The complex phasal architecture of nominal constituents

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It has long been suggested that clauses and nominal phrases are structured in similar ways (Abney 1987, Szabolsci 1994). One important property ascribed to CPs in a Minimalist view of syntax is that they function as *phases* and also contain an *internal phase* - vP (Chomsky 2000), or AspP when present (Bošković 2014, Harwood 2015). Within the nominal domain, extensions of Chomsky's original proposals relating to phases in clauses have led to suggestions that DPs occur as phases (Svenonius 2004, Bošković 2012, Hinzen 2012 among many others). In Simpson and Syed (to appear) (henceforth SS), an extended argument from variant word order patterns within nominal phrases in the South Asian language Bangla is presented to argue that nominal constituents may contain a *nominal-internal* phase, identified as QP, paralleling the occurrence of a lower phasal unit within clauses. This relates to a paradigm of focus and definiteness-related movement of NPs within nominal constituents, which occurs freely when lower numerals occur, but is blocked when a numeral higher than *four* is present, as shown in (1):

(1) [[lal boi]_k du To/ tin Te/ char Te/ ?panc Ta/ *choy Ta/ *sat Ta/ *at Ta
$$t_k$$
] red book 2 Cl/ 3 Cl/ 4 Cl/ 5 Cl/ 6 Cl/ 7 Cl/ 8 Cl 'the 2/3/4/?5/*6/*7/*8 red books'

SS suggest that the blocking effect seen in (1) can be explained if numerals in Bangla are assumed to occupy different structural positions in nominal projections, with lower numerals being merged in the Q⁰ head position of QP, while higher numerals occur as phrasal constituents in SpecQP. It is suggested that NPs undergoing movement within nominal phrases must raise through SpecQP before landing in a nominal-internal higher position associated with the licensing of definiteness or focus. The presence of higher numerals in SpecQP will block such movement, but when lower numerals occur in Q⁰, the SpecQP position will be available as an escape hatch for successive cyclic movement of NPs out of QP to higher positions. SS argue that the only kind of motivation that can be given to this movement, which simply occurs in order for an element to reach a higher position, is that it takes place in order to avoid a violation of the Phase Impenetrability Condition/PIC (Chomsky 2000) requirement that movement must always proceed through the edge of phases. In the case of focus and definiteness-driven NP movement within nominal phrases in Bangla, this leads SS to the conclusion that QP is a nominal-internal phase.

The present paper takes SS as its starting-point and foundation, and examines Bangla further, arguing that nominal constituents in the language project up to a DP level and that DPs in Bangla are also phases, hence that nominal phrases may in fact consist in two phasal components, in a way that resembles the bi-phasal architecture of clauses. As Bangla is a language without determiners, a range of alternate argumentation for the DP status of extended nominal projections is provided. The paper first considers two major generalizations from Bošković's (2008) work on DP vs. NP languages that are analyzed in terms of the presence versus the absence of DP: neg-raising and the interpretation of equivalents to the quantifier 'most'. A consideration of the relevant data in Bangla shows that Bangla patterns clearly like a DP language in such phenomena, despite it being an article-less language. We also present patterns relating to binding which support a DP rather than an NP analysis of Bangla. Despić (2013) notes that possessors in nominal projections in Serbo-Croatian appear to c-command out of such constituents and disallow the binding relation found in DP languages such as English, in which a possessor in SpecDP can be co-referential with a pronoun or an R-expression in the same clause. Despić claims that possessors in Serbo-Croatian are adjoined to NP and may c-command out of NP, whereas possessors in a DP language like English are in SpecDP, and do not c-command out of the constituent containing them. With regard to such binding phenomena, Bangla clearly patterns like a DP language:

- (2) [Rituporno_i-r [QP du To sesh cinema]] take_i khub hotash korechilo Rituporno-GEN 2 CL last film him very disappointed do-PST 'Rituporno_i's two last films disappointed him_{i/k} a lot.'
- (3) tar_i baba Ram_i-ke boka bhabe his father Ruma-acc fool think His_i father thinks Ram_i is a fool

The ordering of demonstratives, possessors, and adjectives in Bangla further supports a DP analysis of Bangla. It has been observed that such elements may be freely ordered in NP languages such as Serbo-Croatian. Bošković suggests that this is because demonstratives, possessors and adjectives in NP languages are all adjectival and freely adjoined to NP in any order, whereas similar elements in DP languages occur in the specifiers of ordered functional projections, accounting for the fixed word order patterns found in DP languages. Considering Bangla, demonstratives and possessors do not show any signs of being adjectival, and such elements are rigidly ordered with respect to each other, as shown in (4), suggesting that they occur in the specifiers of functional projections and are not simply adjoined to NP:

(4) a. amar oi du To lal boi b. *oi amar du To lal boi my that 2 CL red book that my 2 CL red book 'those two red books of mine'

Having presented various arguments that Bangla nominal constituents may project up to a DP level, the paper offers arguments that DP in Bangla functions as a phase as well as QP, relating to (a) argument ellipsis patterns, and (b) extraction from DP. In Boškovic (2014), it is argued that only *phases* may permit ellipsis, and that argument ellipsis in the nominal domain can be used as a diagnosis for the presence of a phase. In Simpson, Choudhury and Menon (2013), it is demonstrated that argument ellipsis occurs commonly in Bangla, licensing typical interpretations of sloppy identity, as seen in (5) where the antecedent for such ellipsis is a full DP containing a possessor in SpecDP.

(5) Ram [DP nijer du-To receptionist-ke] boklo, kintu Raj proshongsha korlo.
Ram self's 2 CL receptionist-Acc criticize-PST but Raj praise do-PST 'Ram_k criticized his_k two receptionists, but Rajm praised (hism two receptionists).'

A second set of phenomena that add support for the phasal analysis of DPs in Bangla relates to extraction out of DP constituents. If DP is indeed a phase in Bangla, and if possessors occupy a unique Spec,DP position in the phasal edge, it is predicted that extraction out of DPs should not be possible when an overt possessor fills this escape hatch position. Such an expectation is seen to be fully borne out, as illustrated in (6). It should be noted that the ungrammaticality of (6b) is not due to any violation of a condition barring extraction from specific nominal phrases - the base sequence of elements in the DP in (6) *Ram-er du To boi* allows for an indefinite partitive interpretation 'two of Ram's books', and can be interpreted as non-specific:

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(6) \ a. \ [_{NP} \ boi]_k \ ami \ [_{DP} \ t_k \ [_{QP} \ t_k \ du-To \ t_k \ ]] \quad kinlam \\ book \ I \qquad 2-CL \qquad bought \\ \quad `I \ bought \ two \ books.' \\ b. \ *[_{NP} \ boi]_k \ ami \ [_{DP} \ Ram-er \ [_{QP} \ t_k \ du-To \ t_k \ ]] \quad kinlam \\ book \ I \qquad Ram-gen \qquad 2-CL \qquad bought \\ \end{aligned}
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The paper consequently concludes that the extended projection of noun phrases may consist in two separate phases, DP and QP, in a way that resembles the occurrence of two phasal levels within clauses, hence that clauses and nominals share a strong similarity in their cyclic/phasal architecture, as might be anticipated from other parallels between clauses and noun phrases. Time permitting, the paper will also discuss how the present proposal interacts with Bošković (2014), in which it is assumed that nominal constituents are mono-phasal, unlike clauses. It will be argued that the conclusions of the present paper are in fact compatible with Bošković's contextual determination of higher phases once it is assumed that languages grammaticalize different ranges of functional structure in nominal and clausal constituents.

SELECT REFERENCES

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