Complex Predication via Phrasal Adjunction to a Head Category

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1. Introduction

The aim of this study is to show that when a phrase is merged as a sister to a head, the syntactic relation between them is not always complementation which results in the phrasal projection of the head as shown in (1a), but it can also be a relation which results in the head projection of the head as shown in (1b).

(1) a. XP                      b. X
    YP          X             YP          X

It is widely acknowledged that the complementation relation shown in (1a) is determined by syntactic requirements such as Case licensing and semantic requirements such as selection. In this study, the relation shown in (1b) is argued to be the syntactic correspondence of the interaction of a phrase and a head via predicate modification in the semantic component, which results in complex predicate formation (in the sense of Dayal, 2011, 2015). It is called phrasal adjunction to a head and proposed to be triggered/determined only by a semantic requirement (i.e. predicate modification), as opposed to the complementation relation. This results in strict syntactic unity between the two elements of the complex predicate.

The evidence mainly comes from the Light Verb Constructions in Turkish (LVCs, henceforth), and supported by pseudo noun incorporation and a special construction where a non-derived adverb combines with a verb in the same language.

2. The puzzle

The standard framework treats the distribution of the nominal arguments in complementation relation as determined by both syntactic and semantic requirements, which often compete forcing arguments to end up in positions where they are not required semantically (Moulton, 2015). For example, an object which is in a complementation relation with the verb that it is semantically selected by fulfils a syntactic requirement, Case licensing. However, it can also undergo movement to a position where it is not semantically required due to various reasons such as topicalization.

Although this picture accounts for the distribution of the nominal arguments, it does not give a clue about the structures where the two elements that are sisters to each other form a strict syntactic unit. Among such constructions that I will take as a focus here is Turkish LVCs where a lexical verb immediately precedes a light verb. An examination of these structures reveals that the syntactic relation between the two verbs cannot be complementation. Instead, I propose a new relation referring to it as phrasal adjunction to a head. Differently from complementation, it is only triggered by a semantic requirement, which is predicate modification. This relation leads to a complex predicate interpretation in light of the crucial assumption that syntax and semantics corroborate with each other.

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1 Note that this new relation is called adjunction due to its modification nature and only in purpose of separating it from complementation. The reader should note that it is not treated as canonical ‘phrase to phrase’ adjunction, which shows island effects and allows scrambling in Turkish, in contrast to LVCs discussed here.

The consequence of the ‘phrasal adjunction to a head’ relation is strict syntactic unity between the two elements of the complex predicate. This unity prevents them from getting separated by any further syntactic operations, which implicates that for either of them to undergo further movements leaving the other in its base position, a syntactic requirement must be satisfied once the phrase adjoins to the head.

In the following section, I present the analysis of LVCs as evidence for my proposal, showing also why complementation relation cannot be adopted for them.

3. An analysis for Turkish light verb constructions

3.1. Basic properties

In LVCs, a lexical verb (V1) is followed by a light verb (V2) (dur ‘stand/stop’, kal ‘stay/remain’ and git ‘go’) which either loses its lexical meaning to some extent or becomes fully idiomatic. Light verbs add various aspectual interpretations to the whole complex formed by their combination with a lexical verb. These verbs are as ‘light’ in the sense of Grimshaw and Mester (1988)2 because they are incomplete, requiring a lexical verb to form a complex predicate. When they occur somewhere else other than LVCs, they keep their lexical meaning as any other verb does.

The type of the LVCs that I analyze here is exemplified in (1)3. The lexical verb receives the suffix -Ip, and the inflectional markers (i.e. Tense/Aspect/Modality and person agreement) appear on the light verb. Therefore, I will call them -Ip type of LVCs4.

(1) Siz-i beklerek çay iç-ip dur -du-m.
You-acc while.waiting tea drink-Ip stand-past-1sg
‘While waiting for you, I kept drinking tea.’
(expressing a durative/iterative event: There is more than one ‘drinking tea’ event.)

-Ip type of LVCs shows two basic properties: The lexical verb has a phrasal status, and the lexical verb and the light verb form a strict syntactic unit.

3.1.1. Phrasal nature of the lexical verb

The phrasal status of the lexical verb is evidenced by three factors. Firstly, the ability of the question particle mI to cliticize on the lexical verb appearing between the two verbs shows that the lexical verb does not form a morphological complex with the light verb (following Taylan, 1986 and Öztürk, 2005), as shown in (2)5.

(2) ?Bulut biz-i beklerek çay iç-ip mi dur-du?
Bulut we-acc while.waiting tea drink-Ip QP stand-past.3sg
Intended meaning: ‘Did Bulut keep drinking tea, while waiting for us?’6

2 In Grimshaw and Mester (1988), the verb suru in Japanese is defined as thematically incomplete or ‘light’ in the sense of Jespersen (1954) and Cattell (1984). In this study, the verbs at issue are called ‘light’ due to their being incomplete in losing their full lexical meaning to some extent and requiring a lexical verb to form a complex predicate with it.
3 The judgments presented in this paper has been gathered from ten native speakers of Turkish. I use question mark to represent the cases where two or three people have found the example at issue weird.
4 There are two more types of LVCs in Turkish besides -Ip type. One is such that the lexical verb receives the suffix -A/-I instead of -Ip, and it shows similar properties to -Ip type. The other is such that both the lexical verb and the light verb receive the same Tense/Aspect/Modality and the person agreement markers, and it shows different properties than -Ip type. I call the former -A type and the latter the inflected type in Sağ (2015). Due to its similarity to -Ip type, I will not discuss -A type in this paper. However, I will compare -Ip and the inflected types below because their contrast sheds light on why complementation relation is not adopted for -Ip type.
5 See Göksel and Kerslake (2005) for the en-clitic nature of the question particle mI.
6 The sentence in (2) can also mean ‘Did Bulut stop after having tea?’, which is not the concern of this paper. In this meaning, the verb dur ‘stand/stop’ does not have its light verb function, but instead is interpreted with its lexical meaning ‘stop’.
It is supported by the morphologically complex causative structures, where the question particle cannot separate the root and the causative morpheme realized as a suffix on the root as shown in (3).

(3) Bulut çocuğ-u koş(*-mu)-tur-du?
Bulut child-acc run-QP-caus-past.3sg
‘Did Bulut make the child run?’

Second, it is possible for the light verb to be elided under identity as shown in (4), which suggests that the lexical verb and the light verb are two separate constituents (following Öztürk, 2005).

(4) Bulut uyu-yup dur-du, süt iç-ip değil.
Bulut sleep-Ip stand-past.3sg, milk drink-Ip not
‘Bulut kept sleeping, not drinking milk.’

Finally, coordination of two lexical verbs under the scope of the light verb is possible as shown in (5), providing further evidence for the phrasal status of the lexical verb (following Öztürk, 2005)\(^7\).

Bulut sleep-Ip and milk drink-Ip stand-past.3sg
‘Bulut kept sleeping and drinking milk.’

To wrap up, the evidence given above clearly indicates that the lexical verb is phrasal.

3.1.2. Strict syntactic unity

The lexical verb and the light verb stand as a strict syntactic unit, evidenced by the fact that they cannot be separated by an intervening category as shown in (6a), and by means of movement or scrambling as exemplified in (6b).

Bulut read-Ip book-acc stand-past.3sg
‘Bulut kept reading the book.’

b.*Oku-yup Bulut kitab-ı dur-du.
read-Ip Bulut book-acc stand-past.3sg
‘It was reading that Bulut kept doing.’

In the following section, I analyze -Ip type of LVCs as pseudo verb incorporation, which captures the phrasal status of the lexical verb and the strict syntactic unity between the two verbs.

3.2. Pseudo verb incorporation

The literature on complex predicates which are formed via predicate modification in the sense of Dayal (2011, 2015) has so far focused primarily on the phenomenon pseudo noun incorporation (term due to Massam, 2001). Pseudo noun incorporation is special in that the object of the verb is interpreted as a predicate, instead of an argument, restricting the event denoted by the verb via predicate modification (cf. Bittner, 1994 and van Geenhoven, 1998)\(^8\). In contrary to canonical noun incorporation where the object of the verb is argued to undergo head movement adjoining to the verb that it modifies (Baker, 1988, cf. Mithun, 1984, van Geenhoven, 1998), pseudo noun incorporation has been analyzed as not instantiating any movement. The incorporating object has been claimed to have an independent phrasal status and assumed to be in a complementation relation with the verb.

I extend what has been proposed about pseudo noun incorporation to -Ip type of LVCs in Turkish in pursuit of a more general theory. In light of Baker’s (2014) principle shown in (7), I argue that complex

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\(^7\) Öztürk (2005) uses the ellipsis and the coordination tests to show the phrasal status of the pseudo incorporated nominals in Turkish. See Section 5.1 for the discussion.

\(^8\) Predicate modification is further defined as operations of Restrict and Modify in Chung and Ladusaw (2006).
predicates of this type; namely, pseudo incorporation in general, should have a syntactic structure in which one element of the predicate (a phrase) adjoins to the other (a head) (pg. 20)\(^9\).

(7) Interpret X and Y as complex predicate at LF if [and only if] X and Y form a complex head (an \(X^0\)).

The resulting \(X^0\) is interpreted as a complex head in the semantic component, yielding complex predicate formation, in which the adjoined element restricts/modifies the content of the element that it adjoins to. In light of this, the basic structure of -I\(p\) type of LVCs is represented below\(^{10}\).

\[
\text{V}_2 \\
\text{VP}_{11} \quad \text{V}_2 \\
\text{..V}_1.. \\
\]

The syntactic relation between the lexical verb and the light verb reflects the ‘phrasal adjunction to a head’ relation that I propose to exist besides complementation in Section 2. As a result of this adjunction relation which only satisfies a semantic requirement (predicate modification as stated above) a strict syntactic unit is formed by the two elements of the complex.

In the following section, I discuss why complementation relation is not adopted for -I\(p\) type of LVCs.

3.3. Why not complementation

The syntactic relation between the two verbs in -I\(p\) type of LVCs differs from the canonical complementation in Turkish, where the phrasal complement has a freer relation with its sister. Consider the following example in (9), where an object nominal is a complement to a verb. In contrast to LVCs, it is possible to separate the object and the verb via intervening elements or movement/scrambling as shown in (10).

\[(9) \quad \text{Bulut yemeğ-i ye-di.} \]
\[\text{Bulut food-acc eat-past.3sg} \]
\[\text{‘Bulut ate the food.’} \]

\[^9\text{It is also possible to form a complex predicate via head to head adjunction, which is known as head incorporation after Baker (1988). In Turkish, an example to this is the inflected type of LVCs, which I discuss below.} \]

\[^{10}\text{A possible analysis where the light verb is adjoined to the lexical verb is not adopted due to the behavior of negation in these constructions. When the negation marker appears on the lexical verb, it only negates the content of the lexical verb. However, when it appears on the light verb the whole predicate is negated, which suggests that the lexical verb is contained inside the light verb. It is further supported by the NPI licensing facts. An NPI subject is only licensed if the negation appears on the light verb, not on the lexical verb as exemplified below.} \]

\[
\begin{align*}
(a) \quad & \text{Hiç kimse yemek ye-me-yip dur-du.} & \text{Hiç kimse yemek yi-yip dur-ma-di.} \\
& \text{any body food eat-neg-Ip stand-past.3sg} & \text{any body food eat-Ip stand-neg-past.3sg} \\
& \text{‘Nobody kept eating food.’} & \text{‘Nobody kept eating food.’} \\
\end{align*}
\]

Coordination analysis is not adopted for two reasons. First, the first conjunct of a coordinated structure in Turkish cannot be focused by the question particle. Second, the negation appearing on the second conjunct in coordinated structures of Turkish cannot take scope inside the first conjunct. These contrast with the pattern observed in LVCs. See Sağ (2015) for further reasoning.

\[^{11}\text{In Sağ (2015) I argue that the extended projection of the lexical verb in -I\(p\) type of LVCs is vP (little v taken as an external argument introducer), due to the fact that the theta role of the subject is determined only by the lexical verb, not by the whole predicate. In addition, I treat -I\(p\) as a suffix which represents the phrasal status of the lexical verb. In Turkish verbal roots cannot stand alone, but require to receive inflectional morphemes for well-formedness conditions. See also Göksel and Kerslake (2005), where -I\(p\) is treated as a subordinating suffix.} \]
   Bulut food-acc slowly  eat-past.3sg
   ‘Bulut ate the food slowly.’

b. Yemeğ-i Bulut ye-di.
   food-acc Bulut eat-past.3sg
   ‘It was Bulut who ate the food.’

This contrast cannot be the result of the same syntactic relation; therefore, I do not adopt the idea of complementation for -Ip type of LVCs. Further reasoning comes from a comparison with another type of LVCs, which I call the inflected type because in these constructions, both the lexical verb and the light verb receive the same Tense/Aspect/Modality and the person agreement markers as exemplified in (11).

(11) Bütün gün uyu-du-n  dur-du-n.
    all   day sleep-past-2sg stand-past-2sg
    ‘You kept sleeping the whole day.’

Following Baker (1988), in Sağ (2015) I argue that in this type, complex predication is reflected by head incorporation, differently from -Ip type of LVCs. Namely, the extended projection of the lexical verb is a complement to the light verb, and the former undergoes head movement adjoining to the latter as represented in (12)\(^\text{12}\).

\[
\begin{align*}
\text{V2P} & \quad \text{VP} & \quad \text{V2} \\
\quad \text{..ti..} & \quad V_1i & \quad V_2 \\
\end{align*}
\]

Due to head incorporation, there is not only syntactic unity between the two verbs but also morphological unity evidenced by the inability of the question particle \(mI\) to cliticize on the lexical verb and the failure of ellipsis and coordination tests as opposed to -Ip type of LVCs. This contrast is exemplified in (13) (cf. with (2), (4) and (5)).

(13)a.*Bulut uyu-du       mu dur-du?
   Bulut sleep-past.3sg QP stand-past.3sg
   ‘Did Bulut keep sleeping?’

b.*Bulut uyu-du     dur-du,      süt iç-ip değil.
   Bulut sleep-past.3sg stand-past.3sg, milk drink-Ip not
   ‘Bulut kept sleeping, not drinking milk.’

   Bulut sleep-Ip and milk drink-Ip stand-past.3sg
   Intended meaning: ‘Bulut slept and drinking milk.’\(^\text{13}\)

If we assume that the lexical verb is a complement to the light verb in -Ip type of LVCs, we cannot explain why head incorporation does not occur in them, resulting in the same kind of morphological unity between the two verbs in the inflected type.

4. Interim conclusion

In summary, so far I have exemplified a construction in which a phrase and a head which are sisters to each other form a strict syntactic unit, i.e. -Ip type of LVCs. I have shown that the syntactic relation in

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\(^{12}\) In Sağ (2015), I propose that the extended projection of the lexical verb in the inflected type of LVCs is CP, mainly due to the fact that person agreement is realized on it (in the sense of Miyagawa, 2010). See Sağ (2015) for further reasoning of this and the details of head incorporation.

\(^{13}\) The sentence in (13c) is grammatical under the meaning ‘Bulut slept and keeping drinking milk.’ Here, the light verb does not take the first conjunct in its scope as opposed to the intended meaning which results in ungrammaticality.
these constructions cannot be reduced to the canonical complementation and proposed that we should allow for another type of relation which I have referred to as *phrasal adjunction to a head.*

Contrary to complementation relation that has so far been treated as determined by both syntactic and semantic requirements, the new one that I propose here only reflects a semantic requirement, which leads to stricter unity between the phrase and the head.

Below, I provide further support for this proposal by discussing two more structures from Turkish: pseudo noun incorporation and a special construction where a non-derived adverb combines with a verb immediately preceding it. I also extend the discussion to so called CP complements to nouns and certain adjectives in English that have been previously analyzed by Stowell (1981) and Moulton (2015).

5. Further support

The analysis for -*Ip* type of LVCs can be extended to pseudo noun incorporation and a special construction where a non-derived adverb combines with a verb in Turkish.

5.1. Pseudo noun incorporation in Turkish

Öztür (2005) claims that predicates formed with a caseless bare NP and a verb in Turkish are instances of pseudo noun incorporation following Massam (2001). These predicates show striking similarities to -*Ip* type of LVCs. Namely, the bare NP and the verb cannot be separated by any intervening element or by means of movement/scrambling, which proves the existence of syntactic unity between them as exemplified in (14) (cf. with 10). However, the focus elements such as the question particle *mI* can intervene between the two elements of the complex as in (15a), and the ellipsis of the verb under identity and coordination of two bare NPs under the scope of the verb are possible as in (15b) and (15c). These prove the phrasal status of the incorporated noun (Öztür, 2005).

(14) Bulut kitap (*sessizce) oku-du.
  Bulut book quietly read-past.3sg
  ‘Bulut did book-reading quietly.’

(15) a. Bulut kitap mı  oku-du?
    Bulut book QP read-past.3sg
    ‘Did Bulut do book-reading?’
 b. Bulut kitap oku-du, gazete değil.
    Bulut book read-past.3sg, newspaper not
    ‘Bulut did book-reading, not newspaper (reading).’
 c. Bulut kitap ve gazete oku-du.
    Bulut book and newspaper read-past.3sg
    ‘Bulut did book and newspaper reading.’

As already discussed in the previous section, if we assume that the bare NP is the complement of the verb following the general literature on pseudo noun incorporation, we cannot account for their difference from the constructions where a case marked noun is a complement to a verb. Instead, I argue that the resulting complex head of the adjunction relation between the bare NP and the verbal head yields complex predicate interpretation just as in -*Ip* type of light verb constructions.

The proposal that phrasal adjunction to a head is only triggered by semantic requirements can be supported by the fact that the pseudo incorporated noun does not receive Case as opposed to the noun that is in a complementation relation with the verb (as exemplified in (9) above).

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14Gračanin-Yüksel and İşsever (2011) show that bare NPs can actually undergo movement for discourse-related reasons getting separated from the verb on the surface. However, they argue that lacking a case-marker, bare NPs cannot move on their own, but pied-pipe the entire VP with them. The reason why the NP and the verb seem separated from each other on the surface is that the verb undergoes further movement to T, which happens before the movement of the VP.
5.2. Adverbial complex predication

Another support comes from a special construction where a non-derived adverb (e.g. yavaş ‘slow’, hızlı ‘fast’ and güzel ‘nice’) combines with a verb. Taylan (1984) shows that non-derived adverbs always have to occupy an immediately preverbal position and cannot precede any argument. These constructions also show syntactic unity based on the fact that the adverb and the verb cannot be separated by movement/scrambling or any intervening category as shown in (16)\(^{15}\). The phrasal status of the adverb is evidenced by the ability of the question particle mı to intervene between the two elements, and ellipsis/coordination tests as in the case of -İp type of LVCs and pseudo noun incorporation. These are exemplified in (17).

(16) Bulut yavaş (*yemeğ-i) ye-di.
    Bulut slow food-acc eat-past.3sg
    ‘Bulut ate the food slowly.’

(17) a. Bulut yemeği yavaş mı ye-di?
    Bulut food-acc slows QP eat-past.3sg
    ‘Did Bulut eat the food slowly?’
b. Bulut yemeği yavaş ye-di, hızlı değil.
    Bulut food-acc slow fast not
    ‘Bulut ate the food slowly, not fast.’
c. Bulut yemeği yavaş ve güzel ye-di.
    Bulut food-acc slow and nice eat-past.3sg
    ‘Bulut ate the food slowly and nicely.’

I propose that the non-derived adverb in these special adverbial constructions is base-generated as adjoined to the verb head as an instance of pseudo incorporation, reflecting the ‘phrasal adjunction to a head’ relation.

5.3. Previous observations

The observation made in this study is not new. Stowell (1981) and Moulton (2015) observe that the so-called CP complements to nouns and certain adjectives as exemplified in (18) are not ‘normal arguments’ in that they combine with non-argument taking nouns and adjectives.

(18) I have heard the rumor that John is sick.

Moulton claims that such CPs combine with noun or adjective heads via predicate modification similar to the claim in this study. Stowell claims that because these CPs cannot receive Case from the noun or the adjective that they modify, they cannot be topicalized in the same lines with the proposal made in this study (i.e. since ‘phrasal adjunction to a head’ relation is only determined by a semantic requirement, they cannot move for any syntactic reason). Therefore, Stowell treats these CPs as phrases in ‘apposition’ to the noun or the adjective although no explicit information is given with regards to the syntactic properties of it.

\(^{15}\) Note that a bare NP can intervene between the non-derived adverb and the verb as shown in (i).

(i) Bulut yavaş yemek ye-di.
    Bulut slow food eat-past.3sg
    ‘Bulut ate food slowly.’

I suggest that the non-derived adverb can also form a complex predicate with the one already formed by the pseudo incorporation of a bare NP to the verb. This structure is such that the bare NP is adjoined to the head of the verb resulting in a complex verbal head, and the non-derived adverb is also adjoined to this head turning it into a more complex head. Why the bare NP is adjoined to the verb before the non-derived adverb, but not vice versa, might be because of semantic reasons. Namely, there might be a precedence condition on what can form a complex predicate with the verb first. In this case, a bare NP seems to have precedence over a non-derived adverb.
I believe that the similar properties of the structures explored in this study and the so-called CP ‘complements’ to nouns and adjectives are not coincidence and should fall under the same analysis.

6. Conclusion

In this paper, I have argued for a new syntactic relation between a phrase and a head that are sisters to each other, and it is the syntactic correspondence of complex predicate formation via predicate modification. This relation is only determined by a semantic requirement and leads to strict syntactic unity between the two elements of the complex predicate as opposed to the complementation relation that is determined by both syntactic and semantic requirements.

The primary motivation of this argument has come from -Ip type of LVCs and supported by pseudo noun incorporation and the constructions where a non-derived adverb combines with a verb. Further investigation into similar constructions in other languages is necessary to evaluate the cross-linguistic implications of the new relation that has been proposed here.

References


