CHAPTER 13

DP versus NP: A Cross-Linguistic Typology?

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1 Introduction

In a series of studies, Bošković (e.g. 2008, 2012, 2013) proposes a linguistic typology based on a posited dichotomy between languages whose "traditional" NPs are actually DPs and languages where the relevant projection does not go beyond the level of NP. (This would challenge, among others, the proposal in Abney (1987), according to which all languages have DPs.) One immediate clue for the relevant type of a language in this respect would be whether it has articles or not. More interestingly, Bošković proposes additional properties which a language would or would not exhibit, depending on whether it is an "NP-" or a "DP-" language (e.g. NP-languages disallow clause-mate NPI licensing under Neg-Raising (NR), and DP-languages allow it; only DP-languages allow the majority superlative reading; inverse scope is unavailable in NP-languages). In a related study, Bošković & Şener (2014) claim that Turkish is an NP-language, and that it therefore exhibits the properties which Bošković's system would ascribe to it. They further posit a structure of the NP from which the relevant properties of Turkish would follow.

In this paper, I shall challenge both some of the details proposed for the Turkish NP and the posited correlation between the NP/DP "typology" and the properties which are claimed to be found in "DP-" versus "NP-" languages, and illustrate my criticism via examples mainly from Turkish, but also from German and English.

2 NP/DP Generalizations

In this section, I discuss some of the generalizations proposed in work by Bošković (2012, 2013) and by Bošković & Şener (2014) with respect to properties of "NP-" versus "DP-languages". I start with an observation concerning NPI licensing:

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2.1 *Article-less (=NP-) Languages Disallow Clause-Mate NPI Licensing under NR; Article (=DP-) Languages Allow It*

Bošković & Şener (2014:103), based on prior work by Bošković, claim that languages that don't have articles (which they view as "NP-languages") disallow clause-mate NPI licensing under *Neg*-Raising (NR), while "DP-languages" (i.e. languages with articles) allow such licensing. Let us start by looking at some of their examples in English:

(1) John hasn't/*has visited her in at least two years.

(2) *John doesn't claim [that Mary has visited her [$_{NPI}$ in at least two years]]

(3) John doesn't believe [that Mary has visited her [$_{NPI}$ in at least two years]]
cf. BOŠKOVIĆ & ŞENER (2014:103), examples (1)–(3)

(1) is fine with the negated auxiliary, while it is ill-formed when the auxiliary is not negated. The explanation proposed is as follows: The temporal expression "in at least two years" is a negative polarity item (NPI). The NPI requires a clause-mate *Neg*.

This explanation is also proposed for the other two examples: (2) is ill-formed, given that the *Neg* element is not a clause-mate of the NPI. In (3), *Neg* is a clause-mate of the embedded NPI, before *Neg* undergoes NR. In (2), NR would not have been possible, because the matrix verb *claim* is not an NR-verb, while *believe* in (3) is an NR-verb.

Turkish: Bošković & Şener (2014) claim that Turkish clause-mate NPIs cannot be licensed long-distance, even under typical raising verbs like *san-* 'think/believe'. They further claim that Turkish thus patterns with NP languages in this respect:

(4) a. *Pelin Mete-yi* en az iki yıl-dır *ziyaret*
Pelin (NOM) Mete-ACC *at least two year-for* visit
*et-me-di/*et-ti.*
do-NEG-PAST/do-PAST
'Pelin hasn't/*has visited Mete in at least two years.'

(5) a. *Mete* [*Pelin-∅/-i* (*en az iki yıl-dır) *Timbuktu-ya git-ti*]
Mete Pelin-NOM/ACC *at least two year-for* Timbuktu-DAT go-PAST
san-mı-yor.
think-NEG-PRES.PROG
'Mete doesn't think Pelin went to Timbuktu in at least two years.'
cf. BOŠKOVIĆ & ŞENER (2014:104) examples (4), (5)

(4a) establishes the familiar licensing condition for Turkish NPIs by a *Neg* element.

(5a) establishes (according to B&Ş) that 1. the clause-mate condition on NPI-licensing by *Neg* is valid for Turkish, as well, and that 2. NPIs cannot be licensed long-distance, even when the matrix verb is a typical raising verb and should thus allow NR (in those languages that have NR, according to B&Ş).

However, the situation is more complex. The sequence set in roman does not need to be licensed by *Neg*, if the past tense of the predicate is changed, for example into the present progressive:

(4) b. *Pelin Mete-yi* en az iki yıl-dır *ziyaret ed-iyor*
Pelin Mete-ACC *at least two year-for* visit do-PRES.PROG.
'Pelin has been visiting Mete for at least two years.'

Note that here, the English translation is fine, too, but only when the preposition *in* is replaced by *for*;[1] without that replacement, the sentence is bad, irrespective of the tense/aspect of the predicate:

(4) c. *Pelin has been visiting/visited Mete in at least two years.

Thus, while the sequence "in at least two years" does appear to be a genuine NPI in English, the sequence "en az iki yıldır" in Turkish may not be a genuine NPI (in the sense of being able to be licensed *exclusively* by a *Neg* element), thus corresponding to "for at least two years," rather than to "in at least two years". The ungrammaticality of (4a) and (5a) may be due to reasons of incompatibility of the temporal expression with the aspect of the clause.

As a matter of fact, the English translation of (4a) with *for* instead of *in* appears to exhibit some sensitivity with respect to aspect, as well: In the presence of the *Neg* element (i.e. in the version with *hasn't*), the "NPI" with *for* is synonymous with the NPI with *in*; however, in the version of (4a) without the *Neg*, i.e. in the version with *has*, the English translation with *for*, i.e. "Pelin has visited Mete for at least two years," loses its meaning of "dropping by within a period of time of at least two years," and can mean only "*stay* for a duration

1 As Bill McClure points out, in (4a), both *in* and *for* are fine. The difference between (4b) and (4a) is that in (4b), there is no *Neg* element which would license the NPI "*in* at least two years", while such a *Neg* licenser is present in (4a). As suggested in the text, "*for* at least two years" is not a genuine NPI and thus does not require a *Neg* licenser; where *Neg* is missing, as in (4b), it can also be licensed by a compatible aspectual feature—here, by the progressive, as explained in the text.

of at least two years."[2] Since this alternative meaning of 'visit X for a duration of time' is not available to the Turkish verb *ziyaret et-* (which has only the 'drop by' meaning), the Turkish examples are ill-formed in the perfective clauses in (4).

The availability of NPIs may vary from language to language; the German sequences *in mindestens zwei Jahren* 'in at least two years' and *seit mindestens zwei Jahren* 'since two years' should be investigated in this regard and probably would turn out to be somewhat different from their English counterparts. I leave this to future research and turn to other German expressions which are relevant to the issue of nominal phrases.

In this context, let's look at the idiom-like *einen Finger rühren* 'to move a finger' = 'to lift a finger'. It exhibits NPI-like behavior and has properties with respect to local versus non-local licensing by *Neg* as sensitive to the matrix predicate (of the sort illustrated above in (1)–(3) with respect to English):

(5) b. *Niemand hat für Marie ein-en Finger gerührt.*
nobody has for Mary a-ACC finger moved
'Nobody has lifted (even) a finger for Mary.'

Without a local *Neg* element, the idiomatic reading is lost:

(6) *Jemand hat für Marie ein-en Finger gerührt.*
someone has for Mary a-ACC finger moved
'Someone has lifted a finger for Mary.'

Only the literary reading is possible in this example.

(7) **Hans behauptet nicht, dass Marie für ihn ein-en Finger rühren würde.*
Hans claims not that Mary for him a-ACC finger move would
'Hans doesn't claim that Mary would lift a finger for him.'

Here, the *Neg* element is not local with respect to the idiomatic sequence, and the result is ill-formed.

2 I am indebted to Tom McKay for this native judgment and for pointing this different meaning out to me. Bill McClure reports that for him, the English translation of (4a) in its version without *Neg* can have both readings; thus, it appears that for speakers like him, "in at least two years" is not an NPI.

(8) *Hans glaubt nicht, dass Marie für ihn ein-en Finger rühren würde.*
Hans believes not that Mary for him a-ACC finger move would
'Hans doesn't believe that Mary would lift a finger for him.'

In this well-formed example, although the *Neg* element is not local to the idiomatic sequence, the idiomatic reading is preserved. Just as in the relevant English triplet (1) through (3), the reason for this can be ascribed to a special property of the matrix verb *glauben* 'believe', which would allow for NR and thus make an analysis possible which allows construal of the *Neg* element within the embedded clause. In contrast, the matrix verb *behaupten* 'claim' does not have the relevant property, and thus the matrix *Neg* element cannot be construed in this way.

We can draw here the conclusion that German lines up perfectly with English, as expected by Bošković's and Bošković & Şener's approach, once examples are observed which are not (clear-cut) NPI expressions.

Some clear-cut NPIs in German such as *je* 'ever' and *mehr* '(any) longer' also behave in ways similar to English NPIs and the idiomatic sequence *einen Finger rühren*:

(9) *niemand hat sie je/mehr besucht.*
nobody has her ever/any longer visited
'Nobody has ever visited her'/'Nobody has visited her any longer'

(10) *Hans behauptet nicht, dass ihn Marie *je/*mehr besuchen würde.*
Hans claims not that him Marie ever/any longer visit would
'??/*Hans doesn't claim that Marie would ever/any longer visit him.'[3]

3 Bill McClure reports that (2), as well as the English translations of (7) and (10)—i.e. examples with the matrix verb *claim*, and all three in the present tense—are not ill-formed for him, and that all three improve further so as to sound completely fine for him in the past tense. This strongly suggests that for some speakers, the verb *claim* allows NR, just like the verb *believe*. I don't have an explanation, at this point in time, why the past tense should lead to an improvement and leave this issue to future research.

(11) *Hans glaubt nicht, dass ihn Marie je/?mehr besuchen würde.*
Hans believes not that him Marie ever/any longer visit would
'Hans doesn't believe that Marie would ever/any longer visit him.'

(9) shows the need of *je* and *mehr* to be licensed by a *Neg* element. (10) shows that this need has to be satisfied locally, i.e. by a clause-mate *Neg* element. (11) shows that locality can be extended to the matrix domain, when the matrix verb has the property of allowing NR, i.e. of allowing construal of the matrix *Neg* with the embedded NPI. The English translations show that the corresponding examples in English are very similar.

The generalization that seems to emerge is that, while German and English are remarkably similar, up to the verbs which do or do not allow NR, one has to acknowledge the fact that different NPIs behave differently with respect to licensing, especially with respect to "long-distance" licensing, even within one and the same language. Note also that both of these languages are clearly DP-languages, and they both have articles, i.e. what Bošković would acknowledge as a genuine D.

Let us now turn to Turkish, i.e. a language characterized by Bošković and by Bošković and Şener as an NP-language. (We shall address the issue of articles later.)

We saw that the long-distance licensing of the NPI-like sequence *en az iki yıldır* 'at least in two years' is somewhat different from its counterpart in English, in not being able to be licensed by a non-local *Neg* element, even in the presence of a raising verb such as *believe*.

However, with respect to an idiom-like sequence such as *küçük parmağını* (*bile*) *oynat* 'lift (even) one's small finger', Turkish lines up with the corresponding German examples:

(12) *Mete, Osman için küçük parmağ-ın-ı bile oynat-ma-dı.*
Mete Osman for little finger-3.sg-ACC even move-NEG-PAST
'Mete didn't lift even his little finger for Osman.'

(13) **Mete, Osman için küçük parmağ -ın -ı bile oynat-tı.*
Mete Osman for little finger -3.sg -ACC even move-PAST
'Mete lifted even his little finger for Osman.'

Without a licensing *Neg* element, the expression loses its idiomatic reading. (The asterisk on (13) is to be understood as representing ill-formedness under

the idiomatic reading; under the literal reading of moving one's finger, the example is fine.)

Similar local licensing is found in embedded clauses, too:

(14) *Osman* [*Mete-nin kendisi için küçük parmağ-ın-ı bile*
Osman Mete-GEN him for little finger-3.sg-ACC even
oynat-ma-yacağ-ın-]-*ı bil-iyor.*
move-NEG-FUT.NOM-3.sg-ACC know-PRES.PROG
'Osman knows that Mete won't even lift his little finger for him.'

(15) *Osman* [*Mete-nin kendisi için küçük parmağ-ın-ı bile*
Osman Mete-GEN him for little finger-3.sg-ACC even
oynat-ma-yacağ-ın]-*ı düşün-üyor.*
move-NEG-FUT.NOM-3.sg-ACC think-PRES.PROG
'Osman thinks that Mete won't even lift his little finger for him.'

(16) *Osman* [*Mete-nin kendisi için küçük parmağ-ın-ı bile*
Osman Mete-GEN him for little finger-3.sg-ACC even
oynat-ma-yacağ-ın]-*ı iddia et-ti.*
move-NEG-FUT.NOM-3.sg-ACC claim do-PAST
'Osman claimed that Mete won't even lift his little finger for him.'

However, when *Neg* is not positioned within the embedded clause, but on the matrix predicate, the nature of that predicate (and of the embedded clause) matters; some of the examples are bad, but some are quite fine:

(17) **Osman,* [*Mete-nin kendisi için küçük parmağ-ın-ı bile*
Osman Mete-GEN him for little finger-3.sg-ACC even
oynat-acağ-ın]-*ı bil-mi-yor.*
move-FUT.NOM-3.sg-ACC know-NEG-PRES.PROG
*'Osman doesn't know that Mete will even lift his little finger for him.'

Under the idiomatic reading (of the NPI), the Turkish example is ill-formed, as is its English counterpart. (Under the literal reading, the example is fine.)

(18) *Osman,* [*Mete-nin kendisi için küçük parmağ-ın-ı bile*
Osman Mete-GEN him for little finger-3.sg-ACC even
oynat-acağ-ın]-*ı düşün-mü-yor.*
move-FUT.NOM-3.sg-ACC think-NEG-PRES.PROG
'Osman doesn't think that Mete will lift even his little finger for him.'

My informants, as well as myself, find (18) quite acceptable under the idiomatic reading, but not (19).

(19) **Osman,* [*Mete-nin kendisi için küçük parmağ-ın-ı bile*
Osman Mete-GEN him for little finger-3.sg-ACC even
oynat-acağ-ın]*-ı iddia et-me-di.*
move-FUT.NOM-3.sg-ACC claim do-NEG-PAST
'Osman didn't claim that Mete would lift even his little finger for him.'

It looks like the matrix verb *düşün-* 'think' is a *Neg*-raising verb, making it possible for the idiomatic NPI item in the embedded clause to get locally licensed by the *Neg* on the matrix predicate. Other matrix predicates such as *claim* and *know* do not allow this. Thus, we have a similar alignment overall to German as well as English. It should further be noted that *düşün-* 'think' is not an exception in Turkish with respect to allowing "*Neg*-raising," where local licensing of NPI items in embedded clauses is concerned. For example, *iste-* 'want' exhibits similar behavior, as do some other matrix verbs, which take "subjunctive"-type nominalized clauses rather than "indicative"-type of clauses.

2.2 *"Only Article Languages Allow the Majority Superlative Reading"*

Bošković & Şener (2014:107) discuss the ambiguity of examples such as (20) in English:

(20) At the party, most people drank beer.

The ambiguity consists of the following two readings:

(20) A: Majority reading: 'More than half the people drank beer'
(20) B: ?Plurality reading: 'More people drank beer than any other beverage (though it could be less than half the people)'

The authors further report that in Slovenian only the plurality reading is available:

(21) *Največ ljudi pije pivo.*
most people drink beer
'Most people drink beer.' (Bošković & Şener (2014:108), example (15))[4]

4 Bošković & Şener (2014) refer to Živanović (2008) as the source of these data. No page or example numbers are given.

The authors specify the two *potentially* possible readings as follows:

A: 'More people drink beer than drink any other beverage.'

This is the Plurality reading (PR), i.e. beer was the more popular drink. In contrast, the Majority reading (MR) is not available for this Slovenian example:

B: '*More than half the people drink beer.'

Note further that Slovenian is an article-less language and would thus be characterized as an NP-language in Bošković's typology of nominal phrases.

Bošković & Şener further claim that the German equivalent is ambiguous:

(22) *Die meisten Leute tranken Bier.*
the most people drank beer
Adapted from BOŠKOVIĆ & ŞENER (2014:108), example (16), where the tense is the present tense.

Whether ambiguous or not, it is clear that both the English and the German examples do have the majority reading. Bošković's and Bošković & Şener's claim is that NP-languages do not have the majority superlative reading for elements corresponding to *most*, and thus allow only the plurality reading for them. Slovenian would be characterized as an NP-language, based on the fact that it lacks articles, and the further fact that the relevant examples lack the majority reading would be expected.

Bošković & Şener further claim that Turkish patterns with Slovenian:

(23) *İnsan-lar en çok bira iç-ti.*
person-PL(NOM) *most very* beer drink-PAST
'People drank beer the most.'
Adapted from BOŠKOVIĆ & ŞENER (2014: 108), example (17)[5]

As explained by Bošković & Şener, also in reference to Gajewski (2011), a PR can have a MR as an instance of *inference in context*, but not as a genuine, direct reading: (23) "may be interpreted indirectly as counting other objects

5 Here, Bošković & Şener (2014) refer to Gajewski (2011) as the source of data and discussion. No page or example numbers are given.

with certain background assumptions; i.e. one might get a MR as an inference. However, Gajewski shows that the Majority Reading is unavailable in [23] under the scenario in [24], although it enforces it …" (Bošković & Şener 2014: 108). In other words, the authors deny that (23) has a genuine Majority Reading. To strengthen this denial, they offer the following scenario, under which the Majority Reading should be reinforced; they further state that (23) (i.e. their 17) cannot be truthfully uttered in the context given by that scenario:

(24) Bošković & Şener's (18)
Suppose people at a dinner were allowed more than one beverage. 60% of the people had a beer. 75% of the people had a glass of wine. (2014:108)

I agree with Bošković & Şener's judgment of (23) in the context of (24); in other words, I agree that the Majority Reading is not available here. However, I disagree with the claim that this has anything to do with the status of the Turkish nominal phrase as an NP rather than DP.

First of all, let me point out that there are instances where superlative expressions in "DP-languages", too, have only the plurality reading; e.g. German:

(25) *Auf Partys trinken die Leute* meist *Bier.*
at parties drink the people most(ly) beer
'At parties, people drink mostly beer.'

As mentioned above, Bošković & Şener point out, in reference to Gajewski, that the PR can have the MR as an inference, and this is possible in (25)—but only as an indirect interpretation and not directly in its semantics, i.e. just like in "NP-languages."

If Bošković & Şener (2014) and Živanović (2008) had looked at examples such as (25) rather than (22) for German, they probably would have made the opposite observation and generalization about article languages, and German would have looked just like Turkish with respect to example (23).

In advocacy of Bošković & Şener and Živanović, one could say that (25) is irrelevant, since the superlative element is not within the "Traditional NP," as they call the relevant nominal phrase. The claim about the majority superlative reading being possible only in DP-languages may be limited only to those elements *within* the "Traditional Noun Phrase."

However, if so, then the Turkish example in (23) should be irrelevant, too, and for the same reason. In order to see whether a language's status as a DP- or NP-language correlates with the availability of the majority superlative

reading for a superlative element within a "Traditional Noun Phrase", we have to examine examples of the relevant structure; e.g. for Turkish:

(26) İnsan-lar-ın çoğ-u *bira iç-ti.*
person-PL-GEN most-3.prs. beer drink-PAST
'Most of the people drank beer.'

For all practical purposes, (26) is a close translation of the German (22), and unambiguously has the Majority Reading. Therefore, at least in this respect, the interpretation of the "majority superlative reading" is not specific to DP-languages (or "article-languages"), contrary to Bošković's and Bošković & Şener's claims—unless Turkish is a DP-language. In other words, perhaps what is faulty on the authors' part is only the categorization of Turkish as an NP- (i.e. article-less) language, while their approach could still be correct in general. We shall return to this issue.

2.3 *"Article-less Languages Disallow Transitive Nominals with Two Lexical Genitives"*

Bošković & Şener (2014:104) state that this generalization concerns "the availability of structures where both the external (not simply a possessor, but a true external argument) and the internal argument of a noun are *genitive*, with the genitive realized via a clitic/suffix or a dummy *preposition*. Such cases are disallowed in article-less languages (which don't otherwise allow multiplication of the same case like Japanese). The same holds for Turkish." (Bošković & Şener 2014).[6] The example offered to illustrate this claim for Turkish is as follows:

(27) **Osmanlı-lar-**ın** İstanbul-**un** feth -i*
Ottoman-PL-**GEN** Istanbul-**GEN** conquest-3.prs.
'Ottomans' conquest of Istanbul'
BOŠKOVIĆ & ŞENER (2014:104), example (6a)

It is very unclear that the ungrammaticality of such examples has anything to do with a language's being a DP- or an NP-language. At least with respect to Turkish, the issue seems to be that: 1. there is no "dummy P" which realizes the genitive; the genitive suffix is the only means to realize this Case; 2. Specifiers and modifiers are all pre-head, and doubling of genitives in the same direction appears to be disallowed; in German, even when there are two genitives, one

6 I will return to the question of characterizing Turkish as an article-less language shortly.

would be before the head, and one after the head (e.g. *Mehmet des Zweiten Eroberung Istanbuls* 'Istanbul's conquest by Mehmet the Second = Mehmet the Second's conquest of Istanbul'). Note that in "DP-languages" such as German and English, too, it is not possible to realize two genitives in a row, both of which are expressed by a genitive suffix (rather than one of them being realized as a P):

(28) *The Ottomans' Istanbul's conquest

In addition to the well-formed translation of (27) above, involving a "dummy P," namely *of*, English can also have a construction with an agentive phrase:

(29) Istanbul's conquest by the Ottomans

This type of construction is well-formed in Turkish, as well:

(30) *İstanbul-un Osmanlı-lar tarafından feth-i*
Istanbul-GEN Ottoman-PL by conquest-3.sg.
'Istanbul's conquest by the Ottomans'

Interestingly, there is yet another construction in Turkish to express transitive nominals, involving one genitive and one accusative:

(31) *Osmanlı-lar-ın İstanbul-u feth-i*
Ottoman-PL-GEN Istanbul-ACC conquest-3.prs.
'The Ottomans' "conquering" Istanbul'

A number of verbal nouns borrowed mostly from Arabic retain their ability to license accusative on their complements, i.e. on their internal argument; cf. Keskin (2009), among others. An additional possibility (i.e. in addition to a cross-linguistic ban against two genitives in a row) for explaining the ill-formedness of Turkish examples such as (27) may be the fact that this alternative structure is available. At any rate, it is clear that the proposed generalization is incorrect.

2.4 *Only Article-less (i.e. NP-) Languages May Allow Scrambling (Bošković & Şener (2014:104))*

The scrambling referred to in this generalization is the long-distance type as illustrated in, e.g., Japanese. Thus, the well-known phenomenon of scrambling in German is said to be irrelevant in this context. However, while Standard Ger-

man indeed does not allow long-distance scrambling, many German dialects, especially southern ones, do allow it. Interestingly, speakers of such dialects allow such movements even in Standard German; the following examples in Standard German were volunteered by Josef Bayer, who is a native speaker of Bavarian:

(32) [*SOLCHE Bücher*]$_i$ *glaube ich nicht,* [*dass ein Bauer* e_i *freiwillig lesen würde*]
such books believe I not that a farmer voluntarily read would
'Such books, I don't believe that a farmer would read voluntarily.'

(33) [*Die "Kritik der reinen Vernunft"*]$_i$ *bezweifle ich,* [*dass mein Nachbar sich* e_i *kaufen würde*]
the critique (of) the pure reason doubt I that my neighbor self buy would
'The Critique of Pure Reason, I doubt that my neighbor would buy for himself.'

Bayer evaluates these examples as "totally normal."[7] Facts such as these are rather damaging to the typological claim that "DP-languages" (or "article languages") do not allow long-distance scrambling/topicalization.

2.5 *"Inverse Scope is Unavailable in Article-less Languages (in Some Examples)" (Bošković & Şener (2014:109))*

One of the claimed generalizations is the one expressed in this subsection's title. The following example illustrates "inverse scope":

(34) Someone loves everyone.

Examples such as this one are ambiguous in English. Here, "inverse scope" refers to the interpretation under which the internal argument takes scope over the external argument.

The relevant claim in Bošković's typology is that in examples with unmarked word order in the language under investigation, inverse scope (i.e. phrase-

7 Other native speakers of German reported similar reactions at presentations of this material at the University of Cologne and at the Max Planck Institute of Evolutionary Anthropology in Leipzig.

structurally lower expressions taking scope over phrase-structurally higher expressions) is possible only in DP-languages; NP-languages (i.e. "article-less languages") do not allow this, according to this claim.

According to Bošković & Şener, Turkish conforms to "the general behavior of NP languages":

(35) *iki öğrenci her sandalye -yi kır -mış*
two student (NOM) every chair -ACC break evidential PAST
'Two students (are said to) have broken every chair.'
BOŠKOVIĆ & ŞENER (2014: 109), example (20); glosses and translation are mine.

The object cannot take scope over the subject. I do agree with this judgment.

But in English, too, inverse scope with such examples is marginal:

(36) Two students broke every chair.

(37) Two students broke each chair.

According to native speakers of (American) English whom I have consulted,[8] examples with "each" are slightly better than those with "every", but are still marginal in these examples.

I am indebted to Tim McKinnon, one of my native speaker consultants, for pointing out that the contrast between "each" and "every" is even clearer in other examples which are similar to the ones just discussed:

(38) Two diplomats represented every country.

(39) Two diplomats represented each country.

According to McKinnon, the inverse reading is quite fine for (39), but not for (38).

In all of these English examples, the "regular" reading, with the subject taking scope over the object, is well-formed. So, at least for some examples, English patterns very similarly to Turkish. Other examples, such as in examples corresponding to (34) where inverse scope is possible in English but not in Turkish can be explained in other ways, without appeal to an NP/DP dichotomy. Such an example is (40):

8 I thank Peter Cole and Tim McKinnon for their native judgments concerning the examples in this section and for discussing these facts with me.

(40) *Birileri herkes-i sev -er*
someone everybody-ACC love -PRES
'Someone loves everyone.'

Inverse scope in a word-order free language such as Turkish is typically obtained via scrambling; it is possible that this way of expressing inverse scope overtly in the syntax may block the availability of the (LF-based, i.e. abstract) scope inversion reading for the unmarked word order.

2.6 *"Radical Pro-drop is Possible Only in Article-less Languages" (Bošković & Şener (2014:105))*

2.6.1 "Radical" Pro-drop

Bošković's term of "radical pro-drop" is defined as "… the productive pro-drop of subjects and objects in the absence of rich verbal agreement" (cf. Bošković & Şener 2014: 105). "Spanish-type pro-drop", i.e. *pro-drop* licensed by rich morphology, would be a different type of "pro-drop". Bošković & Şener claim that Turkish has, in addition to the "Spanish-type pro-drop", also radical *pro-drop* of objects, given that Turkish lacks object agreement morphology. The authors further claim that Turkish patterns with a number of "NP-languages" in this respect.

But is "object-drop" (in Turkish) *pro-drop* at all? In other words, is the empty element that arises for non-subjects a genuine *pro*?

There are good reasons to believe that the empty category we have is not *pro*, but rather an A'-bound empty variable. Such elements are found not only in "NP-languages" of the type mentioned by Bošković & Şener, but also in Germanic languages, which are DP-languages in the proposed typology. For example, such an empty variable would be found in connection with the phenomenon often referred to as "topic drop"; one recent in-depth discussion of this phenomenon in Germanic can be found in Sigurðsson (2011), to which I shall return.

2.6.2 Brief Discussion of the Nature of "Dropped" Objects in Turkish

In some prior literature, the claim does exist that the empty category representing a "dropped" object is a *pro*, i.e. has pronominal properties; this is claimed most specifically in Öztürk (2005):

(41) *Mary$_i$ ec$_{*i/j}$ sev -iyor*
Mary love -PRES.PROG
'Mary loves him/her/it/*herself.'

Öztürk (2005) claims that if condition B is violated (and we see the ill effects of that violation), the empty category is *pro*.

However, the ill-formedness of the relevant reading could also be due to a condition C violation, if the silent object is a phonologically empty variable, bound by an abstract topicalization operator. There is evidence for the latter analysis, if additional examples are considered where condition B is irrelevant, and condition C explains the ill-formedness:

(42) *Mary*$_i$ [*Ali*$_j$ *-nin* *ec*$_{*i/*j/k}$ *sev* *-diğ-in*]*-i* *söyle* *-di*
Mary Ali -GEN love -Fact.NOM.-3.sg-ACC say -PAST
'Mary$_i$ said that Ali$_j$ loves her$_{*i}$/himself$_{*j}$ /him$_k$/her$_k$/it$_k$.'

The silent object in the embedded clause in (42) cannot be co-indexed with 'Mary', even though this would not give rise to a condition B violation, as 'Mary' would not be a local binder of the silent object, because it is not its clause-mate. However, condition C would indeed be violated if the silent object is a variable, given that elements sensitive to condition C must be free everywhere, not just in their local binding domain.

Uncontroversial instances of *pro*, as in a silent embedded subject (i.e. "Spanish-type *pro*"), are well-formed in similar contexts:

(43) *Mary*$_i$ [*pro*$_{i/j}$ *Ali* *-yi* *sev* *-diğ* *-in*] *-i* *söyle* *-di*
Mary Ali -ACC love -Fact.NOM -3.sg -ACC say -PAST
'Mary$_i$ said that she$_{i/j}$ loves Ali.'

The silent embedded subject is preferably interpreted as co-indexed with 'Mary' (but can also be anteceded by a discourse referent). Since the silent object clearly has different syntactic properties than the silent subject, I would claim here that the silent object is not an instance of *pro* at all, but is a silent, operator- (topic-) variable. Therefore, instances of (discourse-) elided objects in Turkish are not instances of *pro*, and hence not instances of radical pro-drop (in the narrow sense of Bošković & Şener). In other words, I advocate a "traditional analysis" of null elements, whereby "Spanish-type" *pro* is indeed an empty pronominal category, while, in Turkish at least (and perhaps other morphologically rich languages), an empty category which is not licensed and identified by (rich) morphology is not pronominal and can only be a variable bound by a topic operator.

But before leaving this issue, let us play devil's advocate: Perhaps these instances of (topic-bound) silent variables are a hallmark of NP-languages; isn't it possible that Bošković & Şener's diagnostic is correct, as is their typology, but that the phenomenon was simply mislabeled?

However, if Sigurðsson (2011) is correct, then at least some Germanic languages (i.e. DP-languages) do have "topic drop" as well. I thus return, as promised, to Sigurðsson's discussion of argument drop in Germanic.

A recent analysis proposed in Sigurðsson (2011) claims that instances of "dropped" topics in Germanic have A'-properties different from "Spanish-type" instances of *pro*, which are licensed by rich morphology and which lack A'-properties.

For our purposes, what is important is that DP-languages *do have* silent topics that are not instances of "Spanish-type" *pro* (and are at least in this respect similar to "dropped" non-subjects in languages such as Chinese, Japanese etc.); thus, Sigurðsson (2011) offers the following example from Swedish:

(44) [*Null topic operator*]$_i$ *Kan'ja* e_i *inte veta.*
can I not know
'*That*, I cannot know.'
cf. SIGURÐSSON 2011: 291, example (56a); indications of the "dropped" object and of the silent topic are mine

Thus, these facts constitute a serious challenge to Bošković's and Bošković & Şener's typology.

3 The (Un)importance of Articles in the NP/DP Typology

We saw earlier that in Bošković's framework, lacking articles is a clear diagnostic for classifying a given language as an "NP-language." But we do have to ask, at this juncture, whether article-less languages are clear-cut NP-languages. Why shouldn't other determiners (e.g. demonstratives) qualify as D, as well? Yet another question is: What if a language has one type of article but not another?

Turkish has demonstratives; as just mentioned, those are not accepted as a genuine D by Bošković. Furthermore, Turkish has an indefinite article. However, Bošković & Şener (2014) and Öztürk (2005) analyze that morpheme (*bir*) as the numeral *one* in all its occurrences, and not as the indefinite article *a*. It is therefore of some interest to address the properties of this morpheme more closely.

Öztürk's arguments against analyzing *bir* as an indefinite article are as follows:

Crisma (1999) and Longobardi (2001) claim that if a language has only one article, it will be a definite rather than an indefinite article. Since Turkish has no definite article, Öztürk claims that *bir* cannot be an indefinite determiner.

But this reasoning is circular. Turkish is dismissed as a language having an indefinite, but no definite, article, based on cross-linguistic statistics. But in the very same statistics on which Öztürk bases her argument that *bir* is not an indefinite article, Turkish could not appear as a counterexample, given the author's classification of *bir*. Thus, statistics of this nature cannot be taken seriously as the basis of arguments dismissing this morpheme as an indefinite determiner.[9]

In addition, there are good reasons for characterizing *bir* as an indefinite article, because its syntactic properties as an article differ clearly from those when it is a numeral; such distinctions are to be found in any good grammar of Turkish and include differences in placement with respect to adjectives; e.g.

(45) Bir/*beş* *yaşlı* *kadın*
one/five old woman
'*One* old woman/five old women'

(46) *Yaşlı* bir *kadın*
old *a* woman
'*An* old woman'

These are the unmarked orders of the respective examples: numerals precede adjectival modifiers, while the indefinite article follows them. It is possible to override these unmarked correlations with intonation; e.g. in (45), deaccenting the numeral makes it likelier for it to be interpreted as the indefinite article, and in (46), stressing the article makes it likelier for it to be interpreted as the numeral. Nonetheless, the unmarked orders and intonation contours yield the meanings as stated above.[10]

4 Conclusions and Further Questions

The research agenda proposed in Bošković and Bošković & Şener's studies has had the positive effect of triggering cross-linguistic studies, attempting to con-

9 I am indebted to Sasha Vovin for pointing out that Thai (Siamese) exhibits a situation similar to the one in Turkish: It also has 'one' as an indefinite article, but has no definite articles.

10 The unmarked order within the Turkish DP/AgrP is as follows:
Possessor > relative clause > demonstrative > numeral/quantifier > adjective (phrase) > indefinite article > head noun.

firm or disconfirm the detailed typological claims made. For example, Marušič & Žaucer (2010) discuss a group of Slovenian dialects, which they refer to under the cover term Gorica Slovenian, with respect to one of the claims made in this typological enterprise that was not addressed in the present paper, given that the languages addressed here do not exhibit the relevant property, namely clitic doubling. It is claimed in Bošković's studies that only DP-languages can exhibit clitic doubling; in other words, NP-languages with clitics never exhibit clitic doubling, according to this typological claim. However, Gorica Slovenian has no definite article and thus would count as an NP-language in the relevant typology (this, in itself, is problematic, in light of the discussion in the present paper of Turkish as a language without a definite article but with an indefinite article). Gorica Slovenian does have clitic doubling (as opposed to Standard Slovenian, which does not). Marušič & Žaucer point out, however, that clitic doubling in Gorica Slovenian is limited to personal pronouns. After pointing out the problem for Bošković's typology, the authors attempt to accommodate their finding within that typology, by weakening its relevant claim, so as to exclude clitic doubling of personal pronouns from the generalization in question.

The present paper, while also owing its existence to Bošković's and Bošković & Şener's interesting and refreshingly falsifiable typology, is of a different nature. By addressing more than just one or two of the proposed typological correlations at a time, and, even more importantly, by pointing out problems not only with respect to "NP-languages", but also with respect to "DP-languages", I hope to have demonstrated that a typology of this kind and with these claims cannot be sustained in general.

With respect to Turkish in particular, probably the best move is to view it as an article-/DP-language. But this move does not make the NP-DP typology much more attractive, given some of the problems posed to the posited correlations by clear-cut DP-languages such as German and English, and not only by the supposed NP-nature of Turkish.

In addition, the relevant properties of languages and even of individual constructions and of syntactic-semantic phenomena such as relative scope appear to vary with different lexical items, thus challenging generalizations with respect to such phenomena. I propose therefore to give up the kind of typological endeavor suggested by Bošković and Bošković & Şener, and to examine each language individually as to whether it does or does not have DPs, independently from whether it does or does not have articles.

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Abbreviations

3.prs.	Third person
ACC	Accusative
DAT	Dative
DP	Determiner phrase
Fact.NOM	Factive nominalization
FUT.NOM	Future nominalization
GEN	Genitive
MR	Majority reading
NEG	Negative (element)
NOM	Nominative
NP	Noun phrase
NPI	Negative polarity item
NR	Neg(ative) raising
PL	Plural
PR	Plurality reading
PRES	Present (tense)
PRES.PROG	Present progressive
sg	Singular

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