

# D is not a syntactic primitive

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## 1 Introduction

A common practice in generative syntax is to assume, in line with early work by Abney (1987) and Szabolcsi (1987), that (in)definite noun phrases (e.g., (1-a)) are expressions of a Determiner Phrase (DP) headed by the article in D.<sup>1</sup> The latter takes the phrase containing the noun and its modifiers (NP) as its complement (1-b). Because D is typically realized by articles in Romance and Germanic languages, which also happen to be the most studied languages in syntax, the apparent typological generalization in (1-c) is often taken to mean that the category D is arguably universal. Accordingly, D is considered to be underlyingly present in all languages (cf. Longobardi 1994), or subject to parametric variation (cf. Chierchia 1998).

- (1) a. a/the nice boy  
b. [<sub>DP</sub> [<sub>D</sub> a/the [<sub>NP</sub> nice boy]]]  
c. (In)definite articles are expressions of D

This view is not unproblematic, though. While (in)definite articles are very common across contemporary Romance and Germanic languages, they were not present in the relevant source languages (e.g., Old Latin, Old English) or can be shown to have emerged during the development of the contemporary varieties. Therefore, D is a derivative category, even in these most studied languages. If D is universal (as the literature may want us to believe) one may further wonder why it took so long for articles to express it in precisely those languages. Indeed, various diachronic studies indicate that determiners

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evolved from different grammatical sources, such as, the development of indefinite articles from the weakened form of the Latin numeral ‘one’ *unum/-am* (M/F) (>Catalan/Italian/Spanish *un/una*, French *un/une*, Portuguese *um/uma*, Romanian *un/o*) or the development of definite articles from the weakened form of the Latin distal demonstrative *ille* (>Catalan/Spanish *el/la*, French/Occitan *le/la*, Italian *il/la*, Portuguese *o*, Romanian *-(u)l/-a*) (cf. Ledgeway 2011). Yet, common to this developmental path is the capacity of the source elements to function as pronouns, hence the link between pronouns and articles in these languages. That Romance and Germanic articles have a pronominal source further indicates that they emerged from the clausal domain where pronouns are licensed. In addition, other studies suggest that articles may also represent an areal feature that spread across Romance and Germanic between the 8<sup>th</sup> and 11<sup>th</sup> century (cf. Perridon and Sleeman 2011: 3 and also Heltoft 2010, Lander and Haegeman 2013, Börjars et al. 2016). This would explain their absence or scarcity in older varieties in the same language families. Accordingly, articles though ubiquitous in contemporary grammars of Romance and Germanic used to be less so. These observations make one wonders whether the category which articles are assigned to in most contemporary syntactic analyses of noun phrases in Romance, Germanic, and beyond, i.e., D, is indeed a necessary one or whether it could be reduced to other aspects of clause structure.

This question becomes even more relevant when considering typological evidence for D. Many languages of the world (e.g., Sinitic, Niger-Congo, some Slavic) do not have (in)definite articles of the Indo-European type, i.e., the pronominal type. Instead, these languages encode notions corresponding to definiteness by means of particles or other syntactic devices that are not expressions of D (e.g., pre- vs. post-verbal position, classifiers, modifiers, see Cheng and Sybesma 1999, Aboh 2004a). In some of these languages therefore bare noun phrases (i.e., noun phrases involving no overt article or demonstrative) may occur freely in both argument and non-argument positions, where they can be interpreted as (in)definite or generic depending on context. These article-less languages therefore seem not to require an overt D, unlike Romance and Germanic. Instead, they rely on discourse context and specific clausal properties to encode definiteness.

In this regard, Bošković (2008, 2009), among other authors, argues that the absence/presence of articles in Romance/Germanic versus Slavic languages correlates with broad clausal properties of which some are summarized in the following table.

These properties are not universal, and may turn out to be language specific. Yet, they suffice to illustrate that there tend to be strong links between clausal specifications and the possibility for a language to develop an article system. Accordingly, the differences between article languages and article-less

<b>Properties</b>	<b>AL</b>	<b>BNL</b>
Left-branch extraction	yes	no
Adjunct extraction	yes	no
Scrambling (e.g., long distance scrambling from finite clause)	yes	no
Multiple wh-fronting	yes	no
Clitic doubling	no	yes
Transitive nominals with two genitives	no	yes
Island effect in head-initial relatives	yes	no
Majority reading of MOST	no	yes
Negative raising	no	yes

Table 1: The DP/NP parameter (adapted from Bošković 2008)

languages appear to derive from clausal properties rather than a mere spell-out parameter that regulates the pronunciation of D cross-linguistically.<sup>2</sup>

Taking these observations seriously, I propose that D is not a syntactic primitive. Instead, articles are to the noun what complementizers are to the clause. Articles and clausal complementizers represent two sides of the same coin: nominal versus clausal periphery. This would mean that there is a unique phrase marker with a unique syntactic domain, the Left Periphery (LP), within which different heads may be expressed by articles heading nominal predicate structures (cf., Hiraiwa 2005), or (pronominal) complementizers (e.g., in Romance/Germanic) heading non-nominal predicates.<sup>3</sup> In this view, D is merely a convenient label referring to a head within the Left Periphery of a nominal predicate. My rationale is in line with Bowers (1993) who argued convincingly that the lexical domain of all phrase structures includes a Predicate Phrase (PredP) whose exponent could be different categories (i.e., V, A, N, P). In Section 2, I motivate the need for such a view based on data from Gungbe. Section 3 recapitulates a previous account for Akan (a Kwa language spoken in Ghana) and concludes that it cannot extend to the Gungbe facts. In Section 4, I elaborate on the view adopted in this paper, namely that articles are expressions of the left periphery of nominal expressions. The discussion shows that the view proposed in this paper is compatible with the fact that languages that develop (in)definite articles also seem to be the ones that have some form of (pro)nominal complementizers. The latter are lacking in article-less languages. Likewise, some article-less languages also exhibit ‘bare clauses’ where verbal elements are never marked for tense/finiteness distinctions. Put

<sup>2</sup>I will use the term “article-less” and “bare noun languages” interchangeably in this paper.

<sup>3</sup>LP is a cover term for Rizzi’s (1997) split-C which comprises the articulation ForceP ... (Topic) ... (Focus) ... FinP.

together, these facts lead me to conclude that the development of (in)definite articles in languages where they are found is a reflex of the development of some expression of the clause left peripheral system. Section 5 includes some concluding remarks as well as speculations as to what structural context may serve as springboard for some pronouns to develop into nominal complementizers referred to as ‘articles’.

## 2 The DP hypothesis

In their seminal work on the syntax of noun phrases, Szabolcsi (1981, 1987) and Abney (1987) concluded on the basis of a meticulous comparison between specific aspects of the noun phrase and the clause (e.g., agreement, case assignment) that strong parallels between the two suggest that they both involve a functional sequence that projects as the extended projection of the predicate phrase including the lexical head. This has led to the traditional CP/DP parallelism entertained in generative syntax. For Szabolcsi (1987, 1994), *D* is more akin to *C*, while Abney 1987: 41) concludes that “it is a hypothetical syntactic category [...] distinguished from *Infl* and *Comp* in that it belongs to the nominal system, not the verbal system.” Under this view, *D* is comparable to *Infl* in representing the anchorage point of agreement within the nominal system, but it can’t be equated to functional categories within the clause since those are determined by verbal properties which are supposedly absent in the noun phrase. The argument is somehow in contradiction with Abney’s own demonstration of the *D*-hypothesis based on similarities between the clause and the noun phrase, including empirical facts from typologically different languages (e.g., Mayan, Turkic, Uralic) showing that noun phrases can display inflectional morphology typically found in the clausal domain. Yet, the view that *D* is a syntactic category on its own (arguably a primitive) has dominated the field ever since, and cross-linguistic differences are accounted for in terms of parametric variation (cf. Abney 1987, Longobardi 1994, Chierchia 1998, Bošković 2008, 2010).

This view apparently subsumes Szabolcsi’s (1987, 1994) perspective which is compatible with the line I’m defending in this paper. Based on agreement facts and case manifestations in the noun phrase in Hungarian, Szabolcsi demonstrates that articles come in two types: *C*-like subordinators (which she termed *D*), and elements encoding nominal expression of agreement in a way comparable to *INFL*. She referred to these elements as *Det*. In her account, *D* hierarchically precedes *Det*, but is selected from the lexicon in agreement with the definiteness and quantificational features of the noun phrase that are expressed by *Det* (2-a). In addition, *D* has the property to turn the nominal predicate into an argument (see also Longobardi 1994). Adopting this view within the cartography descriptive framework, Aboh 2004b shows that, similarly to the

clausal left periphery, the nominal periphery (i.e., the D-Det articulation in Szabolcsi's terms) involves topic and focus projections (TopP and FocP) whose specifiers host topic and focused constituents, as represented in (2-b).

- (2) a. [DP [D [Nominal-Inflect ... [DetP [Det [ ... NP ... ]]]]]]  
 b. [LP ... [L ... [NumP ... [Numb ... [FP ... [F ... N ... ]]]]]]

As (2-b) indicates, TopP and FocP project between LP, the highest projection of the Left Periphery, which expresses the interface between the discourse and the nominal expression, and NumP, the lowest projection, which links this domain to the nominal I(nflectional)-system or INFL. NumP encodes the agreement features and certain referential features (e.g., number, deixis) that parallel those of the nominal INFL. In terms of this view, noun phrases involve covert predication of which the noun head functions as a predicate of the referent of the whole LP.<sup>4</sup> This would mean that the nominal INFL (i.e., FP in the representation (2-b)) includes a subject position that may host the possessor in possessive constructions (see for instance Campbell 1996).

The interested reader is referred to Aboh (2004a,b) for discussion. For the purpose of this paper, it suffices to note that the representation in (1-b) is commonly taken to be the underlying structure of noun phrases in languages which exhibit (in)definite articles, while the question remains open for languages in which there are no overt articles and/or languages in which bare nouns as well as nouns combined with article-like elements exhibit the same distribution. Such languages do not display the bare NP versus DP asymmetry observed in Romance and Germanic and other commonly described languages. Under a generalized D-hypothesis (e.g. Longobardi 1994), where syntax-semantics mappings are uniform across languages, noun phrases (NPs) denote sets and cannot function as arguments, which typically pick up individual referents in discourse. The function of D therefore is to turn such set denoting NPs into licit arguments. In this view, D must always be underlyingly present in nominal structures, including in languages where it does not (always) have any exponence. Such languages are analysed as involving null Ds. According to Chierchia's (1998) Nominal Mapping Parameter, however, this need not be the case. Languages may differ as to whether they require NPs to be introduced in syntax by combining with the category D (as in Romance and Germanic) or allow bare NPs to function as argument (as in Sinitic and Slavic). NPs are specified for the parametric values [ $\pm$ PRED,  $\pm$ ARG], which regulate their distribution. Focussing on the feature [ARG] for the purpose of the current discussion, languages in which NPs are specified as [+ARG] (e.g., Sinitic, Slavic) display bare NPs in argument positions. This is unlike languages in which NPs are marked

<sup>4</sup>I'm using the term LP for consistency, but this projection corresponds to what is traditionally referred to as DP, a label I adopted in previous work.

as [–ARG], and are disallowed in argument position, unless they project D.

Whether one adopts a universalist or parametric approach to D, the consensus in generative syntax has been that noun phrases can be headed by a functional category D, fundamentally different from C and T which are found in the verbal domain (i.e., within the clause). This has led to further studies such as Bošković (2008, 2009), who argues for D as a parametrized phase head that correlates with a wide range of clausal properties, which in turn suggest typological distinctions between article and article-less languages. Under Bošković’s approach, one could see such clausal correlations as resulting from phasehood and how presence or absence of a phase can affect clause structure in general.

Since this family of approaches generally distinguish between article and article-less languages based on a presumed distinct distribution between bare NPs and DPs, one does not expect to find a language in which apparent DPs and NPs would display the same distribution. This type of languages are actually formally excluded by Chierchia’s (1998) Nominal Mapping Parameter in conjunction with his Blocking Principle. Yet, this is precisely the situation we find in the Gbe languages of the Kwa family. In the author’s language Gungbe (a Gbe language of the Kwa family spoken in Porto-Novo, Cotonou, and environs in Benin Republic, as well as in Gbadagri and environs in Nigeria), a bare noun phrase (BNP) may freely occur in any syntactic position and may be interpreted as *indefinite*, *definite*, or *generic* depending on context. In the following example, the speaker in (3-a) is enquiring about what happened, triggering the answer in (3-b). In this example, the speaker is reporting a hearsay about the event, hence the BNP *àsé* is interpreted as an indefinite cat.

- (3) a. Context:  
 Èté wè jò?  
 what FOC happen  
 ‘What happened?’
- b. Má nywèn, àmó yòkpó lé d̀̀ *àsé* jè d̀̀t̀̀d̀̀ mè!  
 NEG.1SG know.3SG but child PL say cat fell well in  
 ‘I don’t know, but the kids said a cat fell in a well!’ (Indefinite)

In the context below, speaker (4-a) just got a cat and is asking about how to feed it. Note that the question too contains a BNP *cat*. In the answer (4-b), the interlocutor replies that cats in general eat fish, hence the BNP is interpreted as generic.

- (4) a. Context:  
 Èté wè *àsé* ǹ̀ d̀̀?  
 what FOC cat HAB eat  
 ‘What do cats eat generally?’

- b. Àsé nò òù hwèví.  
 cat HAB eat fish  
 ‘A cat/cats often eat/s fish.’ (Generic)

In the context described in (5), the speakers are conversing about a cat and a dog, *Mus* and *Jeff*, respectively. Both *Mus* and *Jeff* live in the household and are known for their unexpected peaceful relation. Speaker A has just noticed that *Mus* climbed on *Jeff*’s back. In Gungbe, the sentences in (5) are all felicitous in this context. Note from example (5-b) that it includes the BNPs *àsé* ‘cat’, and *àvún* ‘dog’, which must be interpreted as definite, i.e., *Mus* and *Jeff*, respectively. For examples (5-b-d), I added the intended meanings in square brackets, which I refer to as “discourse meaning”.

- (5) a. Kpón! Mús xé Jeff jí.  
 look, Mus climb Jeff TOP  
 ‘Look! Mus climbed on Jeff’s back.’
- b. Kpón àsé! É xé àvún jí.  
 look cat 3SG climb dog TOP  
 ‘Look at the cat! It climbed on the dog’s back.’  
 [Discourse meaning: a cat on a dog’s back, interesting]
- c. Kpón àsé ló! É xé àvún jí!  
 look cat DET 3SG climb dog TOP  
 ‘Look at this cat. It climbed on the dog’s back.’  
 [Discourse meaning: Mus is known to do strange/funny things.  
 This is its latest funny behaviour]
- d. Kpón àsé ló! É xé àvún ló jí!  
 look cat DET 3SG climb dog DET TOP  
 ‘Look at this cat. It climbed on the dog’s back.’  
 [Discourse meaning: Mus and Jeff are both known to do strange/  
 funny things. This is their latest funny behaviour]

As we can see, these sentences do not all have the same discourse meaning. While (5-a) could be regarded as a neutral description of the situation, examples (5-b-c) encode various discourse meanings, including the speaker’s surprise or amusement. The BNPs here are all interpreted as definite. These examples also show that a BNP in Gungbe (e.g., (5-b)) has similar distributions as noun phrases including determiner-like elements (5-c-d). This is shown further with example (6), in which a BNP is used after a first mention by a noun phrase including what appears to be a determiner (cf. Aboh and DeGraff 2014): The first mention included an apparent indefinite article, but the second mention is a BNP.

- (6) Bare noun after first mention by a DP-like noun phrase.  
 Sétù yì xò [zòkèkè d̀àxó d̀é] ná àsú étòn b̀ò [zòkèkè]  
 Setu go buy motorbike big DET to husband 3SG.POSS but motorbike  
 wá nyín túklá tò xwé gbè.  
 come become trouble at house in  
 ‘Setu bought her husband a big motorbike, but the/this motorbike be-  
 came a problem in the household.’

The examples under (7) further indicate that the element *d̀é* seems a garden variety ‘indefinite’ article.

- (7) Context: What are you doing here?  
 a. Ûn tò **wémá** d̀ín ná xià.  
 1SG PROG book search.PTCP PREP read  
 ‘I’m looking for a/some book to read.’ [I’m looking for anything  
 book-like to read]  
 b. Ûn tò **wémá d̀é** d̀ín ná xià.  
 1SG PROG book DET search.PTCP PREP read  
 ‘I’m looking for a specific book to read.’  
 [N.B. Even though I might not have a specific book in mind, I have  
 a clear idea what it should be about. E.g., comics vs. novel]

Looking at examples (5-c)-(5-d) and (6)-(7), one can conclude that definiteness is not primarily encoded by articles in Gungbe even though the language displays elements like *ĺ* and *d̀é* which at first sight behave like (in)definite articles, and are formally distinct from demonstratives. In Gungbe, all nominal markers and modifiers can co-occur freely with the noun, as in (8).

- (8) Séná xò àgásá (d̀àxó) (àwè) (éhè) (ĺ) (ĺé).  
 Sena buy crab big two DEM DET NUMB  
 ‘Sena bought these two big crab.’

Under Chierchia (1998), a language like Gungbe is unexpected, since it lacks a classifier system, but allows BNPs and noun phrases including apparent determiners to compete for the same positions. In this language, BNPs can be definite, indefinite, or generic and occur in argument positions, thus violating the “Blocking Principle”.

Other facts characterizing BNPs in Gungbe include their ability to be modified by either a bare relative clause, as we can see in examples (9-a) or a relative clause followed by what appears a definite marker as in (9-b).

- (9) a. Séná xò [àgásá [d̀ě mí wlé s̀ò]].  
 Sena buy crab REL 1PL catch yesterday  
 ‘Sena bought the crab that we caught yesterday.’

- b. Séná xò [[àgásá [dǔ mí wlé sò]] ɪ́].  
 Sena buy crab REL 1PL catch yesterday DET  
 ‘Sena bought that (specific) crab that we caught yesterday.’

These examples show that definiteness can be achieved with relativization alone, since (9-a) has a restrictive reading, while (9-b) with the marker seems to encode other discourse features. The behaviour of these nominal markers and their discourse function is further illustrated by the fact that they can combine with proper names (10-a) on a par with common noun phrases (10-b).

- (10) a. Séná (ɪ́) ná wá hwèjàyí.  
 Sena DET FUT come afternoon  
 ‘Sena will come in the afternoon [e.g., as in French, *le Paul vient-  
 dra ce soir*].’  
 b. Àgàhún (ɪ́) ná wá hwèjàyí.  
 airplane DET FUT come afternoon  
 ‘That/the (specific) airplane will arrive in the afternoon’

Put together, these facts show clearly that BNPs and various noun phrases including determiner-like elements, which would qualify as DPs in most common descriptions, have the same distribution in Gungbe. We also see here that the elements that are glossed as DET in these examples do not seem to encode (in)definiteness categorically. Indeed, BNPs can be interpreted as (in)definite or generic in Gungbe upon context, and determiner-like elements can be added to referents that are already definite (e.g., restrictive relative clauses, proper names), while being compatible with other deictic determiners, such as demonstratives (8). While Aboh (2004a) treated the Gungbe nominal markers as definite and indefinite specificity markers, the facts reviewed here led him to analyze them as DP-internal topic markers (Aboh 2004b). I will adopt this analysis here, but before returning to this discussion, let’s briefly review Arkoh and Matthewson’s (2013) account for similar facts in Akan, in comparison to Gungbe.

### 3 Gbe (Kwa) involve German-like strong articles

Building on Schwarz (2009), Arkoh and Matthewson (2013) argued that Akan (Kwa) determiner-like element *nó* marks familiarity. The interested reader is referred to this paper and references therein for a detailed discussion on Akan determiners (see also Owusu 2019). Here, I only report some core properties of these categories that are relevant to the current discussion. According to Arkoh and Matthewson (2013), there are three main uses of *nó*: a definite determiner in (11-a-b), a third person singular animate object pronoun (11-c),

and a dependent clause marker. In the latter case, it may occur in a relative clause (11-d) or in final position of a conjoined clause (11-e) (cf. Arkoh and Matthewson 2013: 4,23).

- (11) a. Pàpá nó bá-à há  
 Man FAM come-PST here  
 ‘The man came here.’
- b. Kwámì dzì èdzìbán nó má-à àbùfrá nó  
 Kwame take food FAM give-PST child FAM  
 ‘Kwame gave the food to the child.’
- c. Kwámì dzì èdzìbán nó má-à nó  
 Kwame take food FAM give-PST 3SG  
 ‘Kwame gave the food to him/her.’
- d. Kòfí hú-ù máàmí nó àà ò-tí tám nó  
 Kofi see-PST woman FAM REL 3SG.SUBJ-sell cloth DCM  
 ‘Kofi saw the woman who sells cloth.’
- e. Nsú tó-ì nó nnà má-àdà  
 water fall-PST DCM and 1SG.SUBJ-sleep  
 ‘I was asleep when it rained.’

At first sight, the data in (11) suggest that Akan *nó* is polyfunctional and polysemous, an observation that already points to the fact that this element is not the vanilla determiner commonly described in Romance and Germanic (even though it may have a pronominal use as well). One may therefore wonder whether *nó* is indeed a genuine realisation of D. To this question, Arkoh and Matthewson (2013) answered that the Akan *nó* encodes *familiarity* which they defined as follows:

*Familiarity*

*The speaker takes the existence of the referent to already be present in the common ground of the discourse (the shared knowledge between speaker and hearer),* (Arkoh and Matthewson 2013: 5).

Given my translations of several Gungbe examples above (e.g., (7), (9), (10)), as in ‘*that/the (specific) airplane will arrive in the afternoon*’ in (10-b), it seems reasonable to think that the article-like elements in Gungbe could encode *familiarity* as well. If so, one could extend Arkoh and Matthewson’s (2013) analysis to Gungbe (and presumably other Kwa languages) as well. Yet, a major empirical challenge to this view is that elements like Akan *nó*, and Gungbe *lɔ* appear to pair with apparent indefinite counter-parts, namely *bí* in Akan (cf. Owusu 2019 and references cited there), and *dé* in Gungbe (cf. (6), (7-b)). The distributive properties of these elements indicate that they cannot be said to encode ‘unfamiliarity’ i.e., the opposite of *familiarity*. In what follows, I

further show that expression of *familiarity* is not even a condition for the nominal markers *lɔ́* (and *dé*) to be used in Gungbe. In this language, both *lɔ́* and *dé* can occur with an all new noun phrase, though under different discourse conditions as already suggested in examples under (5). Consider again the following context:

(12) Context: *Tòbì* is visiting her little sister *Sènám*. *Tòbì* and her husband appear to form a perfect couple. They both have a wonderful career, and seem to be living a very happy life with their kids. *Sènám*, on the other hand, is known within the family to have been struggling both with her couple and her career. Everybody in the family is worried for *Sènám*. Over the past week, *Tòbì* stayed with her sister to help out, but the day before she left, *Sènám* realized that *Tòbì* was anxious and sad. She then asked:

a. *Sènám*:

(i) Ètè útù wè à cí xwí mɔ́n?  
why cause FOC 2SG appear quite like.that  
'Why are you so quite?'

(ii) Mà zé xó nyèn-tèn dɔ́ jè tùklá bló.  
2SG.NEG take word 1SG-POSS for reach trouble NEG.PRT  
'Don't let my troubles affect you.'

b. *Tòbì*:

(i) Jó xó dó. Mè d̀òkpó d̀òkpó wè dɔ́ étɔ́n.  
let word PRT person each each FOC has 3SG-POSS  
'Don't worry. Everybody has her/his own.'

(ii) Ná jè [xwé lɔ́] gbè dín b̀d̀ [àhàn nù  
1SG.FUT reach house DET at now and drink drink  
**mlán ǹd̀ lɔ́**] ná bé t̀ùklá kpé mì.  
praise person DET FUT collect trouble meet 1SG  
'I will get to that house now and that drunkard will meet me with troubles.'

c. *Sènám*:

(i) Hén! Àsú twè ǹd̀ ǹd̀ àhàn wè?  
PRT husband 2SG.POSS HAB drink drink FOC  
'What!?! Does your husband drink?'

(ii) Má m̀d̀n-è ní ǹd̀ àhàn kpóí!  
1SG.NEG see-3SG MOOD drink drink never  
'I've never seen him drink (alcohol).'

(iii) [Mè d̀é] lé sín xó ǹd̀ kpácá dó mì tàùn.  
Person DET PL POSS word HAB surprise at 1SG.ACC very  
'Some people really surprise me!'

First, let's us note that nothing in this discourse context could prompt *Sènám* to be thinking about *Tòbì*'s husband as the source of her worries, since both appear to form the happiest couple of the family. Second, even if we can construe a scenario in which marital affairs are always in the background in family issues, the husband's addiction is out of question here since he is known publicly not to drink alcohol. Focusing on the noun phrases in square brackets and boldface in these examples, we see that *Tòbì* introduces both her house and the referent characterized as drunkard with *lɔ́*. One cannot evoke *familiarity* to account for the presence of this element here, unless we assume that everything that is part of speaker-hearer's knowledge must also "*already be present in the common ground of the discourse*" and active for retrieval. This will obviously lead to incommensurable questions of memory load and processability. Interestingly, when referring back to this individual in her reaction, *Sènám* used the element *dé* to express that she is surprised by some people. Here as well, it's not clear whether *Sènám* has a certain type of characters in mind, but it would be strange to analyse this referent here just as an indefinite. Thus, *dé* is not a mere indefinite article, and nor is *lɔ́* a mere definite marker. This discourse context also shows that a description of both *lɔ́* and *dé* in terms of familiarity would be an oversimplification.

Like in Akan, *lɔ́* is multifunctional too, since it can be used to mark clauses as well (cf. Aboh 2004a, Aboh and DeGraff 2014).

- (13) [dǔ hwè hùn lɔ́] víví ná mì gbáú.  
 as sun open DET please PREP me a.lot  
 'That the sun shined pleased me a lot.'

This usage can hardly be accounted for in terms of *familiarity* of a specific referent, since *lɔ́* marks the clause as a whole. This is so even though the event referred to is construed as shared knowledge in this discourse. In this regard, it is remarkable that the various analyses proposed in the literature over the past decades to account for these categories in (Benue)Kwa and beyond revolve around notions such as *specificity/topicality* and *noteworthiness* (e.g., Aboh 2004a,b, 2006, Ionin 2006), *saliency* (e.g., Adjiboye 2005), and *familiarity* (e.g., Arkoh and Matthewson 2013). Conflating *topicality* and *familiarity* on the one hand, and *specificity*, *saliency* and *noteworthiness* on the other, we arrive at the following tentative characterization for these nominal markers in Gungbe (and presumably in (Benue)Kwa):

- *lɔ́* expresses the features [STRONG TOPIC, NOTEWORTHY], where *strong topic* means *familiar* to both speaker and hearer.
- *dé* expresses the features [WEAK TOPIC, NOTEWORTHY], where *weak topic*

means *familiar* to the speaker only, but relevant for the ongoing discourse.

Following Ionin (2006: 188), “the term *noteworthy* is used here in its most literal sense: *worthy of note* (in a given discourse). While *noteworthiness* seems to be a condition for these markers to occur, their actual form is sensitive to whether the referent is *strongly topical*, that is, *familiar* to both speaker and hearer or only to the former, though relevant to the ongoing discourse. This would mean that any Gungbe noun phrase that does not satisfy these conditions, will occur as a bare noun phrase. Consequently, what is perceived as *definiteness* in Gungbe is a side-effect of the combination of the features *topicality* and *noteworthiness*. We can therefore conclude that these nominal markers encode discourse properties similarly to discourse markers within the clause (cf. Aboh 2004a).<sup>5</sup> The working hypothesis, which I further elaborate on in the next section is that:

Gungbe noun phrases are embedded under a subordinator (or nominal typing element) heading the nominal left periphery LP, which has no morphological exponence. *l̩* and *d̩é* mark different types of topics within the noun phrase embedded under LP (cf. Aboh 2004b).

Under this view, and assuming that the (Benue)Kwa languages shed light on a fundamental aspect of human language capacity, we can hypothesize that there is no syntactic primitive D. Accordingly, there should be no discussion of CP vs. DP parallelism in the literature because both C and D are expressions of the same underlying left peripheral structure LP, which also qualifies as a phase (cf. Hiraiwa 2005). This in turn would mean that there is only one phase type: LP, despite contrary claims in the field. Following the tradition, I assume that the nominal typing element within LP is responsible of type shifting, thus allowing nominal expressions to function as arguments. While aspects of LP are encoded by articles in most Germanic and Romance, as well as most languages cited in the literature, other aspects related to topicality and noteworthiness seem to be realised in languages like Gungbe. These markers further illustrate the isomorphism between nominal and clausal LPs advocated for here.

#### 4 Bare clauses and bare noun phrases

A direct implication of this working hypothesis is that Gungbe (and similar languages) will not only exhibit bare NPs since the language has no dedicated

<sup>5</sup>Interestingly, Aboh (2004a) observed that the presence versus absence of the clausal topic marker *yà* in Gungbe seems to correlate with strong versus weak topics.

determiner for this position, but also bare clauses, that is, clauses in which T and (traditional) C will commonly be null.

#### 4.1 Bare clauses and the absence of tense/finiteness distinction

This section illustrates bare clauses in Gungbe and shows that tense and finiteness distinctions (which are properties of T and FinP under Rizzi 1997) are not systematically marked morphologically in this language. In example (14-a) we see that all lexical elements, i.e., the noun phrases realising the arguments as well as the verb are bare. The latter is never inflected in Gungbe (and other (Benue)Kwa languages). We also see from this example that verbs encoding a dynamic event (e.g., *cook*) are interpreted as expressing a completed event from which past tense is computed (cf. Aboh 2004a). Accordingly, there must be an operator in the clause that binds past time as determined in the discourse (cf. Stowell 2007). Likewise, the bare nouns in these examples suggest that a similar mechanism must be at work within the noun phrase to establish definiteness. In addition, these examples show that bare nouns can also function as predicate when introduced by a stative verb. Such individual-level predicates are typically interpreted as continuous state, unless otherwise specified. This is the case in example (14-c) where the verb series *come go* points to a state that was true in the past. Note again that none of the elements in these sentences is inflected, thus illustrating what I refer to here as bare clauses (cf. Aboh 2004a, Aboh and DeGraff 2014).

- (14) a. Sɛná **dà** àgásá òn.  
 Sena cook crab now  
 ‘Sena has just cooked crabs.’
- b. Sɛná jò gbètɔ́.  
 Sena be.born human  
 ‘Lit. Sena is/was born human, i.e., Sena is/was a nice person’
- c. Sɛná jò gbètɔ́ wá yì.  
 Sena be.born human come go  
 ‘Lit. Sena used to be a nice person (i.e., he is no more a nice person).’

Because Gungbe uses bare clauses of the type in (14), there is no formal distinction between finite vs. non-finite clauses (except when the sentence or VP is nominalized). Compare, for instance, the finite verb in (14-a) to the embedded non-finite verb in (15-a), where non-finiteness is determined structurally. Indeed, the only mark of non-finiteness in this example is the clausal preposition *ná* which introduces the embedded clause similarly to *to/for* in English. That the embedded clause is indeed non-finite is also indicated by the fact that

it cannot host an overt subject, hence the ungrammatical example (15-c). Subjects must always be overtly realised in finite clauses in Gungbe (cf. (14)).

- (15) a. Séná jró [ná **dà** àgásá dìn].  
 Sena want PREP cook crab now  
 ‘Sena want to cook crab now.’ (Embedded non-finite clause)
- b. \*Séná jró [ná é/émì **dà** àgásá dìn].  
 Sena want PREP 3SG.NOM/ACC cook crab now  
 ‘Sena want her to cook crab now.’ (Embedded non-finite clause)

The bare clauses in (14) and (15-a) clearly form a pattern with bare noun phrases for which definiteness had to be determined in context too. We can therefore conclude that (temporal) deixis in Gungbe is fixed in context (Stowell 2007), just as definiteness is fixed in context too. However, this conclusion should not obscure the fact that Gungbe bare clauses co-exist with properly future tense-marked clauses as in (16) which form a minimal pair with example (14-a), since the only difference between the two is the presence of the future marker in (16) but not in (14-a).

- (16) Séná ná **dà** àgásá **dìn**.  
 Sena FUT cook crab now  
 ‘Sena will cook crabs now.’

Gungbe therefore displays both tenseless (i.e., non-future) and future tense-marked clauses (i.e., (14-a) vs. (16)), just as it exhibits BNPs alongside with noun phrases that include various deictic elements as well as topic and noteworthiness markers. In this language, the absence of morphological marking for ‘definiteness’ (as described in the literature) goes hand in hand with the absence of finiteness distinction in the clause. While these characterizations seem to hold across (Benue)Kwa, they also point to an apparent generalization that goes beyond these languages when we consider the function of articles.

Indeed, the following general picture seems to emerge about articles:

- (17) a. Article languages → Definite vs. Indefinite → Finite vs. Non-finite (e.g., Romance, Germanic)  
 b. Article-less languages → Topical vs. Non-topical → No finiteness distinction (but maybe a modal distinction) (e.g., (Benue)Kwa)

We can further interpret this rough description as follows:

- (18) Languages which lack grammatical T/Finiteness distinction also lack grammatical referential distinction (sometimes encoded by (in)definite articles) (see also Bošković 2010: 26).

In the context of this discussion, we can further arrive at the following general structural description involving a unique phrase marker).

- (19) [Clause Typing ... [ ... topic ... focus ... [Finiteness ... [Inflection ... Predicate ... ]]]]]  
 (cf. Bowers 1993, Cardinaletti and Starke 1999, Déchaine and Wiltschko 2002).

This description implies that:

1. Clausal properties condition the presence or absence of articles in languages so that one can postulate the following developmental path for Romance and Germanic: RELATIVE COMP>CLAUSE-TYPE>ARTICLE
2. Syncretism between (in)definite articles (e.g., Romance, Germanic), (pro)nominal relative complementizers and clausal complementizers is not accidental (cf. Meyer 2017, Baunaz and Lander 2018).
3. Such a syncretism will not be found in Gbe-type or article-less languages in general.

These suggestions further imply that the (Benue)Kwa languages do not only lack prototypical articles, as argued for here, but they also lack pronominal declarative complementizers which are so common in Romance and Germanic. I believe the property to be general across Niger-Congo even though I stand to be corrected.

#### 4.2 On the absence of (pro)nominal COMP

This conclusion appears to be supported by the empirical data from Gbe, Romance, and Germanic, as summarized in Table 1 which contrasts nominal and clausal properties in those languages.

	Pronominal declarative COMP	Syncretism with demonstrative and relative pronouns	Finiteness distinction
Romance and Germanic	yes	yes	yes
Gungbe and other Kwa	no	no	no

Table 2: Contrasting clausal and nominal patterns

Table 2 shows that Gungbe (and to my knowledge most (Benue)Kwa), lack Tense/Finiteness distinctions on the verb as well as (pro)nominal complementizers that are syncretic with demonstrative and relative pronouns. Complementization in these languages involves several strategies, including zero complementation. Example (20-a) from Gungbe illustrates a main clause which embeds another clause in (20-b), though the latter is not introduced by any overt grammatical element.

- (20) a. ùn **d̥ɔ̃** xó  
 1SG speak word  
 ‘I talked/spoke or I said something.’  
 b. ùn **d̥ɔ̃** [Súrù ná wá].  
 1SG speak Suru FUT come  
 ‘I said that Suru will come.’

In addition to zero complementizers as in (20-b), the example under (21-a) shows that the embedded clause can be introduced by the same verb of saying *d̥ɔ̃*. One should not take (21-a) to instantiate a doubling structure, since we see in example (21-b) that the two tokens of *d̥ɔ̃* can be separated by a relative clause functioning as indirect object.

- (21) a. ùn **d̥ɔ̃** **d̥ɔ̃** Súrù ná wá.  
 1SG speak/say COMP Suru FUT come  
 ‘I said that Suru will come.’  
 b. ùn **d̥ɔ̃** ná [vĩ d̥ɛ wá kpón mì lé] **d̥ɔ̃**  
 1SG speak/say PREP children REL come see 1SG.ACC PL COMP  
 Súrù ná wá.  
 Suru FUT come  
 ‘I told the children who came to visit me that Suru would come.’

Likewise, example (22-a) indicates that a clause-introducing *d̥ɔ̃* combines with various classes of verbs, and precedes topicalised and focused elements, an indication that it is an expression of the left periphery rather than a lexical predicate (cf. Aboh 2004a). We can conclude from these examples that these constructions are not expressions of serial verb constructions (cf. Aboh 2009).

- (22) a. ùn sé/lìn/m̀̀n/nyẁ̀n **d̥ɔ̃** Súrù ná wá.  
 1SG hear/think/see/know COMP Suru FUT come  
 ‘I heard/thought/saw that Suru will come.’  
 b. ùn lìn **d̥ɔ̃** àzón éhè yà, égbè wè Súrù sígán bàí-ì.  
 1SG think that work DEM TOP today FOC Suru can do-3SG  
 ‘I thought that, this work, Suru can do it TODAY.’ (allows long wh-extraction)

Note also that  $d\dot{\eta}$  can head subject clauses (unlike verbs in a serial verb constructions):

- (23) [d $\dot{\eta}$  gbè̀tò nò dò fí lè] kpácà mì tàùn.  
 that human FUT sleep here this.way surprise 1SG very  
 ‘That someone can sleep here in this way surprises me a lot’

Since Gungbe lacks both vanilla articles and complementizers, I take this to be supporting evidence that so-called articles express a nominal left periphery. Following this rationale, the observations summarized in Table 3<sup>6</sup>, including many other aspects not discussed here across Romance/Germanic and Gbe/Kwa cannot be accidental.

	Verbal COMP	Pronominal COMP	T; +/- Finite	V-to-T	V-to-Asp	Copula	Clitic Mvt	Free Bare NP
Romance/ Germanic	no	yes	yes	yes	yes	yes	yes	no
(Benue)Kwa	yes	no	no	no	yes	no	no	yes

Table 3: Clause structure properties between bare noun languages and determiner languages

Aside from V-to-Asp movement, which Aboh (2004a) assumes is present in all these language families, the two groupings mirror each other: where Romance/Germanic displays a nominal and clausal property, (Benue)Kwa lacks it and vice versa. This observation suggests the following generalization:

- (24) a. If a language has T/Finiteness distinction and (pro)nominal COMP, it *may* have corresponding (in)definite articles.  
 b. If a language has no T/Finiteness distinction and no (pro)nominal COMP (or involves a verbal COMP instead), it will have no corresponding (in)definite articles.

This generalization basically means that the development of (in)definite articles (as described in the literature) is a reflex of the spell-out properties of the

<sup>6</sup>I explored these typological properties in a sample, adapted from Rijkhoff (2002), including: Oromo Cushitic (Afroasiatic), Maale (Omotic) Nivkh (Isolate); Gude (Chadic); Lango (Linotic); Hixkaryana (Carib); Quechua (Quechuan); Ngalakan (Australian Aboriginal); Abun (Papuan); Yupik Eskimo (Eskimo); Kayardild (Australian); Movima (Isolate); Maale (Afroasiatic); Mandarin Chinese (Sinitic); Japanese, Korean, Saramaccan, Haitian Creole, Sranan. The primary results suggest that the asymmetry described in Table 2 holds across these languages as well.

left periphery. Further study is certainly needed to confirm this claim, but one can recall from the development of Romance and Germanic complementizers that (in)definite articles and (pro)nominal complementizers either developed simultaneously, or the said articles emerged subsequently to the development of complementizers. The discussion above suggests this development is not accidental. To the best of my knowledge, there does not seem to be any case in which categorical (in)definite articles (of the Germanic/Romance type) developed in total absence of a (pro)nominal declarative complementizer. Everything else being constant, we can now suggest that:

- (25) There should be no language that has categorical (in)definite articles required for argument NPs **but lacks both (pro)-nominal complementizer and T/Finiteness distinction**.

(25) holds true of Table 2 and the languages mentioned in Footnote 5. If indeed definiteness articles and complementizers were two unrelated categories, though they show parallelisms as the literature would have us believe, the question arises why the absence/presence of one would imply the absence/presence of the other cross-linguistically. Current analyses of D and C parallelism offer no insight into this question.

## 5 Concluding remarks and further conjectures

In addressing this question, I propose the developmental path in (26).

- (26) (In)definite article  $\supset$  (pro)nominal COMP  $\supset$  relative COMP  $\supset$  T/Finiteness distinction

According to (26), the development of left peripheral articles of the pronominal type is an immediate consequence of the left periphery of the clause that involves a pronominal COMP. If so, we now face the question of how a pronoun ends up spelling out this portion.

Very detailed synchronic comparative studies are needed to answer this question, but one could speculate about the following scenario. Suppose Larson (2005, 2007) is right in proposing that the point of comparison between noun phrases and clauses should be at the level of DP versus VP rather than DP versus CP/TP, since “determiners express relations between sets” (Larson 2007: 49). Under such an approach, we can propose that the determiner starts out as a pro-clitic (or a relator) within the nominal predicate and subsequently moves to the left periphery, as an instance of clitic climbing. This is consistent with the observation about clitic movement in Table 3, may well be a consequence of Wackernagel clitics, so prominent in Indo-European. Building on previous

discussion, I tentatively propose that articles are expressions of FinP, where they encode referentiality and individuation as illustrated in (27).<sup>7</sup>

- (27) [ForceP ... [Force ... [ ... topic ... focus ... [FinP=NumBP ... [Fin=Num ...  
 pro-det ... [INFL ... **pro-det** ... [PredP ... **pro-det** ... V/N ...]]]]]]]

The proposed analysis is compatible with the fact that in languages that allow NP-movement internally to the noun phrase (i.e., movement to Topic or Focus position), the nominal phrase raises to the left of the article or nominal topic marker as shown, for instance, in work by Bernstein (1997, 2001a,b) on demonstrative reinforcer constructions. Likewise, this view is compatible with Bošković's (2008, 2009) correlations reported in the introduction, and the fact that languages with articles may also display clitic doubling. Finally, representation (27) seems to indicate that most languages (including those commonly reported in the literature for having (in)definite articles) hardly realize the highest position within the nominal periphery i.e., Force, the subordinator. This would be comparable to independent main clauses which commonly lack overt COMP.

Under (27) as the unique phrase marker for both nominal and verbal expressions, the facts about clausal determiners in (Benue)Kwa can be accounted for naturally. We've already seen in Section 3 that Akan *nó* fulfills such a function and occurs in sentence-final positions. This was illustrated in (11-d) repeated here as (28) for convenience.

- (28) Kòfí hú-ù máàmí nó áà ò-tí tám nó  
 Kofi see-PST woman FAM REL 3SG.SUBJ-sell cloth DCM  
 'Kofi saw the woman who sells cloth.'

Such clausal determiners have been discussed in the literature for other Kwa languages, as well as some creoles (cf. Aboh 2004a, 2006, and references therein). In Gungbe, the element *lɔ* can occur at the clausal level too. This is illustrated by the pair in (29) whereby (29-b) includes the clausal determiner. What is noticeable about Gungbe, and distinguishes it from Akan and similar languages, is that such constructions are typically introduced by a relative marker *qě*, somehow suggesting that such constructions are headless event relatives (cf. Aboh 2010).

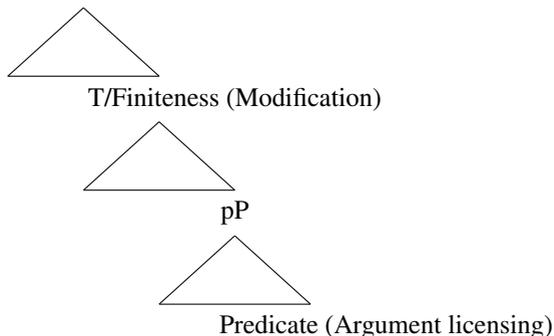
- (29) a. Súrù hòn.  
 Suru flee  
 'Suru fled'

<sup>7</sup>Aboh (2004b, 2010): Movement to the left periphery is triggered by discourse-driven features arguably located in Topic, Focus, and Finiteness/Referential features located under Fin, or if one assumes Meyer (2017) by relativization.



including a unique left periphery LP which takes different forms depending on the nature of the predicate it embeds. Assuming peripheries are also phases by definition, we reach the conclusion that there are two phases only (i.e. L, p), where ‘p’ stands for predicates in general.

- (34) LP (subordination and anchorage of discourse properties)



## References

- Abney, S. P. (1987). *The English noun phrase in its sentential aspect*. Ph. D. thesis, MIT.
- Aboh, E. O. (2004a). *The morphosyntax of complement-head sequences*. New York: Oxford University Press.
- Aboh, E. O. (2004b). Topic and focus within D. *Linguistics in The Netherlands* 21, 1–12.
- Aboh, E. O. (2006). The role of the syntax-semantics interface in language transfer. In C. Lefebvre, L. White, and C. Jourdan (Eds.), *L2 acquisition and Creole genesis: Dialogues*, pp. 221–252. Amsterdam: Benjamins.
- Aboh, E. O. (2009). Clause structure and verb series. *Linguistic Inquiry* 40, 1–33.
- Aboh, E. O. (2010). Event operator movement in factives: Some facts from Gungbe. *Theoretical Linguistics* 36, 153–162.
- Aboh, E. O. and M. DeGraff (2014). Some notes on bare noun phrases in Haitian Creole and in Gungbe: A transatlantic Sprachbund perspective. In A. Tor and B. Mæhlum (Eds.), *The Sociolinguistics of Grammar*, pp. 203–236. Amsterdam: Benjamins.
- Adjiboye, O. (2005). *Topics on Yoruba nominal expressions*. Ph. D. thesis, University of British Columbia.
- Arkoh, R. and L. Matthewson (2013). A familiar definite article in Akan. *Lingua* 123, 1–30.
- Baunaz, L. (2014). On the various sizes of complementizers. *Probus* 27, 193–236.
- Baunaz, L. (2016). Deconstructing complementizers in Serbo-Croatian, Modern Greek and Bulgarian. In C. Hammerly and B. Prickett (Eds.), *NELS* 46, pp. 69–78. University of Massachusetts Amherst: GLSA.

- Baunaz, L. and E. Lander (2018). Deconstructing nominal complementizers to the core. *Glossa: a journal of general linguistics* 31, 1–27.
- Bernstein, J. (1997). Demonstratives and reinforcers in Romance and Germanic languages. *Lingua* 102, 87–113.
- Bernstein, J. (2001a). Focusing the “right” way in Romance determiner phrases. *Probus* 13, 1–29.
- Bernstein, J. (2001b). The DP hypothesis: Identifying clausal properties in the nominal domain. In M. Baltin and C. Collins (Eds.), *The handbook of contemporary syntactic theory*, pp. 536–561. Oxford: Blackwell.
- Börjars, K., P. Harries, and N. Vincent (2016). Growing syntax: the development of a DP in North Germanic. *Language* 92, 1–37.
- Bošković, Z. (2008). What will you have, DP or NP? In M. W. Emily Elfner (Ed.), *NELS* 37, pp. 101–114. University of Massachusetts Amherst: GLSA.
- Bošković, Z. (2009). Semantic correlates of the NP/DP parameter. Ms. University of Connecticut.
- Bošković, Z. (2010). On NPs and clauses. Ms. University of Connecticut.
- Bowers, J. (1993). The syntax of predication. *Linguistic Inquiry* 24, 591–656.
- Campbell, R. (1996). Specificity operators in SpecDP. *Studia Linguistica* 2, 161–188.
- Cardinaletti, A. and M. Starke (1999). The typology of structural deficiency: A case study of the three classes of pronouns. In H. van Riemsdijk (Ed.), *Clitics in the languages of Europe*, pp. 145–234. Berlin: De Gruyter Mouton.
- Cheng, L. L. and R. Sybesma (1999). Bare and not-so-bare nouns and the structure of NP. *Linguistic Inquiry* 30, 509–542.
- Chierchia, G. (1998). Reference to kinds across languages. *Natural Language Semantics* 6, 339–405.
- Déchaine, R. M. and M. Wiltschko (2002). Decomposing pronouns. *Linguistic Inquiry* 33, 409–442.
- Heltoft, L. (2010). Paradigmatic structure and reanalysis: From NPs to DPs in Scandinavian. *Acta Linguistica Hafniensia: International Journal of Linguistics* 42, 11–25.
- Hiraiwa, K. (2005). *Dimensions of symmetry in syntax: Agreement and clausal architecture*. Ph. D. thesis, MIT.
- Ionin, T. (2006). This is definitely specific: specificity and definiteness in article systems. *Natural Language Semantics* 14, 175–234.
- Lander, E. and L. Haegeman (2013). Old Norse as an NP language, with observations on the common Norse and Northwest Germanic Runic inscriptions. *Transactions of the Philological Society* 112, 279–318.
- Larson, R. (2005). The projection of DP structure. Class notes, LSA 2005, MIT.
- Larson, R. (2007). Ezafe and the deep position of nominal modifiers. In L. McNally and C. Kennedy (Eds.), *Adjectives and adverbs: Syntax, semantics, and discourse*, pp. 43–70. New York: Oxford University Press.
- Ledgeway, A. (2011). Grammaticalization from Latin to Romance. In B. Heine and H. Narrog (Eds.), *The Oxford handbook of grammaticalization*, pp. 719–728. Oxford: Oxford University Press.
- Longobardi, G. (1994). Reference and proper names: A theory of N-movement in syntax and logical form. *Linguistic Inquiry* 25, 609–665.

- Meyer, R. (2017). The C system of relatives and complement clauses in the history of Slavic languages. *Language* 93, 97–113.
- Owusu, A. P. (2019). A closer look at the Akan determiner *bi*: An epistemic indefinite analysis. In S. Lotven, S. Bongiovanni, P. Weirich, R. Botne, and S. G. Obeng (Eds.), *African linguistics across the disciplines: Selected papers from the 48th Annual Conference on African Linguistics*, pp. 257–280. Berlin: Language Science Press.
- Perridon, H. and P. Sleeman (2011). The noun phrase in Germanic and Romance: common developments and differences. *Linguistik Aktuell* 171, 1–22.
- Rijkhoff, J. (2002). *The noun phrase*. New York: Oxford University Press.
- Rizzi, L. (1997). The fine structure of the left periphery. In L. Haegeman (Ed.), *Elements of Grammar*, pp. 281–337. Dordrecht: Kluwer.
- Schwarz, F. (2009). *Two types of definites in natural language*. Ph. D. thesis, University of Massachusetts Amherst.
- Stowell, T. (2007). The syntactic expression of tense. *Lingua* 117, 437–463.
- Szabolcsi, A. (1981). The possessive construction in Hungarian. *Acta Linguistica i Scientiarum Academiae Hungaricae* 31, 261–289.
- Szabolcsi, A. (1987). Functional categories in the noun phrase. In I. Kenesei (Ed.), *Approaches to Hungarian*, pp. 167–190. Szeged: JATE.
- Szabolcsi, A. (1994). The noun phrase. In F. Kiefer and K. E. Kiss (Eds.), *Syntax and semantics: The syntactic structure of Hungarian* 27, pp. 179–274. New York: Academic Press.