## Specificity and Subject-Object Positions / Scope Interactions in Turkish\*

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This article investigates scope interactions and LF positions of subject and object DPs in Turkish. It presents evidence indicating that case marked object DPs escape the scope of quantifiers in Turkish and consequently, challenging former accounts on the issue (Diesing 1992, Stowell & Beghelli 1994, 1997). In section (1&2), facts about Turkish definites and specifics are given. In (3) data relevant to the topic and the problems the data pose for Diesing (1992) and Stowell & Beghelli (1997) are presented. In section (4), generalizations on the data and alternative analyses are discussed. The conclusions reached are these: (i) the so called "weak determiner" bir is in fact a numeral quantifier and should be classified as G(roup)denoting QPs in Turkish; (ii) The universal quantifier bütün/all does not have a distributive force and needs to be distinguished from the universal quantifier every/her which has a distributive force; (iii) Stowell & Beghelli's (1997) claim that QPs move to projections of their own to take scope may be accomodated to account for the subject QP and object DP constructions but constructions where both the subject and the object are QPs contradict their claim; (iv)quantifiers take scope at their syntactic positions in Turkish; (v) any overt case morpheme, be it structural

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<sup>\*</sup> This research was originally done in 1999 at Harvard and presented at The First Manchester Conference on Turkic Languages and Harvard *Practicum* Spring 1999. This is a revised version of the 1999 original that is the first work that presents the scope interaction data on Turkish. So far this article has been referred to as a 1999 Harvard manuscript. I thank the aforementioned audiences as well as Greg Carlson and Tim Stowell for their valuable comments and remarks on the topic. I refer the reader to Kelepir (2001) that follows up with some of the issues presented here.

or inherent, has the semantic property of allowing the noun to escape the scope of higher QPs.

#### 1. Definite and Indefinite Nouns in Turkish

#### 1.1. Indefinite Nouns

Indefinites refer to any member of the universal set of entities. Indefinite nouns are not case marked and may occur with the indefinite determiner *bir* in Turkish, as given below:

- (1) Ben belki kitap oku-r-um.
  - I maybe book read-aor-1st per sg AGR
  - 'I may read / do book reading'
- (2) \*Ben kitap belki oku-r-um.
  - I book maybe read-aor-1st per sg AGR

The structure in (1) is a case of noun incorporation (NI) or bare DP in situ. The ungrammaticality of (2), indicates that indefinite object DPs cannot appear in a VP-external position. In (1), the modal adverb takes both the verb and the incorporated noun under its scope and the adverb occurs at Spec of a higher maximal projection (MODP as claimed in Tosun 1998). The same structure is grammatical with adverbs of manner as well, as may be observed in (3):

(3) a.Ben hızlı kitap okurum.

I fast book read-aor-ist sg AGR 'I read a book fast'

# b. \*Ben kitap hızlı oku-r-um

I book fast read-aor-1stper sg AGR

Since adverbs of manner mark the edge of a VP, we can argue that indefinite object nouns remain in their VP-internal position.

## 1.2. Definite Nouns

Definite object nouns are marked with the accusative case marker {-I} in Turkish:

- (4) Ben belki kitab-ı oku-r-um.
  - I maybe book-acc read-aor-1st sg AGR

'Maybe I read the book"

- (5) Ben kitab-ı belki oku-r-um.
  - I book-acc maybe read-aor-1st sg AGR

'I might read the book'

In both (4) and (5), the adverb is under Spec MODP and the definite DP is outside its VP-internal position in both structures.

Substituting an adverb of manner in the same structure yields the following:

(6) \*Ben hızlı kitab-ı okurum.

I fast book-acc read-aor-1st pr sg

(7) Ben kitab-ı hızlı okurum.

I book-acc fast read-aor-1st pr sg

'I read the book fast'

(6) vs (7) indicates that the definite object has to move out of its VP internal position, and consequently, escape the scope of the adverb of manner. (3) contrasts with (6) in grammaticality since the complement in (3) is not a definite noun with accusative case marking, but an instance of NI.

As for the subject DPs, it has been claimed that the sentence initial (topic) position hosts definite subjects in Turkish (Taylan 1984 : 37-9, 158-9) Unless marked overtly for indefiniteness with quantifiers like *any/her hangi bir*, subject DPs are definite.

## 2. Specific vs Non-Specific DPs in Turkish

Specificity *presupposes* the existence of a set of individuals; the set of individuals is discourse linked and refers to a previously mentioned set. Specificity is marked on object

DPs with the quantifier *bir* and accusative marker. All definite DPs are specific (Enc 1991). Indefinites can be specific or non-specific. Specific object DPs occur with an accusative marker and *may* occur with weak determiners such as *bir/a* or *birkac/a few*.

The object DPs in (8-9) are both indefinites; yet, the object in (8) is non-specific and the one in (9) is specific below:

- (8) Ben bir kitap okudum.
  - I a book read-past-1st pr sg

'I read a book'

- (9) Ben bir kitab-ı okudum.
  - I a book-acc read-past-1st pr sg

'I read one of the books'

Diesing (1992) argues that the VP and the IP are distinct domains for different kinds of quantification and refers to the former as the *nuclear scope*, where non-specific readings are possible, to the latter as the *restrictive scope* where specific readings are possible. She accounts for cases such as (9) above by claiming that specific DP can move to Spec AgroP in order to receive case or that the accusative marker triggers the movement of object DP outside VP.

Kennely (1994) agrees with Diesing and argues that for a non-specific reading, DPs must remain VP internal. Specific subject DPs move to Spec AgrsP and specific object DPs move to Spec AgroP. Kennelly (1997) argues for a right adjoined Presentational Focus position in Turkish "with the subject in Spec VP and the verb *in situ* such that a non-specific object in Focus takes wide scope over the subject" (1997:25). Her analysis is based on data where the object is assumed to take wide scope over quantificational subject as in (10) below:

- (10) Üç çocuk yeni bir araba almış.
  - 3 children new a car buy/take-rep

'Three children bought a new car'

There is only one car and the plural interpretation of the object is not a possible reading. I, however, will object to the claim that "a non-specific object in Focus takes scope over the subject". In (10), the object does not take scope over the subject, it is only *independent* of the scope of the subject. As will be discussed in further detail below, *a/bir* in (10) behaves as a numeral and numeral quantifiers do not interact with each other. The reason why the subject cannot distribute over the object is simply the nature of numeral quantifiers. Consequently, there is no sound basis for positing an adjoined position for the object.

Moreover, the subject in (10) may also be specific, hence required to move out of VP in Kennely's analysis. Such an analysis cannot account for the object being scope-independent over the specific subject.

# 3. DATA Exhausting all possible permutations of Specific/Non-specific Subject DPs and Definite/Indefinite/Specific/Non-Specific Object DPs

The aim of this section is to see whether specificity is a determining feature for the position and scope of subject and object DPs.

# 3.1. Group Denoting Quantifier Phrases (GQPs) as Subject

Indefinite QPs headed by *some/bazI*, *several/bir cok*, bare numeral QPs like *three kids/uc cocuk* and definite QPs like *the students/ogrenciler* belong to this class (Stowell and Beghelli 1997). Data with a constant subject in structures with various types of object DPs/QPs and their scope properties are analyzed below.

Consider a structure with a GQP subject that might be specific or non-specific depending on the discourse link as in (11-14) below:

- (11) Üç çocuk/ bazı çocuk-lar araba al-dı. (S > O available; distributive)
  - 3 kid<sup>1</sup> some kid-plu car buy-past

"Three / Some kids bought car/did car-buying"

- (12) Üç çocuk/ bazı çocuk-lar bir araba aldı. (S > O not available; collective)
  - 3 kid some kid-plu a/onecar buy-past

"Three/Some kids bought a car"

- (13)Üç çocuk/bazı çocuk-lar araba-yı aldı. ( S > O not available;collective; O independent)
  - 3 kid some kid-plu car buy-past

"Three/Some kids bought the car"

(14) Üç çocuk/ bazı çocuk-lar bir araba-yı aldı. (S > O not available; collective; O independent)

3 kid some kid-plu car buy-past

"Three/Some kids bought one of the cars"

We have the same subject in (11-14) above. The object DPs are indefinite (11,12, 14) or definite (13). The interpretations are expressed in two dimensions: one refers to the availability of subject taking *distributive* scope over the object; the other refers to the availability of *collective* reading, i.e. the individuals referred to in the subject doing the *car buying* together. When the collective reading is available, collectivity is either enforced as in (12) or is not enforced as in (13&14). When collectivity is not enforced, a reading where the object is independent of collectivity is available. (15) illustrates the possible readings:

(15) Distributive or Collective

Enforced Not enforced

(necessarily collective) (not

<sup>&</sup>lt;sup>1</sup> Plural morpheme does not appear after numerically quantified nouns in Turkish.

Enforcement of collectivity in (12-14) can be tested by the adverb *together*. Structures that do not allow the occurrence of *together* are those in which the quantifier enforces a collectivity.

- (16) a. (12)?Bazı cocuk-lar birlikte bir araba al-dı. (birlikte redundant)
  - Some child-plu together one car buy/take-past
  - 'Some children bought/took a car together'
  - b. (13) Bazı cocuk-lar birlikte araba-yı al-dı.
    - Some child-plu together the car buy/take-past
    - 'Some kids bought the car together'
  - c. (14) Bazı cocuk-lar birlikte bir araba-yı al-dı.
    - Some child-plu together one of the cars buy/take-past
    - 'Some children bought/took one of the cars together'

As may be observed in (16), the collective reading is enforced in (12) but not in (13-14). In (13-14), collective reading is available but not enforced.

Semantic representations of the readings in (11-14) are given in (11'-14') below:

- (11')  $\exists x \exists y : x \text{ is a child and } |x| > 3/n \text{ and } |n| > 1, y \text{ is a car } ; x \text{ bought/took } y.$ 
  - There are as many cars as children.
- (12')  $\exists x \exists y : x \text{ is a child and } |x| > 3/n \text{ and } |n| > 1$ , y is a car and |y| = 1; x bought/took y.

Regardless of the number of children there is one car taken by the children at the same time.

 $(13')\exists x\exists y: x \text{ is a child and } |x| > 3/n \text{ and } |n| > 1, y \text{ is a unique car}; x \text{ bought/took } y.$ 

Regardless of the number of children there is one and the same car bought/taken by the children either at the same time or at different instances.

(14')  $\exists x \exists y : x \text{ is a child and } |x| > 3/n \text{ and } |n| > 1, y \text{ is a car and } |y| = 1 \text{ and } y \in \text{definite set}$  of cars; x bought/took y.

Regardless of the number of children there is one but not necessarily the same car from a definite set of cars bought/taken by the children either at the same time or at different instances.

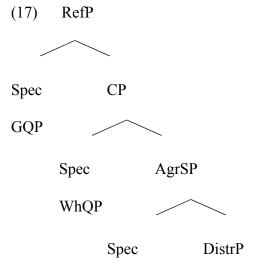
The subject has distributive scope over the object only in (11) where the object DP is a bare indefinite (or incorporated for some researchers). According to the approach presented by Diesing (1992) and Kennelly (1997), if non-specific, the subject remains in situ at its VP internal position in all cases (11-14) and so does the non-specific object DP. In that case we would expect the subject QP to take scope over the indefinite object DP in (12) and enable the distributive reading; but it does not. Secondly, being quantified, the non-specific subject DP would have to undergo Quantifier Raising according to the classical QR theory, having a scope over the object DPs at LF.

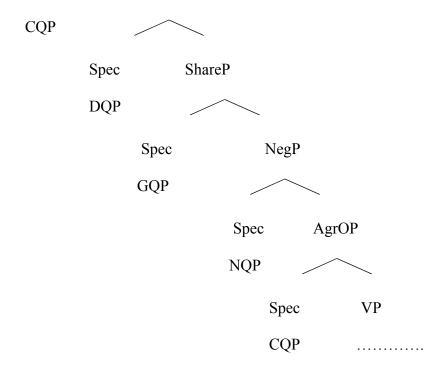
If the subject QP is D-linked and thus specific in (11-14), it is expected to take wide scope over object DPs. It is expected to scope over indefinite object in (12) by virtue of being specific and over definites in (13&14) by virtue of being a subject thus higher than

the object in any case. But data indicate that it can take distributive scope only over an incorporated noun.

(12-13) share the property of not allowing distributive scope over the object. Collective reading is available in all three structures but it is enforced only in (12) where the indefinite object has the determiner (numeral) *bir*. Apparently, when the object is case marked, hence specific, it allows a collective reading but not necessarily. Consequently Diesing's account does not hold in Turkish data.

Consider the same data within Stowell & Beghelli's framework, where each one of the five types of QPs move to the Spec of a phrase to check their features. Stowell and Beghelli (1997) posit the following hierarchical structure in (17) to account for scope properties of QPs:





In this framework, GQPs may select distinct scope positions:at SpecRefP, at Spec ShareP or at their Case positions (*in situ*). The determiner of the object DP, namely *bir*, in (12) is accepted to be a 'weak determiner' and marks indefiniteness (Enc 1991). Therefore, the object DP must be at its Case position, i.e. Spec AgroP. Among the three possible positions of the subject GQP, none of them is a good candidate since the subject GQP would be scoping over the object from any one of these positions.

Another possibility is to question the nature of the determiner *bir*, which is a synonym of the numeral *one*. If *bir* is not a weak determiner that corresponds to the English *a*, but it's the numeral quantifier *one*, then its position would be SpecShareP or Case position SpecAgr<sub>o</sub>P. Not its position as a numeral quantifier (CQP) but solely the fact that it is a numeral quantifier may account for the observation in data (12). If *bir* 

phrases are CQPs, they cannot normally be interpreted as specific; they are interpreted in their case position as numerals. Since the subject position (or the Topic position) allows definite/specific interpretation unless it is marked by the indefinite 'herhangi bir/any one of', the subject in (12) may be specific whereas the object is not. Then how come the subject cannot take scope over the object? Numeral quantifiers in subject and object QPs do not seem to interact and they are both interpreted at their face values. In Stowell&Beghelli's system (1997), a CQP in object position should never be able to take inverse scope over a GQP occurring in subject position. In (12), it is at least independent of the scope of the subject GQP.

The object DP is specific definite in (13) and specific indefinite (in 14). Specificity is marked with the accusative morpheme on the noun. In Stowell & Beghelli's system (1997), specific definites scope at SpecRefP and specific indefinites scope either at Spec RefP or SpecShareP. At SpecRefP, they are supposed to fulfill the logical subject of predication, which is not the case in data (13) where the specific definite DP is the object. There seems to be *no* available position for the specific definite object DP from which it can escape the scope of the subject. As for the specific indefinite object in (14), the only available scope position is Spec ShareP, which is under the scope of two of the possible positions of the subject GQP, i.e. Spec RefP and the Case position, i.e. Spec AgrsP, and it is the same position with the third possible position of the subject GQP.

Note that the object DP in (14) has the notorious *bir*. If *bir* is a numeral, not merely a weak determiner, then the object QP would still scope at Spec ShareP and but we could

argue that it does not interact with the numeral quantifier of the subject. We would still have difficulty in accounting for the fact that it is independent of the scope of *some/bazI*.

To conclude, Stowell's system runs into trouble with the data in (13&14), as well. Before we go on with other types of quantificational subjects, note that definite QPs like 'the students/ogrenciler' are bare plurals in Turkish with no definite article. Bare plurals take the narrowest scope possible by nature (Carlson 1977); consequently, data with bare plural subject and with objects corresponding to those in (11-14) will yield narrow scope of the subject in any case and will not help us in investigating scope relations. Therefore, I'm excluding such data from my discussion.

## 3.2. Distributive-Universal QPs (DQPs) as Subject

These are QPs headed by *every/her*, which occurs with singular nouns. Stowell&Beghelli (1997) do not classify *all/butun* as a distributive quantifier. Their arguments are based on the distinction between distributive and collective readings. They assume a covert existential quantifier over events (along with Davidson 1976, Kratzer 1988); if this existential quantifier falls under the scope of a subject GQP, a distributive reading results; if it takes broad scope a collective reading results (Stowell&Beghelli (1997:87). This distinction is illustrated in (18-9) below (Stowell&Beghelli 1997:88):

- (18) All the boys surrounded the fort.
- (19) ?Every boy surrounded the fort.

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<sup>&</sup>lt;sup>2</sup> There is no definite article in Turkish. Subject DPs are accepted to be definite by position in the literature on Turkish. Crisma (1997) argues that one would not expect languages with no article for definites to have an article for indefinites. That is, if a language does have only one article, it is expected to be a definite one.

The predicate "surround" requires a collective construal of a plural subject and this requirement is satisfied by *all* not by *every*.

I'd like to compare the behavior of *every/ her* and *all/bütün* with respect to their interaction with object QPs in Turkish.

- (20) Her çocuk araba aldı. (distributive reading)

  Every child car buy/take-past

  'Every child did car-buying'
- (21) Bütün çocuklar araba aldı. (distributive reading)

  All child-plu car buy/take-past

  'All children did car buying'

In both (20) and (21) the quantifiers range over the event of "car-buying/taking" rather than the object because the object is incorporated to the verb. Therefore, distributivity should be understood as "every child did car-buying". In (21) the universal quantifier allows for a distributive construal because the object is incorporated to the Verb and the quantifier ranges over the events of "car-buying" as well. Consequently, the truth conditions of both sentences are the same. If the set of 'car-buying ' events being quantified over consists of five instances of the event, then both (20) and (21) are true if

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This also casts doubt on the nature of *bir* as an indefinite article in Turkish since Turkish has no definite articles.

all children bought a car; both sentences are false if any one of the children failed to buy a car. This observation indicates the universal force of *every/her* and *all/bütün*.

Contrast (20-1) to (22-3) below:

(22) Her çocuk bir araba al-dı. (distributive)

Every child one car buy/take-past

'Every child bought a car'

(23) Bütün çocuk-lar bir araba al-dı (collective-enforced)

All child-plu one car buy/take-past

'All children bought a car'

The DQP has distributive scope over the object in (22) and the quantifier *all/butun* behaves like GQPs (similar to (12)) and enforces a collective reading.

The indefinite object (IDO) DPs in the data above co-occur with the (weak) determiner (Enc 1991) *bir/a* and they allow only the distributive interpretation under the scope of *every/her*, and allow a collective reading under the scope of *all*. The observation that only the collective reading is possible in (23) indicates that '*all/butun*' does not have a distributive force over the object DP.

Diesing proposes a rule of LF-lowering to account for readings where specific subjects cannot have wide scope. However, even when such a reconstruction is possible, the VP-internal subject position is higher than the VP-internal (indefinite) object position and the lowered subject DP cannot - though would be expected to- take scope over indefinite (non-case marked) DPs that occur with *bir/a*.

Consider the data where the object is case marked; in (24-5) there is no determiner/quantifier *one/bir*, in (26-7) there is *one/bir*:

(24) Her çocuk araba-yı al-dı. (S>O not available; distributive over events )

Every child car-acc buy/take-past

'Every child bought/took thecar'

(25) Bütün çocuk-lar araba-yı al-dı. (collective; not enforced)

All child-plu car-acc buy/take-past

'All children bought/took the car'

The DQP does not have scope over the case marked specific object in (24). Yet it quantifies over the event. Every child takes the same car at a different instance. The quantifier *all/bütün* behaves as a GQP (see ex.13).

(26) Her çocuk bir araba-yı aldı. (S>O not available or distributive over one/bir)

Every child one car-acc buy/take-past

'Every child bought one of the cars'

(27) Bütün çocuk-lar bir araba-yı al-dı. (collective; not enforced)

All child-plu one car-acc buy/take-past

'All children bought one of the cars'

The two different readings of (26) becomes clear when they are followed by the following sentences. Imagine (26')(i) uttered by a caretaker at the kindergarden complaining about kids taking the toys away and (ii) by a psychologist who has conducted a research on what color is more appealing to kids:

(26') i. Her çocuk bir arabayı aldı; bu yüzden yuvada araba kalmadı.

'Every child took one of the cars; therefore there are no cars left at the kindergarden'

ii. Her çocuk bir arabayı aldı; o da kırmızı olandı.

'Every child took one of the cars; it was the red one'

The DQP either quantifies over the numeral *bir* and gives the reading in (26ii) where we're talking about the same car, or it does not have scope over the object at all and gives the reading in (26i)where we're talking about a different car for each child. In both cases, it does not have scope over the definite/specific noun *–the car*. When there is *one/bir* in the object phrase, the interpretation differs only in (26). This provides evidence in favor of regarding *one/bir* a numeral quantifier. *All/bütün*, on the other hand, cannot force distributivity over the object and behaves as a GQP (see 14). The valid interpretation is that all kids bought one of the cars either collectively or not but certainly at the same time. Data with *all/bütün* supports Stowell&Beghelli's classification of quantifiers (1997). *All/bütün* behaves like GQPs and should be classified as such in Turkish, as well.

In Stowell & Beghelli's system (1997), every moves to SpecDistrP. The position for specifics is SpecRefP which is higher than the DistrP; however, note that

specifics which are logical subjects move there. In our data, it is the object that is specific, therefore it cannot move up to SpecRefP. How come, then, it escapes the distributive force of 'every/her in (24) and in one of the available readings for (26)?

A possible account one of the readings of (26), the reading where the universal/distributive quantifier ranges over *one/bir*, is based on the partitive nature of the object QP. [*Bir+N+Case*] is considered to be a form of partitive (Enc 1991). In (26) above [*bir araba-yi*] refers to any member of a set consisting of specific cars. Consequently, the specific definite noun *araba-yi* might be moving above the scope of the distributive quantifier leaving the numeral *bir in situ* and allowing *every/her* to quantifier over it. This analysis is similar to Kratzer's analysis of (1998) a structure like "Mary visited Klimanjaro because two of her friends were there", where she accounts for the specific non-distributive reading of the object. <sup>3</sup>

In data with *all/bütün*, the subject must be reconstructing to its VP internal position to allow the interpretation where the specific object is independent of the scope of *all/bütün* at its case position, i.e. Spec AgrOP. In (27), the reading in (26) is not available because *all/bütün* lacks the distributive power of *every/her*. To conclude, the distinction Stowel &Beghelli makes between *all* and *every* seems to hold in Turkish data. *All* behaves like any other GQPs with respect to taking narrow scope except for its universal property.

# 3.3.Dative and Ablative Objects

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<sup>&</sup>lt;sup>3</sup> I'm leaving the discussion and problems concerning a partial movement out of a DP to a further work.

Let's see if these independent scopal properties of case-marked objects hold for data with other case morphemes. Note that accusative marks specificity but the other case morphemes do not. Consider the following data where the object is marked with dative (28-31) and ablative cases (32-35):

- (28)Üç çocuk/Bütün/Bazı Çocuklar araba-ya bin-di / ev-e git-ti.
  (Collective)
  - 3 child/ All/ Some Children car-dat get on-past /home-dat go-past 'Three /All/Some children got on car/ went home'
- (29) Üç çocuk/Bütün/Bazı Çocuklar bir araba-ya bin-di / ev-e git-ti. (Collective)
  - 3 child/Children a car-dat get on-past / home-dat go-past 'Three /All/Some children got on a car/ went home'
  - (30) Her çocuk araba-ya bin-di / ev-e git-ti. (Distributive over events)

    Every child car-dat get on-past /home-dat go-past

    'Every child got on car/went home'
- (31) Her çocuk bir araba-ya bin-di / ev-e git-ti (Distributive over events or 'one/bir')

Every child a car-dat get on-past /home-dat go-past 'Every child got on a car/went home'

- (32) Üç çocuk/Bütün/Bazı Çocuklar araba-dan in-di / ev-den git-ti. (Collective).
  - 3 child/ All/Some Children car-abl get off-past/home-abl go-past 'Three/All/Some children got off the car/ left home'
- (33) Üç çocuk /Çocuklar bir araba-dan in-di / ev-den git-ti. (Collective).
- 3 child/ All/ Some Children a car-abl get off-past/home- abl gopast

'Three/All/Some children got off a car/ left home'

- (34) Her çocuk araba-dan in-di / ev-den git-ti. (Distributive over events)

  Every child car-abl get off-past/home-abl go-past

  'Every child got off the car/ left home'
- (35) Her çocuk bir araba-dan in-di / ev-den git-ti. (Distributive over events or over 'one/bir)

Every child a car-abl get off-past/home-dat go-past 'Every child got off a car/ left home'

The interpretation patterns are the same with the data with accusative objects. Be it structural or inherent case, case morphemes of any kind seem to allow object DPs to be "Scope Independent". Note that the object position, i.e. preverbal position is the default focus position in Turkish (see Goksel 1998). To make sure that focus is not the

determining factor in this scope independency, we should see whether this property holds for both objects in double object constructions.

# **3.4.Double Object Constructions**

Consider the double-object constructions and corresponding interpretational judgements below:

- (36) Üç çocuk/Bütün/Bazı Çocuklar tilki-yi kafes-e koy-du. (Collective)
  - Three/all/some child-plu fox-acc cage-Dat put-past

'Three / All/ Some children put the fox in the cage'

- (37) Üç çocuk bir tilki-yi bir kafes-e koy-du. (Collective)
  - 3 child a fox-acc a cage-Dat put-rep

'Three / All/ Some children put a fox in a cage'

(38)Her çocuk tilki-yi kafes-e koy-du. (Distributive)

Every child fox-acc cage-Dat put-past

'Every child put the fox in the cage'

(39)Her çocuk bir tilki-yi bir kafes-e koy-du. (Distributive over events or over 'one/bir')

Every child a fox-acc a cage-Dat put-past

'Every child put a fox in a cage'

As may be observed in (36-9), although only the preverbal argument is focussed, the scope interpretations are not different from the data with transitive verbs.

## 4. Generalizations and Analysis

Following is a chart illustrating the scope relations of subjects and objects in Turkish:

| O B J E C T DPs |         |         |        |         |        |         |        |         |
|-----------------|---------|---------|--------|---------|--------|---------|--------|---------|
| SUBJE           |         |         |        | bir +   |        | bir     |        | bir     |
| CT              | NI      | bir + N | N+Acc  | N+Acc   | N+Dat  | N+Dat   | N+Abl  | N+Abl   |
|                 |         |         |        | obj>sb  |        | obj>sb  |        | obj>sb  |
| DQP             | sbj>obj | sbj>obj | obj>sb | j       | obj>sb | j       | obj>sb | j       |
|                 |         |         | j      | sbj>obj | j      | sbj>obj | j      | sbj>obj |
|                 |         |         |        |         |        |         |        |         |
| GQP             | sbj>obj | obj>sb  | obj>sb | obj>sb  | obj>sb | obj>sb  | obj>sb | obj>sb  |
|                 |         | j       | j      | j       | j      | j       | j      | j       |

NI: Noun Incorporation

DQP: Distributive Quantifier Phrases

GQP: Group Denoting Quantifier Phrases

Obj>Sbj: Object is independent of the scope of the subject

Sbj>Obj: Subject takes scope over object; when the subject is a DQP and the object is a case marked noun with *bir* this refers to DQP ranging over *bir*.

#### 4.1. Generalizations:

1. N+Case > NS, SBP. DQP, GQP

All case marked Nouns are scope independent.

2. "bir" N+Case> NS, SBP, GQP, (DQP)

The nature of "bir" as a *weak determiner* is dubious since bir + N can be independent of the scope of Specific and GQP Subjects; with DQP Subjects, there is a reading available where "bir" escapes the scope of the DQP.

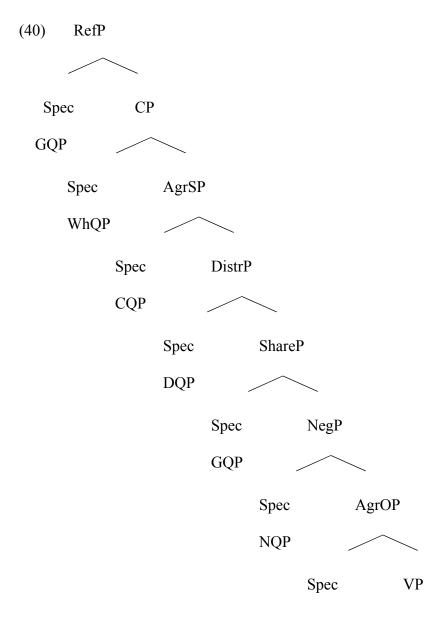
## 4.2. Analysis

The generalization in (1) above cannot be accounted by the classical QR approach (May 1977) because in this approach quantifiers have to raise to bind their variables and therefore are expected to take wide scope over objects with no quantifiers. This generalization cannot be accounted for by Diesing's (1992), either. Under Diesing's analysis, specific subjects are expected to take scope over specific and indefinite-non-specific objects whereas data above presents cases where specific and/or quantified subjects can take scope neither on specific objects nor on non-specific case marked objects. Let's consider Stowell and Beghelli's (1997) predictions and relevant Turkish data.

## 4.2.1. Stowell & Beghelli (1997)

Stowell &Beghelli (1994, 1997) and Kiss (1996) claim that all specific DPs moves to RefP under the Specificity Condition cannot account for the generalization (1) above. Only nouns with accusative case are specific yet all case marked object nouns are independent of any scope whatsoever.

The relative scope positions of the five type of QPs structure posited by Stowell & Beghelli (1997) in the functional structure of the clause are repeated in (40) below:



CQP ......

The predictions relevant to the Turkish data, implied by the hierarchy of positions in (40) are (Stowell & Beghelli 1997):

- (41) a. A GQP should be scopally ambigious with respect to a DQP in the same clause: GQP moves either to Spec of RefP or to the Spec of ShareP.
- b. A CQP in object position should never be able to take inverse scope over a GQP or DQP occurring in subject position.
- c. A GQP receives a counting interpretation when it remains in its Case position.

Prediction (41a) – that clausemate GQP/DQP pairs are scopally ambigious- is not attested in Turkish. Consider (42-3) below:

(42)Her öğrenci iki kitap oku-du. (every > two)

Every student two book read-past

'Every student read two books'

(43)Her öğrenci iki kitab-ı oku-du. (two books> every; every > two)

Every student two book-acc read-past

'Every student read two books'

The corresponding English sentence is the same for both (42) and (43) because the English structure is ambiguous. In Turkish, however, the occurrence of the case morpheme disambiguates the structure. In (42), the object is indefinite-non-specific and DQP has scope over the object. The DQP takes scope at its syntactic position. In (43), the object is case marked, hence specific and has scope over DQP in one reading where it is the *same* two books that every child read; or the DQP ranges over the numeral quantifier where different sets of two books are read. This ambiguity is exactly like the one we have observed in (26) above.

Prediction (41b) – that a CQP never takes inverse scope over a GQP or DQP in subject position- is not attested in Turkish, either. CQPs are decreasing QPs with determiners like fewer than five, at most six, etc. Consider a CQP in object position with a DQP in subject position:

(44) Her çocuk en çok beş kitap oku-du. (every > at most five)Every child at most five book read-past'Every child read at most five books'

(45) Her çocuk en çok beş kitab-ı oku-du (at most five > every; every > at most five)

Every child at most five book-acc read-past 'Every child read at most five books' As was the case with prediction (41a), prediction (41b) fails in Turkish due to the case marking on the object which allows it to scope over a DQP in one of the two available readings.

Prediction (41c) – that a GQP receives a counting interpretation when it remains in its Case position) – is problematic in Turkish. Consider (46) below where both the subject and the object are bare-numeral non-specific GQPs:

(46) Beş çocuk bir araba al-dı.

Five child one car buy/take-past

'Five children bought/took a car'

Both GQPs must be *in situ*, i.e. at their Case positions. Since the Case position of subject, Spec AgrS-P is higher than that of the object, Spec AgrO-P, we would expect subject to scope over the object but it does not. Apparently bare-numeral GQPs do not interact scopewise<sup>4</sup>.

In conclusion, these three predictions are not attested in Turkish due to the case inflection on the object, which allows an object to be independent of the scope of the subject QP. In cases where the object does not bear case morphology, the subject QP takes wide scope at its syntactic position. In cases where the object has both the numeral *bir* and a case marked noun, ambiguity arises with subject DQPs: either the numeral stays

Bu hastane-de üç hemşire on beş hastay-a bak-ıyor

This hospital-loc 3 nurse 15 patient-dat look after-Prog

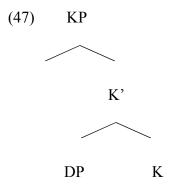
'At this hospital, three nurses take care of one patient'

<sup>&</sup>lt;sup>4</sup> It's been pointed out to me (Tim Stowell, pc) that proportional reading is available in these structures in Chinese. I think such a reading is available in generic sentences like the one below but not in non-generic sentences in Turkish.

in situ and the case marked object moves to SpecRefP, or the object QP moves to SpecRefP. In the latter case, the motivation for such a movement is peculiar under Stowell & Beghelli's account.

# 4.2.2. K-Phrase Analysis (Hale & Bittner 1996)

Since Case morpheme is a typical indicator of scope independency (not necessarily specificity) in Turkish, the Case Phrase analysis of Hale &Bittner (1996) may provide an account for the peculiar scope properties of case marked objects in Turkish. In this approach, KP is a nominal counterpart of the verbal functional phrase. The structure of KP is given in (47) below:



Nominal in the unmarked (nominative) case is K-less- a bare DP or DP whereas marked structural case is overtly/morphologically marked and the K head is filled. Nominative

For every group of 15 patients there are 3 nurses who take care of them. The issue requires further investigation.

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case is licensed by a functional head, whereas marked case is licensed by lexical heads. If there is no lexical governor available in non-finite embedded structures, then the default oblique case is assigned. Inherent case selects a KP and we might argue that it is this filled K which is attracted by Spec CP to the highest position in the structure allowing N+Case to have wide scope over subjects with a null nominative case.

We have formerly noted that the universal quantifier has wide scope at its syntactic position. Consider a DQP subject in an embedded clause which is nonfinite in Turkish. Having no lexical governor to assign case, we might consider genitive to be the default case. This analysis predicts that such a specific subject will not have scope over a case marked object, which is the case:

(48) Hasan [her çocuğ-un araba-yı al-dığ-ı]-nı söyle-di.
every kid-gen car-acc take-nom-pos-acc tell-Past
'Hasan told that every kid took the car'

Assuming a K-Phrase could account for the observation that object DPs marked overtly with case either escape or have wider scope than subjects. Overtly case marked objects are attracted to C –or a higher projection than C, i.e. RefP- whereas nominative case which is null in Turkish, cannot be attracted to a higher projection. This analysis also accounts for the case marked objects occurring with *bir* which may also escape the scope of a DQP (in one of the available readings given in section 3.2 data (30)). Even when *bir* occurs, the head of the phrase is Case and therefore attracted to a higher head giving the desired interpretation. For the other available reading where DQP ranges over

bir but not the object, this analysis runs into a problem. Only if we assume KP to be a complement of the DP can we account for the second reading; whereas the first reading is accounted for by a K-Phrase having a DP as its complement.

## 4.3. Do we really need functional categories for QPs?

We have already seen that Turkish data contradicts certain predictions of the QP hierarchy posited by Stowell & Beghelli (1997). Data in the previous sections consisted of structures with subjectQPs and object DPs. In this section, data where both the subject and object are QPs will be presented and their scope interactions will be discussed.

Consider structures where both the subject and the object are QPs:

- (49) Bazı çocuk-lar her kitab-ı oku-du. (S >O; collective reading is not available)

  Some child-plu every book-acc read-past

  'Some children read every book'
- (50) Her çocuk bazı kitap-lar-ı oku-du. (S>O; distributive reading is available)
  Every child some book-plu-acc read-past
  'Every child read some books'

In (49), the object DQP does not take scope over the subject GQP; that is, the meaning of (49) is *not* "for every book there are some children who read them". The meaning is "there are some children who read all the books". In (50), the meaning is "for every book there are some children who read it"; the children varies with every book.

Apparently, both quantifiers take scope at their surface positions. If the DQP in (49) moved to Spec DistrP, as would be expected within Stowell & Beghelli's system, we expect to get the reading which is not available. What should be noted here is that we don't get the "collective" reading in (49) which we would get if the object were not a QP (see section 3.1, ex 13). What prevents the GQP in subject position to take scope over the object is the case marking on the object. Case allows it to be "independent" of any higher scopal element, which is the DQP in (49). The in situ DQP is interpreted as a universal quantifier not a distributive one. In (50), the DQP is in a higher surface position, which allows it to vary over the set of sets of some books. If Case allows the object DQP to be independent of any higher scopal element, why can it not in (50)? The answer need not be maximal projections Stowell & Beghelli proposes. We could simply argue that Distributivity is forced whenever DQP is in a structurally higher position. Remember that Distributivity has no power in examples like (24) in section 3.2, where the object is not a QP but still case marked. The relevant example is repeated here as (13) and contrasted with an example where both the object and the subject are QPs:

- (51) Her çocuk araba-yı al-dı. (S>O not available; distributive over events )

  Every child car-acc buy/take-past

  'Every child bought/took the car'
- (52) Her cocuk bazı araba-ları al-dı. (S>O available as ∀>∃)Every child some car-plu-acc buy/take-past'Every child bought/took some of the cars'

If DQPs simply enforced distributivity, why can it do so in (51) and not in (52)? The answer is that the GQP in (52) is a partitive structure and the reading available is identical to that we have observed in ex (26) in section 3.1., repeated here as (53) for convenience:

(53) Her çocuk bir araba-yı aldı. (S>O not available;distributive over events or over one/bir)

Every child one car-acc buy/take-past

'Every child bought one of the cars'

The reading where the DQP has scope over *one/bir* is an instance of  $\forall > \exists$ , as is the case in (52). The specific set of cars is independent of scope but the numeral quantifier in (53) and the existential quantifier in (51) – which are both classified under the name GQP- are not independent of the scope of the distributive QP.

The observations on data (49-53) in this section indicate that QPs in Turkish take scope at their syntactic position. Only the case marked specific nouns are independent of the scope of any higher quantifier. We don't need a DistrP, ShareP to account for this property of quantifiers in Turkish. As for RefP, two lines of arguments may follow: 1) Movement: We either claim the existence of a RefP and allow case marked nouns to move to Spec RefP to account for the independence of specific nouns, or we claim that a maximal projection is not necessary and argue that specific NPs QR and adjoin to a position higher than that of the subject QP. Apparently, the latter is much simpler since we do not need to motivate another maximal projection. In both claims, we would have to account for the partial movement out of a QP.

2)Independency: We can argue that Case is an overt morphological indication of independency from quantifier scope; consequently, all overtly case marked nouns are independent of quantifier scope. <sup>5</sup> The latter is preferred since it can also account for Island violations of specific DPs (e.g. [Which N] constructions in Pesetsky 1999) without assuming that they violate island conditions. Independency of specific DPs may thus be relevant for other scopal elements, which is another issue that requires further research.

#### 5. Conclusion

Although part of scope interactions between subject and object DPs in Turkish seem be accounted by Stowell & Beghelli's framework, the overall observations on the behaviour of quantifiers and case marked objects contradict their predictions.

Scope interactions of subject QPs and object DPs in Turkish may be accounted for by Stowell & Beghelli's proposal in which quantifier phrases are attracted by projections of their own. DQPs move to Spec DistrP; GDPs RefP if specific or to Spec ShareP; they remain at their case positions if they are bare numerals. Problems raised by the data (Section 4.2.1. /4a-c) can be solved by arguing that all specific DPs move to SpecRefP. When the object is a specific indefinite, as is the case with [bir N+Case]

The subject of the embedded clause is marked by the genitive case checked by the functional head AgrS and the case marked object is independent of the scope of the subject DQP. Incorporating Hale&Bittner's distinction between case assigned by a functional head versus case assigned under government by a lexical

<sup>&</sup>lt;sup>5</sup> In line with Hale & Bittner's distinction between Nominative Case (and Genitive subjects in embedded clauses in Turkish) and other Cases, we can account for the attested prediction we have made for embedded nominal clauses (in section 4.2.2. example (10) repeated here as (16)):

<sup>(16)</sup> Hasan [her çocuğ-un araba-yı al-dığ-ı]-nı söyle-di. every kid-gen car-acc take-nom-pos-acc tell-Past 'Hasan told that every kid took the car'

objects, only the case marked Noun moves to Spec RefP leaving *bir* in situ, or the QP moves to SpecRefP allowing the object to escape the scope of DQP at subject position.

Structures in which the object is a QP as well as the subject (section 4.2.) is problematic for Stowell & Beghelli's system. These data indicate quantifiers take scope at their syntactic positions in Turkish<sup>1</sup>. The observations that object DPs marked for case overtly in Turkish are independent with respect to scope of higher quantifiers (section 3) can be accounted for by assuming Case to be an indicator of independency with respect to quantifier scope. Independency of case marked DPs may be a useful theoretical tool in accounting for variety of structures where this phenomenon is observed, such as island violations of specific DPs (e.g. [Which N] constructions in Pesetsky 1999).

The one/bir behaves as a numeral quantifier in Turkish and needs to be classified among GQPs .

The semantic function of overt case morphemes and scope interactions of QP subjects and QP objects in Turkish requires further investigation. Instance of Scrambling which I leave for a future research may shed light onto the nature of scope interactions.

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