Long distance complement selection–a case study on the complement clauses of Amharic

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Abstract

Amharic has different types of complement clauses. These complement clause types are selected by different classes of verbs. The current paper sets out to study how exactly the selection of the complement clauses works.

In contrast to English and many other languages where the types of complementizers heading over the complement clauses appear to determine the selection, I have argued here, the complementizers have little direct role on the selection mechanism. The important attribute for the selection turn out to be the features available in the sub-CP domain. For a class of verbs selecting finite complement clause, the perfective aspect appears to be the crucial feature of selection, whereas the imperfective feature is the target of other classes of complement taking predicates.

This kind of nonlocal kind of selection is at odds with the standard assumption that selection is effected with a strictly local relationships between the selector and the selectee SOs. While the selection relation appears to be nonlocal, in this paper, however, I will argue that the locality assumption can still be saved if we allow Agree relationship to be established between the lower functional layers of the complement domain and the C head.

1 Introduction[1]

[Noonan](2007, 42) describes complementation as "the syntactic situation that arises when a notional sentence or predication is an argument of a predicate". Languages use different strategies to put a predicate into an argument of another predicate. The use of specialized functional items or particles to turn clauses into arguments is one of the pervasive patterns across languages. Functional items which turn independent clauses into complements of other complements are known as complementizers since [Bresnan](1970).

There are a number of complementizers in Amharic which appear either attached on the verbs in the form of prefixes and suffixes, or as independent clitics. Each of the morphemes displays quite distinct properties which might ultimately determine the properties of the clauses embedded under them.

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[1]**Acronyms:** Asp = Aspectual, CATP = Complement Taking Predicate, Cog = Cognitive, Com = Communicative/utterance, Des = Desiderative, Inte = Intentional, Man = Manipulative, Perc = Perception, Perm = Permission, PMSF = The problem of multiple subcategorization frames, PRDG = The Problem from the Restrictedness of the Distribution of Gerundives, Pre = Pretense, Prop = Propositional attitude, Req = Request.

But, a study of complement clauses goes much beyond the study of complementizers. At a general theoretical level, a syntactic study of complement clauses needs to address at least the following major issues:

(a) The types and properties of the verbs that combine with the complement clauses.

(b) The types and properties of linker (clause marker) items such as the complementizers

(c) The properties of the subordinate clauses embedded, and the types of dependency relations they have with the matrix clauses–shared arguments, agreement patterns, etc.

(d) Finally, the patterns of combinatorics: that is, what kinds of predicates do or do not combine with which types of complement clauses, and what factors do determine the combination.

These are, however, complex issues that need an extended work of research to fully work them out. In this paper, I will concentrate only on some of these issues.

The objective of this paper is to present a study of the classes of the selector verb classes, the types of complementizers and their complement clauses. I will focus on the combinatorial properties of the complementizer with the selector predicates, and how the nature of the complementizers and the clauses embedded under them (their finiteness, the types of complementizers heading them, etc.) regulates the patterns of the combinatorics.

There are two reasons why I will focus on the selection part. First, it is one of the most important issues theoretically. How a certain type of SO α combine with some other SOs β, but not with the other type γ is one of the crucial issues that any principled theory of linguistics needs to address. Second, Amharic has displayed interesting, and at the same time, puzzling patterns with regard to clausal selection. Of these, the nonlocal relationship between the selector predicates and the lower clausal features such as the verbal aspect is the most puzzling from the theoretical perspective. Consider the following examples.

(1) a. yosef məkina-it-u-n ʔndə-t'əggən-ə-at   səma-hu
        Josef car-f-def-acc   *CM-repair.*pfv-3msgS-*3*fsgO *hear-1*sgS
        'I heard that Josef has repaired the car.'
     b. *yosef məkina-it-u-n ʔndə(i)-t'əgn-at   səma-hu
        Josef   car-f-def-acc   *CM-repair.*ipfv-*3*msgS-*3*fsgO *hear-1*sgS
        'I heard that Josef has repaired the car.'

(2) a. *yosef məkina-it-u-n ʔndə(i)-t'əggən-ə-at   fəlləg-hu
        Josef   car-f-def-acc   *CM-repair.*pfv-3msgS-*3*fsgO *want-1*sgS
        'I wanted that Josef repaired the car.'
     b. yosef məkina-it-u-n ʔndi-t'əgn-at   fəlləg-hu
        Josef car-f-def-acc   *CM-repair.*ipfv-*3*msgS-*3*fsgO *want-1*sgS
        'I wanted Josef to repair the car'

In (1-a) we have the perception verb *səm-* ('hear') selecting a complement clause which contains the perfective form of the verb. This combination turns out to be fine. But, if we change the form of the embedded verb from the perfective to the imperfective, as we have in (1-b), the construction becomes ungrammatical.

The situation is the exact reverse for the *fəlləg-* ('want') verb. This verb is able to appear with the imperfective form of the verbs, but never with the perfective forms, as illustrated in the

examples in (2).

This is very unusual pattern from the cross-linguistic perspective because verbal aspect has rarely been associated with clausal selection. In the cross-linguistic studies, the selection of the complement clauses is noted to be sensitive to finiteness, mood and tense features. But verbal aspect has never been noted to affect clausal selection in any language.

Not only is this unusual from the cross-linguistic typological perspective, it also raises major issues to the theory of selection at large the relationship between the selector predicates and the aspectual features are further from local. The aspectual features are assumed to appear pretty low in the verbal fseq, Cinque (1999); Amberber (1996); Ramchand and Svenonius (2014). This is at odds with the standard assumption that selection is a local relation, Svenonius (1994); Baltin (1989) .

If selection relation can be established between the matrix predicates and lower verbal functional features such as aspect–crossing a number of functional domains such as the CP, TP and other similar layers—then selection is as nonlocal as any syntactic relation can be.

In this paper, I will argue, while the nonlocal relation is real, we can save the standard hypothesis that selection is local if we assume a mechanism to transfer features from the lower functional layers to the CP layer. I will specifically argue that Agree is the most suitable operation to move the features of the lower domain to the CP layer where a local relationship between the selector predicates and the relevant features will be established.

2 Organization

In section 3, I will start by presenting a brief description of the complementizers. I will briefly describe their typical functions, and their status as clause markers.

As I have noted above, another important aspect of the study of complement clauses is the study of classes of verbs which participate in clausal selection. For that, in section 4, I will present the classification of the verbs. I will start out from the typologically established classes of verbs, and then refine them down to specify the categories that are directly relevant to the current study.

Once I lay out the basic facts on the complementizers & verb classes, I will return to the main topic of the paper, that is the selection of the complement clauses. I will do so by first presenting the core facts on the possible and impossible combinations. In section 5, I will explain the selection patterns of each of the verb classes. These facts will serve as the main inputs for the analysis to follow.

Finally, in section 6, I will present the analysis. I will entertain different alternative approaches used in the literature to explain selection such as feature checking and semantic selection and finally propose that the seemingly nonlocal selection relations can be explained by assuming agreement between the C and the lower functional layers.

3 An overview of the clause markers

Amharic has a number of functional items which apparently serve as complementizers. There are occasional mentions of these elements either as complementizers or as prepositions in various places in the literature. But there is no much of open discussion to what category they

should belong—whether they are complementizers, prepositions or some other category. The story of the *li* prefix is a case in point here. Some early works seem to group it complementizer class. One recent work, Bayer (1999), however, took at as imperfective aspect marker.

In the following section, I will provide an overview of some of the complementizers in Amharic.

3.1   The finite clause complementizer *ʔndə*

This is the finite complementizer in Amharic. The complementizer prefixes to the perfective form of the verb and converts them to subordinate clauses. It is quite similar to the English *that* complementizer because it attaches on finite declarative sentences, Amberber (2010). Just like *that*, it also seems to lack clear semantic specification. As we will see in later sections, it also has a broad distribution appearing under many types of CATPs. Unlike that of the English complementizer *that,* it, however, never heads complement clauses that function as subjects of complement clauses. *ʔndə-clauses* are restricted to complement positions.

(3)   yosef məkina-it-u-n ʔndə-t'əggən-ə-at   səma-hu
       Josef car-f-def-acc   CM-*repair*-*3*msgS-*3*fsgO *hear*-*1*sgS
       'I heard that Josef has repaired the car.'

Even if the *ʔndə* complementizer typically attached on the perfective form of the verbs, there are some situations where it might also appear on the imperfective ones. One of these case is the presence of an aspectual prefix *mi.* If this prefix is attached on the imperfective verb, the complementizer can appears with it.

(4)   yosef məkina-it-u-n ʔndə-mi-t'əgn-Ø-at   səmma-hu
       Josef car-f-def-acc   CM-*mi*-*repair*-*3*msgS-*3*fsgO *hear*-*1*sgS
       'I heard that Josef repairs the car'

3.2   The imperfective complementizer *ʔndi*

Whether this complementizer is a distinct complementizer, or a derivative of the *ʔndə* complementizer we saw above has not been discussed to the best of my knowledge. Even if inflection for aspectual forms is unusual outside of the verbal category, the *ʔndi* complementizer appears to be the imperfective analogue of the *ʔndə* complementizer.

Its distribution also supports this idea. The two forms are complementary to each other–as *ʔndə* form targets the perfective form of the verbs, *ʔndi* attaches on the imperfective forms.

(5)   yosef məkina-it-u-n ʔndi-t'əgn-Ø-at   fallag-hu
       Josef car-f-def-acc   CM-*repair*-*3*msgS-*3*fsgO *hear*-*1*sgS
       'I wanted for Josef to repair the car.'

3.3   The relativizer *yə*

Yə is one of the most productive functional items in Amharic. It typically serves as a marker of possession and relative clauses.

(6)   Yə-yosef makina
        Of-Josef car
        'Josef's car.'

(7)   yosef yə-t'əggən-ə-at   makina...
        *Josef of-repair-*3msgS*-*3fsgO *car*
        'The car Josef repaired...'

In addition to marking possessives and relative clauses, the morpheme also functions as a complementizer.

(8)   [yosef makina yə-gəzz-a   ]   yɨməslal
        *Josef   car   *CM*-buy-*3msgS *seems*
        'It seems that yosef has bought a car.'

Like the *ʔndə*, and unlike *ʔndi,* this complementizer attaches on the perfective forms of the verbs. The *ʔndə* and *yə,* complementizers, however, differ in their distributions. *Yə* as a complementizer has quite restricted distributions. Clauses headed by this complementizer are able to combine only with a handful of predicates.

3.4   The gerundive marker *mə*

The *mə-* complementizer appears on gerundive clauses. Appearing on the perfective form of the verbs, it turns the verbal clauses into nominal clauses, in much similar fashion to the English gerundive morpheme —*ing,* Leslau (1995); Yimam (1999).

Due to their nominal property, *mə*-clauses generally function as external or internal arguments of clausal argument taking predicates (CATPs).

(9)   yə-yosef makina mə-t'əggən lijj-it-u-n   asgərəm-ə-at
        *of-Josef car   *CM*-repair   child-*f-def-acc *surprise-*3msgS*-*3fsgO
        'Josef's repairing a car surprised the girl.'

Even if it seems to add nominal properties to the clauses, it is still as complementizer to the extent that it identifies the clause as a complement to another predicate, in the same sense to the *-ing* morpheme, Noonan (2007); Bresnan (1972).

3.5   The prospective marker *li*

This marker is often treated as a prospective marker. It attaches on the imperfective form of the verbs and denotes the imminence of the event of the verb.

Whether this functional item should be included into the class of complementizers is not straightforward matter. On one hand, it behaves like prototypical aspectual prefixes which simply prefixes on the base verbs. This is evident when the clause is headed by auxiliaries.

(10)   yosef lɨ-yɨ-mət't'-a   nəw
        *Josef *CM*-*3msg*-come-*3msgS *is*
        'Josef is about to come.'

5

Here, the prefix behaves like a regular aspect markers because it also appears with root clauses. Because of this pattern, some linguists treat it with other regular aspectual prefixes, Yimam (1999). The interpretation of the prefix as a marker of a prospective/imminent event also supports this idea. Morphemes that imply the imminence of the event are traditionally treated as aspect markers, Comrie (1976).

In the cases where the clause appears embedded inside another clause, on the other hand, the prefix seems to serve as a regular complementizer.

(11) a. yosef li-yɨ-mət't'-a   fəlləg-ə
          Josef CM-*3*msgS-*come*-*3*msg *want*-*3*msgS
          'Josef wants to come.'
      b. *yosef yɨ-mət't'-a   fəlləg-ə
          Josef   *3*msgS-*come*-*3*msg *want*-*3*msgS
          'Josef wants to come.' (intended)

Here, the prefix is the one identifying the clause as a subordinate to the matrix because, without it the subordination would be illicit as shown in (11-b). Given the observation that only embedded clauses need to appear with clause markers; and that embedded clauses need a clause marker, Manahlot (1977), the above examples show embedded clauses identified with a clause marker *li*. The other reason to consider it as a clause marker (complementizer) is its position in the fseq. Unlike regular aspectual prefixes, it appears higher up in the structure. It, for example, scopes over the negation marker.

(12) Lɨ-ay-mət't'-a   məssəl-əñ
      CM-neg-*come*-*3*msgS *seem*-*1*sgO
      'I think he is not about to come.'

Because of these patterns, the prefix is considered as a clause marker (complementizer) (Leung and Halefom, 2017, 5).

The other reason to treat is as complementizer is its similarity with the English 'to'. The 'to', treated as infinitive marker, is also often considered a complementizer, Noonan (2007); Ransom (1986); Baker (1996). With this analogy, and that the fact that the *li* prefix is quite similar to the 'to' item, we can treat it as a complementizer as well.

4 Complement taking predicates

Previous studies have made it clear that the complementation patterns are often determined by the lexical properties of the matrix predicates. There is indeed a universal, cross-linguistic generalizations on which types of verbs combine with which types of complement clauses, Cristofaro (2005). It is very clear that different classes of verbs combine with different kinds of complementizers and/or complement clauses. Accordingly, the predicates that select complement clauses are classified into a number of classes based on their selectional properties. Verbs such as *believe* in English, for example, is classified as ECM verbs because of the nature of the complement clause (or its arguments) it selects. Similarly, raising verbs are another category broadly discussed in the generative literature.

In this subsection, we are going to look at the classes of verbs relevant for complement clause

selection. I will start by reviewing the classes of complement taking predicates from previous works.

From language internal perspective, Manahlot (1977) is the only work in the study of complement clauses in Amharic. He classified the CATPs in Amharic into five major categories.

Table 1

Class	Sample verbs
Communication	nəggərə ('tell'), asrədda ('explain'), gəlləs'ə ('describe'), abassar ('tell good news'), arədda ('break the bad news'), ləmmənə ('beg'), məkkərə ('advise'), t'əyyək'ə ('ask')
Cognitive	tagənəzzəbə ('realize'), tarədda ('understand'), astəwalə ('comprehend/observe'), awwək'ə ('know'), səmma ('hear'), ammənə ('believe'), təmələkkətə ('watch')
Desiderative	fəlləgə ('want'), assəbə ('think'), təməññə ('wish'), guwaguwa ('be eager'), goməjjə ('lust'), kəjjələ ('yearn'), wəddədə ('like'), ak'k'ədə ('plan'), wəssənə ('decide'), fək'k'ədə ('allow')
Aspectual	mokkərə ('try'), čalə ('be able to'), jəmmərə ('begin'), k'ət'tələ ('continue'), fəs's'əmə ('complete'), ak'omə ('halt'), ak'k'uwarrət'ə ('discontinue'), awwək'ə ('know'), ləmmədə '(get used to'), təmarə ('learn')
Emotive	gərrəmə ('amaze'), dənnək'ə ('surprise'), dass alə ('be pleased'), nəddədə ('get annoyed'), k'oč'č'ə ('regret'), s'as's'at ('feel guilty'

Typological studies have also identified similar classes of verbs. Noonan (2007), for example, has identified a large number of verb classes including utterance (communication), propositional attitude, pretense, commetative, knowledge, desiderative, etc. With the exception of the *emotive* verbs, all the other classes of verbs identified by Manahlot (1977) are covered in Noonan's typology. As will see in the later sections, the reason why the *emotive* is not under Noonan's category is because he doesn't consider subject arguments.

His use of the term CATPs is specifically meant to show that his study doesn't include verbs that take complement subjects.

The notion of complement is restricted, in the standard assumptions, to internal arguments. External arguments are not taken as complements of predicates. In some theories, they are generally assumed not to be selected by predicates at all, Marantz, Kratzer. In that sense, it is sufficient to restrict the selectional restrictions to the complement domains. Even if I am not here to address the general assumptions made in Marantz and Kratzer, I think, there are some semantic or categorial restrictions on the class of predicates which can take clausal arguments as their external arguments.

Because of the depth and breadth of the classes of verbs laid out, I will largely follow Noonan's categories. The five classes identified by Manahlot are not sufficient to explain all the distributional patterns. The propositional attitude verbs, which are relevant to explain selection and the distribution of PRO, for example, are omitted from his typology. Manahlot has also fused some verbs to the groups that they don't belong (fit well). So, amendments need to be made. Verbs such as *beg* and *advise* cannot be grouped under *communication* as they don't tell the transfer of information. I group the *beg* verb under a new class called *request* class.

With the exception of three classes of verbs which don't seem relevant to the Amharic predicates (ie, fear, native and conjunctive), and the modals mainly because I believe that they need a separate treatment, I will follow Noonan's typology. Therefore, with the above modification, we will be left with 9 classes of verbs from Noonan, and one more additional class which I call *Request*. I am adding this because verbs like *ask* and *request* different from the *manipulative* class of Noonan.

Removing the verb classes which don't select any of the complement clauses, and incorporating the *achievements* into *aspectual* category because they denote the completion or success of an event, just the same concept with the aspectual class, we are left with 11 classes of verbs. These classes are again grouped into 3 major categories on the basis of Givón (2001).

Table 2: Modified verb classes

	Class	sample verbs
PCU	Com	nəggər ('tell') asrədda ('explain'), gəlləs'ə ('describe'), abassar ('tell good news'), arədda ('break the bad news'), məkkərə ('advise'), t'əyyək'ə ('ask')
	Cog	tagənəzzəbə ('realize'), tarədda ('understand'), astəwalə ('comprehend/observe'), awwək'ə ('know'), ammənə ('believe')
	Perc	səmma ('hear'), ayyə ('see'), təmmələkkətə ('watch')
	Prop	amənnə ('believe'), gəmmətə ('predict'), assəbə ('think/assume'), kaddə ('deny')
MOD	Des	fəlləgə ('want'), assəbə ('think'), təmənñə ('wish'), guwaguwa ('be eager'), goməjjə ('desire'), kəjjələ ('yearn'), wəddədə (like)
	Inte	ak'k'əddə ('plan'), wəssənə('decide'), k'orrət'ə ('determine')
	Asp	mokkərə ('try'), čalə ('be able to'), jəmmərə ('begin'), k'ət'tələ ('continue'), fəs's'əmə ('finish'), ak'omə ('halt'), ak'k'uwarrət'ə ('discontinue')
MAN	Pre	attallələ ('fool'), asməssələ ('pretend'), asassatə ('trick')
	Man	asgəddədə ('force'), asamənnə ('persuade')
	Perm	fək'k'əda ('permit'), kəlləkələ ('prohibit'),
	Req	t'əyyək'ə ('request'), ləmmənə ('plead'), gabbəzə ('invite')

The first major class known as the PCU verbs don't form a semantically unified category. They are grouped under a major class because of their complement taking patterns. The complement clauses these predicates select are often complete clauses with full verbal projections including lexical subjects of their own. Co-referentiality of arguments across the complements of these predicates is uncommon. The clause themselves also tend to be finite. Out of the 143 languages covered in Cristofaro's 2013 study of utterance verbs, for example, only 11 languages turn out to have nonfinite (deranked) clauses.

The modality verbs which are set as the second major class, on the other hand, seems to have an internal semantic unity. They denote either the mental or real world inception, continuation, success or failure of an eventuality. The desiderative and *intentional* classes denote the mental state of the situations while the *aspectual* class denotes the real world eventualities.

Givón (2001) has classified this class into two: the modal attitude which includes the desiderative and intention class, and aspectuality verbs which correspond to the aspectual verbs in Noonan's typology.

The verbs under the MOD superclass are known to select clause with 'smaller' clause structure. The embedded clauses often appear either in infinitive or nominal forms. Clauses embedded under these predicates rarely project lexical subjects.

Finally, the manipulative super-category includes verbs which denote manipulation of an individual from a sentient agent. The arguments are typically human participants. The causee

argument, which is the doer of the embedded eventuality often appear as patient or manipulatee of the subject argument of the matrix clause. Because of this relation, verbs under this class are often known as object raising verbs.

These are the universal tendencies of the verb classes from the typological perspective. Needless to say, individual languages, indeed, display idiosyncrasies in the selection, projection of arguments, as well as many more details as well. That is why we need to see the specifics of Amharic verbs to understand whether the behave as we expected them to behave, or not.

In the following section, we will look at the verb classes from the focal angle of selection patterns.

5   Selection: the facts

In this section, I am going to look at the selectional relationships (would it be semantic or categorial) between the selector predicates (CATPs) and the class of complement clauses we discussed above.

5.1   PCU verbs

Of the five classes of complement clauses discussed in section 3, this class of verbs select those which are headed by *ʔndə* and *mə* complementizers.

(13)   [yosef wədə-bet-u   ʔndə-hed-ə]   nəggər-əčč-ñ   (ʔndə:Com)
        Josef   to-home-3msg.poss CM-went-3msgS told-3fsgS-1sgO
        'She told me that Josef went to his home.'

(14)   [yosef wədə-bet-u   ʔndə-hed-ə]   səmma-hu   (ʔndə:Perc)
        Josef   to-home-3msg.poss CM-went-3msg heard-1sgO
        'I heard that Josef went to his home.'

(15)   [yosef wədə-bet-u   ʔndə-hed-ə]   tərrəda-hu   (ʔndə:Cog)
        Josef   to-home-3msg.poss CM-went-3msg realize-1sgO
        'I realize that Josef went to his home.'

(16)   Mariyam [yosef wədə-bet-u   mə-hed]-u-n   səmm-ačč   (mə:Perc)
        Mary   [Josef to-home-3msg.poss CM-went-3msg.poss-acc heard-3fsgS
        'Mary heard Josef's going to his home.'

(17)   yosef [kəfffətənaw   mə-wudək'-u-n]   tərrəd-a   (mə:Cog)
        Josef [from.exam.the CM-fall-3msg.poss-acc] realize-3msgS
        'Josef realized his falling from the exam.'

Clauses headed by *yə* and *li* items are illicit with these verbs. Take the *yə*-clause we saw in example (8), for example. Putting it under any of the CPU verbs would never generate any grammatical sentence.

(18)   *[yosef wədə-bet-u   yə-hed-ə]   səmma-hu
        Josef   to-house-3msg.poss CM-went-3msgS heard-1sgS

'I heard that yosef has gone to his home.'

The same is true with the *li* & *ʔndi*[2]-clauses.

Table 3: Selection of PCU verbs

No	Verb class	ʔndə	ʔndi	yə	li	mə
1	Communication	✓	-	-	-	✓
2	Cognitive	✓	-	-	-	✓
3	Perception	✓	-	-	-	✓
4	Propositional	✓	-	-	-	✓

5.2 Modality Verbs

As we have seen, the MOD class, includes verbs of various subclasses.

Out of these subclasses, the *desiderative* verbs are the most malleable of all as they are able to select all the three major complement clause types.

(19) Mariam [yosef makina-it-u-n ʔndi-yɨ-t'əgn-at]   fəlləg-əčč
      Mary yosef car-f-def-acc CM-3msgS-repair-3fsgO want-3fsgS
      'Mary wants for Josef to repair the car.'

(20) Mariam [yə-yosef-n wədə-bet-u   mə-hed] təmmənəčč
      Mary   of-yosef-acc to-home-3msg.poss CM-go wish.3fsgS
      'Mary wished Josef's going to his home.'

(21) yosef wədə-bet-u   li-yi-hed   fəlləg-ə
      Josef to-home-3msg.poss CM-3msgS-go want-3msgS
      'Josef wants to go to his home.'

There are a number of points to notice with regard to these clauses, in contrast to the PCU verbs we saw above. First, the *ʔndə* complementizer appears in its imperfective form (*ʔndi*) with these clauses. Second, co-indexed (shared) subjects are more natural with this class of verbs. This is especially true of the *li-* complement clauses where lexical subjects are totally ruled out.

Another, less common, irrealis (subjunctive) mood marker *bi* can also appear within the clauses embedded under the *desiderative* class. Compare the following sentences.

(22) yosef wədə-bet-u   bi-hed fəlləg-ə   (təmmən-ə)
      Josef to-home-3msg.poss irr-go want-3msgS (wish-3msgS)
      'Josef wants/wishes to go to his home.'

(23) yosef wədə-bet-u   li-hed fəlləg-ə   (təmmən-ə)
      Josef to-home-3msg.poss CM-go want-3msgS (wish-3msgS)
      'Josef wants/wishes to go to his home.'

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[2]I will finally argue that the *ʔndi* and *ʔndə* complementizers are different forms of the same underlying complementizer. But, for the sake of descriptive accuracy, I will treat them separately in the descriptive sections.

(24) yosef wədə-betu   mə-hed fəlləg-ə   (təmməñ-ə)
     Josef to-home-3msg.poss CM-go want-3msgS (wish-3msgS)
     'Josef wants/wishes going to his home.'

Out of the three, the agent *Josef* has the utmost control over the event in the case of *li* clauses. *Bi* on the other hand, suggests the agent has no immediate control over the eventuality–this is a case of irrealis or wishful event. The *mə*-clause seems natural in a situation where the control of the agent is unclear (vague).

Intention verbs also behave the same with the *desiderative* verbs in their selection. They can combine with *ʔndi, li-* as well as *mə* clauses.

(25) yosef wədə-bet-u   *(lə)-mə-hed ak'ədd-ə
     Josef to-house–3msg.poss (for)-CM-go plan-3msgS
     'Josef planned to go to his home.'

(26) yosef wədə-bet-u   li-hed ak'ɨd-o-al
     Josef to-home–3msg.poss CM-go plan-3msgS-aux
     'Josef has planned to go to his home.'

(27) astəmari-w riʔɨs-u-n   bə-samint wust' li-č'ərs ak'ɨd-o-al
     teacher-def chapter-def-acc by-week in CM-fish plan-3msgS-aux
     'The teacher has planned to finish up the chapter within a week.'

Aspectual verbs have the most stringent selection restriction. But, first, a few words on the class aspectual is in order.

In the literature, verbs such as *try* and *begin*-each exemplifying *achievement* and *aspectual* classes, respectively, are sometimes treated as separate classes. But, some works, including Givón (2001) put them under one category. The unification is based on their uniform properties. They behave the same in their argument structures for they are control verbs. But, they also display some subtle distinctions, at least in their semantics. In Amharic clauses, probably due to their control properties, they can select only *li-clauses* and the *mə-* clauses. Even with this limited selection, they display further idiosyncratic selectional restrictions.

Many of the verbs under the *aspectual* class don't take *li-clauses* [3].

(28) *yosef li-səra   ak'k'om-ə
     Josef CM-work stop-3msgS
     'Josef stopped to work.'

But, in the *achievement* subclass, some verbs such as *try* can combine with *li clauses*. They can also take the verbal nouns-but the infinitive marker preposition *lə* ('to/for'), is highly preferred

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[3]In some case where a special semantic effect is implied, however, some of the aspectual verbs are able to select *li-clauses*.

(i) li-alazin jəmmər-ə
     CM-*cry begin-3msgS*
     'He/It began to cry.'

Here, the speaker wants to emphasis how the child routinely cries.

to appear with the verbal nouns.

(29) yosef li-at'əna mokkər-ə
Josef CM-*study tried-*3msgS
'Josef tried to study.'

(30) yosef lə-mə-at'nat mokkər-ə
Josef CM-CM-*study try-*3msgS
'Josef started to study.'

(31) ?yosef mə-at'nat mokkər-ə
Josef CM-*study try-*3msgS
'Josef started to study.'

Other verbs of achievement subclass such as *assakka* ('manage', 'succeed in'), *aswəgədə/təwwə* ('avoid'), *dəffərə* ('dare'), etc cannot take the *li-clauses*. They can marginally take the verbal nouns, again, to the extent that the verbal noun is more nominalized (namely, accusative case marked).

(32) *yosef lə-mə-at'nat təww-ə
Josef to-CM-*study abandon-*3msgS
'Josef abandoned studying.'

(33) ?yosef mə-at'nat-u-n təww-ə-w
yosef CM-*study-*def-acc *abandon-*3msgS-3msgO
'Josef abandoned the studying.'

The *avoid* class of verbs seem to require nominal DP complements, rather than clausal complements. In this case, they require the definite and accusative case marked verbal nouns.

In short, the selection of the aspectuals & achievements[4] is quite similar. Verbs such as *begin, continue, try, manage* included in this class are prototypical control verbs.

(34) yosef bet-u-n lə-mə-as'dat mokkər-ə
Josef hose-def-acc *to-*CM-*clean tried-*3msgS
'Josef tried to clean the house.'

5.3 Manipulative Verbs

As noted above, the verbs under this super-category are semantically related. They express a situation where a sentient individual influence/permit/request another sentient individual to do some activity (task). The relationship between the influencer and the influenced arguments is syntactically represented by an agent and patient arguments. Unlike standard agent-patient clauses, however, in manipulative clauses, the patient participant appears in a clause which appears embedded under another clause.

Verbs under this class are sometimes known as *object control* verbs in the standard GB literature. They are called object control because the object of the matrix is theta marked by the embedded

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[4]Given that the number of verbs falling under achievement is limited ones; and the most productive ones in taking clausal complements behave the same with the aspectuals, it is possible to incorporate them under the aspectuals.

predicate as well. Whether the patient argument shared between the two clauses belongs to the higher domain or to the lower is more of a theoretical construct and open to debate.

Givón has included four of the verb classes of Noonan under the MAN super-category including manipulative verbs themselves, pretense verbs, permission verbs, and request verbs. The *Pretense* verbs in Amharic behave exactly like the prototypical manipulative verb in almost all respects. Therefore, I will not treat them separately. *Request* & *permission* verbs display some idiosyncratic properties in their selection.

As a general principle, manipulative verbs select *Ɂndi* clauses.

(35)   Mariam [yosef məkina-it-u-n Ɂndi-Ø-at'b-at]   asamən-əčč-w
        Mary   [Josef car-f-def-acc   CM-3msgS-wash-3fsgO] persuade-3fsgS-3msgO
        'Mary persuade Josef to wash the car.'

These verbs don't normally select *mə, yə* and *li* clauses.

(36)   *Mariam [yə-yosef-n   məkina-it-u-n mə-at'əb] asamən-əčč-w
        Mary   [of-Josef-acc carf-def-acc   CM-wash] persuade-3fsgS-3msgO
        'Mary persuade Josef's washing (of) the car.'

There are two exceptions to this generalization:

- Some *request* verbs select *li*-clauses & the verbal nouns; (37)

- Permission verbs select the verbal nouns; (38)

(37)   yosef wədə-betu   li-hed (alək'awun) t'əyəkə
        Josef to-home-3msg.poss CM-go (boss.his)   requested
        'Josef$_i$ requested (his boss$_j$) to go to his$_{i/j/k}$ home'

(38)   Mariam [yə-yosef-n   wədə-bet-u   mə-hed] fək'k'əd-əčč   (mə:Perm)
        Mary   [of-Josef-acc to-home-3msg.poss CM-go] permit-3fsgS
        'Mary permitted Josef's going to his home.'

5.4 Summary of complement clause selection

Table 4: Distribution of the complementizers

	class	ʔndə	ʔndi	li	mə	yə
PCU	**Com**munication	✓	-	-	✓	-
	Cognitive	✓	-	-	✓	-
	Perception	✓	-	-	✓	-
	Propositional	✓	-	-	✓	-
MOD	**Des**iderative	-	✓	✓	✓	-
	Intention	-	✓	✓	✓	-
	Aspectual	-	-	-	✓	-
MAN	Pretense	-	✓	-	-	-
	Manipulative	-	✓	-	-	-
	Permission	-	✓	-	✓	-
	Request	-	✓	✓	✓	-

As shown in the above table, the *yə*-clauses are the least selected complement clause. Only a single verb such as *yiməslal* ('seems') is able to select these complement clauses.

Clauses headed by *li*-clauses also have quite restricted distribution, Leung and Halefom (2017). They are selected by the *desiderative, intention* and *request* verbs.

Finally, the *mə*-clause appears to have the broadest distribution. Only manipulative and pretense verbs avoid to appear with them. In the rest of the cases, they have pretty broad distribution.

ʔndi and *ʔndə* clauses also have wide distribution. What is unique about them is that they are complementary to each other. A verb selecting one of them never selects the other. In later section, I use this fact to justify the proposal that two complementizers are unified underlingly.

6 Selection: the analysis

In this section, I am going to explain what determines the distribution of the complementizers and the clauses they head. We are going to investigate what kinds of selectional mechanism filter out classes of complement clauses. We are going to see why, say, the CPU verbs are unable to combine with the *li* and *yə* clauses while the MAN verbs do so.

But, before we delve into the selection issues, I will start out by laying out some facts regarding basic clausal structure to set the foundations for the analysis to follow.

6.1 Both aspect and tense are related with finiteness

The verbal structure of Amharic mainly revolves around aspect. Aspectual structure determines the core grammatical properties of the verbs. There are two main types (canonical) aspectual forms in Amharic–perfective and imperfective. All other types of inflectional and derivational properties of the verbs are based on the these two aspectual forms.

As in all other Semitic languages, the verbs in Amharic have invariant root structures and variable vowel patterns. The root structures represent the core semantics of the verb while the variable vowel patterns stand for grammatical derivations. The roots are made of consonant clusters numbering one to fife; typically three, occurring in a constant relative order. The vowels representing inflections and derivations are like forks inserted in between the consonant constants.

root	perfect	imperfect
sbr	səbbər- ('broke')	səbr ('breaks')'
lbs	ləbbəs- ('worked')	ləbs ('works')

A typical perfective verb has a pattern of $C_1 \\partial C_2 C_2 \\partial C_3$[5] while a typical imperfective would have $C_1 \\partial C_2 C_3$ pattern. In Amharic, the perfective forms and the imperfective forms differ, in addition to the root-pattern templates, by a number of other characteristics. The subject agreement markers are different in the two aspectual forms both in form and in position. Perfective forms have subject agreement markers exclusively as suffixes while the imperatives might have suffixes as well as prefixes.

The verbs marked with the perfective aspect can stand by themselves, and finish off sentences. Because of this, the perfective aspect is associated with finiteness.

Finiteness is often associated with agreement and tense, both in the traditional structuralist grammar and in the GB literature. All the theories in GB considered agreement and tense as crucial host of the finiteness property. Chomsky's own theories since 1980's considered Tense (TP) (Chomsky 1980) and agreement (Chomsky 1981, 1986) as important components of the clause structure, and theory development at large. Finiteness was assumed to be a subpart of an independently projecting functional category, namely the INFL. In some versions of this theory, the richness of the INFL is taken as the predicator of the finiteness feature while in some works, attempts have been made to correlate finiteness to a single, specific feature.

Currently, there are two features often assumed to be the defining property for finiteness, Nikolaeva (2010).

Out of these two features, it is only the tense feature that has the closest relation with finiteness in Amharic. The agreement feature cannot work because subject agreement markers are ubiquitous regardless of the finiteness of the clause. Subjects in nonfinite clauses are also indexed with agreement markers. A tense morphology is also rare in Amharic.

Amharic verbs never carry morphological inflection for tense. The verbs come out finite by the perfective inflection (defining Finiteness in Mathew's 1997 sense). Since the perfective form of the verbs can stand in root clauses, I assume the perfective aspect is correlated with finiteness. There is indeed a huge cross-linguistic literature on the correlation b/n perfective aspect and tense. Since Amharic tense auxiliaries also make the incomplete constructions complete the clause, I assume that Tense is still an important component of finiteness. Indeed, I would like to make an explicit proposal that the Perfective aspect is an amalgamation(a span of) the perfective aspect and tense projections. This is supported by the fact that perfective aspect is incompatible with tense auxiliaries. That means, I will take Finiteness rather as an

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[5]The easiest way to identify the perfective from the imperfective is to check if there is a schwa ə sound after the second consonant. This situation changes in the two radical verbs. But, given the majority of the verbs in Amharic are triradical, this heuristic is sufficient for linguists who are not familiar with the Amharic morphology to identify the perfective forms from the imperfective.

epiphenomenon of the presence of tense feature, whether as an independent category, or as a sub-feature inside the Perfective aspect.

Whenever the tense has no morphological material, it realizes as a subunit of the Perfective aspect.

A clear counter-evidence for this assumption is the possibilities of tenseless clauses to head finite clauses. This can clearly be demonstrated with the perfective form.

Consider the following sentence. The verb appears in the perfective form. And, most importantly is a finite clause. There is no any clue of tense morphology whatsoever. This challenges the hypothesis that the tense property is the reason for definiteness.

(39)   Yosef hedd-ə
       *Josef went-*3msgS
       'Josef left.'

To alleviate this issue, I suggest that the perfective in Amharic is an amalgam of tense and aspect properties. This suggestion came from two observations. First, there is consistent correlation or relationship between the perfective aspect and past tense. It is almost universally property of the perfective aspect that it denotes completed events, which often implied past tense. This correlation has already been widely reported, Dahl (2000). The correlation of the perfective with the past is especially pretty strong in Semitic languages. That is why the perfective is often described as past tense in the traditional grammar. The perfective aspect generally implies the past tense in Amharic, Demeke (2003); Meyer (2016).

The second reason is the complementarity of the perfective with tense auxiliaries. None of the tense marking auxiliaries (past or non-past) are able to directly combine with the perfective verb.

From this, I conclude that the perfective verb in Amharic already bears the tense feature. It is a span or an amalgam of the TP and AspP layers. That is why it is able to stand by itself (making the clause finite) while implying a perfective sense.

Figure 1: Perfective
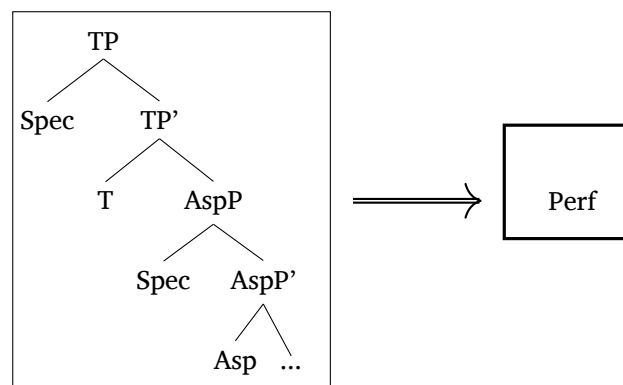
Imperfective aspect, on the other hand, requires tense auxiliaries to function as finite. This suggests that the imperfective aspect is independent of the tense projection. Given lack of

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correlation with tense, the imperfective aspect cannot denote finiteness. Hence, imperfective form of the verbs requires the support of other materials, like the tense and modal auxiliaries to complete the clause.

TP needs to appear on top of the AspP for the clause to stand by itself (to become finite).

Figure 2: Imperfective
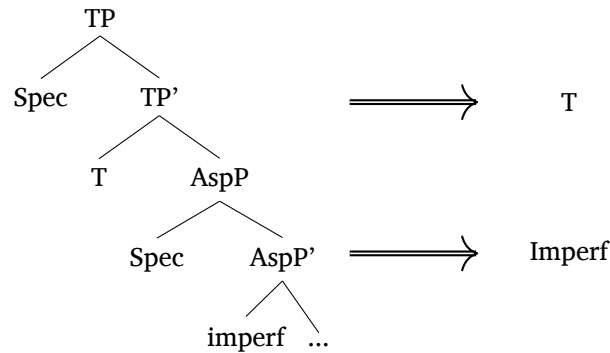
That means that, finiteness is not a separate projection such as FinP which appears in the left periphery. It is simply the presence of the TP that makes the clause finite.

I also assume the reverse to be true. That is, non-finite clauses are the ones that lack the TP. That is exactly the reason why the imperfective verbs cannot stand by themselves. They require the tense markers (auxiliaries) to head finite clauses.

This means that, if the complementizers are selecting categories or features, they are selecting either TP or AspP projections.

6.2   The complementizers are not clause type markers

As noted by Grimshaw, complement clauses embedded under interrogatives are marked with a different set of complementizers than the declaratives. Interrogative complement clauses in English are marked by complementizers such as *whether* and *if*, on contrast to the declaratives which appear with the *that* complementizer.

(40)   a.   He asked whether Mary left to school.
       b.   The police inquired who killed the rabbit.
       c.   The police claims that he killed the rabbit.

Based on this, Grimshaw and others considered complementizers as clause-type markers. These complementizers are assumed to select or combine with different types of clauses such as declarative, interrogative, and exclamations.

This kind of semantic type, however, turns out to be irrelevant to the clausal selection in Amharic.

Interrogative, declarative or exclamation are introduced in the same manner, with the same set of complementizers.

(41)   Mariam wede timihirtbet hedd-a   ʔndə-honə tʼəyək-u-ačəw
        Mary   to   school   went-3fsgS CM-be   ask-1sgS-3plO
        'I asked them whether/if Mary has left to school.'

The complementizer *ʔndə* attached here is the same complementizer that appears on the declarative embedded clauses. What appears to be different here is not the type of complementizer; rather its position. In the interrogative clauses, the complementizer appears on the auxiliary verb, rather than on the lexical verb. The reason for its position is the presence of the auxiliary verbs in questions.

If there is no auxiliary in the embedded clause, which is the case for wh-questions, the complementizer appears on the lexical verb.

(42)   Mariam məčə wede timihirtbet ʔndə-hedd-ač   tʼəyək-u-ačəw
        Mary   when to   school   CM-went-3fsgS ask-1sgS-3plO
        'I asked them when Mary has left to school.'

Here, when the wh-item is available, the embedded clause behaves exactly like a regular declarative clause; hence, the complementizer appears on the lexical verb.

Therefore, the position of the complementizer is really not sensitive to the clause type. What rather determines its position is the presence or absence of a higher verb–which is the auxiliary. If there is an auxiliary verb in the embedded clause, it appears on the auxiliary. If there is none, it appears on the lexical verb. This is the usual *floating property* of functional items in this language.

(43)   bə-min yakil fɨtʼnət ʔndə-rotʼtʼ-ə   adənək-u
        by-what size   speed   CM-run-3msgS appreciated-1sgS
        'I appreciated how fast he runs.'

From this, I conclude that the relation of complementizers or complement clauses with different clause types is irrelevant in this language. If there is any theory we need to develop for the selection or distribution of the clauses or the complementizers, we have to do it with other means than clause types (or Force). The complementizers are not realization of Force. Based on specific function given for the ForceP as a functional layer where the clause type is defined, and that the complementizers in Amharic have nothing to do with clause type, it becomes incumbent on us to dissociate these two elements. I assume that the function of the complementizers simply marking a clause "to identify the entity as a complement" to another clause, Noonan (2007). I assume that underspecified CP is sufficient to express this core function of the complementizers. The CP bears no specific semantic value or force property, so to speak. It is highly uninterpretable parameter like case and other similar syntax internal features.

6.3   The two forms of a complementizer

In section 3, we have identified five types of complement clauses headed by different complementizers. From these complementizers, the *ʔndi* and *ʔndə* complementizers have an uncanny resemblance in form. They differ only with their last vowel.

As we have seen above, the two items also appear in complementary positions as well. That is, the PCU verbs almost exclusively select the *ʔndə* clauses while the rest of the verb classes

select the *ʔndi* complementizer. Unlike the case with the other complementizers, there is no single overlap with these two complementizers. No single verb class is able to select both of them.

More importantly, the form of verbs where the *ʔndi* complementizer appears to be imperfective, while the *ʔndə* appears on the perfective forms.

From this we can propose that the two items are not distinct complementizers. They could be considered rather different forms of the same underlying complementizer, such as *ʔnd-*.

(44)   **Underlying ?nd-**
       ʔndi & *ʔndə* are different surface forms of the single underlying complementizer *ʔnd-*

If a CATP selects *ʔnd-* complementizer (complement clause), which of the forms appears with the clause depends on the form of the embedded verb. If the lexical verb of the embedded clause is perfective, the complementizer appears as *ʔndi*, if it appears with the perfective form, it appears as *ʔndə*.

Given the presence of complement agreement across languages, we can then explain the patterns with the help of Agree operation.

(45)   **The two forms of ?nd-** reflect agreement
       The single underlying complementizer *ʔnd-* appears in two different forms due to it agreement with the verbal aspect.

More specifically, it appears as *ʔndə* because it agrees with the perfective aspect, and as *ʔndi* because it agrees with the imperfective. The last vowel of the complementizer mirrors the forms of the verbs. The *ə* vowel is the core marker of the perfective aspect in this language. it is one of the core attributes that all the perfective verbs share. The *i* vowel is also a feature of the imperfective verb paradigm. As such, the two forms of the complementizer are simply reflections of the two types of verbal aspect.

This means that the functional layer where these complementizers merge agrees with the AspP projection to determine the form of the complementizer.

Figure 3: Complementizer agreement

```
            CP
            /\
             \
             CP'
             /\
            /  \
           C    TP
          ʔnd-   /\
                /  \
               AspP
               /\
              /  \
             AspP'
             /\
            /  \
           Asp    ....
```
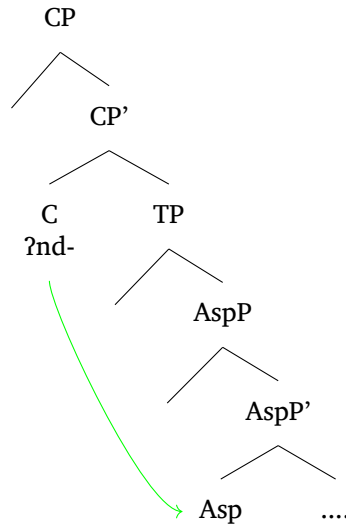
If the AspP head is filled with the perfective feature, the complementizer appears with the *ə* morpheme. But, if the Asp head is filled with the imperfective value, the complementizer receives the *i* morpheme.

As we will see in later sections, the presence of the TP projection is a bit unclear. The perfective aspect, especially, seems to able to induce finiteness by itself. As such, we can extend this idea and further assume that the *ə* marker on the complementizer actually reflects the finiteness feature.

This idea is even more attractive because the *ʔndə* for of the complementizer is also associated with the finiteness marking tense auxiliaries as well. Consider the following sentence.

(46)   yosef məkina-it-u-n t'əgno-Ø-at   ʔndə-nabbər səmma-hu
       Josef car-f-def-acc *repair-3*msgS-*3*fsgO CM-*was   hear-1*sgS
       'I heard that Josef had repaired the car.'

Here, the complementizer doesn't project over a perfective lexical verb. It appears over the tense auxiliary *nəbbər*. Still, it appears in the perfective form. One might consider this as a falsification to the *agreement with the verbal aspect* idea I present here because the lexical verb is in the imperfective.

Note, however, that the auxiliary itself appears in a perfective form. It displays all the properties of the perfective verbs: the middle consonant can be geminated, subject agreement markers could appear as suffixes, etc.

As such, we can simply assume that the auxiliary itself is in the perfective, and the complementizer copies the perfective feature of the auxiliary.

Admittedly, the situation is much more complex than this, and, directly associating the *ʔndə* complementizer with the FinP, rather than the perfective per se, might be a better analysis. This

is because the factors that determine the form of the complementizer can be complex, especially when other functional items intervene between the complementizer and the lexical verb.

Consider the form of the complementizer with the *t'əggən-* ('repair') verb we have seen above.

(47)   (a) ʔndi-t'əgn
           (b) ʔndə-t'əggənə
           (c) ʔndə-mi-t'əgn
           (d) ʔndə-as-t'əggənə
           (e) ʔndə-mi-as-t'əgn
           (f) ʔndi-as-t'əgn

What exactly determines the forms of the complementizer is pretty complex as we can see in the above examples. In one way, the surface linear appearance of the complementizer with either aspectuals of the verbs seems to affect its form.

In (47), the complementizer directly attaches on the imperfective form of the verb. As expected, it appears as *ʔndi*. In the same manner, the complementizer appears as *ʔndə* if it directly attaches on the perfective form of the verb. These are expected patterns.

What rather seems odd is the case we have in (47) and (47). In these examples, the complementizer appears as *ʔndə* even if the verb appears in the imperfective. This is not expected because we have said that the *ʔndə* complementizer is not possible with the imperfective. It also gives the impression that the surface linearity of the complementizer with the forms of the verbs is what makes the agreement possible. That is, if the complementizer directly attaches on the imperfective form of it, it appears as *ʔndi*, as shown in (47). If there is an intervening item between the verb and the complementizer, it appears as *ʔndə*. From this, one might be tempted to think that the *ʔndə* form is simply an elsewhere condition while the *ʔndi* form is restricted to the surface linearity of it with the imperfective.

This analysis, however, cannot be right. Look at the following examples.

(48)   a. ʔndi-as-t'əgn
          b. *ʔndə-as-t'əgn
          c. *ʔndə-mi-t'əggənə
          d. *ʔndi-mi-t'əgn

Here, we have the causative *as* intervening between the complementizer and the imperfective form of the verb. Still, the complementizer appears as *ʔndi*, not as *ʔndə*. This suggests that the form of the complementizer has nothing to do with the surface linearity with the verbs.

Rather than surface linearity, that really matters is the structural features available on the verb. Even if *as* intervenes between the complementizer and the verb, the complementizer still appears in the imperfective. Therefore, the explanation for the (47) and (47) is not surface linearity between the complementizers and the verbs.

Rather, the reason why the complementizer appears as *ʔndə* form in these examples has to do with the feature specification of the *mi* marker itself. It appears that this prefix is some kind of perfective aspect marker. It selects the imperfective form of the verb, and turn it to a perfective. The complementizer rather agrees with it (the highest item), and changes its form to the *ʔndə*. Functional items such as the causative *as* have little to do with aspectuality. As such, they don't

induce any shift of form on the causative. The complementizer simply agrees with the form of the lexical verb embedded under the causative marker *as*–appearing in the imperfective as in (47) and in the perfective form in (47). Put it in other words, the non-aspectual functional items don't function as interveners for the agreement between the aspectual features of the verbs and that of the complementizers. Functional items that contain aspectual features act as interveners. The agreement will be between the C head and the functional items.

6.4   Subcategorization

Once we establish the basic facts on the verb classes, complementizer types and the selection relationship between them, it is time to return to the main analysis of the power of the paper, namely the selection of the complement clauses.

To put foundations for the analysis, however, I am going to briefly review the most important analysis of selection within the GB literature.

6.4.1   Selection in the GB

Chomsky (1965) put the foundations to explain the distribution of different clause types. His approach is based on his earlier analysis where different syntactic objects subcategorize to different types of categories. The subcategorization is considered the main factor that determines whether two syntactic objects would combine together or not. For a transitive verb selecting an NP object, for instance, its subcategorization frame is assumed to be like [+_(NP)].

The subcategorization approach takes the category of the subcategorized items as the only factor to determine the combinatorics. The semantic category is assumed to fit with the subcategorization frames.

But, latter studies noted that the subcategorization of the items is not sufficient to explain the distribution of complement clauses.

Grimshaw (1979) is one of the most influential works in this regard. Grimshaw made an explicit argument for separation of categorial selection (subcategorization) from semantic selection (s-selection). The crucial point for her theory is the observation that verbs of the same semantic type select for complements of different categorial type.

(49)   Semantic types
          a.   Q (Question)
          b.   P (Proposition)
          c.   E (Exclamation)

These semantic types, she argued, don't have a one-to-one correlation with syntactic categories such as CP & NP(DP). Verbs of the same semantic type such as *ask* and *inquire* (both the Q semantic type), for example, impose distinct requirements on the syntactic category.

(50)   a.   John asked [CP what the time was]
          b.   John asked [NP the time]

(51)   a.   John inquired [CP What the time was]
          b.   *John inquired [NP the time]

As exemplified in the above sentences, both of the verbs select for *Q* semantic type. But, only the *ask* verb is able to combine both the CP and NP (DP) syntactic types (categories). *Inquire* combines only with the CP syntactic type. From this, she conclude that the theory of s-selection and c-selection are orthogonal mechanisms. A verb selecting a Q semantic type [1] may or may not select for an CP complement. The same goes with the other semantic types.

She (1981) further observed that the c-selection of the semantic classes is not free. That is, verbs s-selecting say Q semantic type have two choices when it comes to their c-selection–they either select a CP, or a CP and a NP. There are no verbs which s-selects Q semantic type and NP syntactic type only.

(52) a. *ask* [+_CP/NP]
      b. *inquire* [+_CP]
      c. *VERB [+_NP]

The non-existence of verbs like *VERB* in English made Grimshaw to modify her earlier theory to accommodate the gap. In her new theory, she proposes for a "canonical" correlation between semantic types and syntactic categories. In a proposal called *Canonical Structural Realization (CSR)* she correlated Propositions, Question and Exclamation semantic types with a CP syntactic category. For a child learning a certain language Lx, a certain verb taking a proposition as its complement tells the child that the verb subcategorizes for CP in Lx.

Her *Context Principle* stipulates that for a predicate s-selecting a semantic class such as *proposition*, then, it subcategorizes for the canonical realization of C. According to this approach, questions, propositions and exclamatives are canonically mapped to the CP in the syntactic domain.

Taking the CSR as a starting point, a child which acquire data like *John asked the time* would posit [+_NP] to the subcategorial frame of the verb. According to this system, the verb doesn't directly subcategorize for the CP or NP. Rather, the subcategory of the verb is acquired by the Context Principle for free.

That is, a Proposition is simply mapped to the CP unless there is evidence to the contrary. This algorithm avoids redundancies where both s-selection and c-selection defined to determine combinations independently. Given the s-selection of a predicate, the Context Principle lets the child easily deduce the c-selection of the predicate. For the NP complements, however, the child needs to get a direct evidence that the category is compatible with the predicate. That means, the subcategorization of the verb directly to the NP is necessary for the NP complement while the CP complementation is acquired for free by the Context Principle.

Later works have used the idea to eliminate c-selection altogether from the grammar. The first attempt to replace c-selection with a combination of s-select and case theory was Pesetsky (1982). In that work, Pesetsky argued that s-selection in combination with case theory can make obviate the c-selection part of the grammar. He hypothesized that NP/DP complements, but not CP complements of predicates require abstract case. Predicates which s-select for propositions or questions canonically take sentential complements following Grimshaw's CSR. A crucial idea of his theory is the assumption that not all question or proposition taking predicates are able to assign accusative cases to their complements. Those predicates which are able to assign accusative case then can take DP/NP complements, in addition to the CP. The *ask* verb we mentioned above is able to assign accusative case to its complement. Therefore, it is able to take DP complement, in addition to its canonical CP complement. The verb *inquire* however is

incapable of assign accusative case. Therefore, it is restricted to CP complements.

6.4.2 S-select is not compatible with Minimalism

As we have seen in the above subsection, the s-select analysis is one of the most promising approaches to explain selection. There are, however, a number of issues that makes it hard to apply to the selection issues we have here.

First, the analysis has been argued to be insufficient to cover all the facts of selection that the c-selection approach has covered. Further issues have been raised against the s-select in a number of works including Webelhuth (1992); Odijk (1997); Alrenga (2005).

But, out of all these issues, the architectural shifts presented in the Minimalism pose the most difficult and immediate setback to apply the technique. Minimalism largely follows the Late Interpretation mechanism (also known as the Y/T model) architecture. What does that mean that the semantic content of syntactic categories is not available to later in the derivation. Syntax has to finish up its derivation before the semantic and phonological components apply. In this framework, Grimshaw's *Canonical Structural Realization*, a mapping mechanism which maps syntactic categories from the semantic properties of the selectors, cannot be used. Look closely to the Bare Phrase Structure implementation of the Late Insertion (T-model).

Consider the derivation of the following sentence where the verb *ask* takes an NP complement.

(53)   Mary asked a question

The standard Minimalist derivation, Chomsky (1995), proceeds in the following ways.

(54)   Merge(α, β) → K = {K, {α, β}}

That is, in the first step for the DP to merge with the verb, there is what Chomsky calls the Edge feature which triggers the merging of the selector and the selectee. The selectors are presumably the holders of the Edger feature:

(55)   a.   The edge features on *ask* probes for a DP
        b.   The two categories merge and create a set

The derivation then introduces the external argument, still under the assumption that some other unchecked (unvalued) feature in *ask* triggering the merging of the external argument. As soon as the derivation introduced the external argument at Spec,vP, a phase boundary, the derivation would be sent to the interfaces for interpretation. That is, to the point where the syntactic derivations are sent to the interfaces for interpretation, no meaning or phonological value can be assigned to them. This again means that the semantic module has no access to the elements of the syntactic derivation. The late interpretation doesn't allow an inference from meaning to category. It is the categorization that should feed to the semantics, not the other way around as Grimshaw's & Pesetsky's theories postulate. This makes the GB theories of s-select feeding into the derivation incompatible with the Minimalism system.

The semantic features of each of the lexical items would be available only in the post syntactic domain where the interpretations are assigned. For that, we cannot use the s-select mechanisms devised in the GB era within the Minimalist frameworks.

6.4.3 Back to the facts

To remind the reader about the selection patterns of the CATPs, a condensed form of the summary presented in Table 4 has been repeated here.

Table 5: Condensed summary

	class	ʔnd-	li	mə	yə
PCU	**Com**munication	✓	-	✓	-
	Cognitive	✓	-	✓	-
	Perception	✓	-	✓	-
	Propositional	✓	-	✓	-
MOD	**Des**iderative	✓	✓	✓	-
	Intention	✓	✓	✓	-
	Aspectual	-	-	✓	-
MAN	Pretense	✓	-	-	-
	Manipulative	✓	-	-	-
	Permission	✓	-	✓	-
	Request	✓	✓	✓	-

Using the syntactic categories of the complementizers we have discussed in the previous sections, we can then attempt to explain why some of the classes of verbs are able to with some of the complement clause types (or the complementizer), but not with others.

To start with the PCU verbs, these verbs canonically select the finite complement clauses, as shown in the above table. A relation of this kind can be explained using Grimshaw's Canonical Structural Realization, which maps propositions into CP categories.

(56)   PCU [+proposition]

Given the *ʔnd-* complementizer is a C-head, the CPU verbs select propositions. Hence, the proposition is canonically mapped to the CP structure. This kind of analysis, however, cannot used in the current Minimalist system, as we have noted above, where the mapping is assumed to be from syntax to semantics, not the other way around. Therefore, if there is a selection, the selection needs to be determined by the syntactic system itself, as no semantic information is available in the pre-Spellout stage.

Therefore, we need to formulate the selection parameter using syntax internal features only.

One of the most common approaches to explain the distribution of complement clauses within the syntactic system is to use feature compatibility. That is to mean, some classes of verbs select CP layers specified with certain features (properties). Some verbs are known to select complete or finite complement clauses while other verbs select nonfinite clauses. The selection of verbs taking finite complement clauses, such as *tell,* for example, can be explained by assuming a

selection specification on the verb to combine with a complement clause specified with the finiteness property.

According to Rizzi (1997) a finite CP is generated when ForceP projects over [+Fin] specified FinP. The selection from the lexical verb to the finite complement clause can be executed in two different ways

(57)   Two logical options for selectional relations:
        a.   Nonlocal selection
        b.   Local selection

The first approach permits a selection relation from distance. One head selects another head across an intervening projection. This kind of relationship seems to be available in natural languages as documented in Svenonius (1994). But, most linguists don't take the nonlocal relation on the surface value. These distance relations are often assumed to have some kind of local relation at some level of the grammar. That is why different strategies of creating local relations are applied.

(58)   Strategies for creating local selection relations
        a.   **An immediate/direct strategy**: here, we can assume that the C head bears or inherits some properties of the lower clause by some means. The V of the higher domain then would select that specific feature on C.
        b.   **A mediated/indirect strategy**: here, we can assume that the V selects a specific kind of C or complementizer. The complementizer then regulates the features of the complement clauses. That is, the V selects the C, and the C selects the feature of the embedded clause–would it be finiteness or mood.

To create a locality relation, the direct method requires some methods of transferring features of the lower clause to the CP projection. One renown method of passing the feature of the lower functional projections to higher domains is known as feature percolation, Grimshaw (1991). Another, recently introduced mechanism for passing the features of one of the heads to the other is known as *feature inheritance*, Fortuny (2008); Chomsky (2008). Movement operations such as feature movement or head movement can also transfer features from one layer to the other. Indeed, we can think of feature percolation as movement of features. The fourth approach that I will apply in this analysis is the Agree.

We will return to direct approach in later pages. But, before that, we are going to consider a popular, minimalist application of the mediated approach–that is the feature checking theory of selection.

6.4.4   Subcategorization is not feature checking

For c-select is often assumed to be a strictly local relation between two heads, the *mediated* approach, first argued in Grimshaw (1977) and adopted in Baltin (1989), is considered the standard approach, Svenonius (1994). According to this approach, if a lexical verb is assumed to select a finite clause, the selection is assumed to occur with the intermediary of the complementizers.

The mediated approach enables us to formulate a strict local relationship between the selector V and the C. Different types of C heads then select different types of complement clauses.

The subcategorization of the CATPs can be formulated as follows using the standard GB subcategorization frames, Chomsky (1965).

(59)   PCU + [_CP]

This classical subcategorization system has been reanalyses as feature checking mechanism within Minimalist system, Svenonius (1994); Chomsky (1995). The selector verb is assumed to appear with uninterpretable/unchecked categorial feature. In some versions of Minimalism, the uninterpretable feature on the selector verb serves as a trigger for the Merge operation to operate, Adger (2003, 2008). The complement, on the other hand, is assumed to come with the interpretable counterpart of the categorial feature.

For a CPU verb such as *tell* for example, the selection features would come as follows:

(60)   gəlləs'ə ('describe') [uC/uD]

What this feature specification says is that the lexical verb comes two unvalued/uninterpretable features which need to be checked before the derivation is sent to the interfaces. To check the unchecked features, a syntactic object with the interpretable counterparts needs to merge with the verb. The complementizers are the ones that are able to check the [uC] feature.

(61)   ɨndə [C]

The presence of the uninterpretable uC makes it possible for the Merge operation to combine these two items. Once they are combined, the uninterpretable uC on the verb would be checked by the [C] on the complementizer.

Figure 4: Categorial feature checking
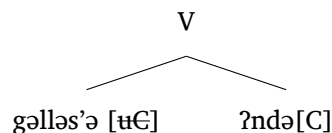
As shown in the tree structure, in Adger's version, just like the classical subcategorization system, sisterhood is assumed to be sufficient to create necessary local relation (checking in the former case).

In (60) it has been important to assign two unchecked features because the verb has selection subcategorization both for DP arguments and CP arguments. The [uD] is also important because the same verb is able to select regular nominal DP complements as well, as in *described the story*.

In this case, the verb is just a regular transitive verb. Like a transitive verb, the internal argument which is headed by the D categorial feature merges with the verb. The merger of the DP,

which is *a story* in the this case, checks the uninterpretable feature.

This is a general pattern of most CATPs. They are able to take DP complements, in addition to the CP complements. In this sense, CATPs are just transitive verbs. They differ from the regular transitive verbs such as *kill* only because of the fact that they permit CP-complements, in addition to the standard DP arguments.

The duality of the unchecked features, however, is problematic for the feature checking interpretation of selection. The two uninterpretable features come with the verb can never be checked in a single derivation. In cases where the verb appears with the regular nominal DP, the [uC] feature of the verb would remain unchecked. This is supposed to cause a crash on the interfaces, Chomsky (1995); Julien (2002). But, it doesn't.

(62) **The Problem of Multiple Subcategorization Frames (PMSF[6])**
      A selector lexical item L appears with more than one uninterpretable subcategorial features.

The problem is when a lexical item appears with two or more uninterpretable categorial features that cannot be checked in a single derivation.

(63) a. Mary described the incident.
      b. Mary described that the politicians fought over the issue.

In the first sentence, the verb takes a DP complement. This means that the [uD] feature of the verb has been checked. But, the [uC] feature of it remains unchecked. In the same manner, the [uD] feature of the verb remains unchecked in (63-b).

The only way to check both of the features at the same time is to merge the verb with two complements at the same time. This kind of merger seems available in natural languages–most prevalently in the case of coordination, and probably in the case of ditransitive verbs. One might think of a similar combination is a as a possibility for the CATPs. Consider the combination of the above two complements.

(64) Mary described the incident that the politicians fought over the issue.

But, the relation of the DP and the CP in this clause is a recursion of some sort. The CP is rather part of the DP, or a relative clause modifier to the noun. It has not been directly selected by the matrix verb. As such, merging of dual complements with regular transitive verbs is normally empirically illicit.

Furthermore, the basic Minimalist architecture also doesn't allow dual complements to a single SO because Merge is assumed to be a binary operation where only two objects combine at a single step.

Based on this, I conclude that the feature checking understanding of selection is not tenable. For additional conceptual problems of feature-checking understanding of selection, look at Surányi (2010).

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[6]Note that this is an issue only for the feature checking interpretation of the subcategorization. The classical subcategorization frame won't have problems to assign multiple frames for lexical items. Look at Emonds (2000) for assigning multiple features to the subcategory frames of lexical items.

6.4.5 The categorial features are not sufficient

One strategy one might use to alleviate the issue raised against the feature-checking interpretation of the subcategorization is to unify the two categories such as the C and the D at some level of the grammar. Indeed, a similar kind of idea has been entertained in the Romance literature where complementizers appear to have pronominal functions as well, Manzini and Roussou (2020).

The idea has quite interesting correlations with the generalization that CP-selecting predicates tend to select DP complements as well.

(65)   **D-inclusivity generalization**
        If a verb selects a CP, it also selects a DP.

This rule seems to hold for most verbs that take CP complements tend to select also DP complements. A few counter-examples have been noted by Grimshaw (1979).

(66)   a.   They claimed that the construction is ungrammatical.
        b.   *They claimed the ungrammaticality of the construction

Other works such as Rothstein (1992), however, argued that these verbs actually don't strictly block nominal complements. The main evidence for the argument is from wh-constructions.

As it turns out, CP-taking verbs that don't license nominal complements license traces for moved wh-items.

(67)   What$_i$ they t_i is that it was an accident

This has been used by Rothstein to argue that what makes the sentences such as (66-b) ungrammatical is not the projection of the arguments per se. Rather, it is the absence of movement out of the complement position.

In addition to the Rothstein, I have noted that the CATPs in Amharic invariably select nominal complements as well.

Then, if the generalization is correct, it supports Manzini & Roussou's idea that complementizers are somehow related with nominal items such as pronouns explains the correlation of DP complements with CP complements.

If their analysis is correct, we then don't need separate feature specified on the verb. We can simply make them relate by implicational rules.

(68)   VERB [uC] $\rightarrow$ VERB [uD]

This implicational correlation between the two complement types makes stipulation of separate subcategorization rules for the DP and CP complements superfluous. That is, if the CPs are a special type of DP, making a subcategorization rule with the CP complements makes it sufficient to imply that the DP complements are also licensed. According to this, the only subcategorization rule we need is the one that involves the CP complement.

(69)   gəlləs'ə ('describe') [uC]

The presence of the [uD] is simply implied from the presence of the [uC]. As such, we don't need to assume two distinct uninterpretable features with the lexical verb.

In addition to the explaining the problem the PMSF, the implicational rule presented above has additional explanatory functions as well. That is, if the rule succeeds, it is possible to predict the distribution of gerundive complements from the CP complements.

Given the assumption that gerundives are headed by DP layer, it makes an immediate prediction on their distribution. Any verb that selects a CP complement is predicated to select a DP complement as well. As such, the gerundives are predicated to be selected by the CP selecting verbs.

We can make the prediction explicit as follows.

(70)   **G-inclusivity hypothesis**
        If a verb selects a complement clause (CP), it also selects a gerundive clause.

In the above sections, we have seen that the *mə* clause marker introduces a nominal category on top of the regular verbal spine, just like any gerundivizer morpheme does. This means that any verb selecting CP-complement such as *ʔnd-* selects the *mə-clauses* as well.

If this proposal turns out to be correct, the selection of the gerundives would come for free. The hypothesis makes a straightforward predication that any verb that selects CP complements would also be able to select them.

The subcategorization rule given in (69) in combination with the G-inclusivity hypothesis does indeed elegantly explain the combination of *ʔndə* and *mə* clauses not only with PCU verbs but also with that of *desiderative, intention, permission* and *request* verbs.

While this makes the proposal[7] promising to extend to explain the distribution of other verb classes, unfortunately, it fails on some verb classes. Verb classes such as *manipulative* and *pretense* fail to select the *mə* clauses, even if they license CP complements (as well as regular DP complements).

Consider the examples I presented in page 13 once more.

(71)   Mariam [yosef məkina-it-u-n ʔndi-yi-at'b-at]   asamən-əčč-w
        Mary   [Josef car-f-def-acc   CM-3msgS-wash-3fsgO] persuade-3fsgS-3msgO
        'Mary persuade Josef to wash the car.'

(72)   *Mariam [yə-yosef-n   məkina-it-u-n mə-at't'əb]   asamən-əčč-w
        Mary   [of-Josef-acc car-f-def-acc   CM-wash-def-acc] persuade-3fsgS-3msgO
        'Mary persuade Josef's washing (of) the car.'

(73)   Mariam yosef-n   asamən-əčč-w
        Mary   Josef-acc persuade-3fsgS-3msgS

_____

[7]Note that the success of the rule/proposal to solve the problem of multiple subcategorization frames (PMSF) is independent of the success of the rule to predict the distribution of the gerundives.

'Mary persuaded Josef.'

The sentence in (71) shows that the verb *persuade* is able to select a clausal complement. The same verb is also able to take a DP complement as illustrated in example (73). According to the hypothesis given above, the verb should also be able to combine with the gerundives. The prediction, however, is not borne out, as the illicitness of the sentence in (72) shows.

In other terms, the impossibility for the gerundive to appear with these groups classes of verbs shows that the distribution of the gerundives cannot be predicated from the distribution of the CP complements.

The distributional mismatch of the gerundives is not even restricted to the CP-complements. They do not exactly match with the regular nominal DP arguments either. Obviously, most transitive verbs that license regular nominal DPs are unable to license the gerundives. Only a subset of transitive verbs are able to select the gerundive DPs.

Consider the following English sentences.

(74)   a.   Mary enjoyed the game.
        b.   Mary enjoyed kissing John.

(75)   a.   Mary kissed John.
        b.   *Mary kissed pleasing John.

The first pair of sentences shows that the verb *enjoy* is able to take regular nominal DP arguments as well as gerundive DP arguments. But, the verb *kill* cannot take a gerund DP complement as the ungrammaticality in (75-b) shows. Only the nominal DP complement is licensed with it.

This raises a serous issue for the categorial based selection theory at the very fundamental level. If the category feature of the complements is assumed to be the prime source of selection, as assumed the subcategorization theory, it is a mystery why the gerundives, which are assumed to have DP category, cannot have the same distribution to that of regular nominal DPs.

(76)   The Problem from the Restrictedness of the Distribution of Gerundives (PRDG)
        The distribution of gerundive DP is different from the regular nominal DP. This is a
        problem for the subcategorization theory which predicts consistent distribution for the
        same category items.

For the problem at hand, this also means that we cannot just formulate a general selection rule that would work across all DP complements. As the verbs that combine with the gerundives are a specific class, we need some mechanism of differentiating the verbs which can combine with the gerundives from those which cannot.

There are two ways to solve the problem in (76). One way of solving it is to reject the assumption that gerundives are headed by a DP projection.

This option is less like to be successful because the idea that gerundives are headed by nominal or DP projection has deep roots in the field, Abney (1987); Baker et al. (2005); Pires (2007, 2006). It has found a lot of empirical support from a wide range of languages. As such, the outer DP projection of the gerundive construction is well established.

The second alternative to reject the assumption that the selection of the gerundive is due to categorial selection. As such, an alternative approach would be reintroduce the semantic selection that was used in the GB era. S-select specifically would be an a very promising direction because the selection of the gerundive complements seems to have to do with the semantic class of the verbs. Assume that some classes of verbs select a semantic category such as *situations*, in the sense of Ramchand (2014). In this case, the relationship between the gerundive clause and the selector predicate is a semantic selection. The top category of the gerundive would be irrelevant to the point that the embedded clause within the DP satisfies the s-select requirement of the verb. It is also known that s-select is not as local as c-select assumed to be, as it "can 'see' more than just the label of its sister", in Biskup's (2012) words.

But, as I have already noted above, bringing back the s-select mechanism to the Minimalist system requires rethinking of the whole architecture (the Y-model) of the system where the Minimalist approach lays it ground.

To minimize, if not solve, these foundational issues, in the following subsection, I am going to argue for a more refined system where selection goes beyond the category features. I will show that the selection can look at features that are not just the top items, as the DP analysis of the gerundives, and strict locality assumption of the selection assume, but lower features would also constrain with the selection mechanism.

6.4.6 Selection of specific features

To solve some of the issues raised in the above subsections, what we probably need is an elaborated system of feature specification on the complement such that the selection mechanism can further fine tuned to those specifications.

The category features are often assumed to be a different class from the other more specific features such as tense, aspect, etc. Here, I suggest that the selection could target any of the feature types, depending on the properties of the selector predicates.

From the cross-linguistic literature, we know that *finiteness, mood* and *clause* type are the three most important feature that CATPs target. But, the selection is not restricted to these features. Verbs that select smaller complement clauses might target lower verbal hierarchies such as the vP or the VoiceP.

Fine-tuning the selection parameters of each verb class is probably a way to solve one of the fundamental issues of the subcategorization analysis we saw above.

For the gerundives, we know that they are different from the regular nominal DPs because they have internal verbal structure. This often means that the gerundive clause contains either a TP or an AspP projection embedded inside the DP projection.

We can program this fact of the gerundives into the subcategorization system to differentiate them from nominal DP arguments. Given the assumption that the DP is the highest functional item, what we need is a mechanism to pass the internal verbal features of the gerundive to the highest domain such that verbs specialized on gerundive selection would be able to 'see' the verbal features.

For Amharic, we have seen in Figure 11 that the DP head of the gerundives appears to project on top of the VoiceP/CausP. The evidence is mainly from the relative position of the nominalizer and the voice morphemes. On the basis of this, the selection relation between the higher selector predicates and the gerundive can then be constructed around this syntactic relation. More

specifically, we can assume that the verbs that select the gerundive are the ones that select the DP with a voice complement.

(77)   nəggər ('tell') + [uD + [uVoice]]

What this rule says is that the verb *tell* subcategorizes for a DP complement which itself subcategorizes for a voice feature. The presence of the Voice complement associated with the DP makes the gerundive complements distinct from the regular nominal DP complements.

As one can easily note, this kind of tripartite relation is not a strictly local (sisterhood) relation because the matrix verb is specifying not only its immediate complement, but also the complement of its complement. This is at odds with standard assumption which takes c-selection as a strictly local relation.

While we largely know c-selection is one of the most consistently local relations, a number of cases has been demonstrated where selection relates SOs from distance, Svenonius (1994). Mood selection, for example, is known to hold from distance. Shlonsky (2006) noted that the *think* verb in French selects an indicative complement, while *want* selects a subjunctive. Both mood types are embedded under a single complementizer *que*.

(78)   a.   Jean pense que Marie dort
              Jean thinks that Marie sleeps.Ind
        b.   Jean veut que Marie dorme
              Jean wants that Marie sleeps.Subj

The same kind of selection exists in Italian as well. The verbs select the types of mood skipping across the complementizer.

In the same manner, CATPs select either finite or nonfinite complement clauses in Icelandic. The following example is from (Svenonius, 1994, 140).

(79)   a.   Hann lofaði   að   lesa ekki bókina.
              He   promised [to] read not   the.book
              'He promised not to read the book.'
        b.   Hann sagði að   María læs ekki bokina.
              He   said   [that] Maria read not   the.book
              'He said that Maria didn't read the book.'

What makes the local selection untenable for these cases is the fact that the same complementizer is used for both the finite and nonfinite complement clauses. The matrix predicate cannot differentiate the embedded clauses via the complementizer because it is the same item in both cases. To target just the non-finite clauses, and exclude the finite one, the verb *promise* must have access to the features of the embedded clause. As Svenonius has argued, these facts weaken Baltin's hypothesis that selection is always a strictly local relation.

This means that it is the fact human language that syntactic objects could select to each other from distance. But, the fact that most of the selection occurs in locality makes it very attractive. A reasonable compromise is to acknowledge the facts that the actual syntactic objects remain at distance, while relevant features might pass from one item to the other.

That is one strategy to connect the items from distance. Indeed, the syntactic theory is full of tools that enables us to relate distant syntactic items. The one suggested in Svenonius (1994) is chain formation via head movement. Since the head movement has been argued to apply in the post syntactic domain in the Minimalism Chomsky (2000), it won't be relevant to the selection which functions as a constraint to the Merge (core syntactic derivation).

Feature percolation is another popular system where the features of the IP domain assumed to pass to the CP domain. Feature percolation has been a popular approach during the GB era to pass features from one domain to the other. It has also been applied to explain selection relations, Grimshaw (1991); Abney (1987).

But, recently, it has fallen out of favor presumably for a number of reasons. First, its status in the Minimalist system is unclear. Feature percolation is not one of the primal mechanisms advanced in the Minimalist analysis. Because of this, the operation has not been properly scrutinized, and its properties less understood. Second, in relation to the little attention paid to it, mechanisms to constrain it has not been devised. It is a very powerful operation that can be applied anywhere on any situation. Unless we put constrains on it, it predicts the transfer of features from anywhere to anywhere else. That is not the idea of a minimal operation.

Therefore, a better alternative would be to use well-understood operations such as Agree. That is exactly what I am going to propose next.

6.4.7   Agree for long distance selection

Agree is one of the core operations in the Minimalist syntax. Because of that, a lot of works have studied it. It has been used to connect close by SOs, such as spec-head relations, as well as distance objects, as in Long Distance Agreement, Bhatt (2005); Polinsky and Potsdam (2001); Boeckx (2010); Bošković (2007). Becaue of these properties, I believe, Agree is the right operation to connect long distance selection relations.

For the current purpose, we can assume that Agree connects only heads of two contiguous projections. This is based on the empirical observation that nonlocal selection is a relation between a head and the complement of its complement.

(80)   Longest distance selection
       The farthest item a head can select is the complement of its complement.

Of three features that the CATPs select, the clause type appears to be the closest. Since clause type specification is directly associated with the C head itself, this relation is often assumed to be local. The two other features that appear to be nonlocal to the predicates are finiteness and mood. Both these features are often associated with the TP projection, Bruening et al. (2018). Finiteness, both under Rizzi's[8]analysis, as well as the traditional classification, comes as a complement to the CP projection, which itself is the complement of the matrix predicate. Mood is often associated with the TP head, in the same way to the finiteness. As such, the furthest a functional items can be a complement to the matrix predicate is to appear as the complement of the CP.

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[8]For the sake of clarity, I don't consider focus and topic as part of the main structure of the left periphery in contrast to Rizzi's theory. Considering these optional heads as part of the main structural derivation poses a lot of issues for selection, Boeckx (2008); Shlonsky (2006). As such, I assume these as adjuncts that freely attached to the existing structure.

Given (80) is a mere empirical generalization, one wonders if Baltin's kind of mediated method of selection would be able to capture it. Her method interpreted into the Minimalist system would like the following:

(81) **Complementizer types**
    (a) C_{uFin}
    (b) C_{uSub}
    (c) C_{u-Fin}

(82)   VERB [V, uC_{uFin}]]

What this rule says is that the complementizer or the C head comes with different uninterpretable features. The one that comes with the uninterpretable finiteness feature is selected by specific classes of verbs while the one with the uninterpretable mood feature will be selected by some other classes of verbs. This would be the feature-checking application of Baltin's theory.

But, as we have seen, the problem with this approach is that it predicts different complementizers would be used for different complement clause types. As each C in (81) contains different types of features, it would appear in different forms in the phonological component. As such, different kinds of complementizers are predicted for different type of clauses.

As Baltin (1989, 5) explicitly stated, "if we find a complementizer that cooccurs with both finite and infinitival Ss, we predict that any predicate that selects said complementizer will not be able to require a particular finiteness value for the complement."

We have seen that this is not borne out. We have seen the *ʔndə* complementizer appears both with the finite and nonfinite complement clauses (and agrees with the aspect form). Even if the same complementizer appears with both types of complement clauses, the verbs still require either the finite/imperfective or finite/perfective complement clauses. The MAN verbs appear with the imperfective/nonfinite forms, while the PCU verbs do so with the perfective/finite forms.

Therefore, I propose Agree as a means to transfer the features of the complement clauses to the C layer. We know that for independent reasons, there is a agreement relation between the finiteness domain and the CP domain in a large number of languages. We can use the opportunity to transfer the features of the finiteness domain to the CP domain so that the features will be visible to the selector predicates.

(83)   Agree-based long distance selection
    Long distance selection is possible when Agree copies the features of the selectees to the complements of the selectors.

According to this hypothesis, the long distance selection relation is created when the C head probes down to the C domain and agrees with it. We know that Agree copies features of one head to the other. As such, the features of the TP/FinP layer will be available on the C head. The copied features then functions to determine the distribution of the CATPs, in a local relationship to the C. Indeed, that is exactly the form of the *ʔnd-* complementizer confirms. Not only in Amharic, a large number of languages have complementizers agreeing in tense and

mood features, (Zwart, 1993; Diercks, 2013; Koppen, 2005; Koeneman, 2010; Damonte, 2011; Rivero, 1989; van Koppen, 2017).

The following example shows the inflection of Irish complementizer agreeing with the tense of the complement clause, van Koppen (2017).

(84) a. Deir   sé **go** dtógfaidh sé an peann.
          sayPRES he that takeFUT   he the pen
          'He says that he will take the pen.'
      b. Deir   sé **gur**   thóg   sé an peann.
          sayPRES he that-PAST takePAST he the pen
          'He says that he took the pen.'

The proposal is not completely new. Observing the correlation of *that* and *for* complementizers with the finiteness and nonfinite complement clauses respectively, Chomsky and Lasnik (1977, 445) already suggested "what is required is a kind of 'rule of agreement' ".

Agree operations which copies the features of the Fin/TP domain to the C layer creates a local relation between the selector predicates and the relevant features.

In addition to the empirical support, the Agree is also the simplifies of all the possible Minimalist operations such as Move. Agree turn out to be the most minimal because it, well, every movement also requires an Agree to match the features (as well as other operations), Alexiadou et al. (2012a).

6.4.8 The selection of *ind-* clauses

The generalization we made in (80) then can be explained by assuming that the Agree relation is from the C head to the head of its complements.

Figure 5: Complementizer agreement
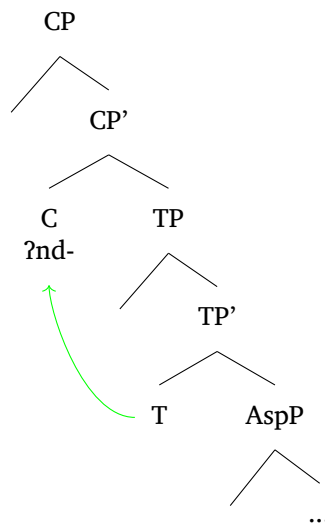
The exact head that creates the Agree relationship with the C-head could vary from one language to another. For Amharic, we have seen that the complementizers inflect for aspect. In other languages, the agreement might be with tense, or mood. The exact syntactic heads that Agree connects can be inferred from the forms of the complementizers.

Given the variability of the exact morphemes that appears on the complementizers from one language to the other, we can assume that the agreement is always between the relevant heads of FinP and CP. We know that finiteness is determined by different features in different languages. Some languages, the finiteness is achieved with the tense features; while in other languages, mood might be the crucial factor. We can exploit these typological differences to develop a consistent agreement system between the C and FinP heads.

For tense-based languages (where the finiteness is largely determined by tense) the agreement is between the TP and the CP. That is because the TP is the FinP in this case. It is the tense feature gets copied to the C.

For aspect based languages where the finiteness is determined by aspect, aspect would be the active feature. Then, this exact feature gets copied to the C-head.

All these different active feature types are unified under the notion of finiteness.

As we have seen, in Amharic, finiteness is determined either by the presence of the perfective aspect, or the explicit projection of tense auxiliaries. Verbs selecting finite complement clauses such as the CPU verbs then get access to the finite feature of the TP layer via the Agree relation established between the C head and the Fin/T head.
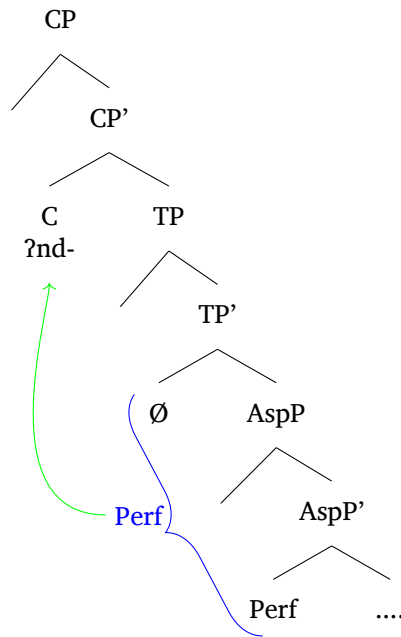
More precisely, for the perfective, we have seen that the perfective aspect is the lexicalization of both the TP and AspP projections. The perfective is what determines the finiteness of the clause, without any tense morphology.

Figure 6: Perfective
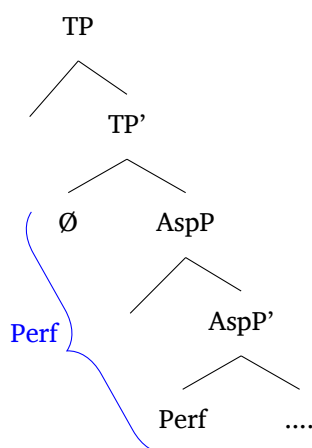
In this case, the finiteness is determined by to the perfective aspect. As such, the CP layer agrees with the [Perf] which, by hypothesis, spans the Asp and TP projections.

Figure 7: Perfective

```
                        CP
                       /  \
                         CP'
                        /   \
                       C     TP
                      ?nd-   /  \
                        ↑      TP'
                        |     /   \
                        |    Ø     AspP
                        |         /   \
                        |        AspP'
                        |       /    \
                       Perf   Perf    ....
```

This analysis requires a slightly late agreement because the two functional heads because the agreement needs to follow the spanning. We also need to assume that the spanning is syntactic operation (in contrast to the PF operation). The agreement relation is then established between the higher CP layer and the fusion of the TP and AspP layers.

Alternatively, we can assume that the Tense projection doesn't project in the perfective. This might sound strange given the standard assumption that TP is a universal projection. But, I think, given the perfective itself seems encode tense meaning, the assumption that tense is blocked in the perfective is a plausible alternative analysis.

In attempt to explain why causative morphemes don't merge with lexical causative verbs, in Workneh (2019), I have proposed that the merger of the causative morphemes is blocked due to the economy principle which blocks redundant features in the same projection.

The same kind of analysis can be extended to the projection of tense. The tense feature is able to project in the verbal fseq iff no other tense feature has been merged in the same fseq. If tense is already part of the derivation, economy principle blocks it because redundancy is uneconomical. In this sense, tense auxiliaries are blocked with the perfective as the perfective already contains tense properties. Merging tense on top of the perfective aspect would cause a redundancy of the tense feature. As such, it is blocked.

If this turn out to be the case, then the perfective would be assumed to be an immediate complement of the CP.
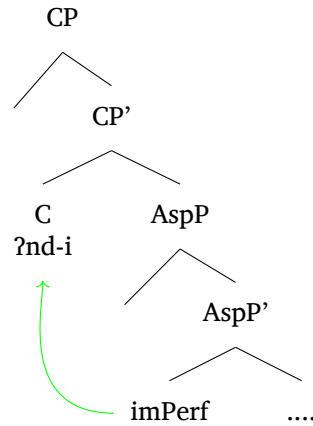
Figure 8: C agrees with the perfective

```
                    CP
                   /  \
                    CP'
                   /  \
                  C    AspP
                 ʔnd-ə   \
                  ↑      AspP'
                  |      /  \
                  |    Perf  ....
```
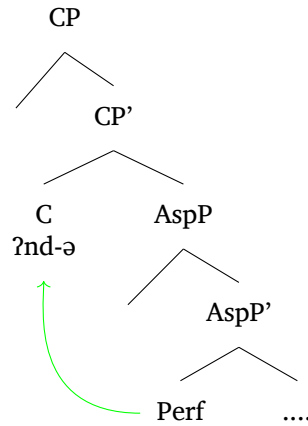
The above structure explains how the *səmma* ('hear') is able to filter the perfective embedded verbs from the imperfectives–the logicality issues I raised in the introduction part of the paper. Let's see the crucial examples once more.

(85) a. yosef məkina-it-u-n ʔndə-t'əggən-ə-at   səma-hu
          Josef car-f-def-acc CM-*repair.*pfv-*3msgS-3fsgO hear-1sgS*
          'I heard that Josef has repaired the car.'

     b. *yosef məkina-it-u-n ʔndə(i)-t'əgn-at   səma-hu
          Josef   car-f-def-acc   CM-*repair.*ipfv-*3msgS-3fsgO hear-1sgS*
          'I heard that Josef has repaired the car.'

Here, the aspectual specifications of the embedded clause are passed to the C-domain via the Agree operation. Even if the perception verb has no direct/local access to the embedded clauses, the Agree operation that connects the AspP with the CP manages to make the features of the Asp visible to the selector verb. That is how, I suggest, the nonlocal selection becomes a possibility.

If the embedded clause appears in the imperfective/nonfinite form, on the other hand, the complementizer appears in a imperfective pattern, as *ʔndi*. This again is a case of the agreement of the C with the imperfective aspect head.

Figure 9: C agrees with imperfective

```
                    CP
                   /\
                    CP'
                   /  \
                  C    AspP
                ʔnd-i   /\
                  ↑      AspP'
                  |      /\
                  └── imPerf  ....
```

(86) a. *yosef məkina-it-u-n ʔndə(i)-t'əggən-ə-at   fəlləg-hu
          Josef   car-f-def-acc   CM-*repair*.pfv-*3*msgS-*3*fsgO *want-1*sgS
          'I wanted that Josef repaired the car.'
      b. yosef məkina-it-u-n ʔndi-t'əgn-at   fəlləg-hu
          Josef car-f-def-acc   CM-*repair*.ipfv-*3*msgS-*3*fsgO *want-1*sgS
          'I wanted Josef to repair the car'

The above structure generates nonfinite complement clauses such as *ʔndi-t'əgn* ('to repair').
This again makes the imperfective feature available to the C domain such that imperfective
clause selecting predicates would target them. We have seen that the desiderative verbs select
embedded clauses with imperfective aspectual specifications.

But, if we have a tense auxiliary appearing on top of the imperfective verb form, the agreement
between the C and the imperfective is blocked. The complementizer appears in the perfective
(finite) form.

(87) si-t'əgn   ʔndə-nəbbər səmma-hu
      CM-*repair*.ipfv CM-*was*   *heard-1*sgS
      'I heard that he was repairing.'

Here, the embedded lexical verb is in the imperfective form. The complementizer doesn't appear
in the imperfective. Due to the presence of a tense auxiliary, the complementizer appears in
the perfective form.

In this case, the reason why the auxiliary appears in the perfective is clearly due to the features
of the tense auxiliary. Given the overt projection of the tense auxiliary, the tense feature is the
highest feature in the embedded clause. As such, the agreement is between the C and the T.
The aspect is embedded inside the TP that it lacks access to the C-domain.

Figure 10: C agrees with T

CP
　CP'
　C　TP
　ʔnd-ə
　　TP'
　nəbbər　AspP
　　　AspP'
　　ImPerf　....
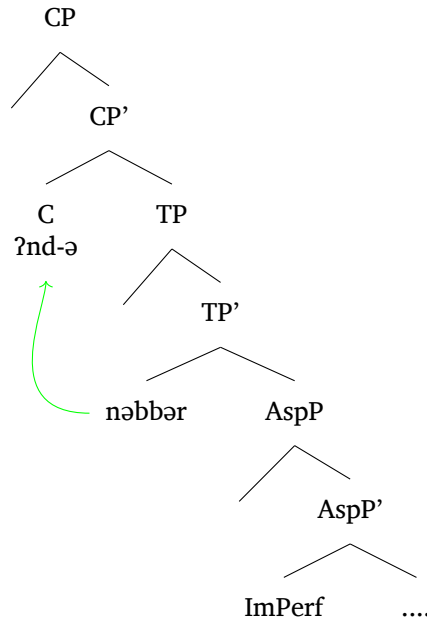
The agreement is always between the C head and the head of its complement. This agreement pattern fully explains why the longest selection is between a head and the head of its complement. It is because of the nature of agreement. It is not because of the nature of the selection.

As the agreement is always between the C and its immediate complement, what becomes available to the selector predicate is the feature of the complement of the C head.

Once the feature of the complement of the C gets copied to the C, it satisfies the c-selectional requirements of the selector predicates. Certain classes of verbs select the C carrying the [Perf] feature. This is the case of the verb classes included under the PCU superclass.

(88)　　PCU $+ [\_C_{+\text{fin}^9}]$

In the same manner, verbs subcategorized for non-finite/imperfective feature would be able to select the C-carrying the [imPerf] feature. This is how the MAN and MOD verbs select the imperfective complement clauses.

(89)　　MAN/MOD $+ [\_C_{[-\text{fin}]}]$

This is all we need to explain the selection of CATPs to the *ind-* complement clauses.

---

[9]To simplify the analysis, and make the analysis more general, I equate the perfective feature with the finiteness, and the imperfective with the nonfinite.

6.4.9 The selection of gerundives

Thus far, we have seen that the *ʔndi* and *ʔndə* complementizers are underlingly unified. It is a single complementizer, surfacing in different forms on the surface due to the agreement relations C has with the finiteness domain.

This means that the underlying complementizer *ʔnd-* is able to take both finite and nonfinite complement clauses. In both cases, I proposed for it to appear in CP layer.

The same hypothesis cannot be extended to the other complement clauses. There are a number of reasons why the nominalizer *mə* should not be taken as a C-head.

The negation morpheme, for example can scope over the nominalizer, but never over the *ʔnd-*complementizer.

(90)   a.   al-mə-t'əggən
            neg-CM-*repair*
            'al-mə-t'əggən-u'
    b.   *al-ʔndə(i)-t'əggən
            neg-CM-repair

Under our current understanding of the verbal fseq, this suggests that the clause marker is not an instantiation of the C.head. It projects on a smaller, truncated functional layer, Wurmbrand and Lohndal (2019); Rizzi (1993); Wurmbrand (2003).

In contrast to the *ʔndi* complementizer which projects on top of the complete TP layer (which includes the negation), the nominalizer appears on a lower, truncated part of the clause.

Based on this, we need to explicitly address where in the verbal fseq exactly the nominalizer head projects.

In a previous work, (Workneh, 2016, 30), I have suggested that the nominalizer projects in the middle of the verbal fseq. The justification for this idea came from the fact that the nominalizer morpheme appears inside the negation marker, but outside of the causative morphemes.

(91)   mariam məkina-wa-n   mə-as-t'əggən   fəlləg-əčč
        Mary   *car-*3fsg.poss-acc CM-CAUS-*repair want-*3fsgS
        'Mary wanted to have her car repaired.'

Here, the indirect causative item is embedded inside the nominalizer clause marker. This suggests that the nominalizer appears higher than the voice items. I have further demonstrated that the clauses headed by this morpheme are gerundive constructions. Based on this, I have proposed that the nominalizer item *mə* projects a nominalization head DP (nP) on top of the verbal spine.

Figure 11: The position of *mə-*

DP
- DP'
  - D — *mə-*
  - CAUSP
    - CAUS'
      - CAUSP — *as-*
      - ....
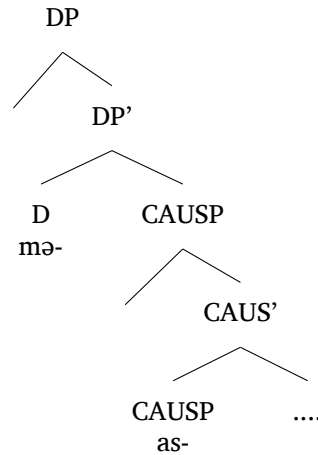
Since Abney (1987), having a nominal projection on top of the gerundives is the standard analysis.

If we agree on the idea that the gerundives are headed by the DP, the explanation for the selection of them is straightforward. The *mə* clauses are selected by verbs that subcategorize for a DP. As we have seen in Table 5, this includes all the verb classes with the exception of *pretense* and *manipulative* verbs.

(92)   PCU/MOD/Perm/Req + [_D]

What this rule says it that all the PCU, MOD, *perception* and *request* verbs do subcategorize for DP. This is sufficient to explain the basic selection facts.

But, as I already noted above, the challenge for the subcategorization theory with regard to the gerundives is how the verbs are able to filter regular DPs which take nominal complements from the gerundives DPs.

We have seen that not all transitive are able to select the gerundive complements. If we program our subcategorization frame with just the DP, we will make wrong predications that all the transitive verbs would be able to combine with the gerundives.

(93)   Verb$_{trans}$ + [_D]

This rule predicts that the regular transitive verbs such as the *kill* type would also be able to combine with the gerundive DP so far as they are headed by the DP projection. But, that is not borne out. We have seen asymmetries within the transitive verbs. The relevant examples are repeated here.

(94)   a.   Mary enjoyed the game.

        b.   Mary enjoyed kissing John.

(95)   a.   Mary kissed John.
        b.   *Mary kissed pleasing John.

The DP-argument taking predicates then fall into two classes with regard to this: those verbs that are able to take all types (both vP and nP) of complement DPs, and those specific to nP-types of DPs.

(96)   DP-selecting transitive verbs:
        a.   *Enjoy* type: license both verbal and nominal DP arguments
        b.   *Kill* type: license only nominal DP arguments

The question is how can we formulate our rules such that the unlicensed combinations such as the combination of the *kill* class of verbs with gerundive DPs would be ruled out.

It is obvious that the complement of the verb, which has the category of DP, is not sufficient to differentiate these two different types of complements. Some information needs to pass from the lower layers to the DP layer to inform the selecting predicates that the complement is the right type. Once again, the Agree proposal presented above can resolve the problem.

More specifically, I proposed that the features of sub-DP domain are able to pass to the DP layer via Agree relations.

Assume that the *kill* types of verbs subcategorize for the n-feature while the *enjoy* type do so just for the DP.

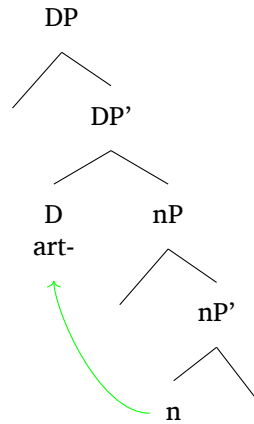The subcategorization of two types of transitive verbs.

(97)   Subcategorization of two types of transitive verbs
        a.   enjoy + [_D]
        b.   kill + [_n]

The *enjoy* types of verbs subcategorize for a D. These don't need to select among the nominal and verbal DP arguments. They are able to select both types.

But, for the *kill* class which target only nominal DP arguments, the subcategorization is not to the DP per se. It is for the n-feature. This means that the *kill* verb selects the DP iff it contains the n-feature. The n-feature becomes available to the DP layer via the Agree relationships between the DP and nP projections.

Figure 12: D agrees with n

```
                    DP
                   /  \
                     DP'
                    /   \
                   D     nP
                  art-   /  \
                    ↑      nP'
                     \     /  \
                      \   n
                       \_/
```

I believe there is an empirical motivation for this analysis. As we have used the complementizer agreement across languages as a motivation for the presence of agreement between the C and TP layer, here, I provide different empirical support for the DP-nP agreement.

The standard understanding of DP projections is that the head is realized by either definite or indefinite articles, Abney (1987). But, the articles that appear as instantiations of the DP often appear with lower nominal features such as gender and number, Puskar (2017); Fedden and Corbett (2017); Kramer (2009); Schoorlemmer (2009); Dimitrova-Vulchanova and Giusti (1998). These feature are not borne on the article itself, as they appear to project on their own layers. For the number feature, for example, the NumP is assumed to the actual place of projection. For the gender, in the same manner, the nP is considered the place of projection, Matushansky (2013); Ritter (1993); Ferrari (2005); Picallo. (2007) because gender is an inherent property of the noun.

The presence of the gender feature on the articles (D) is then a clear evidence for the agreement relationship between the D head and the n/N[10].

The Agree relation between the D and the n is then able to pass the features of the n to the D head which will ultimately be able to constrain the combination of the lexical verbs.

This explains why some verbs select gerundive as well as nominal DP complements while other verb types select only nominal DPs.

6.4.10 The prospective *li*

The syntactic position of the *li* clause marker seems slightly higher than the *mə* clause marker because, as we have seen, it is able to scope over negation morphemes.
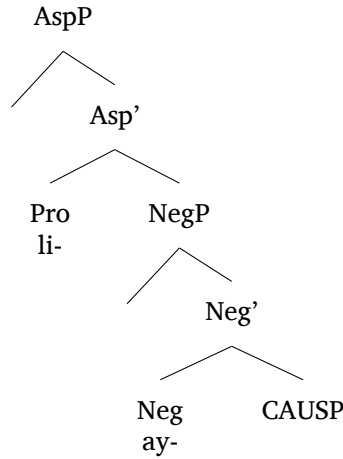
(98)   Li-ay-t'əgn   fəlləg-ə
        CM-neg-*repair want-3msgS*

---

[10]Note that many kinds of functional projections are assumed to appear between the D and the np. That might seem to contradict the furthest selector generalization presented above. But, all the projections that are between the DP and nP layers are simply free riders–they appear as free adjuncts. There is no selection relationship between the Dp and the adjective or any other projection. As such, I consider the nP to be the proper structural complement of the DP.

'Didn't want to repair.'

Some of the previous works also consider the morpheme as a grammatical aspect marker. It is therefore natural to assume the *li* morpheme as a realization of the AspP projection[11].

Figure 13: The position of *li*

```
              AspP
             /    \
                  Asp'
                 /    \
              Pro      NegP
              li-     /    \
                          Neg'
                         /    \
                      Neg      CAUSP
                      ay-
```

This position correctly explains its position in relative to other items such as negation markers and causatives. It appears higher (outside) of these items. It also explains why it appears inside the other C-level complementizers such as *ʔndə*.

Most importantly, the evidence why the *li*, or the *mə*, items cannot appear on the C-level comes from their inability to appear on top of auxiliary verbs.

Unlike the *ɨnd-* complementizer which 'floats' on top of the tense auxiliaries, they are unable to do so.

(99)

    (a) t'əgn-o ʔndə-nəbbər
    (b) *t'əgn-o li-nəbbər
    (c) *t'əgn-o mə-nəbbər

In Amharic, morpheme floating applies from higher functional layers to the lower (semi)-lexical items. The *ʔndə* complementizer appears on the auxiliary item means that it projects in higher position than the auxiliary. The incapability of the other clause marker to appear on the auxiliary suggests that they merge in lower positions than the tense auxiliaries (TP). From this, one can understand that the *li* clause marker projects in lower domains.

The analysis I am going to present here, however, need not to reference to the exact position of the clause marker. Given the Agree proposal, the exact position of the clause marker, either it is on C or lower, is irrelevant to the selection analysis.

---

[11]As the position of the *yə* complementizer is well established to be in the C-layer Workneh (2011), I am not going to discuss it here.

46

As we have seen, all the verbs that the *li* clause appears on belong to the MAN and MOD classes. These verbs select the imperfective forms of the verbs.

Given the idea that the selection doesn't target the clause markers themselves; rather the features in the TP domain, the proposal presented in (89) can be extended to explain the selection of *li* clauses.

What that proposal says is that verbs falling to the MAN and MOD classes select the imperfective (nonfinite). The features becomes available from the lower AspP/TP to the CP domain via Agree. Given the *li* clause marker always projects over the imperfective aspect, we don't need any special rule to explain the selection.

What we rather need to explain is why some classes of verbs within the MAN and MOD super-classes fail to combine with the *li-* clauses.

Given the proposal that the clause markers are irrelevant to the selection, and that the verbs embedded under the *li-* complementizer appear in the imperfective, the failure of some verb classes such as *aspectual, pretense, manipulative* and *permission* to combine with the *li* clauses is unexpected.

We have seen that the MOD/MAN verbs subcategorize for the imperfective feature. That is how they combine with the *ʔndi* complementizer. It carries the imperfective feature which the underlying complementizer receives via Agree.

Now, to explain why some of the verbs fail to combine with the *li* clauses even if the verbs are embedded under the *li* clause are imperfective, what we need to assume is that the agreement between the top most projection of the *li* clause fails to trigger Agree with the lower verbal domains.

We can assume the AspP that the *li* appears doesn't trigger agreement. Given the lower position of the AspP which the *li* appears on, even if it triggers Agree, the result is not going to be the transfer of the imperfective aspect to the higher layer. As we can see in the structure in fig. 13, the complement of the *li* complementizer is the negation. Even if we assume an Agree relationship between the AspP and NegP, the negation is feature is irrelevant to selector verbs. The verbs are sensitive to the aspect features.

The verbs are sensitive to the aspectual features.

Given that the *li* clause marker itself is aspect marker, what we need to say here is that verbs are directly select it without any need to get the aspect feature via Agreement. As such, the verbs which combine with the *li* clause are exactly those that select the prospective aspect.

(100)   Des/Inte/Req $+ [\_Asp_{pro}]$

The *request, intentional* and *request* verbs are able to combine with the *prospective* aspect. No other verb is able to combine with the *li* clause because they do not contain the relevant features such as the Perf/Imper and T features. The Asp head is filled with the prospective aspect.

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