Motivating the DP Projection in Languages without Articles

Do languages that lack articles have a DP projection? This question has been a topic of a long-lasting debate in the linguistic literature. For instance, Bošković (2005, 2008, 2009, 2010) argues against the DP projection in Russian, whereas Pereltsvaig (2006, 2007) argues for its existence. In this paper we provide evidence in favor of the DP hypothesis by looking at the behavior of Russian adjectives. Specifically, we investigate the syntactic and semantic properties of "high", or poslednie-type (cf. Babby 1987), adjectives in Russian, such as poslednie 'last' and opredelennyje 'certain'. We include in this group indefinite pronouns (e.g. kakie-to) and determiners (e.g. eti) that appear in a DP and exhibit adjective-like behavior. We show that these adjectives can appear in two distinct structural positions and that the choice of position affects such properties of the nominal phrase as referentiality and exhaustivity, as well as its compatibility with constructions in which so-called small nominals (e.g. bare NPs) are required. On the basis of this investigation we draw a conclusion that Russian nominals contain a high projection which appears above NumP and which is responsible for the referentiality and exhaustivity status of the nominal. Thus, we provide a novel argument for the presence of the DP projection in Russian.

We show that high adjectives can appear in (at least) two distinct structural positions. The higher position is located above NumP: the adjectives appear to the left of the numeral and their case-marking is not affected by the quantifier. For instance, in (1a), the head noun masin appears in the genitive case due to the presence of the numeral pjat' 'five'. But the demonstrative eti 'these' appears in the nominative case, i.e. its form is not affected by the numeral. The lower position is, in contrast, below NumP: the adjectives appear to the right of the numeral and, due to its presence, are assigned genitive case (1b). Below, we show that the semantic contribution of the adjectives depends on their syntactic position.

(1) a. eti pjat' masin b. pjat' etix masin
   these.NOM five cars five these.GEN cars
   'these five cars' 'five cars of this kind'

1. Referentiality. When in the higher position, the adjectives modify individuals rather than properties and mark the nominal as a whole as either referential or quantificational in terms of its semantic type. In contrast, when the same adjectives are merged lower in the structure, they are interpreted as modifying the property denoted by the NP. For instance, consider the pair of sentences containing the adjective pervyj 'first' in (2). When the adjective occurs in the higher position (2a), above the numeral, its function is to make the referent of the nominal identifiable; as such, it makes the nominal as a whole referential. For instance, in order to figure out who came through to the finals, one has to consider the first five teachers that participated in the contest, or the first five teachers in the row, etc., as should be specified by the context. In contrast, in (2b), pervyje 'first' does not affect the referentiality of the nominal, but rather determines the nature of the kind of teacher involved. This sentence can be uttered, for example, if people nominate for participation in the contest their first teachers. Five individuals instantiating the kind (someone's) first teacher are entailed to have come through in the finals. But these could well be the last participants on the list. This is illustrated by the compatibility of pervyje in the lower, property-modifying position with the adjective poslednie 'last' in the high position above NumP (3a). If pervyje appears above NumP as well, the two adjectives become incompatible (3b).

(2) a. Pervye pjat' učitelej vyšli v final.
   first.NOM five teachers.GEN went-out to final
   'The first five teachers came through to the finals.'
   b. Pjat' pervyx učitelej vyšli v final.
   five first.GEN teachers.GEN went-out to final
   '(The) five first teachers came through to the finals.'

(3) a. poslednie pjat' pervyx učitelej
    b. *poslednie pervye pjat' učitelej
‘the last five first teachers’

Yet another illustration is found in (1) above. (1a) is referential, whereas (1b) is not, despite the presence of a demonstrative. In (1b), the demonstrative applies to the property, rather than to particular individuals, rendering the meaning ‘five cars of this kind’. The whole phrase need not be interpreted as definite and may receive a purely quantificational interpretation, as is revealed in examples like (4):

(4) Vsego za vojnu VVS SŠA poterjali pjat’ ètix mašin…
all.in.all during war Air.Force USA lost five these GEN vehicles GEN
‘All in all, during the war, US Air Force lost five vehicles of this kind.’

We will further illustrate semantic contrasts that are based on the syntactic position of such adjectives as sledujuščij ‘the following’, ‘next’; kakoj-to ‘some’; opredelennyy ‘certain’; redkij ‘rare’. Each contrast demonstrates in its own way that the referentiality status of the nominal is interrelated with the adjectival position.

2. Exhaustivity. Further, when possessives or demonstratives appear in the higher position, the phrase receives an exhaustive interpretation, but when they appear below NumP, it does not. Typically, possessive adjectives such as Diminy ‘Dima’s’ appear to the right of the numeral, as in (5a), and in such cases, exhaustivity is absent. However, they may also appear phrase-initially, to the left of the numeral, in which case the exhaustivity interpretation emerges. Thus, (5b) presupposes that Dima has exactly five books, whereas (5a) does not carry such a presupposition.

(5) a. pjat’ Diminyx knig b. Diminy pjat’ knig
    five Dima’s GEN books Dima’s NOM five books
    ‘Dima’s five books’ ‘Dima’s five books’

Analogously, (1a) above is exhaustive, whereas (1b) is not. An exhaustive interpretation of a nominal is known to be associated with definiteness and with the DP projection (cf. e.g. Zamparelli 2000).

3. Small Nominals. Small nominals are nominals that lack the higher levels of the functional architecture, such as the DP. For instance, Kagan and Pereltsvaig (2011) argue that genitive complements of intensive reflexive verbs in Russian (verbs that contain the prefix na- and the suffix -sja) are Small Nominals. Crucially, poslednie-type adjectives are either ruled out in this construction (6a) or receive the property-modifying interpretation that is associated with the lower position (6b). This reveals that in the absence of the appropriate (DP) projection, a referential reading is not available, even if a high adjective (or a demonstrative) is merged.

(6) a. * Ja naelas’ {ostal’nyx /sledujuščix / pervyx / dannyx} kotlet.
    I na-ate-sja {remaining / following / first / given} burgers
    intended: ‘I ate my fill of the {remaining/following/first/given} burgers.’

b. Maša nasmotrelas’ ètix fil’mov.
Masha na-watched-sja these GEN films GEN
‘Masha has watched her fill of such films.’

Conclusion. The existence of a position that is responsible for the referentiality and exhaustivity of nominals, is located above NumP and is unavailable in small nominals constitutes strong evidence in favor of the existence of the DP projection in Russian.