Dative = prospective

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Contents

Abstract

Since the development of a fine-grained syntax of the DP and the IP projection in the 1980's, striking similarities and correspondences across those two types of projections have been further noted. These similarities have been a topic of interested for a number of works.

In the recent years, one of the most serious attempt to explain the correspondences across the nominal and the verbal domains is Wiltschko's 2014 Universal Spine Hypothesis (USP). According to USP, the verbal and nominal extended projections are unified at an abstract syntactic level. They emerge from a single abstract projection that gets instantiated by different categorial units of individual languages.

In this paper, I will present a supporting evidence to Wiltschko's hypothesis by arguing that the prospective aspect of the verbal spine and the dative case feature of the nominal spine are unified at abstract level. The evidence is mainly from the Amharic language. But, I will also suggest that same analysis can be extended to the English infinitive marker *to*, which also happen to be a dative marker.

Keywords

Amharic; dative; prospective; Universal Spine Hypothesis

Abbreviations

CATP = Complement Taking Predicate. 1 = first person, 2 = second person, 3 = third person, acc = accusative, aux = auxiliary, ben = benefactive, dat = dative, def = definite, det = determiner, f = feminine, gen = genitive, ipfv = imperfective, m = masculine, neg = negative, nmlz = nominalizer, O = Object, pfv = perfective, pl = plural, poss = possessive, pros = prospective, S = Subject, sg = singular.

1 Introduction

The dative marker in Amharic displays quite interesting properties. First, it appears to be a prepositional item. As a prepositional item, it functions to mark indirect object arguments, and other types of nouns.

(1) lə-ɨssu dəbdabe lakk-əčč-ll-ət
dat-*he letter send-3fsgS-ben-3msgO*
'She sent him a letter.'

(2) lə-ɨssu ak'k'əbbəl-əčči-w
dat-*he deliver-3fsgS-3msgO*
'She deriver it to him.'

The noun marked by the prefix can be an applied argument as in the first example. There, the argument marked by the dative morpheme is the IO. Exactly the same morpheme can also mark direct object arguments, as shown in example (2). In this later

case, the argument marked by the morpheme is triggering a genuine object agreement on the verb–suggesting that it is a true direct object.

While the above agreement relation of the *lə* marked DP with the verb appears to suggest that the *lə* is a structural element which doesn't block the structural relationship between the object DP and the verb, the pattern of the case on those same set of DPs contradict it.

The fact that the lə-marked DPs cannot receive structural case is a clear evidence that the prefix has some prepositional properties.

In addition to that, this same morpheme appears with the verbal nouns. Just like the English *to* and *for* complementizers, it appears prefixed on the nominalizer item *mə* on restricted conditions. Its relationship with the verbal nouns turn out especially intriguing for a number of reasons.

First, it appears on a restricted contexts. The *lə-* prefix can appear on the verbal nouns iff the verbal nouns are selected by a certain set of verb classes. That is, the verbal noun can appear with the prefix if it is selected by the *desiderative, permission and ...* verbs. The relationship between the selector predicates and the prefix is rather more complex.

The classes and aspectual specifications of the matrix verbs appears to determine the distribution of the lə-marked verbal nouns.

(3)   Yosef (lə)-mə-hed   yɨ-fəllɨg-al
        *Josef (*dat*)-nmlz-go 3msgS-want.ipfv-aux*
        'Josef wants to go.'

(4)   Yosef *(lə)-mə-hed   ak'k'əd-ə
        *Josef (*dat*)-nmlz-go plan-3msgS*
        'Josef planned to go.'

Finally, and most importantly to the current purpose, this same exact prefix has an uncanny resemblance with the renown prospective aspect marker *li*. In this paper, all the above properties, including its resemblance with the prospective aspect marker can be explained if adopt the Universal Spine Hypothesis, Wiltschko (2014).

The major upshot of the paper is that the common morph *l* contains one of this cross-categorial features which appear to slightly change its exact function depending on the category of the stem/spine it appears on. It serves as an ideal case to demonstrate the power of Wiltschko's universal Spine Hypothesis.

2 The basic facts on the morphemes

2.1 The dative morpheme

The morpheme lə-has been marked as a dative marker at least since Ludolf's publication of the *Grammatica Linguae Amharicae* in (1698), Little (1974). This morpheme also has various cognates in most other Semitic languages. Its functions slightly vary from one Semitic language to the other. It is used as a marker of locative in n Hebrew, dative in Arabic and genitive in Gɨ'ɨz, Ahland (2009). This itself suggestive how flexible and multi-functional the morpheme has been across the language family.

In archaic Amharic, it was also used a genitive marker. The following examples is from Ahland (2009); originally from Łykowska 2000.

(5) lə-ɨbab   ɨggɨr yəll-ə-w
     dat-*snake leg*   *has-3msgS-3msgO*
     'Snake has no leg.'

Observing its prevalence and multi-functionality, (**?**) has stated that *lə* morpheme in Amharic and related Semitic has a general meaning contingent with "to, toward, for, to the advantage of...".

Other languages which are related to Amharic such as Ge'ez and Chaha still use the *yə* morpheme to mark dative.

Another reason to treat them unified is the interpretation; interchangeability of each other; and that they are known to be interchangeable to each other.

First and foremost, the prefix *lə* serves as the prototypical dative marker by attaching on the indirect objects.

(6) Mariam lə-Yosef dəbdabe lakk-əčč
     Mary   dat-*Josef letter*   *send-3fsgS*
     'Mary sent a letter to Josef.'

But, unlike regular dative marker, which tend to be prepositions, it also can appear on the verbs.

(7) Yosef dəbdabe-u-n tinant   mət'to lə-nəbər-ə-w   lij lakk-ə-w
     *Josef letter-*def-acc *yesterday come*   dat-*was-3msgS-def boy send-3msgS-3msgO*
     'Josef sent the letter to the boy who came yesterday.'

In the above, example, the prefix is attached on the auxiliary verb *nəbbər*, on the demonstrative pronouns *lə-ziya* and on the adjective *tɨlɨk*. It may also appear on adjectives and relative clauses.

The above example where the prefix appears on the auxiliary is the case of it targeting the relative clauses. Like all other functional items (including prepositions) in the language, it appears on the auxiliary later in the grammar.

2.2 The prospective aspect marker

Li (which might also appears as *lɨ* in some phonological environments) is a relative known aspect marker which appears on the imperfective form of the verbs and gives a sense of an eminence to the eventuality. *li*-clauses could appear embedded inside CATPs, or within auxiliaries.

(8)   Yosef li-hed   fəlləg-ə
       Yosef pros-*go want*-3msgS
       'Josef wants to go'

(9)   Yosef li-hed   nəw
       Josef pros-*go is*
       'Josef is about to go.'
       'Josef is going to go.'

This morpheme has been discussed in a number of previous works including Stolen (2013); Workneh (2017); Yimam (2006), and most extensively in Leung & Halefom (2017). The state of the art understanding of the is morpheme is it appears on smaller verbal projection, probably similar to the English infinitive clauses, and introduces a controlled structure under the selector predicates.

3   The underlying unity of the lə & li prefixes

No previous work has noted for the unity of the two forms yet. This is because the dative morpheme is assumed to be a nominal marker, while the prospective morpheme is assumed to be of verbal.

In this section, I am going to present reasons why I consider the two morphemes to have an underlying unity.

3.1 Meaning

As already noted above, the constructions made with the lə + the verbal noun is exact paraphrase of the li + imperfective. The interchangeability of these constructions has already been noted independently by various authors–most notably by the Dawkins and Leslau.

(Leslau 1995: 404) for example stated that "*lɨ + imperfect* may be replaced by *lə + verbal noun*" (emphasis is mine).

(10)   wendim-u-n   li-ay   (lə-mə-ayət) yɨ-hed-al
         brother-def-acc.*pros-see* dat-nmlz-*see* *3*msgS-*go*-aux
         'He will go to see (in order to see) his brother.'

(11)   kə-ɨrsəwə gar li-nəgagər (lə-mə-nəggagər) mət't'-a
         from-her   *with* pros-*speak* (dat-nmlz-*speak*) *come-3*msgS
         'He came to speak (in order to speak) with you.'

He has also further elaborated statement of the idea at page 674. "With verbs that express wishing, liking, desiring, permitting, being able (can), possibility, intention, lɨ + imperfect is rendered by the infinitive[verbal noun]. In fact, lɨ + imperfect is interchangeable with lə + verbal noun."

He then goes on to provide the following examples.

(12)   təmari-u-n   lə-mə-rdat   (lɨ-tɨ-rəda)   tɨ-fəlgal-əčč
         student-def-acc dat-nmlz-*help* (pros-*3*fsgS-*help*) *3*fsgS-*want-3*fsgS
         'She wants to help the student.'

(13)   addis-u-n   betɨ-h-n   lə-mayət lɨ-mət't'a ɨwəddallə-hu
         new-def-acc *house*-*2*msg.poss-acc dat-*see*   pros-*come like-1*sg
         'I would like to come to see your new house'

(14)   bəzzih wər   məč'ərrəša sɨra-w-n   li-lək'k'   k'orrət'-ə
         this   *month end*   *job*-*3*msg.poss-acc pros-*leave decide-3*msgS
         'He decided to resign his job at the end of this month'

The interchangeability of the lə + verbal nouns with the lɨ + imperfective has also been noted by Dawkins.

"The Infinitive [verbal noun] has an equivalent in *lɨ* + Contingent. These two · forms are largely interchangeable...". (Dawkins 1969: 54)

These semantic equivalences are not without reasons. They suggest that the two forms of the *l*- have some underlying common properties.

It is not just the semantic equivalent that makes me think of these two items to have underlying unity. There are other reasons as well. The form of the morphemes is probably the most obvious one.

Both of the morphemes contain a common element *l*-.

3.2 Distribution

The second reason to consider them a single item is their distribution.

The prospective marker *li* never appears on the lə-marked verbal nouns; nor the *lə*-morpheme can appear on the imperfective verbs. These two are exactly complementary to each other. This suggests that they are simply different morphological variants of the same underlying feature. The form appears as *li* whenever the feature appears on the imperfective verbs, and as *lə* elsewhere.

3.3 Its relation with negation

Thirdly , the pattern of negation marking on the verbal nouns suggest the verbal nature of the *lə*- prefix. The verbal nouns can be negated only if the *lə*- prefixed on them. The reason for this is obviously the nominal category of the verbal nouns. The negative marker is specific to verbal items.

(15)   Yə-Yosef a-*(lə)-mə-hed   asgərrəm-ə-ñ
         gen-*Yosef* neg-dat-nmlz-*go surprise-3*msgS-*1*sgO
         'Josef's not going surprised me.'

This shows that the *lə* element is adding some verbal properties on the verbal nouns which would make them compatible with the negation.

3.4 Adverbial function

The verbal nouns (also known as *infinitives* in the traditional grammar) are typical arguments. They function as subject and objects of transitive verbs. While that is their standard function, the appearance of the *lə* prefix makes them to have adverbial functions.

Observing this special function of the verbal nouns, Dawkins (1969) call the lə-marked verbal nouns as "adverbial infinitives"

(16)   mɨsa-u-n *(lə)-mə-blat hed-ə
         lunch-def-acc dat-nmlz-eat went-3msgS
         'He went to eat his lunch'

He further claimed that the *lə* marked verbal noun has only adverbial function. That claim, however, turn out to be incorrect. As Leslau noted the lə-marked gerundives can appears as complements of different classes of CATPs (as we have seen in the above sections).

(17)   Yosef lə-mə-srat hedə
         Josef det-nmlz-work go-3msgS
         'Josef went for working'

Here, the verbal nouns is simply a purpose clause. This makes the marker quite similar to the English infinitive morpheme *to* which serves as purpose clause complementizer as well.

This suggests that the *lə* morpheme has some affinity with the clauses; not just a regular dative marker that appears on the nominal categories.

3.5   Selection

The fourth reason I will present to support the unity of the items is selection.

The selection of the verbs towards the constituents which are headed by these *l-* morphemes also suggest some kind of unity

The verb classes that select the *lə + verbal noun* are the same classes of verbs which select the *li + imperfective*.

Both are selected by the following three classes of verbs such as the *desiderative, intention* and *modal* verbs.

I have already given a number of examples on the desiderative and intention verbs. I will add only an example of the modal verb here.

(18)   čɨgr-u-n   li-fəttaw   (lə-mə-fɨtat) čall-ə
         problem-def-acc *pros-solve* (dat-nmlz-*solve*) *can*-3msgS
         'He can/manged to solve the problem.'

What is rather striking about the selection is the exact correspondence between the *lə-* marked verbal nouns and the *li-* clauses. As I have stated Workneh (2021), the verbal nouns in Amharic have very wide spread distribution. They can combine with all sorts of verb classes including communication, cognitive, perception, propositional, permission, aspectual and many other verb classes. But, once they are marked by the *lə* prefix, their distribution becomes very restricted and matches the restricted distribution of the *li* clauses. This exact match in selection cannot be a mere coincidence. The reason why the are selected by the same classes of verbs is because these two *l-* variants have the same features.

3.6   Similarity with the genitive *yə*

Finally, I will present the similarity that the *l-* prefix. Since a cross-categorial analysis is already independently motivated, I will suggest the same to the dative.

The dative marker *l* and genitive morpheme *yə* have close affinities both in the diachronic and synchronic syntax. First, historically, both are used to mark the genitive and the dative. In archaic Amharic, the dative preposition was used to mark the pos-

sessor in the possessive construction. This function is now completely taken over the *yə* morpheme.

In addition to the historical connection, what is rather interesting here is that these two morphemes behave quite similar in the synchronic syntax. Most important of all their similarities is their abilities to mark all types of categories. They are cross-categorial morphemes.

It is quite common to assume that different functional items specialize for different category types. Aspect morphemes are specific to the verbal spine, while the gender feature is almost always specific to the nominal spine. This is one of the motivations for the theories such as Grimshaw's theory of extended projection and other recent extensions of it such as bi-uniqueness in Panagiotidis (2015). The idea is that functional items specialize to either the nominal or the verbal bases.

What makes the two morphemes special is that they can appear both with verbal and nominal stems.

(19)   Yə-Yosef fəras
        gen-*Josef horse*
        'Josef's horse'

In cases where it appears on the verbs, it renders the clause as a the relative clause.

(20)   tinant   yə-mət't'a-u səw
        yesterday gen   *come*-def *man*
        'the man who came yesterday'

Observing the cross-categorial properties of the genitive marker in Workneh (2011), I have extensively argued that the morpheme appearing the verbs and the nouns is exactly the same item.

If that turn out to be a correct analysis, the same kind of analysis can be extended to the *l-* morpheme because their properties are quite similar.

Just like the genitive morpheme, it is considered a dative marker when it appears on nouns, and a prospective or infinitive marker when it appears on the verbs.

The situation appears exactly the same with the l-morpheme. When it appears on the nominal categories, it is annotated as dative marker.

To be sure, the identify of the *lə* morpheme appearing on the verbal nouns and indirect objects has never been controversial. Leslau treats the *lə* morpheme as a single item, functioning as dative and infinitive markers. What I am going to do here is take it even further and argue for the unity of the *lə* with the prospective marker *lɨ* which has never been associated with the dative preposition *lə* so far.

In the following section, I am going to propose that the two morphemes are indeed unified in the underlying syntax, can be best explained with the use of Wiltchko's Universal Spine Hypothesis (USH).

# 4 The proposal

4.1 Universal Spine Hypothesis

According to USH, the Universal grammar provides a set of abstract hierarchies which are universally organized by their functions. The parallelism between the nominal and the verbal projections is merely a reflection of those underlying fixed and universal hierarchies. The hierarchies are category neutral–meaning that at the abstract level, they are specified with neither of the actual verbal and nominal categories. These functional structures form the universal spine.

The abstract universal categories such as k are filled by the language specific categories which add the meaning and form to the structure.

The core structure is presented as in **??**.

Linking [Anchoring [viewpoints [classification]]]

Figure 1: The universal spine according to Wiltschko (2015)
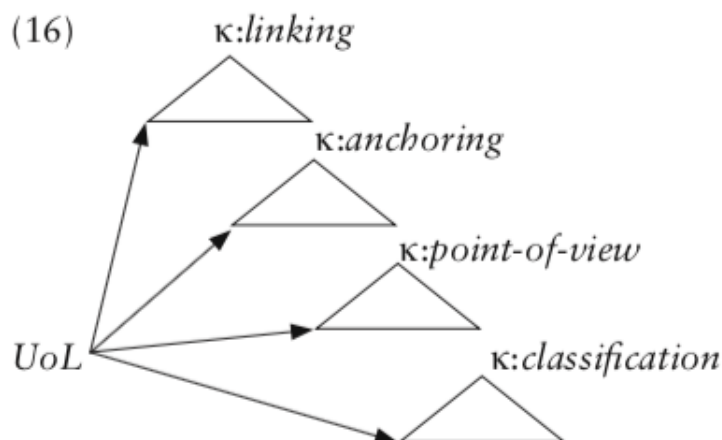
The *classification* function is realized to the NP in one spine, and as a VP in another spine. The same goes with the *view point, anchoring* and *linking* functions. The classification layer is event and thematic layer (also Aktionsart or the inner aspect); the viewpoint aspect is provides the perspective on the eventualities lied on the lower layer. The viewpoint layer is the viewpoint aspect in the verbal spine, while the numerals have been associated with it in the nominal layer Bliss (2013); Megerdoomian (2008).

The exact specific features that map to either of these generic and abstract layers varies from language to language; and multiple features could instantiate the single core layer even within a single language.

Wiltschko (2015); Ritter & Wiltschko (2009); Wiltschko (2016), for example, notes that the INFL (*k:anchoring*) can be realized as tense, location and person.

The universal categories are assumed to give rise to different layers of the verbal and nominal extended projections.

The universal spine is assumed to instantiate into the verbal and nominal spines once the language specific categories map into it.

(21)   a.   [CP [IP [AspP [vP [VP]]]]]
       b.   [KP [DP [φP [nP [NP]]]]]

Figure 2: The mapping of the universal spine,(Wiltschko 2016: 28)
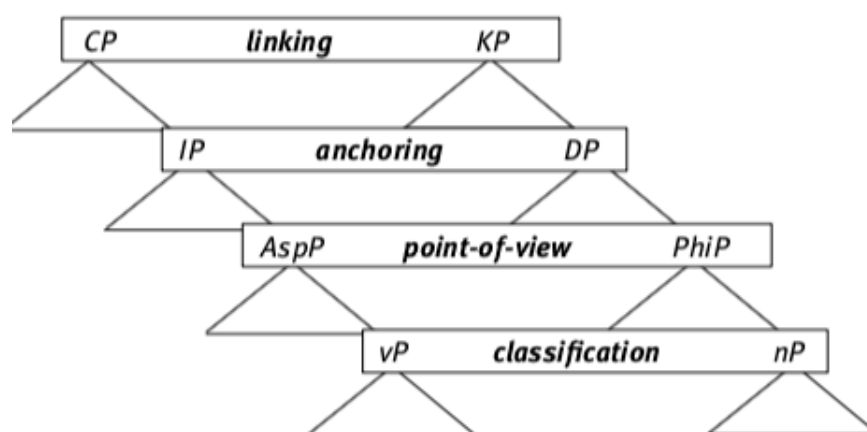
- Classification: classifies roots into verbal/eventive and nominal/individual categories
- Point of view: introduces view point aspect to the event/individual
- Anchoring: anchors the event and the individual to an utterance
- Linking: links the event/individual to the discourse

The mapping of linguistic objects could be mapped to a head position or to an adjunct position in the spine. - the heads are the universal categories - they are actually get filled by language specific word classes

The lexical items of individual languages (known as UoL, short for unity of language) then insert to the universal spine.

There is fixed relationship (or feature) that governs the relationship between the UoLs and the spine. The association/insertion of the UoL is assumed to have three different attributes: Place: A UoL could be associated with higher or lower part of the spine. manner: a particular UoL could associate to the spine either as a modifier or as an argument timing: UoL could be associated either early, or Late.

If a certain lexical items is inserted late, the only property the structure can affect is its form. But, for items that are inserted early, their meaning can also be affected by the syntactic structure. The unique function that a certain layer of the spine houses would influence the semantic value of the lexical item it associated with. The structure functions as a context for determining meaning. This part of the theory is very similar to the allosemy theory of Marantz. The multiple interpretation of lexical items depending on their position in the syntax can be easily explained with this approach.

Each of the layer are supposed to have a core unity. The VP corresponds to the NP, the vP does so to the nP and so on to the top of the hierarchy. The correspondence is established by the core interpretative units which are common to the spines.

A specific language X may or may not have a word class for a definite article, while another language Y might have a related category such as a demonstrative. Both of these word classes are a category of D; as such would be assumed to appear on D. For languages that contain more than one word classes for a specific category, they would be assumed to compete (complementary to each other) for a specific head.

The heads are distinct from the actual word classes it fills them.

Having the core frameworks of the hypothesis, I would like to propose a slight modification to it. Even if Wiltschko assumes all the projection of the verbal and nominal equally map to each other, I will suggest that the nominal projection lacks the higher two layers. I suggest that the *LINKING* and *ANCHORING* layers do not exist in the nominal spine . Only the classification and view point are part of the verbal spine; while the other two are specific to the verbal spine.

Put it in other words, the DP spine is a truncated part of the universal spine.

That is exactly what I am suggesting here. The *l-* merges as category neutral feature. And, the exact function and interpretation of it is determined only after the actual categorized material combines with it. Whether the meaning or the function of the item will be prospective or dative is determined only after the stems merge with it.

It is the exactly the same SO, the *l-* appearing in different spines give rise to the different sense of it that know of such as the dative, prospective and other related senses. These functions of the unit appear by the virtue of the fact that it associated with different syntactic layers such as the verbal and nominal spines. The slight functional or interpretive senses that the item houses is also perfectly predicated by the this system. It would be indeed a surprise if come with exactly the same sense or meaning appearing on different types of spines.

While USH turn out to be one of highly stream down hypothesis to explain the universality of categories across domains, I highly agree with the core principles and motivations, I have disagreements on how the mapping is done across the nominal and verbal categories. In the verbal domain, the point of view is assumed to add aspectual information. In the nominal domain, this information is assumed to be induced by the phi-features such as the gender, and nominal features. The anchoring anchors the utterance (the linguistic expression) to the event. As the tense tells the place of the utterance on time sequence, the event is assumed to be anchored to the event by the tense (temporal information).

The feature that exactly fills a certain function in the spine can vary from one language to another, Wiltschko (2014). The anchoring function in English is served by the tense feature, while the person feature is the one that instantiates the same feature in Halkomelem, and Realis in Upper Austrian German, she has claimed.

Now, the question, is if one function can be filled by a different feature by another language, where would the end of this variation would be?, and, what is about is about the person feature that makes us think of associate with the anchoring function, and not with other functions. What diagnostics should we use to match a certain feature X of language L1 to match that feature to function 1 or 2 or 3. What is common between the Realis, the person and the tense that makes us to map them into a single function? Everything seem to fall to the savageness at this point because these vague notions/functions can be associated with anything any one throws at them.

Here, I suggest that the DP projection doesn't contain the higher verbal projections such as the left periphery and the propositional layer. That is, the DP is assumed to contain the parallel domains up until the point of view spine. The higher two spines such as the anchoring and the linking are assumed to be specific to the verbal spine.

Put it in other words, only the base layers are the universal to the both spines. I am not going to the details why this turn out to be the case. But, there is general assumption that the structure of the DP is smaller than the verbal functional sequence. Cinque's 1999 inventory of the functional features in the verbal domain is a witness for this. He has identified over 30 functional items within the clausal domain, while the number of functional layers within the DP is believe not to come nowhere close to that number. The number of functional layers identified within the DP so far as pretty small, probably within the number of 8 or 10.

The way she argued to create the parallelism between the verbal and the nominal projection doesn't offer a solid ground for mapping the D layer with the T layer. She made a point based on the position of possesor arguments in the nominal and the subject arguments in the verbal spine. Indeed, it has been widely noted that the possesor arguments in the nominal projection behave quite similar to the subject arguments in the verbal spine. But, unlike the case with the subjects, which are well established to appear on the SpecTP, or IP layer, the position of the possessor arguments has never been established to be in the D-layer. Indeed, many language allow the presence of

the possessor and other DP-internal categories which are also supposed to appear in the D-layer such as demonstratives and definite articles. Amharic has this structure as well.

(22)   Ya   yə-yosef wəndim
   *That* gen-*Josef brother*
         'that brother of Josef'

The standard analysis is that the possessor projects in the lower domain than the demonstratives and quantifiers and numerals.

(23)   Ene-ziya bizu   yə-nɨgus lij-oČČ
         pl-*that*   *many* gen-*king child*-pl
         'those many children of a king'

Facts like this clearly show that the possessor cannot be in the Spec of D. It is probably in the nP layer. This means that the argument for the correspondence of the D with the T or IP based on the position of the possessor cannot be attested.

According to Megerdoomian (2008), the NumP of the nominal projection corresponds to the inner aspect while the the nP maps to the vP of the verbal projection. As shown in the following picture, she also assumes the AgrP, a projection which appears just higher than the AspP, is assumed to be a correlate of the DP.

Figure 3
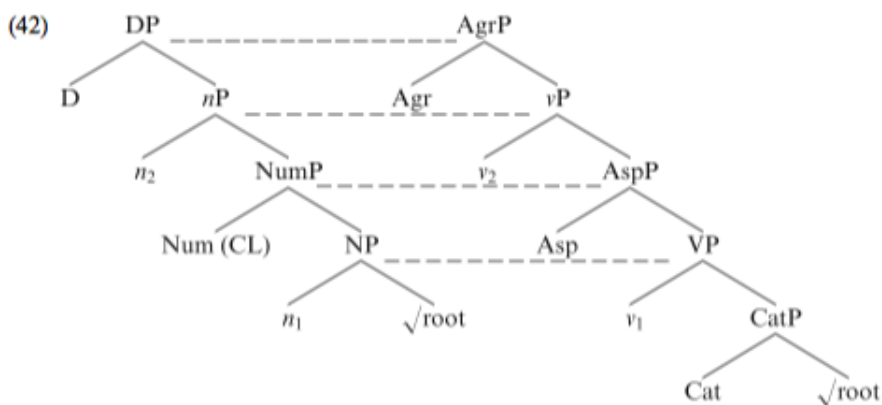
Note that the AspP in this case is the inner aspect, not the grammatical aspect which lies just underneath TP. Given the current understanding that agreement doesn't project, I am proposing to replace the AgrP by the grammatical aspect AspP (also known as Asp_2P. Every comparison of the nominal domain to the verbal domain involves some

kind of aspect. None of the other verbal functional items such as causativity, applicatives, tense, or voice have shown to have a corresponding projection in the nominal domain. Due to this observation, I am going to propose that the mapping of the nominal projection can go to the AspP, at maximum. Every projection of the nominal category can get a corresponding verbal projection within what Ramchand & Svenonius (2014) call the "zone 1".

(24)   Maximal correspondence hypothesis
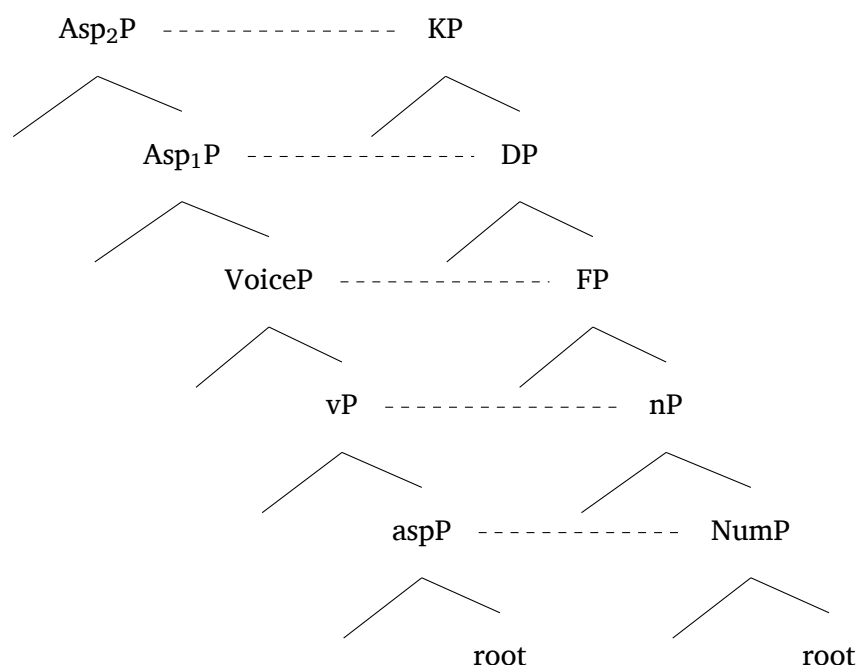   All the projections of the nominal domain can maximally map to the AspP of
          the verbal projection.

There is no element of tense, or the complementizer domain in the nominal projection; nor any corresponding head that maps to any of those higher verbal layers. Most specifically, the proposal here is that the verbal grammatical aspect is so elaborate that almost all the nominal projections are mapped to it.

- verbal aspect has been compared with cardinality properties of nouns, Megerdoomian (2008). Note that the verbal aspect compared with the quantification is not the grammatical aspect; rather the boundedness aspect of verbs which is considered the inner aspect. - the progressive aspect has been has also been compared with the plural number; and based on that Travis1992 has compared the grammatical aspect with the NumP of the nouns. - the mass/count distinction of the nouns, Chierchia (1998), has been compared with the telic/atelic (bounded and unboundedness) of the verbs.

- specificity and nonspecificity are the property of the D (be it an article or a demonstrative): and the closest verbal parallel is still verbal aspects such as boundedness/telicity. The perfective and the imperfective aspectuals of the verbs can also be compared with the specific and nonspecific properties of nominals.

The case and propositional layers of the nominal domain are also mapped to the grammatical aspect. Based on Megerdoomian (2008), the mapping of the verbal and the nominal domains given as in 4:

Figure 4: The mapping of the spines

Asp$_2$P -------------- KP

Asp$_1$P -------------- DP

VoiceP ------------- FP

vP -------------- nP

aspP ------------ NumP

root   root

According to this hypothesis, every projection of the nominal category is mapped to the verbal counterpart. But, the nominal projection maps to verbal within the AspP layer. The DP lacks the corresponding items for the higher verbal layers such as the TP and the CP domains.

To explain each of the layers, the lowest of the above spines is the boundedness layer–number of the nominal and the aspectual of the verbs are unified by this boundedness parameter, Megerdoomian (2008).

The next layer is the categorization layer where the internal arguments are introduced; both for the verbal and the nominal categories. Then comes the voice layer, which I used the FP for the nominal, but is also known as PossP in some works. Here, the subject of the the respective domains is introduced.

In the grammatical aspect domain, the corresponding relationship between the perfective aspect, which appear equivalent to the perfective aspect, and the nonspecific types of D which correspond to the imperfective clausal features. Finally, we get to other type of grammatical aspect, which again maps to the case of the DP. That the layer

I am most specifically interested in the current paper–to establish a correspondence between genitive case of the nominal domain with the prospective aspect.

4.2 Contextual allosemy

Here, I would like to argue that *lə* which is assumed to be the dative case marker is exactly the same item, underlyingly, with that of the so called the prospective aspect marker *li*. I will use the common phoneme *l-* to represent the unified common identity of the two morphemes.

I suggest that the two features of prospective and dative are unified by the notion of *oriented path*. It is a path that orients the frame of reference away from the reference point of the source towards a certain specified or unspecified end.

Both notion of prospective and dative contain a sense of directionality. They imply a *forward* relation from a specific reference point.

The prospective marks an eventuality that follows or proceeds forward away from a reference time or event. It denotes the event to follow comes immediately after the reference time/event. In that sense, it contains a sense of path which proceeds immediately after the reference point.

(25)   ɨnne sɨdərs li-təññ-a   nəbbər
        I   went pros-*sleep-3msgS was*
        'He was about to go when I arrived.'

Here, the time of the arrival serves as the reference point. The prospective makes the event of the sleeping to follow immediately after the reference time of the arrival.

This come be demonstrated by a linear like as in 5.

Figure 5: oriented path
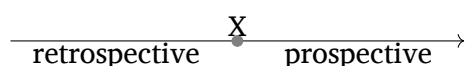
Here, X is the reference event. The prospective indicates events that immediately follow X.

The dative also has a similar sense of directionality. But, it emphasizes the end point the major point of reference.

(26)   lə-Yosef dəbdabe lakk-ə-ll-ət
        dat-*Josef letter*   *send-3msgS-ben-3msgO*
        'He sent a letter to Josef.'

Here, Yosef is the reference point, and dative markers the directionality of the path towards the reference point.

Figure 6: oriented path
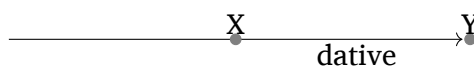
The path that immediately follows the reference point X and precedes the reference point Y, I assume, is what the *l-* prefix denotes at an abstract level.

The *l-* morpheme contains just the directional path without emphasizing on either the source or the endpoint references. That is the abstract meaning of the item.

But, the actual meanings of source and endpoint, as well as the exact meaning of the reference points is provided by the syntactic context. The reference point is interpreted as time or event as the prefix attaches on the verbal spine. The reference Y would be an individual as the prefix appears on the nominal spine.

Based on this notion of *oriented path*, both the dative and the prospective can be conceived to have an abstract unity at the very conceptual level.

Other than that, the unified morpheme comes with no pre-specific meaning. The exact sense of the *prospective* and *dative* are determined based on the spine it attaches on– exactly as USH predicts.

(27)   Underspecified *l-*

    a.   *l-* + DP$_{nominal}$ → Dative
    b.   *l-* + VP → Prospective
    c.   *l-* + DP$_{verbal}$ → infinitive

According to this, the attachment of the morpheme on the verbal spine gives rise to the prospective reading on the item. The spine, somehow, contributes and constrains the kinds of possible readings available to the underspecified item. The sense of prospective makes sense to the verbal domain; while dative is associated with the nominal domain. That way, the exact senses associated with the morpheme is determined by the spine.

The system of meaning assignment is somehow similar to Marantz's 2013 contextual allosemy. The syntactic environment plays significant role in the assignment of actual sense or meaning. For the USH, it is the spine where the item appear which plays the significant role on the meaning specification. For Marantz, any category local (similar to the morphological locality) to the item can affect the meaning.

USH, in principle, doesn't exclude Marantz's allosemy as a factor. As such, it is possible to unify the two systems to determine the meanings of underspecified items. What is more crucial proposal that USH brings forward is the unified, abstract spine that can be used to explain the parallelism between the verbal and the nominal domains.

For that I find USH more attractive because it has a potential to explain the fine grained verbal and nominal hierarchies listed down in the Carthographic project, Cinque (1999); Cinque & Kayne (2005). That means, the mechanism of semantic assignment to underspecified items doesn't have to be fully determined by the spine. Other mechanisms of meaning assignment can be added to enrich the system because that is the not the core part of the proposal.

Based on this, I would like to enrich the system using the contextual allosemy to assign the meaning of the prefix. It is important for the current to do enrichment for the proposal because the spine is not sufficient for the meaning assignment.

Note that the meaning of the prefix on the verbal nouns is not exactly dative. That is why the traditional grammar consider it as an infinite marker.

Consider the example we have seen in (28), repeated here.

(28)   Yosef (lə)-mə-hed   yɨ-fəllɨg-al
        Josef (dat)-nmlz-go 3msgS-want.ipfv-aux
        'Josef wants to go.'

If the category of the base (the spine) would have been sufficient factor for the meaning, the *lə* item would have a dative sense on the verbal nouns to the extent that they are a category of DP. But, it doesn't have. As we have seen, its meaning is rather much closer to the prospective than the dative. This cannot be fully explained by the spine. That is why we need to supplement it with the contextual allosemy.

As I have argued for the selection Workneh (2021), the features embedded in the complement domain of the DP appears visible to the higher layers. For that, the nominal and the gerundive DPs are differentiated by the lower functional items. The nominal DP contains a noun inside; while the gerundive contains a nominalized verb. These embedded features serve as a context to determine the meaning of the underspecified *l-*. That is exactly what the proposal we have in (27) says.

DPs with the nominal complement serve as contextual factor to determine the meaning of the prefix to be dative. The DPs with the gerundive (nominalized verb) complement also function as contextual factor to fix the meaning of the prefix to be infinite (or prospective kind). Note that the I am marking it as infinitive because the *eminence* the occurrence of the event available in the regular prospective appears slightly weaker in the verbal nouns.

We will come back the relationship between the infinitive and prospective 'meanings' in the following section.

4.3 The form & distribution the prefix

4.3.1 Form

Once we establish that the l-morpheme is a single unit in the abstract syntax, next question is then why it appears into two different forms such as *lə* and *li/lɨ*. In this subsection, I suggest that the two forms are a reflection of the aspectual features of their stem verbs. To be precise, I suggest that the *i/ɨ* part in the prospective marker is an agreement morpheme. It appears there as abstract *l-* agrees with the imperfective aspect feature of the verb.
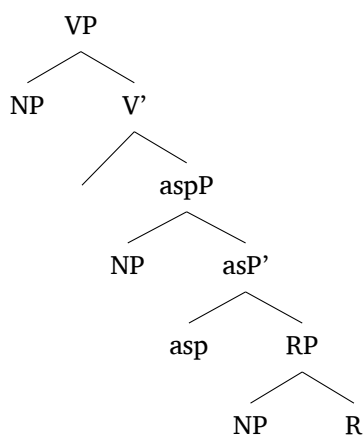
To understand how and why it appears in two different forms, it is necessary to understand how the aspectual features appear in the syntax.

The verbs in Amharic come in two forms—perfective form, which typically appears as $C_1 \ni C_2 \ni C_3$ (sequence of consonants where ə vowel is interspersed) in the triadic verbs, and the imperfective form which appear in other various forms. One of the properties that make imperfective different from the perfective is the absence of complete vowel-consonant pattern as we have in the perfective. Since the perfectives typically appears with the *ə* sound, it is only the imperfective verb that comes with vowels such as *i/ɨ*.
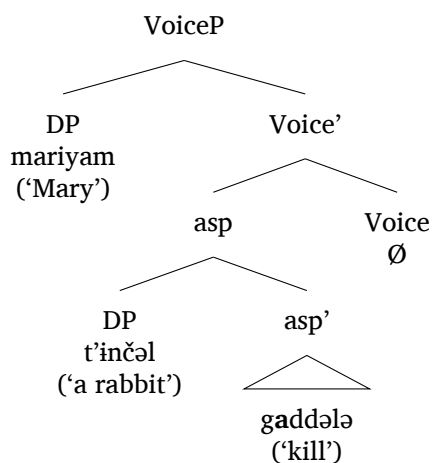
It is also important to note that the verb form aspect– that is the perfective and imperfective– is determined pretty low in the verbal layer.

In Demeke (2003); Amberber (1997); Workneh (2009) the verb form aspect is assumed to project pretty low in the verbal spine–probably somewhere within the VP/vP. For a discussion on the distinction between verb form aspect and grammatical aspect, look at (Workneh 2019: 233-241). To differentiate it from the grammatical aspect, small caps are used to represent it.

Amberber for example put the position of the verb form aspectuals as shown in 7:

Figure 7: The position of the verb form aspect

```
              VP
            /    \
          NP      V'
                /    \
              aspP
             /    \
           NP      asP'
                  /    \
                asp     RP
                       /  \
                     NP    R
```

Demeke (2003) and also Workneh (2019), on the other hand, consider the aspP heads as verbalizers of the roots which replace the standard vP head, a.

Figure 8: The position of the aspP, according to (Workneh 2019: 289)

```
                 VoiceP
               /        \
             DP          Voice'
          mariyam       /      \
          ('Mary')    asp       Voice
                     /    \       Ø
                   DP      asp'
                 t'inčəl   /  \
                ('a rabbit')
                         gaddələ
                          ('kill')
```

These lower domain verbal aspect what appears to determine the form of the prefix *l-*.

Notice that the two forms of the prefix mirrors the two complementizers that I discussed Workneh (2021). There, I have shown that the complementizer appears as *ʔɨndi* when it appears with imperfective verbs, and as *ʔɨndə* on the perfective verbs. The last vowels in both cases are aspectual inflections which reflect the aspectual forms of the base verbs. I have argued there that the last vowel is an agreement morpheme. The same assumption works here. The *i* is an imperfective agreement morpheme. The *ə* is the

elsewhere form, as the imperfective is generally considered an elsewhere form as in general, as well.

The relationship between the prospective aspect head and the lower aspectual heads is also explained with the same mechanism that the relationship between the complementizers and aspectual heads is explained. That is, the aspect features are copied via long distance agreement–so far as no phase introducing head has been projected.
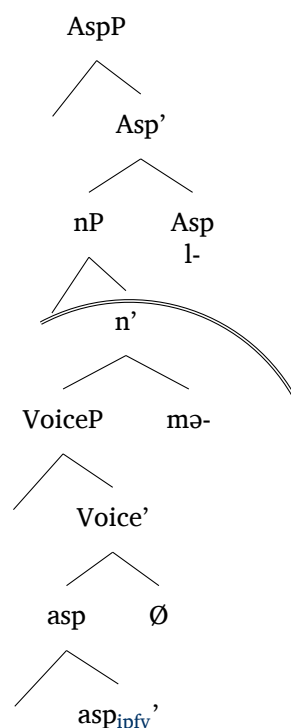
Figure 9: Asp agrees with asp
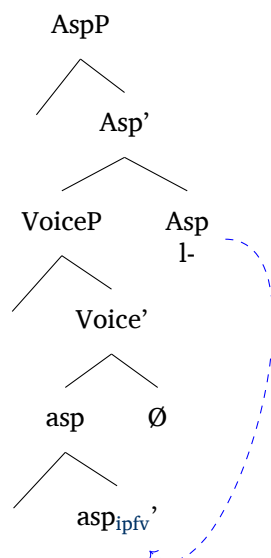
As shown in 9, the AspP which is specified with the prospective aspect (due to its position in the verbal spine) receives the $i/ɨ$ component because it agrees with the lower imperfective aspect head.

If a nominalizer head such as the *mə* is introduced in the clause, however, the relationship gets blocked. This can be because the nominalizer head introduces a phase boundary to the clause.

Since the nominalizer projection intervenes between the prospective head and the verbs, the aspectual forms of the verbs do not affect the form of the prefix. For that, it appears in its default form, which happens to be *lə*. This especially works if we assume the nominalizer head as a phase head.

Figure 10: agreement blocked

```
                    AspP
                   ╱  ╲
                      Asp'
                     ╱  ╲
                   nP    Asp
                  ╱╲      l-
                    n'
                   ╱  ╲
              VoiceP    mə-
              ╱  ╲
                Voice'
               ╱  ╲
            asp     Ø
           ╱  ╲
            asp_ipfv'
```

In this case, no agreement relation would be possible between the two aspectual projections. The *l-* item appears in its default morphological form, which appears to be *lə*. The same goes with the dative case. Since no aspectual property is available within the nominal projections, the prefix again appears in its default form.

4.3.2 Distribution

Given the position of the aspectuals is pretty low in the verbal spine, related issues is why the *li* prefix cannot appear on the perfective. This is much broader issue because the grammatical aspects are generally incompatible with the perfective verb form in this language.

Thus far, two strategies have been suggested to solve this restriction.

The first approach is the head spanning. In Workneh (2019) I suggested spanning of AspP and the TP in case the Asp comes specified with the pfv feature. Since the two heads appear unified, there would not be any place for the aspects to project on top. This approach works only if the perfective aspect is assumed to appear higher in the verbal domain. Since we have seen that is not the case, I am not going to pursue this approach.

A rather better approach has been suggested Wondem (2014), where head movement has been argued to be the reason why the perfective never licenses tense auxiliaries.

The exact analysis is slightly different, the most practical application of the head movement idea is to assume that the perfective aspect marked verbs move to higher projections such as the grammatical aspect, AspP, and the TP. Since the verb moves to those higher positions, it occupies the heads.

Figure 11: The position of the aspP, according to (Workneh 2019: 289)
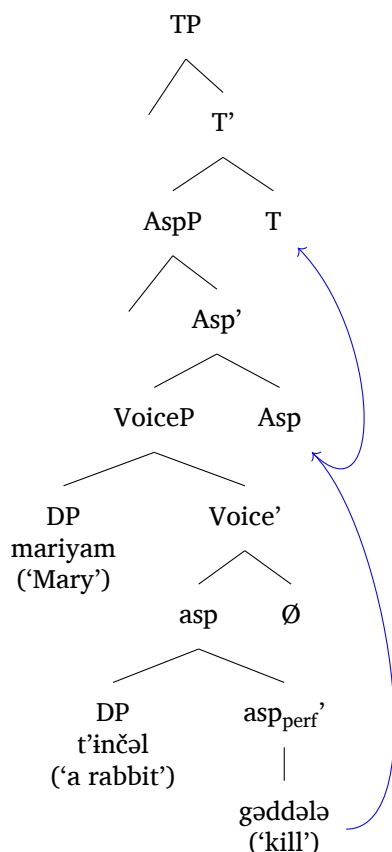
According to this analysis, the verb moves to TP when it comes with the pfv feature. This movement makes the projection or insertion of other grammatical items such as the grammatical aspect and tense auxiliaries impossible. AspP would contain the trace of the verb, and the T would have the verb; and there won't be any position to introduce the grammatical aspect and the tense auxiliaries.

In the imperfective, on the other hand, the verb doesn't raise to the higher domains. As we have seen in the previous section, the relationship between the higher and the lower aspectual heads is agreement.

4.4 English 'to' as dative and prospective marker

It is well established that the infinitive marker in English displays uniform properties across nominal and verbal spines. The infinitive marker is also a dative marker.

Mary gave a book to John

Here, the *to* morpheme is a dative marker. Exactly the same morpheme is used to mark infinitives. The exact interpretation of the infinitive function is pretty illusive–but appears to be very similar we call the *prospective* aspect.

Indeed, a number of authors have already noted that one of the functions of the *to* morpheme is to mark the clause as prospective.

Duffley in a number of works such as (Duffley & Enns 1996: 226), (Duffley 2000: 240) and (Duffley 2003: 341) has noted that the meaning of the *to* marked infinitive is a prospective one.

De Smet (2010) also has stated "to-infinitive with regret is prospective in marking a posterior intention". A similar idea has been expressed in (Brinton 2000: 115) as well.

These works has made it clear that one of the many possible readings of the *to*-marked infinitives are prospective in meaning, at least when it appears with the *be going* construction, (Deo 2015; Schroeder 2011; Comrie 1976: 186).

If that is correct, it provides another evidence for main proposal of the paper–that is the correlation of the dative case of the nominal spine and the prospective aspect of the verbal spine.

5 Conclusion

In this paper, I have argued that the dative case and the prospective aspect are unified at an underlying syntax. I have a number of evidences why the two morphemes are unified in the abstract syntax. Based on that, I have claimed that the data and evidences presented here support Wiltschko's Universal Spine Hypothesis which stipulates the underlying unity across the nominal and verbal spines. Based on the data from Amharic, I have also proposed to modify the structure of the nominal spine. The nominal spine is considered less complex than the verbal; and that the highest verbal projections such as the TP and CP has no corresponding layers in the DP. That way, every projection of the DP is mapped to the sub-TP layer of the verbal spine.

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