Differential Object Marking, Partitivity and Specificity in Turkish

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1 Introduction*

Partitive constructions in Turkish exhibit Differential Object Marking (DOM). This is illustrated in examples (1) and (2), where the superset is marked with ablative case and the subset can be differentially marked by the accusative suffix –(y)I.

(1) Eda mezun-lar-dan iki öğrenci-yi kutla-dı.
   Eda graduate-PL-ABL two student-ACC congratulate-PST.3.SG
   ‘Eda congratulated two students from amongst the graduates.’

(2) Eda mezun-lar-dan iki öğrenci kutla-dı.
   Eda graduate-PL-ABL two student congratulate-PST.3.SG
   ‘Eda congratulated two students from amongst the graduates.’

Previous literature on DOM in Turkish has associated DOM with partitivity (Enç 1991) or with specificity (Erguvanlı 1984, Dede 1986, Kornfilt 1997). In earlier studies, we have shown that the contrast between (1) and (2) does not express partitivity or definiteness (von Heusinger & Kornfilt 2017, von Heusinger & Kornfilt submitted). In this paper, we argue that DOM of

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partitive noun phrases signals the referential semantic type of specificity, i.e. that a partitive expression functioning as a direct object and exhibiting accusative marking as in (1) has a referential or wide scope interpretation. We provide empirical evidence from grammaticality judgement tasks which confirm that DOM triggers scopal specificity but no preference towards epistemic specificity. The results additionally provide support for the assumption that DOM is orthogonal to partitivity and that DOM signals specificity rather than partitivity.

2 DOM in Turkish

Turkish is a nominative-accusative language with case suffixes. It exhibits a morphosyntactic contrast between instances of the direct object with the case marker -(y)I and those without it. The bare noun in (3a) is not a referential expression and is semantically interpreted as “(pseudo-) incorporated” (see for discussion Seidel this volume), whereas an accusative-marked DP is unambiguously interpreted as a definite noun phrase, cf. (3b).

\begin{tabular}{llll}
(3) & a. (Ben) & elma & ye-di-m. & bare \\
& I & apple & eat-PST-1.SG & ‘I have apple-eaten.’  \\
& b. (Ben) & elma-\textit{y}i & ye-di-m. & definite \\
& I & apple-ACC & eat-PST-1.SG & ‘I ate the apple.’
\end{tabular}

The alternation in (3) suggests, at first glance, that accusative case expresses definiteness. This suggestion is not corroborated, since Turkish allows for differential marking of direct objects with the indefinite article bir. Thus, accusative case marking cannot be definiteness marking. The contrast between (4a) and (4b) suggests that accusative case encodes specificity instead. An indefinite direct object, i.e. a direct object with the preceding indefinite article bir, is interpreted as non-specific without case marking, cf. (4a), whereas an indefinite direct object with case marking is interpreted as specific, cf. (4b) (see Sezer 1972; Erguvanlı 1984; Enç 1991; Kornfilt 1997; Aydemir 2004; von Heusinger & Kornfilt 2005; Öztürk 2005; Özge 2011).

\begin{tabular}{llll}
(4) & a. (Ben) & bir elma & ye-di-m. & indefinite non-specific \\
& I & an apple & eat-PST-1.SG & ‘I ate an apple.’  \\
& b. (Ben) & bir elma-\textit{y}i & ye-di-m. & indefinite specific \\
& I & an apple-ACC & eat-PST-1.SG & ‘I ate a certain apple.’
\end{tabular}

However, there are debates on the kind of the specificity marked by the direct object case. Generally, it is assumed that the direct object case marker indicates (i) referential specificity, (ii) scopal specificity, and (iii) epistemic specificity (see Erguvanlı 1984; Dede 1986; Kornfilt 1997; Aydemir 2004; von Heusinger & Kornfilt 2005, among others). These are the main types of specificity differentiated in the literature (Fodor & Sag 1982), as elaborated in the next section.
3 Types of specificity

Specificity is a semantic-pragmatic notion that is based on the “referential intention” of the speaker and that shows various grammatical and interpretative effects (see Fodor & Sag 1982, Farkas 1994 and von Heusinger 2002, 2019). In the following we assume that specificity in the narrow sense can be subdivided into a referential-semantic type to be found in opaque and scopal contexts, and a semantic pragmatic type expressing epistemic specificity, as in Figure 1.

![Figure 1. Types of specificity (taken from von Heusinger 2019: 157)](image)

**Referential-semantic type:** In opaque contexts, the term referential specificity describes a contrast between a reading that allows existential entailment, as motivated by the continuation in (5i) and a reading that does not, as motivated in (5ii). Scopal specificity concerns the interpretation of the indefinite in the context of extensional operators such as all and every. The indefinite might interact with the universal quantifier, yielding readings with wide scope, as suggested by the continuation in (6i), or readings with narrow scope, as motivated by the continuation in (6ii).

(5) **Opaque context**
Turist-ler bir rehber(-i) ara-di.
tourist-PL a guide(-ACC) search-PST
‘The tourists searched for a guide.’

i) referential specific: This guide was Oya.
ii) referential non-specific: But they couldn’t find one.

(6) **Scopal context**
Bütün okutman-lar bir öğrenci(-yi) kutla-di.
all instructor-PL a student(-ACC) congratulate-PST
‘All instructors congratulated a student.’

i) scopal specific: All of them congratulated İlhan.
ii) scopal non-specific: Füsün congratulated İlhan, Ömer congratulated Emre, Cahit congratulated Demir.

**Semantic pragmatic type:** The term epistemic specificity refers to the contrasts found in contexts without any other operator and that signal whether an indefinite is introduced with or without a “referential intention” of the speaker, or whether or not the “speaker has a particular referent in mind” (Fodor & Sag 1982, Farkas 1994). This notion must not be confused with
“specified” or modified indefinites. Modified indefinites are often also specific, but not necessarily. In this context, the specific vs. non-specific contrast is not reflected in truth conditions and is arguably said to be of pragmatic nature. In (7) the indefinite direct object is ambiguous between an epistemic specific reading, which is consistent with the continuation in (7i) and an epistemic non-specific reading, which is consistent with the continuation in (7ii).

(7) **Transparent context**
Müdür-ler bir mimar(-i) seç-ti.
director-PL.an an architect(-ACC) choose-PST
‘The directors chose an architect.’
i) *epistemic specific:* This architect was Sinan.
ii) *epistemic non-specific:* I have no idea who this architect was.

It is widely assumed that unmarked Turkish indefinite direct objects are ambiguous between a specific and a non-specific reading as exemplified in the i) and ii) continuations, while accusative case marking disambiguates these two readings and signals a specific interpretation (Erguvanlı 1984, Dede 1986, von Heusinger & Kornfilt 2005).

What remains controversial is whether all types of specificity show the same morpho-syntactic reflexes in Turkish or not. Recently, von Heusinger & Bamyacı (2017) have argued that Turkish DOM signals the referential-semantic type of specificity but not the semantic-pragmatic one. In a grammaticality judgement task, they tested the felicity of specific vs. non-specific continuations in opaque, scopal and transparent contexts as exemplified in (5) to (7). Results show that overtly accusative-marked indefinites clearly favored specific continuations in opaque contexts, signaling referential specificity, cf. (5), and wide scope readings over the non-distributive universal quantifier bütün (‘all’), signaling scopal specificity, cf. (6). Crucially, there was no evidence that overt DOM in Turkish triggers a preference towards epistemic specificity, cf. (7).

### 4 Partitiveness, specificity and case marking

In her seminal paper, Enç (1991) argues that accusative case marking, i.e. DOM, signals specificity, which, according to her view, is based on partitivity. She argues that case marking of an indefinite direct object always signals a partitive reading and that likewise case marking is obligatory for implicit and explicit partitives. We repeat her examples in (8). (8a) introduces a set of children, out of which the case-marked direct object iki kızı in (8b) selects two girls. The specificity of iki kızı is explained by the discourse givenness of the set out of which the indefinite direct object selects a subset. The unmarked direct object iki kız in (8c), however, is not linked to the set of children, i.e. it refers to a set of girls not included in the set of children in (8a); as a matter of fact, continuing the discourse with (8c) after (8a) is not consistent.

(8) a. (Enç 1991: #16; Enç’s translation, our glosses)
Oda-m-a birkaç çocuk gir-di.
room-1.SG-DAT several child enter-PST
‘Several children entered my room.’
b. (Enç 1991: #17; Enç’s translation, our glosses)

İki kız-ı tanı-yor-du-m.

Two girl-ACC know-PROG-PST-1.SG

‘I knew two girls.’

c. (Enç 1991: #18; Enç's translation, our glosses)

İki kız tanı-yor-du-m.

Two girl know-PROG-PST-1.SG

‘I knew two girls.’

Even though Enç’s proposal has initiated very interesting and productive research, it has been shown from empirical and theoretical perspectives that such a close correlation among case marking, partitivity, and specificity does not hold (von Heusinger & Kornfilt 2005; Kamp & Bende-Farkas 2006). As Farkas (2006: 634) notes, partitivity is independent from scopal and epistemic specificity: The overt partitives in (9) and (10) may get either a referential or non-referential reading. In (9), the indicated continuation forces a scopally non-specific reading, where the partitive is interpreted inside the scope of the intensional predicate ‘want’. In (10), the continuation forces an epistemically non-specific interpretation of the partitive.

(9) John wants to marry one of Steve’s sisters (he doesn’t care which). scopal. non-spec.
(10) One of Steve’s sisters cheated (we have to find out which). epistem. non-spec.

We also know, contra Enç (1991), that (explicit) partitive constructions are possible with or without overt accusative case in Turkish, cf. (1) and (2). However, the interaction of morphological accusative marking of partitives with different types of specificity still remains unsolved. Compare examples (11) and (12) to their non-partitive counterparts in (6) and (7). It is an outstanding question whether the correlation of specificity and case marking in explicit partitive constructions is equivalent to the one in non-(explicit) partitives, or whether with partitives, there is an independent tendency towards case marking as claimed in Enç (1991).

(11) Scopal context
Bütün müdür-ler okutman-lar-dan bir asistan(-ı) kutla-di.
All director-PL instructor-PL-ABL an assistant(-ACC) congratulate-PST

‘All directors congratulated one/an assistant from amongst the instructors.’

i) scopal specific: All of them congratulated İlhan.
ii) scopal non-specific: Füsun congratulated İlhan, Ömer congratulated Emre, Cahit congratulated Demir.

(12) Transparent context
Müdür-ler başvuran-lar-dan bir mimar(-ı) seç-ti.
director-PL applicant-PL-ABL an architect(-ACC) choose-PST

‘The directors chose one/an architect from amongst the applicants.’

i) epistemic specific: This architect was Sinan.
ii) epistemic non-specific: I have no idea who this architect was.
Note that we also included partitive constructions in opaque contexts, cf. (13), in our questionnaire. Such examples are highly complex and very difficult to interpret, if acceptable at all. They are pragmatically difficult to understand, as the referential vs. non-referential contrast can affect either the superset (the locals) or the subset (a guide) or both. Therefore, such constructions are rarely used and are difficult to interpret. This is also reflected in the higher variation in the judgements of these examples. We observed a certain preference for the non-specific continuation, which only mirrors the non-referentiality of the superset. Given all these ambiguities, we decided not to include these examples in our analysis and discussion.

(13) **Opaque context**

Turist-lер yerli ler-den bir rehber(-i) ara-d1.

Tourist-PL local-PL-ABL a guide(-ACC) search-PST

‘The tourists searched for a guide from amongst the locals.’

i) referential specific: This guide was Oya.

ii) referential non-specific: But they couldn’t find one, because there was none amongst them.

5 Experimental study

To investigate the interaction of morphological accusative case marking of partitives with different types of specificity, we carried out two experiments. In the first experiment, we tested the acceptability of DOM with specific vs. non-specific continuations. In the second experiment, we tested the acceptability of DOM in obligatorily non-specific contexts, such as with imperatives or quantifiers.

5.1 Experiment 1: Context for specificity

**Experimental design** In a grammaticality judgement task, we tested the acceptability of DOM with partitive direct objects in different continuations for specificity. We created a total of 16 critical items, 8 items each for scopal, cf. (11), and transparent contexts, cf. (12). Each context consisted of four conditions in a 2 x 2 factorial design, manipulating case marking (DOM vs. no DOM) and specificity (specific vs. non-specific).

Items consisted of pairs of sentences, of which the first was a transitive sentence with a partitive direct object and the second one presented a clear continuation for either a specific or a non-specific interpretation of the direct object. We controlled for the animacy of the direct object (only animate direct objects were used). In addition to these 16 test items, we had 8 items for opaque contexts, cf. (13), which we will not analyze, and 16 fillers that were partly grammatical, incoherent or ungrammatical. We used the 4 grammatical and 4 ungrammatical fillers as control items, cf. (14) and (15). Note that the ungrammaticality of example (15) is due to the fact that the verb *bin* ‘board, ride’ selects for a dative complement rather than an accusative one.
(14) **Grammatical control item**

İstanbuldan pek çok yabancı öğrenci gel-di.
Istanbul-ABL quite many foreign student come-PST
‘From Istanbul, quite many foreign students came.’
Bunlar hukuk oku-yan öğrenci-lер-di.
these law study-SBJREL student-PL-PST
‘These were students who studied law.’

(15) **Ungrammatical control item**

Durak-tan bir sürü öğrenci geç-ti.
bus stop-ABL lots of student pass-PST
‘Many students passed the bus stop.’
Bunlar her sabah tramvay-*bin-en öğrenci-lер-di.
these every morning streetcar-ACC ride-SBJREL student-PL-PST
‘These were students who got onto the streetcar every morning.’

Items were distributed onto four lists in a Latin Square design such that the lists were balanced with respect to case marking of partitive indefinites in the direct object position and the non-specific vs. specific continuation. The items were presented in a pseudorandom order, showing one item at a time.

**Participants** 80 native speakers of Turkish between ages 17 and 67 ages (mean age: 28) with a high school (11) or university (69) education participated in our study. They received a web-based questionnaire on Google Forms. Subjects were asked to rate the pairs of sentences on a scale (1 very bad to 6 very good) according to the naturalness of the continuation of the second sentence, given the first one.

Figure 2. Example for a critical item in the non-specific condition, cf. (12ii)

**Results** Inspection of the data shows that explicit partitives in direct object position without case (‘no DOM’) as well as with case (‘DOM’) are acceptable (contra Enç). Statistical analysis\(^1\) shows first that in scopal contexts, the DOM does not contribute specificity, i.e. overtly case-marked direct objects are rated equally good in specific and non-specific contexts. Unmarked direct objects, however, are rated clearly better in non-specific contexts than in specific ones. From this, we conclude that the lack of case marking is incompatible with a specific reading, whereas case-marked direct objects can be interpreted as specific or non-specific indefinites.

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\(^1\) The statistics was analyzed in R, using lme4 (Bates et al. 2014) to perform a linear mixed effects (LME) analysis with case marking and specificity as fixed effects, and participants and items as random effects. We did not analyze the data from opaque contexts as in (11), given that the results were very inconclusive.
This interaction of DOM and specificity is significant $b=-0.86$, $SE=0.21$, $t=-3.72$. Second, in epistemic contexts case-marked direct objects (‘DOM’) are rated significantly better than unmarked direct objects (‘noDOM’) $b=-0.33$, $SE=0.09$, $t=-3.78$. Case marking does however not signal specificity in epistemic contexts, against the assumptions in the literature, but supporting earlier findings in von Heusinger & Bamyacı (2017). They report a grammaticality judgement experiment with non-partitive indefinites that shows that DOM acts only as a specificity marker in scopal and intensional contexts, but not in transparent or epistemic ones.

To summarize, the results of the grammaticality judgement task clearly show that morphological case marking is independent of partitivity and that case marking signals scopal specific readings. This is additional evidence for the view that DOM in Turkish expresses particular kinds of specificity, namely semantic or referential and scopal specificity.

5.2 Experiment 2: Non-specific contexts

A reviewer of an earlier version of this paper noted that our epistemically specific continuations, cf. (12), might be compatible with a non-specific reading, even if the continuation explicitly mentions a particular referent, as in (12a). We therefore undertook a second experiment where we tested marked and unmarked (‘overt DOM’ and ‘no overt DOM’) direct partitive objects in obligatorily non-specific contexts, such as imperatives or quantifier phrases.

Experimental design  In Experiment 2, we tested DOM in non-specific epistemic contexts of imperatives and quantifiers (16)-(17). In imperatives, cf. (16), specific readings of indefinites are excluded, since they are pragmatically anomalous. It would be incoherent to ask the hearer to do something with an object only the speaker can identify (“Give me a particular book”) – if the
speaker intends to issue an imperative with an object that is identifiable for both, the speaker has to use a definite ("Give me the book"). **Quantifiers** of the type *at most, at least*, cf. (17), denote the cardinality of sets of objects, i.e. they do not denote particular objects, but only the quantity of those. Therefore, they do not allow for a referential reading of objects.

(16) **Imperative**
Selim ve Ümit pastane-de buluş-ur. Selim Ümit-e:
Selim and Ümit pastry shop-LOC meet-AOR Selim Ümit-DAT
‘Selim and Ümit meet at the pastry shop. Selim to Ümit:’
“Tatlı-lar-dan bir muhallebi(-yi) seç!”
sweet-PL-ABL a pudding-ACC choose.2.SG.IMP
‘Choose one pudding from amongst the sweets!’

(17) **Quantifier**
Soner ve Deniz gala gece-sin-de karşılaş-ır. Soner Deniz-e:
Soner and Deniz gala evening-CMPD-LOC meet-AOR Soner Deniz-DAT
‘Soner and Deniz meet at the gala night. Soner to Deniz:’
“Eş-im sinemacı-lar-dan en az dört yönetmen(-i) methet-ti”.
wife-1.SG film maker-PL-ABL at least four director-ACC praise-PST.3.SG
‘My wife praised at least four directors from amongst the film makers.’

If case marking signals specificity in the sense of referential intention of the speaker or in the sense of referential anchoring to another discourse-salient discourse referent, we expect that in such obligatorily non-specific environments overt DOM should not be acceptable. To exclude effects of d-linking or animacy associated with DOM in Turkish, we controlled for animacy (human vs. inanimate) and givenness (quasi anaphoric vs. quasi inferred).

We composed a total of 32 critical items, 16 items each for imperative non-specific contexts, cf. (16), and quantifiers in non-specific contexts, cf. (17), and manipulated them for case marking (overt DOM vs. no overt DOM). The items were balanced with respect to the animacy of the direct object (human vs. inanimate). We added 16 fillers, with 6 grammatical, cf. (18), and 6 ungrammatical control items, cf. (19). Note that the ungrammaticality of (19) is due to an additional accusative case suffix preceding the plural marker. We distributed the test items between two lists in such a way that the lists were balanced with respect to the case marking of the partitive indefinites in the direct object position.

(18) **Grammatical control item**
Filiz ve Oya resepsiyon-da çalış-ır. Filiz Oya-ya:
Filiz and Oya reception-LOC work-AOR Filiz Oya-DAT
‘Filiz and Oya work at the reception. Filiz to Oya:’
“Katar-dan gel-en turist-i ikinci kat-a çıkıhar!”
Qatar-ABL come-SBJREL tourist-ACC second floor-DAT move-up.2.SG.IMP
‘Take the tourist from Qatar up to the second floor!’

(19) **Ungrammatical control item**
Sinan ve Sibel Karaköy-de buluş-ur. Sinan Sibel-e:
Sinan and Sibel Karaköy-LOC meet-AOR Sinan Sibel-DAT
‘Sinan and Sibel meet in Karaköy. Sinan to Sibel:’
“Kafe-den çık-an ünlü tasarımcı-ylar-1 çağırm!”

Call the famous designers who came out of the cafe!

Participants 30 native speakers of Turkish between ages 21 and 37 (mean age: 28) who had a high school (2) or university (28) education participated in our study. They received a web-based questionnaire on Google Forms. Subjects were asked to rate the pairs of sentences on a scale (1 very bad to 6 very good) according to the naturalness of the continuation of the second sentence, given the first one.

Results The results show that the contexts are less natural than the grammatical control items. This was expected, as explicit partitives are always more complex than regular noun phrases, in particular in the contexts provided above. Secondly, in epistemically non-specific contexts, there is no overall preference for unmarked partitive direct objects across context type (imperatives, quantifiers). Initially, this suggests that case marking does not express epistemic specificity in Turkish, confirming results of Experiment 1, as well as previous work of von Heusinger & Bamyaci (2017). However, a restriction needs to be placed on this claim, as there is a main effect for animacy in our data. With inanimates, items unmarked for case are rated significantly better in epistemically non-specific contexts than their accusative marked counterparts b=-0.38, SE=0.12, t=-3.10. These findings imply that accusative case marking is indeed sensitive to epistemic specificity in Turkish, once only inanimates are considered.

6 Conclusions

In this paper, we investigated the interaction of Differential Object Marking of explicit partitive direct objects with different types of specificity. We presented original data from two grammaticality judgement tasks, first testing for the acceptability of Differential Object Marking
of partitive direct objects in scopal and transparent contexts, and second, testing for the acceptability of Differential Object Marking of partitive noun phrases in epistemically non-specific contexts.

On the basis of clear empirical evidence from our first experiment, we argued that (i) partitive constructions without case marking are acceptable (contra Enç 1991) and that (ii) case marking triggers scopal specificity, licensing wide scope readings of the indefinite and characterizing the referential-semantic type of specificity. Concerning the semantic-pragmatic type of specificity, our data leaves us with inconclusive results. Our first experiment does not confirm that DOM signals epistemic specificity in Turkish. Our second experiment provides a more fine-grained picture. While there is no overall preference for unmarked partitive direct objects in epistemically non-specific contexts, with inanimates there is a clear contrast observable. Accusative case marking of inanimate partitive DPs in epistemically non-specific contexts is significantly dispreferred.

The data presented and discussed in this paper provide support for the assumption that DOM is orthogonal to partitivity and that DOM signals specificity, rather than partitivity. Additionally, the results lead to further research testing for the interaction of animacy, specificity and DOM in Turkish.

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