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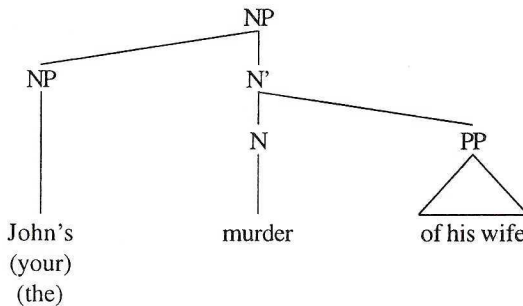
FROM NPs TO DPs: ANALYSES OF NOUN PHRASES IN GENERATIVE GRAMMAR*

The article offers an overview of recent proposals concerning the internal structure of noun phrases within the framework of generative grammar (specifically, the Principles and Parameters model and the Minimalist Program). The array of functional projections postulated above the level of NP (Noun Phrase) is presented, and the parallelism between nominal constructions and clausal structures is emphasized. The adequacy of the Determiner Hypothesis for Polish is briefly discussed.

1. The origin of the DP hypothesis

In earlier versions of the GB (Government and Binding) theory and X-bar syntax, e.g. in Jackendoff (1977), a noun phrase (NP) is regarded as a projection of the lexical head N(oun)¹. The head can take a postnominal genitive NP or a PP (e.g. *of*-phrase in English) as its complement. Moreover, the head noun can occur with a specifier, which can surface as a prenominal genitive NP, a possessive or a determiner. The internal structure of NPs in such a model can be represented by the phrase marker given in (1). The NP in [Spec(ifier), NP] is regarded as the subject of NP, by analogy to the subject of a tensed clause located in [Spec, I(nflectional) P(hrase)]:

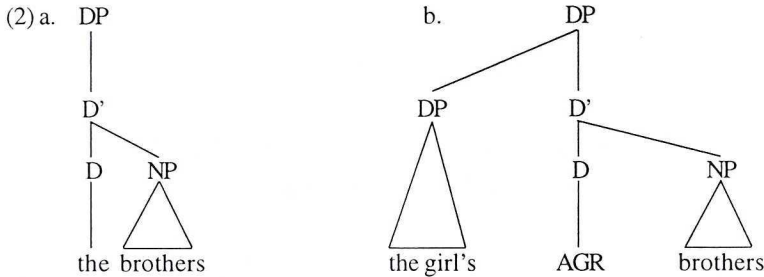
(1)



* I am grateful to Helen Trugman for comments on an earlier version of this paper. All errors are my own.

¹ A useful cross-linguistic analysis of noun phrases (within the model of Principles and Parameters) without positing the DP level is presented in, among others, Giorgi and Longobardi (1991).

Abney (1987) – building on the work by Szabolcsi (1983) – reinterprets noun phrases as D(eterminer) P(hrases), i.e. projections of the functional head D(eterminer) which selects an NP as its complement. According to his proposal, the head D is either realized overtly (spelt-out) in English by the determiner, as in (2a), or contains the covert determiner – an abstract nominal head AGR(ement), which assigns genitive case to the DP in the position of the specifier of the matrix DP, as shown in (2b).



The DP-hypothesis by Abney (1987) highlights the parallelism between nominal and sentential constructions. The standard assumption in the GB theory (before Pollock's 1989 Split-InfI hypothesis mentioned in Section 3) is that clauses are projections of the functional head INFL(ection) whose complement is a lexical projection V(erb) P(hrase). Therefore, it is to be expected that noun phrases are also projections of some functional head, namely the Determiner (D), which takes a lexical projection NP as its complement.

2. Parallelism between nominal and sentential constructions

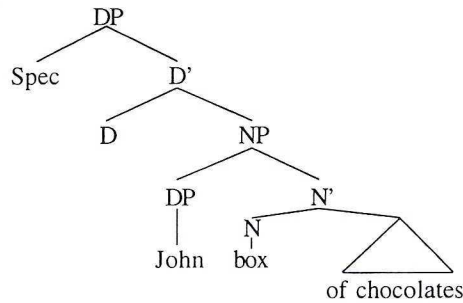
Further developments in the theory of DPs within the framework of the Principles and Parameters theory and, later, the Minimalist Program can be viewed as reflecting the desire to maintain a symmetry between noun phrases and clauses under the X-bar framework.

The hypothesis of VP-internal subject (cf. Haegemann 1994:353ff. or Culicover 1997:148ff. for discussion), predicts that subject NPs originate in [Spec,VP]. They are then raised to the specifier of the functional projection I(nflectional) P(hrase) to receive abstract Case, i.e. NOMINATIVE, from the head of the projection INFL. Likewise, the subject of NP (i.e. the possessive) can be taken to originate NP-internally, i.e. in [Spec, NP]. It moves to [Spec, DP] for Case marking. The subject of the noun phrase is assigned abstract Genitive Case in the specifier position of DP by the covert functional head D (i.e. the abstract nominal head Agr)². The underlying (d-) structure³ of the noun phrase *John's box of chocolates* can thus be represented by (3), which is modelled on example (57) in Culicover (1997):

² Overt determiners are stipulated not to assign case.

³ The distinction between d(EEP) Structure and s(URFACE) Structure is adopted within the Principles and Parameters model of generative grammar, while the Minimalist Program assumes that there is only one level of syntactic representation (cf. Chomsky 1995).

(3)



The DP dominated by N', e.g. *chocolates* in (3), is interpretable as 'the object of NP'. The DP in the specifier of NP, i.e. *John*, is treated as the subject of NP.

The hypothesis of the internal subject inside VP or NP is consonant with the observation that VP forms the semantic core of the clause and NP is the semantic core of the nominal projection. Assignment of theta-roles to arguments of the verbal or nominal predicate takes place under government by the lexical head V or N within the lexical projection. Functional heads, on the other hand, contribute information about tense, modality, or referentiality, definiteness, but cannot add arguments to the lexical predicate. Consequently, Grimshaw (1991) proposes that clauses are to be analysed as 'extended projections' of the lexical head V. DPs can similarly be treated as 'extended projections' of the lexical head N. Moreover, Grimshaw (1991) assumes that there cannot be two lexical heads within one projection. Projections of lexical heads cannot be interspersed in projections of functional heads. Nor can lexical projections dominate functional projections in a given configuration⁴.

The parallel between extended projections of the lexical head V and the lexical head N is not complete, however. For instance, the subject is obligatory in a clause but optional in a noun phrase. The requirement that clauses need subjects is formalized as the Extended Projection Principle: the position of the specifier of Inflectional Phrase must be filled. When there is no argument to fill the specifier of IP, an expletive element (e.g. *it* or *there* in English) is inserted. In languages with rich verb inflection (e.g. Polish) the specifier of IP may be occupied by the null element *pro*. The Extended Projection Principle does not operate within noun phrases, as is confirmed by the lack of expletive elements in nominal constructions (e.g. **there's arrival*) and by the optionality of arguments of the head noun (cf. *John's quarrels with Mary* and *frequent quarrels at school*).

3. Functional projections inside DP

An important stimulus to the development of the DP-theory was provided by the Split-Infl (i.e. Split-Inflection) hypothesis, put forward in Pollock (1989). Under this hypothesis, bound inflectional morphemes (such as markers of tense, person or number) are treated as syntactically free functional elements at d-structure. They head their own maximal projections, which dominate VP in the underlying syntactic representation. Pollock (1989) splits INFL into two functional heads: AGR(ement) and T(ense). Further research into the structure of the clause (cf.

⁴ This constraint apparently does not refer to the cases of NP dominating functional categories „embedded” inside the projection of a verbal nominal, as proposed within the framework of Parallel Morphology in Borer (forthcoming).

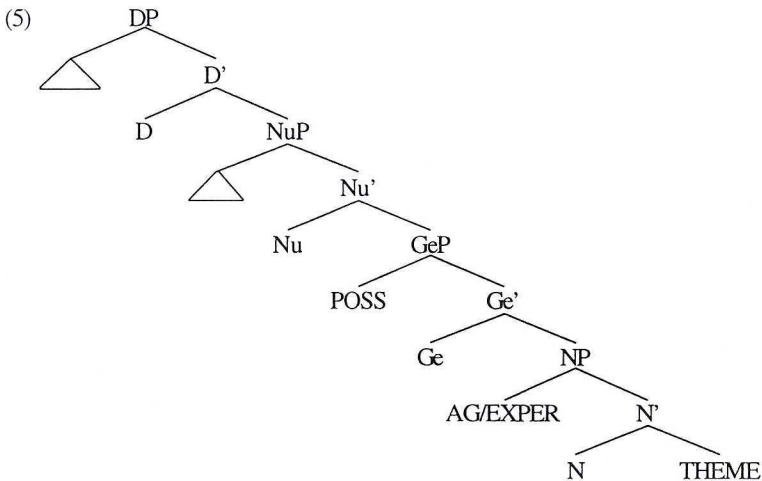
Culicover 1997:360) brought forth evidence for the existence of two types of AGR heads: Agr_S (subject agreement) and Agr_O (object agreement). The tense phrase (TP) dominates $Agr_O P$ (object agreement phrase) and is, in turn, dominated by the $Agr_S P$ (subject agreement phrase).

The association of a verb with its inflectional morphemes proceeds in a step-wise manner as a form of head-to-head movement (i.e. incorporation in the spirit of Baker 1988). The lexical head V is incorporated by the functional head Agr_O , with which it forms the complex head $V-Agr_O$. The complex head moves to the head T, and finally to Agr_S . The spelling out of the final result of head-to-head movement takes place in the phonological component of grammar, P(honological) F(orm).

Since nouns show overt inflectional morphology, the existence of several functional projections dominating the level of NP has also been proposed in the literature within the framework of the Minimalist Program. Even before the advent of the Minimalist Program, we may find proposals of more elaborate nominal structures. Thus, for instance, Szabolcsi (1983) proposed the existence of the Possessor Phrase (PossP) as the complement of the head D to account for the fact that in Hungarian noun phrases possessive elements can be preceded by a definite article. This is illustrated in (4):

- (4) $[\text{DP}$ (a) $[\text{POSSP}$ Mari- \emptyset $[\text{NP}$ vendé g-e- \emptyset
 (the) Mary-N guest -poss-3sg
 'Mary's guest' (from Szabolcsi 1983: 91)

In Abney (1987) the functional projection which hosts elements representing possessive agreement in Hungarian or Turkish is labelled as Agreement Phrase (AgrP). Ritter (1991), when discussing noun phrases in Hebrew, argues for the functional projection of the head Number as the locus of the abstract features of number and gender, immediately dominated by DP. Picallo (1994) adds another functional head to the nominal projection and postulates the configuration in (5) for Romance noun phrases. In (5) NuP stands for Number Phrase, GeP for Gender Phrase. AG(ent)/EXPER(iencer) represent the theta-role assigned by the head N to its subject and THEME is the role assigned by N to its complement.



The configuration given in (5) above, proposed for Romance noun phrases in Picallo (1994:276), could be, in principle, adopted for Polish nominals. It would have strong morphological motivation since the ordering of functional projections inside DPs reflects the morphological order of morphemes on the nominal stem, as is required by Baker's (1988) Mirror Principle⁵. Gender in Polish can be marked by the derivational suffix *-k-* which attaches directly to the stem of the derivational base, as in *Francuzka* 'a Frenchwoman' and *Szkotka* 'a Scotswoman' (cf. *Francuz* 'a Frenchman' and *Szkot* 'a Scotsman'). The marker of the natural gender can therefore be viewed as more "internal" in the nominal stem than the portmanteau morphemes which mark simultaneously number, case and grammatical gender, e.g. *-a* which signals 'Nom.Sg.Fem'. The occurrence of intermorphemic extensions determined by the plural or singular number of nouns, e.g. *-in-* in *Amerykanina* 'American-MASC.SG.GEN' which is absent in *Amerykanów* 'American-MASC.PL.GEN', implies that the functional head Num(ber) should be lower in the DP configuration than the functional head which assigns case to the head noun, e.g. D⁶. The functional head carrying the case feature could be Agr(eement) or D. The case is assigned to the matrix DP by an element which is outside the DP, i.e. the preposition or the verb, as in the phrase *bez czekania*-GEN 'without waiting'. The case then 'percolates' to the head of the DP, which thus suggests D as carrying this feature.

As one can notice from the discussion above, there is no consensus as yet as to the type, labelling, and location of functional projections inside DPs cross-linguistically⁷. For further illustration consider, for instance, a highly elaborate internal structure of DP in (6) proposed by Vangsnes (1997) in Scandinavian.

Vangsnes assumes that the following projections mediate between the level of DP and NP: Agr(eement) P(hrase), Num(ber) P(hrase), A(djective) P(hrase) and an enigmatic F(unctional) P(hrase)⁸. He employs FP for the placement of demonstratives in its specifier. One can object to the presence of the lexical projection (AP) in between NumP and FP in (6), since it violates the hypothesis of extended projections, put forward in Grimshaw (1991).⁹

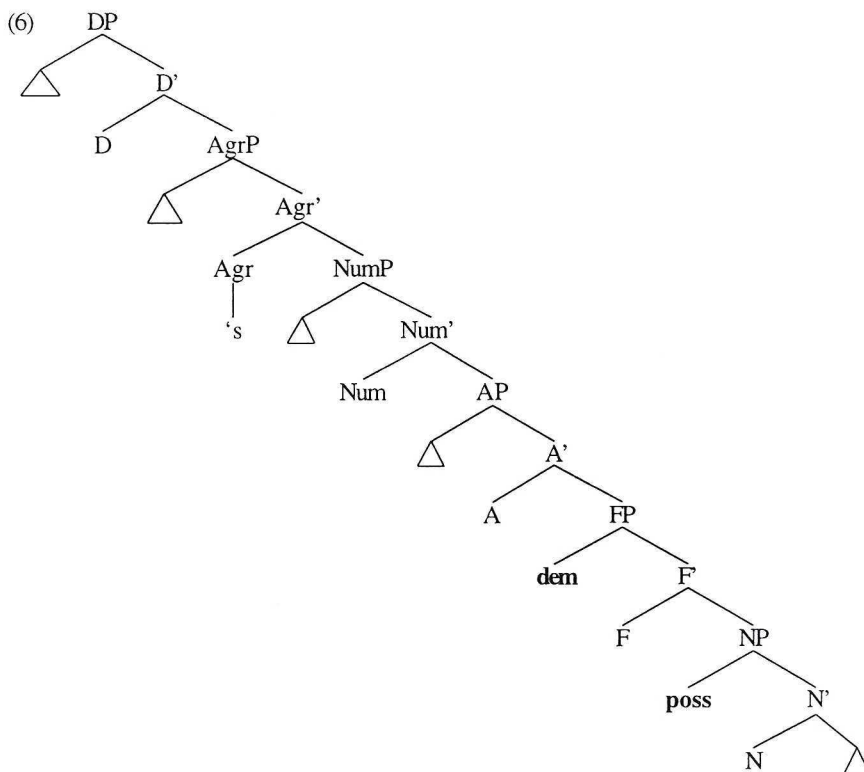
⁵ See Śpiewak and Szymańska (1995) for morphological motivation of the order of functional projections in Polish clauses. However, as is observed in Progovac (1998) and noted also in section 4 of the present paper, the relevance of morpheme ordering for the order of functional layers above DPs and VPs is questionable in the framework of the Minimalist Program (cf. Chomsky 1995).

⁶ As is mentioned in section 5, Giusti (1995) and Migdalski (2000) locate morphological case in D, while Willim (1999) and Lyons (1999) believe it to be carried by the head of KP.

⁷ A brief overview of recent proposals concerning the internal structure of noun phrases is offered also in Lyons (1999).

⁸ The layer of FP has been introduced between DP and NP in Cinque (1995). According to Cinque, however, it has an empty functional head F and its specifier can be filled by attributive adjectives. Let us note that some researchers use FP as a shorthand for a functional head or heads intermediate between N and D (e.g. Willim 2000).

⁹ I thank Maaïke Schoorlemmer (p.c.) for pointing this out to me.



De Wit and Schoorlemmer (1996) attempt at showing that the internal structure of noun phrases in Russian, German and Dutch, as represented in (7)¹⁰, resembles that of nominals in Italian¹¹. The abbreviations PA and DP_{GEN} in (7) stand, respectively, for a prenominal (possessive) argument and a post-nominal genitive phrase. The symbols t_N , t_{PA} and t_{GP} represent traces of the head noun, the prenominal argument and the genitive phrase which moved out of the internal NP domain for reasons of case checking. De Wit and Schoorlemmer (1996) assume that the Cases of the subject or object of NP are structural, hence uninterpretable. These features need to be erased (i.e. „checked”) before the PF component, as is predicted by the principles of the Minimalist Program, outlined in Chomsky (1995), otherwise the derivation will crash¹². The subject or object DP moves to the specifiers of a functional projection, to check whether its uninterpretable Case feature matches the one on the functional head. The feature [+POSSESSIVE] can be checked in the specifier of PosP whereas the feature [+GENITIVE] is checked in the specifier of AgrP.

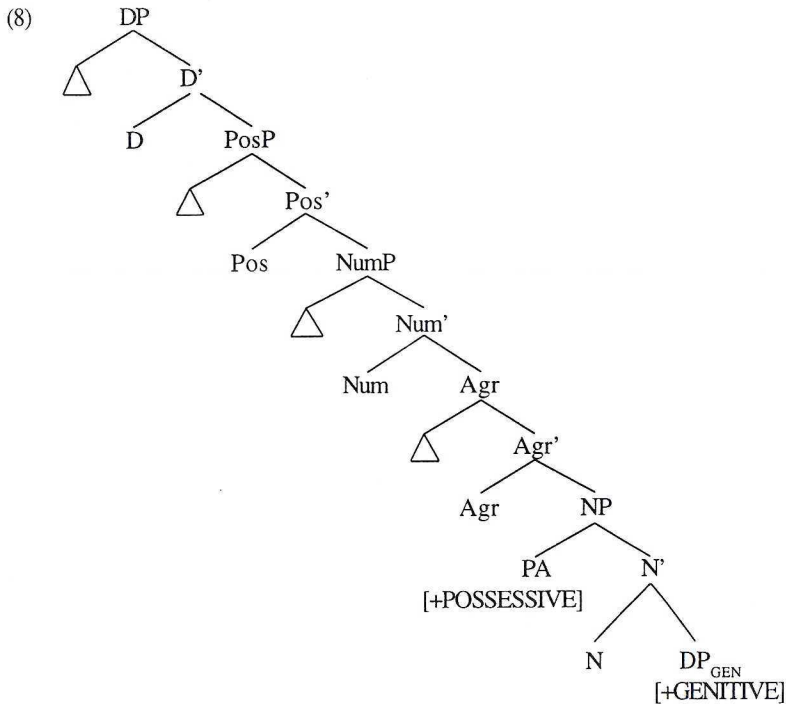
¹⁰ This structure has been adopted for the analysis of Polish verbal nominals in Cetnarowska (1998).

¹¹ This is consonant with the results of cross-linguistic studies of nominals carried out in Giorgi and Longobardi (1991).

¹² Interpretable features (e.g. inherent cases assigned by the lexical head to its internal argument) require no checking, since they are invisible to PF.

(7) $[_{DP} [_{PosP} PA Pos [_{NumP} N [_{AgrP} DP_{GEN} t_N [_{NP} t_{PA} t_N t_{GP}]]]]]$

When reinterpreted as a tree diagram within the more traditional P&P (Principles and Parameters) framework, the representation in (7) will take the form of (8):



Both the representations in (8) and in (6) conform to the NP-internal subject hypothesis and preserve the asymmetry between the subject and object of NP. Even a cursory glance at (6) and (8) above reveals, however, some confusing (though largely superficial) differences between the labelling of nodes in these two representations, e.g. AgrP in (6) corresponds to PosP in (8). Moreover, the representations in (6) and (8) diverge as to the placement of demonstratives, possessives and attributive adjectives. De Wit and Schoorlemmer (1996) suggest that demonstratives, such as Russian *etot* 'this', occur in [Spec, DP], while according to Vangsnes (1997) Scandinavian demonstratives are located in [Spec, FP]¹³.

The survey of various accounts of the internal syntax of noun phrases, attempted in this section, is by no means exhaustive. This is due both to space limitations and to the virtual explosion of articles and monographs on DP structure in the 1990s. Proposals con-

¹³ De Wit (1997) emphasizes further parallels between the architecture of clauses and noun phrases. She suggests that PosP in DP is the equivalent of I(nflectional) P(hrase) (or TenseP given the Split-Infl hypothesis), Number Phrase (NumP) corresponds to Aspect Phrase in clauses, while the highest level in nominal phrases, i.e. the level of DP is the structural equivalent of C(omplementizer) P(hrase) in clauses.

cerning additional functional structure in noun phrases can be found in, among others, Progovac (1998) and Alexiadou and Wilder (1998)¹⁴. Nevertheless, I hope to have included in the presentation above those functional layers between NP and DP, which occur most commonly in the literature on the topic.

4. Trimming down DP trees

While considerable research (reported on briefly in the preceding section) was carried out in the nineties to motivate the existence of a fair number of functional layers above NP, the recent years have witnessed an opposite tendency in the studies couched within the framework of MP (Minimalist Program), namely a trend to reduce the number of functional projections in noun phrases. Another tendency observable in the recent literature is to regard particular functional projections in noun phrases as language-specific, rather than occurring universally (cf. Ritter 1993, Willim 2000).

Veselovska (1997), for instance, when analysing the structure of Czech noun phrases, postulates no other levels apart from DP and NP. She adopts Chomsky's (1995) proposal of multiple specifiers and allows for the recursion of the functional projection of DP.

Let us note, however, that the assumption of the recursion of DP is not commonly made in the literature on noun phrases. Instead, we can assume that one functional head can simultaneously check two or more inflectional features. Ritter (1993) suggests that the functional head Num(ber) checks the features of gender and number in Spanish. This obviates the need for a separate functional head corresponding to each morphologically visible nominal feature¹⁵, hence minimizing the structure. Moreover, if a given inflectional feature has no morphological realization and is not syntactically active (e.g. gender in Haitian), Ritter (1993) denies the existence of a functional projection corresponding to such a feature in this particular language.

Building on the work by Ritter (1993), Cinque (1995) and Chomsky (1995), Willim (2000) does not postulate any functional categories – except for D(eterminer) and Q(uantifier) – in English noun phrases. She assumes that the phi-features of English nouns (i.e. number, gender, person) are [+Interpretable], hence they do not need to be checked in the course of syntactic derivation (either in their own or in some other functional projections). As for Polish, Willim (2000) suggests that the features of number, gender, and case – which are morphologically realized on determiners and adjectives modifying nominal heads – are checked in FP (Functional Projection) since adjectives are base-generated as specifiers of (iterative) FP.

Similarly, no functional layers intermediate between N and D are proposed in the analysis of Russian nominals in Engelhardt and Trugman (1998), or in the cross-linguistic survey of Slavic noun phrases in Rappaport (2000).

¹⁴ Progovac (1998) postulates the existence of DefP (Definite Phrase) between NP and DP in Serbo-Croatian nominals. Dimitrova-Vulchanova and Giusti (1998) propose, in turn, that in Albanian noun phrases there is a FocP (Focus Phrase) projection between AgrP and DP. In Bulgarian noun phrases, according to them, FocP and TopP (Topic Phrase) are functional projections that dominate DP.

¹⁵ Under the minimalist perspective (Chomsky 1995) movement involves checking of features, rather than building up morphological structure of inflected forms. Consequently, as is pointed out in Progovac (1998), Baker's (1988) Mirror Principle no longer constrains the ordering of functional projections.

5. Is there a DP layer in Polish nominals?

Willim (1998, 2000), moreover, argues that Polish lacks the DP-projection in overt syntax. This, according to her, is evidenced by the lack of articles in Polish, and by the fact that demonstratives (e.g. *ten* 'this', *tamten* 'that') behave like adjectives, i.e. they in agree in their phi-features with corresponding head nouns. She suggests, in turn, the existence of the functional projection KP (Kase Phrase) above NP in Polish nominal constructions. Since Polish nouns show overt (morphological) case, the functional projection KP serves as the domain for (morphological) case checking. KP is recognized also in Lyons (1999). He asserts, however, that this is a projection above the DP-level. In addition, he proposes that certain KPs select NPs rather than DPs as their complements. This happens in the case of indefinite noun phrases in English, such as *some flowers* and *a leaf*. The level of KP dominates directly the level of NPs also in languages in which a definite article is null, hence the DP projection is non-existent.

Let us note, however, that the lack of lexical articles in Polish does not preclude the possibility of postulating a phonetically empty element filling the D-position. Arguments for the occurrence of the DP level in articleless languages, such as Polish or Russian, are given in, among others, Engelhardt and Trugman (1998), Giusti (1997), Migdalski (2000), Rappaport (2000), and Progovac (1998).

One of the reasons for proposing the DP-layer involves the mechanism of case-licensing. Engelhardt and Trugman (1998) suggest that the head of the DP licenses the structural genitive case assigned to the subject of NPs in Russian, i.e. to the adnominal genitive with subject-type reading, such as *professora* in (9). The adnominal genitive with the object-type interpretation in (9), i.e. *redkix monet*, receives the inherent case from the lexical head N.

- (9) *kollekcija redkix monet professora*
 collection rare coins-gen professor-gen
 'professor's collection of rare coins'

Engelhardt and Trugman (1998) achieve an interesting generalization concerning the case-licensing mechanism. Following Chomsky (1970), they assert that heads of functional projections (such as D) are able to assign the structural case, while the inherent case can be assigned only by heads of lexical projections.

Willim (1999) points out a seeming disadvantage of such a case-assignment mechanism for Polish (or Russian). Namely, the existence of two case-assigning heads (i.e. N and D) predicts the availability of two adnominal genitives in all types of nominals in Polish (or Russian). This prediction is incorrect, as is confirmed by the ill-formedness of process nouns with two lexical genitives in (10):

- (10) a. **ocena wydarzeń policji* (Polish)
 evaluation events-gen police-gen
 'the evaluation of the events by the police'
 (from Willim 2000, ex. 14b)
- b. **kollekcionirovanie redkix monet professora* (Russian)
 collecting rare coins-gen professor-gen
 'professor's collecting rare coins'
 (from Engelhardt and Trugman 1998:115, ex. 3b)

Willim (1999, 2000) suggests that KP is unable to assign a structural genitive case in Polish, and consequently no transitive process nominals (with two adnominal genitives) are attested. Polish resembles in this respect Russian, but both those languages contrast with English, German, or Catalan, which allow for two genitive arguments, as shown in (11), quoted after Willim (2000, section 3) and Picallo (1994):

- (11) a. John's reconstruction of an 18th century French village
 b. Hannibals Zerstörung der Stadt (German)
 Hannibal-gen destruction the city-gen
 'Hannibal's destruction of the city'
 c. el descobriment de Gallo del virus (Catalan)
 the discovery of Gallo of virus
 'Gallo's discovery of the virus.'

Engelhardt and Trugman (1998), however, provide a feasible explanation for the non-occurrence of two genitives in (10b)¹⁶. They assume that process nominals are syntactically derived, in contrast to lexically derived result nominals in Russian. While in result nouns the lexical head N has a case-licensing potential, in the case of process nominals in (10b) it lacks this property, because it incorporates the head V, as is proposed in Borer (forthcoming). The incorporated head V is unable to license structural accusative case¹⁷ either since, according to Engelhardt and Trugman (1998), the verb head undergoes passivization prior to incorporation. As a result, in process nominals only D is an active Case-licenser, and only one postnominal genitive phrase is allowed.

Another kind of motivation for the DP level in articleless languages may involve a difference between the syntactic and semantic properties of noun phrases which have the DP layer and those which lack the DP projection (i.e. between DPs and bare NPs). Longobardi (1994) claims that noun phrases can serve as arguments only when they are predicated of a D-head. Noun phrases that lack the functional DP projection are exclusively nonargument nominals, i.e. they occur in vocative, exclamative or predicative use, or they constitute part of compounds and selected idioms. Such nominals are not referential and do not occur in English with determiners, as is shown in (12), taken from Radford (1997:156)

- (12) a. Do all syntacticians suffer from asteriskitis, *doctor*?
 b. Dick Head is *head of department*.
 c. *Poor fool!* He thought he'd passed the syntax exam.

¹⁶ Rappaport (2000) proposes another account. He suggests that the nominal external argument (i.e. Subject-of-NP) must be of the complex category [D, Adj], namely a possessive adjective. He also notes the existence of marginal cases of process nominals in Russian with double adnominal genitives, such as *metod sistematičeskogo i posledovatel'nogo izloženiija učitelja učebnogo materiala* «the method of systematic and consistent presentation of a teacher of pedagogical material». Such phrases are possible in non-standard speech, where the constraint on the realization of the external nominal arguments by possessive adjectives is relaxed.

¹⁷ Engelhardt and Trugman (1998) assume that the incorporated V maintains its case-licensing properties in the case of nominals derived from verbs which assign inherent case to their complements, as shown by the well-formedness of the Russian phrase *soprotivlenie studentov nasiliju* (resistance students-gen violence-dat) «students» resistance to violence'.

The contrast between referential DPs and non-referential NPs is discussed at length in Roeper (1995), who points out differences between the sentences *He took hold of himself* and **He took his hold of himself*, or *John was in control of the army* and **John was in his control of the army*. Trugman and Engelhardt (1997) exploit the distinction between DP-nominals and DP-less non-referential nominals in Russian. They propose that nominals lacking the DP projection appear in Russian in *tough*-constructions (in 13a) and nominal purpose adjuncts (in 13b) (examples from Engelhardt and Trugman 1998:129):

- (13) a. *Takie temy_i ne interesny dlja obsuždenia e_i v klasse.*
 such topics not interesting for discussing in class
 ‘Such topics are not interesting for class discussion.’
 b. *Maksim prines kartinki dlja raskrašivania e_i.*
 Maksim brought pictures for colouring
 ‘Maxim brought pictures to colour.’

Another advantage of the DP-hypothesis is a more straightforward analysis of personal pronouns. Abney (1987) accounts for the non-occurrence of pronouns preceded by determiners in English (e.g. **the us*; **those them*) by assuming that pronouns are heads of DPs which have no specifiers and normally take no complements. Some exceptional cases, when a pronominal D takes an overt complement, include phrases such as *you linguists* in English, or *noi medici* ‘we doctors’ in Italian, discussed in detail in Longobardi (1994). Personal pronouns in Polish can similarly be followed by noun phrases, e.g. *my językoznawcy* ‘we linguists’ and *wy lekarze* ‘you doctors’, which can be construed as indicating that Polish pronouns are also base-generated as the DP-heads (see, however, Willim 1998 for counterarguments and another solution to the problem¹⁸).

Movement processes inside nominals can provide some further cross-linguistic justification for the DP projection (and additional functional layers between NP and DP). Grosu (1988) puts forward the claim that in Rumanian the head N moves to the head of DP when the definite article is present, as in (14a). In the absence of the definite article in (14b) the head noun moves from NP to some position intermediate between N and D. Observe that in (14b) the head noun follows the adjective as well as the indefinite article.

- (14) a. *băiatul frumos (cel român)*
 boy-the nice (the Rumanian)
 b. *un frumos băiat român*
 a nice boy Rumanian

Longobardi (1994) postulates N-to-D movement of proper nouns in Italian, which is responsible for the word order in phrases such as *Cameresi vecchio* ‘old Camerese’, where a proper name precedes the adjective. Longobardi (2000) argues for the need of at least one intermediate projection between NP and DP as a target for N-raising cross-linguistically.

¹⁸ Willim (1998) analyses phrases such as *wy lekarze* «you doctors» as analogous to appositive phrases, such as *Paul Jones, the doctor* in English. Migdalski (2000), in contrast, argues that the behaviour of Polish pronouns confirms the existence of the DP-layer in Polish, and postulates that pronouns in Polish occupy the position of [Spec, DP] (rather the position of D).

The exact position of this intermediate projection (labelled as H) – in a sequence of thematic (i.e. referential) and attributive adjectives – is subject to parametric specification, and is „higher up the tree” for Celtic and Romance nouns than for Germanic or Greek. On the other hand, Longobardi (2000) assumes that in Slavic languages, such as Polish, there is no N-to-D raising¹⁹. A counterexample to his opinion, and a potential item of evidence supporting the postulation of the DP layer in Polish, is provided in Migdalski (2000). He analyses the word order in (15b) as involving movement of a complement to [Spec,DP] position²⁰. This movement is possible only for referential (argument) DPs. It does not take place in (16b) since the adnominal genitive *człowieka* ‘human-gen’ is not referential.

- | | | | |
|---------|------------------|----|------------------|
| (15) a. | samochód Janka | b. | Janka samochód |
| | car John-gen | | John-gen car |
| (16) a. | prawa człowieka | b. | *człowieka prawa |
| | rights human-gen | | human-gen rights |

Migdalski (2000), following Giusti (1997), postulates that the head of DP in Polish is syntactically active, though covert, as a locus of morphological case. This contrasts in an interesting way with Willim’s position, where morphological case is located in the head of KP²¹.

The decision whether to include the DP layer in the array of functional projections in Polish, Russian and other articleless languages still remains disputable. Apart from Willim (1998, 1999, 2000) the position that languages lacking overt determiners have no DP projection is taken in, among others, Corver (1992) and Zlatic (1997). Consequently, the issue of the existence or non-existence of a DP-projection in Polish requires a careful investigation, beyond the scope of the present paper.

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¹⁹ There is, unfortunately, very little discussion of Slavic noun phrases in Longobardi (2000).

²⁰ This movement resembles the movement of a complement (object-type genitive) to [Spec, DP] proposed in Abney (1987) for English passive nominals, e.g. *Rome’s destruction (by the enemy)*.

²¹ Giusti (1995) argues that the decision to locate morphological Case in D, instead of K, captures the relationship between Case and definiteness, which was observed during the diachronic development of many Romance and Germanic languages.

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