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 ∅-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 ∅-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 Acc-marked 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 Enç-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 Enç (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. Enç-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 Enç-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 $[_{\text{NP}}\ \alpha]_{\langle i,j\rangle}$ is interpreted as $\alpha(x_i)$ and
$x_i \subseteq x_j$ if $\text{NP}_{\langle i,j\rangle}$ is plural;
$\{x_i\} \subseteq x_j$ if $\text{NP}_{\langle i,j\rangle}$ 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].[1]

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.
$$\begin{array}{|c|}\hline s', z \\ \hline \mathit{children}'(z) \\ \hline \end{array}$$

First take the non-case-marked continuation:

(12) a. I knew two girls. (non-case-marked)

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

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)

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

b.

$s', z, x_1, \underline{x_2}$
$children'(z) \quad entered'(z)$ $two\text{-}girls'(x_1) \quad x_1 \subseteq \underline{x_2} \quad know'(s', x_1)$

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)

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

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)

s', z, x_1
$children'(z)$ $two\text{-}girls'(x_1) \quad x_1 \subseteq z \quad know'(s', x_1)$

2.2.1 Enç-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 *tanı* ('know') is negated:

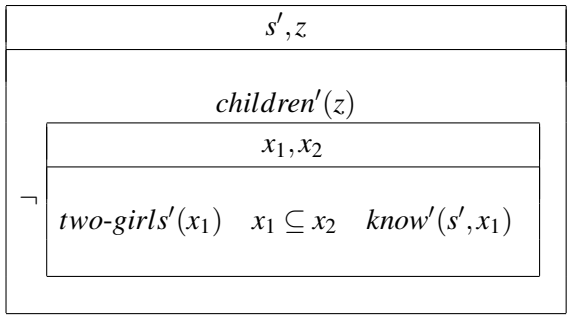
(17) Odam-a birkaç çocuk girdi.
my-room-Dat several child entered
'Several children entered my room.'

(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:

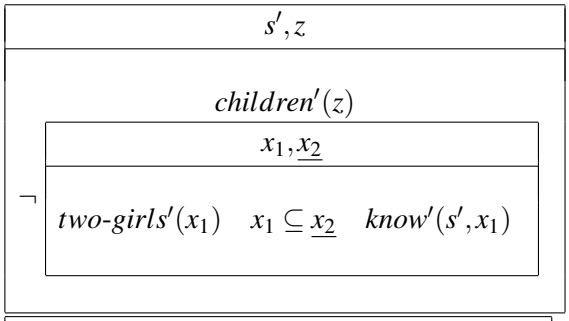
(19)



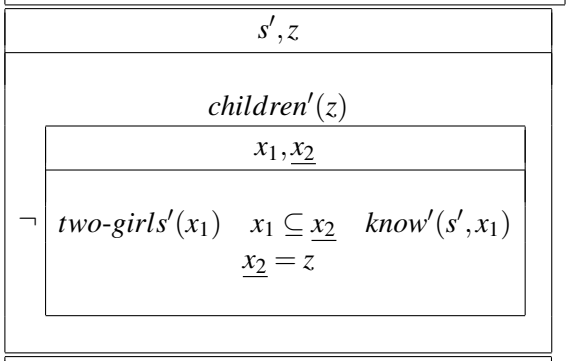
Given x_2 is [-definite] and therefore disjoint with z, (19) is satisfied in a model where it is impossible to find at least two girls not belonging to the children in the room such that the speaker knows them. Therefore, (19) would be satisfied in a model where there are girls among the children known to the speaker. Then how does this intepretation 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:

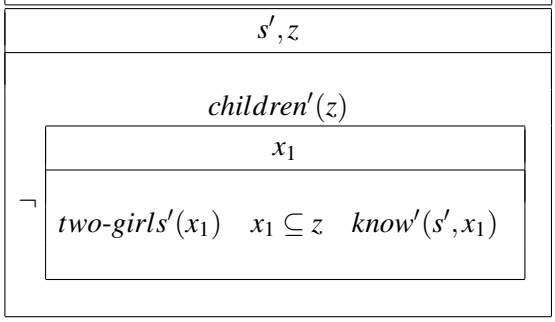
(20) a.



b.



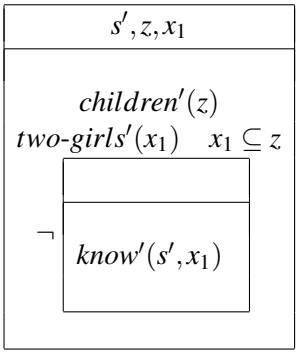
c.



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]

[2]The 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.

(21)



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).

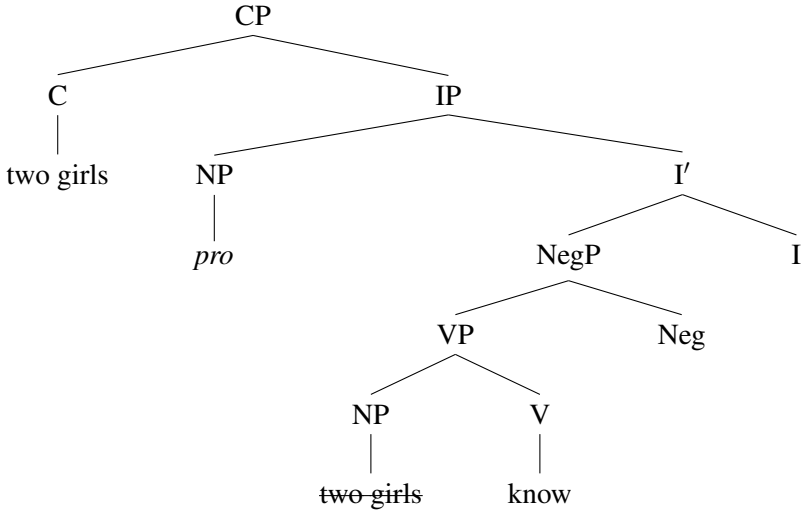
An immediate problem with this argument concerns the equivalence of (20c) and (19). This cannot be truth-conditional equivalence, since in a model where the speaker knows two girls outside of the children set, the former representation gets satisfied while the latter does not. Therefore, the argument 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),

[3] From 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:

(23)



(24) *Forced wide-scope account of Acc-marked indefinites:*

a. The accusative case on Turkish indefinite direct objects marks Enç-specificity, as formulated in (10).

b. An accusative marked direct object is required to raise to a position that is at least higher than the verbal[5] 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.

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

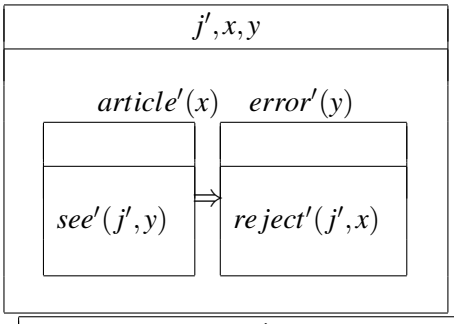
[5]Turkish has another negation operator *değil* with sentential scope.

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.

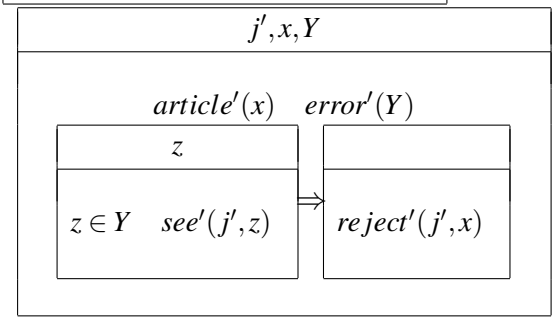
b. John bir hata görür-se, makale-yi reddeder.
J. a error sees-Cond article-Acc rejects
'If John sees an error, he'll reject the article." (no commitment to the existence of errors.)

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:

(26) a. Wide scope reading:



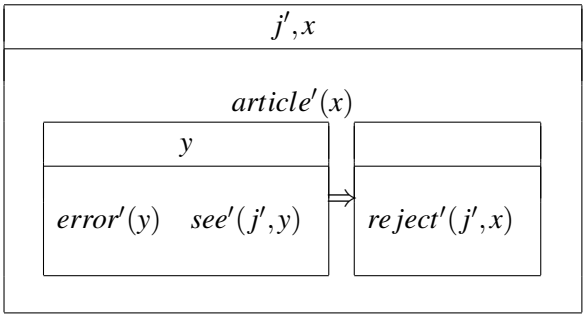
b. Mixed scope reading:



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

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

(27)



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-

[7]The 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. Furrhermore, 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 succesful 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 Acc-marked 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.

[8] I 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,

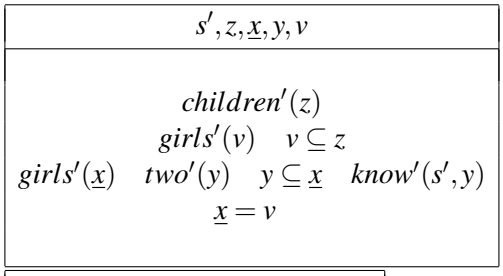
(34) a. Several children entered my room.
b. I knew two girls. (Acc-marked)

(35)

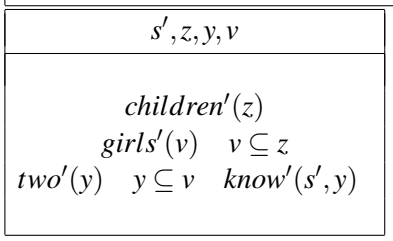
$s', z, \underline{x}, y$
$children'(z)$
$girls'(\underline{x})$ $two'(y)$ $y \subseteq \underline{x}$ $know'(s', y)$

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:

(36) a.



b.



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.

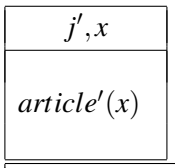
As for the zero marking, I do not propose anything special about it. It is a standard indefinite analysis and I do not claim a disjointness semantics. I leave it open that there arise disjointness implicatures, supported by the existence of a formal device to signal presuppositionality, it is natural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

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

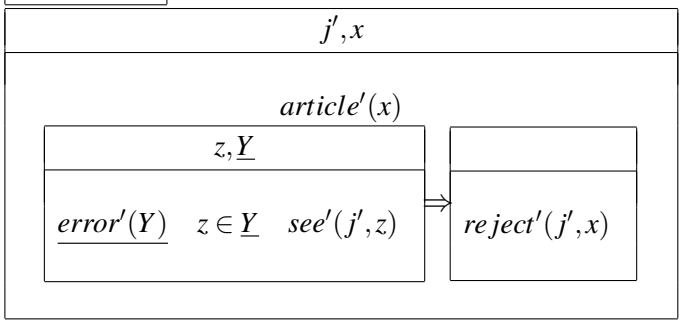
(37) John bir hata-**yı** görür-se, makale-yi reddeder.
J. a error-**Acc** sees-Cond article-Acc rejects
Rd. 1: 'If John sees an error, he'll reject the article." (It's common ground that there are errors in the article.)
Rd. 2: 'An error is such that if John sees it, he'll reject the article.

Reading 1 of (37):

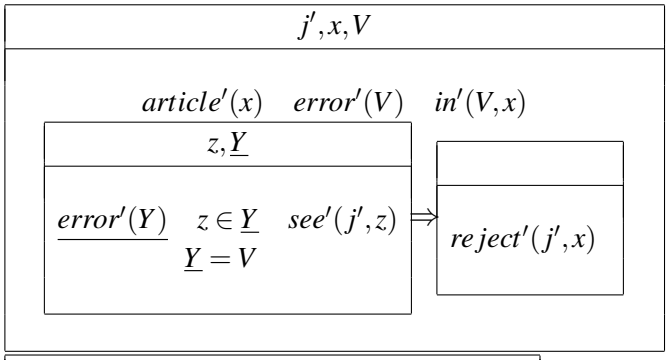
(38) a.



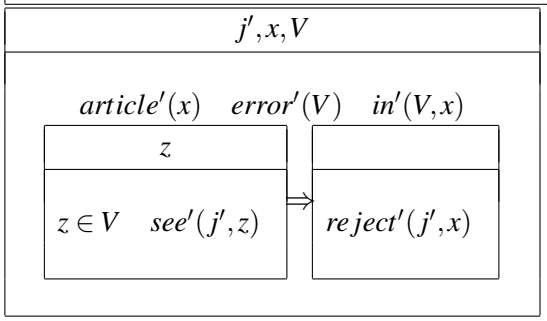
b.



c.



d.



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

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.

We have 4 types of nominal direct objects[9] in our scope: 1. bare NPs, 2. zero indefinites, 3. acc-indefinites, and 4. definites. I will have nothing to say about the last category in this paper and explore the relative "strength" of the first three categories, all of which I take to be a sub-type of indefiniteness.

4.1 Preliminary assumptions

In standard formal semantics, a nominal expression, be it referential, predicative or quantificational, contributes basically two things: 1. an e type argument for a verb or predicate and 2. a predication (aka restriction) of the contributed argument. In this approach, barring "selectional restrictions" that are usually informally stated, verb meanings themselves are construed as independent of the meanings of their

[9] My use of "direct object" is quite lose, not every author considers bare NPs as direct objects.

complements. It is quite well-known, however, that most, if not all, verb meanings are functions of the meaning of their complements, not only at the argument-saturation level, but also at a rather conceptual level. Here are some examples from Turkish:[10]

(39) a. elmayı ye.
b. parayı ye.
c. yalanı ye.

(40) a. kitabı oku.
b. hislerimi oku.
c. biyoloji oku.

It is important to note that none of these examples are idioms, they are quite flexible.[11]

As Carlson (2003) observes, if we take verbs to be fundamentally denoting eventualities (in the sense of Bach 1986), it is conceivable that one function of nominal complements is to futher specify these eventualities. As we will we see below in more detail, Carlson (2003) utilizes this idea for incorporation structures. Here, I will generalize the same idea to the entire spectrum of verb-complement composition.

The atomic types of my ontology are e for individuals, s for eventualities, p for properties (or concepts) in the sense of McNally (1998), and t for truth values. I ignore worlds and times for the sake of simplicity.

I will assume and modify a Neo-Davidsonian verbal semantics along the lines of Kratzer (1996), where external arguments are composed into the semantics by a functional head rather than as a complement of the verb itself. I will in addition assume that verb meanings have a slot for a property argument. The verb first applies to this argument to yield a further specified eventuality semantics. In such a setting, transitive verbs receive the following semantics:

(41) $\|[_{\mathrm{V}}\ \text{oku}]\| = \lambda p_p \lambda x_e \lambda e_s . read' p x e$

Some modifications to NP semantics are in order so that an NP interpretation provides the argument types that the verbal semantics requires. I will assume that every nominal comes with both a prperty denotation and an ordinary restrictor predicate. For instance a nominal that is headed by the lexical noun *book* would have both a property, which I will designate as $Book'$ and a restrictor predicate $book'$. The former stands for a prototypical, or generic depending on the particular theory, book concept, while the latter stands for the usual model-theoretic notion of

[10] See Kratzer 1996 for examples from English.

[11] Compare here with:

(i) Ayvayı ye.

where no other fruit or object would result in the same meaning.

the set of entities that are taken to be books in the model. With these assumptions a definite description (42a) and a proper name (42b), both type-raised to apply to the verb, would look like:

(42) a. $\|[_{\text{NP}_{acc}}\ \text{kitabı}]\| = \lambda v_{\langle p,\langle e,\langle s,t\rangle\rangle\rangle}\lambda e_s.vBook'(the'book')e$
b. $\|[_{\text{NP}_{acc}}\ \text{Ulysses'i}]\| = \lambda v_{\langle p,\langle e,\langle s,t\rangle\rangle\rangle}\lambda e_s.vBook'u'e$

External arguments are composed into the structure via a (possibly empty) functional head, which I will simply call X.

(43) $\|[_{\text{X}}\ \emptyset]\| = \lambda p_{\langle s,t\rangle}\lambda x_e\lambda e_s.pe \wedge agent'xe$

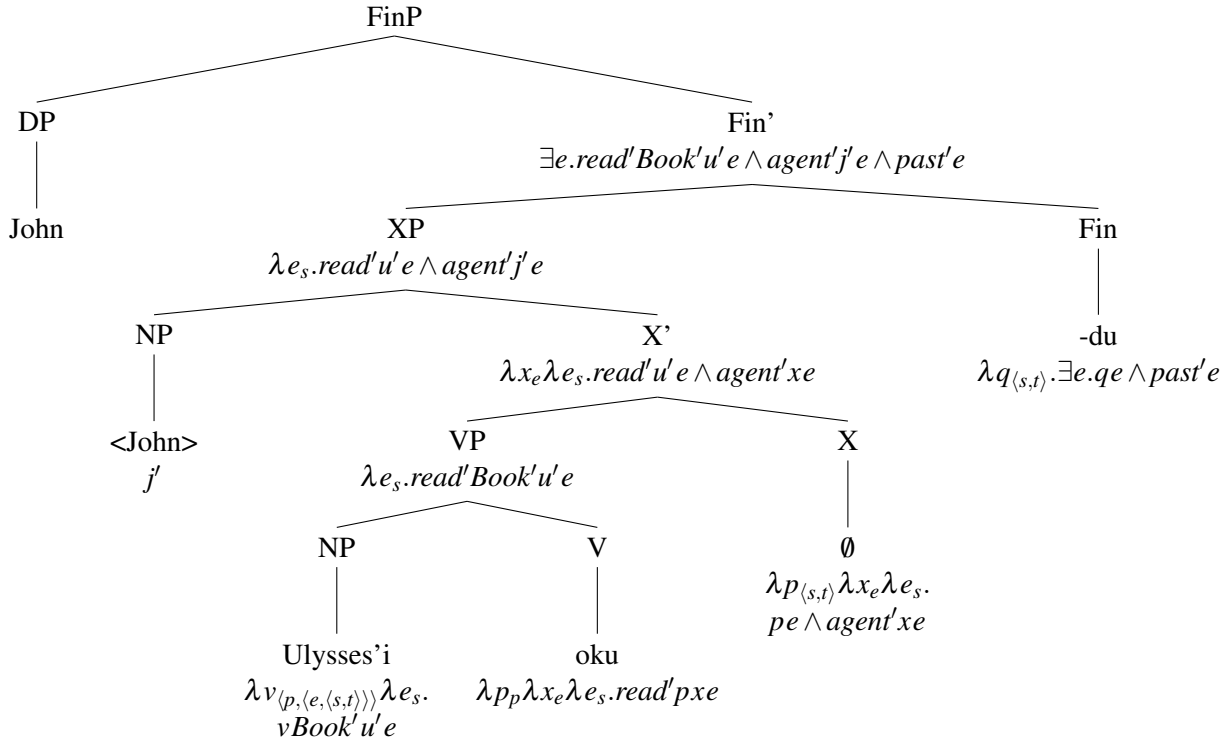
Finally, an inflection head existentially closes the event argument, also augmenting the temporal/aspectual information.

(44) $\|[_{\text{Fin}}\ \text{-du}]\| = \lambda q_{\langle s,t\rangle}.\exists e.qe \wedge past'e$

A simple sentence like:

(45) John Ulysses'i okudu.

is interpreted as follows, where all merges are coupled with function application on the semantics:



What is non-standard about the present scheme is the integration of properties into the derivation; sepcifically, (i) every NP comes with a property denotation

coupled with standard restrictor denotation, and (ii) what would appear as the normal functional semantics of a verb is computed as the result of the application $read'Book'$, the rest is standard.

My syntactic assumptions are and will stay sketchy. I will also ignore scrambling and other "deviations" from the canonical word order of Turkish.

4.2 Semantic types

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

(46) a. semantic types of the objects
b. the mode of combination
c. denotations of the objects

If we take coordination and various "like-category deletion" processes to be reliable tests for semantic types in Turkish, the facts suggest that our four categories are type-wise identical. I include here only a number of representative examples.[12]

(47) a. Ali öğle yemeğinde bazen cips, bazen küçük bir elma, bazen de evden getirdiği yemeği yiyor.
b. Doğumgününde ben Ayşe'ye eski bir kolye verdim, Ali de babannesinden kalan yüzüğü.

(48) a. Ahmet ve Ayşe bana geldiklerinde, masanın üzerinde bir dolu kitap vardı.
b. Ayşeye bir romanı verdim, Ahmet'e de bir kadeh viski.

TODO: Explain the examples

On account of these observations, I assume that all the four types of nominal objects are of, or can be shifted to, the same semantic type. I also take the verb semantics to be constant. This decision is justified in Turkish for the following reason: The verbs that take optional accusative are not a small special class, 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).

Taking the possibly shifted types of objects and their verbs constant also fixes the mode of combination. I simply take the object-verb combination to be function application. In this regime, objects are functions from transitive verb meanings to intransitive verb meanings (or verb phrase meanings):

(49) a. verb type: $\langle e, \langle s, t \rangle \rangle$
b. object type: $\langle \langle e, \langle s, t \rangle \rangle, \langle s, t \rangle \rangle$

[12] Note that when a nominal requires acc-marking, the marking is not deletable under ellipsis:

(i) Ben Mehmet'i sevdim, Ali de Ayşe*(yi).

4.3 Bare objects

The syntax 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). Here I am not concerned with the details of syntactic issues. I would, however, like to distinguish three cases:

(50) a. Ahmet balık tuttu.
b. *Ahmet levreğ(i) balık tuttu.

In (50a) we have a bare object composed with the verb giving a stereotypical verb phrase (= 'fishing'). The ungrammaticality of (50b) indicates that the (pseudo-)incorporation operation saturates the argument slot of the verb *tut* ('catch'), leaving no room for a direct object *levreğ(i)* ('sea bass(-Acc)'), with or without the accusative.

(51) a. Ahmet balık aldı.
b. *Ahmet levreği balık aldı.

In (51a) bare object-verb composition yields a non-stereotypical verb phrase, and (51b) likewise indicates that the direct object is saturated by this composition.

(52) Ahmet (konuşmasında) Mehmet'i hedef aldı.

(52) shows the composition of the verb we had in the previous two examples with the bare object *hedef* ('target') constructing the complex verb *hedef al* ('target'), which is still transitive after the composition, as it can still combine with the acc-marked direct object *Mehmet'i* ('M.-Acc').

In what follows I will unite the cases exemplified in (50) and (51) under the name "bare object", and leave out the complex verb structures exemplified in (52). I cannot see any difference between this complex verbs and lexical transitives that would concern the issues under discussion in this paper.

I first establish at an intuitive level that bare objects are predicative rather than referential. The argument is based on an observation about kind-level interpretation in Turkish.[13] The reason I employ a kind-level example is that the predicative nature of bare objects is most perspicuous at this level. Take the minimal pair:

(53) a. Amerikalılar 19. yüzyılda zımbayı icat etti.
b. Amerikalılar 19. yüzyılda zımba icat etti.

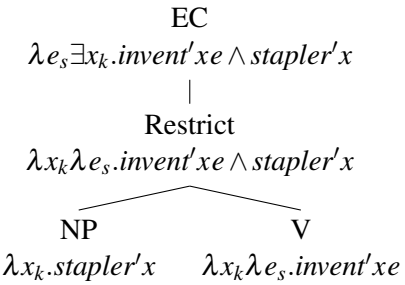
In (53a) there is a direct reference to the kind *stapler*, while (53b) carries a kind-

[13] All semantic distinctions we are interested in this paper, like specific/non-specific, predicative/referential etc. apply at kind-level as well Krifka et al. 1995:15.

level predication, resulting in what Krifka et al. (1995) calls a "taxonomic" reading.

One way to integrate this predicative meaning into the verb phrase semantics would be to use Chung and Ladusaw's (2004) Restrict. This would additionally call for an existential closure operation, since Restrict does not saturate argument slots, while Turkish bare objects do. Assuming that kinds are atoms of type k, a Restrict + EC derivation would look like:

(54)



The same mechanism would give a parallel interpretation for a non-kind example like *kitap oku* ("book read"):

(55) $\|[_{\text{VP}}\text{ kitap oku}]\| = \lambda e_s \exists x_e .read' x e \wedge book' x$

The problem with this solution lies in the existential quantification of the object argument of the verb, directly delivered via semantics. Existential quantification always affords (possibly modally subordinated) discourse reference. But, as first observed by Erguvanlı (1979), Turkish bare objects do not readily contribute discourse referents and usually result in number-neutral interpretations.

(56) ??Bugünlerde kitap okuyorum, bitirince sana vereceğim.

(57) Kampın ilk gününde çocuklar sahilde balık tuttular. Maalesef çoğu tek balık bile yakalayamadı.

(activity with a perfective aspect)

(58) a. Ahmet keman çalıyor.
b. Yeni mi?

(59) a. Dün bütün gece şiir yazdım.
b. Kaç tane yazdın?
c. Sıfır!/Çok!

As we will see in the next section, this behavior sharply contrasts with zero indefinites, where discourse reference is guaranteed.

There are cases where bare objects seem to contribute discourse referents, however. This possibility appears to be dependent on the aspectual class and conceptual details of the verb. For instance, it seems rather impossible to think of an onion

chopping process that does not involve some amount of onions, and it is also expected that the use of a bare object expression may foreground the amount or kind of onions involved. The present point is that such contributions to the discourse model by bare objects are not semantically driven, but possible, thanks to some inferential processes that we do not get concerned here.

The present paper proposes that what is contributed by a bare object construction is the instantiation of an eventuality type rather than an individual discourse referent. In this proposal the bare object is a sort of event modifier in a very similar fashion argued for by Carlson (2003). In this respect I take bare objects to be basically denoting properties, totally devoid of quantificational force and not contributing discourse referents into the discourse model. There is an apparent conflict in this list of requirements. We at the same time no referent to be contributed, yet we know from above that the bare object saturates the direct object slot of its verb. I solve this conflict by stipulating that bare objects contribute a semantically inert argument to the verb, which I will depict as $null'$. A type-raised bare object takes the following interpretation:

(60) $\|[_{\text{NP}}\ \text{kitap}]\| = \lambda v_{\langle p,\langle e,\langle s,t\rangle\rangle\rangle}\lambda e_s.vBook'null'e$

The derivation of the VP semantics is as follows:

(61) $\|[_{\text{VP}}\ \text{kitap oku}]\| = (\lambda v_{\langle p,\langle e,\langle s,t\rangle\rangle\rangle}\lambda e_s.vBook'null'e)\ (\lambda p_p\lambda x_e\lambda e_s.read'pxe)$
$= \lambda e_s.read'Book'null'e$

Integrating the subject via the X head and closing the event argument with inflection head yields the final result through the following steps:

(62) a. $\|[_{\text{X}'}\ [_{\text{VP}}\ \text{kitap oku}]\ [_{\text{X}}\ \emptyset]]\|$
$= (\lambda p_{\langle s,t\rangle}\lambda x_e\lambda e_s.pe \wedge agent'xe)(\lambda e_s.read'Book'null'e)$
$= \lambda x_e\lambda e_s.read'Book'null'e \wedge agent'xe$

b. $\|[_{\text{XP}}\ [_{\text{NP}}\ \text{John}]\ [_{\text{X}'}\ \text{kitap oku}\ \emptyset]]\|$
$= (\lambda x_e\lambda e_s.read'Book'null'e \wedge agent'xe)j'$
$= \lambda e_s.read'Book'null'e \wedge agent'j'e$

c. $\|[_{\text{Fin}'}\ [_{\text{XP}}\ \text{John kitap oku}\ \emptyset]\ [_{\text{Fin}}\ \text{-du}]]\|$
$= (\lambda q_{\langle s,t\rangle}.\exists e.qe \wedge past'e)(\lambda e_s.read'Book'null'e \wedge agent'j'e)$
$= \exists e.read'Book'null'e \wedge agent'j'e \wedge past'e$

The reader might wonder why I choose a little complex mechanics to model the argument decrement behavior of bare objects, wouldn't a valence-changing operation suffice. The reason is that bare objects show some degree of syntactic flexibility, therefore they live in syntax rather than morphology.

4.4 Zero indefinites

(63) a. Bugünlerde bol bol kitap okuyorum.
b. *Bugünlerde bol bol bir kitap okuyorum.

4.5 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.

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.

(64) 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:

(65) 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.

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

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

(66) 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.

(67) 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:

(68) 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:[14]

(69) 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:

(70) 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:

(71) 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.

[14] '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.

(72) 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:

(73) 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 app lies 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. ∅-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.

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 4.1
Why anti-uniqueness effect is not observed for IPV acc-NPs.

Definition 4.2
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.

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

VP interpretation:

(75) sleeps $:= \lambda x.[: sleeps'x]$

(76) Mary $:= \lambda p.[x : x = m']\langle\forall\rangle p\, m'$

(77) 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

(78) every woman $:= \lambda p.[x : woman'x]\langle\forall\rangle px$

(79) 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.

(80) $\text{UPDATE}_{DEC} := \lambda s \lambda k.k \oplus s$

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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