

VERBAL HEAD INCORPORATION IN TURKISH*

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1 Introduction

In this paper, I present a novel analysis for light verb constructions in Turkish as exemplified in (1), which I will call Inflected Light Verb Constructions (Infl LVCs):

- (1) a. Bütün gün kitap **oku-du-n** **dur-du-n**.
all day book read-PAST-2SG stand-PAST-2SG
'You kept reading books all day long.' (repeated action)
b. Televizyon izlerken **uyu-du-m** **kal-dı-m**.
TV while.watching sleep-PAST-1SG stand-PAST-1SG
'I fell asleep while watching TV.' (punctual change)

I claim that Infl LVCs are instances of *head incorporation* originally proposed by Baker (1988). HI results in a complex head interpretation in the semantic component, hence complex predication, in light of the principle assumed in Baker (2014:20) given in (2).

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

In Section 2, general facts about Infl LVCs are presented. Section 3 is devoted to the analysis of HI, and in Section 4, the analysis is supported by a comparison with copular constructions.

* I am grateful to Mark Baker, Ken Safir, Jane Grimshaw, Veneeta Dayal, Omer Demirok, and the participants of WAFL 12 for their valuable comments. Abbreviations used in the glosses include: ACC: accusative, AOR: aorist, CAUS: causative, COP: copula, DAT: dative, EVID: evidential, FUT: future, IMPERF: imperfect, LOC: locative, NEG: negation, PAST: past, PERF: perfective, POSSIB: possibility, QP: Question Particle, SG: singular, 1: 1st person, 2: 2nd person, 3: 3rd person.

2 General Facts

In Infl LVCs in Turkish, a lexical verb (V1) is followed by a light verb (V2) (e.g. *dur* ‘stand/stop’, *kal* ‘remain/stay’), and both verbs receive the same Tense/Aspect/Modality (TAM) and person agreement (PA) markers. V2 loses its lexical meaning to some extent, adding various aspectual interpretations to the whole complex formed by its combination with V1. These verbs are as ‘light’ in the sense of Grimshaw and Mester (1988) 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.¹

3 Analysis: Head Incorporation

On the semantic side, I assume that V1 and V2 of Infl LVCs combine via predicate modification, where the content of V1 restricts/modifies the content of V2 (in the sense of Dayal, 2011). Based on Baker’s principle given in (2), I argue that the corresponding syntax of these predicates is adjunction of V1 to the head of V2 via cyclic and successive head movement, which is called *head incorporation* (HI) in Baker (1988).

HI is the case where a head from a complement position moves and adjoins to another head forming a complex predicate. Along the same lines, in Infl LVCs the extended projection of V1 is a complement to V2, and V1 undergoes head movement adjoining to V2. As a result of HI, V1 and V2 are expected to be inseparable. Below, I show the strict unity formed by the two verbs.²

2.1 Head Status of V1 and Morphological Unity

The fact that V1 is in a head status, i.e. not standing as an independent syntactic constituent, and V1 and V2 form a strict morphological unit is evidenced by four factors, which I discuss below (tests adopted from Öztürk, 2005).

First, neither a DP in an argument position nor an adverb can separate V1 and V2. Scrambling one of the verbs leaving the other in situ is not allowed, either, as exemplified in (3).

- (3) Bulut kitab-ı oku-du (*kitab-ı) dur-du.
 Bulut book-ACC read-PAST.3SG book-ACC stand-PAST.3SG
 ‘Bulut kept reading the book.’

Second, the en-clitic question particle (QP) *mI* cannot cliticize on V1, hence intervene between the two verbs as shown in (4).³

- (4) Bulut bizi beklerken uyu-du (*mu) kal-dı mI?
 Bulut us while.waiting sleep-PAST.3SG QP remain-PAST.3SG QP
 ‘Did Bulut fell asleep while waiting for us?’

¹ There are two more types of LVCs, which are called *-Ip* and *-A* types of LVCs in Sağ (2015 & in press). This paper only focuses on Infl LVCs. The data presented in this paper have been collected from 10 native speakers of Turkish.

² Because light verbs add aspectual information to the predicate, they are not analyzed as copular verbs which do not have any semantic content (see Keleş, 2003; Sağ, 2013 for the copula).

³ See Göksel and Kerslake (2005) for the nature of the question particle *mI*.

Following Taylan (1986), I claim that the inability of QP to cliticize on V1 is a sign of the head status of V1 and the morphological unity between V1 and V2. This claim is supported by the morphologically complex words, where QP cannot separate the bound morphemes as shown in (5), a causative structure where the causative morpheme is suffixed to the verbal root.

- (5) Bulut çocuğ-u koş-(*mu)-tur-(*mu)-du mu?
 Bulut child-ACC run-QP-caus-QP-PAST.3SG QP
 ‘Did Bulut make the child run?’

Third, it is not possible for V2 to be elided under identity as illustrated in (6), providing further evidence against the phrasal status of V1, in which case it would stand as an independent syntactic constituent.

- (6) *Bulut uyu-du dur-du, süt iç-ti değil.
 Bulut sleep-PAST.3SG stand-PAST.3SG milk drink-PAST.3SG not
 Intended: ‘Bulut kept sleeping, not drinking milk.’

Finally, coordination of two V1s under the scope of V2 is impossible as shown in (7), supporting the dependent head status of V1 and the morphological unity between the two verbs along the lines of the previous tests.⁴

- (7) *Bulut uyu-du ve süt iç-ti dur-du.⁵
 Bulut sleep-PAST.3SG and milk drink-PAST.3SG stand-PAST.3SG
 Intended: ‘Bulut kept sleeping and drinking milk.’

2.2 Interim Discussion

In summary, I propose that the strict unity between V1 and V2 is a result of HI, given the evidence for the dependent head status of V1 as shown above. Note that Baker (1988) states the motivation of HI as the affixal relation between the incorporating element and the incorporation host.

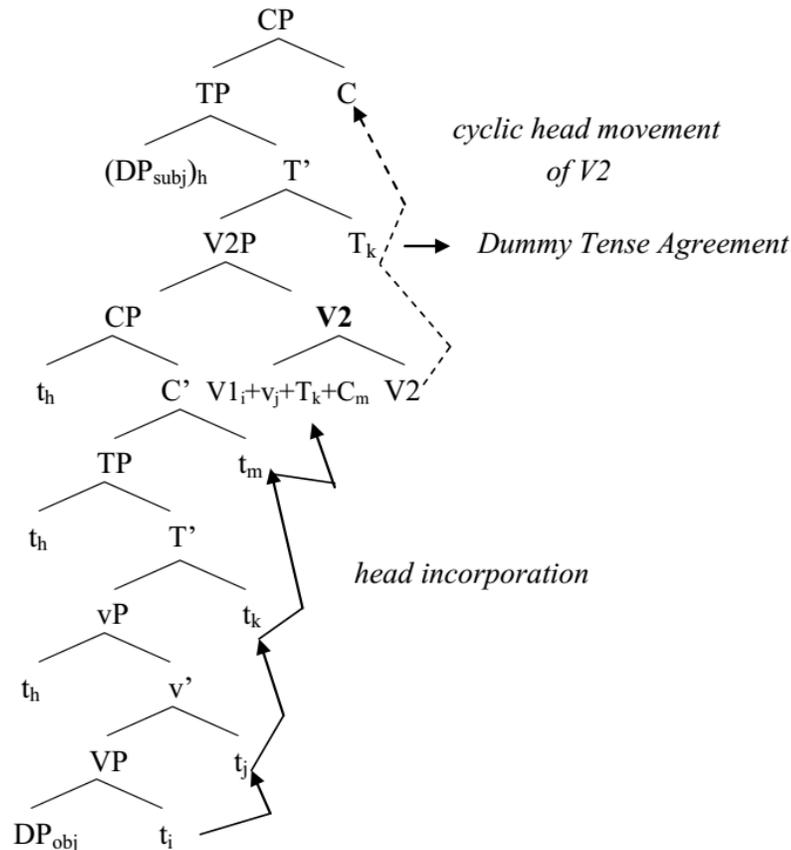
However, I argue that in Infl LVCs, HI occurs *without fusion* evidenced by the lack of vowel harmony between the two verbs and NPI subject licensing facts that will be discussed in Section 4. In other words, I claim that V1 and V2 form a morphological unity which does not result in affixation (see also *excorporation* in Roberts, 1991 and Guasti, 1992). This contrasts with the causative structures that can be considered as HI with fusion (claimed by Baker, 1988).

The proposed structure for the Infl LVCs is given below. The extended projection of V1 is argued to be a CP, which will be discussed in the following section. The double occurrence of TAM and PA markers on both V1 and V2 is treated as *dummy tense agreement*, and the details of it will be discussed in Section 3. Finally, the cyclic head movement of V2 adjoining to C head above it will be analyzed in Section 4.

⁴ See Sağ (2015 & in press) for *-Ip* and *-A* types of LVCs, in which V1 has a phrasal status.

⁵ Note that this sentence is good under the following meaning: ‘Bulut slept and kept drinking milk.’ However, here V1 ‘sleep’ is not under the scope of V2, so it does not apply to the discussion.

(8) Inflected Light Verb Constructions



2.3 CP as the Extended Projection of V1

I argue that the extended projection of V1 in Infl LVCs is a CP. One piece of evidence comes from PA. Following Miyagawa (2010), in order for PA to be realized, CP projection is necessary, and in Infl LVCs, V1 carries a PA marker.

In addition, the interpretation of the so called evidential marker *-miş* in Infl LVCs supports the idea of CP as the extended projection of V1. *-miş* denotes perfective aspect only if it is below a copular verb (9a). If there is no copula (9b) or if it appears above the copula (9c) it denotes evidential modality⁶.

- (9) a. Eve-e gel-miş ∅ -ti-m. *below copula*
 home-DAT come-PERF COP-PAST-1SG
 ‘I had come.’
- b. Ev-e gel-miş-sin. *no copula*
 home-DAT come-EVID.2SG
 ‘Apparently, you came home.’

⁶ There are two copulas in Turkish. One is *ol-*, and the other is *i-* which has two forms: *-y* and zero exponents (for phonological reasons) represented as \emptyset in (9). See Keleşir (2003) and Sağ (2013).

- c. Ev-e gel-iyor Ø-muş-sun. *above copula*
 home-DAT come-IMPERF COP-EVID.3SG
 ‘Apparently, you are coming home.’

Because in copular constructions, the lower verb (V1) does not receive a PA marker, the phrasal projection below the copula must be smaller than a CP. So, *-miş* is interpreted as evidential only when the next projection following it is a CP. In Infl LVCs, *-miş* only denotes evidentiality as in (10), from which we can conclude that the extended projection of V1 is a CP.

- (10) Parti-de içki iç-miş dur-muş.
 party-LOC alcohol drink-EVID.3SG stand-EVID.3SG
 ‘Apparently, he/she kept drinking alcohol in the party.’

3 Implications: Dummy Tense Agreement

I suggest that the double occurrence of TAM and PA markers in Infl LVCs is due to HI. Miyagawa (2010) claims that phi features exist on the C head originally, and they are inherited by the functional heads (T head) below it. I further suggest that the inheritance of phi features leads to percolation of the tense features up to C (the projection below V2).

As a result of successive and cyclic head movement of V1, together with v, TAM categories, and C, adjoining to the V2 head as shown in (10) above, the features packaged on the C head are passed onto the new head resulted by HI. Hence, these features are now visible and copied onto the head of higher T yielding *dummy tense agreement*, tense representing both TAM and PA features. It does not serve any semantic role as evidenced by the following contrast, where a double occurrence of the past morpheme yields *past of past* interpretation in a copular construction (11a), which is missing in Infl LVCs (11b):

- (11) a. Televizyon karşısında uyu-du-y-du-m. *copular construction*
 TV across sleep-PAST-COP-PAST-1SG
 ‘I had fallen asleep while watching TV.’
 b. Televizyon karşısında uyu-du-m kal-dı-m. *Infl LVC*
 TV across sleep-PAST-1SG remain-PAST.3SG
 ‘I fell asleep while watching TV.’

This dummy agreement relation holds because a verb in Turkish cannot stand alone as opposed to the other categories. It needs to receive TAM and PA markers on it for its wellformedness conditions (cf. Bayırlı, 2012). Since this requirement is only syntactic or morphological, it does not have any semantic effect (see also Göksel, 2001).

4 Further Support: Comparison with Copular Constructions

Comparison of NPI subject licensing in Infl LVCs and copular constructions will provide further support for HI in Infl LVCs. The copula lacks semantic content, merged in the structure to satisfy syntactic requirements (Keleş, 2003). As a result, the copula is not expected to undergo a

predicate modification relation with V1, i.e. HI. The lack of HI in copular constructions is evidenced by the ability of QP to intervene between V1 and the copula, and the possibility of coordination of two V1s under the scope of the copula⁷.

NPI licensing in Infl LVCs is impossible where negation can only appear on V1 as shown in (12). It is because the subject does not stay in the lower CP domain in Infl LVCs but moves higher above V2 (probably spec, TP) where it ends up in a higher position than the c-command domain of the negation as represented in (10).⁸

- (12) *(Hiç) kimse bu kitab-ı oku-**ma**-dı dur-du.
 any body this book-ACC read-NEG-PAST.3SG stand-PAST.3SG
 Intended: ‘Nobody kept not reading this book.’

However, NPI licensing in copular constructions shows that the subject can stay below the copula, where it can be licensed by the negation on V1 as illustrated in (13).

- (13) (Hiç) kimse o elma-yı ye-**me**-miş ol-abil-ir.
 any body that apple-ACC eat-NEG-PERF COP-POSSIB-AOR.3SG
 ‘It is possible that nobody ate that apple.’

Does negation on V1 in copular constructions cyclically move above the copula? (14) suggests that the negation stays in the extended domain of V1 if it is realized on V1. Otherwise, we would expect the negation on V1 in (14b) to undergo movement and license the NPI subject which is presumably above the copula. (The subject precedes the adverbial *yarın* which is associated with the tense appearing on the copula in contrast to (14a)).

- (14) a. Yarın [(hiç) kimse o elma-yı ye-**me**-miş] ol-acak.
 tomorrow any body that apple-ACC eat-NEG-PERF COP-FUT.3SG
 ‘Everybody will be in the state of not having eaten that apple tomorrow.’
 b. *(Hiç) kimse yarın [o elma-yı ye-**me**-miş] ol-acak.
 any body tomorrow that apple-ACC EAT-NEG-PERF COP-FUT.3SG

What we conclude from the contrast sketched above is that subjects have to move higher above V2 in Infl LVCs due to HI, contrasting with copular constructions where HI is not attested. In addition, HI in Infl LVCs is without fusion; therefore, V2 undergoes further successive cyclic head movement leaving V1 and the other categories incorporated together with it on their incorporation position, among which there is also negation. For that reason, negation cannot move further up to the layer above its incorporation position, hence license the NPI subject. Note that V2 undergoes that kind of movement because as widely assumed every verb in Turkish does it due to the requirement of affixal TAM categories to attach to a root.

⁷ The ellipsis of the copula under identity is not possible with copular constructions, the reason of which is not clear to me at this point. However, I believe that the ability of *ml* to intervene between the two verbs and the coordination of two V1s under the scope of the copula are enough to suggest that there is no HI in the copular constructions.

⁸ See Sağ (2015) for where I argue that subject originates in the domain of V1 in Infl LVCs. See also Keleş (2011) where it is claimed that subjects in Turkish do not stay in situ (spec, vP) but move up to the T layer (spec, TP).

5 Conclusion

In this paper, I have argued that Infl LVCs are complex predicates formed via *head incorporation*, where V1 undergoes cyclic and successive head movement from the complement position of V2, and adjoins to V2 *without fusion*.

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