1. Introduction

Turkish complex predicates (CPrs) composed of a non-verbal (NV) element and the verb *etmek* form a large number of verbs with various argument structures. In the present study, we look at transitive and unergative CPrs formed with *etmek*, which are superficially similar to Persian CPrs with the verb *kardan*. Thus, the transitive Turkish verbs *rahatsız etmek* ‘to disturb’ and *davet etmek* ‘to invite’ correspond to Persian *nārāhat kardan* and *dā'vat kardan*, respectively, and the unergative Turkish verbs *intihar etmek* ‘to commit suicide’ and *dua etmek* ‘to pray’ correspond to Persian *xodkoši kardan* and *doʻā kardan*, respectively.

We expand on Folli, Harley & Karimi’s (2005) analysis of Persian CPrs, extending it to Turkish. We show that transitive and unergative Turkish CPrs with *etmek* exhibit a range of structural variation, falling into at least four classes. The analysis is formulated within the framework of Distributed Morphology (DM). In DM, morphemes—more properly termed “Vocabulary Items” (VI)—realize terminal syntactic nodes. Furthermore, a VI may be underspecified—i.e., it need not be fully specified for all of the features of a node in order to realize it. The primary requirement is that the morpheme not have any features incompatible with the node. Herein, it is argued that *etmek* (more properly just *et*) is a verbalizer with no other featural content. It is the complement of *etmek* that determines the structure of the CPr. The advantage of this approach is that a single vocabulary item can be employed to realize a wide range of structures. In a non-realizational approach, it would be necessary to posit several homophonous verbs *etmek* in order to capture the range of structural variation.

2. Transitive CPrs

Despite superficial similarities, transitive CPrs with *etmek* fall into (at least) two distinct classes, herein designated Type I and Type II. Type I CPrs are transitive. The internal argument is the theme of a change of state, and the external argument is the cause of the change.

(1) Mehmet Berna-ACC uncomfortable do-PST
    ‘Mehmet disturbed Berna.’

The syntactic category of the non-verbal element ranges over bare nouns, case-marked nouns, and adjectives. The intransitive version of Type I CPrs is formed by changing the LV from *etmek* to *olmak* ‘become.’
(2) Berna rahatsz ol-du.
Berna uncomfortable become-PST
‘Berna was disturbed.’

This is the same pattern found in transitive Persian CPRs. The LV kardan ‘do’ is used in the transitive CPR, and šodan ‘become’ with the intransitive.

(3) Ali Farnáz-o nárâhat kard.
Ali Farnaz-ACC uncomfortable did
‘Ali disturbed Farnaz.’

(4) Farnáz nárâhat šod.
Farnaz uncomfortable became
‘Farnaz was disturbed.’

Folli, Harley & Karimi (2005) (henceforth FHK) show that the complement of such CPRs in Persian is an Adjective Phrase (AP) or Predicate Phrase (PredP), which forms a small clause (SC) with the internal argument, and cite this as overt evidence of the structure argued for in Hale & Keyser (1993). The same analysis holds for the Turkish equivalents.

(5) a. Transitive CPR structure

```
VoiceP
  DP Voice'
  FP Voice-ACTIVE
  vP F'
  AP=SC v-CAUSE
  DP A
```

b. Intransitive CPR structure

```
VoiceP
  vP Voice-MIDDLE
  AP=SC v-BECOME
  DP A
```

In Turkish, the nodes v-CAUSE and v-BECOME are realized by etmek and olmak, respectively, and in Persian by kardan and šodan. Note that, in FHK, the external argument is introduced in the specifier of vCAUSEP. Herein we follow Pylkkänen (2002) in including a higher Voice projection (distinct from little v). Active Voice, which selects for vCAUSE,
has an external argument in its specifier. Either way, the LV (little v) is responsible for the presence or absence of an external argument, whether directly (as in FHK), or indirectly via selection (in a Pylkkänen-style approach).

Type II CPrs are also transitive. However, the internal argument does not undergo a change of state, but is the theme of an action.

(6) *Mehmet Berna-yı davet et-ti.
Mehmet Berna-ACC inviting do-PST
‘Mehmet invited Berna.’

Superficially, these look like transitive Type I CPrs. There are, however, important differences. First, the NV element in Type II does not show the same range of variation as that of Type I. It is always an eventive nominal. Second, Turkish Type II CPrs (unlike Type I) cannot be made intransitive by alternating the LV.

(7) *Berna davet ol-du.
Berna inviting become-PST
Intended: ‘Berna was invited.’

This is surprising. If the LV etmek is responsible for the presence of an external argument, and hence the transitivity of the verb, as it is in Type I, then replacing it with olmak should result in an intransitive verb. This is highlighted by the fact that in Persian, replacing kardan with šodan achieves this.

(8) Farnaz da’vat šod.
Farnaz inviting became
‘Farnaz was invited.’

We are left with the fact that Type II CPrs do not allow transitivity alternation via LV alternation, unlike Type I. If the LV determines transitivity in Type I (and in all Persian CPrs), then it would appear not to in Type II. We hypothesize that in Type II, transitivity is determined by the non-verbal element rather than the LV. It can take an accusative argument on its own, even in the absence of an LV.

(9) Kılıçdaroğlu, Auster’i davet için düğmeye bas-tı
Kılıçdaroğlu Auster-ACC inviting for button-DAT press-PST
‘Kılıçdaroğlu pressed the button to invite Auster.’

(10) Hasta-yı ziyaret nasıl ol-ur?
patient-ACC visiting how be-AOR
‘How is visiting patients to be?’

Thus, the non-verbal element of Type II CPrs is the case-assigning noun (CAN) discussed in Keskin (2005). They contrast with the NV element of Type I CPrs, which cannot assign accusative case.
In this way, too, Type II CPs differ from their apparent Persian equivalents. In Persian, the nominal that appears as an NV element, whether eventive or non-eventive, can never check accusative case in the absence of the LV.

Thus far the generalization holds: If a transitive CP cannot be made intransitive by alternating the LV, then the non-verbal element can take an accusative argument with no LV (Type II). If LV alternation results in a transitivity alternation, the non-verbal element cannot take an accusative argument in the absence of the agentive LV.

Turkish eventive nominals differ from their Persian counterparts. The key to the structure of Type II CPs, then, lies in the structure of the nominal itself. It can take an accusative object on its own. This is problematic on standard assumptions about structural case (Chomsky 2001), as Kornfilt (2003) and Keskin (2005) show that accusative case in Turkish is structural, and that it contrasts with inherent cases such as dative. Broadly speaking, there are two possibilities for the nominal. It must either include an accusative-assigning projection within its structure, or be selectable by an accusative-assigning projection. Within DM, the first possibility is ruled out by the fact that these CPs are passivizable.

On the assumption that higher structures cannot suppress lower structures, the passive construction cannot contain an accusative-assigning head within it. We are therefore left with the second option: the highest projection of the nominal is selectable by Voice-ACTIVE and/or an accusative-assigning head. We propose that the Turkish nominals realize the fused terminal nodes √n.v.

This complex head is subjected to a filter, *[n v], which prevents the nominalizing head n and the verbalizing head v from occurring on the same node. This in turn triggers impoverishment and deletion of the [v] feature.
The resulting feature bundle is what is realized by the eventive nominal Vocabulary Item.

(16)  

a. Turkish:

```
  vP
   FP
    v
     F'  vP
        nP  Cause
           CauseP  F
              nP
        vP
         nP
          DP  √
            davet
```

a. Persian:

```
  FP
   vP
    F'  vP
   nP=PredP  n
     vCAUSE
      √
        da’vat
```

The Turkish nominal can be selected for directly by FP, and thus have an accusative object regardless of whether or not the light verb is present. In these CPrs, the light verb is devoid of 'flavor' (CAUSE, BECOME, DO) and is simply a verbalizer.

There are a number of CPrs that exhibit characteristics of both Types I and II: They have intransitive alternants in _olmak_, but the nominal can independently take an accusative argument.

(17)  

a.  

```
Mehmet  Berna-ı  ikna  et-ti.
```

Mehmet  Berna-ACC  convincing  do-PST

‘Mehmet convinced Berna.’

b.  

```
Berna  ikna  ol-du.
```

Berna  convincing  become-PST

‘Berna became convinved.’

c.  

```
Mehmet  Berna-ı  ikna  içi̇n  uğras-ti.
```

Mehmet  Berna-ACC  convincing  for  strive-PST

‘Mehmet strove to convince Berna.’
These facts are easily accommodated in a realizational framework such as DM. A vocabulary item such as *ikna* can realize the head of a small clause Predicate Phrase, or of an eventive Noun Phrase. These items, like *etmek*, are underspecified, and hence a surface string such as *ikna etmek* is ambiguous between two realizational structures. In a Type I CPr, a cross-over nominal such as *ikna* realizes the PredP, while *etmek* realizes v-CAUSE, and in a Type II CPr, a cross-over nominal realizes nP-CAUSE, and *etmek* realizes v.

3. Unergative CPrs

Unergative CPrs with *etmek* also fall into two distinct structures: a light verb with a nominal NV element (Type III), and a heavy verb with a non-specific (Categorial) direct object. Type III includes a wide range of unergative predicates, exemplified by *dans etmek* ‘to dance’ and *intihar etmek* ‘to commit suicide.’

(18)  *Ahmet dans et-ti.*
    *Ahmet*  dance  do-PST
    ‘Ahmet danced.’

(19)  *Marilyn Monroe intihar et-ti.*
    *M.M.*  suicide do-PST
    ‘Marilyn Monroe committed suicide.’

In a Hale & Keyser-style approach, an unergative verb is derived from a nominal complement to the LV head-moving into a null LV position. In FHK, Persian unergative CPrs are argued to represent the same structure minus the head movement, and with an overt LV.

(20)  VoiceP
      ___________
     |            |
    DP    Voice'    
    |   |   |
   Ali vP Voice
   |   |   |
  nP v    
  |   |   |
 n*DANS* etti
  |   |
 *dans*

Since the complement is an NV element rather than the object complement of a heavy verb, it should not show properties of a direct object. NV elements cannot be direct objects. (See
Aydemir 2004 for several tests that show the difference, such as modification and ellipsis). Hence they cannot take accusative marking. The nominal in Type III CPRs can never be definite, and cannot be accusative-marked.

(21) *Ahmet bu dans-ı et-ti.  
    Ahmet this dance-ACC do-PST  
    Intended: ‘Ahmet did this dance.’

(22) *Marilyn Monroe böyle bir intihar-ı et-ti.  
    M.M. this.way a suicide-ACC do-PST  
    Intended: ‘Marylin Monroe committed such a suicide.’

Another test for objecthood comes from the causative construction. The case of the causee in Turkish depends on whether or not the verb has a direct object (regardless of whether it is accusative-marked). If the base verb has no object, the causee is in the accusative case, and if the base verb has an object, the causee is in the dative case.

(23) a. Ahmet çalış-ti.  
    Ahmet work-PST  
    ‘Ahmet worked.’

b. Hoca Ahmet-ı/*Ahmet-e çalış-tr-di.  
    Teacher Ahmet-ACC/ Ahmet-DAT work-CAUS-PST  
    ‘The teacher made Ahmet work.’

(24) a. Selin bir kitap oku-du.  
    Selin a book read-PST  
    ‘Selin read a book.’

b. Hoca Selin-e/*Selin-i bir kitap oku-t-tu.  
    Teacher Selin-DAT/ Selin-ACC a book read-CAUS-PST  
    ‘The teacher made Selin read a book.’

Under causativization, the causee of Type III CPRs is accusative, indicating that the verb does not have a syntactic object.

    Selin Ahmet-ACC/Ahmet-DAT dance do-CAUS-PST  
    ‘Selin made Ahmet dance.’

    K. M.M-ACC/ M-DAT suicide do-CAUS-PST  
    ‘Kennedy made Marilyn Monroe commit suicide.’

Furthermore, the NV element cannot be modified by a number phrase.
Unergative CPRs of Type IV are superficially similar to Type III, but they differ in several key respects. They are semantically restricted to speech acts, such as *dua etmek* 'to pray', *iltifat etmek* 'to compliment', *hakaret etmek* 'to insult', etc. The nominal can be definite and accusative-marked. It can also be relativized.

(27) *Ahmet iki tane dans et-ti.*  
Ahmet two CLAS dance do-PST  
Intended: ‘Ahmet did two dances.’

(28) *Anne-m şu dua-yı et-ti.*  
Mother-1SG.POSS this prayer-ACC do-PST  
‘My mother said this prayer.’

(29) *Anne-m-in et-tığ-i dua.*  
mother-1SG.POSS-GEN do-NOM-3.POSS prayer  
‘The prayer that my mother said’

The causee is in the dative case.

(30) *Babam anne-m-e dua et-tir-di.*  
father-1SG.POSS mother-1SG.POSS-DAT prayer do-CAUS-PST  
‘My father made my mother say a prayer.’

In addition, the NV element can be modified by a number phrase.

(31) *Anne-m iki tane dua et-ti.*  
mother-1SG.POSS two CLAS prayer do-PST  
‘My mother said two prayers.’

These facts point to the following conclusions: The nominal is a direct object. The verb is a heavy verb that means approximately ‘to say.’

(32) 
```
VP          
  DP v
  Annem VP v Ø
  V'      
  DP V
  şu duayı etti
```
4. Conclusions
We have extended the FHK’s (2005) analysis of Persian CPrs to Turkish CPrs with etmek and have shown that they have at least four types depending on the complements they take. We have also shown that a realizational approach to Turkish CPrs can account for the variations without positing homophonous Vocabulary Items.

References

Appendix: CPr Types

<table>
<thead>
<tr>
<th>Type I</th>
<th>Type II</th>
</tr>
</thead>
<tbody>
<tr>
<td>mutlu etmek</td>
<td>teslim etmek</td>
</tr>
<tr>
<td>‘to make happy’</td>
<td>‘to surrender’</td>
</tr>
<tr>
<td>razı etmek</td>
<td>var etmek</td>
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<tr>
<td>‘to convince’</td>
<td>‘to bring into’</td>
</tr>
<tr>
<td>tahrik etmek</td>
<td>yok etmek</td>
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<tr>
<td>‘to arouse’</td>
<td>‘to cause to cease’</td>
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<td>tatmin etmek</td>
<td>taburcu etmek</td>
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<td>‘to satisfy’</td>
<td>‘to discharge (from hospital)’</td>
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<td>hall-etmek</td>
<td>israf etmek</td>
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<td>‘to solve’</td>
<td>‘to waste’</td>
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<td>icat etmek</td>
<td>‘to invent’</td>
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<td>‘to accept’</td>
<td>‘to record’</td>
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<tr>
<td>kabul etmek</td>
<td>‘to occupy’</td>
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<td>‘to accept’</td>
<td>‘to reminded’</td>
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<tr>
<td>kahr-et</td>
<td>‘to damn’</td>
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<td>‘to lose’</td>
<td>‘to record’</td>
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<tr>
<td>‘to abandon’</td>
<td>‘to occupy’</td>
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<tr>
<td>kayb-etmek</td>
<td>‘to remind’</td>
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<tr>
<td>‘to record’</td>
<td>‘to occupy’</td>
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<tr>
<td>kayd-etmek</td>
<td>‘to record’</td>
</tr>
<tr>
<td>‘to invite’</td>
<td>‘to record’</td>
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<tr>
<td>meşgul etmek</td>
<td>‘to occupy’</td>
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<td>‘to occupy’</td>
<td>‘to burry’</td>
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<tr>
<td>rahatsız etmek</td>
<td>‘to bother’</td>
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<tr>
<td>‘to circumcise’</td>
<td>‘to protest’</td>
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<td>sümnnet etmek</td>
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<td>tamir etmek</td>
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<td>‘to repair’</td>
<td>‘to watch’</td>
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<tr>
<td>tedavi etmek</td>
<td>‘to treat’</td>
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<tr>
<td>‘to treat’</td>
<td>‘to abandon’</td>
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<tr>
<td>Turkish</td>
<td>English</td>
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<td>---------</td>
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<tr>
<td>rica etmek</td>
<td>‘to request’</td>
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<tr>
<td>izah etmek</td>
<td>‘to explain’</td>
</tr>
<tr>
<td>keşf-etmek</td>
<td>‘to discover’</td>
</tr>
<tr>
<td>tebrik etmek</td>
<td>‘to congratulate’</td>
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<tr>
<td>tehdit etmek</td>
<td>‘to threaten’</td>
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<tr>
<td><strong>Type I/II cross-over</strong></td>
<td></td>
</tr>
<tr>
<td>tahrik etmek</td>
<td>‘to arouse/provoke’</td>
</tr>
<tr>
<td>ikna etmek</td>
<td>‘to persuade’</td>
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<tr>
<td>teşvik etmek</td>
<td>‘to encourage’</td>
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<tr>
<td>tespit etmek</td>
<td>‘to determine’</td>
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<tr>
<td><strong>Type III</strong></td>
<td></td>
</tr>
<tr>
<td>tereddüt etmek</td>
<td>‘to hesitate’</td>
</tr>
<tr>
<td>seyahat etmek</td>
<td>‘to travel’</td>
</tr>
<tr>
<td><strong>Type IV</strong></td>
<td></td>
</tr>
<tr>
<td>dua etmek</td>
<td>‘to pray’</td>
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<tr>
<td>hakaret etmek</td>
<td>‘to insult’</td>
</tr>
<tr>
<td>iltifat etmek</td>
<td>‘to compliment’</td>
</tr>
<tr>
<td>tövbe etmek</td>
<td>‘to swear off of’</td>
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<tr>
<td>itiraz etmek</td>
<td>‘to object to’</td>
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<td>şikayet etmek</td>
<td>‘to complain’</td>
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<tr>
<td>söz etmek</td>
<td>‘to mention’</td>
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