What will you have, DP or NP?

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The goal of the paper is to discuss the structure of the traditional NP (TNP) in languages without articles, comparing them in this respect with languages with articles. With a few exceptions (e.g. Fukui 1988,Corver 1992, Bošković 2005, Willim 2000, Baker 2003), it's standardly assumed that languages without articles have a null D; i.e. the difference between (1) and Serbo-Croatian (SC) (2) is assumed to be PF-based, the D being null in SC.

(1) The stone broke the window.

(2) Kamen je razbio prozor.
stone is broken window

I will provide a number of arguments for a fundamental structural difference in the TNP of English and languages like SC, which I will implement by arguing DP is not even present in the TNPs in (2).The claim has important ramifications for the semantics of TNP.It argues against Longobardi's (1994) line of research,where DP is required for argumenthood, and supports a system like Chierchia (1998), where this isn't the case.My main argument for a fundamental difference in the structure of TNP in languages with and those without articles concerns a number of generalizations where articles play a crucial role.[1]

1.1 Generalizations: Left-Branch Extraction

Languages differ regarding whether they allow left-branch extractions (LB) like (3)-(4).

(3) *Expensive/That$_i$ he saw [t_i car]

(4) Skupa/Ta$_i$ je vidio [t_i kola] (SC)
expensive/that is seen car

[1]The generalizations could turn out to be strong tendencies, which would still call for an explanation. A weaker version of the claim made in the paper would be that some languages without articles do not have DP. The stronger (and more interesting) position is that this holds for all languages without articles.

Noting a correlation with articles, Uriagereka (1988), Corver (1992) and Bošković (2005) establish (5) (this is a one-way correlation; articless languages don't have to have LB).

(5) Only languages without articles may allow LB examples like (4).

As an illustration of (5), Bošković (2005) notes Bulgarian and Macedonian, the only two Slavic languages with articles, differ from most other Slavic languages (e.g. SC, Russian, Polish, Czech) in that they disallow LB (6). Within Romance, Latin, which didn't have articles, differs from Modern Romance, which has articles, in that it had LB. Mohawk, Southern Tiwa and Gunwinjguan languages also allow LB and lack articles(Baker 1996).[2]

(6) a. *Novata$_i$ prodade Petko [t$_i$ kola]
new.the sold Petko car
'The new car, Petko sold.'

b. Novata kola$_i$ prodade Petko t$_i$ (Bulgarian)

Before proceeding, let me note that for the purpose of (5) and other generalizations below, I take articles to be unique, i.e. occur once per TNP. The "long" form of Slavic adjectives (cf. (7)) is then not considered to be an article.[3]

(7) novi/nov crveni auto
new$_{DEF}$/new$_{INDEF}$ red$_{DEF}$ car (SC)

1.2 Adjunct Extraction from TNP

Consider adjunct extraction from TNP, which English disallows (see Chomsky 1986).

(8) a. *From which city$_i$ did Peter meet [$_{NP}$ girls t$_i$]

b. Peter met [$_{NP}$ girls from this city]

Observing SC and Russian allow extraction of adjuncts out of TNPs while Bulgarian does not allow it, Stjepanović (1998) (see also Bošković 2005) establishes (9).[4]

[2]I focus on adjectival LB (demonstratives are adjectives in Slavic LB languages, see below), ignoring possessor extraction. The reason for this is that several accounts of the AP LB ban in article languages leave a loophole for possessor extraction to occur in some languages of this type(seeBošković 2005)

[3]This makes Greek, where some speakers allow AP LB, irrelevant to (5). The "article" in such examples would not be considered an article. See also Mathieu and Sitaridou (2002), who suggest this type of "articles" in Greek are actually agreement markers. (Greek articles may in fact be ambiguous between real articles and Slavic-type adjectival endings.) It should also become clear from the discussion below that what is important for our purposes is the existence of a definite article in a language (cf. Slovenian, which only has an indefinite article), given that indefinite articles have often been argued to be below DP even in uncontroversial DP languages (see the references in Bošković in press a).

[4]Russian/Polish/Czech pattern with SC (Bošković in press c). (10) is good in Spanish, where the relevant phrase is an argument (Ticio 2003).With clear adjuncts (e.g. a *por* phrase),extraction is disallowed.

(9) Only languages without articles may allow adjunct extraction out of TNPs.

(10) a. Iz kojeg grada$_i$ je Ivan sreo [djevojke t_i] (SC)
b. *Ot koj grad$_i$ Ivan [sreštna momičeta t_i]? (Bulgarian)
'From which city did Ivan meet girls?'

1.3 Scrambling

There is also an important correlation between articles and the availability of scrambling. Thus, in Bošković (2004) I establish the generalization in (11).[5]

(11) Only languages without articles may allow scrambling.

SC, Latin, Japanese, Korean, Turkish, Hindi, Chukchi, Chichewa, and Warlpiri all have scrambling and lack articles. Particularly interesting are Slavic and Romance. Bulgarian, e.g., has noticeably less freedom of word order than SC. Also, all modern Romance languages have articles and lack scrambling, while Latin lacked articles and had scrambling. It is also worth noting Lakhota, Mohawk, and Wichita, also related languages. The latter two lack articles and have more freedom of word order than Lakhota, which has articles.

1.4 Negative Raising

I now turn to a new generalization regarding negative raising (NR), where negation can be taken to be either in the matrix or the embedded clause of *John does not believe she is smart*. The embedded clause option is confirmed by the strict clause-mate NPIs in (12).

(12) a. John didn't believe [that Mary would leave [$_{NPI}$ until tomorrow]]

b. John doesn't believe [that Mary has visited her [$_{NPI}$ in at least two years]]

That these items require negation is shown by (13), while (14) shows non-NR verbs like *claim* disallow long-distance licensing of these items. Since they require clause-mate negation, negation must be present in the embedded clause of (12) when NPIs are licensed.

(13) a. John didn't leave/*left until yesterday.

b. John hasn't/*has visited her in at least two years.

(14) a. *John didn't claim [that Mary would leave [$_{NPI}$ until tomorrow]]

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

[5]By scrambling I mean the kind of movement referred to as scrambling in Japanese, not German, whose "scrambling" is a very different operation with very different semantic effects from Japanese scrambling. One of the defining properties of scrambling for the purpose of (11) is taken to be the existence of long-distance scrambling from finite clauses, which German lacks (for German, see also Bošković 2004).

Before establishing the NR generalization, note that for the purpose of it I confine myself to negative raising from finite clauses. Moreover, instead of relying on interpretation judgments, I rely on the ability of NR to license strict-clause mate NPIs (12). A crosslinguistic check of the availability of NR under these conditions reveals the following:

(15) NR is disallowed in languages without articles.

SC, Czech, Slovenian, Polish, Russian, Turkish, Korean, Japanese, and Chinese lack articles and NR,and English, German, French, Portuguese, Romanian, Bulgarian and Spanish have both articles and NR(see appendix for the data).We then may need to strengthen(15):

(16) Languages without articles disallow NR, and languages with articles allow it.

Interestingly, even in languages where the NPI test fails negation is interpretable in the lower clause: (17) has the atheist (non-agnostic) meaning Ivan believes God doesn't exist (the same holds for Korean, Japanese, Turkish, Chinese, Russian, Polish, and Slovenian).

(17) Ivan ne vjeruje da bog postoji.
Ivan neg believes that God exists (SC)

This suggest a three way split among verbs: (a) negation interpreted in the lower clause and strict NPIs licensed under NR (possible only for some verbs in languages with articles) (b) negation interpreted in the lower clause, strict NPIs not licensed c. no NR at all.

1.5 Superiority and Multiple Wh-Fronting

There is also a correlation between Superiority effects with multiple wh-fronting (MWF) and articles given in (18)(thanks are due to A. Watanabe for helpful discussion of MWF).

(18) MWF languages without articles don't show superiority effects in cases like (19).

MWF languages differ regarding whether they show Superiority effects (strict ordering of fronted wh-phrases) in examples like (19). It turns out MWF languages without articles (SC, Polish, Czech, Russian, Slovenian, Mohawk) don't show them. Those that do show them all have articles (Romanian, Bulgarian, Macedonian, Basque, Yiddish). Hungarian is an exception (it has articles and no superiority), which doesn't violate (18).[6]

(19) a. Koj kogo vižda/*Kogo koj vižda?
who whom sees (Bulgarian)

b. Ko koga vidi/Koga ko vidi?
who whom sees (SC)

[6]Interestingly, Watanabe (2003) suggests Hungarian traditional definite article is not a D-element, which casts doubt on its DP status. (For relevant discussion of Hungarian MWF, see Bošković in press b.)

'Who sees whom?'

1.6 Clitic Doubling

Another new generalization concerns clitic doubling, where Slavic again gives us a useful clue. Clitic doubling is allowed in only two Slavic languages, Bulgarian and Macedonian (cf. *Ivo go napisa pismoto* 'Ivo it wrote the letter'), which also have articles. Slavic languages without articles disallow it. In fact, all clitic doubling languages I know of (Albanian, Macedonian, Bulgarian, Greek, Somali, Spanish, French (some dialects), Catalan, Romanian, Hebrew, Arabic, Dutch (some dialects)) have articles. We then have (20).

(20) Only languages with articles may allow clitic doubling.

1.7 Adnominal Genitive

Willim (2000) notes English, Arabic, Dutch, German, and Catalan, all article languages, allow two nominal genitive arguments, where the genitive is realized via a clitic/suffix or a dummy P. On the other hand, articless languages Polish, Czech, Russian, and Latin disallow this.[7] The same holds for SC, Chinese, Quechua, and Turkish. This leads to (21).[8]

(21) Languages without articles don't allow transitive nominals with two genitives.

1.8 Superlatives

Živanović (2006) notes English (22b) has the majority reading where more than half the people drink beer. This is missing in Slovenian (22a), which has the plurality reading where more people drink beer than any other drink though it could be less than half the people (beer is focused). Živanović notes English, German, Dutch, Hungarian, Farsi, Romanian, Macedonian, and Bulgarian, which have articles, allow the majority reading. This reading is disallowed in Chinese, Turkish, Czech, Polish, Slovenian, SC, and Punjabi. These lack articles and allow only the plurality reading. We then have (23).

(22) a. Največ ljudi pije pivo. (Slovenian)
b. Most people drink beer

(23) Only languages with articles allow the majority superlative reading.

1.9 Head-Internal Relatives and Locality

[7]Compare German *Hannibals*(gen)*EroberungRoms*(gen)'Hannibal's conquest of Rome'and Polish **podbicie Rzymu*(gen) *Hannibala*(gen), which is unacceptable regardless of the word order. In acceptable examples with two nominal arguments in Polish-type languages, the external argument is generally realized via a PP headed by an analogue of English *by* (a semantically contentful P) or an inherent oblique Case.

[8](21) concerns only nominal arguments, not possessives. I ignore for obvious reasons languages such as Japanese which allow multiple identical case constructions.

There is a locality distinction among languages with head-internal relatives (HIR). HIRs in Japanese, Quechua, Navajo, and Mohawk are island sensitive, while those in Mojave and Lakhota are not (Basilico 1996, Watanabe 2004, Baker 1996). Interestingly, the former lack articles, while the latter have them. This leads to (24). (Admittedly, the language corpus is limited here. Grosu & Landman 1998 claim there is also a semantic difference: HIRs are restrictive in languages with articles and maximalizing in those without articles.)

(24) HIRs are island sensitive in languages without, but not in those with articles.

1.10 Polysynthetic Languages

Baker (1996) observes the following generalization regarding polysynthetic languages.

(25) Polysynthetic languages do not have articles.

2. DP vs NP

These generalizations indicate there is a fundamental difference between TNP in English and articless languages like SC that cannot be reduced to phonology (overt vs phonologically null articles). If DP is posited for both, we need to make a radical principled distinction between D in English and D in SC. Appealing to phonological overtness will not work since English e.g. disallows LB (**Fast, he likes cars*), adjunct extraction from TNP, and scrambling even with null D. Moreover, the above generalizations deal with syntactic/semantic, not phonological phenomena. It is often assumed TNP should be treated in the same way in articless languages and English for the sake of uniformity. This argument fails on empirical grounds: it is simply a fact that there are radical differences between the two–there is no uniformity here. I will show below that there is an easy way of capturing the differences–they can be captured if there is DP in the TNP of English, but not articless languages like SC. Before showing this, I will discuss arguments against DP in TNPs of articless languages that are independent of the above generalizations. I will discuss the issue regarding SC (see Bošković 2005 and Zlatić 1997; see also Bošković in press c for Russian, Corver 1992 for Czech/Polish and Fukui 1988 for Japanese). First, SC lacks articles, the prototypical D^0.Though SC doesn't have articles, it has items like *that*, *some* and possessives. However, there is a lot of evidence that these are adjectives in SC. First, they are morphologically adjectives, as the partial paradigm in (26) shows.

(26) nek*im* mlad*im* djevojkama/ nek*ih* mlad*ih* djevojaka
some$_{FEM.PL.INST}$ young$_{FEM.PL.INST}$ girls$_{FEM.PL.INST}$ some$_{FEM.GEN.PL}$ young$_{FEM.GEN.PL}$ girls$_{FEM.GEN.PL}$

Second, in contrast to English, the SC elements in question can occur in typical adjectival positions. Thus, in (27) a possessive occurs in the predicate position of a copula. Third, unlike in English, the elements in question can stack up in SC, just like adjectives (28).

(27) Ova knjiga je moja.
*this book is my

(28) ta moja slika
*this my picture

They also have some freedom of word order.While English D-items must precede adjectives, SC allows As to precede some "D"-items (see Bošković in press c for interpretation of (29)). As also have some freedom of word order–*tall angry men/angry tall men*).Note I don't claim the order of the SC items in question is completely free. What is important is the SC/English contrast regarding the order of As and some "D" items (the order of As themselves isn't expected to be freer in SC than English, see Bošković in press c).

(29) Jovanova bivša kuća/ bivša Jovanova kuća
Jovan's former house/ *former John's house

Next, a SC prenominal possessive (*susjedov* in (30)) can't be modified by a possessive, or more generally, an adjective. ((30) is acceptable if *moj/bogati* modifies *konj*.) Assuming adjectives cannot be modified by adjectives,(30) follows if SC possessives are adjectives.

(30) *moj/bogati susjedov konj
my/rich neighbor's horse

Extraction from definite TNPs/TNPs with filled SpecDP is banned in English. Interestingly, the effect is often relaxed in SC (see Willim 2000 for Polish). This follows given the standard claim that the culprit for the badness of English (31)is DP,which I claim isn't present in SC, demonstratives, possessives, and Qs like *every* not being DP items in SC.

(31) O kojem piscu je pročitao [svaku knjigu/sve knjige/(tu) tvoju knjigu t_i]
about which writer is read every book/ all books/that your book
'*About which writer did he read every book/all books/this book of yours?'

English Ds are thus either missing or clearly not Ds in SC, which argues in favor of the no-DP analysis.Note also that Chierchia (1998) shows the DP layer isn't needed for argumenthood,which removes a potential semantic argument for DP in SC. Most importantly, I will now show the DP/NP analysis explains the generalizations from sec. 1 (I will leave (23) open). Moreover, the DP/NP analysis provides a uniform account of these generalizations, where a single difference between the two types of languages is responsible for all of them. I don't rule out the possibility that the differences could be captured in a uniform DP analysis (such accounts generally ignore the above generalizations, which are the most serious problems for them).The analysis would obviously have to posit radical differences in the syntax and semantics of DP in English and languages like SC. However, it's hard to see how a DP analysis could provide a uniform account of the above generalizations. Given how different the relevant phenomena are, a uniform DP account would likely rest on a number of separate stipulations regarding the nature of D in English/SC, each tailored for a separate generalization. To illustrate, while it might be possible to account for (5) by stipulating DP is a phase in English but not SC (Bašić 2007), it's hard to see how the stipulation could explain other generalizations from sec. 1, e.g. (16),

(11), (18) or (24) (even if we put aside the stipulatory nature of the account). Furthermore, a uniform DP account also faces the question of why languages like SC don't have articles given that they have D, and why other English DP-items display 'strange' non-DP behavior in SC, both of which receive a principled account under the no-DP analysis.

3.1 Explaining the Generalizations: Left-Branch Extraction Revisited

I now turn to explanations for the above generalizations under the DP/NP account, starting with LB.[9] Bošković (2005) gives two accounts of (5) (see also this work for problems with alternative remnant movement and copy & delete accounts of LB). The first one is based on the PIC, which says only the Spec of a phase is accessible for phrasal movement outside the phase (so, XP movement from phase YP must proceed via SpecYP).On a par with Chomsky's (2000) claim that CP but not IP is a phase, I suggest DP is a phase, but NP isn't. Given the PIC, XP can then move out of DP only if it moves to SpecDP. There are two more ingredients of the analysis: the traditional claim that AP is NP-adjoined and the anti-locality hypothesis (the ban on movement that is too short), which is deducible from independent mechanisms and argued for by many authors(e.g. Bošković 1994,1997, Grohmann 2003, Abels 2003, Ticio 2003, Boeckx 2005). Like most other approaches, the version of anti-locality adopted in Bošković (2005) requires Move to cross at least one full phrasal boundary (not just a segment). AP then cannot move to SpecDP in $[_{DP}\ AP_i\ [_{D'}\ D\ [_{NP}\ t_i\ [_{NP}$ due to anti-locality. Given the PIC, it can't move directly out of DP either (cf. $AP_i\ [_{DP}[_{D'}\ D\ [_{NP}\ t_i[_{NP}$). Anti-locality/PIC thus prevent AP extraction from DP, banning AP LB in English. They don't ban all movement out of DP: *Who do you like [$_{DP}$ t[$_{NP}$ friends of t]]* is still allowed. The ban on adjunct extraction from TNP in English can be accounted for in the same way as the ban on AP LB, given that NP adjuncts are also NP-adjoined. Moreover, the PIC/anti-locality problem does not arise in SC, which lacks DP.

Bošković (2005) proposes another account based on the claim that both Abney's (1987) A-as-the-head and the traditional NP-over-AP structure are correct, but for different languages: in English A takes NP as its complement (AP option), while in SC N takes AP as its Spec (NP option; NP adjunction would also work). The difference is tied to DP. I assume the AP option is the default, but APs cannot be arguments.This means that when DP is lacking, as in SC (but not English), NP must dominate AP. This gives us an easy account of English: AP LB is banned since it would extract a non-constituent (AP is not a constituent to the exclusion of NP in $[_{DP}D[_{AP}A[_{NP}N]]]$).The problem does not arise in SC,

[9]I use the term DP/NP account for ease exposition: most of the analyses below would not change if there is some functional structure in TNPs of articless languages (as long as it's not DP). Note also that Progovac (1998) argues SC pronouns are Ds. Most of the analyses below wouldn't change if pronouns are the only Ds in SC. However, note that SC pronouns fail Fukui's (1988) D test. Fukui argues pronouns are Ds in English and Ns in Japanese (a D-less language) based on pronoun modification. He claims only N-pronouns can be (non-appositively) modified. He shows Japanese pronouns (N-pronouns) can be modified, while English pronouns (D-pronouns) can't be (putting aside a few exceptions). SC patterns with Japanese.

(i) Jesi li ga vidio juče? Jesam, ali je jučerašnji on baš nekako bio čudan.
are Q him seen yesterday am but is yesterday's he really somehow been strange
'Did you see him yesterday? *I did, but yesterday's he was really somehow strange.'

where the structure is [$_{NP}$ AP N]. (The account doesn't extend to the ban on adjunct extraction from TNP.) I also gave several arguments for the A/N difference in the headedness of TNP in English and SC. I repeat here one argument, elaborating on it.(32) shows prenominal adjectives disrupt case assignment in English (*him* bears default accusative instead of nominative). This is easily captured in Abney's system, where A shields the pronoun from outside case assignment as an intervening head.[10] SC (33) differs from (32), suggesting Abney's analysis shouldn't be applied to SC. Note the pronoun's case changes in an accusative context, which shows we aren't dealing here with a default case. ((33)gives the only case options.Note Russian behaves like SC (see Bošković in press c).)

(32) The real him/*he will never surface.

(33) Pravi on se nikad neće pojaviti./ Vidjeli smo pravog njega.
real he refl never neg+will show-up seen are real him
'The real him will never show up.'/We saw the real him.'

In Macedonian, an AP language with articles, As disrupt case assignment–pronouns must bear default nominative. (The case doesn't change in (34).) Interestingly, if the pronoun is fronted, it can bear accusative (35). This is expected, since due to the fronting the A no longer intervenes between the V and the pronoun.This confirms the intervention analysis.

(34) Vistinskiot toj nikogas ne ke se pojavi./ Go vidov vistinskiot toj/*nego.
the-real he never neg will refl. show-up cl. saw the-real he/him
'The real him will never show up.'/'We saw the real him.'

(35) Go vidov nego$_i$ vistinskiot t_i.

3.2 Scrambling Revisited

(11) can now be restated as follows: Only NP languages may allow scrambling. The presence of DP then implies the impossibility of scrambling-scrambling languages don't have DP. Bošković (2004) shows this can be captured under Bošković and Takahashi's (1998) (BT) account of scrambling, which base-generates scrambled elements in their surface positions and moves them to their θ-positions in LF, θ-features driving the movement. This is shown in (36) (X is V_2's object argument). The derivation is unavailable in English, where θ-features are strong, hence must be checked in overt syntax. (The difference between Japanese and English is that in English θ-features must be checked overtly.)

(36) **SS:** [$_{IP}$ Scram.X [$_{IP}$ Subj$_1$ V$_1$[$_{CP}$[$_{IP}$ Subj$_2$ V$_2$ **LF:** [$_{IP}$ Subj$_1$ V$_1$[$_{CP}$[$_{IP}$ Subj$_2$ V$_2$ X

BT offer a number of arguments for this analysis. E.g., it captures Saito's (1992) undoing effect of scrambling; see (37), where, in contrast to the topic in *Everyone, someone thinks*

[10]An A of a DP language doesn't seem to disrupt Case assignment to the N it modifies. I speculate the N gets its case via agreement with the D of the DP dominating the A (V directly Case-marks D, not N).

Mary met, *daremo-ni* cannot take wide scope. For BT, *daremo-ni* cannot have wide scope since it must lower to its θ-position in LF. The analysis also captures the ban on adjunct scrambling: (36) would be unacceptable with X an adjunct modifying the embedded clause. Under BT, since the adjunct would have neither a θ-role nor Case that would need to be checked in the embedded clause, Last Resort prevents it from lowering into the embedded clause. Since the adjunct must stay in the matrix, it can only modify this clause.

(37) Daremo-ni dareka-ga [Mary-ga *e* atta to] omotteiru.
everyone-dat someone-nom Mary-nom met that thinks
'Everyone, someone thinks that Mary met.' (Bošković and Takahashi 1998)

Turning to the scrambling correlation, for BT it entails DPs (English TNPs) but not NPs (Japanese TNPs) must establish θ-relations in overt syntax. This can be ensured given an assumption regarding Last Resort. Chomsky (1995) assumes pure Merge is not subject to Last Resort, while Chomsky (2000) argues it is, which significantly enriches the theory of selection. Bošković (1997) takes an intermediate position: only pure Merge of functional items is subject to Last Resort. There are many appeals to economy of representation intended to ban unnecessary projections in the literature (see the references in Bošković 2004). Interestingly, they are all applied only to functional elements-they ban only unnecessary functional structure. We can make this "accident" more principled by taking my position that only pure Merge of functional items is subject to Last Resort. Assume then that functional heads are merged into the structure only if there is a reason for it. The upshot of this is that pure Merge of functional (but not lexical) projections must have independent motivation (Bošković 2004 deduces this). Since TNP is DP in non-scrambling languages and NP in scrambling languages, pure-Merging TNP with X, where X projects, must have independent motivation in the former, but not the latter. Since scrambling is pure Merge that does not involve feature-checking for BT, we deduce the scrambling correlation. To illustrate (assuming scrambling involves non-feature checking adjunction to IP), DP (TNP in non-scrambling languages) can't be pure-Merged adjoined to IP without violating Last Resort, while NP (TNP in scrambling languages) can be. A DP can still be pure-Merged in its θ-position in English since such merger involves θ-feature checking.[11]

3.3 Deducing Other Generalizations

In work in preparation with J. Gajewski, we suggest an account of (16) based on Gajewski's (2005) approach to NR, which gives a unified account of definite plurals and NR predicates (NRP), where NRPs have the semantic structure of definite plurals. (Basically, NRPs are treated as definite descriptions of worlds. While definite plurals denote pluralities, an NRP denotes a plurality of worlds.) Gajewski adopts the presuppositional approach where NR is triggered by the Excluded Middle Presupposition (*A believes that p* presupposes *A believes that p* or *A believes that not p*) of NRPs. We basically argue D is needed to trigger the presupposition. It follows NR is possible only in DP languages. Re-

[11]See Bošković (2004) for categories other than DP/NP. The above analysis can be restated under Saito and Fukui's (1998) overt movement analysis of scrambling, which also treats it as pure Merge.

call even languages disallowing strict NPI licensing under NR allow NR interpretation. We argue this is a pragmatic effect, which can be captured in a pragmatic approach like Horn (1989). (As Gajewski 2005 shows, this approach cannot explain strict NPI licensing under NR, which his semantic account can do. We thus suggest combining the two.)

I now suggest an account of (18) based on my (2002) claim that MWF languages with Superiority effects have wh-movement, while those not showing such effects don't have it–they move wh-phrases to a lower position. Bošković (1999) shows the account explains different behavior of MWF languages regarding Superiority. I refer the reader to this work for details of the account;what's important for us is that Superiority effects arise with MWF to SpecCP (wh-movement), not with MWF to a lower position.[12] We can then restate (18) as follows: Articless MWF languages move wh-phrases to a position below SpecCP. To deduce this I make a natural assumption that MWF languages must front all their wh-phrases (for an account, see Bošković 2002). This is what it means to be a MWF language (the wh-phrases in (19) cannot stay in situ). I also assume the D feature is crucially involved in movement to SpecCP, which may be deducible from the often assumed DP/CP parallelism. The lack of DP then prevents NP MWF languages from having wh-movement. Since they still must front their wh-phrases, they move them to the lower position. Since superiority effects arise only with MWF to SpecCP (not the lower position), it follows NP MWF languages don't show Superiority effects, which deduces (18).

Turning to (20), there's a definiteness/specificity effect associated with clitic doubling. I assume this is a syntactic (not semantic) requirement instantiated via the DP projection. Many authors have argued the doubled TNP is at some point located in the same phrase as the doubling clitic (the clitic is treated like a D-element) and/or that the two are involved in a feature checking relation (see the references in Boeckx 2003). I implement this by assuming an Agree relation between the clitic and the doubled TNP, which crucially involves the D feature. In other words, the doubling clitic agrees with a D element, the definiteness/specificity effect of clitic doubling being imposed by tying the Agree relation to a particular value of D. It follows clitic doubling is impossible in NP languages.

As for (21), William assumes genitive requires licensing in a Spec-head relation (overt or covert). While DP languages have two Specs for genitive licensing (SpecDP and SpecAgrNP for Willim), NP languages have only one such Spec due to the lack of DP. Alternatively,we can simply assume N can license only one genitive(with or withoutAgr), D being required for the second genitive (this account does not require genitive licensing via Spec-head). Either way, due to the lack of DP in articless languages (21) is deduced.

(24) can also be captured if we assume with Watanabe (2004) that languages differ regarding the licensing mechanism employed in HIRs. Watanabe argues some languages employ unselective binding, which is not subject to locality, while others employ

[12]I will leave open contexts where SC shows superiority effects (see Bošković 2002). The Superiority test is confirmed by question interpretation. Bošković (2002) notes multiple questions disallow single-pair answers in wh-movement languages (French, e.g., allows them only with wh-in-situ). Such answers correlate with the lack of Superiority effects in MWF languages (see the references in Bošković in press b).

movement/feature checking, which is subject to locality, i.e. intervention effects. Given (24), the former should be employed in DP languages, and the latter in NP languages (I depart here from Watanabe). The suggestion is easily implementable under Bonneau's (1992) proposal that the D that comes with an HIR is the unselective binder of its head (he makes the proposal for Lakhota).Since the D is missing in Japanese, Mohawk,Navajo, and Quechua, the island-insensitive binding option is unavailable in these languages.

Finally, here is a way of capturing (25) under the DP/NP analysis which follows (but modifies) a suggestion made in Baker (1996). Let us assume with Higginbotham (1985) that nouns have an open position which is in a language like English bound by D (Higginbotham's θ-binding). Furthermore, D must be the binder in the relevant sense. Baker essentially suggests the position in question is saturated within NP in polysynthetic languages due to independently motivated properties of these languages. It follows such languages cannot have D (the D could not enter into the relationship of θ-binding).

Appendix

Below I give a partial strict NPI paradigm pertaining to the generalizations in (15)-(16).[13]

(38)

John didn't believe(/claim) that Mary would leave until tomorrow:	
O João não acreditou/??disse que a Maria vai sair até amanhã.	(Portuguese)
Jean ne croyait/*espérait pas que Marie parte avant demain.	
'Jean didn't believe/*hope Mary would leave until tomorrow.'	(French)
*Ivan ne veril, čto Marija uedet až do zavtrašnego dnja.	(Russian)
*Jan nie wierzył, że Maria wyjedzie aż do jutra.	(Polish)
*Ivan nije vjerovao da će Marija otići sve do sutra.	(SC)
*Jon-wa [Mary-ga asita made syuppatu suru daroo to] sinzi-nakatta.	(Japanese)
??John-un [Mary-ka ecey-kkaci-to ttena-l kes-irako] mitci ahn-ass-ta.	(Korean)
*Yuehan bu/cai xiangxin Mali zhidao mingtian hui likai.	(Chinese)

Er hat *(nicht) sonderlich viel gegessen.	
he has not particularly much eaten	
'He did not eat that much.'	
Ich glaube/*freue mich nicht dass er sonderlich viel gegessen hat	
I believe/*look.forward not that he particularly much eaten has	(German)

[13] I used the NPIs from (12) (if there were no interfering factors, as in German) and 'believe' (only one NPI is given for each language, see Bošković in press c for additional data). The NPIs are underlined and interpreted in the embedded clause, the relevant reading being 'John believed/claimed [that Mary would not leave until tomorrow]'/'John believes/claims [that Mary has not visited her in at least two years]'. The judgments are given only for these readings. Some examples do have other readings that I have ignored (e.g. 'return tomorrow' for 'leave until tomorrow'). I omitted the base-line data for space reasons. I gave both an NR and a non-NR verb for NR languages to show that we are dealing with clause-mate NPIs (the distinction is not relevant in non-NR languages).

John doesn't believe(/claim) that Mary has visited her in at least two years:	
Juan no cree/*dijo que María la ha visitado en al menos dos años.	(Spanish)
Ion nu crede/*spune că Maria a vizitat-o de cel puţin doi ani.	(Romanian)
Az ne vjarvam/*kazah če Meri ja e poseštavala pone ot dve godini.	
'I don't believe/*didn't say Mary has visited her in at least two years.'	(Bulgarian)
*Jan nevěří, že Marie ji navštívila nejméně dva roky.	(Czech)
*Janez ne verjame, da jo je Marija obiskala že najmanj dve leti.	(Slovenian)
*John [Mary o-nu en az iki yıl ziyaret et-ti] san-mı-yor.	(Turkish)

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