbs are determined with a complex interplay between the properties of the arguments, the causativity of the verbs themselves and other factors.

The *melt/dry* verbs, for example, appear higher than the *decay* verbs in the causative hierarchy. Still, their causativity is not sufficient to assign agent theta role to nonhuman argu-

ments. Even arguments with the <+motion> feature cannot receive agent  $\theta$ -role (if they are <-animate>). Agent  $\theta$ -role could be assigned in this class only if the arguments are group 7 (<+human>).

(7.15) *s'agur-wa bə-səwīyyə-u tə-dərrək'ə*  
 hair-3fsg.poss by-man-def Nact-dried  
 'Her hair is dried by the man.'

(7.16) *s'agur-wa bə-s'əhay-u tə-dərrək'-ə*  
 hair-def by-sun-def Nact-dried-3msgS  
 'Her hair is dried by the sun.'

Unless there is an implied human effector, the voice in (7.16) cannot have a passive reading where *the sun* is understood the effector of the event.

At this point, I want to stress the fact that the instrumental is a dependent role. It is necessary to differentiate the instrumental role of 'the sun' in (7.16) from the genuine effector arguments. Instruments cannot be effectors because they are not independent sources of force. They are dependent on the presence of an implied or marked agents, [Siloni \(2003\)](#); [Everaert et al. \(2012\)](#).

The passive interpretation is available in (7.16) not due to the instrument<sup>3</sup> itself, rather because of the implied human agent. Instruments are cannot be genuine agents to form the passives, as ([Hetzron, 1970](#), p. 342) noted. The passive reading in (7.16) is licensed by the implied human agent.

Going one step higher up in the causative hierarchy, for *break* and *open* classes of verbs, the contribution of a <+motion> property of the arguments suffices to assign an agent  $\theta$ -role (in contrast to the *dry/melt* class which require <human> arguments).

<sup>3</sup>The instruments are generally bad subjects in Amharic. They usually come absurd.

(i) *#irsas-u məsmər-u-n sal-ə-w*  
 pencil-def line-def draw-3msgS-3msgO  
 'The pencil drew the line'

As Hetzron argued, the instrument subjects are not always acceptable even for English. Look at the following examples from [Schlesinger \(2006\)](#).

- (ii) a. The boy drank the juice with a straw.  
 b. \*The straw drank the juice.  
 c. The build the house with bricks.  
 d. \*The bricks built the house.  
 e. \*The pen was scribing a poem.

The example in (5.26) is repeated here as (7.18).

(7.17) *nifas-u məskot-u-n səbbər-ə-w*  
 wind-def window-def-acc break-3msgS-3msgS  
 ‘The wind broke the window.’

(7.18) *məskot-u bə-nifas-u tə-səbbər-ə*  
 window-def by-wind-def Nact-break-3msgS  
 ‘The window is broken by the wind.’

The passive reading seems available in this clause even if no human participant is involved. This is presumably due to the agent theta role assigned to the <–animate,+force> argument. The situation with these force endowed inanimate arguments is more complicated because not all linguists agree on their exact theta roles.

Quite interestingly, the <+motion/force> property seems relevant not just for the *break* class of verbs, but also for the *kill/hit* class because the motionless arguments fail to form proper passive. Compare examples in (7.19) and (7.20).

(7.19) *t'inčəl-očč-u bə-gorɸ-u tə-gəddəl-u*  
 rabbit-pl-def by-flood-def Nact-killed-3pl  
 ‘The rabbits are killed by the flood.’

(7.20) *t'inčəl-očč-u bə-muk'ət-u tə-gəddəl-u*  
 rabbit-pl-def by-heat-def Nact-killed-3pl  
 ‘The rabbits are killed by the heat.’

Unless ‘the heat’ is considered as an instrument (implying a human agent), this sentence cannot have a passive interpretation. If ‘the heat’ is considered the causer, the appropriate way of telling it would be to use the unaccusative counterpart of the ‘kill’ as follows.

(7.21) *t'inčəl-očč-u bə-muk'ət-u mikniyat mott-u*  
 rabbit-pl-def by-heat-def reason Nact-killed-3pl  
 ‘The rabbits die due to the heat.’

This is the consequence of the failure of the agent theta role assignment with these <–force> arguments.

The following table summarizes the  $\theta$  values assigned to different groups of arguments, and the associated interpretations of the anticausative form.

Table 7.1: Passive interpretation from the configurational  $\theta$ -roles

verb class	hit		break/open		dry		decay/fall
arguments	+motion	–motion	+motion	–motion	+human	–human	$\pm$ human
$\theta$ -roles	↓ agent	↓ ?causer	↓ agent	↓ causer	↓ agent	↓ causer	↓ causer
passive	✓	✗	✓	✗	✓	✗	✗
example	(7.19)	(7.20)	(7.18)	(7.84)	(7.15)	(7.16)	(7.14)

In the following paragraphs, we are then going to see how the agent theta role (as per the proposal in (7.12)) determines the interpretative value of underspecified voice. The agent theta role serves as a context for the compositional system to assign the passive interpretation to the underspecified voice.

As I have already stated above, I take Lieber’s **LSF** as a starting point for the meaning assignment. According to her system, every lexical item comes with certain feature structures (skeleton). In (7.9), I have already proposed the following structure for the anticausative functional item.

(7.22) **skeleton of the anticausative**  
 $t\alpha = [\alpha \text{ –act } (<\text{base}>)]$

This skeleton (feature-structure) means that the anticausative merges into the syntactic derivation with a valued [–act] property and unvalued  $\alpha$  property. The [–act] specification of the functional item carries the information about its core function, ie, argument structure. As I have explained in chapter 6, the realization of the anticausative (nonactive) feature on the VoiceP blocks the merger of arguments.

The  $\alpha$  is designated to represent the semantic value of the functional item. The variable  $\alpha$  in (7.22) is a notation to capitalize on this uninterpretable nature of the nonactive voice. This undetermined voice head gets the interpretable values from the syntactic contexts in the course of derivation/composition.

Now, we can see how the proposal given in (7.12) could be implemented in the derivational (compositional) systems. The proposal states that the passive is assigned in contexts where the agent theta role is assigned to a non-projected argument.

Take the nonactive of the verbs such as *assassinate* and *whip* which deterministically assign

the agent theta role.

- (7.23) *lij-očč-u bə-məmhīr-u tə-gərrəf-u*  
 child-pl-def by-teacher-def Nact-whip-3pl  
 ‘The children are whipped by the teacher.’

- (7.24) **Decausative ‘whip’<sup>4</sup>**

- ① **S** → (tə<sub>[-act,α]</sub>, whip<sub><cause+></sub>) = ✓
- ② **M** (tə<sub>[-act,α]</sub>, whip<sub><cause+></sub>) ← **L** VoiceP<sub>[-act,α]</sub>
- ③ **Int** VoiceP<sub>[-act,α]</sub> = ✗
- ④ ...

The above derivation is meant to show that the syntactic combination and semantic interpretation run intertwined. Every stage of Merge is immediately followed by a semantic interpretation.

Also assume that the semantic interpretation converges only under the condition that no semantically uninterpretable exists in the system. This is like the unvalued features in the standard Minimalist system, but for the semantics. In the above derivation, the semantically valueless (unvalued) variable  $\alpha$  poses a problem for SEM system because it doesn’t bear fixed interpretation. The interpretation cannot converge without eliminating them. When the system encounters these SEM uninterpretable items, it attempts to assign meaning to them by taking clues from the meanings of the combined interpretable items.

That means, the variable forces the SEM to ‘search’ for values from the available syntacto-semantic context. Given **caus** framework, both the syntactic derivations and semantic combinatorics feed information to/from each other. As the syntactic combination directly feeds the semantic interpretation, the semantic interpretive system itself finds evidences from the already assembled units to set the value for the unvalued variable.

Given the proposal in (7.12), the passive interpretation is assigned under the condition that an argument with agent theta role exists in the compositional context.

- (7.25) **Interpreting  $\alpha$**

- ① **S** → (tə<sub>[-act,α]</sub>, whip<sub><cause+></sub>) = ✓
- ② **M** (tə<sub>[-act,α]</sub>, whip<sub><cause+></sub>) ← **L** VoiceP<sub>[-act,α]</sub>
- ③ **M** (VoiceP<sub>[-act,α]</sub>, [pp by [the teacher]<sub>agent</sub>])
- ④ **g**  $\alpha$  → passive

<sup>4</sup>The feature <cause+> is to mean that the verb is a high causative verb.

- ⑤ **Int** VoiceP<sub>[-act,passive]</sub> = ✓

The oblique argument embedded inside the PP is the effector of the eventuality. As the verb is very high in causativity, it assigns agent role to the argument. That leads to the assignment of passive interpretation to the voice.

For cases where the oblique argument is not overtly expressed, such as (7.26), we can assume that the agent argument projects only on the SEM side. We can represent the implied agent argument appear with a null ( $\emptyset$ ) form for the syntax and phonology. The rest of the derivation and interpretation proceeds just like in (7.25).

- (7.26) *lij-očč-u tə-gərrəf-u*  
 child-pl-def Nact-whip-3pl  
 ‘The children are whipped.’

- (7.27) **Interpreting**  $\alpha$

- ① **S**  $\rightarrow$  ( $tə_{[-act,\alpha]}$ , whip<sub><cause+></sub>) = ✓  
 ② **M** ( $tə_{[-act,\alpha]}$ , whip<sub><cause+></sub>)  $\leftarrow$  **L** VoiceP<sub>[-act, $\alpha$ ]  
 ③ **M** (VoiceP<sub>[-act, $\alpha$ ], [ $\emptyset_{agent}$ ])  
 ④ **g**  $\alpha \rightarrow$  passive  
 ⑤ **Int** VoiceP<sub>[-act,passive]</sub> = ✓</sub></sub>

This means that the contextual factors for the interpretation don’t have to appear in strict local relations in the syntax. So far as they are visible to the semantic component, they still serve as contexts for the meaning assignment. That is to say, syntactically unprojected, but, semantically interpretable objects such as implied agent arguments also serve as context to fix the values for the variables.

So far as these items are semantically visible, they are proper inputs for the interpretive system. As Lieber (2016) demonstrated, even conversational contexts such as discourse and other encyclopedic information can serve as contexts for allosemy resolution. The syntactically overt items serve the primary input to the interpretive system, but they are not the only source of meaning. Syntactically unprojected items, encyclopedic contexts and other conversational clues also serve to fix the meanings of the underspecified items.

As we have seen above, for lower causative verbs, the lexical semantics doesn’t exclusively determine the theta roles of the associated arguments. This is where the internal properties of the arguments and other clause internal factors play important roles for the theta role assignment, and finally to the meaning of the voice.



- (7.28) *s'əgur-wa tə-dərrək'-ə*  
 hair-poss.3fsg Nact-dried-3msgS  
 'Her hair is dried.'

(7.29) **Decausative of *dry***

- ① **S**  $\rightarrow$  (tə<sub>[-act,α]</sub>, *dry*) : ✓
- ② **M** (tə<sub>[-act,α]</sub>, *dry*)  $\Rightarrow$  {tə<sub>[-act,α]</sub>, *dry*}  $\leftarrow$  **L** VoiceP<sub>[-act,α]</sub>
- ③ **Int** VoiceP<sub>[-act,α]</sub> : ✗

Meaning cannot be simply assigned to the nonactive voice in (7.28) because the lexical semantics is indeterministic of the theta role. There is no sufficient evidence from the available meaning of the clause to assign either the passive, unaccusative or reflexive meaning. That leaves the voice meaning of the voice item undetermined.

But, if additional adjunct phrase appears in the clause marking that the logical subject is a human participant, the role of the argument stands out immediately as agent.

- (7.30) *s'əgur-wa bə-yosef tə-dərrək'-ə*  
 hair-poss.3fsg by-Josef Nact-dried-3msgS  
 'Her hair is dried by Josef.'

Here, the <+human> attribute of the oblique argument is the ingredient that contribute for the theta assignment of the argument. The agent role in turn functions as a context for the variable to the passive meaning.

Skipping the intermediate steps of the derivation:

(7.31) **decausativization of *dry***

- ① **S**  $\rightarrow$  (tə<sub>[-act,α]</sub>, *dry*) = ✓
- ② **M** (tə<sub>[-act,α]</sub>, *dry*)  $\Rightarrow$  {tə<sub>[-act,α]</sub>, *dry*}  $\leftarrow$  **L** VoiceP<sub>[-act,α]</sub>
- ⑤ **M** (VoiceP<sub>[-act,α]</sub>, [pp by [Josef]<sub>agent</sub>])
- ⑥ **g** α  $\rightarrow$  passive
- ⑥ **Int** VoiceP<sub>[-act,passive]</sub> = ✓

Had the participant be <-human>, as Schäfer (2012); Alexiadou et al. (2006) showed for Greek (also true for Amharic), the  $\theta$ -role would be a causer rather than an agent. As a consequence, a passive reading won't be assigned to the underspecified nonactive voice.

### 7.4.2 The impersonal passive

Even if the impersonal passive is quite common construction across languages, most syntactic analyses of the passive often ignore it [Blevins \(2003\)](#). And, most of the explanations given to the personal passive cannot capture the facts with the impersonal passive because these explanations are developed by stressing the transitivity property of the passive-forming verbs. The Impersonal passive is normally associated with intransitive (unergative) verbs.

The impersonal passive shares some characteristics with the personal passive. Both kinds of the passive seem to have a strong association with human effectors. I have also noted that almost all the cases that are said to have the personal passive could also be argued to have the impersonal passive reading. For Amharic especially, the distinctions are very subtle, and often hard to tell apart. The contexts that give rise to the two types of passive are also similar. In contexts where the personal passive reading is available, so is the impersonal passive.

This doesn't mean that the two types of passive are exactly the same. There are still some notable differences between them. Unlike the personal passive where the endpoint of the cause appears as the topic, the eventuality denoted by the predicate appears the main topic in the impersonal passive. The impersonal passive reading is also much clearer and distinctive with unergative verbs where an undergoer argument doesn't exist.

Probably because of the prominence of **IP** reading with the unergative verbs many people seem to think that the construction is specific to the intransitive (unergative) verbs. This claim, however, cannot be universally true. In many languages, including Amharic<sup>5</sup>, the impersonal passive reading can be generated both with the unergative (intransitive) as well as transitive (high causative) verbs.

(7.32) *zare timhirt-bet (zəfən) tə-zəfn-o-al*  
 Today school (song) **Nact-sing-3msgS-aux**  
 'It has been sang at the school today.'

(7.33) *zare tə-sərt-o-al*  
 today **Nact-do-3msgS-aux**  
 'It has been worked today.'

What the two types of passive readings require is just a slight difference in context. As we have already seen in the above section, the personal passive appears in situations where agent argument is simply implied, or overtly marked. The same is true of the impersonal

<sup>5</sup>Other languages reported to have the impersonal passive from transitive verbs include Latin [Napoli \(2013\)](#), Irish [Nolan \(2013\)](#), Norwegian [Hestvik \(1986\)](#), Lithuanian [Arkadiev \(2015\)](#), Kannada [Shankara Bhat \(1991\)](#) and many others listed in ([Miller, 1993](#), p. 165).

passive. But, the impersonal passive differs in that the agent and undergoer arguments are often deemed irrelevant or nonspecific.

Assume a conversation, for example, among some fisher men (where fishing is their daily routine). If one of the fisher men hasn't been to work on a specific day, he might ask the following question to his colleagues when they return from work.

- (7.34) *zare tā-yiz-o-al?*  
 Today **Nact-catch-3msgS-aux**  
 'Has it been caught today?'

The reason why the impersonal passive reading becomes more prominent in this kind of situation is because neither the effector nor the undergoer is relevant to the conversation. There is no interest on a specific fish or fisher. Both of the arguments are deemed irrelevant. If a specific argument needs to be mentioned, the personal passive would be the preferred reading of the nonactive clause.

Quite interestingly, the relevance of specificity of the arguments to the impersonal reading of the passive has already been noted in the literature. (Perlmutter, 1983, p. 195) for example noted that the passive reading is sensitive to specificity and definiteness of the arguments in Choctaw and Seri. The impersonal passive in Norwegian is also shown to be sensitive to the definiteness of the argument. According to (Afarli, 1992, p. 69), the impersonal passive cannot be associated with definite arguments<sup>6</sup>.

- (7.35) a. *Det vart mjølka ei ku.*  
 it became milked a cow  
 'There was milked a cow.'  
 b. *\*Det vart mjølka kua.*  
 'There was milked the cow.'

Since Norwegian has a distinct form for the impersonal passive, the presence of definite arguments with it generates illicit sentences.

These observations suggest that the impersonal passive is somehow restricted to clausal contexts where the (undergoer) argument appear nonspecific (non-definite).

(7.36) **Impersonal passive from a nonspecific argument**

The impersonal passive reading arises when the undergoer argument (the structural subject) is nonspecific.

<sup>6</sup>Even if some exceptional cases have been noted in some languages, definite nouns are generally specific. Therefore, the proposal I am presenting on the I am presenting on specificity/referentiality of the arguments is basically the same to Afarli's 'definiteness' condition.

Specificity itself is a complex issue. Different notions of specificity have been described in the literature. The type of specificity relevant here is known as the epistemic specificity (or referential presupposition) Farkas (1994). When the speaker asks if a fish has been caught, in sentence (7.34), he/she has no specific referent in her mind. These kinds of nonspecific arguments are referentially vague (or, the referentiality is not presupposed), Giannakidou and Quer (2013).

(7.37) **Conditions for the impersonal passive interpretation**

- (a) a logical subject which doesn't project as a proper syntactic argument.
- (b) agent theta role
- (c) nonspecific logical object.

The first two conditions are the same to the personal passive. According to this proposal, the last condition is what makes the impersonal passive different from the regular passive. The nonspecificity (non-referentiality) of the undergoer argument is what makes this construction distinct. The absence of referential/specific argument is exactly what the term 'impersonal' itself describes.

Based on this, we can say that the absence of a specific undergoer argument offers the important condition for the assignment of the impersonal passive to the underspecified nonactive voice.

## 7.5 The middle

In chapter 3, I have stressed that Amharic qualifies to the middle-marking category in the traditional classification of languages on the basis of voice morphology. As such, the voice system in general can be classified into two main categories—the middle voice and the active voice. In this sense the term 'middle' (also called *mediopassive* is used broadly to characterize all the constructions that I have been calling 'decausative' in the above sections. In this broadest sense of the term, the *tə-* morpheme in Amharic is basically a middle morpheme.

Using the term 'middle' in its broadest sense, however, has one drawback. It appears ambiguous with the narrow use of the term which used to specific types of middle constructions such as the dispositional middle, motion middle and the like. To avoid this ambiguity, I use the term 'decausative' to characterize the broad sense, and restrict the term 'middle' only to those cases that cannot be grouped into any of the interpretive categories.

In this sense, the middle is considered just another interpretative value of the nonactive voice comparable to the passive & unaccusative (anticausative) constructions.

The interpretive sense of the middle itself could be further identified into broad and narrow senses. The middle in the board sense includes all the types of middle described in § 3.3.4. That is the level of understanding where some of the decausative constructions such as the reciprocal, middle-reflexive and the rest of the middles described in (7.39) are included. Sometimes, the anticausative itself is also included under the middle.

(7.38) **Different sense of the term ‘middle’**

- a. Verb form: used to describe the nonactive morphology of the middle-marking (two voice) languages. This is synonymous to the nonactive or mediopassive voice.
- b. Interpretive function
  - (i) Broad sense: This sense is used to characterize all the classes of the all the decausative constructions except the passive. It includes all the subclasses of the middle listed in (7.39).
  - (ii) Narrow sense: characterizes a specific reading associated with a specific class of verbs. The middle is considered as another interpretive value comparable to passive, reflexive and the anticausative (not inclusive of them). This includes the middles listed (7.39a–e).

Considering the interpretive sense of the term, many types of the middle have been already been identified in the literature.

(7.39) **Classes of the middle**

- a. Dispositional (facilitative) middle: This shows the tendency or capacity for the participant to undergo the event described by the predicate.
- b. Indirect middle: the subject is the benefactor of the event. The *təṛəkkəbə* (‘receive’) verb is an example for this. I will not discuss these the number of verbs are very small.
- c. Cognition middle: Psych verbs that denote a mental process of understanding: eg. *tərrədə* (‘understand’), *təgənəzzəbə* (‘realize’), (Kemmer, 1993, p. 127)
- d. Emotion middle: eg. *tə-naddədə* (‘get angry’), *tədəssətə* (‘get pleased’), (Kemmer, 1993, p. 130)
- e. Motion middles: middle constructions from motion verbs
  - (i) Translational middle: middle formed from verbs denoting translational motion. eg. *rolled, strolled*.
  - (ii) Non-translational middle: middle formed from verbs denoting non-translational motion: eg. *clenched, bended*. This includes verbs that denote change in body posture, other types of motions like *shaking, staggering, wobbling* etc. They all involve some kind of motion without change in space.

- f. Reflexive middle: this is what we have been calling the middle-reflexive
- g. Reciprocal middle: eg. *tə-sasamu* ('kissed each other')
- h. Spontaneous event middle: this is the same as the anticausative.

We have already seen the examples for each type of middle in § 3.3.4.

All the subclasses of the middle can be further categorized into two based on the role of the subject.

(7.40) **Two major types of the middle**

- (a) The dispositional middle: The projected argument (structural subjects) is a genuine undergoer. It receives force from another antecedent, just like the subject of the passive. But the characteristics of the subject are conceived to have facilitative effect for the effect of the unfolding of the event.
- (b) The canonical middles: The projected argument (structural subject) is the effector (as such *responsible*) for the realization of the event. The subject of these canonical middles is very similar to the subject of unergative verbs. But it differs from the unergative constructions because the subject is somehow conceived to be affected by the event.

The focus here is on the canonical middles. But, I will compare the two to make the distinction clearer.

### 7.5.1 The canonical middle vs. the dispositional middle

All the classes of the middle such as the cognition, emotion, reflexive and motion exhibit some common attributes which differentiate them from the dispositional middles. The canonical middles display some characteristics of reflectivity. These middles have a single argument acting as the agent of an event, and, at the same time affected by the same event.

The dispositional middle, on the other hand, is like the passive because a distinct external agent is associated with the event.

Compare the following two sentences.

- (7.41) *yosef tə-at'ffo*                      *tə-k'əmmət'-ə*  
 Josef **Nact-clenched-3msgS** **Nact-sit-3msgS**  
 'Josef sat clenched.'

- (7.42) *səwnət-wa tə-nk'ət'ək'ət'-ə*  
 body-3fsg.poss Nact-shake-3msgS  
 'Her body shaken.'
- (7.43) *wəlləl-u bə-k'allalu s'ədd-a-ll-at*<sup>7</sup>  
 floor-def by-easy clean-3msgS-ben-3fsgO  
 'The floor cleaned easily for her.'

In the first two sentences we have a canonical middle where no external effector for the causation is involved. It is a sort of reflexive process that starts and ends within a single participant.

But, the dispositional middle (also called generic or personal middle ) presented in (7.43) has an effector argument distinct from the argument projected as the subject. In the dispositional middle such as (7.43), the subject at the surface is the (logical) object of the non-middle counterpart, Condoravdi (1989); Ackema and Schoorlemmer (2006). This shows that the dispositional middle has something in common with the passive that the canonical middles do not have.

In addition to the conceptual differences, the dispositional middle is also differentiated from the other middles in Amharic because it could appear in the active form of the verb. In (7.43), the *clean* verb appears in the active form.

These facts confirm that the dispositional middle doesn't belong to the canonical middle.

## 7.5.2 The middle vs. the passive

The middle and the passive have been shown to share a number of properties both in the conceptual (cognitive) side as well as on the historical development of the morphemes across languages, Kazenin (2001); Haspelmath (1990). First, both the passive and the middle constructions contain subjects affected by the event described by the verb. This has already been noted for the dispositional middles in English. The observation is also true for Amharic middles in general. Secondly, not so small number of languages use the same form for the passive and the middle, as I have already noted above. Even in languages where distinct morphemes have developed to mark the two grammatical notions, historical links between the morphemes has often been identified, Geniusiene (1987); Haspelmath (1993); Bostoen and Nzang-Bie (2010).

<sup>7</sup>The dispositional middle should not be confused with the passive of the benefactive which has similar meaning. In this following example, the nonactive is the marker of the passive of the benefactive form.

- (i) *s'ihuf-u bə-k'allalu tə-nəbbəb-ə-ll-at*  
 text-def by-easy Nact-read-3msgS-ben-3fsgO  
 'The text read easily for her'

If they have the same morphology and similar kinds of arguments, then, one needs to answer how these voices could be distinguished from each other. How do we determine if a certain construction is a passive construction, or a middle? The question is specially important for Amharic where the interpretation is often ambiguous between the two.

To identify the construction, we can start with usual characteristics attributed to each of the constructions. Steinbach (2002) for example considered the following characteristics to be typical of the middles.

(7.44) **Common characteristics of the middle**

- (a) they have fewer number of arguments in contrast to the basic counterpart of the verb
- (b) they have generic interpretation
- (c) the subject is in some sense *responsible* for the event

The ‘reduction’ of the arguments, in contrast to the non-middle form of the verbs, is one of the important characteristics of the middles. In middle marking languages, the middle form of the verb has lesser number of arguments than the active form. This characterization, however, cannot be considered unique to the middles because the passive (the rest of the decausatives for that matter) also involve less number of arguments from the active counterparts.

The other property often attributed to the middle, in contrast to the passive, is the genericity of the event. The middles are often claimed to have generic interpretation, Steinbach (2002); Keyser and Roeper (1984), in contrast to the passive. I, however, find this characterization neither a necessary nor a sufficient condition to distinguish the middle from the passive. First, this property works only for dispositional middles. The genericity is not universal to all middles. It is not even universally true for the dispositional middles in English either. The middles in English could have episodic interpretations as well.

The dispositional middle we saw in (7.43) could definitely have episodic readings.

Furthermore, the passive could also appear with generic clauses.

(7.45) Young athletes are very much loved by journalists.

Therefore, the genericity of the event is neither universally applicable to all middles, nor does it exclude the passive.

This leaves us with the last characteristic. I think the notion of *responsible* subject is what ties all the middles together.

As I already suggested above, the passive has an external (implied or marked) agent that



is responsible for the realization of the event described by the verb. The structural subject (logical object) of the passive is by no means responsible for the realization of the event. This is in core property that keeps the passive apart from the middle.

The surface subject argument of the middle is in some ways *responsible* for the realization of the eventuality, Stroik (2006); Steinbach (2002). “[T]he sense of initiative and responsibility for the action that is vested on the subject referent”, Collins (1996). This is what holds all the middles as a unified category.

For some subclasses of the middle, the idea of *responsible* argument comes to mean that the same argument is the genuine effector of the event. That is the case with the reflexive & reciprocal middles.

For other types of middles, the idea of ‘responsible subject’ must be understood slightly differently.

In all the cases, the middle as a category could be differentiated from the passive due to the fact that the surface subject of the middle is somehow *responsible* for the realization of the event.

Consider the following sentence.

- (7.46) *yosef t̄-lac’c’-ə*  
 Josef **Nact-shave-3msgS**  
 a. ‘Josef shaved.’  
 b. ‘Josef is shaved.’

This sentence is ambiguous between the passive and middle-reflexive interpretations. In the middle-reflexive interpretation, Josef himself is considered the effector of the shaving event. That is the reading in (7.46a). In the passive reading given in (7.46b), on the other hand, he has his hair shaved by another individual.

As I described above, the dispositional middles have the closest affinity with the passive because the subject differs from the effector. Even with that, they are still considered a category of the middle because the subject argument has a facilitative role for the event. For examples such as (7.43), the internal property of ‘the floor’ is considered the facilitator for the efficacy of the event. The broad understanding of the *responsible* subject characterization of the middle could accommodate them under the middle.

### 7.5.3 The middle vs. the anticausative

A question rarely asked, but very critical in the study of nonactive voice is whether the middle and anticausative/unaccusative should be treated as the same category or distinct. As the subcategorization of the middle in (7.39h) implies, the anticausative is sometimes

treated as a subclass of the middle. This is not without reason. There are a number of properties that the anticausatives share with the middle.

First, both the middle and the anticausative are licensed both in the active and nonactive morphology (in contrast to the passive). This is true for many languages.

Second, both of them have affected or undergoer subjects. As [Keyser and Roeper \(1984\)](#) noted, even for English, the distinction between the unaccusative/anticausative and the middle is practically “obscure to some speakers”. [Hale and Keyser \(1986\)](#) further argued that middles such as (7.47a) and unaccusatives such as (7.47b) belong to the same class. They also consider the middle as a subcategory of the unaccusative.

- (7.47) a. The bread cut easily.  
b. The pot broke.

Furthermore, both categories are often associated with the change of state eventuality. The middle formation in English is argued to be restricted to change of state verbs in [Hale and Keyser \(1987\)](#), for example. The same claim has been made for the unaccusatives, [Levin and Rappaport Hovav \(1995\)](#).

The idea of *responsible* argument used to characterize the middles, as described in the above section, also could also accommodate the unaccusatives because the ‘internally caused’ understanding of unaccusatives is similar to the idea that the undergoer itself is responsible for the event. It is in this sense that people describe the anticausative as a specific “function” of the middle, [Gianollo \(2014\)](#). [Kemmer \(1993\)](#); [Shibatani and Artawa \(2007\)](#), for example call the canonical unaccusative verbs such as *freeze*, *melt*, *open* ‘spontaneous middles.

In that sense, I fully agree with the consideration of the anticausative as a class of the middle with the broader sense of the latter term, as we have in (7.39).

But, in a stricter interpretation (narrow sense), the anticausatives must be distinguished from the rest of the subclasses of the middle. I think there are a couple of ways to distinguish the anticausatives from the rest of the canonical middles.

The first way involves the types of the arguments. First, the most canonical cases of the anticausatives are often demonstrated with nonhuman (inanimate) undergoer arguments. Human participants, on the other hand, are often associated with middles because they tend to perform deliberate external actions (body motions). The animacy or intentionality of the argument, however, should not be taken too seriously because some subclasses of the middle are associated with non-intentional participants.

A second way to differentiate them is to look into how the arguments are linked to the eventualities. We have said that a broad characterization of the single subject as *responsible* for the event captures the middles. Within this broad characterization, more specific notions

of the *responsible* subject can be identified among the subclasses of the middle. For the subclasses of the middles such as reflexive and reciprocal, for example, *responsible* subject must be understood in terms of *self-causation*. X is both the antecedent and subsequent of the causation.

This, however, cannot be a complete solution for two reasons. As we will see in § 7.8, anticausatives indeed license external causers. Second, some groups of the middle, especially the ones in the motion and cognitive classes, could also be understood to have internal causation.

That leads us to the third way of differentiating the anticausatives from the rest of the middles. That is the types of meanings denoted by the two types of constructions.

That is, the anticausative is a term used in situations where the eventuality denotes some kind of fundamental change of state on the part of the undergoer. As we see from the most typical unaccusative verbs, the change denoted by these verbs involves permanent change of state that compromise the integrity of the undergoer. As (Sung, 2011, p. 534) stressed, the changes involve “physiological, physiochemical or natural changes” that could fundamentally alter the internal integrity of the undergoer.

The term middle is often applied to cases where the changes are often tentative. In this sense, the middle is best understood as the nonactive counterpart of the unergative. It either denotes a simple action, motion or a tentative change that doesn’t fundamentally alter internal integrity of the undergoer.

To be clear, the middle construction rarely involves any connotation of change. The only case where the middle seems to have a sense of change is with the change of body posture verbs ( look at § 3.3.4.1). While the middle of body posture verbs might involve change, the change is only tentative.

- (7.48) a. The metal rusted.  
b. The banana decayed.

- (7.49) a. The boy rolled down the hill.  
b. She clenched.

Ultimately, none of the above diagnostics are able to solely identify the unaccusatives from the middles. Each of them are only helpful to identify the anticausatives from some specific subclasses of the middle. The fundamental change of state notion for example, can identify them from the motion and cognitive middles, but not from the reflexive and reciprocal middles because the latter might involve permanent change as well.

#### 7.5.4 Assignment of the middle meaning

Based on the discussions in the above sections, the question I will attempt to address in this subsection is what exactly determines the assignment of the middle interpretation to the nonactive voice.

As we have seen above, what seems unique about the middle interpretation, in contrast to the rest of the decausatives, is that the single structural argument of the clause feels like responsible for the realization of the eventuality, Svenonius (2006a), while, at the same time, being affected by the same event. This is the reason why the structural argument of the middle typically appears to bear an *initiator-undergoer* role.

We can use this generalization to explain the assignment of the middle to the nonactive voice. In parallelism to the passive and the anticausative, the theta role of the arguments could be taken as the prime trigger for the assignment of the middle value.

(7.50) **Middle from Initiator-Undergoer (MIU)**

The middle meaning is assigned to the nonactive voice when an argument with *initiator-undergoer* role exists in the syntactic context.

I propose the MIU to be the overarching unifying explanation for all the classes of the middle.

According to this proposal, the existence of a single argument with the initiator-undergoer theta role functions as the context for the assignment of the middle interpretation to the underspecified nonactive.

The *initiator* role captures the notion of ‘responsibility’ on the part of the argument that we discussed above. The *undergoer* role, on the other hand, captures the *affectedness* property that the argument of the middle display. The affectedness sense could be understood both in negative and positive senses. The positive sense of affectedness explains the *benefactive* sense expressed by the indirect middles described in § 3.3.4.6.

The term ‘initiator’ here should be understood in its broadest sense, as in Ramchand (2008), to accommodate all the classes of the middle<sup>8</sup> described in (7.39). The dispositional middles are specifically problematic because they passive like properties. Unless the other variants of the middle, the subject is actually receiver of a force effected by an external body. But they still differ from the passive because the internal properties of the subject are conceived as facilitator (responsible) for the event. This facilitator function is what qualifies the subject as an initiator.

<sup>8</sup>The broad initiator-undergoer role easily included agent-patient roles assigned within the reflexive and reciprocal constructions. It also explains the case of the canonical middles. But, the use of the term *initiator* for the arguments of the unaccusative and the dispositional middle might sound a bit of a stretch because the arguments impose no action or motion on the event. But, previous works have already attributed the initiator

For the canonical middles, the subjects are doers (effectors) of the events expressed by the lexical verb. They are genuine agents (effectors) of the eventuality—hence, initiators by definition. As we have seen, the subjects also have this sense of *affectedness*, even in most active-like middles. This affectedness characteristic is exactly what makes the subject of the middle to qualify for the undergoer role.

MIU effectively differentiates the middle from the passive because the structural subjects of the passive are never initiators of the eventuality. MIU is a general system that is supposed to capture all and only the classes of the middle. As a general system, it cannot make distinctions among the individual classes of the middle. We need additional tools to explain the distinctions among the classes of the middle.

How each of the sub-variant interpretation of the middle gets assigned is the question that we are going to deal in the next sections.

## 7.6 The reflexive-middle

As I discussed before, the reflexive appears either in transitive (active) form or in the intransitive (nonactive) form. The two forms express similar real-world situations. They also have similar event conceptualizations (application of force from X to X). They, however, differ in argument projection. The active form contains two syntactic arguments each expressing each semantic argument (=argument of the force). The nonactive form (middle-reflexive), on the other hand, contains just one syntactic argument expressing the same number of semantic arguments.

In the above sections, we have seen that the reflexive satisfies the main characterization of the middle. The single argument of the middle reflexive (or, one can call it the nonactive reflexive) is both initiator and undergoer of the event. As such, it is considered one subcategory of the middle.

The issue I will address in this section then focuses on the syntactic contexts that give rise to the middle-reflexive meaning on the nonactive voice.

The proposal I would like to present here again makes use of the theta roles of the arguments to explain the assignment of meaning to the voice.

### (7.51) Reflexive middle from agent-patient

The nonactive voice receives the reflexive meaning when the single syntactic argument receives both agent and patient theta roles.

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role for similar kinds of events. In (Ramchand, 2008, 24), for example, the argument of the verb *stink* has been characterized as “initiator by virtue of inherent properties of dirtiness or smelliness”. The internal/inherent property of the arguments is considered ‘responsible’ for the realization of the events in these constructions. As such, the arguments still qualify for ‘initiator’ role.

The middle-reflexive differs from the active reflexive because both of the agent and patient theta roles are assigned to the single subject. Why and how this is possible is a complicated question. The reason why both roles are assigned to the single syntactic argument seems to have to do with the verbal meanings. The evidence from the cross-linguistic data show that the reflexive-middle is restricted to a handful of verb groups—most importantly the *grooming* class. I am not going to answer why only these verbs tend to have the middle-reflexive.

For our purpose, it suffices to simply acknowledge that certain classes of verbs are able to assign dual theta roles to a single argument—agent and patient roles in the case of *grooming* verbs. From this, we can then abstract how the (middle) reflexive meaning came to be assigned to the voice item.

To that end, we can see how the meaning of the voice is directly correlated with the theta roles of the arguments. Look at the following example.

- (7.52) *yosef t̄-lac'c'-ə*  
 Josef **Nact-shave-3msgS**  
 a. 'Josef shaved.'  
 b. 'Josef is shaved.'

We have seen that the sentence in (7.52), as it stands, is ambiguous between the passive and the middle-reflexive readings. The ambiguity of the reading is directly correlated with the ambiguity of the theta roles of the subject.

If the clause contains no explicit markers of any of the theta roles, the  $\theta$  assignment system is indeterministic between the two choices. Either a patient or a combined role (agent-patient) can be assigned to it. Both options remain open because of the absence of markers (contexts) to any of the theta roles.

Conversational contexts, or sentences appearing before or after this sentence, for example, can disambiguate the theta role of the subject. One can for example put a phrase like *going to a hair salon*, it makes it clear that the action is done by the barber, an external agent.

- (7.53) *s'əgur-bet hid-o t̄-lac'c'-ə*  
 hair-house go-**3msgS** **Nact-shave-3msgS**  
 'Going to a barbershop, Josef is shaved.'

As the contextual factors determine the role of the subject to patient, the reading of the nonactive voice also gets fixed to the passive.

If we put *by his wife*, phrase for example, the ambiguity also disappears because it stands out immediately that another external agent is associated with the event. 'Josef' receives a

patient theta role.

- (7.54) *yosef bə-mist-u*                      *tə-lac'c'-ə*  
 Josef by-wife-3msg.poss Nact-shave-3msgS  
 ‘Josef is shaved by his wife.’  
 #‘Josef shaved by his wife.’

In this sentence, the middle-reflexive interpretation is not available because the single structural subject is receiving only patient role. As a result of the absence of the dual theta role, the middle-reflexive interpretation remains impossible.

Put another context that points to self-agency of the subject, the meaning of the nonactive voice becomes reflexive. Putting a phrase such as *by himself*, for example, makes it clear that the participant is involved in self-action.

- (7.55) *?yosef bə-ras-u*                      *tə-lac'c'-ə*  
 Josef by-himself-3msg.poss Nact-shave-3msgS  
 ‘Josef shaved (by himself).’  
 ?#‘Josef is shaved (by himself).’

The ambiguity we see between the passive and the middle-reflexive are similar to the ambiguities that arise between the passive and the anticausative in *break* class of verbs. These verbs cannot directly determine the theta roles. As a result, other clause-internal factors are important to fix the roles to any of the specific theta roles.

Any means that disambiguates the theta roles of the arguments also disambiguates the reading of the nonactive voice. This clearly shows how the reading of the nonactive is a direct result of the theta roles of the arguments.

The assignment of dual theta roles such as agent-patient is what serves as a context for reflexive-middle value to be assigned to the underspecified nonactive voice.

- (7.56) **Assignment of the middle-reflexive meaning, (7.46)**
- (a) M (shaved, his hair) ← L vP
  - (b) S → (tə<sub>[-act,α]</sub>, [vP shaved his hair]) = ✓
  - (c) M (tə<sub>[-act,α]</sub>, [vP shaved his hair]) ← L VoiceP[-act,α]
  - (d) M (VoiceP[-act,α], Josef<sub>initiator-undergoer</sub>)
  - (e) g α → middle-reflexive

The important part of this system of meaning assignment is that the interpretive values of

the voice are closely tied up with  $\theta$ -roles. The syntactic approaches which assume a fixed feature value on the voice heads cannot explain why the feature values flex with the theta roles of the arguments. Often the assumption seems that different feature values on the Voice assign different types of theta roles. As we have seen in [chapter 5](#), this cannot be true. Theta roles are compositional products.

They are the result of a number of interacting factors. As the factors change, the theta roles also change. The value of the nonactive voice directly follows the shift of the theta role. Take a sentence like (7.57) for example.

- (7.57) *Josef s'agur-bet hid-o            t̄-lac'-ə*  
 Josef hair-salon going-3msgS Nact-shave-3mS  
 'Going to a barbershop, Josef shaved.'

This sentence contains no actual agent argument. There is no explicit linguistic material to mark the agent argument. Still, the fact that he went to a hair salon serves as a context to suggest that he is more likely to be shaved by a barber. The phrase 'going to a hair salon' serves as a context to suggest that shaving is done by a barber. In that case, the  $\theta$ -role assigned to Josef cannot be an agent because the barber is the actual effector (doer), hence the agent.

Under that situation, the reading of the clause could only be a passive. The syntactic context determines the theta roles of the arguments, and the theta role of the arguments in turn, determines the value of the nonactive voice. Note, under a very tricky situation one can present a case that Josef actually shaved himself after he went to a hair salon. In that case, 'Josef' would receive an initiator-undergoer role. At the same time, the reading of the nonactive will be middle-reflexive.

All this is to show how the meaning of the voice always follows the theta values. Contextual factors that sway the theta values also sway the voice values because the interpretation of the latter is dependent on the former.

## 7.7 The reciprocal middle

Obviously, I am taking the reciprocal as a class of the middle because it satisfies the basic characterization of the middle given in [§ 7.5](#). Stating the core property that unifies all the middle constructions, I have stated that all of them involve arguments that are undergoer of the event while still being responsible for its realization. Having this core unity, I have also stressed that the subclasses of the middle have their internal attributes that keep them apart from each other.

For the decausative constructions we have seen so far, the theta roles of the arguments (pro-



jected or implied) play the major role of meaning determination on the voice. The theta role is still important, but not sufficient for the reciprocal interpretation to be assigned. Two other important requirements need to be satisfied—that is the plurality of the arguments and the iterativity of the verbal aspect.

(7.58) **Conditions for the reciprocal interpretation**

- (a) The structural subject receives agent-patient role
- (b) The verbal aspect need to be iterative.
- (c) Plural participants.

We are already familiar with the first condition as we discuss the reflexive. What makes the reciprocal different from the reflexive is the presence two additional conditions such as the plurality of events (iterative aspect) and plurality of participants.

In the following subsections, we are to see how these additional conditions contributes to the reciprocal meaning.

### 7.7.1 Grammatical aspect

Verbal aspect is one of the major factors for the reciprocal interpretation in Amharic. The main observation here is that **the reciprocal interpretation is possible only when the iterative aspect modifies the eventuality of the predicate.**

Before I explain how verbal aspect determines the meaning of the nonactive, it is important to explain how verb aspect works in Amharic. For that end, I will briefly present the crucial points.

Amharic has two major types of verbal aspectuals—the perfective and the imperfective. Every verb appears either in perfective or imperfective form. The two forms are distinguished by their root templates (vowel-consonant patterns), interpretation, and inflectional patterns.

In the perfective aspect, the verbs appear with  $C_1\text{ə}C_2\text{ə}C_3\_$  template where  $\_$  stands for a slot that the agreement morphemes fill in, and the  $C_1$ ,  $C_2$  and  $C_3$  are place holders for consonants of the root templates. Semantically, as known from the cross linguistic literature, the perfective aspect presents the event from a holistic point of view. The perfective aspect presents the event from an external point of view [Comrie \(1976\)](#); [Demeke \(2003\)](#). The subject agreement markers always appear as suffixes to the verbs.

The imperfective aspect itself has its own root template, agreement inflection and interpretation. Subject agreement markers appear as prefixes, or combination of prefixes and suffixes in the imperfective as shown in (7.60). The verbs often appear with a root template of the

form  $\_C_1\text{ə}C_2C_3$ <sup>9</sup>. Semantically, the imperfective aspect typically presents the eventuality from an internal, individualistic point of view.

I call these two major verbal aspects **verb form aspect** because they do not always live for their names. The two aspects are crucially identified by the root templates (verb forms) and agreement patterns. The interpretation could come inconsistent. There are many cases where the meanings do not fit well with the standard understanding of perfective and imperfective classification.

The perfective verb form—whilst it usually denotes perfective aspect in the standard sense of the term— it might also have an imperfective sense if some other aspectual modifiers (which I call **grammatical aspect**, in contrast to the *verb form aspect*) project over it.

The projection of the grammatical aspects on top of the verb form aspects often results in an interpretation that aligns with that of the former. The attachment of the of inceptive prefix on the perfective verb form, for example, generates the inceptive reading. The progressive aspect is also generated by prefixing a progressive aspect morpheme on the perfective verb form.

Take a typical perfective verb like *labbəsə* given in (7.59). The verb appears with a template of  $C_1\text{ə}C_2C_2\text{ə}C_3$ . This is the canonical perfective form (including the gemination of the middle consonant). The interpretation also correlates with the form in this case.

Now compare that with the clause in (7.61) where the progressive aspect marker is prefixed on the same perfective verb form. Now, the interpretation is progressive, which is a type of imperfective. This means that the perfective form doesn't always guarantee a perfective aspect interpretation.

(7.59) *labbəs-ə* (perfective)  
wear-3msgS  
'He wore.'

(7.60) *yi-ləbs-al-Ø* (imperfective/habitual)  
ipfv-wear-aux-3msgS  
'He wears.'

(7.61) *iyə-labbəs-ə nəw* (progressive)  
prog-wear-3msgS is  
'He is wearing.'

<sup>9</sup>I have simplified the patterns of the imperfective form. The imperfective has many other patterns including  $C_1C_2\text{ə}C_3$ ,  $C_1iC_2C_3$  etc. It is difficult to explain why different patterns are used with the imperfective form. But, these issues have only tangential relevance for our purpose.

The discussion of the aspect types is important here because the iterative aspect which is one of the grammatical aspects, determines the meaning of the nonactive voice.

The iterative aspect is one of the minor aspectuals which adds the sense of repetition to the core verbal semantics by modifying the verbal templates. The exact interpretation of form, indeed, varies from one verb to the other. For a verb like *mət't'a* ('came'), for example, the iterative form *mət'at'ta* ('come.it') denotes multiple occurrence of the 'coming' event. For other verb types like *səbbəkə* ('preach'), the iterative form *səbabbəkə* gives a sense of continuous/prolonged occurrence of the event.

The iterative aspect is signaled in two ways:

(7.62) **Two ways of marking iterative aspect**

- a. **Form I: -a-infixation.** This form inserts the **-a-** vowel in the first templatic slot. This vowel is sometimes levels as *intensive*<sup>10</sup> marker in Semitic linguistics, Lipinski (1997); Yimam (2006).
- b. **Form II: reduplication + a- insertion:** reduplicates the penultimate radical and inserts the **-a-** vowel following the reduplicated radical.

Consider at the following examples to see how the iterative form, in combination with the anticausative morpheme, generate the reciprocal construction. The sentence in (7.63) is presented for comparison purpose. The sentence in (7.64) contains the anticausative morpheme, but lacks the iterative form (notice the schwa vowel). As a result the reciprocal interpretation is unavailable. The verbs in (7.65) & (7.66), on the other hand, appear in the iterative forms. The reciprocal comes out as the default interpretation on these sentences.

(7.63) *lij-očč-u t'inčəl gəddəl-u* (perfective;active)  
 child-pl-def rabbit kill-3msgS  
 'The children killed a rabbit.'

(7.64) *lij-očč-u tə-gəddəl-u* (personal passive)  
 child-pl-def Nact-kill-3msgS  
 'The children are killed.'

(7.65) *lij-očč-u tə-gəddəl-u* (reciprocal: form I)  
 child-pl-def Nact-kill-3msgS  
 'The children killed (each other).'

<sup>10</sup>The exact reading of the form varies from repetitive (iterative), frequentative, continuative (durative), intensive, incassative, conative, distributive, attenuative and other related senses, Leslau (1995); Rose (2003b,a). As Frajzyngier (2000) noted, the function of the **-a-** morpheme is specially "elusive". Here, I will simply focus on the form itself, leaving the possible interpretation of the form out except in the case of the reciprocal. I will use the term *iterative form* to identify this verb form from other verb forms.

- (7.66) *lij-očč-u tə-gəɗaddəl-u* (reciprocal: form II)  
 child-pl-def Nact-kill-3msgS  
 ‘The children killed (each other).’

Both forms given in (7.62) are often treated as alternative ways of marking the same verb form. The form (most commonly known as the frequentative form) is pretty widespread across Ethiopian Semitic languages. Some people consider the form as the basic conjugative form (root-template). Others treat it as latter phonological modification of the basic verbal template.

Within Amharic, the form II is generally more productive than Form I. The semantic interpretation of form I is also not as clear as form II.

Form I is also restricted to situations where voice prefixes are marked. If there is no causative or anticausative prefix, the reduplication is the only way of marking the frequentative.

In the literature, the reduplication (form II) is often considered part of the structure of the reciprocal construction itself. Amberber (2002b, p. 70) for example wrote, “[I]n Amharic reciprocity is expressed by the prefix t(ə)- plus a special reduplication stem...”

There are a number of reasons, however, to believe that the both of the forms presented in (7.62b) exist independently of the reciprocal construction.

First, the reciprocal doesn’t have to have a reduplicated form as the presence of an alternative option suggests. The reciprocal reading is available in both forms.

Second, the reduplication can mark the iterative aspect independently of the anticausative morpheme as shown in (8.33). Even when the anticausative morpheme is prefixed on verbs with the form II, the reading doesn’t have to be reciprocal.

A verb appear with the *t-* prefix without encoding reciprocal meaning. The passive, middle and reflexive could have a reduplicated verbal base as well. As the example in (7.67) shows, the reduplicate form doesn’t always guarantee the reciprocal reading.

- (7.67) *yosef s’əgur-u-n tə-ləc’ac’-ə*  
 Josef hair-3msg.poss-acc Nact-shave.dup-3msgS  
 ‘Josef shaved his hair.’  
 ‘Josef had his hair shaved.’

Notice that the reduplication (form II) itself inserts the **a-** vowel. That means, the presence of the vowel is consistent on both of the strategies presented in (7.62). We can, therefore, say that the vowel is the common ground for the two strategies used to generate the iterative aspect.

Therefore, it seems that the iterative aspect (hence, the reciprocal meaning) is correlated with the vowel **-a-**. This, however, doesn't mean that the vowel is actually a marker of the reciprocity. The iterative form (the insertion of the **-a-** vowel with or without the reduplication), at the very abstract level, seems to mark plurality. This is because exactly the same pattern is used to mark plurality on adjectives, and arguably on some nouns.

- (7.68) a. rəjɪm ('tall') → rə**j**ajjɪm ('tall.pl')  
 b. addis ('new') → **ad**addis ('new.pl')  
 c. k'it'əl ('leaf') → k'it'əl**ak**'it'əl ('leaves')

The facts with this form support Fehr's 2012 argument that plurality is a universal attribute of both nouns and verbs. The **-a-** item then could be considered a pluractionality marker when it appears on the verbs.

Another evidence to separate the reciprocal from the iterative form comes from the *labbəsə* ('wear') types of verbs.

Consider the following examples.

- (7.69) a. *leb-očč-u tə-gəddəl-u* (passive only)  
 thief-pl-def Nact-kill-3pl  
 'The thieves are killed.'  
 b. *leb-očč-u tə-gəddəl-u* (only reciprocal)  
 thief-pl-def Nact-kill-3pl  
 'The thieves kill each other.'  
 c. *leb-očč-u tə-gə**dad**dəl-u* (reciprocal/passive)  
 thief-pl-def Nact-kill.dup-3pl  
 'The thieves kill each other.'  
 'The thieves are killed.'
- (7.70) a. *lij-očč-u tə-ləbbəs-u* (only passive)  
 child-pl-def Nact-wear-3pl  
 'The children are wore.'  
 b. *lij-očč-u tə-ləbbəs-u* (reciprocal/middle)  
 child-pl-def Nact-wear-3pl  
 'The children wore.'  
 'The children wore each other.'  
 c. *lij-očč-u tə-lə**bab**bəs-u* (reciprocal/middle/passive)  
 child-pl-def Nact-wear.dup-3pl  
 'The children wore each other.'  
 'The children wore (themselves).'  
 'The children are wore.'

In the *kill* verb, presented in (7.69b), the vowel might sound a dedicated marker of the reciprocal meaning. The verb marked with the frequentative/iterative/plural form bears no passive interpretation. The reduplication form presented in (7.69c) on the other hand, licenses both the passive and the reciprocal interpretations.

The problem lies in (7.70b) where the iterative form itself licenses both reciprocal and middle interpretations. The basic verb is *labbās-* ('wear/put on clothes'). *Tə-labbās-* itself has the same sense as its active counterpart. This is because *wear* is a middle-reflexive verb, albeit not all the middle-reflexive require similar vowel.

- (7.71) a. *lībs-iš-n*                      *tə-labsə-š*                      *wuc'-i*  
           cloths-2fsg.poss-acc Nact-wear-2fsg leave-2fsg  
           'Leave after putting on your clothes!'  
       b. #*tə-ləbsəš wuc'i*

For *wear* verb, using the regular template CVCCV as *tə-ləbsəš*, as we have in (7.71b) would mean of *being worn* rather than wearing. Therefore, inappropriate for a human to go out being worn. The strange part is, other middle-reflexives don't require this kind of vowel insertion for the regular middle function.

- (7.72) a. *fit-u-n*                      *tə-nək's-ə-w*  
           face-3msg.poss-acc Nact-tattoo-3msgS-3msgO  
           'He had his face tattooed'  
       b. *fit-u-n tə-nak's-ə-w*

A similar pattern of vowel insertion in the *tattoo* verb produces an ungrammatical sentence as shown in (7.72b). The insertion of the vowel seems a bit of quirky property of the verb *wear* verb. There are not other middle-reflexive verbs that require the insertion of the vowel for the middle interpretation.

Even if the attachment of **a-** on the *wear* verb is somehow quirky, as other verbs of this class go with the reduplication pattern, it still offers the evidence that the presence of **a-** doesn't guarantee the reciprocal construction. The reciprocal interpretation is possible only when **a-** is able to encode an iterative aspect.

As we will see in § 8.1.3, the iterative/plural form can also appear with the direct causative, encoding the assistive meaning. This again shows that the form is by no means directly carrier of the reciprocal interpretation by itself. The form gives rise to the reciprocal meaning only when it encodes the iterative sense (of course, in addition to the other conditions listed in (7.58)).

(7.73) **Reciprocal from the Iterative**

The iterative aspect (=pluractionality) gives rise to the reciprocal reading on the nonactive voice.

This is based on the observation that neither the **a-** vowel itself nor the reduplication is responsible for the reciprocal interpretation. The pluractionality (iteration) expressed by the iterative/plural form serves as a motivator for the reciprocal meaning to be assigned for the nonactive voice. This indeed makes sense because reciprocity is about two instances of an event occurring in opposite directions—X does some even to Y; and Y does the same/similar event back to X. That is the main concept of the reciprocal construction. The two instances of the event are expressed by the single verb—and the iterative marker shows the iteration of it.

The iterative aspect, however, is not sufficient by itself. There is another important requirement for the reciprocal interpretation to be available. That is the plurality of the participants.

**7.7.2 The number of participants**

The other important factor for the reciprocal reading is the number of participants. The reciprocal construction is associated with multiple participants. This observation has been noted for other languages as well, Nedjalkov (2007c); König and Gast (2008).

(7.74) *yosef ena lij-it-u tə-waddəd-u*  
 Josef and child-**f-def** **Nact-like-3plS**  
 ‘Josef and the girl liked each other.’

(7.75) *#yosef tə-waddəd-ə*  
 Josef **Nact-like-3msgS**  
 ‘Josef like each other.’

If no implied argument is assumed, the sentence in (7.75) is absurd.

One has to note further here that the plurality of the arguments is not a syntactic requirement. Syntactically singular and semantically plural nouns such as the *committee* form fine reciprocal constructions.

(7.76) *hizb-u irs-bə-irsu yi-waddəd-al-Ø*  
 People-**def** self-by-self-**3msgS** ipfv-love.it-aux-**3msgS**  
 ‘The people love each other.’

**(7.77) Reciprocal from plural participants**

The reciprocal interpretation arises as the interpretive value of the nonactive voice when the nonactive voice combines with a clause containing plural participants.

While the multiplicity of the participants is obviously important, what is interesting is that the condition for the reciprocal meaning can be attributed to general multiple events and their arguments. This is because the iterative aspect we saw in the above section is a sort of eventual plurality. Therefore, we can modify the proposal here to include both the events and participants.

**(7.78) Reciprocal from plural participants and events**

The reciprocal interpretation arises as the interpretive value of the nonactive voice when the nonactive voice combines with a clause containing plural events and participants.

According to this proposal, the reciprocal reading is assigned to the nonactive voice if the events and their associated arguments are plural.

There are, however, some issues with this generalization.

First, other decausatives such as the passive could have multiple arguments. In a sentence like *the children are killed*, we clearly have multiple participants. This doesn't pose a serious issue because the proposal puts two conditions for the reciprocal. The issue, however, becomes serious when we consider some passive construction made up of multiple participants as well as eventualities.

Consider the following sentence.

- (7.79) *lij-očč-u tə-nəkak-u*  
 child-pl-def Nact-touch.dup-3plS  
 'The children touch each other.'  
 'The children are touched.'

In the passive reading, the children could be touched by somebody else multiple times as a group or individually. The event is multiple and the participants are also many. Still, the passive reading is available so far as external agent is involved in the touching event. This shows multiple participants and events, even if they are necessary, are not sufficient to fully distinguish the reciprocal from the passive. That is why we need further mechanisms to identify the reciprocal.

As I have already stated above, what makes the reciprocal similar to the reflexive, and in fact, to the rest of the middle constructions, is the presence of some degree of reflexivity



within the classes of the middle. Just like the single argument of the reflexive, the single structural argument of the reciprocal is both the agent and the patient of the event. This means that the reciprocal is identified by having a reflexive property. The only difference between the reciprocal and the reflexive is the involvement of multiple events and arguments in the former.

(7.80) **The reciprocal is a reflexive**

The reciprocal is a reflexive with multiple participants and multiple instances of an event.

According to this, the conditions that give rise to the reciprocal reading are almost the same conditions that give rise to the reflexive reading. As we have seen in (7.51), the assignment of both agent and patient theta role is what gives rise to the reflexive readings. Once the clause contains the agent-patient theta roles assign to the single structural argument, and that argument expresses multiple participants participating in multiple events, we get what we call the reciprocal reading of the nonactive voice.

## 7.8 The anticausative

I have claimed that the individual constructions such as the passive, anticausative and the reflexive are not distinctly represented in the grammar of Amharic. These constructions are simply alternative interpretations associated with the single nonactive voice.

Each of the decausative constructions are semantic values (CUs) assigned to the single syntactic head, the nonactive voice, in the semantic composition. They are not the primitives (atoms) of the grammar where the merge operation would introduce into the derivation.

According to the current proposal, how exactly the unaccusative or the anticausative differs from the passive or the reflexive has nothing to do with the actual syntactic structure. The distinction comes from interpretive contexts that give rise to these different senses from the single nonactive voice. In this section, we are going to investigate what interpretive contexts give rise to the anticausative/unaccusative reading.

Of course, the first issue that we need to address is how the anticausative is different from the rest of the decausative constructions. If we compare the unaccusative (anticausative) with the passive, for example, the former is strongly associated with a specific verb groups (semantic type) known as unaccusative verbs. The eventualities of these verbs often denote some sort of change of state on the undergoer argument.

Another conspicuous difference between the anticausative and the passive is that the former appears both in the active and nonactive voices. Unlike the passive, the anticausative

(unaccusative) reading is not restricted to the nonactive voice.

Languages indeed vary on the types of voice form they use to generate the anticausative construction.

For Amharic, whether the anticausative interpretation is associated with the active or non-active form depends on the verb classes. The anticausative of the *break* class of verbs is associated with the nonactive morphology while the anticausative of the *melt* and *decay* classes of verbs emerges in the active form. This makes the anticausative similar to the middle as both constructions can be generated in both forms of the voice.

Given the proposals we have given for the passive and middle, a natural extension to explain the anticausative would be, again to call for the theta roles. We have seen that the presence of the agent theta role in the construction leads to the assignment of passive meaning.

The anticausative is barred from those contexts where the logical argument receives agent theta role. The incompatibility of the agent with the unaccusative reading is widely reported fact at the cross-linguistic level as well, [Alexiadou et al. \(2015\)](#).

We have seen that <+motion> and <+human> are some of the important attributes of the arguments that contribute to the assignment of the agent  $\theta$ -role. These exact attributes of the arguments facilitate the passive interpretation. The opposite attributes such as the <-motion> and <-animate> properties, on the other hand, contribute to the assignment of the causer  $\theta$ -role. Just like the passive reading is correlated to the agent role, the anticausative reading is correlated to the causer role. From this, we can conclude that the causer role is what gives rise to the unaccusative interpretation.

**(7.81) Conditions for the anticausative reading:**

- a. the logical subject doesn't project as a structural argument of the clause
- b. a clause containing a logical subject with a *causer*  $\theta$ -role

I have already stated in the above sections that the absence of a proper linguistic DP counterpart to the antecedent of the cause (=logical subject) is what unifies all the nonactive clauses. In that sense, (7.12b) is universal across all the decausative constructions. Having this unified property, the individual constructions then vary because of the additional parameters (contexts). (7.81b) presents the crucial parameter that gives rise to the anticausative reading.

According to the hypothesis, the contextual conditions set for the unaccusative (anticausative) are also abstracted to the  $\theta$ -roles of the logical subject. The anticausative interpretation is generated in configurational contexts where the causer  $\theta$ -role is assigned to the logical subject.

To look at how the causer argument gives rise to the anticausative reading, we can examine

all the classes of verbs we have seen in [chapter 5](#). Compare the following table with the table in [table 7.1](#).

Table 7.2:  $\theta$ -roles and decausative constructions

Verb class	←assassinate/hit	break/open		dry		decay/fall
Arguments	DP	+motion	–motion	+human	–human	±motion
$\theta$ -roles	↓ agent	↓ force	↓ causer	↓ agent	↓ causer	↓ causer
Passive	✓	✓	✗	✓	✗	✗
Unaccusative	✗	??	✓	✗	✗	✓

As shown in the table, the readings are more or less predictable from the  $\theta$  values.

First, the *hit/assassinate* classes of verbs cannot have the unaccusative interpretation all. This is well explained by the proposal given in (7.81) because these verbs always assign agent  $\theta$ -roles to their logical subjects.

For the *decay* classes of verbs, as I have already explained above, the arguments (implied or projected) are always causers. Regardless of the animacy and motion properties of the arguments, agent  $\theta$ -role cannot be assigned to the arguments of these verbs. As a result, the unaccusative interpretation is always the one available to them.

The readings with the *melt*, *open* and *break* classes of verbs are also as predicted. As I repeatedly expressed, the causative property of these verbs doesn't offer a full information to assign any of the specific theta roles (look at the example in (7.82)). Specific theta roles are assigned only by considering the other factors including the internal characteristics (motion, and volition) of the arguments, and other adjunct phrases. As shown in the table, the *break* verbs assign causer arguments for <–motion> and <–human> effectors. Surely enough, as the proposal in (7.81) predicts, the unaccusative reading is associated with these types of logical subjects.

There are some issues that need a further consideration, however. The first issue is the unaccusativity of the clause with the *break* class of verbs where the logical subjects are active (<+motion>). These arguments pose a challenge to the proposal given in (7.81) because the unaccusative interpretation doesn't seem totally ruled out with these arguments (even if the arguments don't look like causers).

To be sure, the issue is more about the general theory of  $\theta$ - assignment for natural forces than the meaning of the nonactive itself. I have already motioned two contradicting views

on the  $\theta$  assignments of these <+motion> natural forces. One group of linguists consider the volition as insignificant to the grammar, and assume that both animate and inanimate natural force arguments receive agent  $\theta$ -role. Other groups of linguists argue for the distinction of volitional agents and nonvolitional forces. There is no consensus on the roles assigned to the natural force arguments.

The <+motion> arguments indeed seem to receive an agent  $\theta$ -role (the judgments are very subtle). As we have seen in § 7.4.1, the passive interpretation is licensed with <+motion> effectors. What makes the situation difficult, however, is that the anticausative reading also seems possible with the <+motion> natural force effectors.

The other issue that we need to address here is the impossibility of the anticausative reading in the nonactive form of the *melt/dry* class of verbs. As shown in the table, the nonhuman effectors are not associated with the anticausative reading contrary to the predictions of the proposal in (7.81).

I am going to address both of these issues in the following subsections.

### 7.8.1 Variable unaccusativity: the case of *break* class of verbs

As a general principle, the nonactive form of the *break* class of verbs licenses both the unaccusative (anticausative) and the passive interpretations. The sentence in (7.82) for example is ambiguous between the passive and anticausative readings. As we have already seen, this is true of all the verbs within the *break* and *open* class verbs.

- (7.82) *māskot-u tā-sabbār-ə*  
 window-def Nact-break-3msgS  
 a. ‘The window is broken.’  
 b. ‘The window broke.’

But, once the clause contains an adjunct *by phrase* with a human argument, the reading gets fixed just to the passive, as shown in the following example.

- (7.83) *māskot-u bā-yosef tā-sabbār-ə*  
 window-def by-Josef Nact-break-3msgS  
 ‘The window is broken by Josef.’

This sentence cannot have unaccusative interpretation because an agent theta role is assigned to effector argument. The effector arguments structurally as oblique argument in this case.

What is interesting here is that the kinds of theta roles associated with the oblique arguments

depend on not only on the nature of the arguments but also on the types of the PPs. Arguments embedded inside PPs such as *because of*, *due to* etc. receive causer role<sup>11</sup>.

In these situations, the nature of the arguments doesn't matter. So far as they are embedded in these causer-role assigning PPs, both <+human> and <-human> arguments receive causer role as exemplified in (7.85).

(7.84) *məskot-u bə-muk'ət-u mikniyat tə-səbbər-ə*  
 window-def by-heat-def reason Nact-break-3msgS  
 'The window broke because of the heat.'

(7.85) *məskot-u bə-yosef mikniyat tə-səbbər-ə*  
 window-def by-Josef-def reason Nact-break-3msgS  
 'The window broken because of Josef.'

In both cases, the reading of the nonactive voice is anticausative.

As we have seen in chapter 5, the theta roles themselves are the product of a number of factors. This is true even if the arguments come as proper structural arguments or as adjuncts. The animacy and motion properties of the arguments as well as the type of PPs (syntax) affect the type of theta role assigned to arguments.

Depending on their internal features, arguments embedded inside *by*-PPs could receive agent, instrument or causer roles. Intentional arguments receive agent role. Inanimate objects embedded inside *by* PPs could be instruments, forces as well as causers. All the argument types within the groups 1-4 (based on the scale of arguments given in (5.11)) receive either a causer or instrumental role. We group them all under the <-motion> category. Events, motionless inanimate participants, abstract ideas, etc., receive causer role.

What is interesting here is that the meaning of the nonactive voice exactly mirrors the theta roles this by shifting between the passive and the anticausative in parallel to the theta roles.

(7.86) *məskot-u bə-muk'ət tə-səbbər-ə*  
 window-def by-heat Nact-break-3msgS  
 a. 'The window is broken with heat.'  
 b. ?'The window broke due to heat.'  
 c. #'The window is broken by heat.'

In this sentence, unless the *by heat* has an instrumental role as in (7.86b), the voice cannot

<sup>11</sup>In addition to the VoiceP, the PPs are other syntactic heads that are capable of influencing/determining the theta roles of their arguments.

have a passive reading. This is because the <–motion> argument cannot receive an agent theta role. We have seen that the instrumental is a proxy<sup>12</sup> which implies the presence of a human agent. The instrumental itself is irrelevant<sup>13</sup> to the passive interpretation—it is the associated, implied human agent that fixes the reading to the passive.

All these facts show how the readings of the nonactive voice are the reflection of the associated effector (antecedent) argument. The proposal given in (7.81) explains all these alternations in interpretation. The correlation between the theta roles and the interpretations of the nonactive voice are pretty consistent. **Put a causer with the nonactive voice, you get an unaccusative reading; put an agent with it, you have the passive.** This is all well explained with the proposal.

One issue that needs a further clarification here is the status of the theta roles and associated interpretation of the voice with the <+motion> arguments. In the above sections (example (7.18)), we have seen that these arguments seem to receive agent theta role. They also seem to have causer role at the same time.

- (7.87) *məskot-u bə-nifas(-u) tə-səbbər-ə*  
 window-def by-wind-def break-3msgS  
 a. ‘The window is broken with the wind.’  
 b. ??‘The window broke due to the wind.’  
 c. ‘The window is broken by the wind.’

With all honesty, it is very difficult to judge whether the above sentence has an anticausative reading or not. The definiteness of the DP within the prepositional phrase also seems to affect the  $\theta$ -role and the associated interpretation. The first sense that comes to mind for the indefinite DP is an instrumental. For the definite DP, a *force* role comes to mind first.

It seems to me that these the force role that these <+motion> arguments receive is somehow a weaker version of the agent role. These arguments are not genuine causers. That is why the anticausative reading is almost unavailable.

### 7.8.2 The anticausative of inchoative verbs: the case of *melt* class of verbs

It has been noted in table 7.2 that the nonactive voice cannot have anticausative interpretation with the *melt/dry* class of verbs even if the arguments are <–human> and <–motion> causers. This poses a major treat to the hypothesis presented in (7.81) because unaccusative

<sup>12</sup>That is why sentences like *The saw cut the wood* types of sentences are absurd in Amharic if there is no associated/implied human participant/benefactor or agent.

<sup>13</sup>Since instrument arguments are always dependent on the agent argument, I assume that the instrument argument is an adjunct or modifier of the agent argument itself. In the case of the nonactive clauses where the agent itself is an adjunction PP, the instrument is inside that PP adjoined to the agent DP. That way, we can assume that the instrument is always dependent of the agent.

interpretation is predicted to be assigned in this context. In this subsection, I am going to present a justification why the unaccusative meaning is not assigned.

In (7.84) & (7.85), we have seen that the *because of/du* construction adds causer arguments (regardless of the animacy and motion attributes of the argument). We have also seen that the causer role added by the *because of* always gives rise to the unaccusative interpretation.

Now compare those examples (the crucial example (7.84) is repeated in (7.88) for convenience) with (7.89).

(7.88) *məskot-u bə-muk'ət-u mikniyat tə-səbbər-ə*  
 window-def by-heat-def reason Nact-break-3msgS  
 'The window broke due to the heat.'

(7.89) *#s'əgur-wa bə-muk'ət-u mikniyat tə-dərrək'-ə*  
 hair-3fsg.poss by-heat-def reason Nact-dry-3msgS  
 'Her hair dried due to the heat'(intended)

The sentence in (7.89) shows that the unaccusative reading is impossible with the *dry/melt* class verbs even if the same types of causers are added.

This is definitely a counterexample to the current proposal given in (7.81) because the proposal predicts anticausative interpretation in these contexts. An anticausative interpretation predicted in all the cases where an argument is introduced by *because/du* because these always introduce causers. These sentence in (7.89), however, shows the anticausative reading is impossible.

The reason why anticausative/unaccusative reading is impossible with the nonactive form has to do with the unaccusativity of these verbs in their active form. The inchoative verbs which have the unaccusative meaning in their active form are unable to form the anticausative reading in their nonactive voice form. This is a sort of meaning exclusivity. Once a lexical verb has the anticausative in the active, it cannot have it again in the nonactive.

(7.90) *k'ibe-u k'allət'-ə*  
 butter-def melt-3msgS  
 'The butter melted.'

(7.91) *k'ibe-u tə-k'allət'-ə*  
 Butter-def Nact-melt-3msgS  
 a. 'The butter is melted.'  
 b. \*'The butter melted.'

To explain why the unaccusative interpretation is unavailable for the nonactive voice in (7.91) & (7.89), I would like to propose an economy condition that blocks the assignment of the same interpretation (CU) twice for a voice items selecting the same lexical item. The idea is, if the unaccusative value is already available for the active form of a verb X, the same unaccusative/anticausative value cannot be assigned to the nonactive form of the same verb.

(7.92) **Interpretive Economy (IE)**

An interpretive value  $\alpha$  can be assigned only in one verb-form for every lexical item.

The condition states that a single lexical verb cannot be associated with the same interpretive value both in its basic form (active) and marked form (nonactive).

The idea can also be conceived in terms of competition between the lexical and the configurational ways of assigning the interpretive values. IE is slightly different version of what (Lundquist, 2008, p. 70) calls the LE—an economic condition which legislates not to “insert a morpheme unless it is necessary”. LE can block the insertion of morphemes without imparting semantic (feature) contributions. In that sense, the LE and IE are the same. Both are able to constrain the multiple, recursive, derivations such as causativization of the causative verbs and anticausativization of the unaccusative verbs. Once a certain interpretive value (CU) is added at one layer of the structure, it cannot be added once again in other layers. The conditions blocks superfluous semantic assignments. The earlier GB framework also had similar economy conditions which “legislate against ‘superfluous elements’ in representations and derivations” Chomsky (1991).

According to Lundquist, a morpheme attaches to a verb iff it adds semantic (feature) value which is not already contained within the basic (unmarked) form. A derivation proceeds only to get a new semantic interpretation (value). Note, however, that Lundquist’s LE is too stringent for the current data as it would block the projection of the anticausative morpheme over the unaccusative verbs. Note that the anticausativization derivation itself is not blocked. What is blocked in (7.91) is the assignment of the unaccusative interpretation to the nonactive voice. That is why it becomes necessary to modify LE so that the blocking would target the interpretive values rather than the derivation itself. IE is a way of avoiding interpretive (CU) redundancy.

This way, we can think of the reason why all the nonactive forms are expressed in the same anticausative form in Amharic. This is due to the absence of competing other morphological forms expressing any of the specific semantic values. In the case of the unaccusative meaning, on the other hand, the semantic units are already ‘occupied’ by the basic form of the *dry/melt* verb. There is little motivation to use the morpheme to generate the same meaning. The unaccusative interpretation is already occupied by the basic form. The anticausative



morpheme is used to generate only the meanings that are not covered by the basic forms. That would be the rest of the decausatives.

Put it in structural terms, the **IE** militates against the assignment of a specific interpretive value twice because that would cause redundancy. Once a semantic value *X* is available as part of the composition (syntactic layer *vP*), the same value cannot be assigned at VoiceP layer. As we will see in next chapters, this exact economy condition explains why recursive causativization is blocked across languages.

Furthermore, selection itself could be understood as an instance of the interpretive economy. Why the causative functional items, for example, never select causative lexical verbs could be due to the same basic condition that avoids interpretative redundancy because both the causatives and the lexical items contain the same semantic unit (= [cause]). In this sense, semantic selection is basically an economy condition. We will come back to this point in **chapter 8** when we deal with the selection of the causatives.

With the anticausative morpheme, **IE** works by restricting the possible interpretive values that could be assigned in a functional layer. That is, if the basic form of the verb has unaccusative interpretation (by satisfying the conditions given in (7.81)), the nonactive voice cannot receive the same value. The interpretive system assigns only those interpretive values that are not already part of the combined material. The **IE** blocks the assignment of the anticausative **CU** at the Voice level because the same **CU** is already available at the *vP*.

## 7.9 Summary

According to the current analysis, two important properties have been ascribed to the nonactive voice (Voice<sub>act</sub>). First, it determines the argument structure. The voice item is argued to be responsible for the failure of the projection one of the potential arguments of the lexical verb. This issue has been the main topic of previous chapter. Second, it comes underspecified for any of the decausative interpretations. The underspecified voice then receives any of the interpretations in the course of the composition/derivation. How and what exactly determines the interpretation of the voice has been the main topic of this chapter.

In § 7.2, I have entertained two modern approaches for assigning meaning to underspecified functional items. One involves the contextual allosemy recently suggested in the **DM** literature. This approach equates the assignment of meaning to underspecified functional items with the insertion of morphemes to syntactic nodes. The alternative approach, which is developed under the level **LSF**, suggests the construction of meaning from different sources in the syntactic context. I relied on **LSF** to determine the interpretation of the underspecified voice item from the surrounding semantic objects— including lexical meaning of the verbs, the theta roles of the arguments, meaning of adjunct phrases, verbal aspect, and the number and types of arguments. Out of these, theta role appears to be the most important

factor.

For the passive specifically, I have argued that the main source of the interpretation comes from the agent theta role assigned to the logical subject. The anticausative, on the other hand, is the meaning of the nonactive voice when the local subject receives causer role. The middle-reflexive meaning arises as an interpretation to the nonactive when a single argument with dual theta roles (agent-patient) is associated with the clause. The reciprocal, on the other hand, is simply a reflexive where multiple participants and multiple instances of an event are involved.

## **Part IV**

# **Causativization**



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## CHAPTER 8

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# Analysis of the causatives

In [chapter 2](#), I have presented the empirical facts regarding the two causatives in Amharic. I have also reviewed some of the important studies that function as foundations for the current analysis. In this chapter, I present the analysis of the causatives. We will look at the selection, interpretation and projection of the causative items.

We will further use the causatives as a window to investigate the relationships among syntacto-semantic features, the selection of the features towards lexical items, and the projection of the features into the syntactic layer. How the internal feature specifications of the causatives interact with the lexical properties of the verbs, and how such interaction affects the position of the causatives in the syntactic layer is very fascinating.

One of the lessons we will learn on the way is how syntactic-feature selection and semantic selection function as a sort of multi-layered system. We will see that semantic selection and feature/category selection are not alternative strategies used within the combinatorial system. Both selectional restrictions apply on different stages of the combination within a single combinatorial system.

The important thesis I will defend with regard to the syntactic projection is that their position in the syntactic layer is simply epiphenomena of their selection parameters. The selection patterns, which are governed both by syntactic and semantic principles, determine where exactly a specific causative item appears in the [fseq](#).

The organization of the chapter is as follows.

The first half of the chapter ([§ 8.1](#)) focuses on the direct causative. In [§ 8.1.1](#), I will explain the selection patterns of the direct causative. An important point I raise in that section is how the lexical semantics and aspectual attributes of the verbs determine the distribution of the causative. I will explain how these two factors interact to generate only the licit patterns

of causative combination, and exclude the illicit ones.

In [subsection § 8.1.2](#), I focus on the relation of the selection with syntactic projection. In that section, I will show that the syntactic position of the direct causative is a mere reflection of its selection patterns.

The second half of the chapter, [§ 8.2](#), focuses on the indirect causative. The two factors such as the syntactic voice (first layer voice) and the arguments projected with it will be shown to have crucial effect on the distribution of the indirect causative. In the same way to the direct causative, the selection patterns of the indirect causative also determine its position in the syntactic layer.

Finally, in [§ 8.3](#), I will present how the two causatives relate to each other. There, I will put the two causatives into a unified system. The analysis of the causatives given in there paves the way for the unified analysis of the voice system of Amharic, including the active and nonactive voices, that I will present in [chapter 9](#).

## 8.1 The direct causative

### 8.1.1 Selection

In [chapter 2](#), we have seen that the direct causative combines with specific classes of verbs. It mostly selects noncausative verbs. But, the selection of the causative go beyond the verbal category because it also selects roots that are not proper verbs. The issue I will investigate in this subsection involves the main characteristics which identify the verbs which are selected by the causatives, from those which are not.

#### 8.1.1.1 Category selection

The direct causative combines with different types of syntactic categories including bound roots, lexical verbs, as well as bigger syntactic objects such as the VoiceP.

All the possible combinatorial positions of the causative can be reduced into four.

##### (8.1) Merging positions of the direct causative

- (a) as part of the root, eg. *know* class verbs
- (b) at the verbalization layer, eg. *cry* & *stand* class verbs
- (c) selecting vP, eg. *melt* class verbs
- (e) selecting VoiceP, eg. *run* class verbs

**8.1.1.1.1 Root-internal?** There is an *a-* vowel appearing with the *know* class of verbs that could be considered as the same object as the usual causative marker. The nominal and

adjectival derivatives of the roots of these verbs also contain the same vowel. As shown in (8.2), the adjective form of the *awək'k'ə* ('know'), for example, is *awak'i* ('knowledgeable'). The fact that the vowel shows up in all the categorial derivations shows that the vowel is part of the root structure.

(8.2) **Derivatives of the /a-w-k'/'(know') root**

- a. *awwək'ə* (v.) = 'know'
- b. *awak'i* (adj.) = 'knowledgeable'

Many of the verbs in this class behave like regular transitive verbs. This also supports the possibility that the vowel appearing in the roots of these verbs is the regular causative morpheme.

The presence of similar root-internal causative morphemes in other Semitic languages is the other reason to consider the vowel here as the regular causative. In at least two well-studied Semitic languages such as Arabic and Hebrew, the causatives are shown to appear as part of the root. Arad (2005), for example, has shown that causative alternation in Hebrew is effected with the modification of the root-templates ('binyanim'). The same pattern has been reported in Arabic. According to Ford (2009), Arabic uses three strategies to add the causative feature. One of the three strategies (known as Pattern I) introduces causation by modifying the root templates. The same can be assumed for the **a-** vowel which appears as part of the root template.

I will, however, leave this issue aside for future studies because the evidence I have so far is by no means conclusive. It is possible that the vowel in these roots is just a random sound appearing as part of the roots. The presence of intransitive verbs with the **a-** vowel in their root template makes this quite plausible. As such, I will concentrate on the clearer cases where the morpheme is unambiguously the causative item.

**8.1.1.1.2 Root-selecting** The causative selects the bound roots of some verbs. I have already described these verbs in § 4.2.2 and § 4.2.7 in chapter 4.

As shown in the following table, the verbal category is generated by attaching either of the two voice items—the causative or the anticausative. The roots of the *cry* class of verbs don't form verbs independent of the voice items.

Table 8.1: The causative as verbalizer

root	basic verb	causative
lk's	*lək'k'əsə	alək'k'əsə ('cried')
wr	*wərra	awərra ('talked')
fk'r	*fək'k'ərə	afək'k'ərə ('loved')

The position of the causative here must be distinguished from the *know* class of verbs we saw above because, in this case, the causative doesn't form part of the roots. It simply selects the bound roots. The evidence for this comes from the adjectival and nominal categories derived from the roots of these two class verbs. Unlike the case with the *know* class verbs, the nominal and adjectival derivatives of the roots of *cry* verbs don't contain the causative item.

Table 8.2: Nouns from the roots of *cry* verbs

root	noun	basic verb
. lk's	lək'so ('crying')	alək'k'əsə ('cried')
wr	wərre ('talk')	awwəra ('talked')
fk'r	fik'r ('love')	afək'k'ərə ('loved')

The same is true with the *stand* class of verbs.

- (8.3) *mariyam ik'a-u-n a-nəss-ačč-(i)w*  
 Mary item-def-acc caus-pick.up-3fsgS-3msgO  
 'Mary picked up the item.'

Here again, there is no such a verb as *nəssa* ('pick up'). The causative directly selects the bound root, *nəssa*. The causative in this case is a type of *root selecting* causative, [Pylkkänen \(2008\)](#).

**8.1.1.1.3 Verb-selecting** For majority of the cases, the direct causative selects ready-made verbs. The inchoative verbs that I described in § 4.2.4 and § 4.2.5 in [chapter 4](#) causativize this way.



Table 8.3: The causative on *melt* class verbs

root	root adjectivization	basic verb	causative
nt'	nət't'i ('whitable/white')	nət't'a ('whiten')	anət't'a ('whiten')
k'lt'	k'əlac'i (melttable)	k'əllət'ə ('melted')	ak'əllət'ə ('melted')

The above examples show that the adjectives derived from the roots of these verbs don't contain the causative—confirming that the causative is a higher functional item in this case (unlike the case with the *know* class). The causative also doesn't target bound roots, contra the *cry* class of verbs. Since the verbs function independently of the causative head, we can deduce that the causative item is selecting the verbal categories.

**8.1.1.1.4 Voice-selecting** The direct causative may also combine with some classes of unergative verbs. Given the standard assumption that unergative verbs contain the VoiceP layer, the causative selecting the unergative verbs must be taken as case for the Voice selecting causative. A detailed analysis of the causative of the unergative verbs will be provided in § 8.1.2.2.

(8.4) *fərəs-u rot'-ə*  
horse-def run-3msgS  
'The horse ran.'

(8.5) *mariyam fərəs-u-n a-rot'-əčč-(i)w*  
Mary horse-def-acc caus-run-3fsgS-3msgO  
'Mary ran the horse.'

Table 8.4: Causative of *run* class verbs

root	intransitive	transitive	root	intransitive	transitive
rt'	rot'ə ('run')	arot'ə	gsgs	gəssəgəs ('walk briskly')	agəssəgəs
ft'n	fət'tənə ('speed up')	afət'tənə	brr	bərrərə ('fly')	abərrərə
mt'	mət't'a ('come')	amət'ta	zmt	zəmmətə ('campaign')	azəmmətə
sgr	səggərə ('trot', horse)	asəggərə	wt'	wət't'a ('move out')	awət't'a

To summarize the points on the category selection of the causative, we have seen four positions:

Table 8.5: Selection of the causative a-

Verb class	selection of the causative
know	within roots
cry	selects the bound roots
melt	selects the verbs
run	selects the verbs (VoiceP by hypothesis)

Each of the categories that the causative selects serve as evidence for the position of the causative in the syntactic layer. The direct selection of roots, for example, suggests that the causative merges very low in the syntactic structure. For the verb selecting causative, on the other hand, the most straightforward analysis would be to introduce the causative in a position higher than the vP layer.

The issue, however, gets complicated once we started to look beyond the category selection. One of those complications comes from the relation of the position of the causative with the number and type of arguments added to the clause. Does the causative introduce arguments? If so, does it introduce arguments in restricted positions, or across all positions? Another issue that need to be answered here is why the causative selects the roots of some verbs, but vP and VoiceP layers of others.

Before trying to answer these questions, in the following sections I will start by discussing the foundational problems of the relation of feature specification with category and semantic selection. That is, –how semantic classes of the verbs affect the distribution of the causative– and, how feature value of the causative determine the selection– and finally how these empirical generalizations inform our decisions on framing our analysis (theory).

### 8.1.1.2 Verb class selection (causative alternation)

By now it is established that the direct causative is sensitive to the verb types, [Amberber \(1996\)](#); [Yabe \(2007\)](#); [Fufa \(2009\)](#); [Hetzron \(1998\)](#). [Amberber \(1996\)](#) specifically has proposed that the unaccusative verbs are the main targets of the direct causative. As I have already explained, his proposal correctly captures selection of typical unaccusative verbs such as *melt* and *decay* types of verbs. His proposal, however, faces some challenges once we move away from the typical unaccusatives.

#### (8.6) Issues with Amberber’s unaccusativity hypothesis

- a. The causative morpheme is able to combine with some non-unaccusative verbs; eg. *run* verbs.
- b. The causative morpheme fails to combine with some unaccusative verbs; eg. the *fall* class verbs

- c. The causative selects all types of verbs including the causative/transitive, unergative, etc., when these verbs appear in the iterative form.

The last issue specially turned out to be quite problematic for the previous analyses because all the lexical semantic restrictions that apply in the perfective and imperfective forms suddenly falls apart in the iterative form. I will return to this issue in a separate subsection (§ 8.1.3). In this subsection, I will concentrate on the regular (perfective and imperfective) verb forms, and present proposals, that would hopefully resolve these issues and beyond.

As already noted, the causative item is sensitive to the semantics of the stems it attaches on. The most plausible tool at our disposal to explain this kind of relation is semantic selection. For the s-select to work, the combinatorial system should be able to ‘read’ the causative meanings of the lexical verbs (the roots) and that of the causative functional item.

As I have argued in § 5.2, the classification of verbs into causative and noncausative is too coarse to be useful to explain a number of linguistic phenomena. I, therefore, hypothesized the causative hierarchy which puts verbs into finer classes as an alternative means of explanation for causativization, anticausativization and theta assignment. We can then use the causative hierarchy (the lexical causative property of verbs) in combination with s-select to explain why some groups of verbs license the causative, while others do not.

Judging the verbs on the type of causation they denote, the proposal I came up with in chapter 5 looks like the following:

Figure 8.1: Causative Hierarchy

← assassinate      hit      break      open      dry      decay      fall

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The verbs fall into different classes based on their lexical semantics. Selection, especially the semantic selection serves as the filter for the causative item to target specific classes only. According to this, the causative functional items target certain layers in the causative hierarchy. More specifically, I suggest that the causative item in Amharic selects the verbs falling lower in the hierarchy.

- (8.7) **Selection of the direct causative** (preliminary):  
The direct causative selects low causative verbs

At the first pass, this hypothesis suggests that the direct causative is restricted to *low causative* verbs. Since the term *low causative verbs* covers the same groups of verbs that the standard notion of *unaccusativity* covers, the hypothesis generates more or less equivalent results

to unaccusativity hypothesis. The hypothesis explains why the direct causative targets the verbs like *decay* and *dry* classes, in contrast to the *break* and *hit* categories.

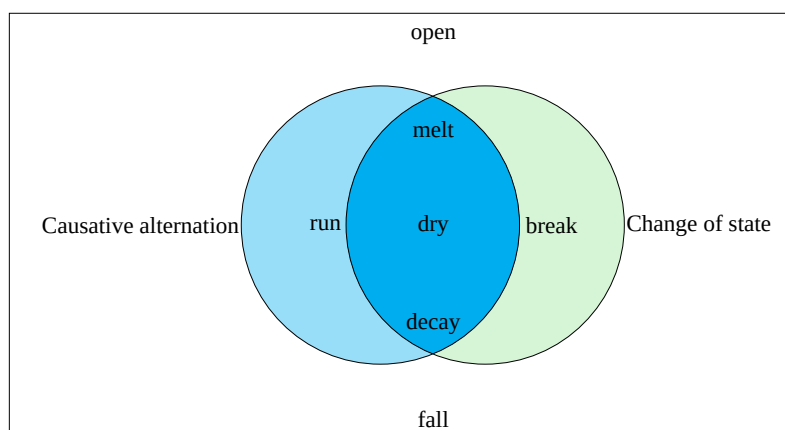
But, the hypothesis faces the same types of challenges that of Amberber's unaccusativity hypothesis. As noted above, it has a problem of both of over-generating and under-generating. First, there are inchoative (low causative) verbs that still resist causativization. The verbs in the *fall* class resist causativization. There are also verbs that are not grouped under the low causative (unaccusative) which still undergo causativization. The verbs in the *run* class are examples for this.

To alleviate the first issue we can devise a means to differentiate among the low causative verbs themselves. One way to do it to pin down the notion of unaccusativity to a more specific, narrower sense. Restricting the notion of unaccusativity to the *change of state* hypothesis, as suggested in Levin and Rappaport Hovav (1995), can be used to exclude the low causative verbs that do not involve change of state.

This way, we can effectively keep the *open* (motion sense) and *fall* class of verbs out of the picture because these are exactly the low causative verbs that do not license the causative.

The problem is, the notion of *change of state* itself overgenerates as the *break*<sup>1</sup> class of verbs are also change of state verbs. That is, while the correlation of causative alternation to change of state eventuality is evident, there is still a mismatch.

Figure 8.2: Overlaps of causative alternation and change of state



<sup>1</sup>The verbs in the *break* class don't undergo the causative alternation under the assumption that the causative alternation is about direct causativization. If we include other derivations such as the anticausativization and indirect causation, the *break* verbs would definitely qualify as alternating verbs. The problem with this, however, is that all the verbs in the language would also qualify as all verbs can undergo anticausativization and indirect causativization. That would nullify the whole point of explaining voice alternation. For that, I restrict the notion of causative alternation to the direct causative.

In addition to the *run* verbs I already mentioned above, other groups such as *verbs of emission* such *t’ənnəba* (‘stink’) don’t involve change of state even if they still participate in the causative alternation.

To accommodate these facts, we can improve our proposal as follows:

**(8.8) Selection of the direct causative:**

The causative selects low causative verbs involving change of state.

This improved hypothesis successfully filters some of the non-alternating inchoative verbs from the alternating ones. We are now able to tell which of the low causative verbs do participate in causative alternation and which do not. The notion of low causativity filters out higher causative verbs that denote change of state, verbs in the *break* class. The notion change of state, also helps to filter out verbs under the *open* and *fall* class that indeed are lower causative, still fail to participant in the causative alternation.

According to this proposal, the notion of *change of state* is the correct characterization of verb classes that participant in causative alternation. But it needs to be restricted to a certain domain, i.e., low causative domain.

For verbs that don’t belong to the low causative domain, the requirements for causativization are different. For unergative verbs, for example, whether they would participate in causative alternation or not has little to do with any of the semantic properties we saw above.

To explain why the causative item is able to attach on the *run*-class verbs, on the other hand, we need to compare them with the groups of unergative verbs that don’t license the causative (namely the *dance* class).

Table 8.6: *Dance* vs. *run* class verbs

<i>Dance</i> class	<i>Run</i> class
zəffənə (‘sing’)	rot’ə (‘run’)
wañña (‘swim’)	gəssəgəs (‘walk briskly’)
s’əlləyə (‘pray’)	fət’t’ənə (‘speed’)
sak’k’ə (‘laugh’)	bərrərə (‘fly’)
c’əffərə (‘dance’)	mət’t’a (‘come’)
fənət’t’əzə (‘run with joy’)	səggərə (‘trot’ for horse)
šəllələ (‘sing a war song’)	wət’t’a (‘climb up’)
šəmət’t’ət’ə (‘deny’)	wərrədə (‘climb down’)
bərrəkə (‘bless’)	zəmmətə (‘campaign’)

To pin down the source of the alternation, a useful strategy would be to identify charac-

teristics that keep verbs in one class unified, in distinction to the other class. So far as I can tell, there are two characteristics that could potentially differentiate the two groups of verbs.

First, the majority of the verbs in the *run* class are motion verbs. Under the assumption that some groups of the motion verbs such as inherently directed motion are unaccusative Levin and Rappaport Hovav (1995), their unaccusativity might be considered responsible for the licensing of the causative. This explanation, however, cannot be correct because the *run* groups of verbs we have in table 8.6 do contain both types of motion verbs (directed motion & manner of motion). (Amberber, 1996, 33-34) have already acknowledged that both types of motion verbs license the causative. The general property of motion cannot be used either because both the *dance* and the *run* class contain motion verbs.

The second attribute that differentiates the two types of verbs involves the types of effector arguments. The verbs in the *dance* class typically take <+human> arguments. Unless one is thinking of metaphorical uses, events such as *laughing, singing, praying, swimming, blessing* etc., are normally effected by human beings. The events associated with the *run* class of verbs, on the other hand, could be executed by both human and nonhuman (animal) actors.

- (8.9) a. The boy/horse/machine ran  
b. The boy/#horse/#machine danced

(8.10) **Selection of argument types**

- (a) *run* → DP  
(b) *dance* → DP<+human>

This means that the *run* verbs do not impose a semantic selection on the basis of volitionality of the arguments. The verbs in the *dance* class, in contrast, select DPs with <+volition> property (excluding the figurative/metaphorical contexts of speech).

I believe this distinction between the two verb groups is what we need to explain the distribution of the causative on unergative verbs.

(8.11) **Selection of the direct causative:**

The direct causative selects verbs which license manipulable (non-intentional) arguments

This proposal should not come as a surprise because causative selection is already known to be sensitive to the intentionality of the arguments, Dixon (2000a); Peterson (2006).

According to this proposal, the verbs need to license nonhuman arguments to be selected by

direct causative. It avoids verbs that appear with human arguments.

To see why the direct causative avoids verbs with <+human> arguments, first, one needs to understand what direct causation is all about in the first place. Direct causation is about *direct/contactive manipulation*. In running a machine, the individual involved in the running event has to manually or physically manipulate the machine to make it run. The machine has no intent to run, nor does it intentionally resist the action. That makes the machine a manipulatable object for human beings.

Human beings have their own intent. As such, one cannot directly manipulate them to act in a certain way— one can only influence/persuade/force them. Influencing/persuading/forcing a sentient being is exactly the function of the indirect causative. That is why the *dance* class of verbs can be causativized only with the indirect causative.

What is interesting about the idea of *manipulable* argument is that it has a potential to capture all the cases of the direct causative selection uniformly.

Remember that we have seen two factors that determine the distribution of the causative across the causative & unaccusative verbs—the position of the verb in the causative hierarchy (low causative), and the notion of *change of state*. I have shown that both of the notions are important to explain the distribution of the causative across the causative-unaccusative cross-section. We have also seen that both notions failed to explain the distribution of the causative unergative verbs.

Now, think of these two ideas together with the above proposal. Change of state verbs (typical inchoatives) normally have nonhuman arguments. The main unaccusative verb classes (low causative verbs) we studied such as *melt*, *dry*, *decay* all come with nonhuman arguments. As a result, the distribution of the causative on these verbs is already predicted by (8.11).

(8.11) also effectively excludes the *fall/die* verbs because these verbs have human undergoers.

(8.12) **Selection of the direct causative** (final):

The direct causative selects noncausative verbs with manipulable arguments

The word *noncausative* is meant to serve as a cover term for both low causative verbs and unergative verbs. This term keeps the high causative verbs such as *break* & *hit* out of the picture because these verbs are not low causative. Verbs such as *fall* and *die* are also correctly excluded because they have intentional undergoers.

This proposal unifies the ideas suggested separately for the low causative and unergative verbs. The proposal also exploits the fact that regular inchoative verbs take nonhuman arguments. And the ones which select human undergoer are excluded from the causative

alternation (at least that is the case with Amharic).

The correlation between the types of arguments and the causative alternation has already been noted in other works, as I have already stated above. Levin and Rappaport Hovav (1995, 105-106) under their decausativization theory, for example, have stressed that the transitive verbs cannot generate the anticausative if the subject of the transitive verb is necessarily an agent (+human). The differences are demonstrated by contrasting *cut* and *break*.

- (8.13) a. The wind broke the window → the window broke  
 b. John cut the bread → \*the bread cut

The generalization has been the eventualities of *cut* types of verbs require agent arguments while the eventualities of the *break* types of verbs could unfold spontaneously.

If we abstract away from their decausativization assumption, we can generalize the observation to include both unergative and unaccusative verbs as given in (8.12). Verbs that typically have sentient arguments<sup>2</sup> don't participate in causative alternation. Note that the 'causative alternation' in English (their sense) includes the *break* class. Here, I am using the term 'causative alternation' only for the direct causativization.

The situation is the same with the *run* class of verbs we discussed above. We have seen that the *run* verbs could have both human and nonhuman effectors (agents). What is interesting is that the causative alternation with them fails if the argument is <+human>.

- (8.14) *mariyam fərəs-u-n a-rot'-əčč-(i)w*  
 Mary horse-def-acc caus-run-3fsgS-3msgO  
 'Mary ran the horse.'

- (8.15) *#mariyam yosef-n a-rot'-əčč-(i)w*  
 Mary Josef-acc caus-run-3fsgS-3msgO  
 'Mary ran Josef.'

- (8.16) *gəbərə-u bərə-očč-u-n wədə-meda-u a-gəsəggəs-ə-aččəw*  
 farmer-def ox-pl-def-acc towards-field-def caus-walk.briskly-3msgS-3plO  
 'The farmer walked the oxen briskly towards the field.'

- (8.17) *#gəbərə-u lij-očč-u-n wədə-meda-u a-gəsəggəs-ə-aččəw*  
 farmer-def child-pl-def-acc towards-field-def caus-walk.briskly-3msgS-3plO  
 'The farmer walked the children briskly towards the field.'

<sup>2</sup>The proposal in (8.12) doesn't explicitly state whether the argument is an external argument or internal argument. The reason has to do with the verb categories. For the unergative verbs like *run*, the animacy restriction applies on the external argument (by assumption) while in the rest of the cases it applies to the internal arguments.



As the examples in (8.15) and (8.17) show, the causativization of the verbs is absurd if the patient argument is human.

These examples show that the projection of the direct causative is pretty consistent with the types of arguments associated with the verbs.

It is worth noting that all the animacy restrictions on the types of arguments don't hold if the causative comes with other secondary causative meanings. As we will see in the next sections, the direct causative has other meanings such as *benefactive* and *assist* type, in addition to its regular *causative/manipulative* meaning. In such cases, all the selectional restrictions we have here don't hold. As such, the analysis given here is restricted to the manipulative causative only.

## 8.1.2 Syntactic projection

So far, we have seen the types of SOs that the direct causative combines with. On the syntactic side, it selects different types of categories including acategorial roots, verbs as well as higher syntactic objects such as the voice. The causative also imposes a selection restriction which cuts across the verb classes. Non-causative verbs which select non-human arguments are the primary targets of the functional item.

In this section, we are going to see more details on how the direct causative projects into the syntactic structure. More specifically, we are going to concentrate on:

- the position of the direct causative in the syntactic layer (*fseq*)
- the relationship between the selection patterns we saw above, and its position in the *fseq*.
- the relationship between the causative item and argument projection.

To that effect, I will start by introducing the general assumptions I will make with regard to the first phase syntax (the verbal domain).

### 8.1.2.1 Basic assumptions on the first phase syntax

**8.1.2.1.1 The general architecture** The current Minimalist (more specifically the cartographic approach, Cinque (1999) & many other subsequent works) assumes fixed syntactic layers where the different functional items (features) are hierarchical arranged. Every syntactic layer is often assumed to contain one specific type of functional item (or feature). This system would naturally project the causative based on its feature specification.

The causative item is considered to have an abstract [caus(e)] feature that makes it appear in a certain syntactic layer. Using the [cause] feature, one can introduce the causative in a specific layer in the *fseq*.

The morphological stacking often serves as evidence for the position of functional items. The fact that the causative items almost always appear embedded inside tense and aspect markers has been taken as evidence for the lower projection of them. This fact is confirmed in Amharic as well. The progressive aspect prefix *iyy-*, for example, always appears outside of the causatives. An inverted position is illicit as exemplified in (8.18b).

- (8.18) a. *iyyā-a-k'əllat'-ə-w*                      *nəw*  
           prog-caus-melt-3msgS-3msgO is  
           'He is melting it'
- b. \**a-iyyā-k'əllat'-ə-w*                      *nəw*  
           caus-prog-melt-3msgS-3msgO is  
           'He is melting it.'

Given the Mirror principle, Baker (1985), this shows that the causative projects inside or lower than the AspP.

What is not clear from morphological evidence is the relative position of the causatives themselves, and their positions in relative to other voice elements such as the anticausative. The relative position of the causatives with the anticausatives is specially a highly debated issue. We have already seen a lot of arguments and counterarguments on whether the causative elements are assumed to project higher or lower than the anticausatives. This is highly contested issue because the morphological evidence is often inconclusive.

As the empirical evidence is not clear cut, the analytical directions are very wide and open to interpretations. To help us narrow down the analytical choices, here I will attempt to stay close to the standard Minimalist analysis of the first phase syntax as much as possible.

Under the most up-to-date Minimalist analyses, (verbal) roots are considered the lowest combinatorial items. The roots need some categorizers to appear as proper syntactic objects. The categorizers, including the verbalizers, which transform the roots into verbal categories are assumed to project very low in the syntactic tree.

I assume that root categorizers are dedicated functional items such as vP for verbs, following Marantz (1997), and subsequent applications of the concept on a number of other variants including ProcP, PredP, aspP<sup>3</sup> etc.

In addition to the verbalization of roots, the vP has been attributed to a number of other tasks as well, Horvath and Siloni (2002); Harley (2008, 2009). Some works consider the vP itself to add the external argument. Others consider it to be the place for the introduction of the

<sup>3</sup>The vowels that insert to the root templates are aspectual heads in Amharic, Demeke (2003). They determine the major *verb form aspectuals* (see the description in § 7.7.1). I assume that the perfective and imperfective aspectual heads are responsible for the verbalization of the roots. As such, I use the levels vP and aspP interchangeably.

internal argument. Different flavors of the vP is also considered to be the reason for different types of verbal eventualities. The exact function of the vP is very controversial, and varies from one work to the other.

For my purpose, I assume the following tasks to be accomplished by the vP:

(8.19) **Functions of the vP**

- (a) selects roots
- (b) transforms the roots to verbs
- (c) eventualities are introduced/activated at this level
- (d) adds the internal argument

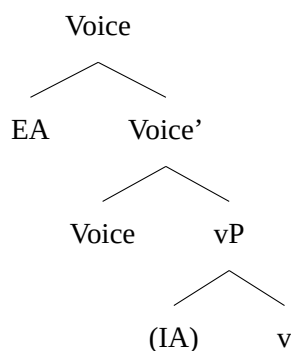
Many works also consider the vP as the head that assigns the internal theta role.

Some people consider the internal arguments to be introduced with the roots themselves. A number of DM linguists, including Marantz (1997); Harley (2009), for instance consider the root as the licenser of the internal argument.

As to the argument introducing capacity of roots, I don't assume them to contain or introduce any structural argument. They are the licensers of the potential arguments. The actual structural arguments are introduced by the formal licensers such as vP and VoiceP.

Even if the details vary from one work to the other, most current Minimalist works Chomsky (1995); Hale and Keyser (1993b); Ramchand (2008); Travis (2010); Kratzer (1996a); Marantz (1997), assume something like the following structure as the basic starting point.

Figure 8.3: Unergative and Transitive



**8.1.2.1.2 Cartography vs. flavor** With the above general architecture of the first phase syntax, at least two distinct variants of the system have been used to introduce the causatives. The so-called ‘flavor’ analysis, promoted by Heidi Harley and her colleagues, introduces the

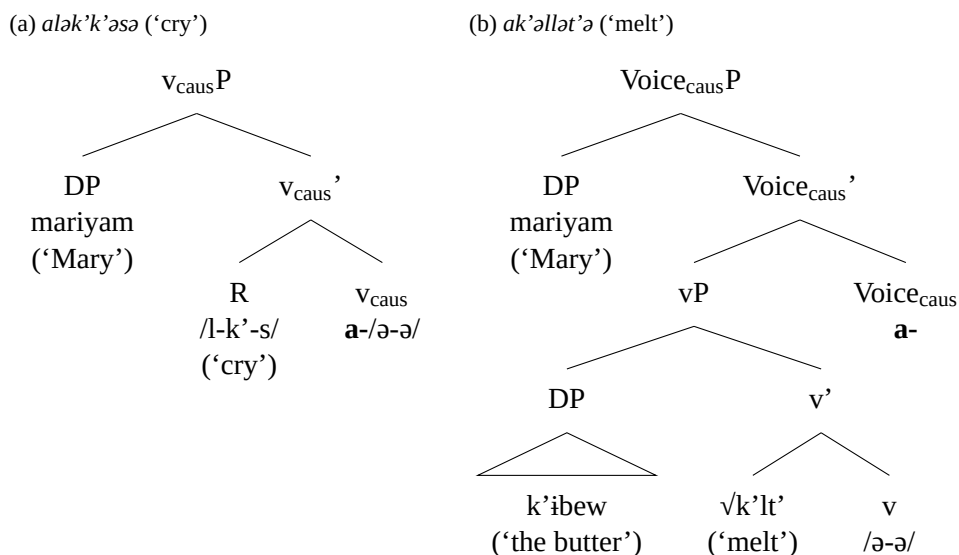
causative as a sub-feature (flavor) to the already existing functional projections such as the vP and VoiceP. This system doesn't introduce separate functional layers for the causatives. They are added as flavors or feature variants of the existing verbal functional heads.

There are different alternative analyses within the flavor system itself. But, as a general rule, the causatives are considered a sub-variant to the two core functional heads, the VoiceP and vP. With this system, a reasonable analysis for the root selecting causative we saw above would take them as a flavor for the v and the verb selecting causative as a flavor of the VoiceP. The causative which appears as a flavor of the little v can be marked as  $v_{\text{caus}}$ , and that of the Voice as  $\text{Voice}_{\text{caus}}$ .

(8.20) *mariyam a-lək'k'əs-əčč*  
 Mary **caus-cry-3fsgS**  
 'Mary cried.'

(8.21) *mariyam k'ibe-u-n a-k'allat'-əčč-w*  
 Mary **butter-def-acc caus-melt-3fsgS-3msgO**  
 'Mary melted the butter.'

Figure 8.4: The causative as a flavor of v: cry & melt

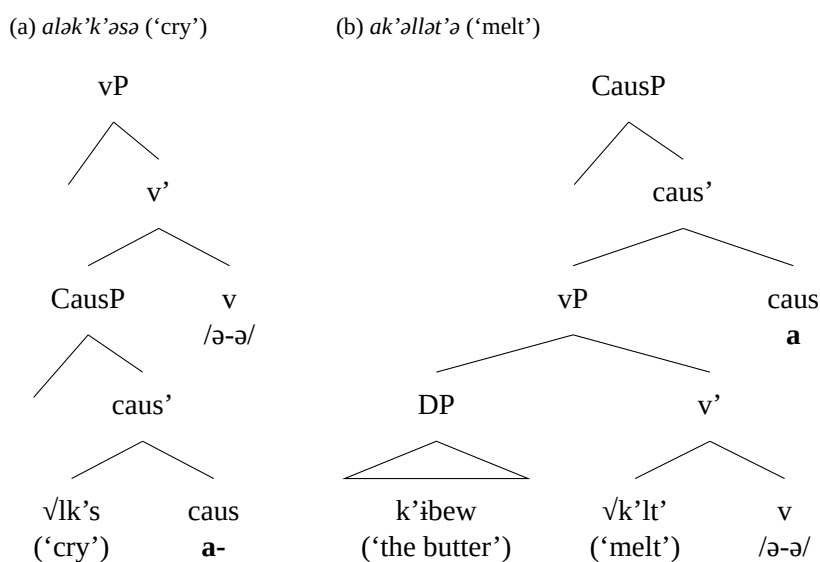


This kind of system has been implemented in [Harley \(1995, 2008\)](#) and many other works.

The second strategy projects distinct functional heads for the causatives. In this system, the causative is considered a distinct functional item from the regular VoiceP and vP projection. One popular execution of this system founds in [Pylkkänen \(2008\)](#). Her system is in much more alignment with the standard cartographic philosophy where each feature is assumed to map to each functional head.

For the root selecting causatives, for example, the analysis under the strictly cartographic system would project the verbal head, vP over the causative. For the verb selecting causative, on the other hand, the causative functional head would select the verbalizer layer.

Figure 8.5: The cartographic projection of CausP



I am leaving out the external arguments here because there are still a number of analytical directions within the cartographic approach. Pylkkänen herself considers the external argument to be introduced just on the VoiceP, a functional projection over the CausP. But, the cartographic system is not about argument projection per se. One can follow the cartographic approach without following Pylkkänen's position on the projection of the argument. I will examine a similar idea in § 8.1.2.2.1.2.

The cartographic approach has the advantage of clarity and explicitness because every feature is mapped to its own functional layer. But, in cases where two features seem to compete for the same position, the flavor approach has an advantage over the cartographic approach.

Which approach should be used must finally be resolved with the empirical evidence be-

cause each approach makes different predictions. The cartographic approach predicts that the embedding of the causative with the active and nonactive voices should be possible. The flavor analysis predicts a complementarity between the causatives and the basic (active and nonactive) voices.

Based on this prediction, we can then empirically test which of the approaches succeeds in capturing the patterns. For that, we are going to compare the two approaches in the course of the analysis.

My final conclusion will be that the flavor analysis more effective at least in cases where the causative competes with the active and nonactive voice features. In other cases, where the features seem to embed each other, we will attempt to project them in separate layers in line with the Cartographic philosophy.

### 8.1.2.2 Causative of unergative verbs

In § 4.2.1 and § 8.1.1.1.4, I have explained that the direct causative selects some of the unergative verbs.

None of the previous studies have discussed the combination of the direct causative with unergative verbs. Indeed, the causative of unergative verbs is a less studied issue even at the cross-linguistic level. This might be because the causative alternation of unergative verbs is less common across languages. This doesn't mean, however, that the causative of unergative verbs is totally impossible. A large number of languages, especially in the Austronesian family, are reported to have causative derivation of unergative verbs [Lomaschvili \(2011\)](#); [Nie \(2017\)](#). Even for languages that are rarely acknowledged to have the causative alternation of the unergative, language like English, the alternation is actually quite prevalent.

- (8.22) a. The machine has been running all day.  
b. The mechanic is running the machine.

Unergative verbs pose a major challenge to most theories of causative alternation because the basic forms of these verbs already display some properties of transitivity. That is why [Levin and Rappaport Hovav](#) underplayed the alternation of *run* types of verbs—claiming that the alternation of these verbs “do not represent the same phenomenon as the alternating unaccusative verbs”, ([Levin and Rappaport Hovav, 1995](#), p. 31). The main evidence for this claim comes from Hebrew where the causatives of the two types of verbs seem to appear in different from. The claim, however, has been refuted by [Doron \(2003\)](#) where she effectively argued that the alternations of the two classes of verbs are indeed the same.

What makes the analysis of the causative alternation of unergative verbs specially difficult is the fact that these verbs behave both like transitive and intransitive. They generally act

as intransitive verbs because they rarely appear with internal arguments. They still license cognate objects.

To make matters worse, not all of the unergative verbs behave the same. Focusing on the issue at hand (causativization), for example, batches of unergative verbs display different characteristics. First, we have the archetypal unergative verbs that I classified under the *dance* class. This class of verbs resists causativization.

Second, we have those groups of verbs which generate the unergative verb by attaching either the causative or the anticausative morpheme directly to their roots. As I have described in § 8.1.2.2.1, the verbs in this class lack the basic verb forms. The unergative verb is generated by attaching either the causative or anticausative morpheme. We also have another class described under the *run* class of verbs. This class of verbs do participate in causative alternation.

Table 8.7: Sub-classes of the unergative

Root	basic	causative	Nact	interpretation of the Nact
lk's ('cry')	*lək'k'əsə	a-lək'k'əsə	tə-lək'k'əsə	impersonal passive
c'fr ('dance')	c'əffərə	*a-c'əffərə	tə-c'əffərə	impersonal passive
rt' ('run')	rot'ə	a-rot'ə	tə-rot'ə	impersonal passive

Some of the subclasses of the unergative verbs pose a treat to some of the assumptions we take on the argument structure of unergative verbs. As I will describe in the next subsections, if the facts on the *cry* & *run* class of verbs are taken seriously, they lead us to the conclusion that unergative verbs might lack the Voice layer altogether. The *dance* class, on the other hand, contradict this conclusion because they clearly contain an external argument and an optional (cognate) internal argument.

In the following pages, I am going to present the analysis of the distribution of causative within each subclasses of the unergative. I will start with *cry* class.

**8.1.2.2.1 Causative deponents: causative of cry verbs** The term 'deponent' has been traditionally restricted to the middle (marked nonactive) forms. But, the way the notion used for the middles can also be applied to marked active voice (the causatives). As a middle deponent is a marked middle with no basic (non-middle) verb form, a causative deponent is a marked causative with no unmarked counterpart.

In this broad use of the term 'deponent', deponent causatives of both the direct and indirect type could be identified in Amharic.

For the direct causative, the deponent verbs are characterized by the combination of the direct causative with the bound roots, as we saw in § 8.1.1.1.2.

Since the causative directly selects the bound roots, we have to assume that the causative merges close to the roots, importantly not later than the verbalizer. It is important to assume that the causative merges not later than the verbalizer in this case because we would be otherwise predicting a well-formed verb without the causative head—contrary to the fact. The roots of these verbs require the voice items to generate a well formed verb.

Depending on the analytical approaches (the flavor or the cartographic ), we have at least two different options for the position of the causative in relative to the verbalizer. We can assume that the causativization either precedes the verbalization, in a distinct functional head (cartographic approach, as shown in [fig. 8.7b](#) ), or appears as a flavor of the verbalizer little *v* as in [fig. 8.7a](#).

Whichever approach we follow, we still would have a problem with these structures because the external argument is introduced in the *vP* layer. Given the standard assumption that the single argument of the unergative verb is an external argument (argument introduced outside of the *vP*), the introduction of the causative in the *vP* layer (and probably lower) contradicts the assumption.

The problem we have here is the same problem we already saw in [subsection § 6.7.3](#). The issue is, the external argument introducing functional item (the causative) is directly selecting the bound roots. This gives contradicting evidence on the projection of the argument. The evidence from the morphological selection tells us that the causative is merging in the *vP* layer because it is selecting the bound roots. The evidence from the argument structure (based on the standard analysis of the causatives, and their arguments), on the other hand, tells that the causative must appear on the Voice layer.

I think this issue goes back to the fundamental question of the identify of causative items. Are causative items fundamentally external argument introducing objects, or are they semantic units which contribute the causative meaning to the verbal semantics?

One view takes the argument increasing property as the defining property of the causatives. The standard understanding, held both in the typological and theoretical works, is to consider causative items as argument increasing objects. According to this approach, the causatives are fundamentally voice items which add external arguments.

There are minor differences within this approach itself. Syntactic approaches take the causative as simple voice item that adds external arguments. The causative meaning is then considered part of the elements, or derivative of the structure itself. Syntactic frameworks such as **NS** and standard Minimalism, for example, would assume fixed feature/meaning specification such as [caus] which adds external arguments. In this case, meaning (feature) and function are interrelated. An allosemy analysis, on the other hand, would derive the causative meaning from its argument introducing attributes, [Wood and Marantz \(2017\)](#); [Wood \(2015b\)](#). That is, the fact that the causative adds the external argument is considered the source of the causative meaning itself. Its meaning is derived from its function.



The second view is to consider the meaning or feature specification as the defining attribute of the causatives. Most semantic and lexicalist theories make this assumption. They treat causatives as fundamentally semantic objects that add causation to the verbal meaning. The argument increment characteristic is considered an phenomenon of the causative meaning. Some lexicalist theories take the causatives as dedicated signifiers of the CAUS subevent. Alternatively, they treat them as modifiers that alter the basic arity of the verbs/events. This is an *associationist* theory of causation because the argument extension is directly associated with the causative meaning/interpretation of the items.

Recently, syntactic theories which dissociate the causatives from argument introduction heads are also becoming popular. This development is mostly due to Pylkkänen (2008). According to this approach, there is no direct association of causation and argument projection. The functional item that adds the direct manipulative meaning, the [caus], is not directly responsible for adding an external argument. Syntax has its own dedicated external argument introducing head, the VoiceP. The [caus] sounds like it adds an external argument, according to this analysis, only because it tends to come fused/bundled with the Voice item.

**8.1.2.2.1.1 Dissociate [caus] from the EA** Pylkkänen (2008) dissociates causatives from the argument introducing head. She argued that the Voice is the responsible head for introducing external arguments while causatives are there just to add a CAUS subevent. According to this approach, the causatives appear to introduce external arguments because they come bundled with the Voice functional layer.

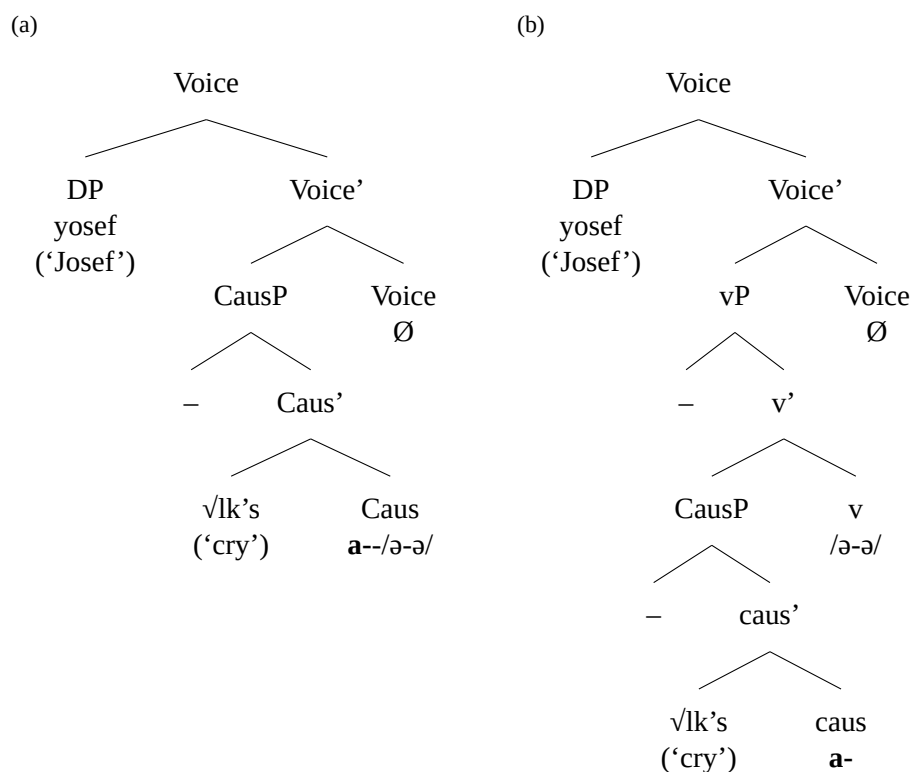
Based on this, she classified languages into voice-bundling languages, where the causative and the voice are fused together, and voice splitting languages where the causative and the voice are projected separately.

According to this analysis, then, the explanation why the causativized *cry* verb turns out to be intransitive would have a straightforward explanation. It is expected that the causative would fail to add an external argument with the *cry* verb if it merges in a separate layer than the Voice head. This is a case where the causative is not bundled with the Voice head.

If we consider Amharic as a voice splitting language, the functional structure of the causative verbalizers and the Voice layer must look like the tree structure in fig. 8.6, according to Pylkkänen's analysis.

Figure 8.6a emulates Pylkkänen's projection of root-selecting causatives. The lower CausP (vP) accomplishes two tasks for the voice splitting languages. It introduces the root-selecting causative feature and verbalizes the roots. The external argument is then introduced with a silent Voice head.

Figure 8.6b represents a strict cartographic (nanosyntactic) implementation of the idea. The two structures are differentiated on how the causative and the verbalizers are assumed to

Figure 8.6: Causativization of *a-lək'k'əs* ('cry') according to Pyllkkänen's system

project. In the strict cartographic system, the causative is not a verbalizer. A dedicated verbalizer vP projects separately.

Both of the structures uniformly introduce the external argument in the VoiceP layer while keeping the causative in a distinct layer. The main merit of this analysis is that the external argument is associated with just one functional layer across the board. The position of the external argument is also in alignment with the standard view on the position of external arguments. It also effectively explains the fact that the causative selects bound roots.

There are still a couple of problems with this analysis, however.

First, the hypothesis that all external arguments are introduced by a distinct VoiceP cannot be maintained for all types of causatives. As we will see in the following pages, the causative of the *run* class of verbs as well as the indirect causatives of transitive verbs pose a clear challenge to the assumption that all external arguments are introduced by VoiceP. An external argument can be added on top of an already existing external argument with the *run* class of verbs. The indirect causative also adds an external argument on top of the Voice layer built

out of transitive verbs. Therefore, the assumption that all external arguments must project on VoiceP cannot be universally true.

Second, introducing the external argument in a separate null functional layer fails to capture the persistent empirical observation that the direct causative is almost always associated with external arguments. Pykkänen’s argument is based on adversity and desiderative causatives in Finnish and Japanese which tend to be inconsistent in their increment of the arguments of the verb. The direct causative in Amharic, on the other hand, is pretty consistent in its argument increasing properties. Almost all the linguists who looked into it have acknowledged the argument increasing (‘transitivizer’) property of it, [Leslau \(1995\)](#); [Amberber \(1996, 2002b\)](#); [Yabe \(2007\)](#); [Fufa \(2009\)](#); [Ayalew \(2011\)](#). To make the above analysis work, one has to make a strong case that the argument added on *cry* class of verbs is not added by the causative. Independent evidence for the dissociation of the external argument from the CAUSE feature is needed to support the analysis. Given the strong correlation, I personally couldn’t see any way of presenting a convincing case to dissociate the causative from the external argument.

An alternative strategy to keep Pykkänen’s analysis would be to consider the bundling analysis for Amharic. To do so, however, we need to make non-trivial modifications to Pykkänen’s theory because she suggested that the *voice bundling* and *voice-splitting* parameters are set at the language level. That is, in her system, a language could either be a voice-bundling or a voice-splitting, but not both. Adopting the voice-bundling parameter sounds promising for the causativization of *melt* types of verbs because the causativization and transitivization occur by the same layer. But, it cannot be assumed as universal principle because the voice and the causation need to be separate in some layers. This must be the case for the causative of unergative and transitive verbs.

Ultimately, what we need to follow is the empirical evidence. The empirical evidence within Amharic is quite clear. The causative item is inseparable from the external argument. But, this should not be interpreted as a case for its bundling with the Voice. The voice and the causative are unified (bundled) into the same layer in many cases, but not always. Some irrefutable evidences exist that show the projection of both the voice and the causative items in distinct layers. Amharic can fall neither to the voice-splitting nor to the voice-bundling parameter. It contains both types.

**8.1.2.2.1.2 [Caus] as EA introducer** As noted in the above pages, the causative item cannot be dissociated from the external argument. The observation that the causative always adds external arguments leads us to think of the item as a voice item because that is exactly what the VoiceP is supposed to do, almost by definition. Controlling the merger of external arguments is what VoiceP is supposed to do. Given the causative does consistently add external arguments, the causative then must be assumed as a variant or family of the

Voice.

- (8.23) **caus=Voice<sub>[caus]</sub>**:  
The causative is a [caus] specified Voice

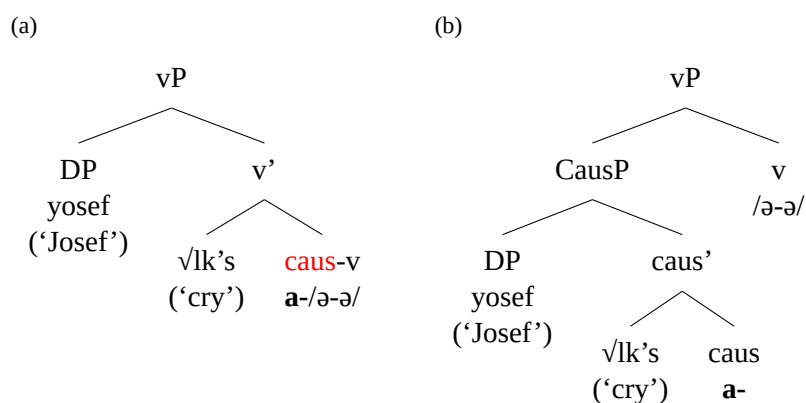
According to this proposal, the causative is a specific type of voice. More precisely, the causative can be considered as a sub-variant of the active voice because it licenses an external argument, just like the Voice<sub>[+act]</sub>. In this sense, we can consider the VoiceP as a simple place holder which could be filled by actual feature values—just like the traditional GB IP—such as the active, nonactive and the causative.

The derivation of the *cry* class of verbs, however, challenges the above proposal. Given that it directly selects the bound roots of the *cry* class of verbs, the selection suggests a very low position to the causative, as we have in fig. 8.7.

The structure in fig. 8.7a implements the low-merging causative within the flavor approach. As a root selecting functional item, the causative is presented as a flavor (or part) of the verbalizer vP. The structure in fig. 8.7b follows the cartographic approach where the verbalizer items and the causative item are distinctly projected; still the causative selecting the roots.

- (8.24) *yosef a-lək'k'əs-ə*  
Josef **caus-cried-3msgS**  
'Josef cried.'

Figure 8.7: Causativization of the *a-lək'k'əs* ('caus-cry')



In both of the approaches, the external argument is introduced with the causative, either at

Spec,vP or Spec,CausP.

As already noted above, this analysis contradicts with the standard understanding of the position of external arguments. The Minimalist analysis, which adopts the split-VP hypothesis, consistently introduces the external arguments of both unergative and transitive verbs outside of the vP/VP domain, as presented in [fig. 8.3](#). It also appears incongruent with the proposal given in [\(8.23\)](#) on the identity of the causative.

An alternative solution must be devised. For that I will propose a head movement analysis for the root selecting causative.

**8.1.2.2.1.3 Incorporation of the vP to VoiceP** As I have explained in the above paragraphs, dissociating the causative from the external argument is not empirically confirmed in this language. All the evidences point to the direction that the direct causative is an introducer of an argument. Therefore, Pylkkänen’s separation of VoiceP and causative introducing functional head doesn’t seem borne out for Amharic. Even at the very theoretical level, the mechanism of bundling as a means to capture the universal fact that causatives introduce external arguments is not satisfactory, as [Blanco \(2011\)](#) noted. Even if there are occasional mismatches between the external arguments and causative heads, as Pylkkänen noted for Finnish and Japanese, the correlation of the causative with external argument is as strong as any linguistic generalization could be. A complete dissociation of the external arguments from causative heads, therefore, fails to explain this consistent pattern across languages.

The facts within the Amharic causatives show that they are argument introducing items. But, the analysis suggested there has a drawback for the deponent causatives. Directly introducing the causative at the root level has a problem of introducing the external arguments too low in the functional layer. We need an alternative explanation that could capture the deponent causative, without removing the external argument from the causative.

That is exactly what I am going to do in this subsection. I am going to propose a head raising analysis where the roots of the *cry* class verbs raise and adjoin to the CausP head.

The analysis of the deponent here basically follows the analysis of the deponent middles I presented in [§ 6.7.3.0.2](#). In that subsection, we have seen how the analysis of the deponent middles can be captured as the incorporation of the two functional heads such as the vP and VoiceP.

I have argued that the syntactic incorporation does a better justice to the facts than the morphological operations such as spanning and fusion. One of the main motivations for a strictly syntactic operation such as head movement comes from the fact that the deponent middles have some grounds in semantics. Deponent middles are known to arise on specific semantic classes of verbs. Under the inverted Y-model, currently assumed as the standard architecture

of the grammar, the morphological (post-syntactic) operations cannot be sensitive to the semantic properties. In addition, the fact that both of the functional heads, the vP and VoiceP, have morphological instantiations of their own lead us to conclude that the relation between the two heads is a sort of syntactic incorporation, rather than a post syntactic morphological manipulation.

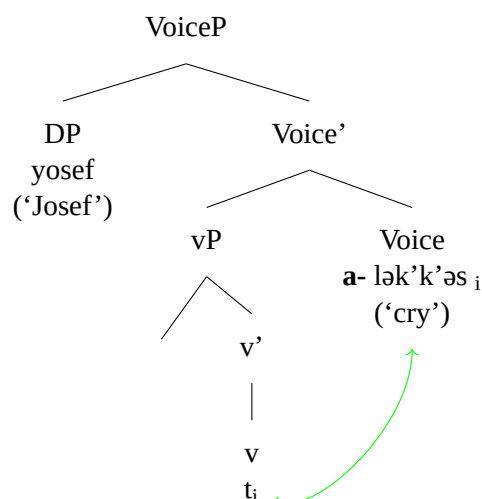
Causative deponents are the same with the middle deponents on the morphological side. Both of the functional heads still keep morphemes representing each head. But whether the cry class of verbs forms a semantic class is unclear.

In any event the idea of deponents or *tantum* exists for causatives as it does for the middles. The voice functional item directly verbalizing the bound roots is what makes deponents (*media tantum*) distinct from other constructions. This is exactly the fact I am trying to explain in both cases.

As I already explained with the middles, the situation is a sort of upward dependency where the verbalizer functional head requires the voice head to generate fully functional verbs. The situation is somehow similar to the relation between finiteness (or TP) and the rest of the verbal functional projection. Formation of a fully functional clause always requires the finiteness head. Without the finiteness head, what a verbal projection can generate is a dependent (subjective) clause. In a similar fashion, the formation of a fully functional verb with deponent roots requires a voice projection.

Given the dependency is upward, a head movement analysis sounds attractive because it well captures the intuition that the lower head somehow requires the higher head. It can also work for both the causative and middle deponents.

Figure 8.8: Movement of v to VoiceP: intransitive deponents



According to this analysis, the reason why the roots of *cry* class of verbs always appear with the voice heads is because their *v* always moves to Voice. Lexicalization of the *vP* layer is impossible without the incorporation of the *v* to the Voice.

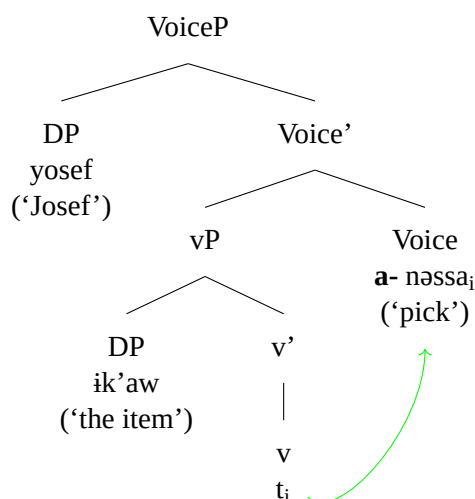
This analysis is tantamount to saying that the root selecting causatives we discussed in § 8.1.1.1.1 are not truly root-selecting. The causative is the projection of the Voice even if it selects the bound roots. What is really happening with them is that the *vP* is dependent with the VoiceP to lexicalize. The verbalized roots have to always move to form a complex head with VoiceP. This obligatory movement and incorporation<sup>4</sup> makes sure that the *vP* won't be independently lexicalized, blocking the formation of the basic verb forms for these roots.

Head movement is assumed to create a complex head by moving one head to the other. And, the usual assumption is the moved head always left adjoins the host. That assumption, however, cannot be maintained here because the voice item is a prefix. This means that the head movement has to right adjoin the guest to the host.

<sup>4</sup>Incorporation, since Baker (1988), is often assumed to be the mechanism for the attachment of functional items (morphemes) with the lexical items. Here, I don't make such an assumption. I rather consider a post-syntactic linearization, along the lines sketched in Brody (2003), to be the mechanism of morpheme attachment. Head movement is reserved only to specific cases where the two items cannot stand separately such as the tantum verbs.

- (8.25) *yosef ik'a-u-n a-nəssa-Ø-w*  
 Josef item-acc caus-pick-3msgS-3msgO  
 'Josef picked up the item.'

Figure 8.9: Movement of *v* to VoiceP: transitive deponents



The analysis also naturally captures the deponent causatives that generate transitive clauses out of the bound roots. The distinction between the transitive and intransitive deponent causatives is explained not by the argument structure of the causative itself— rather by the internal arguments that the *vP* layers of these verbs introduce. The *vP* of the *cry* groups of verbs lacks an argument at the *vP* layer while the *vP* of the *stand/pick* class of verbs contains one.

**8.1.2.2.2 Selection determines position: causative of *run* verbs** As we have seen in § 4.2.1 & § 8.1.1.4, the *run* class contains another group of unergative verbs which license the direct causative. First, as I already noted, this class of verbs made it hard to maintain Amberber’s proposal which posits the combination of the direct causative only with unaccusative verbs. Second, they pose a challenge to the standard assumption that causatives are somehow instances of the Voice functional head.

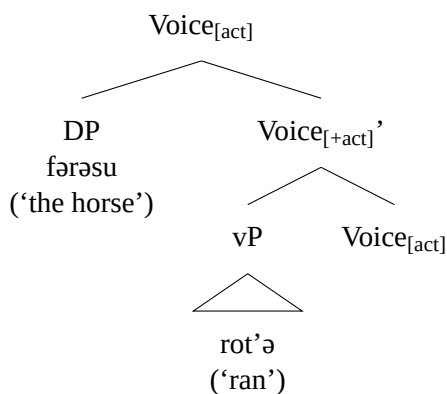
Consider the following sentence, repeated from [chapter 4](#).

- (8.26) *fəras-u rot'-ə*  
 horse-def run-3msgS  
 'The horse ran.'



The clause in (8.26) contains a typical unergative intransitive verb with one actor argument. Clauses like this, as we have seen above, are standardly assumed to contain Voice functional structure as in (8.26).

Figure 8.10: Structure of (8.26)



Now, causativize the intransitive clause with the causative element, the results looks the following:

- (8.27) *mariyam fərəs-u-n a-rot'-əčč-w*  
 Mary horse-def-acc caus-run-3fsgS-3msgO  
 ‘Mary ran the horse.’  
 ‘Mary made the horse run.’

This kind of causativization is unexpected because the causative is considered a voice item, and the unergative verbs is supposed to already contain the Voice projection. Given its identity as a voice item, the direct causative is assumed to select only structures lacking the VoiceP.

To have a consistent analysis of the voice, then, we either have to dissociate the causative item from the external argument, or dissociate the external arguments from the Voice functional layer.

We have seen that the first alternative is problematic for Amharic because the causative always adds an external argument.

The second option rejects the standard assumption that the external arguments of the unergative verbs are introduced at the VoiceP layer. If we assume that the single argument of the unergative verb is added at the vP layer, we can easily introduce the causative and its

argument at the VoiceP layer. Changing the standard theory of the unergatives, however, cannot be that easy, specially given that the analysis has accumulated a lot of evidence from across languages. The standard analysis also nicely explains a number of phenomena, most importantly the projection of optional (cognate) internal arguments with unergative verbs. Therefore, this isn't a good choice either.

An alternative proposal I will present here rather involves modifying our assumptions on the Voice projection. The idea is, the Voice projection is not restricted to a single functional layer.

A cascade of voice projections can appear one on top of the other, so far as the selection requirements of the voice items are satisfied. That is, assume that the projection of the any of the voice items is controlled by their selection characteristics. In this sense, there is no rigid structure that dictates any of the voice items to appear anywhere in the *fseq*. They can appear higher or lower depending on the selection restriction of the specific feature.

**(8.28) Position of the direct causative:**

The causative has no one fixed position in the *fseq*

According to this proposal, the position of the causative is not rigidly programmed to appear in a certain layer, say on VoiceP. The position where it appears fully depends on the items that it selects.

As we have seen in the previous chapters, the selection of the direct causative is not fully determined by the syntactic category of its complements. The causative property of the verbs and the animacy of the associated arguments also turn out to be equally important factors.

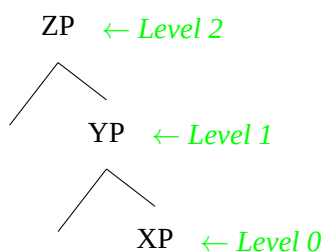
The position of the causative in the syntactic layer is then determined by the kinds of the complements. If the selected verb contains VoiceP, the causative appears on *level 3* syntactic layer. This is the case for the unergative verbs. If the selected verb contains just the vP, the causative projects on top of it, appearing on *level 2* syntactic layer. This is the case with the causativization of unaccusative verbs.

The proposal presented in (8.28) presents the projection of the voice items and their associated arguments relativized to each other.

If the hypothesis is correct, we have a precise characterization how syntax puts the objects into a hierarchy. According this relativized way of projecting syntactic objects, statements like *the causative projects at the third level of the structure* would be inaccurate. This is actually what the derivational systems such as **BPS** would exactly predict. The seemingly rigid functional layers are the epiphenomena of the step-by-step selection based combinatorial system. Any **SO** goes where its selection property takes it.

To contrast this derivational system with a rigid layered system, assume the roots are the zero level projections, the verbalizers are the first level functional projection, and so on. A rigid layered system might assume that the causative appears, for example, on the third level of syntax.

Figure 8.11: Rigid syntactic levels



Systems like Grimshaw (2005) would produce a structure like the above tree. *Level 0* is, by hypothesis, where the roots are introduced. *Level 1* is for the root categorizer (vP) and *Level 2* is for the voice. This kind of rigid system posits that functional items appear in rigid syntactic layers. It makes implicit statements such as “*level 1* of syntactic layer is occupied by a verbalizer”, and “*level 1* of syntactic layer is occupied by a voice item”, etc.

This kind of rigid system seems to work fine for functional items such as the vP and the VoiceP. But, it immediately faces problems when we consider interface features such as the causatives. The evidence is pretty clear that the causatives could appear on the *level 2* as well as *level 3* syntactic layer (see § 8.1.2.3).

The proposal in (8.28) puts this fact into concrete, testable hypothesis. According to the proposal, the causatives features themselves have no rigid *level* or syntactic layer specification. The *level* where they appear on is the function of their selection properties.

(8.29) **Selection based projection (SBP)** (final):

The position of the causatives is determined by their selection characteristics

The idea that the selection characteristics of the functional items explains their position in the syntactic layer has already been suggested in some previous works, most importantly that of Panagiotidis (2011). I consider this system of projection to be universal principle for all types of functional items.

According to SBP, if the causative selects a verb that contains *Level 1* syntax in its base form, the causative projects on the *Level 2*. But, if the selected verb already contains the *Level 2* functional layer, the causative has to project at the *Level 3*. The causative projects

on *Level 3* with the unergative verbs because these verbs already contain the VoiceP (*Level 2*) in their basic structure. The type of verb it selects is exactly what determines its position; not a permanently fixed position.

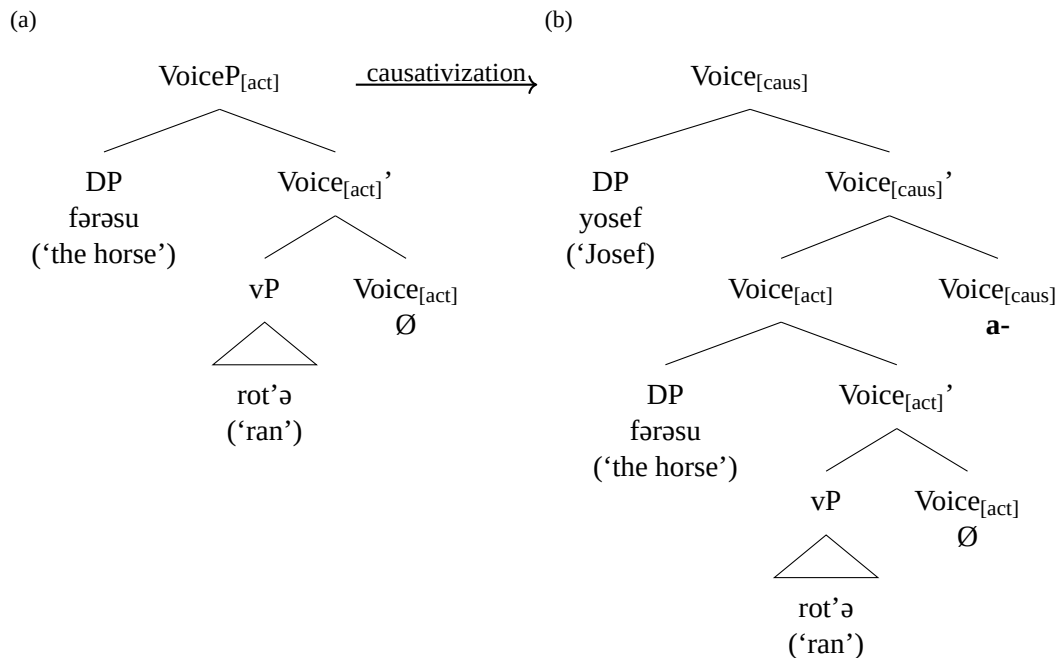
What we need to understand about the VoiceP and vP is that these functional projections are not true projections of syntacto-semantic features– unlike the AspP and TP which are the actually projections of the aspect and tense features, respectively.

Voice is a name given to any morphological item that introduces an external argument on top of the verbs. In the same manner, the vP is basically a hypothetical head that verbalizes roots. There is no actual syntacto-semantic feature that solely represents the vP.

These hypothetical heads could be filled by different actual syntacto-semantic feature values. To the point that any functional item that adds an external argument is considered a voice, both the active and the causative are voice items. The same goes with the little v. Any functional item that turns nonverbal items into a verb is a verbalizer, hence, the head of vP.

According to this proposal, the causative of the unergative verbs projects on top of the standard VoiceP because the causative selects the verbal projection that already contains the VoiceP. The causative of the unergative given in (8.27) then would have a structure as follows.

Figure 8.12: Causativization of (8.26)



### 8.1.2.3 Causative of inchoative verbs

In § 8.1.1.2, we have seen how the causative morpheme selects different verb classes. The two verb classes universally selected by the direct causative are the *melt* and *decay* classes of verbs. These are the typical inchoative (low causative) verbs.

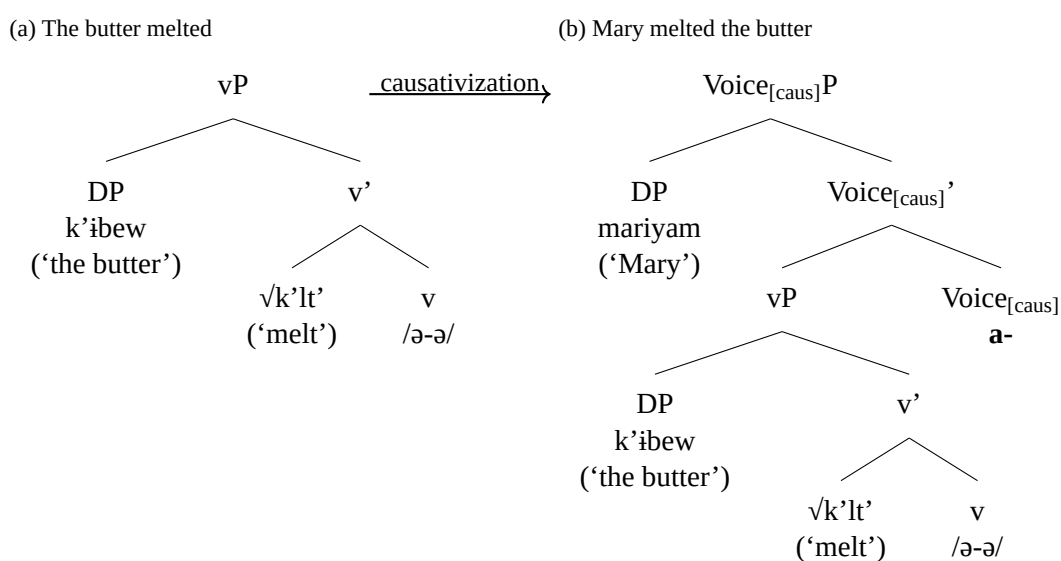
As I stated in § 8.1.1.3, the causativization of these verbs almost always involves adding of the causative morpheme on top of the basic verbs. That is to mean that the causative selecting the inchoative verbs is almost always verb-selecting. This is the type of causative alternation featured in most studies of causative alternation.

The causative alternation in this case is very typical and straightforward. The direct causative item selects the intransitive verbs and transforms them to transitive. This could be easily captured by introducing the causative specified  $\text{VoiceP}$  on top of verbs.

For verb selecting causative, as we have with the *melt* class, based on the proposal in (8.23), causativization is a process of adding causative specified  $\text{Voice}$ .

According to this system, the causativization of the inchoative verbs such as *melt* and *decay* given in (4.27) would have a structure like fig. 8.13.

- (8.30) *k'ibe-u (bə-rasu) k'allat'ə*  
 butter-def (by-itself) melt-3msgS  
 'The butter melted (by itself).'
- (8.31) *yosef k'ibe-u-n a-k'allat'-ə-w*  
 Josef butter-def-acc caus-melt-3msgS-3msgO  
 'Josef melted the butter.'

Figure 8.13: Causativization of *melt*

### 8.1.3 The causative of the iterative

So far, we have seen that the causative selects the verbs mainly on the basis of their lexical semantics, Amberber (1996). I have further shown the animacy of the external arguments to be an important attribute for some groups of unergative verbs. In both cases, the interpretable components of the verbs and/or their arguments serve as the selection filter for the distribution of the causative. As these properties are semantic in nature, I have suggested that the combinatorial principle must be understood in terms of *s-select*.

This semantic based selection principle captures canonical cases. As a result, it is considered the right analysis for the direct causative.

There is, however, one serious challenge to this semantic based explanation that neither the previous studies nor my own analysis so far addressed. That is the failure of the semantic selection in the case of the iterative verb form.

As we have seen in [footnote 10](#), the insertion of the iterative morpheme **-a-** (with or without the reduplication of the middle radical) on the core (im)perfective aspectual template gives rise to an iterative, intensive and/or other related interpretations.

Look at the following examples.

- (8.32) *yosef inc'ət-u-n k'orrət'-ə-w* perfective  
 Josef wood-**def-acc** cut-**3msgS-3msgO**  
 'Josef cut the wood.'
- (8.33) *yosef inc'ət-u-n k'orarrət'-ə-w* iterative/intensive  
 Josef wood-**def-acc** cut.**dup-3msgS-3msgO**  
 'Josef cut the wood into pieces.'

The first sentence contains a verb with the regular perfective form. The second sentence contains a verb where one of the radicals is reduplicated and the vowel **-a-** is inserted just after the first syllable. This morphological modification gives rise to the intensive meaning in this example.

What is strange and at the same time interesting about this (iterative/frequentative) form is that it removes the selectional restriction that the direct causative imposes on the verb types. Once the iterative/frequentative marker appears on the verbs, the causative can attach on any of the verbs regardless of their lexical classification.

In the above sections, we have seen that the direct causative cannot combine with high causative verbs (lexical causatives) such as *kill*, *hit* and *assassinate* types of verbs when they appear in either of the two regular (perfective and imperfective) aspectual forms, as shown in [\(8.35\)](#).

- (8.34) *yosef t'inčal gəddəl-ə*  
 Josef rabbit kill-**3msgS**  
 'Josef killed a rabbit.'
- (8.35) \**yosef t'inčal a-gəddəl-ə*  
 Josef rabbit **caus-kill-3msgS**  
 'Josef killed the rabbit.'

If the same verb is marked with the iterative marker **-a-**, however, the sentence suddenly appears grammatical.

- (8.36) *yosef t'inčal a-gaddal-ə*  
 Josef rabbit **caus-kill.it-3msgS**  
 'Josef helped (sb) kill a rabbit.'

In the same manner, unergative verbs that normally block the direct causative, such as the *dance* verbs are able to combine with the causative.

- (8.37) *yosef mariyam-n a-čaffar-ə-at*  
 Josef Mary-acc **caus-dance.it-3msgS-3fsgO**  
 'Josef danced with Mary.'

Even the animacy restriction that applies with the *run* class of verbs doesn't hold anymore.

- (8.38) *lij-oč-u mariyam-n a-r<sup>w</sup>ar<sup>w</sup>at'-u-at*  
 child-pl-def Mary-acc **caus-run.it-3plS-3fsgO**  
 'The children ran (chased) Mary.'  
 'The children ran with Mary.'

The above examples clearly show that the semantic selectional restriction that normally blocks the merger of the causative with certain types of verbs doesn't apply when the verbs appear in the iterative form.

Apart from the failure of the selection, the extension of the causative remains intact. It selects both the transitive and intransitive verbs alike and adds one more argument.

The number of total arguments associated with the verb indeed depends on the number of arguments associated with the basic (active) verb. As the above examples show, the intransitive verbs such as *run* & *dance* contain two arguments after the causativization because the basic forms contain just one argument. Clauses containing the causativized transitive verbs, on the other hand, would have three arguments once they are further causativized. The *kill* verb has two arguments in the active voice. The same verb embedded within the direct causative, as presented in (8.36) & (8.39), has 3 arguments.

- (8.39) *yosef mariyam-n t'inčal a-gaddal-ə-at*  
 Josef Mary-acc rabbit **caus-kill.it-3msgS-3fsgO**  
 'Josef assisted Mary in killing a rabbit.'

In (8.39), 'Josef' is conceived as an assistant to the killing event. The second argument 'Mary' is the causee/assistees and the third argument, 'the rabbit' is the theme. As we have in



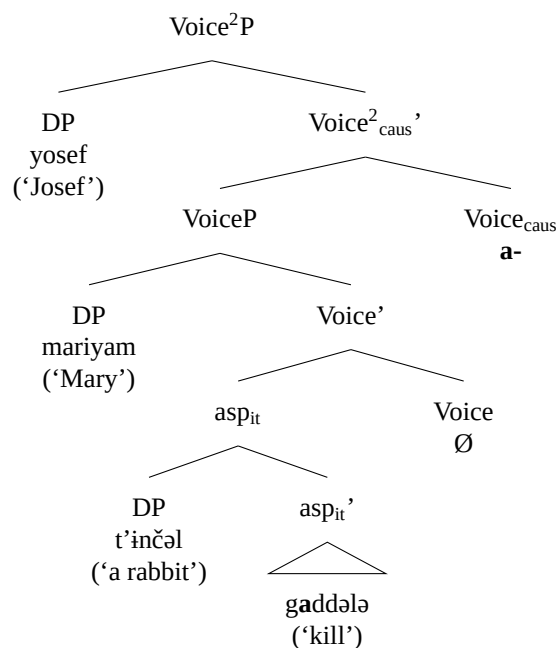
the indirect causative, the causee argument could be implied as in (8.36) or overtly marked as in (8.39).

The pattern of the syntactic relations among the arguments here is very similar to the that of the indirect causative. The highest argument is the structural subject. It appears in the nominative form. The logical subject of the basic transitive form of the verb (= the causee or the assistee) now appears in accusative form.

In these cases, the causative simply adds the *assistant* argument, just like the indirect causative adds the causer argument, on top of the basic argument structure of the active voice<sup>5</sup>.

For the sentence in (8.39), the following structure<sup>6</sup> would be the right structural representation.

Figure 8.14: The position of the causative in the iterative, cf. fig. 8.19



<sup>5</sup>The projection of the causatives over the nonactive voice has been presented in § 9.3.3.

<sup>6</sup>Cinque (1999) has proposed two distinct positions for the iterative/frequentative aspect. The one which he calls  $Asp_{Frequentative(I)}$  appear higher than the Voice while the other ( $Asp_{Frequentative(II)}$ ) appears lower than Voice. That raises the question of the position of the iterative/frequentative aspect in Amharic. For Amharic, I believe the lower position is the right position for a number of reasons. First, the iterative aspect is a verb form aspect. It modifies the root templates. As we have seen, the verb form aspects which modify the root templates merge close to the roots, Demeke (2003). Second, iterativity affects the transitivity, but not the other way round. This suggests that the voice senses the presence of the iterative, suggesting that the latter merges before the

The direct causative is projected in a higher Voice layer (Voice<sup>2</sup>P) because it is selecting a transitive clause.

These structures show that the argument adding capacity<sup>7</sup> of the direct causative is still intact with the iterative aspect. This poses a challenge to lexical semantic based analyses (such as Amberber's unaccusativity theory), as well as to the structure based analysis. Syntactic approaches, [Leslau \(1995\)](#); [Yabe \(2007\)](#), which consider the direct causative as simple transitivizer of the intransitive verbs specially would fail to explain the pattern of the causative structure in the iterative.

The questions we need to address with regard to the causativization of the iterative then involve:

- Why the direct causative suddenly stops filtering the verb classes in the iterative form, and
- Why the failure of the selectional restriction is correlated with a shift in the meaning of the causative
- In relation to the semantic shift, what is the relationship between polysemy and syntactic structure?

The last issue is broader in scope. The relation of polysemy to selection and syntactic projection is pretty much the whole topic of the dissertation. But, for the causatives specifically, in the following subsection I will evaluate the two competing directions of explanations. I will finally show that the alloosemy approach I have suggested for the analysis of the anticausative cannot be applied to the causatives.

We will see the problem of selection and its relation with the polysemy in later sections ([§ 8.1.3.2](#)).

### 8.1.3.1 Polysemy and structure

One general point to note about the direct causative projecting in the Voice<sup>2</sup>P is that it tends to bear meanings beyond the standard immediate/manipulative causative.

With the *eat* class verbs, for instance, the immediate causative is not the only reading.

In [\(8.80\)](#), for instance, the causative contains two senses. In one sense, we have the standard manipulative causative interpretation where 'Mary' would be putting the bread into Josef's mouth (if he is disabled, for example). This is the direct manipulative sense. The other sense

---

former. Finally, there seems to exist a consensus in the literature (specially works on Semitic languages) that the iterative/frequentative/pluractionality appears very low in the verbal fseq [Fassi Fehri \(2012\)](#); [Dayal \(2011\)](#); [Bianchi \(2006\)](#)

<sup>7</sup>This again supports the proposal presented in [\(8.28\)](#) where I suggested that the causative is an argument introducer regardless of its position in the syntax.

implies Mary offering, without directly feeding, Josef to consume her bread. I will call this the *benefactive causative* because it has a sense of benefiting the causee.

As I have mentioned in the above section, the causative also bears *assistive* sense when it appears on the iterative marked verbs.

What is interesting here is the correlation of the meaning of the causative with its position in the syntactic layer. Out of the syntactic positions it assumes, the non-canonical meanings such as the *assistive*<sup>8</sup> and *benefactive* are associated with the higher positions.

If the causative appears in its standard position, such as VoiceP, the only reading possible is the manipulative causative. If it appears in Voice<sup>2</sup>P, both benefactive and assistive meanings are possible (in addition to the standard manipulative<sup>9</sup>).

The question is then why the direct causative tend to have multiple meanings on Voice<sup>2</sup>P (higher Voice), but not on VoiceP (lower Voice). The presence of multiple meanings on a specific functional layer opens the possibility that the meaning of the causative is somehow sensitive to or the result of the syntactic position. Cases like this have been presented as evidence for the allosemy analysis. In the following paragraphs, we are going to evaluate whether the allosemy analysis that we have used for the nonactive voice can be applied for the causatives.

**8.1.3.1.1 Contextual allosemy** According to the allosemy analysis, the syntactic context either fully specifies or partially contributes to the meaning of the functional items. The allosemic analysis would typically take the causative as underspecified for any of the interpretations. The interpretations are then determined (inserted) contextually either in the course of the derivation, as I have proposed in [chapter 7](#) for the anticausative, or in the post-syntactic (LF) level as in [Marantz \(2013\)](#).

The variability of the meaning of the causative on the basis of syntactic position would have a natural explanation with the allosemy because the syntactic position itself serves as a context for inserting any of the specific interpretations in the post-syntactic layer. The *benefactive* meaning of the direct causative, which is restricted to the ingestive verbs, is specially quite striking in this regard because the meaning of the causative appears to be an extension of the lexical meanings of the verbs themselves.

In [§ 8.1.3](#), we have also seen that the assistive sense is restricted to the iterative forms of the verbs. Under the allosemy analysis again, the iterative aspectual would serve as context for the insertion of the *assistive* semantics on to the underspecified causative item.

#### (8.40) **Allosemic insertion**

<sup>8</sup>Look at [§ 8.1.3](#) for the position of the causative in the iterative

<sup>9</sup>The *run* class verbs are an exception because the manipulative causative is the only reading there.

- a. [caus] ↔ assistive /\_\_\_(iterative aspectual)
- b. [caus] ↔ benefactive /\_\_\_(ingestive verbs)
- c. [caus] ↔ manipulative /\_\_\_(elsewhere)

According to this analysis, the underspecified causative item receives the *assistive* interpretation when it appears under the context of the iterative aspect (verb form); the *benefactive* when it combines with the ingestive verbs; and the standard *manipulative* in the rest of the cases.

The free selection of the direct causative for all types of verbs in the case of the iterative aspectual would also be expected under this system because, as I have explained in [chapter 7](#), free selection is natural consequence of semantic underspecification.

The allosemy analysis, however, faces a very serious problem with the causative of the canonical verb forms (such as the perfective and imperfective) . The fact that the causative filters verb classes on the basis of their causative properties contradicts the situation with the iterative, and also suggests that the causative comes with pre-specified semantic value.

It is also hard to maintain the idea that the causatives are universally underspecified because it is evident that the meaning of the causatives cannot be fully “read off” from the syntactic position or other clause internal contexts. For one thing, the fundamental distinction between the two causatives still holding regardless of the syntactic position or other parameters. Both of the causatives project on the same Voice<sup>2</sup>P when they select the *run* verbs, for example. If the syntactic position or other external source is considered the source of the meaning distinctions (insertion), we would expect exactly the same meaning for both of the causatives when they select the same verb and argument. But that is not borne out. The two causatives selecting the same verb and argument, projecting on the same syntactic position, still bear distinct causative meanings.

Consider the examples we saw in (8.79), repeated here once more.

- (8.41) a. *yosef f̄ar̄as-u-n a-rot'-ə-w*  
 Josef horse-def-acc caus-run-3msgS-3msgO  
 ‘Josef ran the horse.’
- b. *yosef f̄ar̄as-u-n as-rot'-ə-w*  
 Josef horse-def-acc CAUS-run-3msgS-3msgO  
 ‘Josef made the horse run.’

As I have discussed in [chapter 2](#), the two sentences bear undeniable semantic distinctions, regardless of the uniformity of the arguments, verbs and other factors. No other factor can explain this distinction except the semantic difference on the causatives themselves.

Furthermore, the two interpretations of the indirect causative (permissive and directive) are always available regardless of the syntactic position.

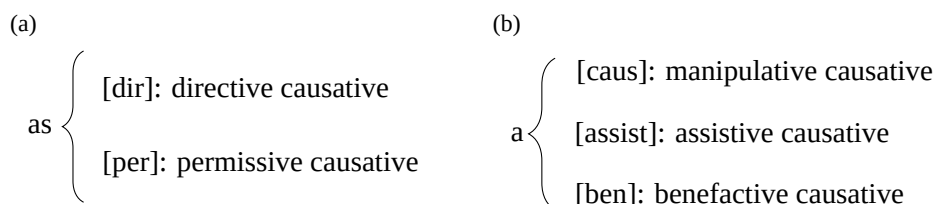
From this, I conclude that the causatives, unlike the anticausative, cannot be assumed to merge with underspecified feature values. They come with pre-specified feature values from the lexicon. This endows the causatives with fixed feature values that directly add the causative meaning. These selectional restrictions determine where exactly the causatives merge and what verb classes or aspectual forms they select.

In the rest of the analysis, we will see how this fixed-feature assumption can be used to explain their selection patterns and their distribution in the syntax.

**8.1.3.1.2 Fixed feature specification** Under the fixed feature assumption, each of the features (meanings) of the causatives merges individually. As a result, each of them impose their own selectional restrictions. Depending on the types of the features (**CU** or **DU**), the selection could be categorial, semantic or both.

According to this analysis, each of the causative morphemes are considered lexicalizations of one or more of the features, Muriungi (2010). The *a-* morpheme is the lexicalization of the *manipulative*, *assistive* and *benefactive* features. In the same manner, the *as-* is also the lexicalization of the *permissive* and *directive* features.

Figure 8.15: Feature specification of the two causatives



In the following subsections, I will use this fixed-feature assumption to explain the selection, and the correlation of the meaning with the syntactic position of the causative.

### 8.1.3.2 The selection, interpretation and projection

In § 8.1.3, we have seen that the selectional restriction that the direct causative normally imposed on the verb classes disappears when the verbs come with the iterative verb form. We have also seen that the causative bears the *assistive* sense as in 8.39 when it selects the iterative marked verbs. As I have already stressed above, the question is then why the causative fails to impose selection, and why free selection is correlated with a specific verb form.

**8.1.3.2.1 c-select & s-select** The selection parameters of the individual features identified with the fixed-framework can be used to explain why the meaning of the causative is correlated with its position in the syntactic layer.

For the manipulative causative, [caus], for instance we know that it selects nonactive verbs. From this, we can easily conclude that the feature primarily selects the vP functional layer. That easily explains why the causative bears the manipulative meaning when it selects the verbs in the perfective and imperfective forms.

For specific cases where the manipulative causative is also associated with higher positions, such as the *run* and *eat* classes of verbs, we need to further assume that the [caus] category-selects the VoiceP. This is to explain why the direct causative has a direct manipulative meaning in sentences such as (8.5) and (8.80).

(8.42) **c-select**

- a. [caus] S → vP/VoiceP
- b. {[ben],[assist]} S → VoiceP

The [assist] and [ben] features, on the other hand, categorially select the VoiceP only. This explains why the direct causative morpheme bears benefactive and assistive only when it projects over the transitive voice.

The causative bears the benefactive and the assistive senses in higher positions only because of the fact that their respective features select the VoiceP.

This is the natural consequence of the fixed-feature assumption. Since the features come fixed from the lexicon, their selection property determines where they appear in the structure. That gives the illusion that the syntactic position is determining meaning.

The proposal given in (8.42a), however, has the problem of overgeneration. It wrongly predicts that the direct (manipulative) causative would select all types of verbs and voices. The same is true with the (8.42b). It predicts that the [ben] and [assist] features would be able to combine with all types of clauses. That is not borne out because we know that the [ben] projects only on the *ingestive* verbs and the [assist] projects only on the iterative verb form.

Therefore, we need a mechanism to further restrict the application of the above selection rules. What kind of further filtering mechanism we have to use is an empirical question. If the relevant property is syntactic, the relationship could be understood in terms of c-selection or another formal relation. If the important attribute is semantic in nature, the selection should be understood in semantic terms as well.

As we have seen in § 8.1.1.2, the relationship between the manipulative/immediate causative

and that of the verb classes must be understood in semantic terms. If that is true, then, we can use s-selection to further filter out the unwanted combinations. Once the categorial selection given in (8.42a) is satisfied, a semantic selectional restriction such as (8.43) follows. The s-select effectively blocks the merger of the direct causative with incompatible verb classes such as the high causative verbs. Since I have already explained how exactly the causative discriminates among the verb classes, I am not going to repeat myself here.

(8.43) **S-select**

- a. [caus] **S** → <noncausative>
- b. [ben] **S** → <ingestive>

In the same manner, we need to further specify that the [ben] feature always targets a specific semantic class of verbs such as the *ingestive*. This selection relation needs to be understood as a semantic selection again because the *ingestive*<sup>10</sup> doesn't exist as a formal or syntactic attribute. S-selection serves as a further filter to restrict the exact classes of verbs that the [ben] merges with. This solves the problem of the over-generation of the rule in (8.42).

For the [assist] feature, the situations are a bit complicated because of the correlation of a number of parameters. First, a simple semantic filter like (8.43) won't work because the iterative verb form, which is correlated with the [assist] feature is not exactly a singular semantic attribute. As we have seen, the iterative form is correlated with a number of semantic senses. The single property that keeps all these interpretations is probably just the verb form. We have also seen the disappearance of the selection of the verb classes in the iterative. The type of theta role assigned to the argument is also different in the iterative.

Look at the following comparison of the assistive causative, the causative associated with the iterative, with the standard immediate causative.

<sup>10</sup>One issue that I haven't addressed here is the availability of the manipulative causative on the ingestive verbs. Given the <noncausative> proposal, one could question why the manipulative causative is still possible with these verb classes. The special status of *ingestive* verbs with causative items is a genuinely puzzling problem even from a cross-linguistic perspective, (look at Amberber (2002a) for an extensive cross-linguistic review). One way to solve the issue would be to show that the basic transitive clause they form is a noncausative clause. I have to leave the issue for future work.

Table 8.8: Comparison of the two instances of the direct causative

assistive causative	manipulative causative
assistive/comitative interpretation	direct/manipulative interpretation
associated with the iterative verb form	associated with the (im)perfective form
no verb class selection	selects only noncausative verbs
adds an argument to the derivation	adds an argument to the derivation
human arguments	all types of arguments
the argument is an event participant	the argument is an event participant
the added argument receives <i>assistant</i> role	the argument is an agent/causer

Whatever rule we formulate, it needs to explain all these correlations.

I will start by resuming the question I already asked—why does the causative select all types of verbs in the iterative.

Given the distinctive meaning associated with the causative in the iterative pattern, then, the straightforward way of explaining the free selection in the iterative is to use its structural position.

We have seen that the assistive causative is very similar to the indirect causative in its distribution. It is able to select transitive clauses (voice). As a result, I have proposed to project the [assist] feature over the VoiceP layer, as shown in [fig. 8.14](#) (as well the rule in (8.42b)). We then can extend the analysis already suggested for the indirect causative, [Amberber \(1996\)](#), on the assistive causative. That is, the causative doesn't select the verb classes because it has no local relations with them. Let's call this the *barrier/locality* explanation.

The *barrier* explanation can be implemented in different ways—structural barrier created within the syntax or interpretive barrier created at the *spell out*.

Whether a structural barrier or spellout barrier exists within the VoiceP layer is quite a controversial issue. And, how exactly phase boundaries work in individual languages is not always clear. It is possible that the reason has nothing to do with structural or interpretive barriers.

An alternative approach would completely do away with the idea of the structural or Spell-out barrier. The semantic compatibility explanation given in [§ 8.1.3.2.3](#) doesn't assume a structural barrier, Spellout domain or similar locality notion to explain for the free selection. Ultimately, which of the two explanations work best should be evaluated on how they accurately and conclusively capture the observed generalizations.

In the following paragraphs, we will evaluate both approaches (the barrier and barrier-less approaches), and see which captures the facts better.



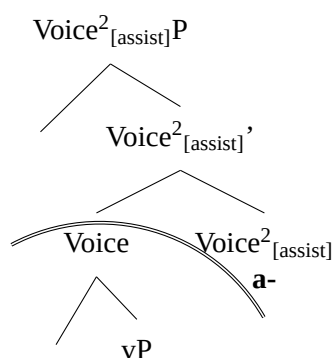
### 8.1.3.2.2 Locality

#### (8.44) Selection of the causative in the iterative:

The causative freely selects verbs in the iterative because of a structural barrier between [assist] and the verbs

**8.1.3.2.2.1 VoiceP as phase** We can assume the VoiceP as the structural barrier that blocks the selection relationship between the [assist] feature on Voice<sup>2</sup>P and the iterative feature on vP. The proposal assumes a feature or categorial selection from the [assist] to vP layer where the causative property of the verbs resides. Assuming the VoiceP as a structure barrier is quite plausible explanation because the head has been independently motivated to be a Spellout domain. As a phrase head, all the elements that merge in its complement position would Spellout before the items dominating it merge.

Figure 8.16: VoiceP as a phase



The phase barrier between the Voice<sup>2</sup>P and AspP (where the iterative aspectual is located) would definitely break the selection relation between the two heads. This could explain the free selection of the [assist] causative to the verb classes. The problem with this analysis, however, is that it cannot explain why the assistive causative always targets the iterative verb form.

Taking the iterative verbal aspect itself as a head phase probably works a little better because the head could be visible to the higher heads.

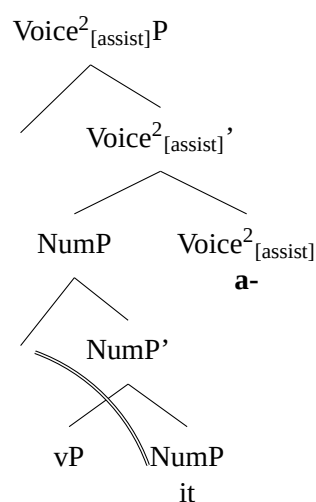
**8.1.3.2.2.2 NumP as phase** The iterative morphology is a pluractionality operator that turns singular events into multiple events. It has also been demonstrated that the pluractionality operator scopes immediately over the events, [Laca \(2006\)](#); [Van Geenhoven \(2004\)](#). It is the verbal equivalent of the number morphology in the nominal projection. Given the

standard assumption for the projection of the NumP in DP, it is quite plausible that a similar NumP projection exists in the verbal domain as well. The iterative could be considered the verbal counterpart of the plural functional layer of the DP.

In fact, a number of recent works have independently proposed some sort of NumP within the verbal functional projection to explain pluractionality (verbal plurality). Fassi Fehri (2012) has proposed this kind of analysis to capture the iterative form in Arabic. Dayal (2011, p. 147) does the same for Hindi. Bianchi (2006) is even more explicit about the NumP (PIP in her) in the verbal domain.

If the NumP projection of the iterative turns out to be correct, then, we can consider the NumP itself as a structural barrier between the [assist] and the vP to break the chain of selection.

Figure 8.17: NumP as a phase



Considering the NumP as phase head improves the situation a bit because, now, the iterative is within the same Spellout (structural) domain to the Voice<sup>2</sup>P. The vP where the types of lexical semantics of the verbs reside spells out in a different domain.

Consider the standard assumption that selection is a local relation, the selection of the direct causative towards the verb classes is then licensed only under the condition that the causative introducing functional layer, the Voice<sup>2</sup>P and vP hosting the eventualities are in contiguous layers.

The relationship between the [assist] feature and the lexical verbs is disrupted by an intervening phase head, NumP, as shown in [fig. 8.17](#) that no selectional restriction would apply.

The presence of a phrase head (NumP) between the Voice<sup>2</sup>P and the vP creates a barrier between the two layers. The elements in the complement domain of the NumP must have been ‘spellout’ by the time the Voice<sup>2</sup>P merges into the derivation.

At the same time, given the assumption that phase heads are not spelled out within their phase, the head of the NumP would be visible to the [assist] feature. This explains the selectional restriction imposed towards the verbal aspectuality (the iterative form).

This captures both of the phenomena that we want to explain—presence of selection to the iterativity, and absence of the selection towards the lexical semantics.

This system, as elegant as it sounds, still faces two major issues. The first is a conceptual issue on the status of NumP as a phase head. The literature is full of claims for all sorts of phase heads. But, nobody has come up with a conclusive diagnostic on how to identify phase heads from non-phase heads. Therefore, it is still hard to tell whether NumP is actually a phase head. Even if the assumption solves our problems at hand, we need to stop and ask how the assumption we are making is close to reality. Except the assumption seems to work for the problem at hand, I find no independent reason to believe that NumP is actually a phase head. The second issue is empirical. Note that we have seen that the [assist] feature selects transitive clauses. As a result, we have seen that the feature projects over the standard VoiceP. This means that in the structure given above, there is another VoiceP layer between Voice<sup>2</sup>P and NumP.

Given the standard assumption that selection occurs under strict locality, the relationship between the [assist] feature from Voice<sup>2</sup>P to the NumP, across the VoiceP, would be unexpected. For the proposal to work, we need to either drop the assumption that F-select (c-select) is a local relation, or deny the presence of VoiceP stuck in between the two heads. Both approaches are problematic.

I therefore conclude that an explanation based on a structural barrier is unsatisfactory. The reason seems to have something to do with general economy conditions.

**8.1.3.2.3 S-select as economy** This explanation makes no assumption for any structural barrier between the Voice<sup>2</sup>P and the vP/NumP (wherever the iterative feature is assumed to appear).

As I have already suggested in [page 249](#) for the manipulative causative, the reason for the failure of the combination (presence of the selectional restriction) on the verb classes has to do with the semantic redundancy between the causative of the functional item and the causative property of the lexical verbs.

S-select is interpreted as an economy<sup>11</sup> condition that blocks the redundant merger of the same CU into the semantic composition. According to this, if semantic redundancy doesn’t

arise, verb class selection won't be in effect.

The same explanation could capture why the assistive causative is able to select all types of verbs. We can execute the explanation in two different ways.

First, we can assume that the iterative form/aspectual has an effect on the causative property of the roots (lexical verbs) in such a way that the semantic redundancy won't be possible anymore. That is, we can assume that the causative property of the roots realizes only under the conditions of the perfective and imperfective aspectual forms. If the verbal aspect shifts to the iterative, the causative of the roots never materializes to an actual causative event. This is specially attractive hypothesis under the understanding that the aspectual heads such as the iterative, perfective and imperfective are associated with the verbalizer vowel templates. Verbal roots are known to have unpredictable meaning. Their meanings get fixed once they combine with the syntactic heads such as the vowel templates, [Arad \(2005\)](#). In this sense, the aspectual heads are considered the realizers of the causative meaning. The regular aspectuals such as the perfective and the imperfective lead to the materialization of the causative of the roots while the iterative doesn't do so. This could easily capture why causative redundancy might not arise in the iterative-assistive combination.

I, however, don't find this analysis convincing because the iterative actually doesn't block the causative meaning. The direct (manipulative) causative is indeed available in the iterative, confirming that the verb form actually doesn't affect the causativity of the verbs/roots. The lexical causativity of the verb *break*, for example, is not in any way affected by the iterative form.

- (8.45) *yosef bərr-u-n səbabərr-ə-w*  
 Josef door-def-acc caus-break.it-3msgS-3msgO  
 'Josef broke the door into pieces.'

Alternatively, we can assume that the reason for the absence of the causative redundancy is the different flavor/sense that the causative comes in the iterative. Given that the causative in the iterative comes with the *assistive* sense, the semantic redundancy arises no more because the causative of the lexical verb and the causative of the functional item are distinct types.

- (8.46) [assist] is semantically distinct from [caus]  
 The assistive causative doesn't cause semantic redundancy with the direct causativity of the lexical verbs

<sup>11</sup>Note that not all *s*-select situations can be explained as an economy condition. The selection of arguments from the causative, for example, cannot be considered as an economy condition because the arguments contain no causative **CU**.

Once the causative comes with an [assist] feature, no semantic incompatibility can arise. The result is a free combination of the causative and the lexical verbs.

The semantic selection also makes more sense on the question of restrictedness of the assistive causative to the iterative because assistance could be conceived as a dual event process. The iterative serves the purpose of inducing the multiple events into a single predicate. As such, the multiple-actionality of the assistive causative would naturally fit with the multiple eventuality induced by the iterative form. The iterative form is the marker of pluractionality (multiple actions/events).

## 8.2 The indirect causative

### 8.2.1 Selection

As I have explained in [chapter 2](#), [Amberber \(1996, 2002b\)](#) has observed that the indirect causative, in contrast to the direct causative, selects all types of verbs including causative, unergative and unaccusative verbs. While this is generally true, we have also noted some exceptions. A couple of unaccusative verbs including the *fall* & *decay* classes of verbs appear marginal with the indirect causative.

- (8.47) a. ??*as-səffəf-ə-w*  
           CAUS-float-3msgS-3msgO  
           ‘He made/let him float’  
       b. ??*as-wəddək’-ə-w*  
           CAUS-fall-3msgS-3msgO  
           ‘He made/let him fall.’

The causative also appears absurd with many of the stative verbs.

- (8.48) *lij-u rəzzəm-ə*  
       child-def tall-3msgS  
       ‘The boy became tall.’
- (8.49) *#yosef lij-u-n as-rəzzəm-ə-w*  
       Josef child-def-acc CAUS-tall-3msgS-3msgO  
       ‘Josef made/let the boy tall.’

Still, other types of statives are acceptable.

(8.50) *lij-u adəgg-ə*  
 child-def grow-3msgS  
 ‘The boy grew.’

(8.51) *yosef lij-u-n as-addəg-ə-w*  
 Josef child-def-acc CAUS-grow-3msgS-3msgO  
 ‘Josef raised the boy.’

What is different about the indirect causative is that the combination is not rigidly blocked, in contrast to the direct causative. A change on the types of arguments specially often ameliorates the unacceptability. If we change the argument *boy* in (8.49) to some other object that can be made taller (longer), the sentence becomes acceptable.

(8.52) *yosef k’əmis-u-n as-rəzzəm-ə-w*  
 Josef dress-def-acc CAUS-tall-3msgS-3msgO  
 ‘Josef elongated the dress.’

This shows that the combination of the indirect causative with the verb classes is much more flexible. A rigid form of ungrammaticality evident in the direct causative is not attested with the indirect causative.

Because of this flexibility, I don’t take the selection restrictions of the indirect causative on the verb classes is that grammatically relevant. It could be considered a simple pragmatics.

Rather, the types of external arguments of the verbs appears to be stronger factors for the selection of the indirect causative. Only clauses with animate external argument are licit with this causative.

(8.53) *gorf-u t’inčəl-očč-u-n gəddəl-ə-aččəw*  
 flood-def rabbit-pl-def-acc kill-3msgS-3plO  
 ‘The flood killed the rabbits.’

(8.54) *\*yosef gorf-u-n t’inčəl-očč-u-n as-gəddəl-ə-w*  
 Josef flood-def-acc rabbit-pl-def-acc CAUS-kill-3msgS-3msgO  
 ‘Josef made the flood kill the rabbits.’

(8.54) is the causative of the transitive sentence given in (8.53). It appears ungrammatical because the causative is selecting a clause with inanimate external argument.

If we change the external argument to a human participant, as shown in the following exam-

ple, the clause becomes fully acceptable.

- (8.55) *yosef lij-u-n t'inčal-očč-u-n as-gəddəl-ə-w*  
 Josef child-**def-acc** rabbit-**pl-def-acc** CAUS-kill-3msgS-3msgO  
 'Josef made the boy kill the rabbits.'

This is true of the causativized unaccusative<sup>12</sup> verbs, as to the lexical causatives.

- (8.56) *muk'ət-u k'ibe-u-n a-k'allət'-ə-w*  
 heat-**def** butter-**def-acc** caus-melt-3msgS-3msgO  
 'The heat melted the butter.'
- (8.57) \**mariyam muk'ət-u-n k'ibe-u-n as-k'allət'-əčč-(i)w*  
 Mary heat-**def-acc** butter-**def-acc** CAUS-melt-3fsgS-3msgO  
 'Mary made/let the heat melt the butter.'
- (8.58) *mariyam yosef-n k'ibe-u-n as-k'allət'-əčč-(i)w*  
 Mary Josef-**acc** butter-**def-acc** CAUS-melt-3fsgS-3msgO  
 'Mary made/let Josef melt the butter.'

We have also seen cases where animate arguments are the external arguments of the verbs where the indirect causative is attached.

- (8.59) *yosef fəras-u-n as-rot'-ə-w*  
 Josef horse-**def-acc** CAUS-run-3msgS-3msgO  
 'Josef made the horse run.'

The reason for the <+human> restriction is intuitively understandable. Indirect causation is about persuading/directing of a human participant to execute some action. The standard meaning of the indirect causatives involves requesting/persuading/directing of a sentient being because these events require a participant that is capable of persuasion or directing. For participants that cannot be requested, persuaded or directed, the indirect causation is inapplicable. Given the consistency of the selection, we need some mechanism of capturing the selection pattern.

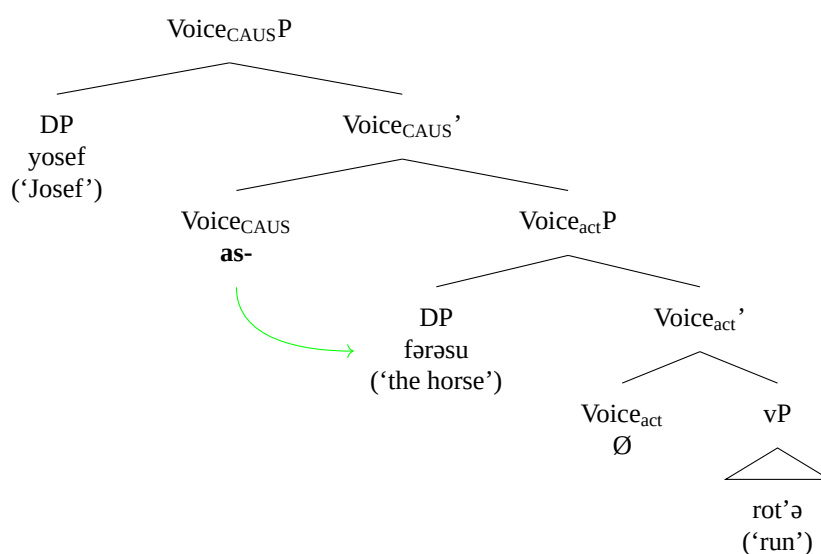
<sup>12</sup>The relationship between the indirect causative and low causative (unaccusative) verbs pretty complicated. The indirect causative sometimes appears as a simple alternative to the direct causative. For the sentence given (8.52), for example, replacing the indirect causative with the direct causative has little semantic or structural effect. The same is true with the *belch* class verbs. In other cases, the indirect causative seems to select only the causativized or nonactive versions of the unaccusatives.

(8.60) **The selection of the indirect causative:**

The indirect causative selects a voice with <+volition> argument

This rule states that the indirect causative selects a specific voice projection which has <+volition> argument associated with it. It is necessary to frame the selection patterns in terms of voice because, as we will see in the next subsection, the indirect causative categorially selects the VoiceP layer.

Figure 8.18: Argument selection



Given that the selection of the causative to the specifier of the Voice can be considered a problem because the causative has no local relation with the argument of the Voice.

There are a number of ways to explain this.

- (8.61) a. VoiceP doesn't contain a **CU** that could create a barrier between the two **CU**s such as the CAUS and the argument.  
 b. A strict locality doesn't apply on semantic selection.

The first explanation relies on the assumption that the syntactic labels such as the VoiceP are irrelevant to the semantic interpretation. If the Voice or the label VoiceP is assumed invisible to the semantic composition, they cannot create a barrier to the semantic selection. Whether the syntactic labels could count as an intervener between the two interpretable objects is open to debate. I don't have anything special to contribute here. But, I think the non-local



selection of the semantic objects, given in the second explanation, is also very plausible. As I have already stated, the semantics is replete with cases where non-local relations are established between two or more interpretable objects. Therefore, the expectation of s-select to follow as strict locality conditions as c-select is by no means warranted.

If s-selection is independently shown to be local, and the syntactic labels are shown to be semantically important, we can still assume some kind of mechanism to pass the animacy property of the argument to the syntactic label itself.

Whatever analytical tools we choose, to the point that the argument selection of the causative is an accurate generalization, we need to capture it within the grammar proper.

The empirical generalization is pretty evident that semantic selection cannot be reduced to any other property of the grammar. The only way to constrain the selection of the indirect causative to the types of arguments is to use some form of semantic selection. No functional head or feature specification can constrain the selection because the intentionality/volition is not exactly a property of the functional items. As we have seen in [chapter 6](#), volitionality is semantic property of the arguments. As such, we need to explain the selection in semantic terms.

The relation of the causative with the arguments cannot also be treated as a c-selection relation because of the locality. It is well established in the GB literature that subcategorization or c-selection cannot target specifiers of complements, [Svenonius \(1994\)](#). Neither is there a direct strict local relation between the external argument of the verb (presumably projects on Spec, VoiceP) and that of the functional item that projects over VoiceP. C-selection, again is assumed to apply on local relations, [Chomsky \(1986a\)](#); [Svenonius \(1994\)](#); [Baltin \(1989\)](#).

Therefore, the most rational strategy is to let the semantics build a composition by taking the semantic values of the arguments and the voice. The output of the composition then serves as the input for the selection of the causative.

In the next subsection, we are going to see that the selection parameters of the causative are sufficient to explain their positions in the syntactic layer.

### 8.2.2 The syntactic position

[Amberber \(1996\)](#) has argued that the indirect causative projects in the syntax proper (S-syntax)—in contrast to the direct causative which he argues to project in the L-syntax (lexical syntax).

- (8.62) *lemma aster-n as-sak'-ə-at*  
 Lemma Aster-acc E.CAUS-laugh-3msgS-3fsgO  
 'Lemma made Aster laugh.'

The main reason why he considers it to project higher in the fseq is due to its less idiosyncratic selection. The current (Minimalist) interpretation of his analysis would project the indirect causative in the Voice layer or higher. It well explains the insensitivity of the indirect causative to lexical idiosyncrasies.

In this subsection, I will update his analysis into the current Minimalist standards, as well as add further refinements to incorporate many atypical cases that never received a treatment in the early works.

When the indirect causative selects transitive and unergative verbs, under the current assumptions of the first phase syntax, it is pretty clear that it projects over the regular VoiceP. Appearing higher, it simply adds a causer argument on top of the existing argument structure of the basic voice. The basic voice here should be understood as both the active and nonactive variants of the voice.

Here, I will concentrate on the projection of the indirect causative over the active voice. The causative of the nonactive is explained in §9.3.3.

### 8.2.2.1 Causativization of the causatives and unergatives

To start from most straightforward cases, consider a sentence like (8.63) (repeated from (4.1)). This is a simple transitive clause. Now, attach the indirect causative on the main verb, you will get the sentence in (8.64).

- (8.63) *yosef lij-u-n mätt-a-w*  
 Josef child-def-acc hit-3msgS-3msgO  
 'Josef hit the boy.'

- (8.64) *mariyam yosef-n lij-u-n as-mätt-ačč-(i)w*  
 Mary Josef-acc child-def-acc CAUS-hit-3fsgS-3msgO  
 'Mary made/let Josef hit the boy.'

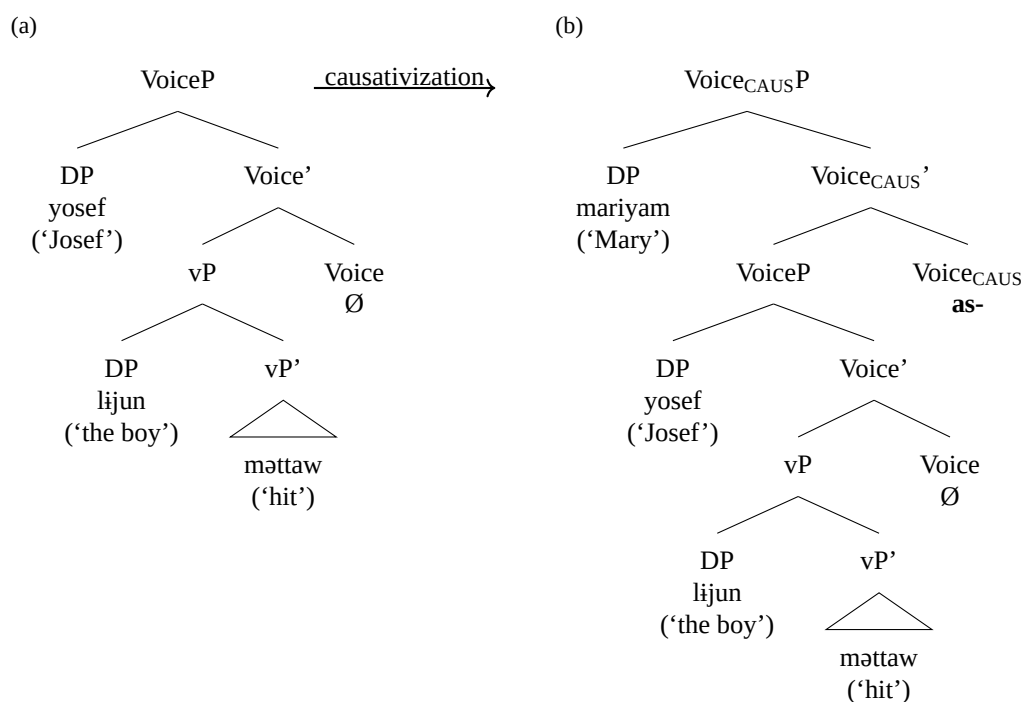
The attachment of the indirect causative on the main verb comes with the related effect of extending the number of arguments. The clause with the indirect causative has the added causer argument; in addition to the original doer (effector) and undergoer arguments. The original subject, the effector argument is now a structural object because it appears in accusative form. The causer ('Mary') introduced by the indirect causative is now the structural subject.

Given the standard assumption that the basic transitive clause given in (8.63) contains the VoiceP projection, the addition of the indirect causative suggests the presence of a further syntactic projection. This syntactic layer, which is headed by the indirect causative, adds the causer argument.

Under the assumption that any grammatical item that modifies argument structure is a voice (Kratzer (1996a); Ahn and Sailor (2010)), the indirect causative is also considered as a type of voice. That is the reason why I marked the indirect causative as a flavor or variant of the standard Voice (=Voice<sub>CAUS</sub>) throughout the chapter.

Based on the discussion in the above paragraphs then, the causativization of the sentence in (8.63) into (8.64) would then have a structure as follows.

Figure 8.19: Causativization of (8.63)



This structure captures the typical cases where the indirect causative selects clauses which already contain the VoiceP layer. This explains the causativization of the unmarked causative verbs such as *break*, *open*, *fill*, as well as unergative verbs such as *dance* (all the verb classes described in § 4.1) etc. would all have the same structure. For the causativization of the unaccusative verbs such as the *melt* type, look at subsection § 8.3.2.

When we move on to the less typical and rarely discussed cases, we find the causative of bound roots.

### 8.2.2.2 Root causativization

As I already explained in [chapter 2](#), the indirect causative selects a couple of bound roots that lack a basic verb form. These are the verbs described in [§ 4.2.9](#).

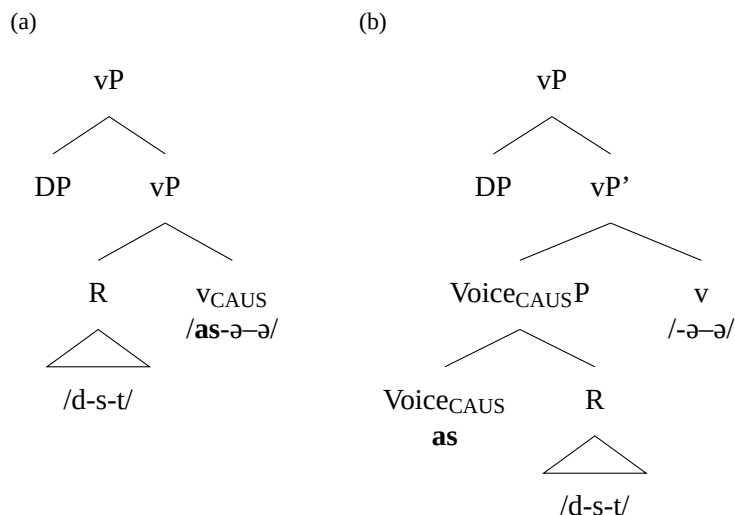
As we have seen in that subsection, the indirect causative selects the bound roots of the *please* class of verbs, as shown in [\(8.65\)](#).

- (8.65) a. *as-dəssət-ə-at*  
           CAUS-please-3msgS-3fsgO  
           ‘He pleased her.’  
       b. \**dəssət-ə-at*

A straightforward syntactic analysis for this kind of structure, as we have seen in [§ 8.1.2.2.1](#), is to assume lower merger of the causative because the causative is selecting bound roots.

Given the assumption that verbalization of roots occurs in a dedicated functional layer, such as vP, we can assume that the causative is either directly part of the verbalizer (as shown in [fig. 8.20a](#)), or merges before it, as in [fig. 8.20b](#).

- (8.66) *lemma aster-n as-dəssət-ə-at* (cf. [8.62](#))  
       Lemma Aster-acc E.CAUS-please-3msgS-3fsgO  
       ‘Lemma pleased Aster.’

Figure 8.20: The causative of the *please* verb

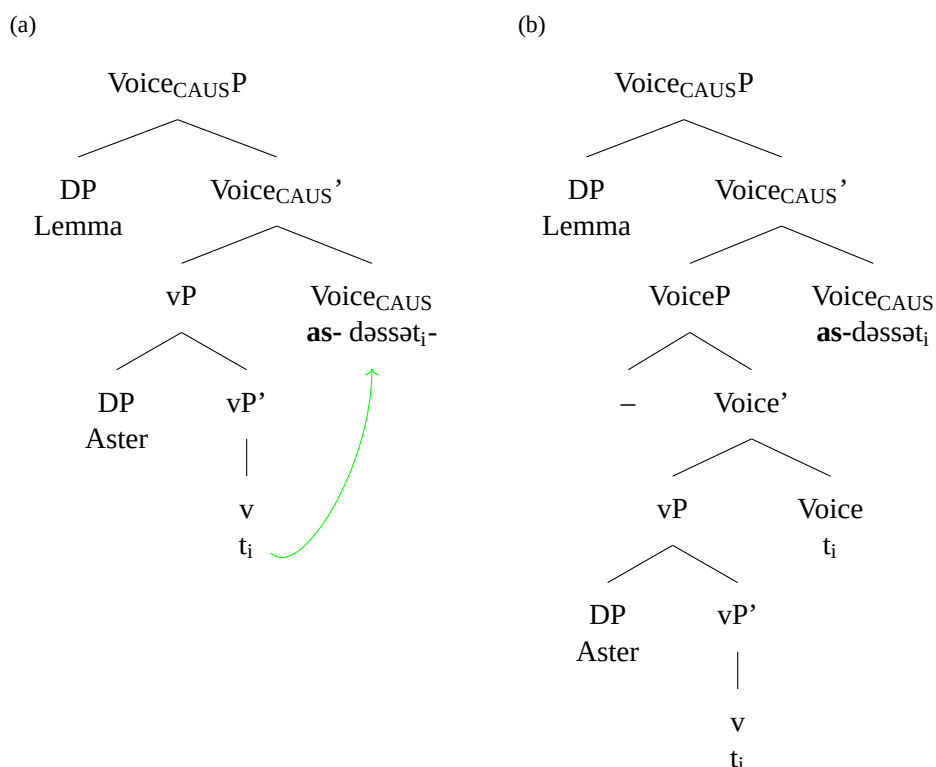
The structure in [fig. 8.20a](#) presents the causative as part of the verbalizer templates. [fig. 8.20b](#) introduces it as a separate projection of itself. In both cases, the causative is introduced next to the roots. This is to explain the selection of the bound roots.

While the low merger of the causative explains the boundedness of the bases, as we have seen with the direct causative, it has one major disadvantage. That is the low introduction of the external causer argument. If the causative merges in the sub-*vP* area, the external argument which comes associated with the causative must be introduced in the same domain as well. This is incompatible with the current consensus on the position of causer (external) arguments.

The other option is to introduce the causative in its standard position, higher than the *VoiceP*. But, that option makes the wrong prediction that the basic verb form would be available independent of the causative, in contrast to the fact shown in [\(8.65b\)](#).

A head movement like we saw in [§ 8.1.2.2.1.3](#) or some kind of post syntactic unification can solve the issues. We can assume, for instance, that the indirect causative merges either in *VoiceP* or *Voice<sup>2</sup>P*. To capture the lexicalization dependency of the *vP* on the causative, we can then apply the same strategy to the direct causative and the anticausative–obligatory head movement and incorporation of the *vP* to either on *VoiceP* or higher.

- (8.67) *lemma aster-n as-dəssət-ə-at*  
 Lemma Aster-acc E.CAUS-please-3msgS-3fsgO  
 ‘Lemma pleased Aster.’

Figure 8.21: The causative of the *please* verb

The two structures differ on the position of the indirect causative and its associated argument. The structure in [fig. 8.21b](#) projects the indirect causative higher than the VoiceP. The structure is consistent with the position of the indirect causative we saw in [fig. 8.19](#).

But there are some reasons to think the structure in [fig. 8.21a](#) might be more accurate representation of the causative of the *please* class verbs. First, unlike the usual productive indirect causative which selects transitive and unergative verbs, the argument introduced in the case of *please* verb is not a genuine causer of an action. Look at the sentences given in [\(8.59\)](#) & [\(8.64\)](#) once more. In the *causer to run* and *cause to kill* kinds of cases, the causer is by no means associated with the actual event or effect on the theme. The causer is a mere trigger for the causee. The causee is fully responsible for the action. In the case of the *please* verbs, on the other hand, the causer is somehow *responsible* for the effect on the theme. For *John pleased Mary*, for example, John is conceived as a reason/stimulus for the pleasure of Mary. Therefore, there is some degree of directness<sup>13</sup> of causation when the indirect causative se-

lects the bound roots.

The structural object here is also not an agent or actor. Unlike in all other intransitive verbs that the indirect causative selects, the causee in here is not an effector of the eventuality. It is a genuine undergoer (experiencer). As such, the whole structure created after the attachment of the indirect causative feels like a standard transitive clause. Because of these two reasons, the indirect causative sounds like a simple transitivizer (like the direct causative) that selects that intransitive verbs into transitive. All this suggests that the indirect causative is simple VoiceP item when it selects the bound roots.

And, most importantly, as I already explained for the middle deponents, the causative deponents are not random groups. The verbs appearing in this pattern are primarily experiencer verbs. With the exception of some verbs, the experiencer verbs causativize this way. The selection of the verb classes also makes a lot of sense if the indirect causative is assumed to directly combine with the verbs (appear on VoiceP layer). Given the locality of selection, Voice<sup>2</sup>P and vP have more direct relation to effect the selection.

Therefore, I conclude that the structure presented in [fig. 8.21a](#) represents the causativization of the *please* class of verbs. The inability of the vP to lexicalize by itself is then explained by the obligatory incorporation of the v to VoiceP before the linearization of the tree.

If this analysis is correct, it again supports the conclusion that the causatives don't hold a fixed *level* in the [fseq](#). Their position in the syntactic layer is simply a reflection of their selection parameters, as the proposal in [\(8.29\)](#) states. Depending on the type of items the causative select, both of the causatives could appear at the *Level 3* or *Level 4* syntactic layers, [fig. 8.11](#).

## 8.3 On the relation of the two causatives

In [§ 2.5](#), we have seen that the two causatives differ in meaning, distribution, and selection. In this subsection, we will see the repercussions these distinctions might have on the projection of the causatives.

### 8.3.1 Complementarity of the causatives

Apart from a few overlaps that occurs on a few classes of verbs, the two causatives display consistent asymmetry in their distribution.

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<sup>13</sup>Note, however, that the causation here still cannot be considered as a genuine direct/manipulative causation because the argument is not an effector/doer of the event. In the event of *John pleased Mary*, John might not do any action to please her. His mere existence might please Mary.

Table 8.9: Complementarity of the causatives

Direct causative	Indirect causative
typically selects noncausative verbs	typically selects causative & unergative verbs
<-human> undergoers	<+human> effectors
select unergative verbs with <-human> <b>EAs</b>	select unergative verbs with <+human> <b>EAs</b>
adds an effector argument	adds a causer argument
free selector in the iterative form	blocked in the iterative form
causative of the reciprocal	causative of the passive & reflexive

The complementarity of the two causatives is even more evident when we consider the iterative form. As we have seen in § 8.1.3, the selectional restrictions that the direct causative normally imposes on the verb classes are totally reversed in the iterative verb form. It can select both causative and noncausative verb groups equally once they appear in the iterative form.

The indirect causative, on the other hand, fails to combine with the iterative marked verbs. Consider the example we have seen in (8.55). If the verb appears in the iterative/frequentative form, the right causative to use is the direct causative, not the indirect causative.

- (8.68) *yosef lij-u-n t'inčal-očč-u-n \*as/a-gədadəl-ə-w*  
 Josef child-def-acc rabbit-pl-def-acc CAUS/caus-kill.it-3msgS-3msgO  
 ‘#Josef made the boy kill the rabbits.’  
 ‘Josef assisted the boy kill the rabbits.’

The failure of the indirect causative to combine with the iterative marked verbs is specially surprising because the indirect causative is normally a free selector of the verb classes. More interestingly, the failure of the indirect causative to combine with the iterative form is correlated with the free selection of the direct causative. This suggests that the two causatives are somehow complementary to each other—that the projection of one probably block the other, and vice versa.

One way to explain why the indirect causative fails to combine when the direct causative selects the verb forms is to consider the indirect causative as an *elsewhere* morpheme that appears whenever the direct causative fails to combine.

- (8.69) **The complementarity of the causatives** (preliminary):  
 The causatives appear complementary because the indirect causative is an *elsewhere* causative.

The indirect causative is used in cases where the direct causative fails.



As the summary in [table 8.9](#) shows, each of the gaps created by the direct causative is filled by the indirect causative.

We have seen all the restrictions that the direct causative has. The direct causative selects the noncausative verbs—and is excluded from causative and majority of unergative verbs. The indirect causative selects both causative and unergative verbs. The direct causative also doesn't select verbs containing <+human> effector arguments. These clauses are typically targeted by the indirect causative. And, most importantly, in the iterative verb form where the direct causative is able to select all very types, the indirect causative remains excluded.

The hypothesis explains all these cases of complementarity.

The hypothesis also explains why the two causatives cannot appear together in the same clause. It is well known that the two morphemes cannot appear together on the same functional layer (even when their selection requirements overlap). This fact by itself has been puzzling because many other languages permit reiterative projection of two causatives.

Here are some examples from other languages where two causatives are overtly marked in the same clause.

(8.70) *Öl-dur-t* Turkish  
die-**caus**-CAUS  
'cause to kill'

(8.71) *terfaa-n gamteessaa aanan daanf-is-iis-e* Oromo  
Terfa-Nom Gamtesa milk boil-**caus-caus**-AGR  
'Terfa made Gamtesa boil the milk.'

[Dubinsky et al. \(1988\)](#)

(8.72) *Maria a-kû-ûm-ith-i-a John nguo* Kîtharaka  
1.Maria sa1-tns-dry-**caus-caus**-fv 1.John 10.cloth  
'Maria has made John to dry clothes.'

[\(Muriungi, 2010, p. 183\)](#)

But, in Amharic, the two causatives never appear together in the same clause. Even for the verbs that license both of the causatives, the co-appearance of the causatives is impossible. The fact itself is often explained by some kind of morphological deletion. If the *elsewhere* hypothesis turns out to be right, then, the reason why the two morphemes never appear together would receive a systematic explanation.

With all advantages, *elsewhere* hypothesis, however, faces some challenges. The causative of the low causative verbs poses the first challenge.

Consider the following sentence.

- (8.73) *mariyam yosef-n k'ibe-u-n as-k'allat'-əčč-(i)w* (cf.8.31  
 Mary Josef-acc butter-def-acc CAUS-melt-3fsgS-3msgO  
 'Mary made/let Josef melt the butter.' )

The sentence contains three arguments—the theme, the causee and the causer arguments. 'Mary' is the causer argument added by the indirect causative. The theme argument is the argument of the basic verb (vP).

Given the unaccusativity of the basic verb, now, the problem is how the causee argument ('Josef') is introduced into the clause. Note that 'Josef' is the actual agent of the melting event. This argument cannot be introduced by the indirect causative itself because it doesn't introduce direct effectors. The presence of an agent (effector) argument with the *melt* class of verbs suggests that a Voice layer is projected within the indirect causative, even if there is no morphological evidence of it. The number of arguments projected in (8.73) shows that the clause is the causative of the causativized<sup>14</sup> unaccusative. That is to say, the clause in (8.73) is the causative of the clause presented in the following sentence, which itself is the causative of the unaccusative clause such as (8.30).

- (8.74) *yosef k'ibe-u-n a-k'allat'-ə-w*  
 Josef butter-def-acc caus-melt-3msgS-3msgO  
 'Josef melted the butter.'

Add the fact that no other functional item exists that introduces effectors on top of the unaccusative verbs, this leads us to the conclusion that the direct causative is part of (embedded in) the structure of (8.73). This in turn suggests that the two causatives can embed each other.

The deponent verbs we saw in the above sections, such as the *cry* class and the *stand* class also license effector arguments within the indirect causative.

- (8.75) *mariyam his'an-u-n as-lək'k'əs-əčč-(i)w*  
 Mary baby-def-acc CAUS-cry-3fsgS-3msgO  
 'Mary made/let the baby cry.'

<sup>14</sup>Even if the structure is causative of the causativized clause, the direct causative still has no morphological instantiation.

- (8.76) *mariyam yosef-n ik'a-u-n as-nəss-ačč-(i)w*  
 Mary Josef-acc item-def-acc CAUS-pick-3fsgS-3msgS  
 'Mary made/let Josef pick the item.'

This again offers the presence of the direct causative within the indirect causative, even if it remains morphologically silent. Look at § 8.3.2 for more on the stacked causatives.

There are also cases where the direct causative and indirect causative appear as free alternatives. The *belch* class of verbs can have both of the causatives with little difference in argument structure. Look at the examples (8.84) and (8.83) in 320. This means that the direct causative doesn't always block the indirect causative. It appears in free alternation with the indirect causative. This is true of the *run* class of verbs as well. Both causatives are able to select the verbs with a slight difference in meaning.

These facts show that the indirect causative is not really an elsewhere causative that appears on clauses where the direct causative fails to project. It can indeed appear along with as well as in alternation with the direct causative.

Then, the question is why the two causatives seem to have complementary distributions in many situations.

I propose that the reason why the two causatives appear to be complementary is because of their distinct selection patterns. I suggest that the (semantic) selection is the primary reason for the apparent complementarity.

- (8.77) **The complementarity of the causatives** (final)  
 The two causatives appear complementary because they have asymmetrical selection parameters

To see how the selection parameters are the source of complementary, we can simply compare the generalizations we already made on the selection patterns of the two causatives.

For both causatives, we have seen two kinds of selection parameters –the categorial and semantic selection parameters.

For the category selection, in the most canonical cases, the indirect causative targets the VoiceP, while the direct causative targets the vP. Most fundamental distinctions in distribution between the two causatives can be attributed to these distinct features (functional layers) that the two causatives select.

The Voice-selecting parameter of the indirect causative makes it target transitive and unergative predicates, while the vP selecting parameters makes the direct causative target the non-causative clauses with no Voice layer. The fact that the indirect causative selects the VoiceP leads to the generalization that the indirect causative make not selectional restriction on the

verb classes. That fact that the direct causative selects the vP is the reason why it discriminates among the verb classes. On the semantic side as well, the indirect causative targets clauses with volitional effectors, while the direct causative targets clauses with just under-goer arguments.

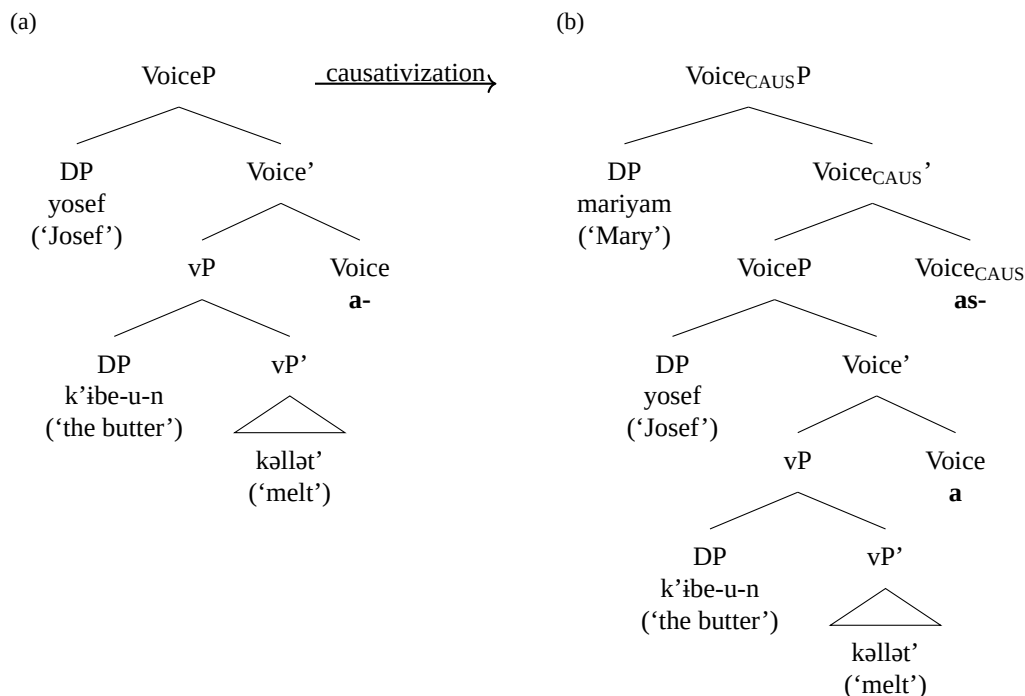
These selection patterns at least partially explain the apparent complementarity of the two causatives.

The only issue that the proposal given in (8.77) cannot explain, so far as I am aware, is the complementarity of the causatives in the iterative form. We will come back to the issue of the iterative form in [chapter 9](#).

### 8.3.2 Relative hierarchy of the causatives

Using evidence from argument structure, in the above subsection, both of the causatives could appear stacked in the same clause (even if there is no morphological evidence of it). The indirect causative of the *melt* class verbs implies the presence of an effector argument, which is supposed to be added by the direct causative. Based on this, I have concluded that the direct causative is embedded inside the indirect causative in those cases.

The sentence given in (8.74) for example would have the structure in [fig. 8.22a](#) while the causativized version of the same sentence in (8.73) would have a structure like [fig. 8.22b](#).

Figure 8.22: Causativization of the causativized: *melt* class

While the above structure captures the most canonical cases, the evidence from the argument structure again suggests that the stacking of the causatives is not a universal to all verb classes. Take the causative of *belch* class verbs. As we have seen in [chapter 2](#), there is no difference in the number of arguments of clauses with direct and indirect causative of these verbs. The same is true with the *run* and *eat* class verbs.

The following table summarizes the argument projection of the two causatives.

Table 8.10: The number of arguments added by the causatives

$as = a + 1$			$as = a$
<i>cry</i>	<i>hit</i>	<i>shave</i>	<i>run</i>
<i>melt</i>	<i>break</i>	<i>please</i>	<i>belch</i>
<i>stand</i>	<i>open</i>	<i>dance</i>	<i>eat</i>
<i>know</i>	<i>fill</i>	<i>wish</i>	

According to the table, the number of arguments associated with the verb marked with the

indirect causative is more than the number of arguments of a verb marked with the direct causative. I explained this by proposing a voice functional layer for the indirect causative that projects over the regular Kratzerian voice, as we have in [fig. 8.22](#).

The exception to this are the *run*, *eat* and *belch* class verbs where the number of arguments remains the same.

Then, the question is: if the indirect causative is assumed to add an argument on top of VoiceP, why it fails to do so with the above groups of verbs.

The proposal I want to suggest here involves the position of the causative. That is, the indirect causative fails to increase the number of arguments when it appears in the same syntactic layer to that of the direct causative.

(8.78) **Argument structure of the two causatives:**

The two causatives introduce the same number of arguments when they are instances of the same functional layer

According to this hypothesis, both the direct causative and the indirect causative appear in the same syntactic layer when they project over the three classes of verbs mentioned above. The total number of arguments is the same here, unlike the case of the *melt* class verbs, because the direct causative is not embedded inside the indirect causative in this case.

I specifically suggest both of the causatives project on Voice<sup>2</sup>P when they select the above groups of verbs. The case with the *run* and *eat* class of verbs is more or less straightforward.

For the direct causative of the *run* class verbs, I have independently argued (in [§ 8.1.2.2.2](#)) that it projects higher than the regular VoiceP. The same is true for the indirect causative.

Look at the examples (2.27) and (2.27b) from [chapter 2](#), repeated here.

- (8.79) a. *yosef fərəs-u-n a-rot'-ə-w*  
 Josef horse-def-acc caus-run-3msgS-3msgO  
 'Josef ran the horse.'  
 'Josef made the horse run.'
- b. *yosef fərəs-u-n as-rot'-ə-w*  
 Josef horse-def-acc CAUS-run-3msgS-3msgO  
 'Josef made the horse run.'

The above clauses are structurally identical. Both of the causatives select the VoiceP. The only difference lies on the causatives, and their respective meanings.

The situation with the *eat* class verbs is event clearer because both of the causatives are selecting the transitive verbs.

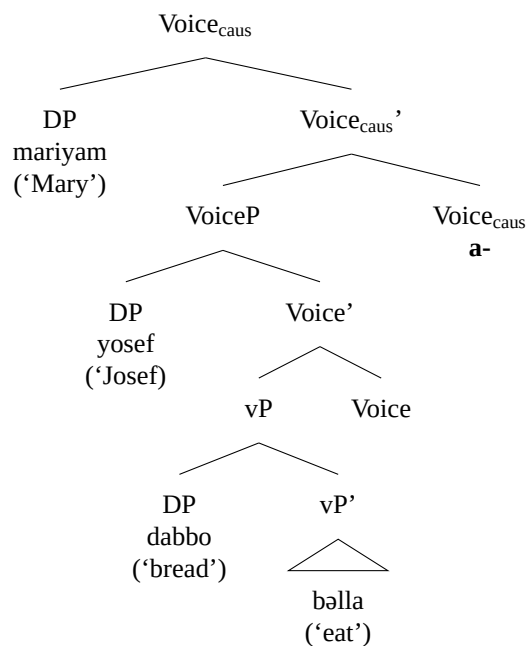
(8.80) *mariyam yosef-n dabbo a-bəll-ačč-(i)w*  
 Mary Josef-acc bread caus-eat-3fsgS-3msgS  
 ‘Mary fed Josef a bread.’

(8.81) *mariyam yosef-n dabbo as-bəll-ačč-(i)w*  
 Mary Josef-acc bread CAUS-eat-3fsgS-3msgS  
 ‘Mary made/let Josef eat bread.’

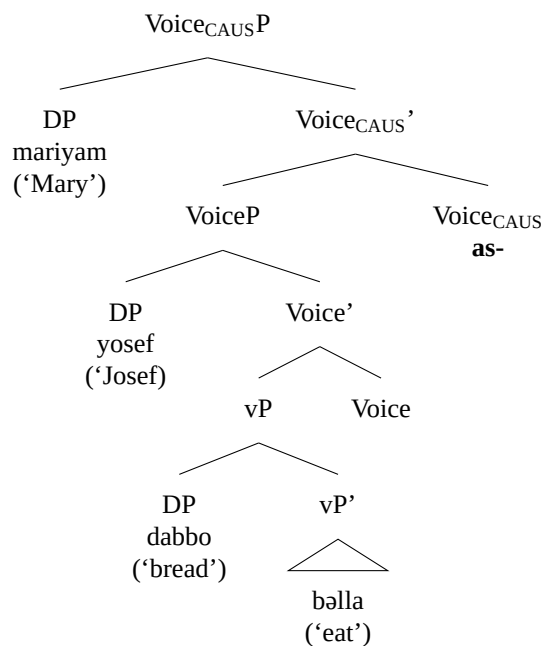
As the causatives are projecting over the transitive verbs, it is quite clear that they are projecting on a functional layer higher than the regular VoiceP, as shown in the following tree structure.

Figure 8.23: Causative of the *eat* class verbs

(a) structure of (8.80)



(b) structure of (8.81)



What is rather less clear is the situation with the *belch* class verbs. These verbs are neither transitive nor unergative in their basic form. Most of them indeed lack the basic form. The

voice items select the bound roots. For that, I need to make a case, especially for the direct causative, why I assume it to appear on the Voice<sup>2</sup>P.

There is, however, one reason to assume that both of the causatives appear on the Voice<sup>2</sup>P where there is a causer argument. That is the presence of the direct causative maker without a causer argument.

Compare the following sentences.

(8.82) *his'an-u a-gəss-a*  
 baby-def caus-belch-3msgS  
 'The baby belched.'

(8.83) *wətət-u his'an-u-n a-gəss-a-w* (cf.4.26)  
 milk-def baby-def-acc caus-belch-3msgS-3msgO  
 'The milk belched the baby.'

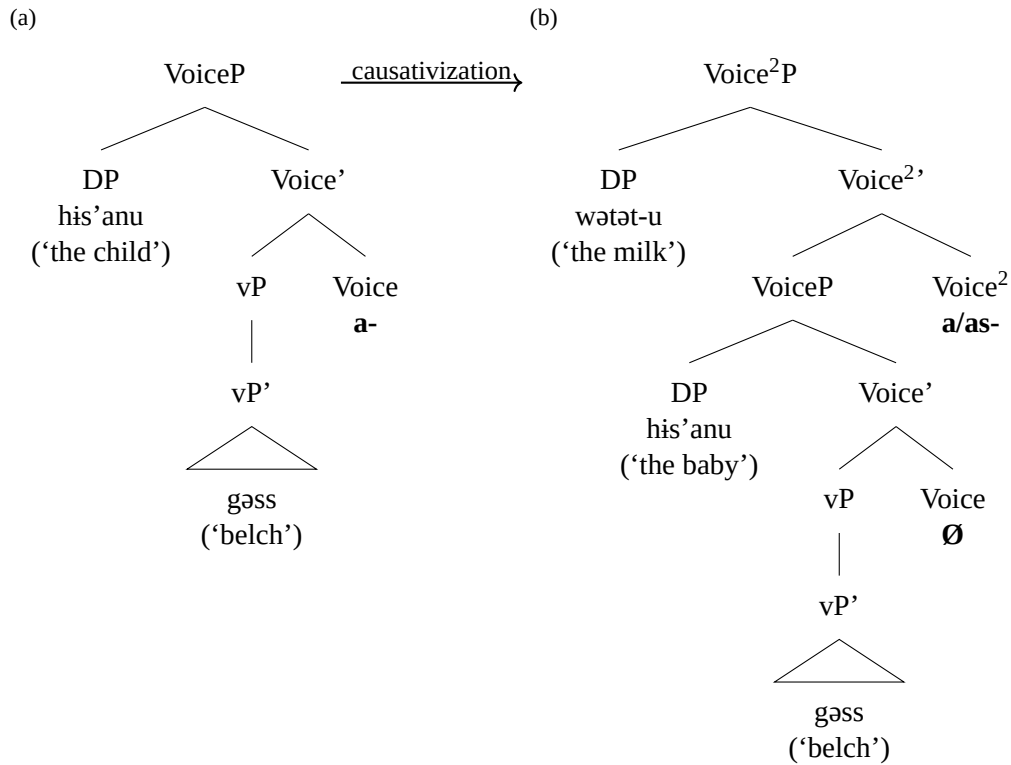
(8.84) *wətət-u his'an-u-n as-gəss-a-w* (cf.4.26)  
 milk-def baby-def-acc CAUS-belch-3msgS-3msgO  
 'The milk cause the child belch.'

The first sentence already contains the **a** causative, with an associated experiencer argument.

Second, the direct causative could appear without any causer argument. Note the sentence in (8.82). The impersonal (intransitive) clause already contains the direct causative.

The structure of this sentence should be like that of the *cry* verbs I discussed above because it is also intransitive and deponent. The 'baby' in (8.82) is an experiencer external argument. This means that the causative is an instance of the standard VoiceP. The clause in (8.83), on the other hand, contains one more argument over that of (8.82). Because of the increase of the number of arguments, in (8.83), in relative to (8.82), the former seems the causative of the latter. If that is the case, we have to assume one more syntactic projection that hosts the added causer argument for clause in (8.83).



Figure 8.24: Causativization of the causativized: *belch* class

As shown in the above picture, there is no structural difference between the direct causative appearing with a causer argument as in (8.83) and the indirect causative as in (8.84). The distinction between the two causatives is only a subtle difference on interpretation of the causation. Otherwise, they are the same. This is shown in the above structure by introducing the both of the causatives in the same functional head such as the VoiceP<sup>2</sup>.

This all shows that the syntactic position of the two causatives is not always hierarchical. Depending on the type of base they select, both could appear in distinct hierarchies or in the same layer.

## 8.4 Summary

In this chapter, I presented the syntactic analysis of the causatives in Amharic.

I investigated the selection, distribution, argument structure and meaning of the causatives.

We have seen that the causative items are polysemous. The meaning of the causatives is suspiciously correlated with their position in the syntactic layer. Even if the correlation of the meaning with the position opens a possibility for the contextual meaning assignment analysis (the allosemy analysis), I have suggested that the allosemy analysis should be reserved for functional items that clearly come with underspecified feature values. The causative items come with concrete syntacto-semantic feature values. Having a concrete interpretable feature is what makes the stringent semantic selection a possibility.

The direction of analysis I presented can be summarized as follows:

(8.85) feature specification → selection → syntactic position

This is to mean that interpretable feature values determine not only the types of categories, but also the semantic classes of the items they combine with. This selection parameter of the features, in turn, determines where exact they project in the syntactic layer.

The immediate consequence of this is that the two causatives actually have no rigid position in the syntax. Their position in the syntax is relativized to the structure of the selected items. The reason why the direct causative canonically appears lower in the syntax is because it typically selects unaccusative verbs. In cases where it selects unergative and transitive verbs (where the iterative aspect licenses its projection on these verb classes), it actually appears in a higher position (higher than the standard VoiceP). The same goes with the indirect causative. It appears to project in higher position because it normally selects structures that contain <+human> initiator arguments. These arguments are normally arguments of the unergative and transitive verbs. Because of this selection property, it normally projects higher than the standard VoiceP.

This means that, depending on the categories they select, the two causative elements could be both hierarchical as well as parallel in the fseq. In cases where the direct causative selects transitive and unergative verbs, as shown with the restricted groups of verbs such as the causative of the *ingestive* and *run* verbs, the two causatives project on the same functional layer. In this case, the number of arguments the two causatives introduce remains the same.

## **Part V**

# **Unified Analysis**



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## CHAPTER 9

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# The Voice

### 9.1 Introduction

So far, I have presented the analysis of the anticausative and the causatives in separate chapters from [chapter 6](#) through [chapter 8](#).

In [chapter 6](#) and [chapter 7](#), I have argued that the anticausative item has a unified structure across all types of decausative constructions. I have attempted to demonstrate that the distinction between the passive, reciprocal, unaccusative and reflexive is not structural. It is merely an interpretive distinction. This means that all the decausative constructions are generated with a single syntactic structure. I have claimed that the anticausative morpheme is the realization of the nonactive specified VoiceP across all the constructions.

In [chapter 8](#), I laid out the syntactic analysis of the causatives. There, I have presented the selection, distribution and syntactic projection of the two causatives.

In this chapter, I will put the separate analyses developed for the causative and anticausative voices into a unified system. Here, we will compare and contrast each of the voice features in terms of their argument projection, position, selection and syntactic position. That way, we will draw a complete picture of the voice system of the language under investigation.

I will also further elaborate some of the important proposals I already touched on, but didn't develop well. One of those points is the relationship between selection and syntactic projection. We are going to see how selection determines the position of the voice items across the board; and where the selection parameters themselves come from.

Regarding the syntactic projection, we will see that the voice features could appear in a parallel plane, where one appears in complementarity with the other voice feature, or in the

same hierarchy where one selects or projects over the other.

The hierarchical relationship between the voice items can be summarized as follows.

- (9.1) Combination of the voice items
- a. ✓ the indirect causative of the active
  - b. ✓ the indirect causative of the nonactive
  - c. ✓ the indirect causative of the direct causative
  - d. ✓ the direct causative of the active
  - e. ? the anticausative of the direct causative
  - f. ✓ the direct causative of the nonactive
  - g. ✗ the direct causative of the indirect causative
  - h. ✗ the anticausative of the indirect causative.

A proper syntactic theory of the voice system of a language needs to explain why and how the attested forms are projected, and why the unattested forms are ruled out. In this chapter, we will see that the selection parameter of the voice items offers the best explanation for the attested and unattested voice feature combinations.

We will also look at a curious phenomenon which deletes one of the subsequent voice morphemes.

## 9.2 Selection & Projection

Putting the voice features together, there are a number of interesting observations that need a systematic explanation. I will start from the two important generalizations.

- (9.2) Generalizations concerning the voice features
- a. *Projection*: the causatives have flexible syntactic positions whereas the active and the nonactive appear in rigid layers.
  - b. *Lexical selection*: the [caus] feature of the direct causative imposes rigid selectional restriction on the lexical verbs, but not the other voice features including the [assist], [act], [Nact] and [Per] and [dir] features.

As I have touched on in the previous chapters, the nonactive and the active voice features are shown to project on the 2<sup>nd</sup>-level syntax (=Voice<sup>1</sup>) consistently.

The causatives, on the other hand, are shown to appear in multiple layers. As we saw in [chapter 8](#), both of the causatives could appear on the 2<sup>nd</sup> level syntax (the Kratzerian/standard Voice, alternatively marked as Voice<sup>1</sup> here), as well as on the 3<sup>rd</sup> level syntax (Voice<sup>2P</sup>). This

has been attested on a number of cases including the causative of *ingestive* verbs, causative of the iterative as well as the causative of the unergative verbs for the direct causative, and with the causative of psych verbs for the indirect causative.

The question is then why the causatives project in two or more layers while the nonactive and the active are restricted to a single functional layer. That is to say, what the source of the *projection generalization* is.

The second generalization is about the relation of the voice items with the lexical verbs. As we have seen, the direct causative in its manipulative causative sense imposes strict selectional restrictions on the verb class. It can combine only with noncausative verbs.

In contrast to the manipulative causative, almost all the voice features such as the active, nonactive, indirect causative and the assistive sense of the direct causative itself impose little or no restriction on the verb classes.

The free selection of the indirect causative has been discussed in [Amberber \(1996\)](#) as well. The main explanation given in there is on the basis of the syntactic position (locality) of the causative and the lexical verbs. He noted that the indirect causative doesn't directly combine with the lexical verbs. He then suggested that the absence of a local relation between the indirect causative and the lexical verbs is the reason for the free selection of the causative.

The problem with this explanation, however, is that it cannot be extended to the active and nonactive voice features. These voice features do, indeed, directly select the lexical verbs. Still, impose no selection restriction on the verb classes, just like the indirect causative.

The main proposal I want to present here is that the crucial differences among the voice features fall out of their feature ontologies. That is to mean, what determines the selection and the projection of a voice feature *F* is whether *F* is part of just the syntactic domain or part of both the syntax and the semantic domains.

[Svenonius \(2006b\)](#) classified features into two types—syntax internal features and interface features.

- (9.3) For any *F*, and any modules *X* and *Y*
- a. *F* is an *X*-internal feature iff *F* is an *X* feature and not a feature of any other module
  - b. *F* is an *X*-*Y* interface feature iff *F* is an *X* feature and a *Y* feature.

([Svenonius, 2006b](#), p. 2)

Based on this classification, the voice features fall into two categories—syntax internal fea-

tures and interface features.

It is already well established that causatives are semantic objects. Almost every work that analyzes the causatives, in one way or another, attempts to capture the semantics of the causative items. At the same time, the causatives are known to manipulate the argument structure of the predicate, confirming their voice-hood (their relevance to the syntax). This means that the causatives are interface features.

The same cannot be said about the semantics of the active and nonactive. As I have argued in [chapter 6](#), the nonactive is a purely syntactic feature which comes with no interpretation whatsoever. The same is true of the active.

#### (9.4) Voice-feature typology

The causatives are interface features; the active and nonactive are syntax-internal.

This proposal explains most of the observed distinctions among the voice features.

The feature ontology, first and for most, predicts the distinctions in selection patterns of the causative items in contrast to the active and the nonactive items.

#### (9.5) The feature typology and selection

An X-internal feature F can impose a selectional restriction only within X, while X-Y interface feature might impose selectional restrictions both in X and Y.

This proposal explains both of the generalizations given in [\(9.2\)](#). Why the direct and indirect causative impose selection on the basis of the animacy or volitionality of the arguments as well as the lexical category of the verbs whereas the active and nonactive never impose similar semantic selection is now straightforward to explain because these groups of features belong to different domains.

Syntax internal features interact only with syntactic features. They have no access to semantic objects. As a result, the only selection parameter they merge with is the categorial or c-selection. Hence, their position in the syntax is fully determined by their categorial selection. As we have seen in [chapter 6](#), the nonactive and the active c-select the vP. As a result, the VoiceP remains their only position.

The causatives, on the other hand, are interface features. As interface features, they have access to both the syntactic and semantic domains. As a result, the way they project into the structure is dependent not just on their categorial selection (c-selection), but also on their s-selection.

For the direct causative, for example, we have seen that it selects unaccusative verbs, as well as verbs with nonvolitional external arguments (as in the *run* verbs). The selection of



the unaccusative verbs makes it appear on top of the vP while its selection of the unergative verbs makes it project over the VoiceP.

As to the indirect causative, I have already argued that the selection of the indirect causative targets the arguments of the voice, rather than the verb classes themselves. This might be due to the dominance of the c-selection over the s-selection for this causative. Note that the verb class selection is still relevant to the indirect causative, as we have seen for the *please* verbs. A similar explanation works for the [assist] feature of the direct causative. For functional items appearing on the Voice<sup>2</sup>P (3<sup>rd</sup> level syntax), the verb classes are not the target of selection; the arguments projected on the Spec, VoiceP are.

In the following sections, I am going to present a brief overview of the interaction, distinction and syntactic projection of the voice features. The idea is to present a more complete picture of the voice system, by constructing a unified system for the analyses presented for each of the voice features.

## 9.3 Distinctions & interactions of the voice features

### 9.3.1 On the active vs. nonactive

I have proposed that the main distinction between the active voice and the nonactive can be explained by the causal chain theory. For the active voice (including its variants such as the causatives) the antecedent of the cause is mapped to the external argument, while the subsequent of the cause is mapped to the internal argument. The nonactive, on the other hand, is formed when the antecedent of the causation lacks a structural counterpart, as proposed in (6.14). This captures the core distinctions between the active and the nonactive.

Having this core distinction, the two types of voices, however, could have interesting interactions in the syntax. Do the features active and nonactive project in the same syntactic layer, or in different layers?

To start with, comparing the position of the active voice in relative to the nonactive, the natural assumption along the standard theory of the passive would be to generate the nonactive (specially the passive variant) from the active. As we have seen in [chapter 3](#), this derivational theory of the passive has been very influential from the very early days of generative grammar.

The prime motive for the derivational theory of the passive emanates from the cross-linguistic observation that passivization is sensitive to the transitivity of the verbs. The derivational parsimony argued in [Chomsky \(1957\)](#) is another reason to generate the passive from the active base.

One of the modern implementations of the derivational theory of the passive is to project

the passive feature over the active voice, [Bruening \(2013\)](#).

- (9.6) Relative position of the passive and the active  
 [PassP passive [VoiceP active] ]

I have questioned the validity of this analysis on a number of grounds.

The alternative analysis, which comes as the natural consequence of the analysis I provided for the causative and anticausative in this dissertation, is to generate both the active and the nonactive at the same functional layer. This approach holds that the active and nonactive are different features of voice which could appear in the same layer.

- (9.7) The active and the nonactive  
 The active and nonactive are different feature values of the voice

The VoiceP is considered as a general place holder, pretty much similar to the traditional IP projection. The active, causative and nonactive are the actual features that project on VoiceP. The licensing of the arguments is argued to be feature-dependent—in the sense that the specific feature value of the generic Voice is what determines the licensing condition. The [Nact] specified Voice is monadic. It selects the vP only. The [act] specified Voice might license an argument. This distinction is what I consider to be the crucial difference between the active and nonactive voices.

### 9.3.2 The causatives vs. the active

We have seen that the universal characteristic of the causatives is introducing external arguments. A similar argument introducing characteristic has been attributed to the active voice in the literature. In the current analysis as well, the active voice is considered the formal licenser of external arguments for high causative verbs (look at the discussion on [page 180](#)).

This raises a question on the distinction between the regular active voice and the causative. That is, if the active voice is considered a formal licenser of the arguments, then, what is different about the causative? What does the causative do that the regular active voice doesn't?

- (9.8) [caus] vs [act]  
 a. feature specification  
 b. argument structure

The distinction between the causatives and the active in terms of their feature ontologies has

already been presented in (9.4). As we have seen there, the causatives are interface features while the active and the nonactive are syntax-internal.

This fundamental distinction in the ontology of the features also explains their distinctions in argument projection.

As we have seen in § 6.4, the causal relation of the events already contains a list of participants. I called these participants *potential arguments* because not all of them can realize as structural arguments. The idea of potential arguments is similar to the traditional lexicalist conceptions lexical arguments (arguments listed by the lexical verb). Unlike the traditional lexicalist argument structure, the current system emphasizes the importance of syntactic heads for realization of the arguments. The potential arguments appear as actual syntactic arguments iff they are licensed by the formal licensers such as Voice<sub>act</sub> (and vP).

To make a distinction between the causatives and the active voice, I therefore, propose that the active voice and the causative differ on where they pick the arguments from.

- (9.9) The causatives vs. the active voice  
The causatives are different from the active voice because they add arguments that are not listed as potential arguments.

The hypothesis is self-evident for the indirect causative because the causer arguments added by it are clearly not part of the lexical arguments. Just like applicative arguments, these are simply the arguments of the causative itself.

- (9.10) *mariyam yosef-n t'inčal-očč-u-n as-gəddəl-əčč-(i)w*  
Mary Josef-acc rabbit-pl-def-acc CAUS-kill-3fsgS-3msgO  
'Mary made/let Josef kill the rabbits.'

What nearly all the lexicalist theories list as arguments of the verb are effectors *killer* and undergoers *killee* arguments. Therefore, the causer argument is unarguably the argument of the causative head introduced by the causative itself.

The same is true of the direct causative selecting unergative verbs. Unergative verbs could have the agent and probably the cognate objects listed as arguments of the lexical verbs. The causer introduced by the causative, however, cannot be listed with the lexical meaning of the verbs. This is also true of the causative of the noncausative verbs. The noncausative verbs are assumed to lack an effector argument listed as part of the lexical semantics of the verbs.

The reason why they are able to add arguments of their own can be attributed to their feature specification. As they are interface features, they can modify the eventualities of the

predicates. As such, it is possible that they are able to add further arguments that are not listed in the lexicon because of their semantic attributes.

In terms of syntactic position, we have seen that the active always appears on the standard (lower) VoiceP<sup>1</sup> while the causatives could appear both on VoiceP<sup>1</sup> and VoiceP<sup>2</sup>. In situations where the causatives appear on VoiceP, they don't scope over the active. They compete for the same position. But, when the causatives are selecting VoiceP, I assume they could project over the active. The projection of the causatives over the active is attested in a number of cases such as the causative of ingestive verbs, the causative of the unergative verbs, the causative of the iterative, as well as almost all the cases where the indirect causative projects.

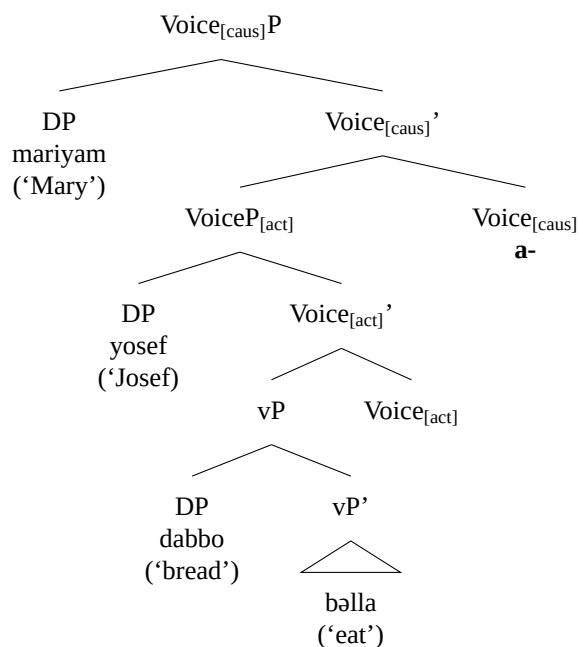
(9.11) [Voice<sup>2</sup>P [CAUS] [Voice<sup>1</sup>P [act]]]

Look at the causative of the *eat* class verbs as an example.

(9.12) *mariyam yosef-n dabbo a-bəll-ačč-(i)w*  
 Mary Josef-acc bread caus-eat-3fsgS-3msgS  
 'Mary fed Josef a piece bread.'

The structure given below shows that the direct causative projects over the active voice.

Figure 9.1: [caus] projects over [act]



### 9.3.3 The causatives and the nonactive

As I already suggested above, the active, the nonactive and the causative are, by definition, different types of voice because they are involved in the process of argument manipulation (licensing or blocking). They differ from each other in their internal feature specifications (whether they are interface features or syntax features), argument structure and their selection attributes.

We have seen that the direct causative appears on the standard VoiceP when it selects non-causative verbs. This means that the direct causative selects the vP layer where these verbs are supposed to be formed. In this case the causative appears instead of the active, not on top of the active.

(9.13) *k'ibe-u k'allat'-ə*  
butter-def melt-3msgS  
'The butter melted.'

(9.14) *k'ibe-u tə-k'allat'-ə*  
butter-def Nact-melt-3msgS  
'The butter is melted.'

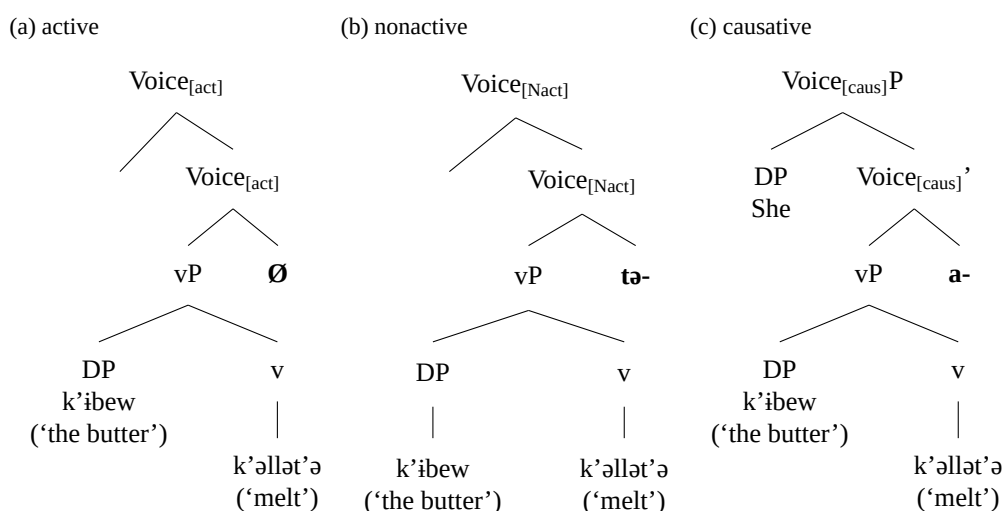
- (9.15) *k'ibe-u-n a-k'allat'-əčč-w*  
 butter-def-acc caus-melt-3fsgS-3msgO  
 'She melted the butter.'

According to the current analysis, the clause in (9.15) is not exactly the causative of the one in (9.13). The causative projects on top of the vP part only. In the same manner, the nonactive doesn't project over the active or the causative. All the feature values are taking a common base, the vP layer, and projecting their specific features on top.

Each of the voice items such as the active, the nonactive and the causative appear exactly parallel, in the same layer (2<sup>nd</sup>-level syntax).

This parallel projection of the voice items is presented as follows:

Figure 9.2: Parallel projection of the [caus], [act] and [Nact]



The structures are exactly identical on the vP layer. They are differentiated by the feature values projected on the VoiceP. The features themselves differ in argument structure—hence, the difference in the transitivity of the clauses. The causative feature is a dyadic feature. As a result it adds an argument to the derivation. The nonactive is monadic. It licenses no argument. The active also can license an argument, but only if the argument is listed by the lexical semantics of the verbs. There is none in the case of the noncausative verbs. Therefore, it forms an intransitive just like the nonactive.

As I have stated above, the causatives appear in more than one projection, unlike the nonactive and the active voices. As a result, the overlaps are limited. In cases where the causatives

appear higher, the causatives embed the nonactive.

- (9.16) Relative positions of the causatives and the nonactive  
 [<sub>Voice<sup>2</sup>P</sub> [caus/CAUS] [<sub>VoiceP</sub> Nact] ]

Given the association of the nonactive with multiple interpretations, a structure like the above predicts the following iterations:

- (9.17) the direct causative of the ...  
 a. passive  
 b. reciprocal  
 c. reflexive  
 d. middle

as well as,

- (9.18) the indirect causative of the ...  
 a. passive  
 b. reciprocal  
 c. middle-reflexive  
 d. middle

However, in practice, only the combinations in (9.18) and (9.17b) are attested. The direct causative of the passive, the direct causative of the reflexive and the direct causative of the middle are unattested.

The question is then, why those combinations are unattested if we claim that the direct causative could appear on the Voice<sup>2</sup>P. A careful reader would already know the answer to this. It has to do with the selection of the direct causative. As we have seen above, the direct causative select three types of elements:

- noncausative verbs
- unergative verbs with nonhuman external arguments
- any verb in the iterative verb form (this is the [assist] feature of the direct causative)

The first two selection properties of the causative don't match with the nonactive voice at all. The last selection attribute is where the overlap occurs between the nonactive voice and the direct causative because in this case the causative imposes no other specification except the iterativity of the verb forms. Given the verbs in the nonactive voice come with the iterative,

the causative must be able to select them. That is indeed exactly how the causative of the reciprocal is formed.

As we have seen in § 7.7.1, the reciprocal interpretation is tightly associated with the iterative form. The direct causative is also able to select the iterative form. Because of this overlap, the direct causative of the reciprocal is attested.

In all other cases, the selection property of the causative makes it impossible to select these constructions. The nonactive voice can satisfy the selection requirement of the causative only in the reciprocal (iterative) case. In all other cases, it doesn't. That is why the causative of the passive, the causative of the middle and the causative of the reflexive are unattested.

Before we go to the details of the attested forms where the causatives project over the nonactive, we need to check if the reverse combination is licit. Checking the reverse combinations is important because if they are attested, they can be considered counter evidences for the current analysis.

- (9.19) The reciprocal of...
- a. the direct causative
  - b. the indirect causative
- (9.20) The passive of...
- a. ?the direct causative
  - b. the indirect causative
- (9.21) The reflexive of...
- a. the direct causative
  - b. the indirect causative
- (9.22) The middle of...
- a. the direct causative
  - b. the indirect causative

None of the above combinations are attested. The passive of the direct causative is the only controversial construction. As we have seen, some linguists have argued that the passive in Amharic is derived from the causativized unaccusatives. But, I have rejected that analysis, and claimed that the passive is by no means derived from the causative clauses.

Even for the passive of the direct causative, the controversial issue is restricted to the causative of the unaccusative verbs. In other cases where the direct causative projects, the impossibility of the passive formation is undisputed.

Take a look at the causative of the *run* class verbs. A(n) (impersonal) passive can be formed



out of the regular unergative verb as shown in (9.24), but not that of the causativized unergative, (9.26).

- (9.23) *rot'-ə*  
run-3msgS  
'He ran.'
- (9.24) (*ruc'c'ə-w*) *tə-rot'-ə*  
run.n-def Nact-run-3msgS  
'It (the run) is run.'
- (9.25) *mariyam fəras-u-n a-rot'-əčč-(i)w*  
Mary horse-def-acc caus-run-3fsgS-3msgO  
'Mary ran the horse.'
- (9.26) \**fəras-u (bə-mariyam) tə-rot'-ə*  
horse-def (by Mary) Nact-run-3msgS  
'The horse has been run (by Mary).'

As expected from the unergative verbs, they can generate the impersonal passive as shown in (9.24). But the causativized version of the same verb fails to generate the passive, as shown in (9.26). If we follow the assumption that the passive is formed from structural transitive clauses, the impossibility of the passive of the causativized unergative is unexpected. The active form is a transitive clause after all. The analysis developed in the above sections, however, exactly predicts the unavailability of the passive from the causativized unergative because the transitivization of the unergative occurs in a higher layer than the VoiceP<sub>[Nact]</sub> where the passive meaning is assigned.

Exactly the same situation applies for the *ingestive* verbs. As we have seen, this class of verbs appears transitive in their basic form. The transitive verbs themselves can be causativized by the direct causative.

But only the basic form of the verbs can be selected by the anticausative functional item. The causativized counterpart of the *eat* verb cannot form the nonactive.

- (9.27) \**yosef (bə-mariyam) tə-bəll-a*  
Josef by-Mary Nact-eat-3msgS  
'Josef is fed by Mary' (intended)

(9.27) cannot be the passive of (8.80) where the *benefactive* causative is denoted. It can only be the passive of the simple verb.

The overall picture emerging here confirms the hypothesis that all the decausative constructions are instances of the VoiceP. None of the decausative constructions are able to scope over the causatives.

But there is a lot of evidence for the scoping of the indirect causative over the direct causative as well as the nonactive. That is what I am going to see in the following subsections.

### 9.3.3.1 Causative of the reciprocal

As we have seen in [chapter 7](#), the reciprocal construction is available only under the plurality of the arguments and eventualities. The iterative aspect offers the right context for the reciprocal reading to arise in the nonactive.

As we have already seen in [§ 8.1.3](#), the iterative form makes a profound shift on the selection of the causatives. Unlike in the regular (perfective and imperfective) cases, the direct causative makes no verb class selection. It selects all types of verbs in the iterative. In [§ 7.7.1](#), we have also seen that the iterative form in the nonactive gives rise to the reciprocal construction. This correlation of the iterative with the reciprocal construction and free selection of the causative gives rise to the situation where the direct causative consistently scopes over the reciprocal.

- (9.28) *yosef wušaṭ awrto tāmari-očč-u-n a-ggaddall-ə-aččəw*  
 Josef lie talking student-pl-def-acc caus-kill.it-3msgS-3plO  
 ‘Telling a lie, Josef made the students kill each other.’

This construction could be identified as the causative of the reciprocal not only from the morphology but also from the argument structure. The clause contains a causer (‘Josef’) and a causee. As we have seen in [chapter 6](#), the reciprocal is formed by embedding the verbs within the [Nact] specified voice.

This shows that the direct causative is able to project over the nonactive voice.

### 9.3.3.2 Causative of the passive

The indirect causative can select the nonactive with the passive reading, [Ayalew \(2011\)](#)<sup>1</sup>.

The indirect causative prefix generates both the causative of the active as well as the causative

<sup>1</sup>Some people consider this as a distinct subtype of the indirect causative, known as *curative* (‘having’) causative. ([von Waldenfels, 2015](#), p. 117) for examples describes the construction as “a subtype of factitive causation where the causer acts in order to accomplish something by way of an intermediate animate agent, the causee.” But I think [Ayalew \(2011\)](#) is correct in treating this as the causative of the passive.

of the passive readings, depending on the types of voice embedded under it.

(9.29) *yosef (mariyam-n) k'ibe-u-n as-k'allat'-ə-at* (causative of the active)  
 Josef (Mary-acc) butter-def-acc CAUS-melt-3msgS-3fsgO  
 'Josef made/let her (Mary) melt the butter.'

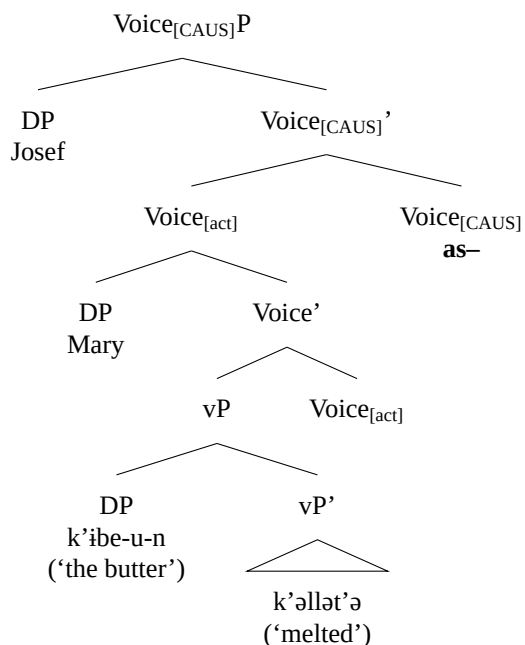
(9.30) *yosef k'ibe-u-n as-k'allat'-ə-w* (causative of the passive)  
 Josef butter-def-acc CAUS-melt-3msgS-3msgO  
 'Josef had the butter be melted.'

The availability of *causative of the passive* once more shows the relative scoping of the indirect causative over the passive.

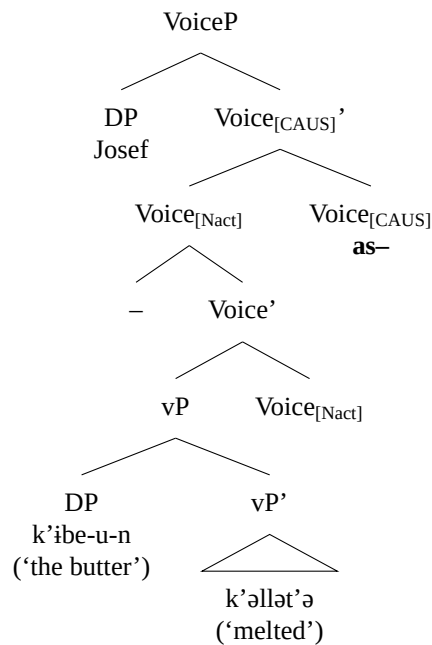
The absence of the anticausative morpheme in (9.30) should not be considered as a counter-argument for the projection of the indirect causative over the nonactive. As we will see in § 9.4, the contiguous appearance of two voice items always results in the deletion or silencing of the lower.

Figure 9.3: Indirect causative of the active & nonactive voices

(a) causative of the active



(b) causative of the passive



The causative of the active is a projection of the causative over the active specified Voice projection. The [act] specified voice licenses a structural causee argument. The causative of the passive is a projection over the [Nact] specified Voice layer.

An interesting fact to note here is that the causer argument has no effect on the interpretation of the nonactive. It is only the non-projection of a structural causee/agent argument that licenses the passive reading. Sentences such as (9.30) show that the passive construction is not about the absence of an external argument. The causer argument is the genuine nominative subject of the clause in (9.29). It is rather the absence of a subject with agent argument that licenses the passive reading.

This confirms the argument I presented against the understanding of the passive as a construction that is generated in a certain syntactic derivation. The passive is not incompatible with the proper nominative subjects. Neither does it imply the absence of accusative case marked on the internal argument.

The passive is fully compatible with a nominative external argument. Consider (9.30) as presented in the structure fig. 9.3b once more. This sentence contains a nominative external argument which is a causer. The clause also contains an accusative case marked object argument. What it lacks is a syntactically represented agent.

### 9.3.3.3 Causative of the middle-reflexive

We have seen that the middle-reflexive is restricted to a handful of verbs known as *grooming* verbs. Example (3.19) is repeated here.

- (9.31) *maryam ta-at't'əb-əčč* (middle-reflexive)  
 Mary Nact-wash-3fsgS  
 'Mary washed (herself).'

The causative morpheme could select these verbs and generate the causative of the reflexive reading.

- (9.32) *yosef maryam-n as-tə-at't'əb-ə-at* (causative of the middle-reflexive)  
 Josef Mary-acc CAUS-Nact-wash-3msgS-3fsgO  
 'Josef assisted Mary wash (herself).'

This again supports the proposal presented above, the embedding of the nonactive voice under the causatives is licit.

## 9.4 Voice Morphology

One of the problems in the Amharic voice system is the impossibility of the two voice morphemes to appear together. This often leads to a mismatch between what the argument structure suggests about the voice projection, and what the morphology tells about it.

If we consider the indirect causativization of the unaccusative verbs, for example, the argument structure suggests the projection of the VoiceP embedded within the Voice<sup>2</sup>P. The morphology, however, doesn't corroborate this. Only the indirect causative (CAUS) has the morphological instantiation.

- (9.33) *mariyam yosef-n k'ibe-u-n as-(\*a-)k'allət'-əčč-(i)w*  
 Mary Josef-acc butter-def-acc CAUS-(caus-)-melt-3fsgS-3msgO  
 'Mary made/let Josef melt the butter.'

According to the argument structure, the unaccusative verb must be first transitivized because that is the only way of adding an effector argument for these verbs. The indirect causative adds the causer argument. The morphology, however, don't show the direct causative. Only the indirect causative appears.

In all the cases where the argument structure suggests embedding of the direct causative inside indirect causative, the direct causative remains silent. The concatenation of the two causative morphemes is completely impossible, (9.34a). A recursive application of the same causative is also illicit as shown in (9.34b) & (9.34c).

In the same manner, neither of the morphemes of the causatives could appear with the non-active morphology either, as shown in (9.34d) & (9.34e).

- (9.34) a. *\*as-a-k'allət'-ə-at*  
 CAUS-caus-melt-3msgS-3fsgO  
 'He made/let her melt...'  
 b. *\*as-as-k'allət'-ə-at*  
 c. *\*a-a-k'allət'-ə-at*  
 d. *\*as-tə-k'allət'-ə-at*  
 e. *\*tə-a-k'allət'-ə-at*

The syntactic analysis suggested so far can already rule out some of the combinations. But some other combinations such as (9.34a) and (9.34d) are supposed to be licit. Therefore, I need to explain why these forms appear illicit.

In this section, we are going to see why a concatenation of two voice morphemes is impossible in Amharic. I will start by evaluating one previous attempt to explain the phe-

nomenon.

### 9.4.1 Co-Affix Constraint

The problem with the sequence of voice morphemes has already been noted in Amberber (1996). Amberber has argued that the co-occurrence of the two causatives is ruled out due to some language internal morphological principles. He proposed a morphological rule which he calls Co-Affix Constraint to block the co-appearance of two voice items.

(9.35) **Co-Affix Constraint**

Valency changing affixes cannot co-occur. (Amberber, 1996, p. 46)

This constraint rules out any co-occurrence of any of the voice morphemes including the causatives and the anticausative. It also explains why all of the combinations given in (9.34) are illicit. For that, the constraint serves as a good starting point for explaining the voice morpheme deletion. But, there are a couple of issues with this constraint.

#### 1. Deletion beyond voice

The first issue with the *co-affix* constraint is it applies only when there is a sequence of voice morphemes. There are, however, a number of cases where the deletion of the voice items is triggered by non-voice morphemes. The nonactive morpheme, for example, still remains silent when it appears embedded inside the aspectual prefixes such as *yi* and *li*.

- (9.36) *k'ibe-u yi-(\*tə)-k'allət'-al*  
 butter-def ipfv-Nact-melt-aux  
 'The butter will be melted.'

It is not just the aspect markers that triggers the deletion of the nonactive morpheme. Other types of affixes such as the nominalizer prefix *mə* also trigger the same effect.

- (9.37) a. *k'ibe-u mə-(\*tə)-k'allət'-u...*  
 butter-def nmlz-(Nact)-melt-3msgO  
 'The melting of the butter...'

#### 2. Directionality of the deletion

The constraint given by Amberber doesn't explain the directionality of the deletion. The constraint as given in (9.35) doesn't explain which of the two or more sequence of morphemes will be deleted.

Which of the sequence of the morphemes gets deleted depends on the relative distance of the

morphemes from the lexical verb. The morpheme which gets deleted is the one that appears closest to the lexical verb.

As we have seen in the above sections, the indirect causative could scope over both the direct causative and the nonactive morphemes. In these cases, it is the lower voice item that gets deleted. This has been noted in (9.30) where the causative of the anticausative leads to the deletion of the anticausative morpheme. The example is repeated here.

- (9.38) *yosef k'ibe-u-n as-(\*tə-)k'allət'-ə-w* (cf (9.30))  
 Josef butter-def-acc CAUS-(Nact-)melt-3msgS-3msgO  
 'Josef had the butter be melted.'

In the same manner, it is the direct causative that gets deleted when it appears embedded under the indirect causative, as shown in (9.33).

This shows that the deletion of the voice items follows a certain direction or structure. The directionality could be understood in terms of syntactic hierarchy where the lower voice items is assumed to be deleted. It is also possible to understand the directionality in terms of linear closeness of the morphemes to the lexical verb. Of the two voice items appearing in subsequent position, the one that appears closer to the lexical verb is the one that gets deleted or remains unpronounced.

### 3. Selective Deletion

Finally, there exist a few cases where two voice morphemes could co-affix on the same verb. The following group of verbs, for example, license the overt realization of both the indirect causative and the anticausative morphemes.

Table 9.1: Co-occurring CAUS and Nact

basic form	anticausative	causative of the anticausative
awwək'ə ('know')	tə-(w)awwək'ə ('get introduced')	as-tə-wwawək'ə ('introduce/advertise')
abbələ ('deny')	tə-(b)abbələ ('(is) denied')	as-tə-babbələ ('refute/deny')
aggolə ('obstruct')	tə-(g <sup>w</sup> )aggolə ('(is) obstructed')	as-tə-g <sup>w</sup> aggolə ('obstruct')
amənnə ('trust')	tə-mammənə ('have trust on')	as-tə-mammənə ('guarantee')

These are restricted groups of verbs that license both of the voice morphemes.

The reason why the anticausative isn't deleted here seems to have something to do with its position of attachment. The situation with this group of verbs suggest that the voice morpheme deletion occurs only when the voice items merge in the productive (syntactic) system. The low or lexical-internal attachment of the anticausative is the reason why the deletion operation doesn't target it here.

There are two evidences for this.

First, the sense or meaning annotated to the causative items is slightly different in this case. Unlike the usual cases where the indirect causative adds an indirect persuasion, it seems to serve as regular transitivity with these verbs. Look at the translation given to the generated structure in the 3<sup>rd</sup> column of the above table. The produced construction sounds like a regular transitive verb.

- (9.39) *mirt-u-n*      *bə-gazet'a*      *as-tə-awawwək'-ə*  
 product-def-acc by-newspaper CAUS-Nact-know-3msgS  
 'He advertised his product on a newspaper.'

This shows that the two voice items are not doing what they normally do. They are somehow lexicalized into the verb. The whole package, which includes the voice items and the lexical verb, behave like a simple transitive verb.

The second evidence comes from the what I have called the root-internal causative. In § 8.1.1.1.1, we have seen the possibility that the direct causative appear as part of the root structure of some groups of verbs. If the indirect causative is attached on these verbs, the direct causative<sup>2</sup> still appears on the surface.

- (9.40) *as-a-wwək'-ə*  
 CAUS-caus-know-3msgS  
 'He notified'

The fact that the voice morpheme deletion operation doesn't affect the causative of these verbs shows structural nature of the operation. Whatever operation is responsible for the deletion of the voice morphemes, it needs to be able to sense or differentiate the syntactic (productive) instances of the morphemes from that of the lexical ones.

An operation that deletes morphemes from mere surface co-occurrence, such as the *co-affixation*, cannot be sufficient to explain this because these linearity based morphological operations cannot differentiate the productive from the non-productive counterparts.

The directionality of the deletion and sensitivity of it to lexical-vs-productive attachments of the voice items shows that the deletion needs to have access to the syntactic system. Put it in the Late Spellout system, the deletion cannot occur after the vocabulary insertion. It occurs in the pre-insertion domain where the structural voices are clearly differentiated from the lexical ones. Once lexical items are inserted, no difference can be made between the

<sup>2</sup>I hasten to admit, however, that the evidence here should not be taken too seriously because the identity of the causative appearing on these verbs is not clear. As noted in § 8.1.1.1.1, the *a* vowel could be just a random vowel appearing as part of the root templates.



morphemes inserted structurally and those appear as part of the lexical items. Therefore, the deletion has to occur either within the narrow syntax, or immediately following the syntax (before linearization).

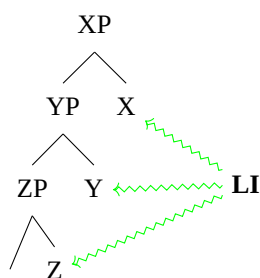
We, therefore, need a rule that operates within the syntax or immediately after the syntax before the structure is linearized. For that, I am going to evaluate some of the well-known syntax sensitive deletion/manipulation derivations recently developed under the Minimalist frameworks such as **NS** and **DM**. **DM** has post-syntactic operations such as deletion and fusion. Nanosyntax uses a different approach. There is no direct deletion or removal of features or morphemes in **NS**. As we already saw, mismatches are explained by enriching the lexical items (assuming complex feature structures within the morphemes). When some or more of the feature values lack morphological realizations, a strategy such as *spanning* is assumed to operate to silence one or more of the features.

### 9.4.2 Spanning vs. Fusion vs. Deletion

In discussing deponent middles, I have argued that the spanning mechanism of head unification is not the right approach because each of the functional heads have their own morphological instantiations. We have seen that spanning is best applied in cases where one or more of the syntactic projections lack a morphological realization. The silencing of one of the voice items we have here appeared to satisfy that characterization. It therefore appears reasonable to attempt to apply the spanning mechanism to explain the silencing of one of the voice heads.

Spanning is a system where two or more contiguous functional layers are lexicalized by a single **LI** as follows.

Figure 9.4: Spanning



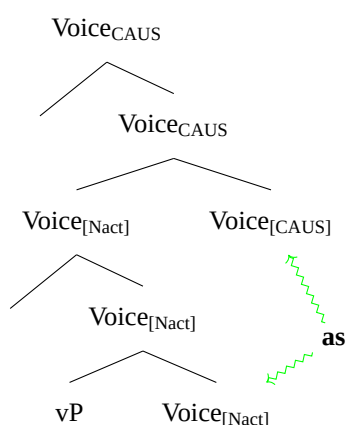
So far as the heads are contiguous, a single morpheme is assumed to Spellout them all. Spanning, as one of the tools developed under the **NS** (even if it can be used independently), is often applied by assuming internally complex morphemes (**LIs**) mapped to layers of the syntactic tree. The way to execute the spanning strategy for the current case is to assume that

the higher of the voice items, such as the indirect causative morpheme, is made of complex feature makeups including the indirect causative feature and the direct or nonactive voice features.

Since the indirect causative morpheme silences both the direct causative and the nonactive when it appears with them, we have to assume that the indirect causative is complex head that can Spellout both the direct causative and the nonactive voice heads. The complex morpheme can lexicalize any of the sub-features or all of them.

The deletion of the direct causative given in (9.33), for example, could be derived as follows:

Figure 9.5: The insertion of **as**



According to the principles of **NS**, a morpheme can Spellout layers of syntactic tree iff the morpheme is more complex than the layers. This is the Superset principle presented in [Caha \(2009b\)](#); [Taraldsen \(2010\)](#).

The Superset principle works by comparing the feature structure embedded inside the single morpheme against the feature structure projected in the syntactic tree. For the spanning system to work, we need to assume that the indirect causative morpheme itself is made up of a number of features including the [CAUS], [caus] and [Nact]. This assumption seems fairly reasonable for the [CAUS] and [caus] features because they are causative features after all. But, the assumption that the indirect causative contains the nonactive feature cannot be right because the causatives and the nonactive voice are opposite in their properties. There is no reason to assume that the indirect causative morpheme contains the nonactive feature. These two features do opposite tasks. The nonactive blocks the merger of an external argument, the causative adds an external argument. Had the indirect causative been a package of these contradicting feature, it would have never been able to add an external argument.

It is also useful to note here that the silencing of the lower morpheme doesn't necessarily lead to the formation of spans. Spans are supposed to be portmanteau morphemes that are permanently associated with multiple features. The situation here is different. The lower realized morpheme is not in any way associated with the higher voice feature. The two heads (features) are still independent. It is just the projection of the higher feature triggers the silencing of the lower.

DM's *Fusion* and also *feature haplology* are two alternative approaches that could be used to accomplish the task of deleting the voice morpheme. *Haplology* has often been discussed in the phonological literature. But, recently, it has also been applied in the analysis of morphology (syntactic features) as well. Haplology applied on the syntactic features gives the same result to that of fusion by unifying the two independent syntactic features into a single head where a single **LI** could be inserted.

The main advantage of the *haplology* and *fusion* operations over the spanning is that the look-back problem I mentioned above doesn't arise with them because these operations are supposed to apply in the post-derivational layer.

One problem that I raised against the spanning, also seems to affect the haplology as well, is the validity of the complexity of the inserted morpheme. Haplology can also be considered as an operation that creates complex objects from two separate features. As I noted for the spanning, I find this a little problematic. The deletion of the lower voice doesn't in any way seem to affect the pronounced voice item. There is no unification of the two voice features into the single morpheme.

What we need is a mechanism that removes the lower voice feature immediately after the syntactic derivation finishes off. The voice features are not deleted in the syntactic derivation because we know that all the syntactic effects of them are still there. But, the mechanism should also not be as late as the stage of linearization because that is how the mechanism could differentiate the productive voice items from the lexicalized ones. The distinction would be lost after linearization of the tree.

The *deletion* often used in the DM literature might be a useful operation. Deletion can be used to target either the features or the morphemes. The first is a case of feature deletion; and the latter is a case of morpheme (exponent) deletion. Both strategies have already been suggested in the literature to solve similar kinds of cases, [Erschler \(2018\)](#).

(9.41) Voice morpheme deletion under adjacency  
Voice → Ø/voice\_\_\_

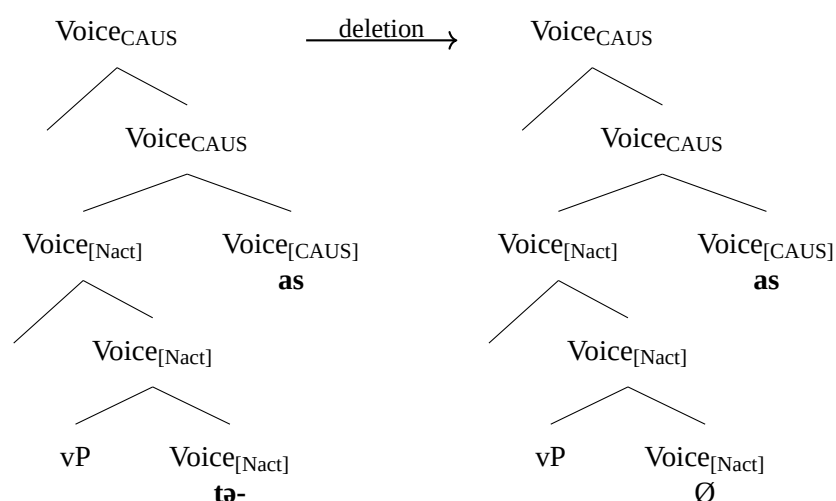
The rule in (9.41) generates similar result with Amberber's co-affixation rule. Just like Amberber's rule it, however, fails to make a distinction between the productive and the lexical voice items. Consider the examples we saw in [table 9.1](#). We have seen that the

reason why the morphemes never get deleted there is because they are associated with the verbs in a different domain (within the lexical domain). A regular surface adjacency rule cannot make a distinction between the two types.

- (9.42) Voice feature deletion under syntactic contiguity  
 A voice feature gets deleted when it is immediately dominated by another voice feature

This operation deletes voice features that are immediately dominated by another voice feature.

Figure 9.6: Voice feature deletion



The deletion operation in (9.42)/fig. 9.6 differs from the morphological operations such as (9.41) in at least two respects. First, the target of deletion is not based on local adjacency—rather on the basis of structural contiguity. The nonactive feature on VoiceP remains unrealized because of the projection of the other voice feature immediately on top of it. The second difference lies the object of deletion. Here, the feature is the object of the deletion, not the morpheme. Since the feature deletion takes place just after the syntactic derivation and semantic interpretation are finished off, no morpheme can be inserted on the position. This is important because it helps us to explain the directionality of the deletion quite elegantly. Under this system, the adjacent appearance of the higher morpheme is not the cause of the deletion; rather the merger of it.

The operation also makes a distinction between productive morphemes and lexical mor-

phemes because it applies before the syntactic structure is linearized. The structural deletion doesn't trigger with the lexical features because they are not visible to the derivation by the time the higher voice feature combines. The system doesn't detect contiguous feature combinations unless they are produced within the syntactic system. Hence, no deletion applies for features that are built within the lexical system.

The rule presented in (9.42), however, still fails to address one of the issues I raised in [item 1](#)—that is the deletion of the voice items when they appear next to other functional items such as nominalizers and aspectual morphemes. The issue of voice deletion due to the other functional features turn out to be very complex issue. What makes the issue especially difficult is the fact that not all functional items trigger the deletion.

Reconsider the sentence given (9.36). We have seen that the attachment of the imperfective marker *yi* triggers the deletion of the anticausative morpheme. If we replace the imperfective marker with the progressive marker, however, the anticausative marker could lexicalize.

- (9.43) *k'ibe-u iyyə-tə-k'allat'ə nəw*(cf (9.43))  
 butter-def prog-Nact-melt aux  
 'The butter is being melted.'

Why the projection of some functional items triggers the deletion the voice items while the projection of other functional items doesn't is still a mystery to me. It is possible that some kind of structure sensitive prosodic rule is involved in the process. I am leaving the issue for future studies.

## 9.5 Summary

In this chapter, I have presented the main analysis of the voice system of Amharic. The core facts presented in the previous chapters are used to construct a complete analysis of the structure of the voice.

The selection characteristics of these functional items have been one of the main focuses of the study. What came out as the result of the study is how the two classes of functional items are strikingly different from each other. The causatives impose selection either on the types of arguments or the classes of verbs. The nonactive morpheme does the opposite. It can combine with any kind of verb, with all sorts of arguments. Because of this distinction, I developed different analyses for the two groups of voice features. I attempted to pin down their distinctions to the feature specification of the functional items themselves. I hypothesized that the anticausative morphemes lacks pre-specified interpretable feature value. As a syntax-internal feature, it comes semantically underspecified. The result is a functional item

that can combine with any verb class or argument type, so far as the category is vP.

The causative items come with semantically interpretable feature values. The feature value forces the combination of the causatives to specific verb or argument types. The combination has to satisfy not just the categorial requirements, but also the semantic ones. Their distribution is determined by their semantic selection properties. This explains why the same functional item, the direct causative appears in different positions in the syntax, in contrast to the nonactive which consistently appears on VoiceP.

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## CHAPTER 10

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# Conclusions

### 10.1 Summary

I started the dissertation by listing down different issues that a complete study of voice system of a language needs to address.

- the **derivational directions** on the marked and unmarked active, nonactive and causative forms.
- the **selection** (distribution) of the voice items
- the **interpretation** of the voice morphemes
- the syntactic **projection** of the voice features
- the **function** of the voice items

As to the derivational direction, I have argued that a version of the anticausativization analysis which operate by removing or suppressing either the causative event or the external argument should not be allowed in a derivational system. To have a constrained system of derivation, a free deletion of the items that are part of the lexicon should not be allowed. I, therefore, took the derivational monotonicity as one of the cardinal principles of the causative derivation.

From that, I have narrowed down the analytical options to those approaches that do not remove linguistic objects from the derivational system. That leaves us with the common-base and causativization approaches.

I have then suggested that both of these approaches are useful to explain different sets of data.

I have shown that the direct causative, the active and nonactive share a common base, the vP. This part of the analysis supports the common-base approach. I have also shown that the causatives could embed each other; or the causatives could embed the active and the nonactive voices. This part of the analysis supports the causativization analysis.

For the selection, interpretation, function and projection of the voice items, I have proposed that the crucial patterns can be explained by understanding the voice features either as syntax internal or interface types, [Svenonius \(2006b\)](#); [Newson and Szécsényi \(2014\)](#); [Collins and Stabler \(2016\)](#).

#### (10.1) **Types of voice features**

- (a) SYN-F (**DU**): features relevant to the syntactic derivation only
- (b) SEM-F (**CU**): those with both syntactic/derivational and interpretive (semantic) functions

The nonactive voice, which lexicalizes as the anticausative morpheme, is proposed to be made of only syntactic (SYN-F) features. As such, its function is restricted to the syntactic domain—most importantly that of the argument realization. Its distribution (selection) is also fully determined by its syntactic attributes.

This is used to explain why the anticausative never filters the verb classes or the argument types (in contrast to the causatives). Having no fixed semantic value, it is completely free of the restrictions imposed by the s-select. As a result, it appears as a free selector of the semantic classes.

The SYN-F proposal for the anticausative also explains why the anticausative appears to have a fixed position in the syntactic layer. According to the proposal, the anticausative or the nonactive combines with the verbs (or the vP) rigidly because it has no semantic properties that could affect its distribution.

Furthermore, having an underspecified interpretation means that it also cannot be responsible for the assignment of the decausative senses such as the passive, reciprocal, reflexive etc. I argued that the specific decausative senses get associated with the nonactive voice only in the course of the composition, with the aid of other clause internal factors.

That is to say that the crucial function of the nonactive voice for the formation of the decausative constructions is blocking the projection of an external argument. The absence of an external argument serves as a condition for the assignment of the decausative interpretative values. Each of the interpretations of the decausative is assigned only under the condition that the causal antecedent is not distinctively projected as syntactic argument. The nonactive voice makes the clause satisfy the condition by blocking the merger of an external argument.



One consequence of this analysis, which I presented in (presented in § 3.4.2 and § 7.4.1) is that the passive is not derived from the active. There is no specific semantic diacritic or grammatical form that signals the passive in this language. The ‘passive’ is simply a name used by linguists to describe clauses that resemble the typical passive constructions in English.

Not only the passive, none of the decausative constructions are signaled by any grammatical form. They are all formed with one structure—known as the anticausative or the nonactive form.

To briefly summarize what contextual factors lead us to attribute each of the decausative notions to a certain clause:

- The passive meaning is associated with unreleased agent.
- The anticausative reading is assigned in situations where causer role is assigned to an unprojected argument
- The middle is assigned in situations where initiator-undergoer roles are assigned to a single unreleased argument.
- The (middle)-reflexive is assigned when the logical subject receives dual theta roles such as the agent and the patient.
- The reciprocal is simply a reflexive where plural eventualities and participants are involved.

The causatives, on the other hand, are assumed to merge with concrete substantive (semantic) values. Merging with a fixed semantic specification means that their distribution is not fully controlled by their categorial (syntactic) properties. Semantic selection also sways their distribution.

Indeed, I have identified at least four parameters that determine the distribution of the causatives.

- (10.2)
- a. Category/head (DU)
  - b. Verbal aspect (DU)
  - c. Animacy/volitionality of the arguments (CU)
  - d. The causativity of the predicates (CU)

The first two attributes are syntactic (DU) while the latter are semantic (CU).

The first parameter could be understood as a general categorial selection. It is clear that the causatives generally select only the verbal categories. They never combine with nouns and adjectives. We capture this by assuming that the causatives select either vP or the extended projection of the vP.

While the categorial selection is generally true, putting their selection at a categorial level won't be sufficient because these causatives have specific types of selection restrictions. The categorial selection of the causatives is to lower functional layers. For that we have to motivate specific syntactic heads that the causative items select.

It is clear that indirect causative primarily selects the VoiceP layer (and vP in some cases). We cannot put this selection in terms of specific feature values (types) such as the active, nonactive and causative because the indirect causative selects the VoiceP regardless of the specific feature types. Therefore, the right level of abstraction has to be at the general head level. This is one of the reasons why we cannot completely dissolve the general place holder functional head such as VoiceP into its filler feature components. There are linguistic generalizations that need to be captured at the head (VoiceP) level.

The direct causative also selects the vP and VoiceP heads.

The verbal aspect, another syntactic property, is the other factor that determines the distribution of the causatives. We have seen that the iterative aspect reverses the selection patterns of the causatives. The direct causative, which normally filters the verb classes, becomes a free selector in the iterative. The indirect causative, which is the most lenient on the verb class selection, is fully ruled out in the iterative.

Not only each of the parameters given in (10.2) is important factor of the distribution of the causatives, they also have relative importance. The verbal aspect seems the most deterministic of all the four attributes.

The selection of the causatives into the verbal domain generally follow a two step process:

- (10.3)
- a. Do the verbs appear with the iterative aspect?
  - b. If the answer for (10.3a) is 'yes', the direct causative takes over, and the indirect causative gets totally blocked.
  - c. If the answer for (10.3a) is 'no', then both of the causatives could potentially combine with the verbs.

If the answer for (10.3a) is 'yes', the verbal eventualities and types of arguments as well as the syntactic heads listed as factors in (10.2) are irrelevant. But, if the verbal aspects are regular perfective and imperfective, the semantic factors given in (10.2c) & (10.2d) kick in and constrain the combination.

For the indirect causative, it is the volitionality of the arguments associated with the active VoiceP layer that comes after the syntactic attributes. It selects the active Voice with volitional arguments.

For the direct causative, it is the causativity of the verbs that comes after the syntactic factors.

It combines only with noncausative (low causative) and some unergative verbs.

## 10.2 Main contributions of the dissertation

In this subsection, I will summarize some of the core contributions of the dissertation.

### 10.2.1 The voice system of Amharic

My objective in this dissertation has been to work out the voice system of Amharic. From the mere empirical description of the voice data to the classification of the verbs into different groups on the basis of causative-anticausative alternation, the dissertation presents important contribution to better understand the voice system of Amharic. To my knowledge, this work is the first of its kind in addressing the problems of both causativization and anticausativization in Amharic.

### 10.2.2 The verbal fseq–relative hierarchy of voice items

Another focus of the study has been the relative position of the voice items. I have argued that the position of the voice items is the function of their selection characteristics. Active and the nonactive active appear at the same level of syntax because these items typically select verbs. The causatives, on the other hand, have quite flexible position. They could appear at the same level to the active and nonactive voices, or higher.

### 10.2.3 On the relation of causativization and anticausativization

As I already stated at the beginning of the dissertation, the literature is divided on the direction of derivation—from the causativization to the anticausativization, and common base types. The analysis given in this dissertation supports the common base framework for the direct causative and the nonactive voice. I have argued against the anticausativization analysis as it faces foundational conceptual problems. While the common base and the causativization are both logically sound and empirically attested, the type of derivation depends on the types of features (selection). I have shown that the direct causative, the active and the nonactive have common bases for the most part. But the indirect causative could be the causativization of both the direct causative and the nonactive. The dissertation contributes in showing that both types of derivations are empirically attested.

### 10.2.4 Argument Structure

A study of voice is a study of argument structure. A study of voice has to deal with the mapping of arguments.

The usual debate in the study of argument structure is whether verbs come with pre-listed thematic arguments or not. The traditional assumption within the GB framework has been that lexical verbs come with fixed number and types of arguments. Under this traditional view, adicities of verbs are part of the meanings of the verbs. Each of these arguments appear as part of the syntactic structure.

But, recently, movement has been going on to remove the thematic arguments from the lexical verbs. In a number of recent works mostly after [Kratzer \(1996a\)](#), linguists argued to remove the argument structure from the lexical meaning of the verbs and assign fully to the syntactic structure (look at [Lohndal \(2012\)](#) and the references in there).

In this dissertation, I have proposed for a middle ground that can accommodate all the knowledges and generalizations that lexical semantics accumulated over the ages, as well as the important insights documented in the syntactic works.

I have argued that the lexical verbs (their roots) indeed come with thematic lists. The thematic arguments listed by the lexical verbs are *potential arguments*. They are not actual syntactic arguments. They require syntactic formal licensors to appear as genuine syntactic arguments. This means that the lexical semantics gives the list of the arguments; but the syntactic heads are the ones which actually license or block the arguments.

Active specified Voice projection licenses the potential arguments. Nonactive voice licenses no argument.

This is a new direction for the study of argument structure that creates a bridge between the syntactic approaches and lexicalist approaches.

### 10.2.5 On the relation of meaning and selection

One of the main contributions of the dissertation on the theoretical level is the study of the relation between feature specification and selection. I have shown that purely syntactic features (which are underspecified for meaning) have little selectional restriction. The reason has to do with the absence of s-select for these features. The combination of the interface features, on the interface features, has to pass through two filters—the syntactic filter and the semantic filter.

This means that the interpretation of the features determines their selection parameters. If this conclusion turn out to be correct, it has nontrivial consequences even at the theoretical level. It means that semantics has at least one way of directly mediating syntactic combination. One of the immediate consequence of this is that analytical models which postpone interpretation to post-syntactic domain cannot be right.

### 10.2.6 Multifunctional voice morphemes beyond Amharic

In this dissertation, I put forward the idea that voice features come in two variants. The first type comes with substantive (interpretive) feature values. The causatives in Amharic are argued to have fixed interpretive values during or before the derivation. They directly contribute to the semantic composition— that they directly contribute to the causativity of the clause.

The second type are the ones with syntactic features only. This is the case with the anticausative functional item. I have argued that this item comes with no semantic feature at all. But it plays an important role on the syntactic side by constraining argument projection.

Based in this distinction, I have proposed different analyses for the two types of voice items. For the voice items that come with fixed semantic values, such as the causative items, I suggested a direct compositionality analysis where syntactic derivation and semantic interpretation run in tandem. This way, the meanings of the causatives constrain the combination. Incompatible items (or items that result in the redundancy of meaning) are immediately ruled out at the stage of s-select.

The analysis for the anticausative has to be different. Since it comes with no semantically relevant features, it imposes no selection on the semantic classes. Due to this character, it can merge with all types of verbal items. It also contributes no direct input to the semantic composition. The actual interpretations of the nonactive clause such as the passive, the reciprocal, etc., therefore, has to come from other sources.

I believe this kind of classification of the functional items can be instrumental in the analysis of the voice systems of other languages as well. On the nonactive side, for example, a number of languages display characteristics similar to Amharic. As we have seen in page 91, [Haspelmath \(1990\)](#) has reported at least a couple of languages such as Tigre, Motu, Greek, O’odham, Udmurt and others to use the same form to signal reciprocal, reflexive, anticausative and passive constructions.

The analysis given in this dissertation can easily explain polyfunctional anticausative morphemes.

The interpretive contexts presented in [chapter 7](#) indeed are supposed to be language independent. The association of the agent theta role with the passive construction, for example, is universally known. The reciprocal reading is also associated with plural arguments and events in many languages as reported in a number of studies including [Rubinstein \(2007\)](#) for Hebrew, ([Geniušienė, 2007](#), 436–438) on the relation between plural arguments and reciprocal reading across Indo-European languages, [Nedjalkov \(2007c\)](#) on a number of languages including To’aba’ita and Bari, [Nedjalkov \(2007b\)](#) on Limbu, [Moyse-faurie \(2008\)](#) on a number of Kanak (Austronesian) languages, ([Kemmer, 1993](#), 98–10) on the general

of correlation of the reciprocal with plural participants, [Bertinetto and Lend \(2012\)](#) and the references in there on the correlation of reciprocal with pluractionality (iterativity).

This shows the potential for the given proposal to explain the decausative constructions in larger number of languages.

On the side of the causatives, the conclusion I came up with their syntactic position is quite similar to Ramchand's [2011; 2015](#) conclusion on the distribution of the causatives in Hindi. Even if the languages with double causatives are quite limited, a consensus is emerging on the distribution of causatives. The classification of the causatives as external and internal by assuming higher and lower syntactic position, respectively, is unwarranted. Both causatives could appear higher or lower in the syntax. What really matters is their selection.

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