On the "strength" of indefinites: A view from Turkish

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Abstract

The paper claims that the Acc-marker in Turkish is an indicator of definiteness minus uniqueness.

1 Introduction

Start with some general remarks on indefiniteness; then introduce the notion of "strong" indefiniteness; and then go on with Turkish, by saying that Turkish has some interesting data that is relevant to this debate.

- (1) John kitap okudu.
 - J. **book** read 'John did book-reading.'
- (2) John kitab-ı okudu.
 - J. **book-Acc** read 'John read the book.'
- (3) John bir kitap okudu.
 - J. a book read 'John read a book.'
- (4) John **bir kitab-ı** okudu.
 - J. a book-Acc read 'John read a book.' ("strong")

In this paper we are interested in (4). Two facts make this form interesting. One is that the Acc-marker is strongly associated with definiteness in Turkish. This is most apparent in the minimal pair (1) vs. (2). Furthermore, for noun phrases that are usually considered definite—in the sense of displaying definiteness effect—the marker is obligatory. These constructions are:

- (5) a. proper nouns;
 - b. pronouns and demonstratives;
 - c. "strong" DPs (TODO: give a list).

- d. derived nominals;
- e. genitive possessive constructions.

The curious case here is genitive possessive constructions. They require the marker but they can be indefinite. The others are definite. Therefore, with the exception of the genitive possessive construction, the Acc-marker behaves as an indicator of definiteness.

The second fact that makes (4) interesting is that the marker is optional on indefinites for some verbs (3 vs. 4), exemplifying a case of Differential Object Marking (Aissen 2003). This optionality has certain interpretative effects (see section ??).

The following research questions follow from the observations above:

- (6) a. What governs the distribution of the Acc-marker? (When is it required, when is it optional?)
 - b. What is the contribution of the marker in cases where it is optional?
 - c. Why the marker is not optional for genitive possessive indefinites?

The aim of the present paper is to propose an analysis of the marker that answers these three questions in a unified way.

2 Description of the phenomenon

In this section I aim to provide a critical overview of the descriptive aspects of the Acc- versus \emptyset -marked indefinites, concentrating on their interpretative differences.

2.1 Scope and word order

As in many other languages, two types of indefinites differ in their scopal behavior. Slightly adapting from Özge 2011:

Let us take an intermediate scope example:

(7) Çogu dilbilimci önemli bir problem(-i) çözen her makale-yi most linguist important a problem(-Acc) solve.Rel every article-Acc okudu.

read.3sg

'Most linguists read every article that solves an important problem.'

In the Acc-marked version: we have three readings: (i) a single problem; (ii) a possibly different problem per linguist; (ii) a possibly different problem per article. In the \emptyset -marked version: only the narrowest scope reading is available.

2.2 Specificity

Let me start with an influential account of the interpretative effect of Acc-marking in Turkish, Enç 1991, which also draws some important claims on noun phrase interpretation in general. Enç (1991) claims that a Turkish noun phrase carries the Acc-marker if and only if it is "specific". Here is one of her examples illustrating her notion of "specificity" (henceforth Enç-specificity):

- (8) Odam-a birkaç çocuk girdi. my-room-Dat several child entered 'Several children entered my room.'
- (9) a. İki kız-ı tanıyordum.
 two girl-**Acc** knew.1sg
 'I knew two girls (among the children). ' (Enç-specific)
 - b. #İki kız tanıyordum.
 two girl knew.1sg
 'I knew two girls.' (non-Enç-specific)

Enç (1991) observes that in discourse initiated by (8), the form (9a), where the indefinite *iki kız* ("two girls") is Acc-marked, is called for in order to be able to mean that the girls are from among the set of children; otherwise, in the absence of the marker as in (9b), there arises a tendency to interpret the girls to be out of the set of children introduced in (8). I would like to underline the fact that the English translation for (9a) is not 'I knew two of the girls'; the sentence is non-committal on whether there are more girls among the children than the two mentioned. Therefore Acc-marker is not simply a partitivity indicating item.

Enç's (1991) proposal has been empirically challenged on the basis of Accmarked out-of-the-blue indefinites as well as non-case-marked indefinites that are yet Enç-specific (Taylan and Zimmer 1994; Zidani-Eroğlu 1997; Kelepir 2001; von Heusinger and Kornfilt 2005, 2017; Kılıçaslan 2006; İşsever 2007; Nakipoğlu 2009; Özge 2011 among others). In this paper, I will gloss over the gaps in the data regarding the semantic effects of the Acc-marker and concentrate on the cases where the presence of the marker has an effect related to previous discourse that is absent for unmarked indefinites. I will show that Enc-specificity, as the semantic correlate of Acc-marking, cannot hold up to the facts of Turkish under close scrutiny. I will instead argue that the semantics of the marker is more closely related to "strong"/"weak" distinction of Milsark (1977). This might appear paradoxical, given that Enc (1991) equates her notion of "specificity" with "strong"/"weak" (and also with D(iscourse)-linking of Pesetsky (1987)), I will show, however, that this equivalence does not hold. Enc-specificity is implicit domain restriction, which is a weaker relation than "strength"; and it is not the semantic property that the Turkish Acc-marker indicates. In order to proceed in this direction, first we need to look at Enc-specificity in more detail.

Enç (1991) extends the dynamic model of noun phrase semantics, which associates every noun phrase with an index (or, equivalently, a discourse referent) that

gets bound by an operator sourced outside of the NP semantics. Enç (1991) adds a second index, standing for a **superset** of the first index. Let us call the latter the superset index and the former referent index. Here is the formal definition from Enç 1991:

(10) Every $[NP \ \alpha]_{\langle i,j\rangle}$ is interpreted as $\alpha(x_i)$ and $x_i \subseteq x_j$ if $NP_{\langle i,j\rangle}$ is plural; $\{x_i\} \subseteq x_j$ if $NP_{\langle i,j\rangle}$ is singular.

Enç (1991) further claims that the usual definiteness feature ([+definite] for familiar, [-definite] for novel) applies separately to both the referent and the superset index. In this setting, a standard definite NP has [+definite], and a standard indefinite has [-definite] on their both indices. Enç-specificity corresponds to the case where the referent index has [-definite] and the superset index has [+definite].

Let us see how the proposal works, over (??). The discourse opener (??) contributes the simplified main DRS in (11), containing the referents for the speaker and a set of children:

(11) a. Several children entered my room.

b.
$$\frac{s',z}{children'(z)}$$

First take the non-case-marked continuation:

(12) a. I knew two girls.

(non-case-marked)

Indices x_1 and x_2 are both indefinite carrying a novelty condition. We assume that this novelty condition makes sure that the set type indices x_1 and x_2 are disjoint with any already established index, a condition not included in (12b). Thanks to the novelty condition on both indices, the girls are understood to be not included in the set of children established in the discourse model, eventually giving rise to inappropriateness in the context of (??).

Let us now turn to the analysis of the case-marked continuation (??a).

(13) a. I knew two girls. (Acc-marked)

¹Enc 1991 does not discuss the case ([+definite], [-definite]). TODO:check.

Here the direct object *iki kız-ı* ('two girl-Acc') again contributes two indices, but this time the second index standing for a superset is definite. In modelling definiteness of this sort, I follow the binding theory of presupposition resolution of van der Sandt 1992. I think at this stage nothing crucial hinges on the choice of definiteness account and its formal representation. In this theory, presupposition resolution is treated on a par with anaphora resolution. Underlining a discourse referent, as is done in (13), indicates that the underlined content needs an antecedent to get bound. This binding relation between the antecedent and the presuppositional content obeys the usual accessibility constraints of DRT. Therefore, for the interpretation in (13) to converge this binding requirement needs to be satisfied. Presupposition resolution in this fashion is a non-deterministic process that obeys certain restrictions:

- (14) a. The antecedent should be accessible.
 - b. If there is an antecedent accessible in a near distance bind to that; unless there are inferential restrictions.
 - c. If an antecedent is not present, accommodate one this accommodation process is guided again by inference.

In the present case the presupposition carried by the superset index x_2 is resolved through identification with the set z of children already established in the model:

(15)
$$\begin{array}{c} s', z, x_1, \underline{x_2} \\ children'(z) \\ two\text{-}girls'(x_1) \quad x_1 \subseteq \underline{x_2} \quad know'(s', x_1) \\ \underline{x_2} = z \end{array}$$

If all the presuppositions of a DRS are bound, than the algebraic cancellation of identical terms yields a DRS without any underlined terms. This holds for the current case. The representation we arrive at correctly captures Enç's observation for the Acc-marked continuation to (??):

(16)
$$\begin{array}{c} s',z,x_1 \\ \\ children'(z) \\ two\text{-}girls'(x_1) \quad x_1 \subseteq z \quad know'(s',x_1) \end{array}$$

2.2.1 Enc-specificity under negation

Having seen how Enç-specificity works for Enç's example (??), let us modify the example to be able to derive further predictions of her account. Here is a minimal pair, where the verb *tanu* ('know') is negated:

- (17) Odam-a birkaç çocuk girdi. my-room-Dat several child entered 'Several children entered my room.'
- (18) a. İki kız-ı tanı-m-ıyordum.
 two girl-**Acc** knew.Neg.1sg
 'I didn't know two girls (among the children). ' (case-marked)
 - b. #İki kız tanı-m-ıyordum. two girl knew.Neg.1sg 'I didn't know two girls.'

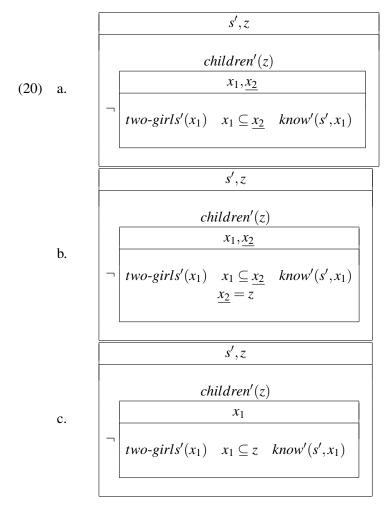
(non-case-marked)

Before commenting on the available interpretations of these negated variants of Enç's examples, let us first observe the interpretation assigned by her account. Let us assume that negation in (17) is at VP level, which contains the verb and the direct object in both case-marked and non-case-marked variants. Under this assumption, the non-case marked (18b) gets the following interpretation:

(19)
$$\begin{array}{c|c} s',z \\ \hline children'(z) \\ \hline x_1,x_2 \\ \hline two\text{-}girls'(x_1) & x_1 \subseteq x_2 & know'(s',x_1) \\ \hline \end{array}$$

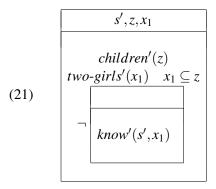
Given x_2 is [-definite] and therefore disjoint with z, (19) is satisfied in a model where it is impossible to find at least two girls not belonging to the children in the room such that the speaker knows them. Therefore, (19) would be satisfied in a model where there are girls among the children known to the speaker. Then how does this interpretation fair with what could actually be meant by (18b)? If (18b) coheres with (17) at all, it means that there are not at least two girls among the children known to him/her, with the proviso that this reading is available only under further specification of the context such that whether the speaker knew two girls among the children or not. In any event the interpretation delivered in (19) is hardly satisfactory.

Let us now turn to the case-marked variant (18a), which is interpreted in three steps:



The DRS (20c) is satisfied in any model where it is impossible to find at least two girls known to the speaker and belong to the set of the children at the same time. A critical observation here is that (20c) gets satisfied in a model where there were no girls at all among the children. By this token, (20c) diverges from the actual meaning of (18a): In its primary reading, (18a) gets satisfied only if there are at least two girls among the children such that the speaker does not know them. In DRT notation: ²

²The reading (21) is not the only reading the form (18a) can get. I will discuss another type of reading for such sentences below. What is crucial for now is that (18a) simply lacks any reading that does *not* commit to the existence of at least two girls among the children.



Again, we end up with an unsatisfactory interpretation.

Is there a way to keep Enç-specificity as it is and resort to other factors to explain the incorrect predictions of the account? Enç (1991) proposes such a solution.³ One major aim of Enç (1991) is to motivate a notion of specificity that is orthogonal to scope phenomena. It is well-known that the two notions are closely related Farkas 2002). She first observes that Acc-marking indefinites tend to take wide-scope. She explains this fact by claiming that in cases where case-marking and non-marking yields the same interpretation, the case-marked version is interpreted as taking wider-scope with respect to a commanding operator, through a Gricean inference.

Adapting the argument to the present would yield,

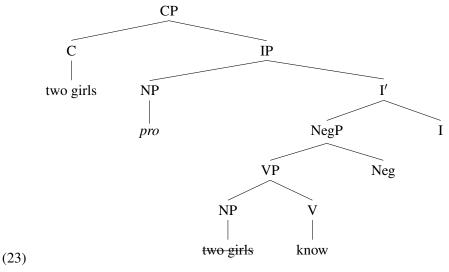
- (22) a. (20c) is indeed the semantic interpretation that would be assigned by the grammar to (18a);
 - b. The non-case-marked version is assigned the same interpretation by the grammar. Therefore, (20c) and (19) are equivalent.
 - c. Because of this equivalence, the hearer of (18a) unconsciously reasons as follows: "The speaker could have expressed the same content with a non-marked version, but she uses the marked one. Therefore, she is trying to convey a non-standard interpretation, which I take to be the one where the indefinite takes scope over negation". Through, this reasoning the hearer ends up with interpreting (18a) as (21).

An immediate problem with this argument concerns the equivalence of (20c) and (19). This cannot be truth-conditional equivalence, since in a model where the speaker knows two girls outside of the children set, the former representation gets satisfied while the latter does not. Therefore, the argument in (22) is at least in need of specifying a notion of equivalence that would hold between these two representations, such that it will serve the ground for the Gricean reasoning proposed. Otherwise, the reason why (18a) is not understood in the way predicted by Enç's (1991) account remains unexplained.

There is another source of the wide-scope behavior of the indefinite in (18a),

³From this proposal, I infer that she is already aware of the problem, although she does not discuss negation.TODO:check

namely the grammar. The indefinite could be forced to move out of its local domain for case-checking or some other reason along the lines of Diesing's (1992) Mapping Hypothesis or some variant of it.⁴ Such an independent motivation for the indefinite in (18a) to take wide-scope would explain why Enç's (1991) prediction for the example is not full-filled: The marker indicates Enç-specificity, but at the same time the indefinite is forced to move to a position higher than the negation operator, and by this token (18a) gets interpreted as (21), rather than as (20c). At the moment, we do not need to get concerned about the exact position the indefinite is forced to move. One possibility would be:



- (24) Forced wide-scope account of Acc-marked indefinites:
 - a. The accusative case on Turkish indefinite direct objects marks Ençspecificity, as formulated in (10).
 - b. An accusative marked direct object is required to raise to a position that is at least higher than the verbal⁵ negation operator.

I will argue that (24) cannot fully explain the semantic reflex of the case-marker on the indefinites in Turkish. The reason is that Acc-marked indefinites do not necessarily get a wide-scope reading as was the case in (18a). Such an argument requires a closer look at the scopal semantics of Acc-marked indefinites, to which I will directly turn. Let me diverge from Enç's (1991) example and replace the numeral quantifier *iki* ("two") with the indefinite determiner *bir* ("a/one") and negation with antecedent of a conditional; I return to Enç's (1991) example below.

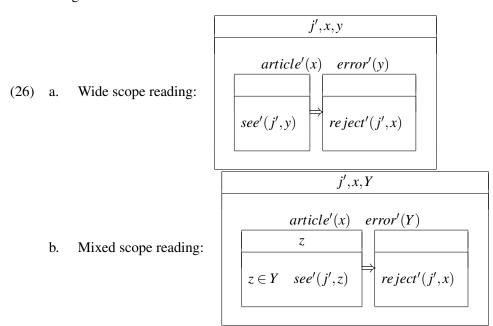
(25) Context: John is a referee reviewing an article under discussion.

⁴For the syntactic position of Acc-marked indefinites see Kelepir 2001; Aydemir 2004; Öztürk 2005.

⁵Turkish has another negation operator *değil* with sentential scope.

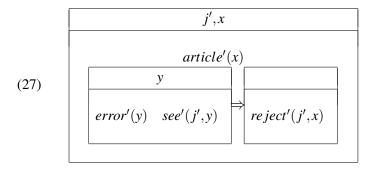
- a. John bir hata**-yı** görür-se, makale-yi reddeder.
 - J. a error-Acc sees-Cond article-Acc rejects
 - Rd. 1: 'If John sees an error, he'll reject the article." (It's common ground that there are errors in the article.)
 - Rd. 2: 'An error is such that if John sees it, he'll reject the article.
- b. John bir hata görür-se, makale-yi reddeder.
 - J. a error sees-Cond article-Acc rejects
 - 'If John sees an error, he'll reject the article." (no commitment to the existence of errors.)

A crucial difference between (25a) and (25b) is that while the former presupposes the existence of errors in the article, no such presupposition is involved in the latter. Another important fact concerning (25a) is that besides a wide-scope reading of the indefinite, it has another reading where the indefinite stays within the scope of the antecedent of the conditional, while its restrictor stays out. The two readings are as follows in DRT notation:



The non-case marked variant (25b) is interpreted as follows:⁶

⁶An interpretation along Enç 1991 would have an indefinite superset, which would not have any truth-conditional effect.



The reading (26b), which appears to be the primary reading for (25a), is impossible to arrive at by coupling Enç-specificity and wide-scope behavior, namely (24). What is predicted by that account instead is only (26a).

Enç (1991) actually has a similar example involving an intensional verb *iste* ('want'):

- (28) Context: A musical instrument store.
 - a. Ali bir piyano-yu kirala-mak istiyor.

A. a piano-Acc hire-INF wants

Rd. 1: 'Ali wants to hire a piano from among those in the store (but he did not decide which).'

Rd. 2: 'There is a piano from among those in the store such that Ali wants to hire it.'

Again, what I translate as "Rd. 1" is not possible to get via (24).

The scopal behavior of Acc-marked indefinites is quite general, it is straightforward to have similar examples with other types of scope variation inducing operators. Here is one with the imperative, assume a context of two interviewers discussing what to ask to an interviewee:

- (29) a. On-a zor bir soru sor. her-Dat hard a question ask 'Ask her a hard question.'
 - b. On-a zor bir soru-yu sor.
 her-Dat hard a question-Acc ask
 'Ask her a hard question.' (D-linked)

Rd. 1: 'Ask her one of the hard questions.'

Rd. 2: ??A specific question is intended, to be continued by naming the question explicitly.

Let me return to negation. In order to avoid the interference of meta-linguistic negation, I follow Szabolcsi's (2004) suggestion of using reason contextualization. Take an examination context where the examinee looks happy after the exam. When inquired about the source of her happiness, both answers below are appropriate:

- (30) a. Öğretmen zor bir soru sor-ma-dı.
 teacher hard a question ask-Neg-Past
 'The teacher didn't ask a hard question.' (No commitment to the existence of hard questions beforehand.)
 - b. Öğretmen zor bir soru-yu sor-ma-dı. teacher hard a question-Acc ask-Neg-Past
 Rd. 1: 'The teacher didn't ask a hard question.' (It's common-ground that there were hard questions prepared beforehand that could be asked.)
 Rd. 2: 'There was a question such that (fortunately) the teacher didn't ask it.'

Again the crucial observation is that (30b) necessarily commits to the existence of hard questions known to the examinee. No such existence presupposition is present in the non-marked variant (30a).

So far I have been reviewing the behavior of the Acc-marked indefinite in relation to different types of operators, and demonstrating that there are readings that are not accounted for by (24), namely mixed scope readings where the restrictor is wide scope, but the indefinite is narrow scope. In all the examples I have considered so far, the restrictor of the indefinite and the contextually established set that the indefinite is linked to are identical. In Enç's (1991) example (??), however, the restrictor of the indefinite (*girls*) and the antecedent set (*children*) were different. While discussing this example, I underlined the fact that the effect of the marker was not simply a partitive reading like "two of the girls." Here I provide a model example where this is again the case and we have a mixed scope reading, as in other examples I discussed above. My aim is again to show that (24) cannot deliver all the available readings.

Take a scenario where Alice has a number of dogs in her farm and her niece Betty comes to visit her. Betty wants a dog among them as a birthday present and she wants a Retriever. Alice gives the present, but Betty does not look happy with what he get. Someone asks the reason for Betty's not being heppy. Alice answers:⁷

- (31) a. Çünkü on-a bir Retriever hediye et-me-dim. because her-Dat a Retriever present make-Neg-Past.1sg 'Because I didn't give her a Retriever as present.'
 - b. Çünkü on-a bir Retriever-ı hediye et-me-dim. because her-Dat a Retriever-Acc present make-Neg-Past.1sg 'Because I didn't give her a Retriever as present.'

First, the Acc-marked version (31b) is inappropriate in the absence of the antecedent set of dogs; and it is ambiguous between a wide scope Retriever reading and a mixed scope Retriever reading. Once again (24) can only deliver the wide-

⁷The verb *hediye et* ('present make') is a light verb construction that behaves identically to a lexical verb, as far as the grammar of zero versus case-marked objects are concerned. Examples similar to this one can be constructed with lexical verbs as well.

scope reading and therefore is not adequate in capturing all the available readings.

Finally, one might ask why a mixed-scope reading is not available for the negation of Enç's (1991) example given as (18a) above. Furthermore, one might think that the absence of that sort of reading for (18a) is due to having a numeral *iki* ('two') instead of *bir* ('a/one'). The reason is that the typical context accommodated with the examples cannot support that sort of reading. There is simply no potential reason for the speaker to deny that she knows two girls from amont the children entering the room. Once the needed contextual support is provided, mixed scope readings arise for the numeral *iki* ('two') as well.

For instance imagine a scenario where a bunch of children is to be assigned to dormitory rooms that accommodates two. Also imagine that there is a rule dictating not to put two girls in the same room, rooms should be either two boys, a boy and a girl, or a single girl. The speaker of (32b) is successful in stating that she observed the rule applied to the bunch of children already established in the discourse, given our scenario. In the absence of such an established set of children, the approriate form would be (32a) and the Acc-marked version (32b) would be inappripriate.⁸

- (32) a. Aynı oda-ya iki kız koy-ma-dım. same room-Dat two girl put-Neg-Past.1sg "I didn't put two girls in the same room."
 - b. Aynı oda-ya iki kız-ı koy-ma-dım. same room-Dat two girl-Acc put-Neg-Past.1sg "I didn't put two girls in the same room."

2.3 Information structure

To summarize, we have seen that Acc-marked indefinites are flexible in taking scope, they trigger existence presuppositions, the interpretative effect of the marker is orthogonal to topicality.

3 Acc-indefinites are "strong"

As the examples we considered above show, Enç-specificity misses the notion of "existential import". In relation to an operator, Acc-indefinites receive both a wide-scope reading and mixed scope reading, where the domain takes wide scope while the discourse marker stays narrow-scope. These facts immediately suggest that the Acc-marked indefinites should be considered as presuppositional or "strong" indefiniteness. As we saw above, Acc-indefinites project existence presuppositions at standard test contexts like antecedent of a conditional, imperatives and negation.

Within the light of these observations I claim that what is involved in Accmarked versus zero-marked indefinites is that the former type of indefinites are "strong". In an attempt to clarify the grammar of existential sentences in English, Milsark (1977) introduced the "strong"/"weak" distinction in determiners.

⁸I am grateful to Daniel Büring for pointing these types of contexts out to me.

"Strong" determiners are those that quantify over a domain denoted by their restrictor terms. A typical effect of "strength" is that the restrictor predicate is presupposed to exist at the point of quantification. One can think of this as a two step process: first you fix the domain, then you go on with quantification. "Weak" determiners on the other hand lack quantificational force of their own; what they provide is a cardinality predicate that specifies the size of the restrictor. "Strongly" determined NPs overlap with the syntactic/semantic notion of definiteness but not completely. Milsark (1977) credits to Postal (1966) the observation that "strong"/"weak" cross cuts the territory of indefiniteness.

In a DRT setting, the most straightforward way to model "strength" is to adopt "presuppositionality as anaphoricity" perspective (van der Sandt 1992; Geurts 1999). According to this view, "[a] strong quantifier does not merely presuppose that its domain is non-empty; rather, the purpose of its presupposition is to *recover* a suitable domain from the context" (Geurts 2007:253). Applying it to the present case yields:

(33) The restrictor of an accusative indefinite is anaphoric.

It is straightforward to model this claim by a slight modification to Enç's (1991) proposal. An Acc-marked indefinite is inserted to a DRS with a presuppositional (=anaphoric) restrictor. Going back to Enç's (1991) example, the state of the discourse is as follows after the indefinite is inserted,

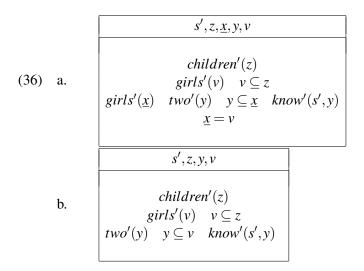
(34) a. Several children entered my room.

b. I knew two girls.

(Acc-marked)

(35)
$$\begin{array}{c} s', z, \underline{x}, y \\ \\ children'(z) \\ girls'(\underline{x}) \quad two'(y) \quad y \subseteq \underline{x} \quad know'(s', y) \end{array}$$

Here the set of girls is presuppositional. As there is no established set of girls in the context, one option is to accommodate one. I claim that it is by inference that this accommodated set of girls is most naturally understood to be included in the set of children introduced in the opening sentence of the discourse. I do not have a systematic account of why the inference should yield that result, apart from suggesting that it is the least costly assumption to make to maintain the coherence of the text. In formal terms, (36a) depicts the accommodation of the antecedent set and the resolution of the presupposition; (36b) depicts the final form of the representation after eliminating redundant information:



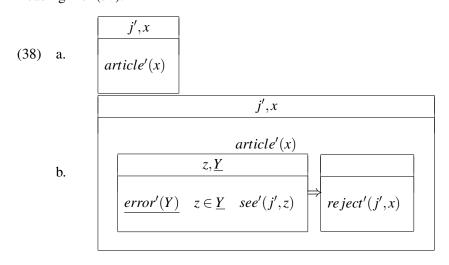
It is by transitivity of set inclusion that the girls are understood to belong to the set of children established in the discourse; it does not follow directly from the semantics of the NP as a definite superset.

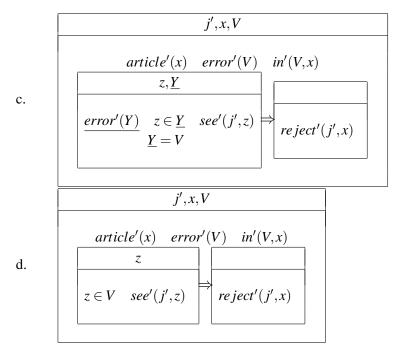
As for the zero marking, I do not propose anything special about it. It is a standard indefinite analysis and I do not claim a disjointness semantics. I leave it open that there arise disjointness implicatures, supported by the existence of a formal device to signal presuppositionality, it is natural to expect the zero-marked version to implicate disjointness.

Now, back to (25a), repeated below:

- (37) John bir hata-yı görür-se, makale-yi reddeder.
 - J. a error-Acc sees-Cond article-Acc rejects
 - Rd. 1: 'If John sees an error, he'll reject the article." (It's common ground that there are errors in the article.)
 - Rd. 2: 'An error is such that if John sees it, he'll reject the article.

Reading 1 of (37):





Caution: V should be guaranteed to exhaust the errors in the article – presumably by inference.

TODO: Basit hatalari gormesi onemli degil; yeter ki kritik bir hatayi gormesin.

TODO: Cogu ogrenci en az iki kitab(i) okudu.

3.1 Generalizing to other NP types

4 The proposal

I begin the present proposal by considering the semantics of bare objects.

Having motivated the interpretative effect of Acc-marking on indefinites, I turn to the grammatical mechanism that delivers that effect. This calls for a detailed look at the noun phrase semantics in Turkish, which this section aims to provide.

4.1 Syntax

I do not follow the idea of DOM, which, following López (2012), I take to be claiming a direct morphology/semantics relation between case and specificity (or some other interpretative category) and that this relation operates on the basis of a definiteness scale; for me there is no direct morphology/semantics relation in accusative case in Turkish. Accusative is a reflex of syntactic organization, which itself has an effect on the interpretation.

The syntactic status of bare objects has received considerable attention in the literature, where the central discussion was around the issue of whether the bare objects are phrasal (pseudo-incorporated) or not (head incorporated) (see, among

others, Erguvanlı 1979; Nilsson 1985; Knecht 1986; Kornfilt 2003; Aydemir 2004; Arslan-Kechriotis 2006; Öztürk 2005, 2009; Gračanin-Yüksek and İşsever 2011).

A common denominator of this literature is that the overt case is a reflection of syntactic position and this position itself is responsible for the interpretative differences between having and not having overt case. I follow this here. Turkish nominal expressions do not carry overt case when they remain in a domain projected by the verb, and along the logic of Diesing (1992) they thereby receive a sort of non-referential reading in this domain. Below, I articulate the semantics of this.

Turkish accusative is not an instance of DOM Aissen (2003). As in the set of languages discussed by López (2012) objects in small clause constructions and objects that control PRO obligatorily receive overt case.

- (39) a. Bir öğrenci*(yi) zeki bulabilirim.
 - b. Gözetmenlik yapmaya bir öğrenci*(yi) ikna edeceğim.

Also note that possessive DPs obligatorily receive case-marking, regardless of their interpretative properties.

TODO: Give a list of interpretative/scopal/IS-related effects in the first section.

TODO: Acc marking does not necessarily have functional readings (contra KvH).

TODO: negative verbs require the marker: engelle. durdur, (relate this discussion to verbs of creation).

TODO: Dün ikişer görevli her hücreyi ziyaret etmiş.

TODO: strong quans are scope rigid but acc-marked indefs are not.

TODO: Evidence that Possessives cannot stay VP internal.

TODO: Acc is not related to scope, it marks an anaphoric dependency of the restrictor.

TODO: Ali projede iki yabanci(yi) calistiriyor.

TODO: Ali annesine bir ogrenci*(yi) sikayet etti.

TODO: Zero do not introduce discourse marker;

Ahmet bana bir cocuk gosterdi; annesini kaybetmis yeni.

Annesine *Bir cocuk gostermeye gitti.

TODO: The domain that contains bare objects is sensitive (or closely related) to information structure. Focus domain can expand to left, but it cannot contract to right excluding a bare object.

TODO: Rize'de balik yiyeceksin. Baligi Rize'de yiyeceksin. Hamsiyi bugulama yapacaksin. Hamsiyi buzluga atacaksin. Buzluga hamsi atacaksin.

Ruslar zimbayi icat etmis. Ruslar zimba icat etmis.

Zimba is a kind predicate (true or false of kinds). It is then <s,t>. But zimbayi is referential, it refers to the kind zimba, therefore it is of type s.

Zimbayi bana uzat.

This is reference to an ordinary individual.

Conclusion: there is a merger that merges and <x,t> with a transitive; it saturates the object argument.

It is also important to notice that the zero versus case-marked distinction crosscuts nominal types. I give examples somewhere else.

I start with the following key observation:

- (40) a. Ali doktor.
 - b. Ali bir doktor.

Basic assumptions: I follow (Krifka et al., 1995, p. 64) and commit to a basic type of kinds alongside with standard individuals, I will have types e and k. The relation between a kind and its instances will be handled by Ins – this is Carlson's R, Krifkaetal just remove the stages. The relation is many-to-many, a given object may be an instance of more than one kind and, more obviously, a kind may have more than one instance. Predicates can be true of standard or kind individuals. For instance, the predicate *is invented by Americans* ranges over kind individuals. One alternative would be to take kind-referring NPs to denote the sum of all the individuals that the nominal applies to (see Krifka et al. (1995) for references).

If I take the genericbook route, which is to take a kind as basic and define the associated property as (lambda x: R(x,k)), then I need genericbooks 'We leave it open as to whether every predicate has a corresponding kind'.

Syntax: case filter is fulfilled under adjacency, so bare NPs are also assigned case, but accusative indicates that the NP is not in the adjacent position. Bir is the manifestation of the Carlsonian Realization Relation. When out of the existential closure domain of the immediately preverbal slot, nominals are forced to get argumental/referential interpretation.

I start with the bare NP semantics, attempting to situate the Turkish nominal system along the "Nominal Mapping Parameter" of Chierchia (1998).

Here is what I understand from Chierchia 1998.

Our dimensions are count/mass, generic/kind/weak indefinite/indefinite/definite.

FACT 1: Kinds are referred to by singular bare NPs, regardless of count/mass distinction:

- (41) a. Leopar(?*lar)a Anadolu'da rastlanmaz.
 - b. Kemençe(*ler)nin anavatanı Görele'dir.
 - c. Kayısı(*lar) Malatya'da ilk defa 19. Yüzyıl'da yetiştirildi.
 - d. Kayısı(*lar) Malatya'nın sembolüdür.
 - e. Zımba(*lar) 19. yy'da ABD'de icat edildi.

are all kind predications in the sense of Krifka et al. 1995.

(42) a. Son yillarda adada köpek(*ler) bulunmuyor.

It is also important to observe that a kind-referring NP at the direct object position requires an accusative case:

- (43) a. Amerikalılar zımbayı icat etti.
 - b. Amerkalılar zımba icat etti.
 - c. Amerkalılar yeni bir zımba icat etti.

The second one means that Americans invented a new kind of stapler. The interpretation is still kind-referring. Therefore kind/non-kind distinction is orthogonal to acc-marking (see (Krifka et al. 1995:p. 15))

The question here is whether the kind denotation is a lexical property or these NPs are just definites – remember that Turkish does not have a definite article and case-marked NPs in argument positions get interpreted as definite. I will now try to find a principled reason to choose one type of interpretation as basic and the other derived.

It appears that kind reference is not uniquely possible by bare NPs, bare plurals seem also fine with denoting kinds, especially with animals. The following pair is apparently synonymous:⁹

- (44) a. Aslan etobur bir hayvandır.
 - b. Aslanlar etobur hayvanlardır.
 - c. Timsah olan bir suda yüzülmez.
 - d. Timsahların olduğu bir suda yüzülmez.
 - e. *Timsahın olduğu bir suda yüzülmez.
 - f. Yılanlar (Latince: Serpentes), Pullular (Latince: Squamata) takımına ait uzun, ayaksız etçil sürüngenlerdir. (Vikipedi Thu 25 Feb 2021 09:36:50 AM +03)

The plurals here, however, seem to refer to the families of kinds rather than a unique kind:

- (45) a. Çobanaldatan (Caprimulgus europaeus), Çobanaldatanlar (Caprimulgiformes) takımının çobanaldatangiller (Caprimulgidae) familyasına ait Caprimulgus cinsinden bir gece kuşu türü.
 - b. Gitar, parmakla veya pena ile çalınan, esasen sekiz şekline benzeyen, yan kısımları oval, sap üzerinde ses perdeleri olan, telli bir çalgı türü. Gitarlar genelde altı tellidir ve farklı çeşitlerdeki ağaç türlerinden yapılabilirler. Gitar neredeyse her türlü müzik türünde kullanılan bir müzik aletidir.

Nationalities on the other hand are always plural:

(46) a. İtalyan*(lar) akşamları şarap içer.

I conclude that bare singular NPs denote kinds in Turkish, bare plurals are just plural kind reference, resorted to when the sub-kinds of a kind are at issue.

⁹ 'Motosiklet tehlikelidir' gets 1010 Google hits while 'Motosikletler tehlikelidir' gets 162 – Thu 25 Feb 2021 09:27:48

Bare plural NPs are for generic reference, plural definite descriptions and weak indefinite reference.

- (47) a. Köpekler bahçeye girmiş. (plural definite)
 - b. Bahçeye köpekler girmiş. (weak indefinite)
 - c. Köpekler çocukları sever. (generic)

I assume that generic statements are also possible with kind terms TODO:check Generic Book.

One interesting aspect of the Turkish nominal system is that weak indefinite interpretation is also possible with bare NPs:

- (48) a. Bahçeye köpek girmiş. (weak indefinite)
 - b. Köpek bahçeye girmiş. (definite)
 - c. Muz yemek mideme iyi geldi. (weak indefinite)
 - d. Dolapta muz kalmamış. (weak indefinite)

here number is not implied, at least one dog is enough to make the proposition true.

There is one aspect of the NP that differs with respect to its location. What is that aspect?

Kind predicates: Faks kalmadi/yok. Yakinda Hamsi tarihe karisacak.

The effect of the marker is related to definiteness.

bir is an operator, can be poly-typed or not; it applies to a bare NP which is a kind term, and carves out a brand-new individual untied to the context. The same operator applies to an Acc-marked NP which is in a sense definite. In the absence of bir the NP becomes standard definite due to maximality. In the presence of bir a partitivity is indicated, while the restrictor is still definite. What do I do with scope then? Either schwarzschild – for some reason I do not like that idea, or some other explanation. Other possibility is this: in the absence of an operator like negation, the two interpretations collapse. But still we need an explanation for why the scope is flexible for Acc-marked indefinites. This I can explain from the other direction. \emptyset -marked indefinites have an adjacency condition, they are the exceptional ones, not the Acc-marked ones. This in turn might be motivated by information structural concerns.

In combining two semantic objects, the degrees of freedom bearing on the outcome are twofold:

- (49) a. semantics (types) of the components
 - b. the mode of combination

The three possible types for NPs: referential e, predicative $\langle e, t \rangle$, quantificational $\langle \langle e, t \rangle, t \rangle$.

Let us first evaluate a Mapping account along the lines of Diesing 1992. Applying it to the present case, then we will have:

(50) a. Acc-marked indefinite is $\langle \langle e, t \rangle, t \rangle$

b. \emptyset -marked indefinite is $\langle e, t \rangle$

An immediate consequence of such an account is to claim that almost all the verbs that subcategorize for a direct object in Turkish are ambiguous with respect to the type of their closest arguments. I do not think this is a satisfactory corollary. The verbs that take optional accusative are not a small special class of Turkish words. It is quite common among Turkish verbs, and this contrasts with the typical example of this kind of verbal ambiguity, namely Greenlandic (van Geenhoven 1998). Second, we have direct evidence against this corollary. One piece of such example comes from ellipsis:

First show that case marking is obligatory.

*Ben Mehmeti sevdim, Ali de Ayse

- (51) Ahmet ve Ayşe bana geldiklerinde, masanın üzerinde bir dolu kitap vardı.
- (52) Ayşeye bir romanı verdim, Ahmet'e de bir kadeh viski.

In (52), the novel is case marked and the glass of whisky is not. In correlation to this, the novel is understood as coming from the bunch of books introduced before, while the whiskey is completely new to the discourse.

Given these observations, I conclude that Acc-marked and \emptyset -marked indefinites have the same semantic types and likewise, the same verb applies both to the Acc-marked and \emptyset -marked indefinite NPs.

On the other hand, we know that their scope behavior differ, therefore the reason for this difference cannot be a type difference.

Then the question is what this type is.

Question 4.1

Can this behavior be made to follow from presuppositionality. Or, is there a way to combine scope behavior and presuppositionality.

I claim that Turkish data can be captured in a model where syntactic saturation is isomorphic to semantic saturation and where the semantic composition is restricted to function application. The proposed model is most closely related to the combinatory varieties of categorial grammar (Steedman (2000); Jacobson (1999)).

I leave it to a later occasion the discussion of whether the wide-scope reading (Rd. 2) comes from a raising mechanism or via restriction to a singleton domain ala Schwarzschild (2002).

A Diesingian account would have that Acc-marking is a trigger (or indicator) of raising out of a verbal domain associated with existential closure. Such objects would require their own quantificational force. On the other hand NPs that already carry quantificational force will be forced out of the existential closure domain, thereby obligatorily receiving the Acc-marker.

Question 4.2

Why anti-uniqueness effect is not observed for IPV acc-NPs.

Definition 4.3

A nominal is weak if its dref gets created at the point it is first evaluated; and there exists no dref that is identical to it in the previous discourse as a variable or as a member of an accessible set. Except accidental coreference.

5 Conclusion

The paper argued that the accusative marker in Turkish marks definiteness minus uniqueness.

Turkish is important as it shows us that various components of the grammar of quantification and reference can have separate morphological reflexes, and thereby provides evidence for a case of compositionality in quantification (Szabolcsi 2010).

A The formalism

As the semantic representation language I use DRT. I use a non-boxed notation, which is a little harder to read but saves space.

We do not have any simple DRSs; each sentence, regardless of being quantificational or not, gets interpreted as a tripartite structure.

(53) a. Mary sleeps. b. [x : mary'x, sleeps'x]

VP interpretation:

- (54) sleeps := λx .[: sleeps'x]
- (55) Mary := $\lambda p \cdot [x : x = m'] \langle \forall \rangle p m'$
- (56) a. Mary sleeps. b. $[x : x = m'] \langle \forall \rangle [: sleeps'm']$

The generalized quantifier interpretation for the proper name *Mary* puts into a higher DRS

- (57) every woman := $\lambda p.[x : woman'x] \langle \forall \rangle px$
- (58) a. Every woman sleeps. b. $[x : woman'x] \langle \forall \rangle [: sleeps'x]$

Every sentence applies to a DRS and inserts its condition into it. I model this with a two-place mood operator which applies to a sentence and a DRS representing the current state of the discourse, and updates the DRS with the sentence.

(59) UPDATE_{DEC} := $\lambda s \lambda k.k \oplus s$

I do not give the algorithm for \oplus ; informally what it does is to append the complex condition to its right to the conditions on the top most level at the DRS to its left.

It also resolves all the presuppositions present in the complex condition argument. I also do not give the resolution algorithm.

B The fragment

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