TURKISH NON-CANONICAL OBJECTS

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Abstract

In this work we analyze objects with non-canonical case markers in Turkish. We show that semantic factors give rise to non-canonical case marking and try to determine criteria to decide on the grammatical function status of non-canonical objects. We conclude that ablative partitives and dative objects participating in an affectedness alternation should be analyzed as straightforward objects (OBJ), but that lexically specified non-canonically case marked objects should be treated as OBJθ. Based on our analysis, we provide an LFG implementation as part of the Turkish ParGram grammar and show how this analysis provides just the right results for the data observed with respect to causativization, passivization and raising.

1 Introduction

Turkish is a free word order language in which case plays a large part in identifying participants of a clause. Subjects are generally nominative and agreement is with the subject. Turkish also has a well-known case alternation on objects that correlates with the semantics of specificity (Enc 1991). A nonspecific direct object generally bears nominative case and a specific direct object is marked with the accusative. (1) and (2) exemplify this well-known contrast.1

\[(1)\]
\[\text{a. Ali bir piyano kiralamak istiyor} \]
\[\text{Ali one piano.Nom to.rent want.Prog.3sg} \]
\[\text{‘Ali wants to rent one (some) piano.’ (Enc 1991)} \]
\[\text{b. Ali bir piyano-yu kiralamak istiyor} \]
\[\text{Ali one piano-Acc to.rent want.Prog.3sg} \]
\[\text{‘Ali wants to rent a certain piano.’ (Enc 1991)} \]

\[(2)\]
\[\text{a. su içtim} \]
\[\text{water.Nom drink.Past.1sg} \]
\[\text{‘I drank water.’} \]
\[\text{b. su-yu içtim} \]
\[\text{water-Acc drink.Past.1sg} \]
\[\text{‘I drank the water.’} \]

A less well-known fact is that Turkish contains further semantically conditioned case markings as well. In this paper, we survey the range of non-canonical case marking on objects in Turkish and show that there are at least two identifiable groups (section 2): one which involves Differential-Object Marking (Aissen 2003).

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1Note that Turkish is a pro-drop language and that it is natural to drop the subject, as in (2).
encoding semantic differences at a clausal level, and one where the non-canonical object marking seems to be conditioned exclusively by the lexical semantics of the verb. Since both are semantically conditioned in some way, we would expect that both types should be analyzed as semantically restricted ([+r]) and be realized as OBJ with respect to LFG’s standard linking theory (Bresnan and Zaenen 1990).

In section 3, we run through a number of tests involving passivization, causativization and raising in order to get a handle on the distribution and behavior of the non-canonical objects. We conclude that ablative partitives and dative objects participating in a case alternation should be analyzed as straightforward objects (OBJ), but that lexically specified non-canonically case marked objects should be treated as OBJ. We provide a detailed analysis in section 4 in form of a concrete implementation as part of the Turkish ParGram grammar (Çetinoğlu and Oflazer 2006).

2 Non-Canonical Object Marking in Turkish

In addition to the well-known specificity alternation in (1) and (2), an ablative object indicates partitivity as in (3) with verbs of consumption (Dede 1981, Kornfilt 1990). As illustrated by (4), the relation only holds when the object is consumable.\(^2\)

\[(3) \text{ su-dan içtim} \]
\[\text{water-Abl drink.Past.1sg} \]
\[\text{‘I drank some of the water.’} \]

\[(4) \text{ şişe-den içtim} \]
\[\text{bottle-Abl drink.Past.1sg} \]
\[\text{‘I drank (something) from the bottle.’} \]

In addition to signaling partitivity, case in Turkish also appears to make distinctions between the degree of affectedness of an object. The examples in (5) and (6) illustrate this type of case alternation, which occurs with a group of verbs that also includes ‘look’ and ‘blow on’. Here the dative encodes less affected objects and alternates with the accusative. For example, in (5) the action and, indeed, the verb is the same. However, if an accusative is used, the interpretation is that the child was shot; when a dative is used, the object ‘child’ is less affected and the interpretation is that the child was merely hit.

\[(5) \]
\[a. \text{ Ali } \text{ çocuğ-u vur-du} \]
\[\text{Ali.Nom child-Acc hit-Past.3sg} \]
\[\text{‘Ali shot the child.’ (Dede 1981:41)} \]

\[b. \text{ Ali } \text{ çocuğ-a vur-du} \]
\[\text{Ali.Nom child-Dat hit-Past.3sg} \]
\[\text{‘Ali hit the child.’ (Dede 1981:41)} \]

\(^2\)Note that the surface form of the case markers differs from example to example. This is due to the well-known effects of vowel harmony in Turkish.
(6)  

a. fare peynir-i ye-di  
   mouse.Nom cheese-Acc eat-Past.3sg  
   ‘The mouse ate the cheese.’ (Dede 1981:41)

b. fare peynir-e dokun-du  
   mouse.Nom cheese-Dat touch-Past.3sg  
   ‘The mouse touched the cheese.’ (Dede 1981:41)

In (6) the verbs differ, but the effect of the case alternation is the same: actions affecting an object to differing degrees are encoded via differential case marking.

Alternating case markers due to the affectedness of the object are also found in many other languages (e.g., Scottish Gaelic, Finnish, South Asian languages in general, cf. Butt 2006). For example, Kiparsky (1998) analyzes a Finnish alternation that is very similar to the one in (5) as involving boundedness.

(7)  

a. Ammu-i-n karhu-n  
   shoot-Past-1sg bear-Acc  
   ‘I shot the/a bear.’ (Kiparsky 1998:267)

b. Ammu-i-n karhu-a  
   shoot-Past-1sg bear-Part  
   ‘I shot at the/a bear (bear is not dead).’ (Kiparsky 1998:267)

We leave aside the question of the exact semantics underlying the observed alternations in (5) and (6) and move on to another type of non-canonical case marking on objects found with a large subset of psych verbs. Although all the verbs given in (8) are similar in meaning, only (8a) bears the canonical accusative case. (8b) and a group of verbs such as hate, fear, suspect, be disgusted, get fed up have ablative objects and (8c), and another subset of psych verbs such as beg, be crazy about, be angry, believe have dative objects.

(8)  

a. Ali Ayşe'-yi seviyor  
   Ali.Nom Ayşe-Acc love.Prog.3sg  
   ‘Ali loves Ayşe.’

b. Ali Ayşe'-den hoşlanıyor  
   Ali.Nom Ayşe-Abl like.Prog.3sg  
   ‘Ali likes Ayşe.’

c. Ali Ayşe'-ye tapıyor  
   Ali.Nom Ayşe-Dat adore.Prog.3sg  
   ‘Ali adores Ayşe.’

There is also another set of verbs which simply take non-canonical objects. These verbs do not have a common semantic property and can have either ablative or dative objects. ride in (9) and help are from this class.
It would be interesting to conduct an in-depth study of the use of semantic case alternations in Turkish. However, from our initial investigations it seems that the Turkish case alternations are not quite as productive as, for example, those found in South Asian languages (cf. Butt and King 2005, Butt et al. 2004) and rather seem to encode the vestiges of a productive system. Similarly, the non-canonical case marking found with psych verbs and verbs like ride and help seem to be lexically-conditioned vestiges of a more systematic lexical semantic classification.³

In this paper, we focus on how these non-canonical objects should be analyzed. Given that they are clearly semantically restricted (+r), we would expect them to function as OBJθ or even OBL in terms of LFG’s linking theory (Bresnan and Zaenen 1990). A related question is whether these non-canonical objects, when passivized, should be analyzed as subjects. In the next section, we therefore examine data with respect to passivization, causativization and raising.

3 Object Tests

As to be expected in Turkish, both causativization and passivization are morphological. Both affect argument structure and thus are potentially good tests to distinguish between types of objects. Indeed, as the next four sections show, these tests as well as data from raising show that there are two classes of objects.

3.1 Passivization

The standard analysis of passives across theoretical frameworks is that the direct object of an active clause is realized as a subject in the passive. In standard LFG analyses (e.g., Bresnan 1982, Sells 1985, Butt et al. 1999), the assumption is that the OBJ, but not OBJθ, is realized as the SUBJ of the passive clause (also see the discussion of the status of OBJ in Börjars and Vincent 2008). This section thus investigates the behavior of the non-canonical objects with respect to passivization.

In canonically marked clauses, the nominative/accusative object is realized as a standard nominative subject which agrees with the verb under passivization.

(10) a. ben-i kovaladı
   I-Acc chase.Past.3sg
   ‘S/he chased me.’

b. ben kovalandım
   I.Nom chase.Pass.Past.1sg
   ‘I was chased.’

³For example, Joan Maling (p.c.) pointed out that Slavic languages use a special case for verbs of transport, such as ride.
In contrast, the ablative partitive object preserves its case under passivization. As Dede (1981) points out, if the ablative were absorbed under passivization with ablative partitives, then the partitive reading would be lost. There is thus a clausal semantic reason for the ablative to be preserved.

(11) a. su içildi
   water.Nom drink.Pass.Past.3sg
   ‘Water was drunk.’

   b. su-dan içildi
   water-Abl drink.Pass.Past.3sg
   ‘Some of the water was drunk.’

Given that observation, the next question is the function of the ablative partitives in the passivized sentence. Subjecthood rules given in Kornfilt (1997) are the nominative case and the agreement with the verb in person and number (cf. also Göksel and Kerslake 2005), and (11b) fails with respect to both of them. This is more clearly illustrated by the (semantically somewhat strange) examples in (12) where the verb agreement is 3sg in (12b).

(12) a. ben iç-il-di-m
   I.Nom drink.Pass-Past.1sg
   ‘I was drunk.’

   b. ben-den iç-il-di
   I-Abl drink.Pass-Past.3sg
   ‘Some of me was drunk.’

However, there are indications, as in (13), that these ablative partitives function as subjects. Kornfilt (1990) points out that these examples involve unaccusative verbs where the ablative is the sole core argument and is naturally analyzed as a subject (despite the absence of verb agreement). Kornfilt (1990) argues that the ablative objects have the same distribution as canonical objects and proposes a pro which receives a phonologically unrealized Structural Case, thus bringing ablatives in line with canonical nominative/accusative objects (Kornfilt abandons the subjecthood criterion of verb agreement with respect to these examples).

(13) a. biz-de bu kitap-tan kal-ma-dı
   we-Loc this book-Abl remain-Neg-Past
   ‘We don’t have any (copies) of this book left.’ (Kornfilt 1990:287)

   b. dolap-ta bu sucuk-lar-dan var/yok
   cupboard-Loc this sausage-Pl-Abl exist/Neg.exist
   ‘There are/aren’t (some/any) of these sausages in the cupboard.’
   (Kornfilt 1990:287)

Non-canonical case encoding degree of affectedness/boundness is also preserved under passivization. When (14a) is passivised the dative object is still dative
in (14b) instead of nominative. Again, case absorption would erase the semantic contrast; the sentence would mean ‘shot the child’ rather than ‘hit the child’.

(14) a. Ali çocuğ-a vur-du
   Ali.Nom child-Dat hit-Past
   ‘Ali hit the child.’

b. çocuğ-a vur-ul-du
   child-Dat hit-Pass-Past
   ‘The child was hit.’ (Dede 1981:45)

If we apply a test on both alternatives of vur, we can observe that the passivized accusative and dative behave exactly alike with respect to anaphora resolution. This indicates that the passivized dative argument may be functioning as a subject.

(15) a. çocuk kendisi tarafından vuruldu
   ‘The child was shot by itself.’

b. çocuğ-a kendisi tarafından vuruldu
   child-Dat self.P3sg by shoot.Pass.Past.3sg
   ‘The child was hit by itself.’

In psych verbs, the object also preserves its case under passivization as exemplified in (16b). A small group of native speakers also accept the passivization as grammatical when the object becomes nominative as in (16c).

(16) a. san-a tap-tı
   you-Dat worship.Past.3sg
   ‘S/he worshipped you.’

b. san-a tapıldı
   you-Dat worship.Pass.Past.3sg
   ‘You were worshipped.’

c. %sen tapıldın
   you.Nom worship.Pass.Past.2sg
   ‘You were worshipped.’

Although (16c) is ungrammatical for some speakers, the same data providers find (17) grammatical. In this example, tapılarak ((while) being worshipped) is the sentential complement which behaves as an adverb and is constructed by appending an -arak suffix to the verb. The subject of the while-clause always matches the subject of the main sentence (presumably via obligatory anaphoric control, cf. Dalrymple 2001). So, it seems that, to be able to construct the matrix sentence, the inner sentence should have a subject, and the verb tap- (worship) is forced to be passivized and have a nominative case marker, rather than a dative one.
(17) öküz tap-il-arak kilise-ye getir-il-di
  ox.Nom worship-Pass-ByDoingSo church-Dat bring-Pass-Past.3sg
  ‘The ox, while being worshipped, was brought to the church.’
(Knecht (1986) taken from Özkaragöz (1979))

When the matrix verb is impersonally passivized, *ox* can keep its dative case marker in the embedded clause. On the whole, the evidence from passivization with respect to the psych verbs again seems to indicate that the non-canonical object is indeed functioning as a direct object that is realized as a subject under passivization.

(18) öküz-e tap-il-arak dans ed-il-di
  ox-Dat worship-Pass-ByDoingSo dance make-Pass-Past.3sg
  ‘It was danced while the ox was worshipped.’

Lastly, we turn to the class of verbs like *ride*, which have dative objects. As shown in (19), case is again preserved under passivization.

(19) a. Hasan at-a bindi
    Hasan.Nom horse-Dat ride.Past.3sg
    ‘Hasan rode the horse.’
  b. at-a bin-il-di
    horse-Dat ride-Pass-Past.3sg
    ‘The horse was ridden.’

However, this data by itself again is not sufficient to establish the potential subjecthood (and hence the precise object status of the non-canonical object) as it is also possible to passivize clauses with an intransitive verb and constituents other than the direct object, as in (20). In these cases passivization is impersonal, that is, the constituent preserves its function (and also its case marking) and there is no subject in the passivized sentence ((20a) and (20b)).

(20) a. Ali okul-a git-ti
    Ali.Nom school-Dat go-Past.3sg
    ‘Ali went to the school.’
  b. okul-a gid-il-di
    school-Dat go-Pass-Past.3sg
    ‘The school was gone to. (Somebody went to the school)’

But all is not lost as Turkish distinguishes between subject and non-subject gaps in the participles by marking them with the derivational suffixes *-en* and *-diği*, respectively. Thus, if we convert the passivized sentence into a participle and extract the constituent we are interested in, we can determine whether or not it is functioning as a subject. Consider the data in (21). (21a) represents the base predication. In (21b) and (21c) participles corresponding to the base predication have
been formed. In (21b) the suffix -en indicates that there is a subject gap, i.e., dog is the missing subject of the participle. In (21c), on the other hand, the object cat has been extracted and the non-subject suffix -diği marks this.

(21) a. köpek kedi-yi kovaladı
dog.Nom cat-Acc chase.Past.3sg
‘The dog chased the cat.’
b. [ ], kedi-yi kovala-yan köpek
   cat-Acc chase.PresPart dog.Nom
   ‘The dog that chased the cat.’
c. köpeğ-in [ ], kovala-diği kedi
   dog-Gen chase-PastPart.3sg cat.Nom
   ‘The cat that the dog chased.’

So now let us try the participle extraction test with the ride class. When we make a participle out of the passive version in (19) and extract the constituent horse, the morphological marking on the participle indicates that the former non-canonical object is now patterning with subjects. We take this as an indication that these non-canonical objects behave like subjects when they are passivized.

(22) a. bin-il-en/*diği
   ride-Pass-PresPart/PastPart.3sg horse.Nom
   ‘The horse that was ridden.’

The data in this section has demonstrated that in all instances of non-canonical object marking the case was preserved under passivization. Despite this case preservation and the lack of agreement with the verb, a range of tests indicate that these non-canonical objects function as subjects when passivized. Thus, the passivization data so far also suggest that all of the objects could be analyzed as OBJ. In the next section we turn to data from causativization to see whether this analysis can be confirmed or whether our analysis needs to be more differentiated.

3.2 Causativization

Turkish exhibits quite complex patterns with respect to causativization, including double causatives. Here we focus only on single causativization. As shown in (23b), if the verb is intransitive, the subject becomes an accusative object.

(23) a. kedi uyu-du
   cat.Nom sleep-Past.3sg
   ‘The cat slept.’

* Literally, since these are participles: ‘The cat is one chased by a dog.’ The genitive case on dog is because it is functioning as the agent/Spec of the participle.
b. çocuk kedi-yi uyu-t-tu
   child.Nom cat-Acc sleep-Caus-Past.3sg
   ‘The child made the cat sleep.’

In transitive clauses, the canonical nominative/accusative object preserves its case and function when the verb is causativized. The causee (former nominative subject) is marked with the dative.

(24) a. köpek kedi-yi kovala-dı
    dog.Nom cat-Acc chase-Past.3sg
    ‘The dog chased the cat.’
 b. çocuk köpeğ-e kedi-yi kovala-t-tu
    child.Nom dog-Dat cat-Acc chase-Caus-Past.3sg
    ‘The child made the dog chase the cat’

The ablative on partitive objects is similarly preserved under causativization. The causee is again dative. This is in parallel to the canonical causative in (24), indicating that the ablative object patterns with canonical objects.

(25) a. su-dan içtim
    water-Abl drink.Past.1sg
    ‘I drank some of the water.’
 b. annem ban-a su-dan içirdi
    mother.P1sg I-Dat water-Abl drink.Caus.Past.3sg
    ‘My mother made me drink some of the water.’

Where a dative object signals low affectedness, we encounter a difficulty because Turkish has a general constraint which disfavors two dative-marked objects in a clause. However, if one of the datives is an indirect object, then two datives in a clause are allowed, as in (26).

(26) Babam-a çocuklar-a masal anlat-tur-di-m
    ‘I had my father tell stories to the children.’ (Göksel 1993:216)

The pattern with causatives of dative less affected objects is complex in that it allows for an alternative realization of both the causee and the object. Each can be realized with a dative or an accusative, depending on whichever is compatible with an affectedness/boundedness reading. Consider look in (27), which takes a dative object in the base predication. In (27a), the causee is in the dative, but in (27b), the causee is accusative and the door (which is not affected) is dative.

(27) a. hizmetçi-ye çocuğ-u bak-tur-di-k
    maid-Dat child-Acc look-Caus-Past-1pl
    ‘We made the maid look after the child.’ (Dede 1981:43)
b. **herkes-i** kapı-ya bak-tür-di-m  
   everybody-Acc door-Dat look-Caus-Past-1sg  
   ‘I made everybody look at the door.’ (Dede 1981:43)

A similar pattern can be observed in (28) with the shoot/hit alternation.\(^5\) When the child is less affected (hit rather than shot), it appears in the dative.

(28)  
a. Ahmet Ali’ye çocuk-u vur-dur-du  
   Ahmet.Nom Ali-Dat child-Acc shoot-Caus-Past.3sg  
   ‘Ahmet made Ali shoot the child.’

b. Ahmet Ali’yi çocuk-a vur-dur-du  
   Ahmet.Nom Ali-Acc child-Dat hit-Caus-Past.3sg  
   ‘Ahmet made Ali hit the child.’

Knecht (1986) gives another interesting example which allows two causativization patterns for a verb with a non-canonical object. The verb *hohla* ‘blow on’ subcategorizes for a dative object. Most of the native speakers prefer to keep *ayna* ‘mirror’ in the dative case, and convert *Ufuk* into accusative when causativized (29c). But it is also acceptable to transform the non-canonical object of the main verb into the accusative object of the causative verb, demonstrating the alternative possibilities in verbs with no clearly affected object (29b).

(29)  
a. Ufuk ayna-ya hohladi  
   Ufuk.Nom mirror-Dat blow.on.Past.3sg  
   ‘Ufuk blew on the mirror.’

b. Ufuk’a ayna-yı hohlattım  
   Ufuk-Dat mirror-Acc blow.on.Caus.Past.1sg  
   ‘I made Ufuk blow on the mirror.’

c. Ufuk’u ayna-ya hohlattım  
   Ufuk-Acc mirror-Dat blow.on.Caus.Past.1sg  
   ‘I made Ufuk blow on the mirror.’

The fact that causatives of non-canonical dative objects do not allow two datives in the clause indicates that both the causee and the non-canonical object should be analyzed as objects — the causee cannot be analyzed as an indirect object, otherwise two datives in a clause should be licit, as in (26). Furthermore, modulo the double-dative constraint, the non-canonical objects pattern like canonical transitives in terms of causativization.

We now turn to the pattern with psych verbs and verbs of the *ride* type. Both with ablative and dative objects of psych verbs, the case is preserved under causativization. However, the causee (former nominative subject) is accusative rather than dative, as shown in (30) and (31).

\(^{5}\)Note that an “affectedness” alternation in causatives has also been documented in Romance, Bantu and South Asian languages (Alsina and Joshi 1991, Alsina 1997, Butt 1998).
(30) a. kedi köpek-ten korktu
   cat.Nom dog-Abl fear.Past.3sg
   ‘The cat feared the dog.’

   b. çocuk kedi-yi köpek-ten korktu
   child.Nom cat-Acc dog-Abl fear.Caus.Past.3sg
   ‘The child made the cat fear the dog.’

(31) a. Ali ateş-e taptı
   Ali.Nom fire-Dat worship.Past.3sg
   ‘Ali worshipped the fire.’

   b. babası Ali'-yi ateş-e taptırdı
   father.P3sg Ali-Acc fire-Dat worship.Caus.Past.3sg
   ‘His father made Ali worship the fire.’

The same pattern holds for the ride type. As shown in (32), the case of the object is preserved under causativization, and again, the causee must be accusative.

(32) a. Hasan at-a bindi
   Hasan.Nom horse-Dat ride.Past.3sg
   ‘Hasan rode the horse.’

   b. babası Hasan'-ı at-a bindirdi
   father.P3sg Hasan-Acc horse-Dat ride.Caus.Past.3sg
   ‘His father made Hasan ride the horse.’

The evidence from causativization thus partitions the data into two sets: those which allow for a dative causee in parallel to canonical transitive clauses and those which require an accusative causee, deviating from the canonical pattern. Under the assumption that causatives always need to include an OBJ in the subcategorization frame, we suggest that the data from causativization can be understood as follows: ablative partitives and affectedness alternation involve “real” objects, i.e., OBJ. However, the psych verbs and the other non-canonical case marking verbs subcategorize for OBJ$_\theta$. That is, when a clause with a partitive or less affected object is causativized, then the causee is realized as a dative OBJ$_\theta$ (or the causee as an OBJ and the affected object as an OBJ$_\theta$ in the case of the alternative possibilities in examples as in (27) or (29)) because there is already an OBJ in the clause. On the other hand, when a psych verb or ride type verb is causativized, there is only a lexically determined OBJ$_\theta$ in the clause and so the causee is linked to an OBJ.

3.3 Passives of Causatives

In order to test this hypothesis, we can examine the behavior of the causativized clauses with non-canonical objects when these in turn are passivized. As a benchmark, the passivization of a causativized canonical verb is given in (33). Note that the translation in (33b) might be misleading. In the Turkish sentence, kedi ‘cat’ is the subject whereas in the English sentence dog is the subject.
The ablative partitives again pattern canonically in that the causee remains in the dative. However, the ablative case is preserved and the subject is non-nominative. That is, the ablative object of the main verb seems to be the one linked to the OBJ in the causative version and it is this argument which is subject to passivization in (34b). That is, the ablative object preserves its case as well as its function as OBJ in the causative construction and then becomes an ablative subject under passivization in (34b). Again, the English translation might be misleading.

(34) a. annem ban-a su-dan içirdi
   mother.P1sg I-Dat water-Abl drink.Caus.Past.3sg
   ‘My mother made me drink some of the water.’

The dative less affected objects (not shown here for lack of space) pattern like the ablatives; however, the psych verbs and ride type verbs again exhibit a different pattern. Examples of a psych verb with an ablative object (35), a psych verb with a dative object (36), and ride with the dative object (37) are provided below. In all the examples the accusative causee in the causativized sentences becomes nominative under passivization. This is consistent with our analysis of the accusative causee having been linked to OBJ in the causative and then being available for standard passivization whereby a canonical OBJ is realized as a nominative SUBJ.

(35) a. çocuk kedi-yi köpek-ten kork-ut-tu
   child.Nom cat-Acc dog-Abl fear-Caus-Past.3sg
   ‘The child made the cat fear the dog.’

(36) a. babası Ali’yi ateş-e taptırdı
   father.P3sg Ali-Acc fire-Dat worship.Caus.Past.3sg
   ‘His father made Ali worship the fire.’

The ablative partitives again pattern canonically in that the causee remains in the dative. However, the ablative case is preserved and the subject is non-nominative. That is, the ablative object of the main verb seems to be the one linked to the OBJ in the causative version and it is this argument which is subject to passivization in (34b). That is, the ablative object preserves its case as well as its function as OBJ in the causative construction and then becomes an ablative subject under passivization in (34b). Again, the English translation might be misleading.

(33) a. çocuk köpeğ-e kedi-yi kovala-t-tı
   child.Nom dog-Dat cat-Acc chase-Caus-Past.3sg
   ‘The child made the dog chase the cat.’

b. kedi (çocuk tarafından) köpeğ-e kovala-t-tı-dı
   cat.Nom child.Nom by dog-Dat chase-Caus-Pass-Past.3sg
   ‘The dog was made to chase the cat (by the child).’

(34) a. annem ban-a su-dan içirdi
   mother.P1sg I-Dat water-Abl drink.Caus.Past.3sg
   ‘My mother made me drink some of the water.’

b. ban-a su-dan içirildi
   I-Dat water-Abl drink.Caus.Pass.Past.3sg
   ‘I was made to drink some of the water.’

The dative less affected objects (not shown here for lack of space) pattern like the ablatives; however, the psych verbs and ride type verbs again exhibit a different pattern. Examples of a psych verb with an ablative object (35), a psych verb with a dative object (36), and ride with the dative object (37) are provided below. In all the examples the accusative causee in the causativized sentences becomes nominative under passivization. This is consistent with our analysis of the accusative causee having been linked to OBJ in the causative and then being available for standard passivization whereby a canonical OBJ is realized as a nominative SUBJ.

(35) a. çocuk kedi-yi köpek-ten kork-ut-tu
   child.Nom cat-Acc dog-Abl fear-Caus-Past.3sg
   ‘The child made the cat fear the dog.’

b. kedi köpek-ten kork-ut-ul-du
   cat.Nom dog-Abl fear-Caus-Pass-Past.3sg
   ‘The cat was made to fear the dog.’

(36) a. babası Ali’yi ateş-e taptırdı
   father.P3sg Ali-Acc fire-Dat worship.Caus.Past.3sg
   ‘His father made Ali worship the fire.’

b. Ali ateş-e taptırdı
   ‘Ali was made to worship the fire.’
In sum, the data from passivized causatives are consistent with our analysis made on the basis of the data with respect to simple causatives and passives. Ablative partitive and dative less affected objects behave in parallel to canonical objects, strengthening our claim that they are OBJ. For the sentences in (35)–(37), the result of the passivization is as expected: causativization introduces OBJs with an accusative case to these sentences, and passivization makes these OBJs nominative SUBJs. Hence the psych verbs and the other subset of verbs with non-canonical objects can be analyzed as subcategorizing for OBJ$\theta$s in their basic form.

### 3.4 Raising

Raising is another possible test for subject status. That is, one could take a passivized version of the clauses with non-canonical objects and see if the passivized object is able to raise out of the clause, as a normal subject would. However, it turns out that verbs like *seem* and *believe*, which are equivalent to raising verbs in other languages, display quite a complex set of syntactic properties (a.o., Mulder 1976, Kornfilt 1977, Moore 1998) in Turkish.

When the lexical item *gibi* ‘like’ is used, agreement markers can appear on both the matrix and the embedded verb. Since this provides information about subject status and is thus potentially interesting for our investigation, we here only provide examples with *gibi*, as in (38).

(38) biz san-a süt iç-ti-k gibi görün-dü-k
we.Nom you.Dat milk drink-Past.1pl like seem-Past-1pl
‘We seemed to you to have drunk milk.’ (Mulder 1976:(26b))

The *we* here is nominative and is clearly the subject of the matrix verb *seem*; as evidenced by verb agreement, it is also the subject of the embedded verb.

In (39), we have taken our benchmark transitive clause, passivized it and then embedded it in a raising construction. As can be seen, the embedded subject is raised to be the matrix nominative subject, which agrees with the raising verb. Interestingly, this subject (*we*) may or may not agree with the embedded verb.

(39) a. biz sana kovala-n-di-k gibi görün-dü-k
we.Nom you.Dat chase-Pass-Past-1pl like seem-Past-1pl
‘We seemed to you to have been chased.’
Now let us examine what happens with respect to clauses with non-canonical objects. First, we take the examples of semantic case alternation. As can be seen from the alternation in (40), the case is again preserved in order to be able to preserve the semantic distinction of partitivity.

(40) a. su iç-il-di gibi görün-dü
   water.Nom drink-Pass-Past.3sg like seem-Past.3sg
   ‘It seemed that water was drunk.’

b. su-dan iç-il-di gibi görün-dü
   water-Abl drink-Pass-Past.3sg like seem-Past.3sg
   ‘It seemed that some of the water was drunk.’

The same is true for the affectedness alternation, where a nominative on child in (41a) would result in the reading that the child was shot, rather than hit (cf. Kornfilt 1977). This can be seen in (41b), which is ambiguous. In the second reading, the subject has been pro-dropped and is interpreted as a third person pronoun.

(41) a. çocuğ-a vur-ul-du gibi görün-dü
    child-Dat hit-Pass-Past.3sg like seem-Past.3sg
    ‘It seemed that the child was hit.’

b. ban-a vur-ul-du gibi görün-dü
    I-Dat hit-Pass-Past.3sg like seem-Past.3sg
    ‘It seemed that I was hit.’

So, again it seems that in these cases the non-canonical object is acting as a direct object which can be raised out of a clause after passivization, though preserving its case marking for reasons of semantic contrast.

The pattern with respect to the psych verbs and the ride type again differs. We illustrate this here only with respect to the verb fear (all the other verbs behave the same way as this one). As can be seen from (42a) vs. (42b), the we can marginally be raised; however it is not the subject of the embedded verb, as it cannot agree with that. Furthermore, as illustrated by (42c), one cannot raise the we while preserving its non-canonical case marking. The we can appear with the non-canonical case marking, but then only as part of the embedded clause (cf. Kornfilt 1977) on a discussion of the significance of word order in such examples) and the verb seem must be interpreted as having an impersonal subject.

(42) a. *biz sana kork-ul-duk gibi görün-dük
    we.Nom you.Dat fear-Pass-Past.1pl like seem-Past.1pl
    ‘We seemed to you to have been feared.’

b. biz sana kovala-n-di gibi görün-dük
we.Nom you.Dat chase-Pass-Past.3sg like seem-Past.1pl
‘We seemed to you to have been chased.’
b. ?biz sana kork-ul-du gibi görün-dük
   we.Nom you.Dat fear-Pass-Past.3sg like seem-Past.1pl
   ‘We seemed to you to have been feared.’

c. *biz-den sana kork-ul-du gibi görün-dü
   we-Abl you.Dat fear-Pass-Past.3sg like seem-Past.3sg
   ‘It seemed to you that we were feared.’

d. sana [biz-den kork-ul-du] gibi görün-dü
   you.Dat we-Abl fear-Pass-Past.3sg like seem-Past.3sg
   ‘It seemed to you that we were feared.’

To summarize, the raising data confirms the patterns observed with respect to causativization and passivization: the non-canonical objects in Turkish can be grouped into two types. In one, the non-canonical marking is used to express a semantic case alternation at a clausal level and here the object can be analyzed as an OBJ. In the other, the non-canonical case marking is tied to the inherent lexical semantics of particular verbs, such as psych verbs and verbs such as ride, and in this case, the object can be analyzed as an OBJ<sub>θ</sub>. In the next section, we present our analysis as we have implemented it within the Turkish ParGram grammar.

4 Analysis and Implementation

Given these empirical considerations, we conclude that the instances of Differential Object Marking (DOM), namely the ablative partitives and the affectedness alternation should be analyzed as involving OBJ. On the other hand, the cases of lexically specified non-canonical case marking involving dative and ablative arguments should be analyzed as inherently semantically-restricted objects, i.e., as OBJ<sub>θ</sub>. We show how this analysis plays out in the actual implementation with respect to passivization and causation thereby further confirming the formal validity of our analysis.

4.1 Passivization

The passivization rule for Turkish has two parts. One part is the standard lexical rule that takes an OBJ and makes it a SUBJ under passivization. In its canonical form, a transitive verb has the subcategorization frame `verb<SUBJ, OBJ>`. When passivized, SUBJ becomes NULL unless an oblique agent is introduced in the passive sentence. This is illustrated in (43) and (44), which provide simplified f-structures of the sentences in (10a) and (10b) respectively.
Another subpart of the passive lexical rule deals with the psych verbs and ride type verbs. For these, we posit the subcategorization frame \verb<SUBJ, OBJ-TH> and we add a disjunction to the standard passive lexical rule\(^{6}\) to encode that an OBJ-TH (OBJ\(_{TH}\)) becomes SUBJ ((↑ OBJ-TH) → (↑ SUBJ)) when there is no OBJ available in the clause. The result is illustrated in (45) and (46), which give the simplified f-structures of the sentences in (19a) and (19b), respectively.

\[\text{(45) F-structure for } \text{Hasan ata bindi}\]

\[\text{(46) F-structure for } \text{ata binildi}\]

Finally, the partitivity and affectedness relations are controlled via CHECK features, which are used generally within ParGram to enforce well-formedness constraints. Thus, for example, if a verb of consumption has a consumable object, it is allowed to have an ablative object in the basic sentence and an ablative subject in its passive form.\(^{7}\) (47) shows the f-structure analysis of (3). The passivized sentence (11b) has the f-structure in (48).

\[\text{(47) F-structure for } \text{ben sudan içtim}\]

\[\text{(48) F-structure for } \text{sudan içildi}\]

### 4.2 Causativization

For the implementation of causatives, we follow the approach used for Urdu complex predicates (Butt and King 2006), which allows the merger of two separate

\(^{6}\)Available at http://www2.parl.com/isli/groups/nltt/xle/doc/notations.html

\(^{7}\)Ideally, this kind of information should be encoded and checked at the level of representation of world knowledge.
argument structures to form a new complex predicate via the Restriction Operator (Kaplan and Wedekind 1993). The causative itself is analyzed as a two place predicate where the first argument is the causer and the second argument is the event that is caused. The base verb preserves the number of arguments it has although the arguments themselves are altered (see also Butt et al. 2008 for some discussion).

There are two types of behavior for the causativization of transitives. If the core predication already contains an OBJ, then the causee (former SUBJ) is realized as a dative OBJ. This rule applies to canonical transitives, ablative partitives and the affectedness alternation. A canonical transitive verb and its causative form as exemplified in (24) have the f-structures (49) and (50), respectively.

(49) F-structure for köpek kediyi kovaladı

PRED 'kovała(köpek,kedi)'

SUBJ

PRED 'köpek'

CASE nom

OBJ

PRED 'kedi'

CASE acc

TENSE PAST

(50) F-structure for çocuk köpeğe kediyi kovalattı

PRED 'caus(çocuk, kovała(köpek,kedi))'

SUBJ

PRED 'çocuk'

CASE nom

OBJ

PRED 'kedi'

CASE acc

OBJ-TH

PRED 'köpek'

CASE dat

TENSE PAST

Both the base and causativized versions of the partitive example in (25) are represented by the f-structures (51) and (52), respectively.

(51) F-structure for ben sudan içtim

PRED 'ic(ç(ben, su))'

SUBJ

PRED 'ben'

CASE nom

OBJ

PRED 'su'

CASE abl

CHECK consumable

TENSE PAST

(52) F-structure for annem bana sudan içirdi

PRED 'caus(anne, iç(ben, su))'

SUBJ

PRED 'anne'

CASE nom

OBJ

PRED 'su'

CASE abl

CHECK consumable

OBJ-TH

PRED 'ben'

CASE dat

TENSE PAST

If the core predication does not contain an OBJ, then the causee has to be realized as an accusative OBJ. Psych verbs and ride type verbs subcategorize for an OBJ-TH instead of an OBJ, therefore the SUBJ of the base verb becomes the OBJ after causativization. (53) and (54) depict f-structures of (30). (55) and (56) are the implementation for (32).

Our partitioning of non-canonical objects in Turkish into two distinct sets, one which subcategorize for OBJ but with special case marking that is motivated by clausal semantic factors, and one which subcategorize for an OBJ due to inherent lexical semantic factors, thus allows for a straightforward implementation.
5 Conclusion

In this paper we analyzed objects that bear cases other than the canonical nominative/accusative case in Turkish. With a set of examples, we observed the possible alternation scenarios and divided the non-canonical objects into subsets. Verbs of consumption have ablative objects when only part of the object is affected from the action. Degree of affectedness or boundedness causes alternation in object cases for another set of verbs as well. Most of the psych verbs subcategorize for either dative or ablative objects, as do a small subset of verbs with no common semantics.

When the sentences including non-canonical objects are passivized, all of the objects preserve their case. Although Turkish has nominative subjects in general, there are indications that non-canonical objects might turn into subjects. On the other hand, data from causativization points to two distinct groups. Objects with partitivity or affectedness/boundedness alternations behave the same as canonical objects, with the difference that they preserve their non-canonical case so as not to erase the semantic information coded by them. Objects of psych verbs and the ride type behave as if they do not already contain an OBJ, as the accusative causee fills that role. We thus analyze these non-canonical objects as OBJθ.

References


