Introducing Arguments and Modifiers in the Noun Phrase

Pietro Baggio - Queen Mary University of London

Abstract: Noun Phrases, such as *this photo*, can often appear both with modifiers, such as the adjective *old*, and with arguments, typically PPs such as *of the Queen*. Most of the literature on the syntax of DPs has adopted the hypothesis that adjectives are base-generated higher than nominal arguments, just like adverbs are Merged higher than arguments in the clause. This study will look at the syntax of the Italian DP, focusing on the distribution of modifier PPs and argument PPs, and will offer novel evidence that, contrary to the received view, nominal modifiers such as adjectives are in fact base-generated *lower* than nominal arguments.

1 Introduction

Much of the literature on the syntax of DPs (e.g. Giorgi and Longobardi 1991, Alexiadou, Haegeman, and Stavrou 2007, Longobardi and Silvestri 2013, a.o.) assumes that nominal arguments are Merged lower than modifiers such as adjectives. The aim of this squib will be to argue that this assumption is fundamentally incorrect. A typical implementation of the "received" approach is exemplified in (1), below.

(1)   [$_{DP}$ D [$_{NumP}$ Num [$_{FP}$ AP F* [$_\alpha$ POSS [SUBJ [OBJ ...N...]]]]]]

[adapted from Longobardi (2001:597)]

An intuitive advantage of (1) is that it establishes a clear parallelism between the verbal and the nominal Extended Projections, insofar as the lowest domain of

both CPs and DPs is assumed to be the *theta*-domain (labelled α in (1)), where arguments are introduced. This is dominated by an "inflectional" domain where adverbs (in CP) or adjectives (in DP) are introduced.

The surface word order in English, where argument PPs occur to the right of the noun and adjectives occur to its left, can be simply derived by head-movement of the noun to a position just above α. In Italian, on the other hand, the noun head will move higher, above FP, thus deriving the fact that (most) adjectives are postnominal like PPs in Italian (cf. Longobardi 2001, Longobardi and Silvestri 2013). It is worth noticing that the approach in (1) goes hand in hand with the idea that linear order is fundamentally isomorphic with structural height, so that constituents that occur further right (e.g. PPs) are systematically structurally lower. This will play an important part in my criticism of (1) below (see §2).

In this squib, I will present some Italian data that challenges the approach in (1), and argue, in line with Adger (2013), that arguments in the DP are Merged higher than modifiers, including (most) attributive adjectives. I will limit my attention to non-derived nominals: if the arguments of deverbal nouns are introduced by *verbal* functional structure (Borer 2013b), they will not be true *nominal* arguments, and may thus be expected to exhibit different syntactic behavior.

Some terminological clarifications are in order. The distinction between arguments and modifiers, primarily *semantic* in nature, will be at the heart of my discussion. The separation of adnominal constituents into these two classes has a long history: for example, Munn (1995), focusing on English "Saxon Genitives", distinguishes between *regular possessives*, as in *John's shoes*, and *modificational possessives*, as in *men's shoes* ('shoes for men'). Kolliakou (1999), focusing on French *de*-phrases, distinguishes between *individual-denoting expressions* and *property-denoting expressions*. Finally, Borer (2013a), focusing primarily on Hebrew Construct States, contrasts *I(individual)-Genitives* and *I-Constructs* with *M(odificational)-Genitives* and *M-Constructs*.

In this squib, I will use the term *argument* for expressions denoting themes,

agents/authors, and possessors. These are referential or quantificational expressions which can bind anaphors and antecede pronouns (see the cited literature for details and other diagnostics). As argued in Longobardi (1994, 2008), semantic argumenthood requires the projection of a full DP, rather than a bare NP. This, however, can in turn be embedded within a PP or AP[1] layer, resulting in "prepositional" or "adjectival" arguments, respectively. On the other hand, I will use the term *modifier* specifically for those intersective or subsective expressions that denote a property (e.g. size and color adjectives, as in *small red book*) or restrict the denotation of the modified noun to one of its subclasses (classifying adjectives, as in *nuclear physics* and *dark comedy*, see Rutkowski and Progovac 2005). I will not use this term for any other adnominal constituents, such as demonstratives, cardinals, ordinals, and high scope-taking adjectives (see fn.3). Thus defined, both arguments and modifiers crosscut the categorial distinction between APs and PPs.

To highlight my semantically oriented perspective, I will focus only on arguments and modifiers that uniformly surface as PPs headed by the preposition *di* 'of' in Italian. This will allow me to preempt any attempt to explain away my data by appealing to different linearization properties of attributive adjectives and PPs (cf. Belk and Neeleman 2015): my claim is ultimately not about a categorial distinction (AP vs. PP), but about a semantic one, and about the way it is mapped onto the syntax of nominal structures.

2   Evidence from Word Order

The first piece of evidence for my claim comes from the neutral order of postnominal arguments and modifiers in Italian, represented schematically in (2).

---

[1]Italian "possessive adjectives" (e.g. *suo* 'his/her') are nominal arguments that are ultimately realized as A(P)s. They have the same semantics, referentiality, and binding possibilities of full PP arguments (cf. Longobardi and Silvestri 2013), indicating the presence of a D(P), yet they have the morphology of adjectives and undergo gender and number concord with the head noun.

(2) N^0 $\overbrace{A_1 \ldots A_n}^{\text{Domain I: modifier APs}}$ $\underbrace{di \text{ } DP_1 \ldots di \text{ } DP_n}_{\text{Domain II: modifier PPs}}$ $\overbrace{di \text{ } DP_{\text{THEME}} \text{ } di \text{ } DP_{\text{AUTH}} \text{ } di \text{ } DP_{\text{POSS}}}^{\text{Domain III: argument PPs}}$

(3)   una statua bianca$_{\text{AP}}$ di marmo$_{\text{PP(MOD)}}$ di Canova$_{\text{PP(ARG)}}$
        one statue white   of marble   of Canova
        'a white marble statue by Canova'

The subscripted numbers in the template refer to the hierarchy of modifiers in (4) and indicate that hierarchically lower modifiers systematically occur closer to the head noun linearly.

(4)   SUBJECTIVE COMMENT > SIZE > WEIGHT > AGE > COLOR > ORIGIN > MATERIAL > CLASSIFYING   [adapted from Scott (2002:114)]

There are many approaches in the literature to derive the hierarchy in (4). Concerning APs, a common cartographical approach is to analyze modifier adjectives as specifiers of dedicated functional heads that Merge rigidly in the order in (4) (cf Cinque 1994, Scott 2002, Laenzlinger 2005). A radically opposed alternative is to attribute the ordering of adjectives purely to extrasyntactic cognitive preferences for adjectives introducing more "apparent" or "objective" properties to occur closer to the noun (cf. Sproat and Shih 1987, Scontras, Degen, and Goodman 2017). Finally, there are approaches that do derive the order in (4) in the syntax, but emphasize the way in which the semantics of adjectives directly determines their syntactic position (e.g. Bouchard 2002, Svenonius 2008). In Svenonius (2008), for example, adjectives adjoin to independently motivated projections in the DP that gradually build up the denotation of the whole nominal Extended Projection, and the semantic contribution of each adjective will determine which projections it will be able to adjoin to felicitously. Whatever the correct account of (4) might be, what matters for present purposes is that the hierarchy is real, and appears to restrict possible orders for modifiers regardless of their categorial

4

status: both modifier APs (5) and modifier PPs (6) abide by it (see Scott 2002 for a similar point).

(5)   uno strumento musicale$_{\text{CLASS}}$ indiano$_{\text{ORIG}}$ antico$_{\text{AGE}}$

        an   instrument musical   Indian   ancient

        'an ancient Indian musical instrument'

(6)   una tazza di ceramica$_{\text{MATER}}$ di colore rosso$_{\text{COLOR}}$ di due kili$_{\text{WEIGH}}$

        a   mug of ceramic   of color red   of two kilos

        'a red ceramic mug that weighs 2kg'

The template in (2) also shows that arguments are rigidly ordered, following the hierarchy in (7). Exactly as in the case of modifiers, lower arguments appear closer to the noun, as (8) exemplifies.

(7)   POSSESSOR > AUTHOR/AGENT > THEME

                                    [based on Longobardi and Silvestri (2013:89)]

(8)   una statua di Bacco$_{\text{THEME}}$ di Michelangelo$_{\text{AUTH}}$ di Alice$_{\text{POSS}}$

        a   statue of Bacchus   of Michelangelo   of Alice

        'a statue of Bacchus by Michelangelo that belongs to Alice'

The hierarchies in (4) and (7) have been argued to be first-Merged (cf. Scott 2002, Longobardi and Silvestri 2013); consequently, it appears that, within each of the three domains in (2), the lower an argument or modifier is Merged, the closer it will appear to the head noun linearly.

    The fact that postnominal arguments and modifiers occur in the mirror image of their first-Merge orders should immediately cast some doubt on the approach in (1). Mirror image effects call for an analysis whereby constituents appearing further right are higher than constituents appearing further left, as in a roll-up movement based account (cf. Shlonsky 2004, Cinque 2010). If this is the case, the fact that argument PPs occur further right than modifier PPs (as well as modifier

APs), as shown in (2), indicates that they are structurally higher, contrary to (1). This is the first suggestive evidence that modification takes place lower than argument introduction in the DP, which will be corroborated below.

It should be noted that the order of postnominal constituents in (2) *can* be permuted. However, this does not happen freely: deviations from the neutral word order are usually the result of focusing a constituent to the right (9).

(9)   il   ritratto di Maria$_{\text{THEME}}$ PRINCIPALE/*principale
        the portrait of Mary   main
        'the MAIN portrait of Mary'

Alternatively, constituents that can be used predicatively may appear further right than expected if they are introduced as part of a reduced relative clause. I refer the reader to Cinque (2010) for an extensive discussion of this strategy and the ways to diagnose it. Needless to say, all the judgments reported in this squib refer to the neutral word order under a wide-focus reading, unless stated otherwise.

3   Diagnosing Constituency: Evidence from Scope, Ellipsis, and Coordination

In §2, I established (2) as the neutral order of postnominal constituents in the Italian DP and I suggested that the most natural analysis, based on roll-up or an equivalent mechanisms for linearization[2], places arguments in a higher structural position than modifiers. In this section, I will look for confirmation that the more peripheral constituents in (2) are also structurally higher than those that are closer to the head noun, and, in particular, that argument PPs are higher than modifier

---

[2]For the purposes of this squib, I will keep appealing to the notion of roll-up movement, although without any theoretical commitment to it. Nothing in my argumentation hinges specifically on roll-up being the correct mechanism to derive mirror image effects and rightward modification (see e.g. Abels and Neeleman 2009 for an alternative).

PPs, as represented schematically in (10).

(10) $[_{DP}$ D^0 $[[[N^0]$ PP$_{MOD}]$ PP$_{ARG}]$ $]$

A first piece of evidence comes from the interpretation of some scope-taking adjectives[3]. (11) shows that prenominal *presunto* 'alleged' can scope over the noun and both its argument and its modifier (iii), or over the noun and the modifier, to the exclusion of the argument (ii). What is crucial is that *presunto* cannot scope over the noun and the argument to the exclusion of the modifier PP (iv). This suggests that a constituency structure as in (10) is on the right track. Note that nothing in my discussion predicts the deviance of (i), which might be attributed to constraints against Merging the scope-taking adjective *presunto* too low.

(11)   un   presunto gioiello di ambra$_{MATER}$ de-lla regina$_{POSS}$
       one alleged   jewel   of amber   of-the queen
       'an alleged/putative amber jewel belonging to the Queen'

(i) ?**of amber, of-the queen > alleged > jewel*   ?*[[[*alleged* N] PP$_{MOD}$] PP$_{ARG}$]

(ii) *of-the queen > alleged > jewel, of amber*   [[*alleged* [N PP$_{MOD}$]] PP$_{ARG}$]

(iii) *alleged > jewel, of amber, of-the queen*   [*alleged* [[N PP$_{MOD}$] PP$_{ARG}$]]

(iv) **of amber > alleged > jewel, of-the queen*   *[[*alleged* [N PP$_{ARG}$]] PP$_{MOD}$]

Ellipsis data also confirms the structure in (10): (12) shows that NP-ellipsis can target the noun only (12-a), or the noun and the modifier PP to the exclusion the argument PP (12-b); crucially, however, it cannot target the noun and its argument to the exclusion of the modifier PP (12-c).

---

[3]The scope-taking adjectives that considered here (e.g. *altro* 'other', *finto* 'fake', *presunto* 'alleged') have a very different distribution from the modifier adjectives that (4) refers to (e.g. *alto* 'tall', *rosso* 'red', *Inglese* 'English'). I assume that the former can Merge quite high in the DP, and in different positions depending on the intended scopal reading. The main claim of this squib is not intended to apply to them.

(12)   la   statua di marmo$_{\text{MATER}}$ di Napoleone$_{\text{THEME}}$ e   . . .

     the statue of marble   of Napoleon   and

     'the marble statue of Napoleon and . . .

    a.   . . . quella ~~statua~~ di bronzo$_{\text{MATER}}$ di Copernico$_{\text{THEME}}$

        that   statue of bronze   of Copernicus

       . . . the bronze statue of Copernicus'   [[~~[N]~~ PP$_{\text{MOD}}$] PP$_{\text{ARG}}$]

    b.   . . . quella ~~statua di marmo~~ di Copernico$_{\text{THEME}}$

        that   statue of marble of Copernicus

       . . . the marble statue of Copernicus'   [[~~[N] PP$_{\text{MOD}}$~~] PP$_{\text{ARG}}$]

    c.   . . . *quella ~~statua di Copernico~~ di bronzo$_{\text{MATER}}$

        that   statue of Copernicus of bronze

                        *[[~~[N] PP$_{\text{ARG}}$~~] PP$_{\text{MOD}}$]

Yet another test that appears to confirm the structure in (10) comes from DP-internal coordination, as shown in (13). Following Longobardi (1994) and Bouchard (2002), such cases involve a single DP within which some nominal subconstituents are coordinated: syntactically, this is indicated by the fact that there is a unique determiner; semantically, the structure has a unique referent, to which multiple descriptions apply. As expected, coordination in such cases can apply to nouns alone (13-a), or to nouns and their modifiers to the exclusion of their arguments, which are introduced higher up, above the entire coordination (13-b). Interestingly, as (13-c) shows, coordination cannot instead apply to nouns and their arguments to the exclusion of their modifiers.

(13)   a.   questo [[professore] e   [tutor]] di botanica$_{\text{CLASS}}$ di Maria$_{\text{POSS}}$

       this   professor   and tutor   of botany   of Mary

       'this botany professor and botany tutor of Mary's'

                        [[[N & N] PP$_{\text{MOD}}$] PP$_{\text{ARG}}$]

b.   questo [[professore di zoologia$_{\text{CLASS}}$] e   [tutor di botanica$_{\text{CLASS}}$]] di

      this   professor of zoology   and tutor of botany   of

      Maria$_{\text{POSS}}$

      Mary

      'this zoology professor and botany tutor of Mary's'

                      [[[N PP$_{\text{MOD}}$] & [N PP$_{\text{MOD}}$]] PP$_{\text{ARG}}$]

c. ?*questo [[professore di Maria$_{\text{POSS}}$] e   [tutor di Alice$_{\text{POSS}}$]] di

      this   professor of Mary   and tutor of Alice   of

      botanica$_{\text{CLASS}}$

      botany

                      *[[[N PP$_{\text{ARG}}$] & [N PP$_{\text{ARG}}$]] PP$_{\text{MOD}}$]

4   Evidence against an "NP-Shell" Account

The constituency relations in (10) seem well supported. However, it is important to rule out the possibility that, alongside the structure in (10), schematized in (14), the order in (2) might *also* be derived through a kind of "NP-shell" derivation, as proposed in Belk and Neeleman (2015), schematically represented in (15)[4].
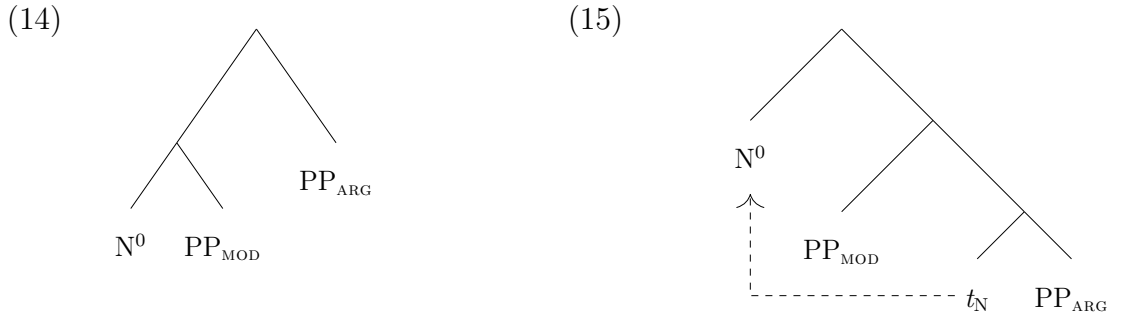
The mirror image effects discussed in §2 already cast some doubt on the viability of (15), which cannot easily derive them. Moreover, if (15) were a possible underlying

---

[4]The simplified structures in (15) and (14) are adapted from Belk and Neeleman (2015). I have avoided labelling non-terminal nodes in the nominal Extended Projection in order to abstract away, for the moment, from the absolute height at which modifiers and arguments are introduced. Only their relative height should matter in the present discussion.

structure for (2), we would expect to be able to Merge a scope-taking adjective such as *finto/falso* 'fake' between PP$_{\text{MOD}}$ and PP$_{\text{ARG}}$, where it could scope rightwards over PP$_{\text{ARG}}$ (and the trace of N^0) only. This, however, is not possible: whether *finto/falso* is linearized to the left (16-b) or to the right (16-c) of the argument PP, it systematically takes scope leftwards.

(16) a. il   gioiello finto/falso di ambra$_{\text{MATER}}$ di mia nonna$_{\text{POSS}}$
          the jewel   fake   of amber   of my grandma
          'my grandmother's fake amber jewel'
          ONLY READING: *of my grandma, of amber > fake > jewel*

     b. il   gioiello di ambra$_{\text{MATER}}$ finto/falso di mia nonna$_{\text{POSS}}$
          the jewel   of amber   fake   of my grandma
          'my grandmother's fake amber jewel'
          ONLY READING: *of my grandma > fake > jewel, of amber*

     c. il   gioiello di ambra$_{\text{MATER}}$ di mia nonna$_{\text{POSS}}$ finto/falso
          the jewel   of amber   of my grandma fake
          'the fake amber jewel of my grandmother'
   ONLY READING: *fake > jewel, of amber, of my grandma*

This pattern, whereby postnominal *finto/falso* always scopes leftwards, is exactly what is expected under the constituency in (14) if *finto/falso* is a rightward modifier, as demonstrated in (17)[5]. On the other hand, under the constituency in (15), we would expect *finto/falso* to be able to scope rightwards as indicated in (18), contrary to facts.

---

[5]The dashed lines indicate possible structural positions for *finto/falso* (only the relevant ones are represented here, for reasons of space). The boxed constituents, on the other hand, indicate the possible scopal domains for *finto/falso*, co-varying with the adjective's height.
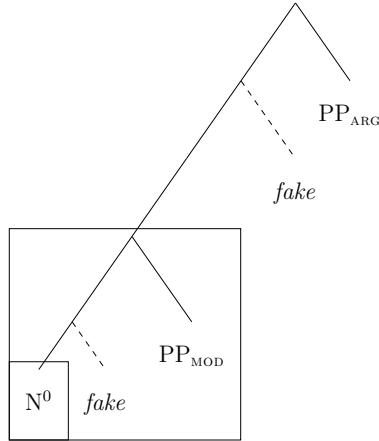
(17)
(18)
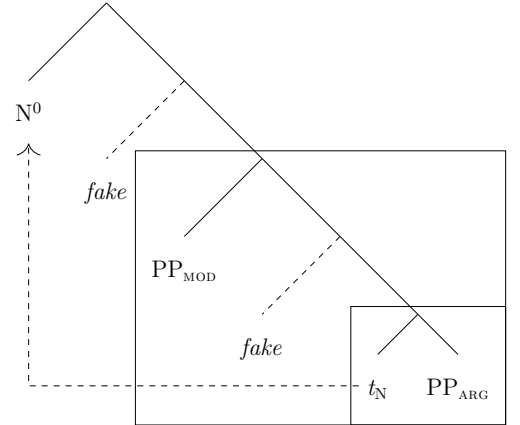
The test above can also be used to diagnose constituency with multiple modifiers or multiple arguments, as shown in (19). The structure that can be deduced from this is represented schematically in (20), an expanded version of (10). The subscripts LOW and HIGH are merely notational shorthands to indicate a PP's *relative* height in the hierarchies (4) and (7) with respect to other PPs on the same hierarchy, however one may wish do derive such hierarchies (as discussed above).

(19)   a.   un gioiello di ambra$_{MATER}$ finto/falso di colore rosso$_{COLOR}$

             a jewel   of amber   fake   of color red

             'a fake amber jewel, which is red'

             of color red > fake > jewel, of amber

    b.   una foto   di un fulmine$_{THEME}$ finta/falsa di Man Ray$_{AUTH}$

             a   photograph of a thunderbolt fake   of Man Ray

             'a fake picture of a thunderbolt by Man Ray'

             of Man Ray > fake > picture, of a thunderbolt

(20)   [$_{DP}$ D^0 [[[[[N^0] PP$_{MOD(LOW)}$] PP$_{MOD(HIGH)}$] PP$_{ARG(LOW)}$] PP$_{ARG(HIGH)}$]]

Ellipsis data, as shown below, also supports the constituency in (20).

(21) un gioiello di giada$_{\text{MATER}}$ di colore verde$_{\text{COLOR}}$ e   . . .

a jewel of jade   of color green   and

'a green jade jewel and . . .

     a.   . . . uno ~~gioiello di giada~~ di colore bianco$_{\text{COLOR}}$

         a   jewel   of jade   of color   white

         . . . a white jade jewel'

     b.   . . . *uno ~~gioiello di colore verde~~ di zircone$_{\text{MATER}}$

         a   jewel   of color   green of zircon

(22) una foto   de-lla montagna$_{\text{THEME}}$ di mia madre$_{\text{AUTH}}$ e   . . .

a   photo of-the mountain   of my mother   and

'a picture of the mountain that my mother took and . . .

     a.   . . . una ~~foto de-lla montagna~~   di mia sorella$_{\text{AUTH}}$

         a   photo of-the mountain of my sister

         . . . a picture of the mountain that my sister took'

     b.   . . . *una ~~foto di mia madre~~   de-l   bosco$_{\text{THEME}}$

         a   photo of my mother of-the woods

In the foregoing discussion, I have explored the order of postnominal argument and modifier PPs in (2), and argued that it should be represented syntactically as in (14) and (20), with the rightward position of the PPs derived through roll-up movement. If the PPs discussed above are all first-Merged in their surface positions, nothing needs to be added in defense of the claim that modification is negotiated lower than argument introduction in the DP (as in Adger 2013).

5   Evidence from "Truncated" Structures

An alternative possibility, however, is that the surface order in (2) is derived through movement operations such that only the *surface* position of arguments is higher than that of modifiers. This possibility is in fact what Cinque (2010)

proposes, suggesting specifically that arguments are Merged lower than modifier adjectives but end up surfacing higher as a result of a series of movement operations, following the approach to *of*-phrases in Kayne (2000a,b, 2005).

An interesting piece of evidence for placing not only the *surface position*, but also the *Merge site* of nominal arguments higher than the Merge site of modifiers comes from cases of "truncation", where only an NP rather than a full DP is projected. The pseudo-partitive structure in (23-a) is one such case (cf. Alexiadou, Haegeman, and Stavrou 2007, Rutkowski 2007). The complement of *di* 'of' in (23-a), an NP, can include both modifier APs and modifier PPs. Crucially, however, it cannot include arguments (23-b), regardless of whether they are definite or indefinite, or of whether they are PPs or "possessive adjectives", as (23-b) demonstrates.

(23)   a.   un bicchiere di [$_{NP}$ vino siciliano$_{ORIG}$ / de-lla Sicilia$_{ORIG}$]
             a   glass   of   wine Sicilian   of-the Sicily
             'a glass of Sicilian wine'

        b.   *un bicchiere di [$_{NP}$ suo$_{POSS}$ vino / vino di Maria$_{POSS}$ / vino di un
             a   glass   of   her   wine   wine of Mary   wine of one
             vicino$_{POSS}$]
             neighbor

An argument can only be introduced in a full partitive structure (24), where the complement of *di* is a full DP, as indicated by the presence of the article *(i)l* 'the'.

(24)   un bicchiere de-[$_{DP}$ -l   suo$_{POSS}$ vino / -l   vino di Maria$_{POSS}$ / -l   vino
        a   glass   of   the her   wine   the wine of Mary   the wine
        di un   vicino$_{POSS}$]
        of one neighbor
        'a glass of a neighbor's/Mary's/her wine'

Another case where less structure than a full DP is required is in the complement

of some subtypes of modifier PPs headed by *di*, such as material PPs (25) and calssifying PPs (26). Only modifier APs or PPs can appear within such complements (cf. (25-a), (26-a)). Nominal arguments, instead, can only be introduced in different structures, such as (27), where the preposition *su* 'on' takes a full DP complement, as the presence of the article indicates. Again, this is the case regardless of the categorial status (AP vs. PP) or the (in)definiteness of the arguments.

(25)   a.   una tavola di [$_{\text{NP}}$ legno nero$_{\text{COLOR}}$ / di colore nero$_{\text{COLOR}}$]
            one table of   wood black   of color   black
            'a table (made) of black wood'

      b.   *una tavola di [$_{\text{NP}}$ suo$_{\text{POSS}}$ legno / legno di Maria$_{\text{POSS}}$ / legno di un
            one table of   her   wood   wood of Mary   wood of one
            vicino$_{\text{POSS}}$]
            neighbor

(26)   a.   una lezione di [$_{\text{NP}}$ musica giapponese$_{\text{ORIG}}$ / de-l   Giappone$_{\text{ORIG}}$]
            a   lesson of   music Japanese   of-the Japan
            'a lesson on Japanese music'

      b.   *una lezione di [$_{\text{NP}}$ sua$_{\text{AUTH}}$ musica / musica di Mozart$_{\text{AUTH}}$ / musica
            a   lesson of   her   music   music of Mozart   music
            di un   compositore sconosciuto$_{\text{AUTH}}$]
            of one composer   unknown

(27)   una lezione su-[$_{\text{DP}}$ -lla sua$_{\text{AUTH}}$ musica / -lla musica di Mozart$_{\text{AUTH}}$ / -lla
        a   lesson on   the her   music   the music of Mozart   the
        musica di un   compositore sconosciuto$_{\text{AUTH}}$]
        music   of one composer   unknown
        'a lesson about an unknown composer's/Mozart's/her music'

A final case where only a sublayer of the DP is projected is in the complement of *tipo di* 'kind of', which Zamparelli (2000) argues to be a *KIP* (*Kind Phrase*), one

of the lowest layers of the noun phrase (pp. 99-116). In what follows, I will stick to the label *NP* for such small sublayer of the DP. Again, the same pattern emerges: modifier APs and PPs are grammatical (28-a), arguments are not (28-b)[6].

(28)   a.   Questo tipo di [$_{NP}$ teoria chomskiana$_{CLASS}$ / teoria di stampo
                this   kind of   theory Chomskian   theory of ilk
                chomskiano$_{CLASS}$] è sorpassato.
                Chomskian   is outdated

        b.   *Questo tipo di [$_{NP}$ teoria di Chomsky$_{AUTH}$] è sorpassato.
                this   kind of   theory of Chomsky   is outdated

The data presented in this section suggests that nominal arguments are Merged into the noun phrase higher than the layer where modifiers are introduced and licensed. The latter is the only layer to be projected in the complement of the preposition *di* in (23), (25-6), and (28), making argument introduction impossible. It might be tempting to attribute the ungrammaticality of arguments in (23-b), (25-b), (26-b), and (28-b) to a mere failure to *license* them: we may conjecture that these "truncated" structures lack the relevant case-assigning functional heads (which would be higher in the DP), leaving any argument caseless. This, however, cannot be right: case assignment seems in principle available even in such structures, as demonstrated by the grammaticality of the modifier PPs *della Sicilia* in (23-a) and *del Giappone* in (26-a), which clearly contain a full DP in need of case, just like the ungrammatical argument PPs *di Maria* in (23-b) and *di Mozart* in (26-b) do. The natural conclusion is that the ungrammaticality of (23-b), (25-b), (26-b), and (28-b) is due to a failure to *introduce* the arguments in the first place.

---

[6]Note that the classifying adjective *chomskiana* is a modifier, rather than argument. First, it has a broader range of interpretations than arguments proper, and is not always substitutable with an argument PP. Second, its denotation cannot provide the linguistic context with a referent to antecede a pronoun: *?*that Chomski$_i$-an theory made him$_i$ famous* (and its Italian equivalent), uttered out of the blue, is not acceptable (cf. Arsenijević et al. 2014).

6 Conclusion

The purpose of this squib has been to argue, based on an Italian case study, that nominal arguments are first-Merged higher in the DP than nominal modifiers, contrary to the "received view" in the literature.

In §2-4, I have analyzed the neutral order of postnominal arguments and modifiers and applied a series of diagnostics to demonstrate that arguments surface higher than modifiers. In particular, I looked at the interpretive possibilities of the scope-taking adjectives *presunto* 'alleged' and *finto* 'fake', NP Ellipsis, and DP-internal coordination. In §5, I have analyzed a series of "truncated" structures, where only a sublayer of the DP is projected, and where only modifiers seem to be acceptable. I have taken this as evidence that arguments not only *surface* higher than modifiers, but are also *Merged* higher.

Throughout the squib, I have focused on adnominal constituents uniformly realized as PPs headed by *di*, distinguished into those with the semantics of arguments and those with the semantics of modifiers. This is a semantic distinction that cross-cuts surface syntactic categories such as [A] and [P] (cf. fn.1); my choice to concentrate on PPs only was motivated in order to abstract away from syntactic phenomena that depend on the adjective/preposition distinction rather than the modifier/argument distinction. One such phenomenon is the fact that adjectives seem to always appear closer to the noun than PPs. For example, modifier PPs, despite having the same semantics and ordering restrictions as modifier APs, systematically occur to the right of the latter:

(29)   un   vaso cinese$_{\text{ORIG}}$ antico$_{\text{AGE}}$ di porcellana$_{\text{MATER}}$ di colore rosso$_{\text{COLOR}}$

        one vase Chinese   ancient   of porcelain   of color   red

        'an ancient red Chinese porcelain vase'

This phenomenon calls for an explanation that goes beyond what was discussed in this squib, perhaps by appealing to the prosodic differences between adjectives and

PPs. I leave this as a matter for further investigation, as my discussion has centred around a different distinction, a semantic one between modifiers and arguments.

A second issue that deserves further investigation is the behavior of deverbal nouns. If their arguments are Merged as part of a verbal structure that is embedded *within* the nominal structure, we might expect those arguments to be *lower* than the noun's adjectives and the arguments of non-derived nouns. I predict that the diagnostics discussed above, applied to deverbal nouns, will show indeed show this. See Borer (2013b, esp. §3.2) for a discussion of the differences between the arguments of deverbal and non-deverbal nouns along the lines that I sketched.

My purpose in this squib has been to show that modification in the DP is negotiated systematically lower than argument introduction. I have not attempted to derive this fact here, but the discussion above suggests that a better understanding of the interaction between the semantics and the syntax might be crucial to shed light on this issue.

References

Abels, Klaus, and Ad Neeleman. 2009. Universal 20 without the LCA. In *Merging Features: Computation, interpretation, and acquisition*, ed. by Jose M. Brucart, Anna Gavarro, and Jaume Sola, 60–79. Oxford: Oxford University Press.

Adger, David. 2013. *A Syntax of Substance*. Cambridge, MA: MIT Press.

Alexiadou, Artemis, Liliane Haegeman, and Melita Stavrou. 2007. *Noun Phrase in the Generative Perspective*. Berlin: Mouton de Gruyter.

Arsenijević, Boban, Gemma Boleda, Berit Gehrke, and Louise McNally. 2014. Ethnic adjectives are proper adjectives. In *Proceedings of CLS 46*, ed. by Rebekah Baglini et al., 17–30.

Belk, Zoë, and Ad Neeleman. 2015. AP adjacency as a precedence constraint. *Linguistic Inquiry* 48(1):1–45.

Borer, Hagit. 2013a. The syntactic domain of content. In *Generative Linguistics and Acquisition. Studies in honor of Nina M. Hyams*, ed. by Misha Becker, John Grinstead, and Jason Rothman, 205–248. Amsterdam: John Benjamins.

Borer, Hagit. 2013b. *Taking Form: Structuring Sense*, vol. III. Oxford: Oxford University Press.

Bouchard, Denis. 2002. *Adjectives, Numbers, and Interfaces: Why Languages Vary*. Amsterdam: North Holland Linguistic Series.

Cinque, Guglielmo. 1994. On the evidence for partial N-movement in the Romance DP. In *Paths Towards Universal Grammar*, ed. by Guglielmo Cinque, Jan Koster, Jean-Yves Pollock, Luigi Rizzi, and Raffaella Zanuttini, 85–110. Washington: Georgetown University Press.

Cinque, Guglielmo. 2010. *The Syntax of Adjectives: A Comparative Study*. Cambridge, MA: MIT Press.

Giorgi, Alessandra, and Giuseppe Longobardi. 1991. *The Syntax of Noun Phrases*. Cambridge, MA: Cambridge University Press.

Kayne, Richard. 2000a. A note on prepositions, complementizers, and word order universals. In *Parameters and Universals*, 314–326. Oxford: Oxford University Press.

Kayne, Richard. 2000b. Prepositional complementizers as attractors. In *Parameters and Universals*, 282–313. Oxford: Oxford University Press.

Kayne, Richard. 2005. On some prepositions that look DP-internal: English *of* and French *de*. In *Movement and Silence*, 136–175. Oxford: Oxford University Press.

Kolliakou, Dimitra. 1999. De-phrase extractability and individual/property deno-
tation. *Natural Language and Linguistic Theory* 17(4):713–781.

Laenzlinger, Christopher. 2005. French adjective ordering: Perspectives on DP-
internal movement types. *Lingua* 115:645–689.

Longobardi, Giuseppe. 1994. Reference and proper names: A theory of N-
movement in syntax and logical form. *Linguistic Inquiry* 25(4):609–665.

Longobardi, Giuseppe. 2001. The structure of DPs: some principles, parameters,
and problems. In *The Handbook of Contemporary Syntactic Theory*, ed. by Mark
Baltin and Chris Collins, 562–603. Oxford: Blackwell.

Longobardi, Giuseppe. 2008. Reference to individuals, persons, and the variety of
mapping parameters. In *Essays on Nominal Determination: From Morphology
to Discourse Management*, ed. by Henrik Høeg Müller and Alex Klinge, 189–211.
Amsterdam: John Benjamins.

Longobardi, Giuseppe, and Giuseppina Silvestri. 2013. The structure of NPs:
Some insights on case, empty categories, and poverty of stimulus. In *The
Bloomsbury Companion to Syntax*, ed. by Silvia Luraghi and Claudia Parodi,
88–117. London: Bloomsbury Publishing Plc.

Munn, Alan. 1995. The possessor that stayed close to home. In *Proceedings of the
Western Conference in Linguistics, WECOL 24*, ed. by Vida Samiian, 181–195.

Rutkowski, Pawel. 2007. The syntactic structure of grammaticalized partitives
(pseudo-partitives). *University of Pennsylvania Working Papers in Linguistics*
13(1):337–350.

Rutkowski, Paweł, and Ljiljana Progovac. 2005. Classification projection in Pol-
ish and Serbian: The position and shape of classifying adjectives. In *Formal
Approaches to Slavic Linguistics 13: The Columbia Meeting 2004*, ed. by Mila

Tasseva-Kurktchieva, Steven Franks, and Frank Y. Gladney, 189–199. Ann Arbor: Michigan Slavic Publications.

Scontras, Gregory, Judith Degen, and Noah D. Goodman. 2017. Subjectivity predicts adjective ordering preferences. *Open Mind: Discoveries in Cognitive Science* 1(1):53–65.

Scott, John. 2002. Stacked adjectival modification and the structure of noun phrases. In *Functional Structure in DP and IP*, ed. by Guglielmo Cinque, 91–122. Oxford: Oxford University Press.

Shlonsky, Ur. 2004. The form of Semitic noun phrases. *Lingua* 114:1465–1526.

Sproat, Richard, and Chilin Shih. 1987. Prenominal adjectival ordering in English and Chinese. *NELS* 18:465–489.

Svenonius, Peter. 2008. The position of adjectives and other phrasal modifiers in the decomposition of DP. In *Adjectives and Adverbs: Syntax, Semantics, and Discourse*, ed. by Louise McNally and Chris Kennedy, 16–42. Oxford: Oxford University Press.

Zamparelli, Roberto. 2000. *Layers in the Determiner Phrase*. New York: Garland.

Pietro Baggio
Queen Mary University of London
p.baggio@qmul.ac.uk