Vietnamese and the NP/DP parameter

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1. INTRODUCTION

This paper investigates the place of Vietnamese in the binary NP/DP typology as formulated by Bošković (2005, 2008, 2009, 2010). According to him, there are a number of properties that set apart languages without an overt definite determiner (NP languages), such as Serbo-Croatian, Warlpiri, and Japanese, from languages with a definite determiner (DP languages), like English, French, and Lakhota. Here and below we follow Bošković in taking DP to be the functional projection hosting definite determiners (and not, for instance, indefinite determiners).

Properties	NP	DP
a. Definite determiner	_	+
b. Left branch extraction	+/_	
c. Radical pro-drop	+	-
d. Obligatory number morphology	+/	+
e. TP	-	+
f. Subject expletives	-	+
g. Subject-object asymmetry	_	+
h. Negative raising	-	+
i. Focus adjacency	-	+/-
j. Focus morphology on negative constituents	+	+/

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Abbreviations: ANT: anterior, ASR: assertion, ASP: aspect, CLS: classifier, COMP: complementizer, DEG: degree modifier, DEM: demonstrative, FOC: focus, FUT: future, GEN: genitive, NEG: negation, PL: plural, PROG: progressive, PRT: particle, SG: singular, TOP: topic.

¹ This is not a complete list of the properties mentioned by Bošković. The properties not discussed in this paper are either irrelevant to Vietnamese or open to future research.

At first glance, Vietnamese fits in with the NP languages.² As a simple illustration of this, consider two important contexts in which definite articles normally appear in DP languages (Himmelmann 2001). While a language like English shows an overt definite article in these contexts ((1a) and (2a)), Vietnamese does not ((1b) and (2b)), suggesting that Vietnamese is an NP language.

- Larger situational use = "first mention of entities that are considered to be unique, and hence generally identifiable in a given speech community" (Himmelmann 2001:833)
 - a. the sun the Queen
 - b. Ø Mặt trời Ø Nữ hoàng
- (2) Associative-anaphoric use = "the first mention of an entity that is not unique per se but with respect to a previously mentioned referent" (Himmelmann 2001:833)
 - a. The man drove past our house in a car. The exhaust fumes were terrible.
 - b. Người đàn ông lái xe qua nhà chúng tôi.
 CLS man drive car.pass house our
 Ø Mùi khói thật kinh khủng fume real terrible
 'The man drove a car past our house. The fumes were terrible.'

However, we will show that the status of Vietnamese within Bošković's NP/DP parameter is not so obvious. In fact, Vietnamese displays both NP and DP properties, raising doubts about the status of the NP/DP macro-parameter. The dual status of Vietnamese suggests that the NP/DP typology needs to be refined. In fact, the way the properties in Table 1 pattern in Vietnamese reveals that there are multiple smaller parameters at stake, not just the presence or absence of DP. Also important is the fact that Vietnamese is a topic-prominent language.

Here we adopt Paul and Whitman's (to appear) notion of topic-prominence. According to them, topic-prominent languages never fill their Top⁰ heads by movement, but by the base-generation of topic particles.³ Vietnamese, with its topic

(i) ba con mèo đen ây three CLS cat black DEM 'those three black cats'

 $^{^2}$ Vietnamese noun phrases in general consist of the head N and the following elements: a pre-nominal numeral, a pre-nominal classifier, and one or more post-nominal modifiers. These elements are arranged in a fixed order (Num CLS N Adj Dem), as seen in (i).

See Emeneau (1951), Thompson (1965), and Nguyen (2004) for a description of Vietnamese noun phrases.

³ Paul and Whitman's (to appear) notion of topic-prominence is sufficient for the sake of the current paper. In upcoming work (Phan and Lander 2015) we suggest that topicality is a function of specificity (along the lines of Cresti 1995, Portner 2002), meaning that topic particles are only part of a bigger set of specificity markers that include plural markers, the expletive subject, classifiers, and so forth.

particle thi,⁴ is a topic-prominent language in this sense, and much of its clausal syntax is overtly arranged according to topicality, but *not* according to focus or other quantificational elements.

In this paper we will focus mostly on the properties listed in Table 1. Properties (a-g) are discussed in section 2. In section 3 we discuss properties (h-j). Here we observe that negation, focus, and *wh*-words (i.e., quantificational elements; Starke 2001) do not move, whereas in DP languages they typically do. Section 4 concludes the paper.

2. THE DUAL STATUS OF VIETNAMESE

In this section we examine the NP/DP properties (a-g) in Vietnamese.

2.1. Absence of lexically inherent definite determiners

The most crucial of Bošković's generalizations is that DP languages have definite determiners, while NP languages lack them. In this section we show that, though there are a number of ways to express definiteness in Vietnamese, none are consistent enough to count as a fully grammaticalized means of definiteness marking. That is, Vietnamese lacks genuine definite determiners.⁵

Nguyen (2004) claims that Vietnamese displays a paradigm of lexical determiners, namely those in (3).

(3)	Candidates for D in Vietnamese	(Nguyen 2004)

a.	một	'one'	[-Plural, -Definite]
b.	những		[+Plural, -Definite]
c.	các		[+Plural, +Definite]

There are reasons to challenge Nguyen's conclusion. We will argue that the items in (3) have important properties that differentiate them from genuine, fully grammaticalized definite determiners (D). First, they are not obligatory:

- (4) a. Con rất ngoan child very well-behaved 'The child/children is/are very well-behaved.'
 - b. **Các** con rất ngoan CAC child very well-behaved 'The children are very well-behaved.'

⁴ In addition to the canonical topic particle *thi*, it has been argued in the literature that Vietnamese also employs other overt topic markers such as la (Cao 2004) and ma (Duffield 2015b).

⁵ As one reviewer notes, the presence of definite determiners may indicate DP status, but the absence of definite determiners does not always mean NP status (for instance, certain Slavic languages are still DP languages despite their lack of determiners). However, as another reviewer points out, Vietnamese constitutes an especially interesting dataset since its definite-like markers seem to be optional, setting it apart from both languages with obligatory definite determiners and languages with no definite determiners.

Example (4) shows that the presence of $c\dot{a}c$ forces the plural reading, but not necessarily the definite reading, because the noun con 'child' can be interpreted as definite either with or without $c\dot{a}c$.⁶

Second, contra Nguyen's (2004) description, there is no inherent contrast between *nhũng* [-Definite] and *các* [+Definite]. In fact, it is easy to find minimal pairs in which the presence of *nhũng* or các does not result in a difference in definiteness, as seen in (5) and (6). The definiteness of the nominal phrases in (5) is already guaranteed by the possessor *của tôi* 'of mine' or the demonstrative *ây* 'that', meaning that *nhũng* and *các* are purely plural markers in these cases.⁷

- rất chăm chỉ (5) a. Những sinh viên của tôi NHUNG student of me very hard-working 'My students are very hard-working.'
 - b. Các sinh viên của tôi rất chăm chỉ CAC student of me very hard-working 'My students are very hard-working.'

(Bui 2000:22)

- viên ấy (6) a. Những sinh rất chăm chỉ NHUNG student that very hard-working 'Those students are very hard-working.'
 - Các sinh viên ây rất chăm chỉ h. CAC student very hard-workinng that 'Those students are very hard-working.'

That is to say, *nhĩng* and *các* can only designate definiteness for a noun phrase whose definiteness value is underspecified.

Third, another piece of evidence that *nhũng* and *các* are not genuine determiners comes from their distribution. Những and các are strictly incompatible with numerals, which suggests that they might occupy the same position as numerals.8

(7) a. *Những ba sinh viên NHUNG three student 'the three students'9

(i) Giáo-sư và sinh viên đều đến dư Sinh-viên thì say tiệc. bí-tỉ. professor and student both come attend party. Student TOP drunk DEG 'Professors and students came to the party. The students are very drunk.'

⁷ See also Emeneau (1951) and Kirby (2006) for similar claims.

⁶ The optionality of *nhūng* and *các* in representing definiteness is further reinforced in anaphoric (strong definite) contexts:

In the second occurrence, the bare form sinh-viên 'student' in the absence of nhūng and các is sufficient to obtain the definite interpretation. We thank a reviewer for this suggestion.

⁸ Note that these elements appear to be at least partially responsible for number marking. While number should of course be kept distinct from numerals, the two are closely related, especially from the perspective of grammaticalization and historical change.

⁹ The only possible interpretation of (7a) is 'abundantly three students' or 'as many as three students'.

b. *Các ba sinh viên CAC three student 'the three students'

As can be seen from the English translations, there is no such incompatibility between the determiner *the* and the numeral *three* in English.

Although Vietnamese displays lexical items that may serve to contribute to the expression of definiteness, these are not determiners in the technical sense.¹⁰ According to this diagnostic, then, Vietnamese should be classified with the NP languages.

2.2. Left-branch extraction

According to Bošković (2005, 2010), DP languages disallow left-branch extraction (LBE) but may allow complement extraction (CE), while NP languages may allow LBE but disallow CE. This can be illustrated for English (DP) in (8) vs. Serbo-Croatian (NP) in (9).

- (8) a. *Beautiful_i he saw [$_i$ houses] *LBE; (Bošković 2005:2)
 - b. [Of whom]_i do government employees see [pictures _i] every day? CE (Bošković 2010:20)

(9)	a.	Lijepe _i beautiful 'Beautiful	is s	een		kuce] houses (Bošković 2005:2)	LBE
	b.	*Koga who.GEN Intended:	are	foun	d	knjigu book u find the book?'	*CE (Bošković 2010:15)

Bošković's explanation for this difference between English and Serbo-Croatian has three ingredients. First, he appeals to Chomsky's (2000) Phase Impenetrability Condition¹¹ (PIC), which requires materials in a phase complement to move to the phase edge in order to be accessible to the rest of the derivation. Second, Bošković appeals to anti-locality (Abels 2003), the idea that movement cannot be too short, meaning that a moved element must pass a full phrase, not just a segment. Third, he assumes that adjective phrases are adjoined to NP.¹²

¹⁰ If the Vietnamese plural markers are not directly linked to definiteness, the question arises of what really motivates their presence in Vietnamese nominal phrases. Based on a close examination of their distributional and interpretational properties, Phan and Lander (2015) argue that *những* and *các* are markers of partitive specificity (in the sense of Enç 1991, Farkas 2002), and that the definite-like phenomena and optionality of *những* and *các* are manifestations of their specificity.

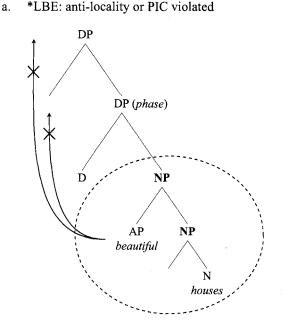
¹¹ As noted by one of the reviewers, the phase-based analysis is in fact only one of the two analyses Bošković (2005) offers in order to account for these facts.

¹² For Bošković (2005) the main point is that NP languages do not have the functional projection DP. Other functional projections such as dedicated projections for different kinds of adjectives (α Ps), for instance, may very well exist in NP languages. For his phase-based approach, however, it is crucial that adjectives are at the phase edge, which for NP languages

According to Bošković's NP/DP theory, English projects a DP, which is considered a phase. In order to derive LBE in English, the adjective *beautiful* in (8a)/(10a) would first have to move to the edge of DP, [Spec,DP], by the PIC. From there it would move on to [Spec,CP] to get a focused interpretation. However, the first movement to [Spec,DP] violates anti-locality, ruling out LBE. The movement of the complement of whom in (8b)/(10b), however, does not violate anti-locality, and thus CE is derivable in English.

(10) English

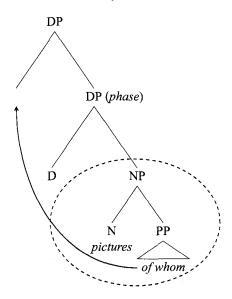
(adapted from Li 2012:61)



means NP. Unless α Ps can also serve as phases, this means that adjectives must be adjoined to NP.

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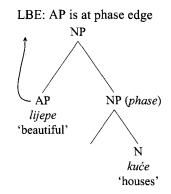
b. CE: no anti-locality violated



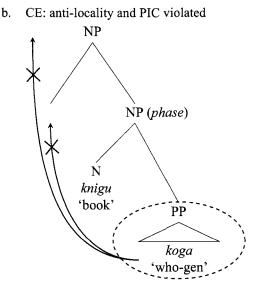
In Serbo-Croatian, on the other hand, there are no overt determiners, so DP is not projected. Thus NP is a phase instead. LBE is possible in this language because the adjective *lijepe* in (9a)/(11a) is already at the phase edge, enabling it to move further up to Spec-CP. However, CE is not possible because the complement *koga* in (9b)/(11b) must first move to the phase edge, Spec-NP, a movement that is too short.

(11) Serbo-Croatian

a.



(adapted from Li 2012:62)



The crucial factor in this account, then, is whether or not movement to the phase edge is possible. In English, movement to the phase edge is impossible in the case of adjunct extraction, but possible in the case of complement extraction. In Serbo-Croatian, there is no movement to the phase edge in the case of adjective extraction (because the adjective is already at the phase edge), but movement to the phase edge is too short in the case of complement extraction.

Turning now to Vietnamese, we observe that CE, as in (8b) and (10b), is impossible in this language due to its *wh*-in-situ character.

(12)	a.	*Của	ai	anh	thấy	ảnh	hàng ngày	? .
		of	who	2sg	saw	picture	every.day	
		'Of w	vhom d	id you	see a p	icture eve	ery day?'	

b. Anh thấy ảnh của ai hàng ngày?¹³
 2SG see picture of who every.day
 'Of whom did you see a picture every day?'

As for LBE, the exact counterpart of the Serbo-Croatian example in (9a)/(11a) is ungrammatical, as seen in (13).

(13) *Dęp anh đã thấy những ngôi nhà beautiful 3SG ANT see PL CLS house Intended: 'Beautiful houses, he saw.'

The only construction that superficially looks like a case of LBE is in listing contexts, as illustrated in (14).

¹³ Note that the generalization here about LBE and CE is not about LF movement, but rather about which movements are overtly realized in narrow syntax. See Tsai (2009:Ch. 3) for evidence that Vietnamese *wh*-in-situ does not involve LF movement.

(14) **Context:** At a racetrack, A has asked how many cars of which colors B had seen.

B answers:

(Màu) đỏ tôi thấy ba cái, (màu) vàng tôi thấy hai cái color red I see three CLS, color yellow I see two CLS 'As for (the color) red, I saw three (cars); as for (the color) yellow, I saw two.'

Since we observe island effects in (15), it is reasonable to assume movement of $(m \dot{a} u) d \dot{o}$ '(the color) red', as opposed to an analysis in which $(m \dot{a} u) d \dot{o}$ is a base-generated topic.¹⁴

- (15) a. * $[(Mau) \ do]_i$ tôi rời đi $[_{Adjunct}$ sau khi mua ba cái t_i] color red I leave away after buy three CLS Intended: 'Red I left after buying three (cars).'
 - b. * [(Màu) đỏ]_i tôi gặp [_{ComplexNP} người đàn ông mua ba cái t_i] color red I meet CLS man buy three CLS Intended: 'Red I met the man who bought three.'

Taking a closer look, the Vietnamese example actually patterns with English raised contrastive topics.¹⁵

- (16) Q: How about French films? Did you see any French films at the festival?
 A: French_i I didn't see any t_i films, but German_i I did see some t_j films.¹⁶
- (17) Q: Phim Pháp thì sao? film French TOP how? Mày có xem bộ phim Pháp nào ở lễ hôi không? 2SG ASR see CLS film French any at festival NEG 'How about French films? Did you see any French films at the festival?'
 - A: Pháp thì tao không xem phim nào, French TOP 1SG NEG film see any nhưng Đức thì vài phim. tao сó xem German film but TOP 1SG ASR see some

'French I didn't see any films, but German I did see some films.'

If we are on the right track in analyzing (14) as a raised contrastive topic instead of as LBE, then we would expect that other phrases can also occur in such a construction as long as they can be interpreted as contrastive topics. The prediction is borne out, as shown in (18).

¹⁴ Thanks to Guglielmo Cinque for discussion of these examples.

¹⁵ Thanks to Andrew Weir for discussion.

¹⁶ Example (16A) is not perfect for all English speakers. The grammaticality of (16A) is based on judgements from Andrew Weir and Eric Lander.

- (18) Q: Xe của tao thì sao? Mày có thấy cái xe car of 1SG TOP how? 2SG ASR see CLS car nào của tao không? any of 1SG NEG
 'How about my cars? Did you see any car of mine?'
 - A: Của mày thì tao không thây cái nào, of 2sg TOP 1SG NEG see CLS any, nhưng của cái Lan thì tao сó thấy hai cái. but of CLS Lan TOP 1SG ASR see two CLS 'Of yours, I didn't see any, but of Lan, I saw two.'

Therefore, the ungrammaticality of (13) is due to the fact that *dep* 'beautiful' cannot be interpreted as a contrastive topic. In other words, Vietnamese lacks LBE, but it patterns with English in having a raised contrastive topic construction.

Note, importantly, that Bošković (2005, 2010) does not require NP languages to necessarily display LBE in order to qualify for NP status. It is only the case that DP languages *cannot* have LBE; NP languages may or may not have LBE. In other words, the LBE generalization is a one-way generalization. Thus there is at least a three-way split between languages: NP languages with LBE, NP languages without LBE, and DP languages (without LBE). Since Vietnamese does not have LBE, it could be either NP or DP by this diagnostic.

2.3. Radical pro-drop and non-obligatory number morphology

Bošković (2010) claims that radical pro-drop is possible only in NP languages. By radical pro-drop, he means productive discourse-based subject-/object-drop in the absence of rich verbal agreement. This is distinct from the type of agreement-licensed argument drop found in languages like Italian and Spanish.¹⁷

Vietnamese appears to be a radical pro-drop language (in the sense of Roberts and Holmberg 2010). The general properties of radical pro-drop languages include the following: (i) Possibility of having null definite subjects; (ii) Possibility of dropping the object in addition to the subject; (iii) Lack of verbal agreement; (iv) Possibility of having a null generic subject; (v) Licensing of anaphoric null subjects is not restricted by structural conditions (e.g., c-commanding antecedents).

Vietnamese displays all these properties. The first three are exemplified in (19).

- (19) a. Mary thích Tom. Và Ø cũng thích Peter. (subject-drop) Mary like Tom and Ø also like Peter
 'Mary_i likes Tom. And she_i also likes Peter.'
 - Mary thích Tom. Nhưng Peter không thích Ø. (object-drop) Mary like Tom but Peter NEG like Ø
 'Mary likes Tom_i. But Peter does not like him_i.'

¹⁷ See Lander and Haegeman (2014) for other types of pro-drop that are also discourse-based and non-agreement-based, but that still do not qualify as radical pro-drop in Bošković's strict sense.

In (19), both the definite subject (19a) and object (19b) can be dropped, as long as their antecedents can be recovered from the context. Moreover, it is easily observed that the verb stays bare, with no person or number inflection.

Vietnamese also allows for generic null subjects. In particular, the Vietnamese counterpart of the English generic pronoun *one* can be null:

(20) Ø không được hút thuốc ở đây Ø NEG can smoke cigarette in here 'One can't smoke here.'

Finally, c-commanding antecedents are not required to license null subjects, as long as the antecedent is the topic. See example (21) (adapted from Holmberg 2010:92).

(21) Nam đã nói gì đâu, Nam ANT say thing NEG Ø muốn mua mà Hòa nói là môt cái xe mới but Hòa say COMP Ø want buy one CLS car new 'Nam₁ hasn't said anything, but Hòa₂ says $he_{1/2}$ wants to buy a new car.'

Since pro-drop in Vietnamese is topic-driven, it qualifies as radical pro-drop. By this diagnostic, Vietnamese is an NP language.

Related to the property of radical pro-drop is the fact that Vietnamese lacks number morphology (or is "number neutral", in some terminologies). According to Bošković (2010:10), "Number morphology may not be obligatory only in NP languages". Indeed, in Vietnamese some nouns can be interpreted as plural without the plural markers *các* or *những*.

(22) Công nhân nước tư bản làm việc rất đúng giờ. worker country capitalist work very right time 'Workers of capitalist countries are very punctual at the workplace.'

The idea behind the connection between radical pro-drop and non-obligatory number morphology starts with the requirement that a number feature on D be realized overtly. In DP languages this means that the number feature is realized on the verb instead, leading to the correlation in DP languages between rich verbal morphology and pro-drop. For NP languages this number requirement does not hold in the first place, since they lack D altogether. Accordingly, NP languages may or may not have number morphology (Bošković 2010:21–22). Whether or not we accept the details of Bošković's proposal for the connection between radical prodrop and non-obligatory number morphology, Vietnamese patterns with NP languages on both counts.

2.4. Presence of TP

Taking one version of the nominal/clausal parallelism hypothesis (i.e., [C [T [V]]] = [P [D [N]]]) seriously, Bošković (2010) posits that NP languages lack TP. We will argue that this generalization simply does not extend to Vietnamese.

In addition to contextual and adverbial elements, Vietnamese employs a number of free preverbal functional morphemes that are generally considered to add a certain temporal/aspectual value to the verb with which they occur:¹⁸ the future $s\tilde{e}$, the anterior $d\tilde{a}$, and the progressive dang (see Trinh 2005; Duffield 2007, 2013; Phan 2013). As argued by Duffield (2013) and Phan (2013), the future $s\tilde{e}$ is base-generated in T, whereas $d\tilde{a}$ and dang, though essentially aspectual, also bear a tense feature. One straightforward piece of evidence for these claims comes from the fact that when $d\tilde{a}$ and dang occur to the left of negation, they are obligatorily interpreted as tense markers, while in the absence of negation they are ambiguous between temporal and aspectual readings:

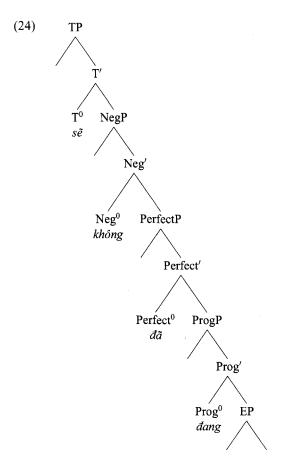
(23) a. Tôi **dã** không đi New York 1SG ANT NEG go New York 'I didn't go to New York.'

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b. Tôi **đang** không đi New York 1SG PROG NEG go New York 'I am not going to New York.'

As discussed at length in Duffield (2013) and Phan (2013), the markers are rigidly ordered as in (24). Given the hierarchy shown there, (23) shows cases of head movement, where the anterior marker (23a) and the progressive marker (23b) have moved to T, to the left of negation. We refer to Duffield (2013) and Phan (2013) for more details, but suffice it to say that TP is present in Vietnamese as an independent functional projection.

¹⁸ Bošković also makes a special note that Japanese and Turkish have overt temporal morphology, but they can still be considered to lack T because the temporal morphemes are in fact only part of the morphologically complex verb: "A mere presence of temporal verbal morphology does not necessarily require positing a dedicated TP projection" (Bošković 2010:26). As studied by Phan (2013), the markers discussed here are not bound affixes on the Vietnamese verb but are independent morphemes with distinct interpretive and distributional properties.



Since TP is present, then, some TP-related effects are expected in Vietnamese. This is exactly what we find, as will be shown in sections 2.5 and 2.6.

2.5. Subject expletives

Related to the alleged generalization that NP languages lack TP, Bošković (2010) proposes that NP languages should also lack subject expletives, which canonically occupy Spec-TP.

It has been observed in the literature (Nguyen and Nguyen 2011, Dao 2012) that in colloquial Vietnamese¹⁹ the third person singular pronoun no' 'it' can naturally act as a non-referential expletive subject in all expected environments (either as a *there-* or *it-*expletive):²⁰

¹⁹ Note that the expletive pronoun is used very often in spoken language, but not in formal written Vietnamese.

²⁰ For diagnostics to distinguish between the referential $n\delta$ and the expletive $n\delta$ in Vietnamese, see Greco, Phan, and Haegeman (2015).

(25) a. there-expletive: nào²¹ Trên bàn (nó) không có cái bút table NÓ on NEG exist CLS pen any 'There isn't any pen on the table.' b. it-expletive giờ đấy $(N\delta)$ mưa bây

NÓ rain now PRT 'It is about to rain now.'

There is also crosslinguistic evidence for the unexpected presence of expletivelike elements in null subject languages, most notably in Finnish (Holmberg and Nikanne 2002) and in non-standard varieties of European Portuguese (Carrilho 2007). It is often claimed that expletives in these languages are actually not expletive subjects as in English. In particular, Finnish *sita* "is not an expletive subject but an expletive topic" (Holmberg and Nikanne 2002:96), while in Portuguese "a projection headed by Force must be present and that the expletive occupies its Spec position" (Carrilho 2007:12).

However, Vietnamese $n\delta$ does not appear that high in the structure: it occupies neither the [Spec,TopP] nor the [Spec,ForceP] position. First, $n\delta$ must follow the topic marker *th*:

- (26) a. Trên bàn thì (nó) không có cái bút nào on table TOP NÓ NEG exist CLS pen any 'On the table, there isn't any pen.'
 - b. Hôm nay thì (nó) mưa today TOP NÓ rain 'Today, it rains.'

If we place nó before the topic marker (cf. Finnish), the result is ungrammatical:

- (27) a. Trên bàn (*nó) thì không có cái bút nào on table NÓ TOP NEG exist CLS pen any 'On the table, there isn't any pen.'
 - b. Hôm nay (*nó) thì mưa today NÓ TOP rain 'Today, it rains.'

If we try placing *nó* before the [Spec,TopP] position (cf. Portuguese), the resulting sentence is also out.

(28) a. (*Nó) trên bàn thì không có cái bút nào NÓ on table TOP NEG exist CLS pen any 'On the table, there isn't any pen.'

²¹ Note that (25a) is ambiguous between the existential reading where nó appears to lack referential content and a possessive interpretation in which nó is interpreted as a referential pronoun '(S)he doesn't have any pen on the table'. Here we concentrate only on the former reading of the sentence.

 b. (*Nó) hôm nay thì mưa NÓ today TOP rain 'Today, it rains.'

These examples indicate that unlike Finnish *sita* and Portuguese *ele*, Vietnamese *nó* cannot be higher than either Top^0 or [Spec, TopP]. Therefore it is reasonable to think that *nó* stays in the subject domain.

Since Vietnamese $n\delta$ is optional (in contrast with the English expletive), we might wonder what the contribution of $n\delta$ is to the sentence. Its contribution can be teased out in existential sentences, where the presence of $n\delta$ turns a generic statement into a statement about a specific event:

- (29) a. Không có ma NEG exist ghost 'Ghosts don't exist.'
 - b. Nó không có ma
 NÓ NEG exist ghost
 'Speaking of some place/time, there is no ghost there/at that time.'

The presence of $n\delta$ thus seems to activate a functional layer whose role is to relate predicative structure to a specific context.²²

Here, then, we have another DP(-like) property in Vietnamese. Interestingly, the expletive may be connected more to the topic-prominent nature of Vietnamese than to the existence of TP in this language. To the extent that both topic particles and $n\dot{o}$ can be said to be markers of (certain kinds of) specificity, the expletive in Vietnamese can be related to the language's topic-prominent nature, rather than the fulfillment of a formal Spec-TP-filling role.

2.6. Subject-object asymmetries

Again related to Bošković's (2010) generalization about TP is the claim that NP languages should not display subject-object asymmetries. In a DP language like English, for instance, extraction from objects is allowed, but extraction from subjects is not.²³

- (30) a. *Who_i did friends of t_i see you?
 - b. Who_i did you see friends of t_i ?

Vietnamese seems to display a difference in topicalization between subjects and objects. In (31) we see that part of the object may be topicalized with two different interpretations arising. In (32), however, we see that part of the subject cannot be topicalized as easily, since only the *topic-in-situ* interpretation is grammatical and

²² See Greco, Phan, and Haegeman (2015) for detailed discussion.

²³ Crucially, the asymmetry here is indeed a test for movement to Spec-TP, because extraction is only impossible for subjects that move to [Spec,TP]. For instance, in Spanish, extraction is allowed only out of post-verbal subjects, which do not move to [Spec,TP], but we cannot extract out of preverbal subjects, which do move to [Spec,TP] (see Gallego and Uriagereka 2007, cited in Bošković 2010).

not the *raised topic* interpretation. In the raised topic interpretation, the topic modifies only 'the two books' and can be paraphrased as 'about linguistics'. In the topic-in-situ interpretation, the topic provides a frame for the entire sentence, paraphrasable along the lines of 'in terms of linguistics' or 'speaking of linguistics'.

- (31) Extraction from object
 - Tôi đã được hai cuốn sách về a. tìm ngôn ngữ học T ANT seek obtain two CLS book about linguistics của Cao Xuân Hao. of Cao Xuan Hao 'I have found the two books about linguistics by Cao Xuan Hao.'
 - Vê đã tìm hai b. ngôn ngữ học thì tôi được cuôn sách top I about linguistics ANT seek obtain two CLS book của Cao Xuân Hao. of Cao Xuan Hao 'About linguistics, I have found two books by Cao Xuan Hao.' (raised topic)

'In terms of linguistics, I have found the two books by Cao Xuan Hao.' (topic-in-situ)

(32) Extraction from subject

(Trinh 2004:3) Hai cuốn sách về ngôn ngữ học của Cao Xuân Hao a. two CLS book about linguistics of Cao Xuan Hao chắc chắn sẽ ra gâv tranh cãi. surely FUT cause out debate 'The two books about linguistics by Cao Xuan Hao will surely cause debate.'

Về b. ngôn ngữ học thì hai cuốn sách của Cao Xuân Hao about linguistics book of Cao Xuan Hao TOP two CLS chắc chắn sẽ gây ra tranh cãi. FUT cause out surely debate * About linguistics, the two books by Cao Xuan Hao will surely cause debate.' (*raised topic) 'In terms of linguistics, the two books by Cao Xuan Hao will surely cause debate.' (topic-in-situ)

Importantly, the topicalization facts are more symmetrical in a typical NP language like Chinese. As seen in (33) and (34), Chinese disallows the raised topic reading in cases of extraction both out of the subject and out of the object (Dong-yi Lin, p.c.).

(33) Extraction from object

a. Wo zhao-dao liang ben Cao Xuan Hao xie de I find-ASP two CLS Cao Xuan Hao write DE guanyu yuyianxue de shu about linguistics DE book 'I have found two books about linguistics by Cao Xuan Hao'.
b. Guanyu yuyianxue wo zhao-dao liang ben Cao Xuan Hao

Guanyu yuyianxue wo znao-dao hang ben Cao Xuan Hao about linguistics I find-ASP two CLS Cao Xuan Hao xie de shu write DE book
 *'About linguistics, I have found two books by Cao Xuan Hao.' (*raised topic)
 'In terms of linguistics, I have found two books by Cao Xuan Hao.' (topic-in-situ)

- (34) Extraction from subject
 - a. Cao Xuan Hao xie de guanyu yuyianxue de liang ben Cao Xuan Hao write DE about linguistics DE two CLS shu yiding hui yinqi zhengyi book surely will cause debate
 'The two books about linguistics by Cao Xuan Hao will surely cause debate.'
 - b. Guanyu yuyianxue Cao Xuan Hao xie de liang ben shu about linguistics Cao Xuan Hao write DE two CLS book yiding hui yinqi zhengyi surely will cause debate
 *'About linguistics, the two books by Cao Xuan Hao will surely cause debate.' (*raised topic) 'In terms of linguistics, the two books by Cao Xuan Hao will surely cause debate.' (topic-in-situ)

In other words, Chinese is symmetric, whereas Vietnamese is asymmetric, when it comes to these extraction data.

Overall, this means that Vietnamese patterns more with DP languages with regard to this property, and once again the DP-like nature of Vietnamese seems to be related to its topic-prominent nature. Note that the raised topic in the Vietnamese examples above still conform to Paul and Whitman's (to appear) definition of topic prominence: even though an XP has moved to [Spec,TopP], Top⁰ is still filled by the base-generated topic particle *th*?

2.7. Interim summary

Vietnamese exhibits both NP and DP properties. Vietnamese patterns with NP languages when it comes to its lack of a genuine definite determiner, the presence of radical pro-drop, and its lack of number morphology, but it patterns with DP languages when it comes to the presence of TP, subject expletives, and subject-

object extraction asymmetries. The fact that Vietnamese does not display LBE is compatible with either NP or DP status. At least for Vietnamese, we have observed that many of the clausal properties are related to the topic-prominent nature of this language. Overall, the mixed status of Vietnamese suggests that the difference between article and article-less languages might not be as straightforward or clearcut as Bošković claims.

3. FURTHER PROPERTIES

In this section we look at properties that have to do with quantificational elements: negation, focus, and *wh*-items.

3.1 Negative raising

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According to Bošković (2010: 5), languages without articles disallow negative raising, and languages with articles allow it. Here Bošković restricts himself to negative raising from finite clauses, licensing strict clause-mate negative polarity items such as 'at least'. In this case, negative raising is not allowed in Vietnamese (36d).

- (35) a. *John has visited her in at least 2 years.
 - b. John hasn't visited her in at least 2 years.
 - c. John believes that Mary hasn't visited him in at least 2 years.
 - d. John doesn't believe that Mary has visited him in at least 2 years.

- (36) a. *John đã thăm cô ấy ít nhất 2 năm rồi John ANT visit 3SG least 2 year already Intended: 'John has visited her in at least 2 years.'
 - b. John đã không thăm cô ấy ít nhất 2 năm rồi
 John ANT NEG visit 3SG least 2 year already
 'John hasn't visited her in at least 2 years.'
 - c. John tin là Mary đã không thăm anh ấy John believe COMP Mary ANT NEG visit 3SG ít nhất 2 năm rồi least 2 year already 'John believes that Mary hasn't visited him in at least 2 years.'
 - d. *John không tin là Mary đã thăm anh ấy John NEG believe COMP Mary ANT visit 3SG ít nhất 2 năm rồi least 2 year already Intended: 'John doesn't believe that Mary has visited him in at least 2 years.'

This means that Vietnamese patterns with NP languages, and it also tells us that there is no raising/movement of negation in this language.

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⁽Bošković 2010:4)

Another of Bošković's proposed generalizations is that "elements undergoing focus movement are subject to a verb adjacency requirement only in DP languages" (Bošković 2010:11). That is, in many DP languages the focused element has to move to a position adjacent to the verb, as shown in (37) for the DP language Bulgarian.

- (37) Bulgarian (Bošković 2010:11)
 - a. ***Kartinata** Ivan podari na Maria painting.the_{FOC} Ivan give.as.present to Maria 'Ivan gave Maria the painting as a present.'
 - b. **Kartinata** podari Ivan na Maria painting.the_{FOC} give.as.present Ivan to Maria 'Ivan gave Maria the painting as a present.'

There is no such adjacency restriction when it comes to focalization in Vietnamese. Vietnamese usually uses the focus-in-situ strategy, as demonstrated in (38).²⁴

(38) Ivan tặng Maria cả một bức tranh Ivan give.as.present Maria even one CLS picture 'Ivan gave Maria (even) one painting as a present.'

This property does not necessarily put Vietnamese in the NP group since DP languages do not *necessarily* display focus-verb adjacency (but when a language does display this requirement, the language should be a DP language according to Bošković). Thus, strictly speaking, the absence of focus-verb adjacency in Vietnamese says nothing about its NP/DP status. What we do know, however, is that focus movement is unnecessary in Vietnamese.

3.3. Focus morphology

Bošković (2010:8) also claims that "negative constituents must be marked for focus in NP languages". For an NP language like Mandarin Chinese, Cheng (2013) claims that negative constituents always come with focus elements. When the polarity element stays in its base position (39a), there is no polarity reading (only the interrogative reading). The negative/polarity element *shei* 'who' must be fronted and co-occur with the focus element *dou* 'all' (39b) in order to get the polarity reading.

 $^{^{24}}$ Focus-in-situ can be directly associated with the fact that Vietnamese is a *wh*-in-situ language (Tran 2009, H. Nguyen 2012).

(39) a.	Zhangsan Zhangsan 'Who doese #'Zhangsar	not kr n't Zha	low Ingsan	who 1 knov	
b.	Zhangsan Zhangsan				

However, Cheng's analysis cannot be extended to Vietnamese. Whereas in Chinese it seems that what is needed to derive the NPI usage of shei is a focus marker like dou, in Vietnamese this is not the case. The Vietnamese counterparts of (39) are in (40).

(40) a. Zhangsan biết không ai Zhangsan NEG know who 'Zhangsan does not know anyone.' #'Who doesn't Zhangsan know?'

cũng không biết b. Zhangsan ai Zhangsan who also NEG know 'Zhangsan does not know anyone.'

'Zhangsan does not know anyone.'

As can be seen in (40a), the NPI usage of *ai* is derived even in the absence of the focal element cũng. In fact, in sharp contrast with Chinese (39a), this is the only possible reading of (40a).²⁶

The question now is what the role of the focal element cũng in (40b) is, if it is not related to negation. The answer will become clearer if we remove the negation marker in (40b).

(41) Zhangsan ai cũng biết Zhangsan who also know 'Zhangsan knows everyone.'

As argued by C. Nguyen (2013), (41) and (40b) are cases of a universal quantification construction involving a preposed wh-phrase and the preverbal focal element *cũng*, independent of the presence or absence of negation markers.

²⁵ 'Who doesn't Zhangsan know?' is rendered in Vietnamese as:

(i) Zhangsan không biết ai thế? Zhangsan NEG know who PRT 'Who doesn't Zhangsan know?'

See Tran (2009) for an analysis of the question particle thể. See also Duffield (2015a) for an alternative.

²⁶ The contrast between (39a) and (40a) also points out an interesting difference between Vietnamese and Chinese with respect to intervention effects. Example (39a) seems to suggest that there might be no intervention effect in Chinese (the wh-element shei moves across negation) (Cheng 1991). However, (40a) indicates that Vietnamese might show an intervention effect: ai cannot be interpreted as [+wh] here because of the intervention of the negation marker không (see also H. Nguyen 2012 for further discussion). Cf. also example (i) in footnote 25 above.

(Cheng 2013:26)

Two comments are in order here. First, the precise nature of this construction is beyond the scope of the paper, but suffice it to say that negation does not need to be marked for focus in Vietnamese. This is a DP property according to Bošković. Second, the *wh*-word *ai* moves out of its post-verbal base-generated position in (40b) and (41), suggesting the possibility of *wh*-movement in Vietnamese. However, the nature of this movement in Vietnamese is different from classical *wh*-movement. In classical *wh*-constructions, the feature [+wh] on *ai* is checked in-situ in Vietnamese, while the movement of *ai* in cases like (41) is driven by features responsible for universal quantification.

4. DISCUSSION

In this paper we have taken seriously Bošković's (2005, 2008, 2009, 2010) hypothesis that there is an important typological difference between languages with and languages without definite determiners. We have shown that Vietnamese falls on the border between NP and DP.

Properties	NP	DP
a. Definite determiner	1	
b. Left branch extraction	(1)	(⁄)
c. Radical pro-drop		
d. Obligatory number morphology		
e. TP		1
f. Subject expletives		1
g. Subject-object asymmetry		1
h. Negative raising	1	
i. Focus-verb adjacency	(🗸)	()
j. Focus morphology on negative constituents		1

Table 2. Dual status of Vietnamese with respect to NP/DP parameter

The intermediate status of Vietnamese suggests that the NP/DP macro-parameter and its host of properties in Table 2 needs to be reevaluated.²⁷

We suggest a reassessment along the following lines. First, note that properties (a-d), all have to do with the structure of the noun phrase. Moreover, in Vietnamese these properties are not mixed with regard to NP/DP status. That is, they are all consistent with Vietnamese as an NP language. Second, note that properties (e-g) have more to do with clausal structure than with nominal structure. Moreover, these properties point to DP status for Vietnamese. Finally, properties (h-j) have to do with quantificational elements like negation, focus, and *wh*-elements (Starke 2001). These are mixed with regard to NP/DP status, but they share the fact that they do

²⁷ In a different study, we argue that Vietnamese differs from Chinese with respect to definiteness expression. The main contrast between Chinese and Vietnamese is that in Chinese, there is no need to project D (for definiteness) because other existing elements in the nominal phrase can do the job (numerals and classifiers; see Cheng and Sybesma 1999, 2005), whereas in Vietnamese such other things still are not sufficient (Phan 2014). This suggests that even in classifier languages there is a need for DP.

not, on the whole, undergo movement: in section 3 we saw that negation does not raise, nor do focalized elements move; at various points in the paper it was also pointed out that Vietnamese is a *wh*-in-situ language. On the other hand, non-quantificational movement like topicalization is perfectly possible in Vietnamese.

We propose, then, that the table should be redrawn with the boundaries shown in Table 3.

Table 3	Three	independent	narameters
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Properties	NP	DP	Parameter
a. Definite determiner	1		
b. Left branch extraction	(1)	(1)	-
c. Radical pro-drop	1		(i)
d. Obligatory number morphology	1		
e. TP			
f. Subject expletives		 Image: A set of the set of the] (ii)
g. Subject-object asymmetry		1	
h. Negative raising	1		
i. Focus-verb adjacency	(⁄)	(•/)] (iii)
j. Focus morphology on negative constituents			

As far as the nominal properties are concerned (i), Vietnamese is an NP language. As far as the clausal properties are concerned (ii), Vietnamese is a DP language. And as far as the quantificational (negation, focus, *wh*-elements; Starke 2001) properties are concerned (iii), there is no movement. Rather than assigning Vietnamese a mixed NP/DP status, however, it seems more likely that there are independent parameters at work.

In order to explain the behavior of Vietnamese with respect to the three parameters in Table 3, we need to claim the following: Vietnamese (i) lacks a DP (in Bošković's terms), (ii) has a TP, and (iii) keeps its quantificational elements in situ. Moreover, Vietnamese is a topic-prominent language. From these four claims the properties in Table 3 follow.

Though we do not necessarily accept the finer details of Bošković's formal analysis of NP languages as lacking a DP projection, Vietnamese is consistent with Bošković's classification of NP languages as far as the nominal properties of parameter (i) are concerned. According to Bošković's analysis, then, Vietnamese would lack a DP, which accounts for (a) the lack of a definite determiner, (c) radical pro-drop, and (d) non-obligatory number morphology. Next, the fact that Vietnamese has a TP (property (e)) is closely linked to (f) its subject-domain expletive $n \acute{o}$ and (g) certain subject-object asymmetries. The fact that Vietnamese is a quantificational-in-situ language makes sense of the way negation (properties (h) and (j)), focus (properties (i) and (j)), and wh-items (wh-in-situ status and the lack of complement extraction in connection with property (b)) pattern in this language. Finally, the fact that Vietnamese is a topic-prominent language, with its basegenerated topic particle th (see Paul and Whitman to appear), accounts for its contrastive topic construction (which resembles LBE), the licensing of radical prodrop, and the raised topic construction discussed in connection with property (g).²⁸

5. CONCLUSION

To summarize, we have shown that Bošković's NP/DP parameter breaks down into at least three separate parameters. In many languages, these three parameters line up in a consistent manner and conspire to give the impression that there is a single macro-parameter at work. However, due to its mixed status, Vietnamese reveals that there are in fact three smaller parameters (nominal, clausal, and quantificational) at work, and that these are independently fixed (as [-DP], [+TP], and [-movement], respectively). Moreover, Vietnamese can in general be classified as a topicprominent language, a classification that requires more research but which plays an important role in determining the behavior of Vietnamese with regard to many of the syntactic properties discussed above.

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²⁸ It can be noted that many NP languages fall into the category of so-called nonconfigurational languages (Bošković 2010:34–35), a category that also overlaps with discourse-configurational languages (see É. Kiss 1994 and Miyagawa 2010), defined as languages with designated positions for both topic and focus. Vietnamese, however, due to its focus-in-situ status, is more accurately defined as a topic-prominent language, not a discourse-configurational or non-configurational language.

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