On Affixal Articles: An Argument from Bantu for Bulgarian, Romanian, and Icelandic*

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Abstract: The paper argues against the N-to-D movement analysis of article affixation in the N-D word order in Bulgarian, Icelandic, and Romanian based on these languages not displaying a locality effect that is attributed to N-to-D movement in Bantu languages.

1. Introduction

Affixal articles in languages like Bulgarian, Romanian, and Icelandic have attracted a considerable amount of attention. While the elements in question show a number of rather interesting and hotly debated properties, the main debate has focused on the issue of how article placement is accomplished in constructions like (1).[1]

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[1] To mention just some of those (less known) additional issues here (for a more general discussion and references regarding Bulgarian, see Franks and King 2000), Bošković (2008b) shows that affixal article languages do not show *wh*-island effects. Rudin (1988) actually notes that Bulgarian and Romanian do not show *wh*-island effects, attributing this to the availability of multiple *wh*-fronting in these languages. However, Bošković (2008b) shows that the *wh*-island effect is voided in a number of affixal article languages which do not have multiple *wh*-fronting; in particular, the *wh*-island effect is voided in Bulgarian, Romanian, Icelandic, Swedish, Albanian, and Hebrew (there are actually contexts where these languages do show *wh*-island effects; importantly, these contexts are the same for all the languages in question). All these languages have affixal articles, but only the first two have multiple *wh*-fronting.

Despić (2011, 2015) and Marelj (2008, 2011) examine the possibility of reflexive possessive anaphors in the nominal domain being bound outside of the nominal domain (i.e., constructions like *John sold himself's book*). They show that such anaphors are possible in languages without articles, i.e., NP languages in Bošković's (2008a, 2012) typology, but not in languages with articles, i.e., DP languages. Furthermore, Despić

(1)   topka-ta
      ball$_{DEF}$

There are two main lines of research here: (i) the postnominal article placement in (1) is accomplished in the syntax through N-to-D movement; (ii) the postnominal article placement in (1) is accomplished in PF through a process akin to Chomsky's (1957) affix hopping (Morphological Merger and Prosodic Inversion fall within this line of research, for ease of exposition I use the term Morphological Merger for this type of analysis): in the syntax, the article is in D and *topka* is in a lower position, with the article placed following the noun in PF so that its prosodic property, namely the suffix requirement, can be satisfied.

There are many works on the issue in question. While this paper will address the issue, its scope will be rather limited. I will not address already existing analyses and arguments, or even discuss the full paradigm pertaining to article placement in languages like Bulgarian;[2] rather, I will simply point out that a property of Bantu languages has relevance for the N-to-D movement vs. Morphological Merger debate regarding structures like (1) (though it

shows that affixal article languages behave like NP languages in this respect, proposing a phase-based analysis where the affixal status of D affects the phasehood of DP. It should be noted here that LaTerza 2016 claims that affixal article languages behave like NP languages regarding the ability of possessors to bind out of their nominal domain; however, Franks (this volume) shows that the claim is actually factually incorrect—affixal article languages do not differ from other article languages in this particular respect. Also worth noting is Talić (2017), who argues that affixal article languages actually represent a distinct type, different from both languages with articles and languages without articles (from Bošković's typology).

The point of the discussion in this footnote is to note that affixal articles are a rather complex phenomenon, which affects many properties (this is not that surprising in light of Bošković 2008a, 2012, where it is shown that articles (i.e., the presence vs lack of articles) have wide ranging effects both syntactically and semantically even with respect to phenomena that at least superficially seem to have nothing to do with the nominal domain). This paper will not attempt to address the complexity of the phenomenon in question: as noted below, I confine the discussion here to one particular point, namely whether constructions like (1) involve N-to-D movement.

2   For example, I do not discuss the possibility of A-D order, which (where allowed) is handled in the same way as the N-D order under Morphological Merger analyses, and in terms of A/AP-movement under movement analyses. At any rate, there are numerous works on the N-D order in the languages under consideration, see for example Halpern 1995, Tomić 1996, Dimitrova-Vulchanova and Giusti 1999, Franks and King 2000, Embick and Noyer 2001, Franks 2001, Julien 2005, Dost and Gribanova 2006, Koev 2011, Talić 2017, and, for N-to-D movement analyses, Dobrovie-Sorin 1987, Cornilescu 1992, Delsing 1993, Sigurðsson 1993, Fowler and Franks 1994, Grosu 1994, Giusti 1995, Arnaudova 1996, Longobardi 1996, Ungureanu 2006, Lohrmann 2010, 2011, and Harðarson 2017, among many others.

should be noted that the focus of the discussion will actually be on whether (1) involves N-to-D movement).[3]

What is relevant here is that Bantu languages quite clearly have N-to-D movement, in fact in all constructions: Bantu traditional Noun Phrases (TNP) are N-initial, which is typically attributed to N-to-D movement (see for example Carstens 2010; note that the term TNP is used neutrally here, simply to refer to the nominal domain, more precisely, the highest projection in the nominal domain, without commitment to its categorial status). Taking for granted that Bantu has N-to-D movement, I will point out that the lack of a parallelism between Bantu and affixal article languages like Bulgarian, Romanian, and Icelandic with respect to a particular phenomenon where N-to-D movement has been claimed to be crucially involved argues against the N-to-D movement analysis of affixal article languages (from now on, I will refer to Bulgarian as representative of this language group).

2. On the Complex NP Constraint and Article Affixation

Of interest to us here is the Complex NP Constraint, given in (2), where a complex NP is a noun modified by a clause.[4]

(2)   The Complex NP Constraint (CNPC): Extraction from complex NPs is disallowed.

The effect of (2) is illustrated by (3).[5]

(3)   *How$_i$ did you hear [$_{NP}$ rumors [$_{CP}$ that [$_{IP}$ John bought a house t_i]]]?

Bošković (2015) shows that the effect in question is much more general. Extraction is banned not only from clausal complements of nouns but, in fact, from all complements of nouns (i.e., it is banned from PP, DP, and NP, as well

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[3]   Additional possibilities that are consistent with the relevant Bantu data will also be briefly noted below.

[4]   My focus here will be on traditional clausal complements, not relative clauses. Extraction from relative clauses is banned independently of (1) because these are adjuncts, extraction from adjuncts being disallowed.

[5]   The effect also arises with argument extraction, though it is slightly weaker in this case reflecting the well-known (but ill-understood) argument/adjunct asymmetry in the strength of the violation with extraction out of islands:

(i)   ?*What$_i$ did you hear [$_{NP}$ rumors [$_{CP}$ that [$_{IP}$ John bought t_i]]]?

Following the standard practice for works that do not specifically deal with the argument/adjunct difference in question, in what follows I will abstract away from this difference and simply mark all degraded extractions out of islands with *.

as clausal complements of nouns).[6] Furthermore, Bošković (2015) shows that this effect actually also holds for AP, PP, and ergative VP (all of which are projections of lexical heads): extraction is also banned from the complements of adjectives, prepositions, and ergative verbs. The only exception to the general ban on extraction out of complements of lexical heads (the Complex XP Constraint) concerns transitive, non-ergative VP.[7] Bošković (2015) also proposes a deduction of the Complex XP Constraint based on an approach to successive-cyclic movement, which quite generally makes successive-cyclic movement more difficult, while still allowing it to take place in the case where it is allowed, namely, with complements of non-ergative verbs, as in (4).

(4)   How$_i$ did you [$_{VP}$ think [$_{CP}$ that [$_{IP}$ John bought a house t_i]]]?

An alternative account of the Complex XP Constraint is presented in Bošković (2016), the gist of both accounts being that extraction is banned from a double phase configuration, where a phasal head takes a phase as its complement. This is stated in (5).

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[6]   One relevant case from Greek regarding DP complements of nouns is given in (i) and (ii). Example (i) involves extraction of a genitive DP complement of a noun, which is acceptable, while (ii), which is unacceptable, involves extraction out of the genitive DP complement of the noun.

(i)   Tu   vivliu$_i$ mu ipes   pos dhiavases tin [kritiki t_i]
      the$_{GEN}$ book$_{GEN}$ me said$_{2S}$ that read$_{2S}$ the review

      'You told me you read the review of the book.'   (Horrocks and Stavrou 1987)

(ii) *Tu   vivliu$_i$ mu ipes   pos dhiavases tin [$_{NP}$ enstasi [tis   kritikis t_i]]
      the$_{GEN}$ book$_{GEN}$ me said$_{2S}$ that read$_{2S}$ the   objection the$_{GEN}$ review$_{GEN}$

      'You told me you read the objection to the review of the book.' (Bošković 2015)

[7]   The impossibility of extraction out of complements of adjectives, prepositions, and ergative verbs is illustrated in (i), (ii), and (iii), respectively, for CP complements of these heads (the preposition case is illustrated with Spanish, since prepositions in English do not take finite CP complements).

(i)   *How$_i$/Why$_i$ are you [$_{AP}$ proud [$_{CP}$ that John hired Mary t_i]]?

(ii) *¿Cómo$_i$ se   acordó   [$_{PP}$ de [$_{CP}$ que [Pedro preparaba
        how   clitic remembered$_{3SG}$ of   that Pedro prepared$_{IMPERFECT}$

      la   comida t_i]]]?
      the   food

      [Intended] 'How did she remember that Pedro used to cook food?'

(iii) a.   *How$_i$ did it depress Mary [that John was fired t_i]?
      b.   *How$_i$ does it bother Bill [that John fixed the car t_i]?

(5)   The Phase-over-Phase Constraint: Extraction is banned from phases
      that function as complements of phasal heads (i.e., the double-phase
      configuration in (6)).

(6)   [XP=Phase [YP=Phase]]

Phases are taken to define locality domains for syntactic movement, the
crucial mechanism here being the Phase-Impenetrability Condition (PIC),
which requires movement to proceed via phasal edges. While Chomsky (2000)
assumes that a particular phrase is a phase or not regardless of its syntactic
context (e.g., CP is always a phase and IP is never a phase), many authors have
argued for various contextual approaches to phasehood. In these, the phasal
status of α depends on the syntactic context in which it occurs (this follows
the spirit of Chomsky's 1986 *Barriers*, where we cannot determine whether
CP is a barrier or not without knowing its syntactic context—CP can be a bar-
rier or not, depending on its structural position). In particular, Bošković (2015,
2016) argues for a contextual approach to phasehood in which structure is
divided into two domains, thematic and non-thematic (i.e., functional), where
the highest phrase in each of these domains functions as a phase. In other
words, the highest phrase in the thematic domain and the highest phrase in
the functional domain count as phases. As a result, the NP, as the highest
phrase in the thematic domain of the Noun, and the CP of its complement,
as the highest phrase in the functional domain, count as phases in (3). This
means that (3) involves a double-phase configuration, as shown in (7), where
phases are given in bold.

(7)   *How$_i$ did you hear [**NP** rumors [**CP** that [IP John bought a house t_i]]]?

Given the PIC, which requires movement to proceed via phasal edges,
movement has to proceed successive-cyclically through the edge of the CP
and the NP in (7), which Bošković (2015, 2016) shows results in a violation. I
focus here on the account presented in Bošković (2015). This account adopts
antilocality, which bans movement steps that are too short (see Bošković 1994,
1997, Saito and Murasugi 1999, Abels 2003, Grohmann 2003, among many oth-
ers), defining antilocality within the labeling system of Chomsky (2013).
In this system, labeling is not forced as part of the Merge operation; hence
unlabeled objects are allowed during the derivation, with labels provided at
the point when a phasal level is reached through a labeling algorithm (LA).
According to the LA, when a head and a phrase merge, the head projects (i.e.,
it provides the label for the resulting object). There are two ways to label when
two phrases merge, via feature sharing or traces, traces being ignored for the
purpose of labeling. To illustrate the former case (which is similar to tradi-
tional Spec-head agreement), when *what* merges with the *wh*-CP in *I wonder*

[what$_i$ [C [he said t$_i$]]] (the sister of *what* is a CP at the point of this merger), both *what* and the CP have the interrogative Q-feature, which determines the label.

It is the latter case, however, which is important for our purposes. Chomsky assumes that successive-cyclic movement does not involve feature sharing, essentially following Bošković (1997, 2002, 2007, 2008c). There is then no feature sharing between *that* and the *wh*-phrase which passes through its edge in (8). As a result, the embedded clause cannot be labeled when *what* moves to its edge (indicated with ? in (9)). When *v* is merged into the structure, *what* undergoes movement. Since the element merged with the *that*-CP is now a trace, ? is labeled as CP after the movement of *what*.

(8) What$_i$ do you think [t′$_i$ that [he bought t$_i$]]

(9) *v* [$_{VP}$ think [$_?$ what [$_{CP}$ that [he bought t$_i$]]]]

Bošković (2015) shows that given this approach to labeling, the Complex NP Constraint (and the Complex XP Constraint and (5) more generally) follows from antilocality, which Bošković (2015) states as a requirement that movement must cross a labeled projection. As noted above, movement in (7) has to proceed successive-cyclically through the edges of the CP and the NP, the CP and the NP being phases. As is always the case with successive-cyclic movement in the labeling framework, movement to the edge of the CP does not involve agreement, which means that the object created by the merger of *how* and the CP in question is not labeled at that point. This is shown in (10a). N is then merged into the structure and the *wh*-phrase moves to the edge of the NP. Notice now that the movement in question does not cross a labeled category, hence it violates antilocality. (It only crosses ? in (10b); it does not cross NP, since the movement involves merger with this NP.)[8]

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[8] Given the LA, where traces are ignored for the purpose of labeling, the complement of the noun will be later labeled as CP, when the next phasal level, NP, is completed, but this is too late for our purposes: at the point of movement the element in question is unlabeled.

Notice that the antilocality problem does not arise in (4) due to the presence of an additional projection in the thematic domain of the verb, namely *v*P, which is the projection where the external theta-role is assigned. The relevant structure of (4) is given in (i).

(i) … how$_i$ [$_{vP}$ [$_{VP}$ think [$_?$ how [$_{CP}$ that [$_{IP}$ John bought a house t$_i$]]]]]?

As a result, there are two thematic projections in the thematic domain of the verb: VP and *v*P. Since the highest projection in the thematic domain is a phase, *v*P is a phase, but VP is not. *Wh*-movement here then proceeds from the edge of the CP to the edge of the *v*P. This movement crosses a labeled projection, namely VP, so that antilocality is not violated. Notice also that in the ergative VP example (iii) from footnote 7, *v*P is likely present, as indicated by V-movement (the verb precedes both complements so

(10) a. [$_?$ how$_i$ [$_{CP}$ that [$_{IP}$ John bought a house t_i]]]

  b. how$_i$ [$_{NP}$ rumors [$_?$ how [$_{CP}$ that [$_{IP}$ John bought a house t_i]]]]

The details of the account are actually not important for our purposes, the reader should simply bear in mind that we are dealing with a phasehood effect. What is important is a particular proposal concerning voiding of phasehood, which voids phasal locality effects in a number of configurations, including the one discussed here.

Consider the configuration in (11), where X and Y are phasal heads:

(11) [$_{XP}$ Y$_i$+X [$_{YP}$ t_i]]

Bošković (2015) presents a number of constructions where in the case of a complex phase, i.e., a phasal projection that is headed by two phasal heads due to head-movement of the lower phasal head to the higher phasal head, the two phases are collapsed into one, with the lower phase losing its phasehood. This situation is abstractly represented in (11). Since the head of phase YP moves to a phasal head, X, YP ceases to be a phase, which means that phrasal movement out of YP need not proceed through the edge of YP.

Bošković (2015) gives a number of cases from a wide variety of languages that instantiate this phase collapsing effect.[9] Importantly, one such case involves the Complex NP Constraint. Although islandhood in general displays a good amount of crosslinguistic variation, the Complex NP Constraint is one island that is rather resistant to crosslinguistic variation. Bošković (2015)

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the examples should involve V-movement). However, since *v*P here is not a thematic projection (no theta-role is assigned in Spec*v*P), VP rather than *v*P is a phase in (ii), in contrast to (i). This leads to an antilocality violation, since movement from the CP edge to the VP edge does not cross a labeled projection, as can be seen in (ii) (with V-movement and irrelevant structural details ignored):

(ii) … how$_i$ [$_{VP}$ depress Mary [$_?$ how [$_{CP}$ that [$_{IP}$ John was fired t_i]]]]?

[9] One relevant case involves article incorporation in Galician, which involves movement of the definite article to the *v*+V complex (see Uriagereka 1988, 1996; Bošković 2013, 2015, 2017). Article incorporation in Galician quite generally voids the islandhood of the DP from which the article incorporates (including subject, adjunct, and conjunct islands), which Bošković (2015, 2017) analyzes in terms of phase collapsing, with article incorporation voiding the phasehood of the relevant DPs (see footnote 13 for illustration). It should be noted that phase collapsing crucially differs from phase sliding/extension, proposed in Gallego and Uriagereka (2007) and den Dikken (2007), where any movement of phasal head Y voids the phasehood of YP. Bošković (2015) argues that the effect under consideration occurs only if Y moves to another phasal head. This will be important below, since under phase collapsing, phasehood of NP will be voided *only* if N moves all the way to D (DP being a phase as the highest functional projection in the nominal domain).

shows, however, that there is a group of languages that resist islandhood in this case, i.e., which do not show the Complex NP Constraint effect. These are Bantu languages, as illustrated by the Setswana example in (12).[10]

(12) Ke   m-ang   yo   o   utlw-ile-ng   ma-gatwe   a   gore
      it   C1-who C1Rel 2sgSM hear-Perf-Rel C6-rumor   C6SM   that

      ntša   e   lom-ile?
      C9-dog   C9SM   bite-Perf

      'Who did you hear rumors that a dog bit?'

As in other Bantu languages, in Setswana the noun always precedes *all* other NP-elements, a fact which is analyzed in terms of N-to-D movement (see Carstens 2010 on the N-to-D analysis of the N-initial word order in Bantu). Bošković (2015) argues that this is exactly what is responsible for the lack of the Complex NP Constraint effect in Setswana. The exceptional behavior of Setswana with respect to the Complex NP Constraint in fact follows rather straightforwardly under phase collapsing, given that Setswana has N-to-D movement, as indicated by the N-initial nature of DPs in Setswana. As a result of N-to-D movement, the object DP in (12) is a complex phasal domain, headed by two phasal heads, D and N. Since we are dealing with one phase, the NP is not a phase here. In other words, N-to-D movement voids the phasehood of NP. This means that movement need not proceed through the edge of the NP (see the structure in (13), where the relevant traces are given as copies), which makes movement out of the CP complement of N possible. Since the first phasal head above the embedded CP in (12) is D, the *wh*-phrase will move from the edge of CP to the edge of DP. The movement in question does cross a labeled projection, namely NP, so there is no antilocality violation here, in contrast to (7)/(10).[11]

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[10]   Bulu and Swahili, also Bantu languages, also do not show CNPC effects. Note that (12) involves argument extraction because adjuncts do not undergo *wh*-movement in Setswana (*wh*-movement actually involves clefting in Setswana).

[11]   Bošković (2015) also treats traditional reanalysis cases like (i), from (Ross 1967), where the CNPC effect is voided, in terms of phase collapsing:

(i)   the money, which I am making the claim that the company squandered, amounts to $400,000

These are lexically conditioned and analyzed in terms of reanalysis/complex predicate formation (for *make-the-claim*); see Chomsky (1980), Kayne (1981), Cinque (1990), and Davies and Dubinsky (2003). Bošković (2015) suggests a phase collapsing analysis, involving covert N-to-D-to-*v*+V movement, which creates a complex predicate *make-the-claim* and which voids the phasehood of NP (as in Bantu) and DP (see footnote 13 for the voiding of DP phasehood here).

(13)   … who$_i$ [$_{DP}$ rumors$_j$+D [$_{NP}$ rumors$_j$ [$_?$ who$_i$ [$_{CP}$ that [$_{IP}$ a dog bit t_i]]]]]?

Again, the details of the account are not important for our purposes. What is important is that N-to-D movement voids the Complex NP Constraint effect, as we can see in Bantu languages like Setswana, which clearly have N-to-D movement in all contexts, as shown by the N-initial status of TNPs.

The above discussion provides us with a tool to test the proposed analyses of (1) in affixal article languages like Bulgarian, Romanian, and Icelandic. If in such languages the N-D order arises as a result of N-to-D movement, the Complex NP Constraint effect should get voided in such languages, just as it does in Bantu. But the data below show that Bulgarian, Romanian, and Icelandic do exhibit the Complex NP Constraint effect, just like English, and in contrast to Bantu.[12]

(14)   *Kakvo$_i$ ču   slux-a   [če   Ivan   e   kupil t_i]?
        what   hear$_{AOR.2SG}$ rumor$_{DEF}$ that   Ivan   is   bought

       'What did you hear the rumor that Ivan bought?'   (Bulgarian)

(15)   *Ce$_i$ ai   auzit   zvon-ul   [că   Ion   a   cumpărat t_i]?
        what   have$_{2SG}$ heard   rumor$_{DEF}$ that   Ion   has   bought

       'What did you hear the rumor that Ion bought?'   (Romanian)

(16)   *Hvað$_i$ heyrðir   þú   orðróm-inn   um   [að   Jón   hefði
        what   heard   you   rumor$_{DEF}$ about   that   Jón   have$_{SUBJ.PAST}$

       keypt t_i]?
       bought

       'What did you hear the rumor that Jón bought?'   (Icelandic)

This then argues against the N-to-D account of the post-nominal placement of the article in the languages in question. On the other hand, the sensitivity of Bulgarian, Romanian, and Icelandic to the CNPC is fully consistent with the Morphological Merger account of article placement.

It should, however, be noted that the CNPC data do not necessarily argue for this account, they merely argue against the N-to-D account, the point being the lack of an expected parallelism with Bantu, which would be expected if Bulgarian, Romanian, and Icelandic were to involve N-to-D movement in the derivation of the N-D word order. One can in fact think of different accounts of the order in question that would not involve Morphological Merger. For example, it is possible that affixal articles are located in a projection lower

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[12]   The Bulgarian, Romanian, and Icelandic data below were provided by Vesela Simeonova, Vanessa Petroj, and Gísli Harðarson, respectively.

than DP (see for example Julien 2005), which might not be surprising in light of the mixed behavior of affixal article languages discussed by Talić (2017) and noted in footnote 1. N could still move to the article, but the phasehood of the NP projection would not be voided, since N then would not move to the highest head in the nominal domain. (Recall that only movement to a phasal head, which is the highest head in the nominal domain, voids phasehood.) Another possibility, explored in Koev (2011) and Petroj (2014), is that N undergoes agreement with D, with the article being the morphological realization of this agreement (under this analysis, *-a* on *sluxa* 'the rumor' in (14) is not an article in the first place, so the construction does not involve N-to-D). In other words, the lack of a parallelism with Bantu discussed above does not uniquely pick the Morphological Merger analysis, it merely argues against the N-to-D movement analysis of (1).

In summary, languages with N-to-D movement allow extraction out of complex NPs. Affixal article languages like Bulgarian, Romanian, and Icelandic do not allow such extraction, which argues against the N-to-D analysis of the N-D order in these languages.

3. The Definiteness Effect

It should, however, be noted that there is an interfering factor not yet considered. It is conceivable that (14–16) are ruled out independently of N-to-D movement due to a definiteness effect (i.e., the ban on extraction from definite NPs; cf., e.g., Chomsky 1986 or Fiengo and Higginbotham 1980), since (14–16) also involve extraction out of definite NPs (a necessity since the article in question is definite). This is a factor that is difficult to control for, since the definiteness effect is often relaxed, and its relaxation is subject to crosslinguistic variation (in addition to ill-understood contextual factors). Thus, Spanish is more permissive regarding extraction out of definite DPs than English; see Ticio (2003, 2005). One relevant example from Spanish is given in (17); see also Greek (i) in footnote 6:[13]

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[13]   However, even (17) becomes unacceptable if the article is replaced by a demonstrative or if the PP that is extracted is interpreted as an agent or a possessor (see Ticio 2003, 2005 and references therein). It should be noted that the definiteness effect can be voided under head movement/phase collapsing. However, what is needed for this is for D to undergo movement, as can be seen in Galician (i). As noted in footnote 9, Galician has article-to-*v*+V incorporation, which voids phasehood/locality violations under phase collapsing. Thus, like English, Galician disallows extraction from definite DPs, as shown by (ia). However, the violation is voided when the head of the DP incorporates into the verb, as (ib) shows.

(i)   a.   *E   de quén$_i$ viche   [$_{DP}$ o   retrato t_i]?
            and of who   saw$_{2SG}$ the   portrait

(17) ¿De qué   cantante_i salieron publicadas [las fotos t_i]?
      of which   singer   were   published   the photos
<div align="right">(Ticio 2005: 238)</div>

More relevant for our purposes is that Bulgarian allows extraction out of definite NPs in examples like (18), which makes it less likely that (14) is ruled out due to a definiteness effect.[14]

(18) a. Na koja   disertacija_i pročete   [komentari-te t_i]?
          on which   dissertation read_{AOR.2SG} comments_{DEF}

          'On which dissertation did you read the comments?'

      b. Na kogo_i vidja   [sestra-ta t_i]?
          of who   saw_{AOR.2SG}   sister_{DEF}

          'Whose sister did you see?'

For discussion of the definiteness effect in Icelandic, the reader is referred to Harðarson (2017). What is important for our purposes is that examples involving a definiteness effect violation, such as (19a), are quite clearly worse than CNPC violations like (16) in Icelandic, as the following data show:[15]

(19) a. *Um   hvaða bók_i last þú [gagnrýni-na t_i]?
          about what   book read you review_{DEF}
          'Of which book did you read the review?'

(i)   b. E   de quén_j viche-lo_i   [_{DP} [_{D'} t_i [_{NP} retrato t_j]]]?
          and of whom saw_{2SG}-the   portrait

          'So, who have you seen the portrait of?'   (Uriagereka 1988)

    Bošković (2015) implements the definiteness effect by assuming that a definite D cannot work as an attractor. As a result, movement of the *wh*-phrase to SpecDP is not possible. Since DP is a phase, which requires movement through SpecDP, (ia) is ruled out. Regarding (ib), D moves to the complex *v*+V head, which is a phasal head. This voids the phasehood of DP, rendering movement through the edge of DP unnecessary in (ib). It is worth noting here that, as observed in Bošković (2015), Galician still shows the Complex NP Constraint effect. As discussed in the text, to void the Complex NP Constraint effect, N-to-D movement is needed, D-to-*v* does not suffice here since such movement does not affect the phasehood of NP.

[14] Romanian disallows this kind of extraction regardless of the definiteness effect:

(i)   *De care   carte_i ai   citit recenzia/ o recenzie t_i?
      of which book   have_{2SG} read review_{DEF}/ a review

      'Of which book did you read the/a review?

[15] The judgment for (16) is adjusted in (19c) to allow for a comparison of the constructions in question, which was not at issue in the above discussion.

(19) b. ᵗUm   hvaða bók$_i$ last   þú [gagnrýni t_i]?
        about what   book   read   you review

'Of which book did you read a review?'

c. ??/*ᵗHvað$_i$ heyrðir þú   orðróm-inn um   [að   Jón
        what   heard   you rumor$_{DEF}$ about that Jón

hefði   keypt t_i]?
have$_{SUBJ.PAST}$ bought

'What did you hear the rumor that Jón bought?'

The difference in the grammaticality status of (19a) and (19c) indicates that they do not involve the same violation, i.e., that (19c) is not ruled out due to a definiteness effect; if it were (19c) would be expected to have the same status as (19a).

It should also be noted that Ormazabal (1991) observes that even where the definiteness effect is observed, it is confined to cases where the extracted element and the definite article "modify" the same NP, which would make it irrelevant to CNPC examples like (14–16), since the extracted element is not base-generated within the NP complement of the article.

4. Conclusion

In conclusion, this paper has shown that a locality effect that is attributed to N-to-D movement in Bantu languages, which clearly have N-to-D movement, does not arise in affixal article languages like Bulgarian, Icelandic, and Romanian. This raises a problem for the N-to-D movement analysis of the N-D order (i.e., article affixation) in Bulgarian, Icelandic, and Romanian.

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