Phases, Reflexives and Definiteness

Abstract: This paper investigates a puzzling correlation between two seemingly disparate phenomena: the cross-linguistic distribution of reflexive possessives and definiteness marking. In particular, as observed in Reuland (2007, 2011) and supported here by additional cross-linguistic evidence, reflexive possessives are available only in languages that either lack definiteness marking, or encode definiteness postnominally. Languages that have prenominal (article-like) definiteness marking, on the other hand, systematically lack reflexive possessives. I argue that this type of facts supports a particular approach to reflexive binding, specifically, one that has the following properties: (i) binding domains are stated in terms of phases (ii) in addition to CPs and *v*Ps, DPs are phases, and (iii) DP is not universal. I closely examine another robust cross-linguistic correlation regarding definiteness marking, namely Bošković's (2008) 'Left Branch Extraction' generalization, and show how it directly follows from the key assumptions of the analysis. I situate my proposals within a broader context of the phase theory, arguing that the syntactic representation of (in)definiteness is the crucial factor in determining the phasehood status of nominal categories. I extend my analysis to the clausal domain and discuss it in the context of languages that allow reflexives in the subject position.

Keywords: phases, reflexives, DP/NP, binding

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1. Introduction

According to the Derivation by Phase framework of Chomsky (2000, 2001, 2004, 2008) the derivation of a sentence, all the way from lexical arrays to the interfaces, is composed of chunks, and the syntax sends material to the interfaces in a series of cycles, rather than all at once. The relevant subsections of the derivation are called 'phases', and it is assumed that the derivation can only access one phase at a time, limiting the computational load in deriving a sentence.

In recent years a number of authors have argued that local binding domains for anaphors are reducible to phases (e.g., Canac-Marquis 2005, Heinat 2006, Hicks 2009, Lee-Schoenfeld 2008, Quicoli 2008, Safir 2011, etc.). On such analyses binding domains for local anaphors are CP and *v*P, since these are standardly assumed to constitute phases. However, whether or not DP should count as a phase (and hence a binding domain) is still a point of debate, in part because a variety of different definitions of phase have been proposed. For instance, while in Chomsky (2000, 2001) it is suggested that criteria such as 'independence' at the interface, or 'propositionality' are crucial for determining the phase status of a category, in more recent work (see, for instance, Chomsky 2007, 2008) Chomsky has argued that the most important criterion for defining phases is not related to interface properties, but to Agreement/Case systems. At the same time, it has been argued in a number of works that phases are determined contextually; i.e., on such approaches, whether or not a particular projection counts as a phase largely depends on its syntactic context/environment (e.g., Bobaljik and Wurmbrand 2005, den Dikken 2007, Gallego 2007, Takahashi 2011 etc.)

Another question which is relevant in the discussion of DP, and which has sparked some debate in the literature, is whether or not this projection is universal. With few notable

exceptions, it is almost standardly assumed that DP is universal and that all languages have it. In fact, following Cinque's work on adverbs (i.e., Cinque 1999), certain authors go even further, arguing for the existence of a particularly rich hierarchy of functional projections within DP, which does not vary across languages (see, Scott 2002, and references therein). On the other hand, authors like Baker (2003), Bošković (2005, 2008, to appear), Chierchia (1998), Fukui (1988), Despić (2011, to appear), among others, have argued on independent grounds that DP is not universal and that languages may differ in this respect. In particular, Bošković (2005, 2008, to appear) argues that only languages with definite articles actually have DP. According to Dryer's study of definiteness (World Atlas of Language Structures), roughly half the world's languages have some formal marking of definiteness, but Bošković shows that the variation is not simply free and that there are parametric differences associated with whether or not a language has a definite article. A brief summary of Bošković's (2008) cross-linguistic generalizations in which the two language groups consistently differ is given below[1]:

(1) a. Only languages without articles may allow 'Left Branch Extraction'.

b. Only languages without overt articles may allow 'Adjunct Extraction'.

c. Only languages without articles may allow (Japanese-style) scrambling.

d. Languages without articles disallow Negative Raising (i.e., strict NPI licensing under Negative Raising), and languages with articles allow it.

e. Multiple Wh-Fronting languages without articles do not show Superiority effects.

f. Only languages with articles may allow clitic doubling.

[1]See Bošković (2008, to appear) for additional generalizations and a detailed discussion of the generalizations in (1) (which due to space considerations I cannot go into here).

g. Languages without articles do not allow transitive nominals with two genitives.

h. Only languages with articles may allow the majority superlative reading.

i. Head Internal Relatives are island sensitive only in languages without articles.

j. Polysynthetic languages do not have articles.

In this paper I present evidence in favor of a particular approach to binding of reflexives, which is a synthesis of the following three existing proposals, briefly introduced above: (i) binding domains should be stated in terms of phases, (ii) in addition to CPs and *v*Ps, DPs also qualify as phases (e.g., Adger 2003, Bošković 2005, 2008, Svenonious 2004, among others), and (ii) DP is not universal. Ultimately, the question of whether or not DP is a phase (and a binding domain) and a universal projection is empirical, and should hinge not on the analysis of one or two languages, but on a large survey. If DP as a phase and a binding domain is only present in some languages then we should be able to see effects of this contrast on a larger scale. On the basis of the cross-linguistic distribution of reflexive possessives I show that this is indeed true. In particular, Reuland (2007, 2011) observes that reflexive possessives are available only in languages that either lack definiteness marking, or encode definiteness postnominally. Languages with prenominal (article-like) definiteness marking, on the other hand, systematically lack reflexive possessives. In Table 1 below I summarize the results of a survey I conducted in order to check empirical limitations of Reuland's generalization. Reuland's investigation has mainly focused on a subset of Indo-European languages and the survey presented in this paper (see also Despić 2011) covers languages outside of the Indo-European family, including relatively well-studied languages, as well as some less well-studied ones (languages provided by Reuland 2011 are given in bold type):

Table 1

	No Reflexive Possessives
Prenominal Definiteness Marking	Afrikaans, **Dutch**, Frisian, **English**, **German**, **Italian**, Misantla Totonac, **Modern Greek**, Portuguese, **Spanish**
	Reflexive Possessives
Postnominal Definiteness Marking	**Bulgarian**, Danish, Faroese, **Icelandic**, Koromfe, Macedonian, Norwegian, **Romanian**, Swedish
No Definiteness Marking	Belorussian, Chinese, Czech, Dolakha Newar, Hindi-Urdu, Japanese, Kannada, Kashmiri, Korean, **Latin**, Lezgian, Malayalam, Mosetén, Old Church Slavonic, Persian, Polish, Proto-Slavonic, **Russian**, Serbo-Croatian, Slovak, Slovenian, Sorbian, Tamil, Thai, Turkish, Ukranian.

Facts of this sort cannot be treated as mere accidents, and I argue that on the theory I propose they are explained in a straightforward manner.

In section 2, I lay out my proposals and examine the generalization in Table 1 in more detail, situating my discussion in the general approach to phases, specifically, with respect to what extent DP, whose presence in a language in this work is taken to be indicated only via overt definiteness marking, satisfies the canonical diagnostics for phasehood. I also investigate implications of the proposed analysis in the context of Bošković's 'Left Branch Extraction' generalization given in (1a). In section 3, I extend my analysis to the clausal domain, suggesting that the lack of TP is the crucial reason why certain languages allow reflexives in the subject position. Section 4 summarizes the main points of the paper.

The Binding Theory figures prominently in a vast amount of works, either as the main research topic, or, more frequently, as a diagnostics for a variety of abstract aspects of grammatical analysis. Given the volume and depth of successful research into binding it would be unreasonable and premature to attempt to address all the important aspects of binding. It is therefore important to emphasize at the outset that my main concern in this paper is with the relationship between reflexives and their binding potential, on the one hand, and the way

different languages encode definiteness, on the other. I believe that a proper investigation of the correlation in question not only makes a significant contribution to the discussion of reflexives and their binding domains, but also elucidates the question of whether and to which degree languages vary with respect to the nominal functional categories they instantiate. At the risk of doing an injustice to a variety of proposals that have been put forward, I will have to sidestep many important binding issues (e.g., Conditions B and C, reciprocals; see Despić to appear) and limit my discussion to the case of reflexives. However, throughout the paper I will occasionally comment on aspects of the Binding Theory that are not part of the central focus of this investigation. Hopefully, by the end of the paper I will have sketched promising directions to pursue some of the questions that have not been addressed in detail.

2. Binding and Phases

There have been many attempts to reanalyze the Binding Theory in a way consistent with the goals and methodology of the Minimalist Program and to derive it from narrow-syntactic processes. Some of these analyses have been based either on overt movement (Hornstein 2001, Kayne 2002), or on covert movement and feature checking (Reuland 2001), and some of them have argued that (at least certain aspects of) binding can be derived from Agree (e.g., Chomsky 2008, Fischer 2004, Gallego 2010, Heinat 2006, Hicks 2009, Reuland 2005, 2011, Rooryck and Vanden Wyngaerd 2011, etc.). Finally, a number of authors have also suggested that local binding domains should be reduced to phases (e.g., Canac-Marquis 2005, Heinat 2006, Hicks 2009, Lee-Schoenfeld 2008, Quicoli 2008, Safir 2011, etc.).

The assumption common to all analyses which aim to state binding domains in terms of phases is that in a construction like (2a), for instance, the reflexive *himself* can be bound by its

antecedent *John* within the same phase, namely *v*P. That is, the binding relationship between *John* and *himself* can be established at the point when *John* is still in Spec*v*P (the edge of the *v*P phase), as sketched in (2b):

(2) a. *John* likes *himself*. b. [$_{TP}$ John [$_{vP}$ *John* likes [$_{VP}$ *himself*]]]

c. **John* knows [$_{CP}$ that [$_{TP}$ *himself* saw Mary]].

It is assumed in a similar vein that *himself* in a structure like (2c) cannot be anteceded by *John* since they are separated by a phase boundary (i.e., CP). This picture is painted with a broad brush and many intricate details of various proposals are omitted, since they simply fall outside of the scope of this paper. For instance, the intuition behind many approaches which aim to derive binding from operations like Agree is that reflexive pronouns are deficient, underspecified for certain feature values. Reflexives therefore on these approaches need to enter an Agree relation with their antecedent which could supply them with the missing values. The features in question are usually assumed to be φ-features, given that many anaphors are morphologically underspecified for these features, an observation which goes back at least to Burzio (1986, 1991) (see also Richards 1997, Reuland 2001, 2005, 2011, Heinat 2006 etc.). Also, depending on the particular approach, the missing feature values of reflexives are either directly valued by the antecedent (e.g., Hicks 2009), or by a mediating functional head associated with the antecedent (Reuland 2001, 2005, 2011, Heinat 2006, Chomsky 2008). I will not discuss questions of this sort here, since the main goal of this paper, which I explicate in the next section, is to explore implications of the correlation in Table 1 for the view, briefly outlined above, on which binding domains are reduced to phases. I will argue that in order to derive these facts in a manner

consistent with other cross-linguistic generalizations regarding definiteness marking (specifically (1a)) one needs to adopt an approach which incorporates the following two assumptions: (i) DP is a phase, and as such constitutes a binding domain and (ii) DP is not universal. Importantly, however, the general framework that I will present in the next section is fully compatible with a variety of other complex, theoretically appealing analyses, which are based on language-specific facts. Discussion of questions regarding exact syntactic mechanisms involved in licensing of reflexives, which are the main focus of many other works in this domain (e.g., the exact implementation of Agree) would add nothing to the specific points I wish to make here. That is, my focus here is not in the nature of syntactic operations and mechanisms that underlie binding per se, but rather in the character of the (binding) domains in which they are licensed.[2]

[2] To avoid any confusion I need to note that I use the terms *anaphoric* and *reflexive* here interchangeably, as in much of the literature (but see Reuland 2011, Chapter 1 and Section 6.6.2, for instance, for a discussion of differences in the terminology, which are not crucial for the purposes of this paper). I also assume that the essential property of these elements is that they are referentially defective and, as such, forced to take a linguistic antecedent (i.e., the Condition A requirement). As already mentioned above, some of them may also have a defective φ-feature set or completely lack φ-features. Importantly, since the paper mainly focuses on the nature of local binding domains (and its relationship with the presence/absence of DP), I restrict my discussion here to locally bound reflexives. That is, I will largely ignore non-local anaphors (or long-distance anaphors) of various kinds (such as Danish *sig*, Japanese *zibun*, or Chinese *ziji*), since their behavior is not particularly illuminating in this respect. For example, as illustrated in (i), the reflexive *ziji* in Chinese can be anteceded either by Zhangsan, Lisi or Wangwu:

(i) Zhangsan$_i$ rewei [Lisi$_j$ zhidao [Wangwu$_k$ bu xihuan ziji$_{i/j/k}$]]. (Sung 1990: 3)

Zhangsan think Lisi know Wangwu not like self

'Zhangsan thinks that Lisi knows that Wangwu dos not like himself.'

Rather, I focus on anaphors that are bound strictly locally (e.g., Chinese *ta ziji*.) and are, therefore, directly relevant for our discussion. Purely in terms of establishing interpretative dependencies, the type of biding the paper focuses on can be represented by Reinhart's (2006) definition in (ii), which applies at the level of logical syntax and covers

2.1 Reflexive Possessives and Definiteness Marking: A Cross-Linguistic Perspective

Perhaps the most common misunderstanding regarding the claim that DP (or any other functional projection, as a matter of fact) is not universal is that it somehow paves the way for arguments against the *Universal Grammar* (UG). It is therefore necessary to clarify at this point (before I turn to details of my analysis) that the truth is just the opposite, at least as far as this paper is concerned. In fact, certain aspects of the cross-linguistic distribution of reflexive possessives have been used as evidence against UG-based analyses. In particular, Haspelmath (2008) examines the cross-linguistic distribution of reflexive possessives and formulates the following universal (i.e., "Universal 3"; Haspelmath 2008: 50):

(3) If a language uses a special reflexive pronoun for an adnominal possessor that is coreferential with the subject, then it also uses a special reflexive pronoun for the object, but not vice versa.

According to this universal, only three of the logically possible four language types are attested. The first attested language type is exemplified by English, where a special reflexive pronoun is used in the object position, but the regular, non-reflexive pronoun is used in the adnominal possessive position, i.e., the pronoun that is also used when the adnominal possessor is not coreferential with the subject:

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both local and non-local binding. However, I follow the majority of recent literature cited above in assuming that syntactic properties of *local* binding are derivable from independently motivated, phase-sensitive operations (Agree, Internal Merge etc.), as well as from morphosyntactic features of anaphoric elements that enter into those operations (e.g., *Feature Determinacy Thesis* of Reuland (2011: 60))

(ii) α A-binds β iff α is the sister of a λ-predicate whose operator binds β.

(4) a. He loves himself. b. He loves his neighbors. (*He loves himself's neighbors)

The second attested type is illustrated by Lezgian, in which a special reflexive pronoun *wič* is used in the case of subject-coreference (e.g., (5a-b)), different from the regular non-reflexive pronoun *am/ada*. Thus, the possessive pronoun in (5c) cannot be coreferential with the subject *Alfija* (Haspelmath 2008:51). This pattern also holds for a variety of languages (see Table 1), to which I return below.

(5) a. Alfija-di (wič-i) wič q'ena. b. Alfija-di wič-in kic' q'ena. c. Alfija-di ada-n kic' q'ena.

Alfija$_{ERG}$ self$_{ERG}$ self killed Alfija$_{ERG}$ self$_{GEN}$ dog killed Alfija$_{ERG}$ she$_{GEN}$ dog killed

'Alfija killed herself.' 'Alfija$_i$ killed her$_i$ dog.' 'Alfija$_i$ killed her$_j$ dog.'

In the third attested type the non-anaphoric pronoun is used in both object positions and in adnominal possessive positions (e.g., Loniu (Haspelmath 2008: 51)).[3] There seem to be no languages, however, in which a special reflexive form is used only in adnominal positions, but not in object positions. Haspelmath argues that these asymmetries, particularly the one between the first and the second type on which I focus here, challenge UG-based approaches and proposes a functionalist, usage-based explanation. Oversimplifying somewhat, Haspelmath

[3] I will not discuss this group of languages here since they are somewhat orthogonal to the goals of this paper. I need to note, however, that I believe that competition approaches to anaphora (for instance Safir 2004) are directly relevant for these languages, since one of their general goals is to explain why pronouns may express reflexive relationships if the morphology of a language has no dedicated reflexive form available. In particular, on the theory of Safir (2004), if a language happens not to have a dedicated reflexive form, then the non-reflexive pronoun will display the familiar absence of Condition B effects, as observed in the languages in question (see also Despić 2011).

suggests that adnominal possessive non-reflexive pronouns are much more likely to be coreferential with subject than object pronouns. As a result, adnominal possessives do not need special marking to the same extent as object pronouns, and thus they behave just like ordinary personal pronouns in many languages. This explains the pattern observed in English. As for the second language type (i.e., Lezgian), the explanation is that in these languages, possessive pronouns analogically follow object pronouns. They exhibit "strategic streamlining" (i.e. possessive pronouns pattern after object pronouns), whereas English-type languages show "functional streamlining", i.e., in these languages "system pressure" beats economic motivation.

In the next section I will propose a UG-based approach to these facts, which crucially relies on the correlations given in Table 1, which are based on Reuland's (2007, 2011) observations. In light of these facts, Haspelmath's argument against UG-based approaches to reflexive possessives seems incomplete, since his cross-linguistic survey overlooks an important parameter in this respect, namely the way languages encode definiteness. The correlations illustrated in Table 1 are certainly sufficiently general to be worth seriously considering, and to the extent they stand up further scrutiny, they lend important support to UG-based approaches to binding (as I will argue in the pages ahead), and challenge Haspelmath's claims. If there is indeed a strong correlation between the way a particular language encodes definiteness and the availability of reflexive possessives in that language, then it is not really clear how a purely functionalist, usage-based analysis could account for it. I believe that Haspelmath's analysis in its current form cannot capture it.

2.2 Reflexive Possessives, Definiteness and Phases

Consider again the correlation in Table 1. Apart from a number of uninteresting cases, I haven't found a single direct counterexample to Reuland's generalization so far.[4] By clear counterexamples I primarily mean hypothetical languages that would mark definiteness prenominally and allow reflexive possessives at the same time. In other words, since the morpho-syntax of possessives can clearly be constrained by factors other than definiteness, we do not necessarily expect that all languages that lack definiteness marking or express it postnominally must have reflexive possessives. On the other hand, languages that encode definiteness prenominally always lack reflexive possessives.

The correlation between reflexive possessive and definiteness marking illustrated in Table 1 crosscuts the historical and geographical relation between the languages in question, which highlights its significance from a typological perspective. Even within smaller language groups/families the contrasts are significant. Consider for instance Dutch, on the one hand, and Germanic languages that mark definiteness postnominally: even though Dutch, Danish,

[4] In order to check how far Reuland's observations truly go, one needs to focus on languages that have reflexive pronouns to begin with. And many languages simply lack reflexive pronouns; whether or not such languages encode definiteness is irrelevant for our purposes. For instance, Kwaza (Voort, 1994) does not mark definiteness and has no reflexive pronouns. There are also languages which do not have reflexive pronouns but use various kinds of nouns for reflexive purpose. Thus, in Semalai (Kruspe. 2004) 'driʔ' from the Malay *diri* 'self' may function as a reflexive pronoun 'self', but it is not widely used in this fashion. It is more common to use *kbəʔ* 'torso', or *səc* 'flesh' for a reflexive action. The similar situation is true for Basque and Georgian and is cross-linguistically quite common. These cases are also ignored here, because the focus is on the true reflexive pronouns, whose unique function is reflexivity. In other words, we want to explain why 'himself's dog' is impossible in English, even though 'his <u>own</u> dog' is good.

Norwegian, Swedish, Faroese and Icelandic involve a very similar inventory of anaphoric elements, only Dutch lacks reflexive possessives. On the other hand, within the Romance group only Latin has possessive reflexives, and unlike the Modern Romance languages (e.g., Spanish, Italian etc.), it lacks definiteness marking (see also Marelj 2011). The correlation in question thus portrays precisely the type of tension commonly associated with descriptive and explanatory adequacy - the syntactic analysis must be flexible enough to allow for the existence of such facts, yet at the same time be able to exclude the nonexistent logical possibilities. Furthermore, our analysis should also be compatible with other generalizations regarding the systematic differences between languages that do and do not encode definiteness, such as Bošković's "Left Branch Extraction (LBE) generalization" (repeated below as (6)):

(6) *Left Branch Extraction* - Only languages without articles may allow 'Left Branch Extraction'.

This matches the facts in Table 1 to a great degree but not completely. Thus, languages with prenominal definiteness marking both lack reflexive possessives and disallow LBE:

(7) a. Dutch (No LBE):

Iedereen$_i$ houdt van **zijn**$_{i/j}$ moeder.

Everyone loves his mother

'Everybody loves his$_{i/j}$ mother.'

b. German (No LBE):

Jeder$_i$ liebt **seine**$_{i/j}$ Mutter

Everyone loves his mother

'Everyone loves his$_{i/j}$ mother.'

c. Spanish (No LBE):

Ioannes vio **a su**$_{i/j}$ hermana.

Ioannes saw his sister

d. Italian (No LBE):

Giovanni ama **sua** $_{i/j}$ sorella.

Giovanni loves his sister

'Ioannes saw his sister.' 'Giovanni loves his sister.' (Marelj 2011, 221-222)

e. English (No LBE): He loves his neighbors. (*He loves himself's neighbors)

Both LBE and reflexive possessives are, on the other hand, available in languages with no definiteness marking.

(8) a. Kakvu$_i$ si vidio [t_i kuću]? b. Svaki dečak$_i$ je video svog$_i$ oca. Serbo-Croatian

What-kind are seen house Every boy is seen self's father

'What kind of house did you see?' 'Every boy$_i$ saw his$_i$ father.'

(9) a. Ioannes sororem **suam$_i$/eius$_{j/*i}$** vidit. Latin

Ioannesi sister **self$_i$'s/his$_{j/*i}$** saw

'Ioannes saw his sister.' (Bertocchi and Casadio 1980)

b. Quales$_i$ Cicero amat [t_i puellas] ? Latin

What-kind-of Cicero$_{NOM}$ loves girls

'Whit kind of girls does Cicero love?' (Uriagareka 1988)

c. longe *maximam* ea res adtulit *dimicationem*

by far greatest$_{ACC/FEM/SG}$ that$_{NOM/SG/FEM}$ thing brought$_{3/PL/PRES}$ fighting$_{ACC/SG/FEM}$.

'This led to by far the heaviest fighting.' (Devine and Stephens 2006: 549)

Unlike the Modern Romance languages, Latin was an article-less language with both LBE and reflexive possessives.[5] However, the two generalizations do not overlap in the case of languages that encode definiteness postnominally. For example, the Scandinavian languages all have a

[5] See Devine and Stephens (2006) for a variety of examples of LBE/"hyperbaton" in Latin.

reflexive possessive form (i.e., *sin*) which is in complementary distribution with the non-reflexive pronominal possessive, but none of them allow LBE of the sort that characterizes Serbo-Croatian or Latin:

(10) a. Danish (Vikner 1985: 23):

John$_i$ læste **sin$_i$/*hans$_i$** artikel.

John read self's/his article

'John read his article.'

b. Norwegian (Safir 2004: 72):

Jon$_i$ fortalte om **sin$_i$/*hans$_i$** nabo.

John told about self's/his neighbor

c. Icelandic (Thráinsson 2007: 463):

Egil$_i$ vantar bókina **sína$_i$/*hans$_i$**.

Egil needs book self's his

'Egil needs his book.'

d. Swedish (Kiparsky 2002: 16):

John$_i$ angrep **sina$_i$/*hans$_i$** vänner.

John attacked self's his friends

'John attacked his friends.'

e. Faroese (Thráinsson et al.: 2004: 327):

Jógvan$_i$ tók bók **sína$_i$/*hansara$_i$**.

John took book self's/his

'John took his book.'

The challenge therefore lies in explaining the general properties of the generalizations in question within an internally consistent set of assumptions, and, to the extent possible, making non-trivial predictions about what possible and impossible systems are. In order to account for the LBE facts I will first adopt a proposal by Bošković (2005), who suggests that adjectives in

DP languages take NPs as their complements (i.e., Abney 1987), while adjectives in DP-less languages are either specifiers of NPs, or adjoined to them[6]:

(11) a. $[_{DP}$ D $[_{AP}$ Adj $[_{NP}$ N]]] (DP languages) b. $[_{NP}$ AP N] (NP languages)

The underlying assumption is that DPs and NPs, but not APs, can function as arguments (following the common intuition that adjectives in contrast to DPs and NPs are not referential; see Baker 2003 for a thorough discussion of these issues). In English-type languages this assumption has no relevant consequences, since DPs always dominate APs. However, this is not the case in languages like Serbo-Croatian, where, due to the lack of DP, APs would end up functioning as arguments if they dominated NPs. Consequently, in such languages APs do not dominate NPs. Given this, LBE is not possible in (11a) (i.e., languages that project DP) because it would involve extraction of a non-constituent. That is, the AP in (11a) is not a constituent to the exclusion of the NP. The non-constituency problem does not arise in (11b) (DP-less languages like Serbo-Croatian), where the NP dominates the AP.[7,8] I will thus assume that the

[6] For a detailed discussion of the AP-over-NP structures see Abney (1987: Sections 4.2 and 4.3), Delsing (1993) and Kester (1996), among many others.

[7] See also Bošković (2005) for an alternative, phase-based analysis of the LBE facts which does not assume an Abney-style analysis of adjectives for English.

[8] Marelj (2011) proposes an analysis on which the availability of reflexive possessives in a given language directly depends on whether or not that language allows LBE. In a nutshell, taking Hornstein (2001) as a starting point, where condition A is analyzed in terms of MOVE and where anaphors are a residue of overt movement (essentially a spell-out of the trace of their antecedent), Marelj proposes that reflexive possessives are also a residue of movement. That is, in Serbo-Croatian (8b) above, *svaki dečak* 'every boy' moves from the position in which *svoj* surfaces and the reflexive is just a reflex of that movement. This is supported by the fact that Serbo-Croatian is an

structure in (11a) holds for all definiteness-marking languages on that list, regardless of whether they encode definiteness prenominally or postnominally. This explains why LBE is not possible in these languages. Going back to Table 1, my analysis consists of two central assumptions. First, I will follow Szabolcsi (1983) and Kayne (1994) in assuming that the possessor in possessive constructions in DP languages is preceded by a separate DP. This step is motivated by the fact that there are languages in which possessors are preceded by articles (e.g., (12)). The English prenominal possessor is also preceded by D, but this D is not pronounced in English.[9]

(12) 'il mio libro' Italian

the my book

LBE language. The reason why English (i) is acceptable on the bound reading lies in the fact that (i) cannot be licitly formed by movement:

(i) Every boy$_i$ likes his$_i$ father.

Since LBE is disallowed in English a pronoun is inserted into the derivation as a last resort. In other words, a pronoun establishes a relation between two positions that cannot be established through movement, which is consistent with the fact that English disallows LBE. Although I believe that Marelj's approach is essentially on the right track and that it contributes valid and important insights on these matters, I will pursue a somewhat different kind of analysis here in light of the fact that languages in (10) (all languages with postnominal definiteness marking) have reflexive possessives even though they disallow LBE. Also, there are contexts in Serbo-Croatian which license reflexive possessives, but in which movement is illicit. This is puzzling if anaphora is indeed a reflex of movement:

(ii) a.Svaki političar$_i$ je dao ostavku zbog **svoje$_i$/njegove$_{*i}$** supruge. b.*Čije je Marko dao ostavku zbog [t$_i$ supruge]?

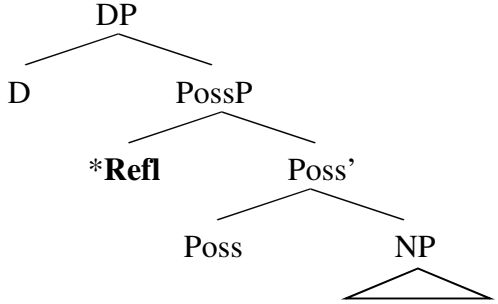
Every politician is gave resignation because self's/his wife Whose is Marko gave resignation because wife

'Every politician resigned because of his wife.' 'Because of whose wife did Marko resign?'

[9] Thus, the underlying assumption is that DP-languages like English can have articles which are not pronounced.

Second, as outlined in the introduction, I argue that DP is a phase and that binding domains should be defined in terms of phases. Specifically, in possessive constructions D is a phase head (just like *v* and C are) and it takes PossP as it complement, as shown in (13a):

(13) a.



b. John$_i$ read Bill$_j$'s article about himself$_{*i/j}$.

Taking the possessor to be in SpecPossP , as in (13a), we can now account for why it cannot have a reflexive form in the languages with prenominal definiteness marking. Since DP is a phase and a binding domain, by assumption, the reflexive possessive in SpecPossP is not bound by anything in its binding domain. Therefore, in languages like English the possessive necessarily takes the non-reflexive pronominal form. If the reflexive is, on the other hand, in a lower position it can be bound by the argument in SpecPossP, as in (13b).[10,11] Languages that do not mark definiteness at all do not project DPs, and therefore there can be no DP-phase in these languages that would force the possessor to take a non-reflexive pronominal form. In other words, the domain in which reflexive possessives in these languages have to be bound is *v*P, as

[10] For the time being I will assume that SpecPossP can also be filled with PRO to account for examples like (i) (see e.g., Chomsky 1986, Bhatt and Pancheva 2001, among others). I return to this issue in section 3.

(i) John$_i$ told Mary [PRO$_i$ lies about himself$_i$].

[11] See, however, Runner *at al* (2006) (and references therein) for binding in the so-called "picture noun phrases".

in Serbo-Croatian (8b) and Latin (9a).[12] A problem that might be raised for English at this point concerns constructions with reciprocals in the possessor position:

(14) John and Mary saw [$_{DP}$ each other's pictures].

In order to account for this fact I have to assume that reciprocals and pronouns are not licensed in the same structural position. In particular, I propose that possessive reciprocals and possessive DPs (more specifically, non-pronominal DPs) in English pattern together in that they are both licensed in a position which is higher from the one which possessive pronouns occupy. More precisely, I take it that, in contrast to possessive pronouns, non-pronominal possessive DPs and possessive reciprocals are positioned in SpecDP, which is at the edge of the DP phase. Given this, reciprocals can be bound within the *v*P phase domain. Pronouns, on the other hand, are assumed to be located in the complement of the D head, as discussed above.

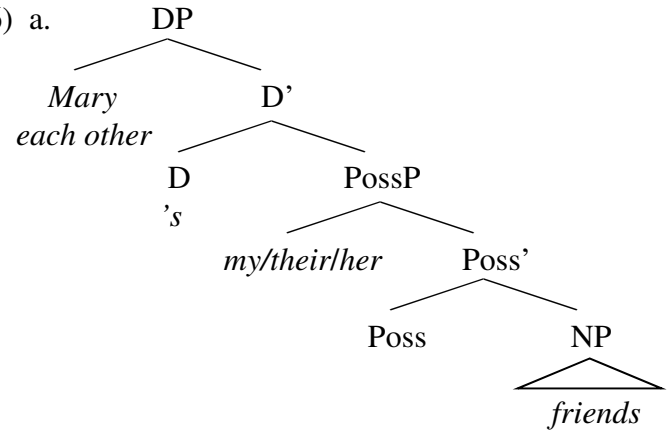
The assumption that possessive pronouns and possessive DPs in English occupy different structural positions is not novel. Bernstein and Tortora (2005) argue that pronominal possessors are lower in the structure than full DP possessors. They argue that such an assumption allows us to explain a number of English facts, such as the contrast in (15) (i.e., (15b) is not possible since *their* is located lower than *'s* on their analysis):

[12] Although I fully acknowledge the comprehensive nature of Reuland's analysis and observations, I do not follow his approach here primarily because it is not designed to deal with the question of LBE. Also, certain aspects of his theory appear to be too strong since on his analysis "… chain formation via the extended verbal projection explains that POSS anaphors are subject oriented" (Reuland 2011: 167). However, many East Asian languages have non-subject-oriented reflexive pronouns (which I discuss in section 3), whose possessive forms are also not subject oriented; e.g., the Japanese local reflexive possessive pronoun *kare-zisin-no* is clearly not strictly subject oriented.

(15) a. Mary's/the woman's friend b. *their's friend

Following this logic I will also assume that full DP possessors are higher than pronominal possessors, but that the relevant structure looks as follows:[13]

(16) a.



b. Mary's/the woman's friends c. each other's friends d. *their's friends

The structure in (16a) assumes, as in many other analyses, that English *'s* occupies the D position. Full DP possessors and reciprocals are thus in SpecDP while pronominal possessors are in SpecPossP.[14] This explains why reciprocals pattern with Possessive DPs with respect to the availability of the word final morpheme *–s* characterizing English possessive forms (e.g., (16b-d)). Consequently, the reciprocal pronoun in English is always at the edge of the DP phase, and

[13] It is possible that *Mary* and *each other* in this structure move from SpecPossP.

[14] It could also be the case that pronominal possessors occupy the head of PossP. This change would not affect my main point here.

therefore can be bound by an antecedent in the higher binding domain.[15] Note also that full DP possessors and reciprocal possessors in English pattern together in that they, unlike pronominal possessors, allow ellipsis of the material that follows them:

(17) a. They could read their own files, but they could not read each other's.

b. They could read their own files, but they could not read John's.

c.*They could read their own files but they could not read my.

I come back to this contrast in section 3, where I will argue that only complements of the phase head D may be elided. As discussed in that section, (17) then provides evidence that pronominal possessors, but not reciprocal and full DP possessors, are located in the complement of D, as argued here. I turn now to languages that mark definiteness postnominally, which constitute the most interesting case and deserve special attention.

2.3 Languages with Postnominal Definiteness Marking

One way of deriving the facts observed in languages with postnominal definiteness marking is to assume that the possessor in these languages, similarly to other elements, moves to the edge of

[15] Note that the lack of complementary distribution in the following examples is expected under this approach since the anaphor *each other* is, in contrast to the pronoun *their*, located in a higher binding domain:

(i) They$_i$ love their$_i$ friends.

(ii) They$_i$ love each other$_i$'s friends.

Each other occupies SpecDP and is therefore bound in its binding domain (i.e., *v*P), whereas *their* is in the complement of the D head (i.e.,SpecPossP), and consequently in a separate binding domain. Also, there is no need any more to stipulate that English *his* is ambiguous between anaphor and pronoun as in Chomsky (1981).

the DP phase domain. Therefore the possessor in languages like Icelandic and Bulgarian would ultimately be bound in the higher phase. The presence of reflexive possessives in these languages can then be viewed as a trivial consequence of a more general requirement, namely, that things (including possessors) regularly move to the edge of DP in these languages. On this view certain formal properties of one syntactic operation indirectly determine the character of another syntactic phenomenon.

A natural question at this point is what triggers movement to D. I will assume in this subsection that D, as a phase head, is characterized in these languages by some sort of *Edge Feature* (EF). In Chomsky (2000) a version of EF was already assumed; Generalized EPP features (sometimes called 'Occurrence' features) were taken to be uninterpretable selectional features borne by functional heads, which required the associated Spec position to be filled by an element of a "certain kind". In the framework of Chomsky (2007, 2008), on the other hand, the fundamental difference between External Merge (i.e., complementation) and Internal Merge (i.e., movement) is reduced to a difference between phase heads and non-phase heads with regard to EFs. Specifically, EFs on non-phase heads are held to drive External Merge, while EFs on phase heads are held to drive Internal Merge. It is assumed that only phase heads trigger operations and that Internal Merge satisfies EFs only for phase heads – apparent exceptions to this (i.e., raising to SpecTP) are derivative, via feature inheritance. More precisely, in this system, A-movement to T is driven by the inheritance of an EF from a higher phase head, namely C.

It should therefore not be implausible to assume that D (a phase head, by assumption) in languages with postnominal definiteness marking has some sort of EF. To satisfy this EF some elements, including the possessor, always move to D (either to SpecDP, or via head movement to D). This has a direct consequence for binding, however, since the possessor ends up at the edge

of the DP phase and its binding domain is *v*P. Thus, the possessor is no longer "closed off" for binding in the complement of D, which makes the reflexive possessives possible.

The facts, however, are not simple and deserve careful attention. In particular, in the Scandinavian languages, including Danish, Faroese, Icelandic, Norwegian and Swedish, there are two ways definiteness can be expressed in a noun phrase: by a suffix on the noun or by a prenominal determiner. Consider the following examples from Danish:

(18) a. hest-en b. den røde hest c. *hest-en røde. d. *røde hest-en. Danish

horse-def def red horse horse-def red red horse-def

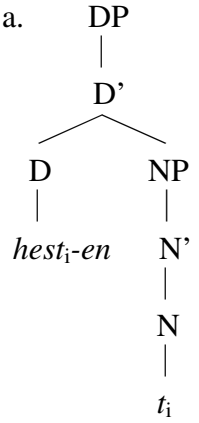
'the horse' 'the red horse'

In Danish definiteness has to be expressed by a prenominal determiner if the noun is modified by an attributive adjective (e.g., (18b)). The definite suffix, however, does not co-occur with attributive adjectives (e.g., (18c-d)). So the question is then whether reflexive possessives are also preceded by a free-standing article or not. In particular, the prediction of the present analysis is that reflexive possessives should never be preceded by such an article. I show below that this is indeed true, as noticed and discussed by a variety of authors.[16]

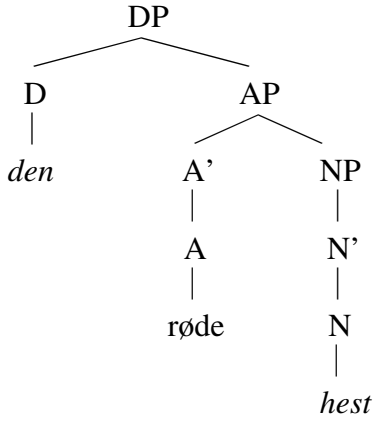
[16] The nature of the underlying principles that govern the contrast in (18) has been a topic of an extensive debate in the literature (e.g. Delsing 1993, Embick and Noyer 2001, Embick and Marantz 2008, Hankamer and Mikkelsen 2002, among others). In the interest of clarity and ease of exposition, I present here only one possible way of analyzing the facts at hand, namely, one which pursues a syntactic account of (18) (i.e., Delsing 1993). In Despić (2011) I discuss in detail an alternative way of dealing with these issues which is completely compatible with the non-syntactic analyses of the Danish definiteness marking. This particular choice, however, does not affect the main points of this paper.

Delsing (1993) pursues a movement-based analysis of (18), which I briefly summarize here. To account for these facts, Delsing argues that both (18a) and (18b) involve a definiteness marker base-generated in D, and that (18a) is derived by head movement of N to D, as illustrated in (19a). On the assumption that D can take an AP complement as well (which is in line with the present analysis; see (11a)), the adjective blocks head movement of N to D in structures like (18c-d). Being unable to move, the noun appears in situ, and definiteness marking is realized as the lexical definite article *den* in D (e.g., (18b)/(19b)).

(19) a.



b.



However, as has been often noted, in the Scandinavian languages in general possessive pronouns have certain properties in common with the definite article. In particular, the free-standing definite article and the prenominal possessive are in complementary distribution, as Icelandic examples in (20) show (Thráinsson 2007: 117). Also, Fiva (1987) and Delsing (1993) observe that the genitival *–s* and the reflexive possessive *sin* in Norwegian have the same restrictions in possessive constructions (e.g., (21); Delsing 1993: 160):

(20) a. *allar **hinar þínar** þrjár nýju kenningar b. *allar **þínar hinar** þrjár nýju kenningar

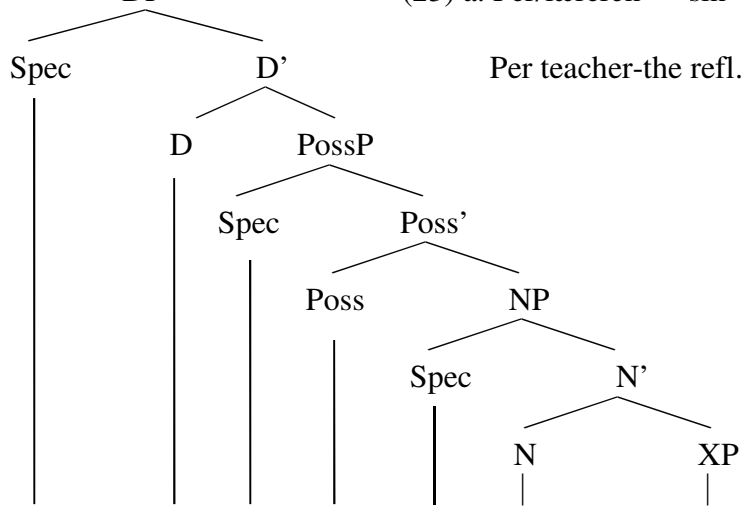
all the your three new theories all your the three new theories

(21) a. mannen med skjeggets hus b. mannen med skjegget sitt hus

man-the with beard-the's house[17] man-the with beard-the reflexive house

Following Fiva (1987), Delsing (1993) argues that the reflexive *sin* and the Mainland Scandinavian genitival *–s* are the same category. Delsing claims that both are generated in $Poss^0$, and since they are both inherently definite they must raise to D^0. He proposes the structure in (22) for constructions like the ones in (23) (Delsing 1993: 172):

(22)



a. Per_j $sitt_i$ t_j t_i t_j hus t_j
Per *refl* *house*

b. Per_j $-s_i$ t_j t_i t_j hus t_j
Per *'s* *house*

(23) a. Per/læreren sin bil b. Pers/lärarens bil

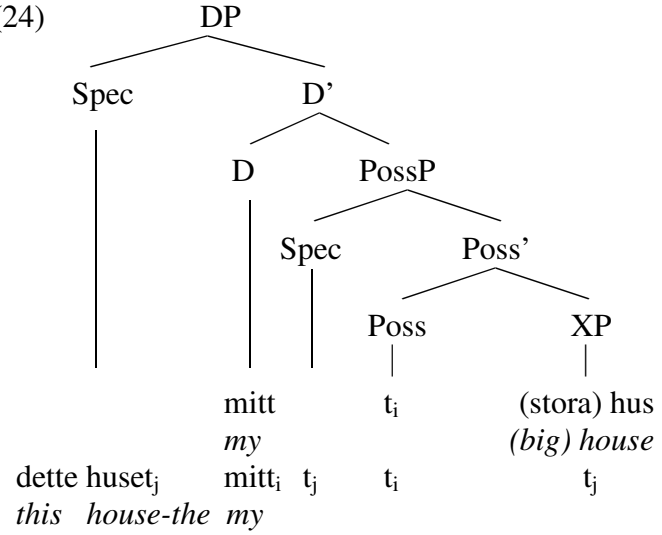
Per teacher-the refl. car Per's teacher-the's car

The proposal is that the possessor DP in (22) raises from the complement position of N to SpecDP. Furthermore, Delsing argues that all possessive pronouns in general are base generated

[17] The definite article suffixed to 'beard' is from the DP 'the beard'.

in Poss^0, and then raise to D^0, as in (24) (Delsing 1993: 173). In a nutshell, the claim is that phrases in front of the possessive pronoun are DPs, whereas phrases following the possessive pronoun are either NPs, APs or DegPs. More precisely, on Delsing's analysis Poss may select either NP, AP, DegP or DP as its complement. When DP is selected (i.e., when XP in (24) is a DP) it moves to SpecDP for case purposes. Delsing contends that with these assumptions we can derive all the orders in the Scandinavian possessive construction (see also Sigurðsson 1993, Thráinsson 2007, among many others, for further discussion).

(24)



Thus, there seems to be strong independent syntactic evidence that the reflexive possessor always raises to D in the Scandinavian languages. Specifically, nouns and possessors, in contrast to adjectives, move to DP and the postnominal definiteness marking observed in these languages can be argued to be a consequence of this movement. By hypothesis, this movement is triggered by some EF of D, is fairly local, and targets elements of a particular kind. To ensure that only nouns and possessors, but not adjectives, move to D we can assume that the moving element

must have categorial features [+N –V] (following the "traditional" theory of syntactic categories). The open issues and details which remain to be spelled out, such as the exact nature of this EF and the locality constraints it imposes, are language specific. Overall, however, it can be argued that the postnominal definiteness marking in the Scandinavian languages comes about as a consequence of general movement to D triggered by its EF.

Bulgarian also shows a "suffixed" definite article, which has a clitic-like distribution within the DP (see Franks 2001, Embick and Noyer 2001, and references therein). Unlike in Danish, however, this definiteness element appears suffixed to nouns, or, when they are modified by adjectives, suffixed to the first adjective in a sequence:[18]

(25) a. Kniga-ta b. Xubava-ta kniga
book-def nice-def book

The Bulgarian D in this respect minimally differs from its Scandinavian counterpart in that it attracts adjectives as well (via head movement, for instance), i.e., both [+N –V] and [+N +V] elements can satisfy EF of the Bulgarian D.[19] Thus, in both Scandinavian and Bulgarian

[18] A similar situation is found in closely related Macedonian (e.g., see Despić 2011).

[19] Note at the same time that Bulgarian (ia), in which the reflexive precedes the adjective, is highly preferred over (ib). In fact, (ia) is apparently quite odd and should be marked with at least two question marks (Penka Stateva, personal communication).

(i) a. Marija prodade svoja-ta nova kniga. b. ??Marija prodade nova-ta svoja kniga.
Mary sold self's-def new book
'Mary sold her new book.'

possessors are among the elements that move to D to satisfy its EF. Consequently, they end up being at the edge of the DP phase, hence in the higher, *v*P binding domain. This is in turn sufficient to explain the presence of reflexive possessives in these languages, given the general set of assumptions adopted in this paper. If C has EFs in certain languages but not in others (cf. e.g., the interrogative C), then D should not in principle be much different.

In this section I have argued that D in languages like Icelandic and Bulgarian has an EF and that this underlies the fact that these languages also have reflexive possessives. The resulting picture is the one in which the seeming complexity of the data results from an interaction of three independent syntactic factors: D may have EFs, D is a phase head and phases define binding domains. Finally, I should point out that the availability of reflexive possessives does not seem to depend on the way postnominal definiteness marking is spelled-out. For example, in Koromfe (a language spoken in the north of Burkina Faso) the postnominal definite article is clearly not a suffix, unlike in Danish and Bulgarian. Definiteness in this language is marked with a separate word, which is located at the end of the noun phrase (Rennison 1997, 234) (e.g., (26a)). At the same time, Koromfe has a reflexive pronoun *gɪllɛ* which can also be used as a reflexive possessive (Rennison 1997: 109) (e.g., (26b))[20]:

This is completely expected given that on the analysis presented here, DP in Bulgarian dominates PossP which in turn dominates AP. If the order between PossP and AP were not fixed we would expect (ib) to be grammatical as well. This also indicates that the reflexive possessor always moves to the edge of D in Bulgarian.

[20] The particle *a* in this example occurs before all common nouns which do not have some other prenominal modifiers (e.g., a possessive adjective or preceding noun with which it is compounded), and Rennison glosses it (somewhat unfortunately) as 'article'. However, an NP modified only by *a* is always indefinite; the postnominal definite determiner *hoŋ* in (26a) contributes definite interpretation (Rennison 1997: 81).

(26) a. a bɔrɔ hoŋ warəgɪ.

ART man+SG def. be tired

'The man is tired.' (Rennison 1997: 288)

b. də pa də gɪllɛ bi a sallɛ kebre.

PRON.3SG.HUM give PRON.3SG.HUM self child+SG ART plate + SG big+ SG

'He gave the big plate to his own son.'

2.4 DP as a Phase

In the previous sections I have contemplated a theory on which DPs, but crucially not NPs, correspond to phases and I have provided arguments based on empirical observations from a number of languages to support it. Now I want to consider a conceptual side of this claim and discuss its implications in the context of the Phase Theory in general. In particular, the question that needs further theoretical elaboration is why this would be the case, i.e., why should DP, in contrast to NP be a phase? The status of DP as a phase has been discussed by many (e.g., Adger 2003, Bošković 2005, Ticio 2003, Svenonius 2004, den Dikken 2007, etc.) and, as noted in the introduction, the absence of complete agreement on this issue is due in part to the fact that a variety of different definitions of phase have been proposed. Also, there is not a complete consensus on what defining properties of DP as a functional projection are. On this particular approach (see also Bošković 2005, 2008, to appear) the overt definiteness marking indicates the presence of DP in a language, which should in principle play a role in motivating the view that DP is phase.

Now, over the years, a variety of different types of arguments for the idea that CPs and *v*Ps are phases have been offered. Chomsky (2000) argues that the concept of phase, among other things, allows a major reduction in computational complexity; i.e., in order to avoid the issues of computational load Chomsky proposes that the access to *Lexical Array* (LA) is restricted and that phases, namely CP and *v*P, correspond to subarrays of LA which are placed in "active memory". At the same time, Chomsky (2000, 2001, 2004) suggests that phases exhibit properties of semantic integrity or completeness. In particular, CPs and *v*Ps are "propositional":

> "At SEM, *v*[*]P and CP (but not TP) are propositional constructions: *v*[*]P has full argument structure and CP is the minimal construction that includes tense and event structure and (at the matrix, at least) force." (Chomsky 2004: 124)

Following this line of reasoning I suggest that the phase status of a phrase in the nominal domain is crucially dependent on the availability of syntactic representation of definiteness. I suggest that syntactically represented definiteness, which is reflected in the presence of a definite article/DP in a language, is required for the TNP phase-hood;[21] in other words, syntactically represented definiteness is the crucial property of DP which makes DP, in contrast to NP, "complete' for the interface purposes, and hence a phase. It is just a simple fact of life that native speakers of article-less languages have to rely mainly on the contextual information to determine (in)definiteness of a noun phrase. Thus, structures like (27a-b) from Serbo-Croatian and Japanese are in multiple ways ambiguous with respect to (in)definiteness:

[21] Traditional noun phrase; I use this term here to avoid committing myself to the actual categorial status (DP/NP) of the phrase in question.

(27) a. Vidi! Mačka juri miša. Serbo-Croatian b. Neko-ga nezumi-o oikaketeiru. Japanese

Look Cat chases mouse Cat_{NOM} $mouse_{ACC}$ is chasing

'Look! The/a cat chases the/a mouse.' 'The/a cat is chasing the/a mouse'.

The two language types thus clearly encode (in)definiteness of noun phrases via two profoundly different strategies. It can be argued then with a reasonable force that in contrast to languages like English in which it is represented in the syntax, in article-less languages (in)definiteness belongs to a post-syntactic (semantic/pragmatic) component. Due to the lack of this syntactic representation of definiteness, however, TNPs in (27) are syntactically not "complete" in the same sense English TNPs are, and therefore, I suggest, do not qualify as phases. In other words, certain aspects of meaning which are syntactically encoded in English TNPs are absent at the syntactic level in (27), and have to be achieved at a post-syntactic stage.[22]

Thus, the theory that I have argued for so far is completely compatible with the general understanding of what phases are. If phases are complete semantic entities, i.e. thematically complete predicative categories and fully typed clauses (CPs marked for force, tense and mood) it makes sense to argue that the syntactic representation of (in)definiteness plays the crucial role in determining the phase-hood status of functional categories in the nominal domain. Specifically, on the theory that I argue for, TNPs are phases only in DP languages.

In the next section I will investigate some further consequences of the analysis developed here. In particular, given that one of the core assumptions of this paper is that D is a phase head

[22] Note in this respect that in terms of semantic analysis of these matters, Chierchia (1998) shows that the DP layer is not needed for argumenthood, arguing that languages vary with respect to the syntactic level at which reference to individuals is located (D or N). That is, NPs can function as arguments without any need for extra syntactic structure (see also Baker 2003, Chapter 3, for similar proposals).

my goal will be to draw a close parallel between C and D. Crucial to the discussion will be the claim that the D-Poss complex shares a variety of properties with the C-T complex. Specifically, I will entertain the possibility that the phasehood of CP and DP is in part determined by the character of the phrase they immediately dominate (i.e., TP and PossP, respectively). In other words, I will propose that CPs and DPs behave like phases only if they form a complex with TP and PossP, respectively, which is fully consistent with the line of reasoning presented above. I will show that such a view can shed new light on certain generalizations regarding languages that allow reflexives in the subject position.

3. C-T vs. D-Poss

If we seriously take into consideration my proposal that DP is a phase, we notice that D as a phase head patterns with C rather than with *v*, with respect to when its 'subject' (SpecPossP) is spelled-out:

(28) a. $[_{CP}$ C $\boxed{[_{TP}$ He drinks wine]]}, SPELL-OUT b. $[_{DP}$ D $\boxed{[_{PossP}$ His picture of Colorado]]}, SPELL-OUT

That is, the subject of a transitive sentence, which is generally assumed to be introduced in the Spec of vP, is unaffected by Spell-Out during the vP phase; it is not in the VP Spell-Out domain of that phase. The Spell-Out domain of CP, on the other hand, is TP and the clausal subject is affected by Spell-Out. DP is therefore in this respect similar to CP since the "subject" (i.e., possessor) of DP belongs to the complement of the D phase head. The idea that C and T are tightly connected to each other can be traced back to the early work in the Government and

Binding theory and was recently revived in Chomsky (2007, 2008). Chomsky proposes that all formal features that drive syntactic derivation are generated in phase heads (i.e., C and *v*), from where they are transferred to T and V, respectively. Specifically, it is proposed that the phase head C is the locus of Agree and Tense-features, and that subject agreement and EPP effects associated with T (e.g., A-movement of the subject to SpecTP) arise through the mechanism of *feature inheritance*, whereby uninterpretable features are passed down from the phase head to its complement. T is now, on this view, completely dependent on C and can no longer initiate operations independently of C. The system of Chomsky (2008), among other things, offers an explanatory account of the well-known observation that T in English ECM/raising constructions lacks tense and φ-features – there can be no tense and φ features on T in these constructions since they simply lack C. [23]

In this section I investigate some further aspects of the C-T system and juxtapose it with the D-Poss complex. In particular, I propose that in the C-T complex the dependency is bidirectional and that the phase-hood of C is determined by the presence of T. More precisely, I suggest that C without T is not a phase, or at most that it is a weak phase in the sense of Chomsky (2001). [24] If C as a phase head is the locus of formal features which are passed down

[23] The idea of an intrinsic connection between C and T is also present and formally implemented (although in quite a different way from Chomsky 2008) in the work of Pesetsky and Torrego (e.g., Pesetsky and Torrego 2004) which is essentially based on the assumption that T(ense) feature is present on C. See also Obata (2010) for more discussion on the C-T complex.

[24] Chomsky (2001) introduces a distinction between *strong* and *weak* phases, whereby defective (φ-incomplete, unaccusative/passive) *v*Ps are "weaker" than standard, transitive v^*Ps in that they do not trigger cyclic transfer. In other words, although they satisfy the propositionality criterion for phasehood (they are similar to strong phases in terms of the PF-LF integrity), weak phases are in contrast to strong phases "transparent" for certain type of syntactic

to its complement via feature inheritance, we can imagine that this mechanism will apply only if TP is the complement of C. Or, in other words, T is a designated target for feature inheritance from C, and no other non-phase head can mediate this process. When C is not matched with T, but with some other head, its phase-hood status is weakened; i.e., it is either a weak phase or not a phase at all. Phase heads may well drive all operations, but they cannot do this on their own: I thus hypothesize that the phase-hood of a head is crucially determined by the presence of a non-phase head of a particular type. Specifically, C is matched with T, and, I propose, D with Poss. To illustrate the ramifications of this proposal consider the following examples:

(29) a. John_i read [Bill_j's article about $\text{himself}_{*i/j}$]. b. John_i read [the article about himself_i].

Sentences like (29b) are standardly explained by assuming DP-internal PRO in (see footnote 10), but an alternative way of dealing with such structures would be to say that the object DP in these cases does not constitute the binding domain for the reflexive. That is, if we take seriously the proposal that D is a (strong) phase only when it is matched with Poss, we can also account for the data in question without necessarily appealing to the PRO analysis. More precisely, since the object DP in (29a) includes PossP, it counts as a phase and the reflexive pronoun therefore must be bound within that phase. In (29b), on the other hand, there is no PossP and for this reason the object DP is not a phase. Since it is transparent for binding, *himself* can be bound by the subject *John* in the *v*P phase. Note again that this analysis does not affect my analysis of LBE, which is

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dependencies, since they lack cyclic transfer and are therefore not subject to the *Phase Impenetrability Condition*. It is in this sense that I suggest C which is not matched with T might be a weak phase. For discussion (and criticism) of Chomsky's distinction between weak and strong phases see Legate (2003) and Richards (2004).

explained via the structures in (11) and not the phase-hood status of D per se.[25] A strong piece of evidence in support of the proposed analysis comes from constructions involving ellipsis, which were already introduced in section 2. As discussed in Jackendoff (1971), Saito and Murasugi (1990), and many other places, ellipsis in the nominal domain in English is possible only when it strands a genitive phrase (e.g., (30)). We can account for these facts in a straightforward way under the current model if we assume that only phase heads can license ellipsis of their complement (e.g., Boeckx 2009, Gengel 2009, D. Takahashi 2002, M. Takahashi 2011). Thus, the D head of the object DPs in (30a-b) is paired with PossP and therefore counts as a phase, which explains why ellipsis is possible in such examples. On the other hand, since there is no PossP in the object DP in (30c-d), the D head in question does not count as a phase head, and consequently cannot license ellipsis of its complement. Finally, the pronominal possessor in (30e) does not license ellipsis because it occupies a position within the PossP (see section 2); i.e., although it is important in determining the phase-hood status of DP, the Poss head itself never counts as a phase head, hence cannot trigger ellipsis of its complement - the relevant structures are shown in (31) below (see also footnotes 13 and 14):[26]

[25] This analysis is also compatible with some works on DP-internal binding. For instance, while Bhatt and Pancheva (2001) argue that in the case of verbs like *tell* the object DP-internal subject PRO is obligatory, they suggest that PRO may be optional or in fact always absent with verbs like *hear*. See also Hicks (2009).

[26] As for structures such as (i), see Zribi-Hertz (1997) (and references therein) for an analysis of the dual behavior of English possessives:

(i) Whatever this is, it's mine.

Zribi-Hertz argues that structures like (i) involve an adjectival possessive which is lexically derived (i.e., we are not dealing here with the D head *'s* + ellipsis; there is in fact no ellipsis in (i)).

(30) a. They could read their own files, but they could not read each other's ~~files~~.

b. They could read their own files, but they could not read John's ~~files~~.

c.*I have seen the book, but I haven't had a chance to read the ~~book~~.

d.* I have edited a book, but I haven't written a ~~book~~.

e.*They could read their own stories but they could not read my ~~files~~.

(31) a. $[_{DP}$ each other $[_{D'}$'s $[_{\sout{PossP}}$ $\sout{[_{Poss'}\ Poss\ [_{NP}\ files\ ]]]}]]$.

b. $[_{DP}$ John $[_{D'}$'s $[_{\sout{PossP}}$ $\sout{[_{Poss'}\ Poss\ [_{NP}\ files\ ]]]}]]$.

c. $[_{DP}\ [_{D'}$ the $\sout{[_{NP}\ book\ ]}]]$.

d. $[_{DP}\ [_{D'}$ a $\sout{[_{NP}\ book\ ]}]]$.

e. $[_{DP}\ [_{D'}$ D $[_{PossP}$ my $[_{Poss'}$ Poss $\sout{[_{NP}\ files\ ]}]]]]]$.

Moreover, the facts in (30) lend further support to the analysis of the English DP advanced earlier, on which reciprocal and pronominal possessors in English occupy different structural positions; i.e., while the reciprocal possessor and full DP possessor are in SpecDP, pronominal possessors are in the complement of the D head (i.e., PossP), hence they cannot license ellipsis.[27] Now, if D without Poss is transparent for binding, as I suggest, then we may expect similar to hold for the C-T complex; i.e., the prediction is that C without T is not a phase either (or it is a type of weak phase) and should then be transparent for certain types of dependencies, including binding dependencies. In particular, it is predicted that in languages without T reflexives in subject positions should be possible, since CP would not count as a phase.

[27] A question arises as to why the PossP complement of the null D head cannot be elided in such constructions. This would, however, give us the same result as full argument ellipsis, which, as is well-known (see e.g., Saito (2007) and references therein), is not possible in English, in contrast to e.g. Japanese. I speculate that this is relevant here.

Among the languages that have been independently argued to lack TP is Japanese, and interestingly enough Japanese allows subject anaphors, as shown in (32a). Unlike the simplex anaphor *zibun*, the complex reflexive *zibun-zisin* is strictly local and subject oriented (e.g., (32b)):

(32) a. John$_1$-wa [$_{CP}$[$_{IP}$ zibun-zisin$_1$-ga Mary-o korosita] to] omotteiru.

TOP self NOM ACC killed that think

'John$_1$ thinks that he$_1$ killed Mary.' (Aikawa 1994: 2)

b. John$_1$-wa [$_{CP}$[$_{IP}$ Mary$_2$-ga zibun-zisin$_{*1/2}$-o hihansita] to] itta.

TOP NOM self ACC criticized that said

'John$_1$ said that Mary$_2$ criticized her$_2$ (*him$_1$).' (Aikawa 1994: 1)

More precisely, among the Japanese reflexives, *zibun* is a long distance anaphor, whereas *zibun-zisin* and *kare-zisin* are local anaphors (e.g., (33)). Also, *zibun-zisin* and *zibun* are strictly subject-oriented, whereas *kare-zisin* is not. As shown in (33), the non-subject *Mike* is a possible antecedent for *kare-zisin*, but not for *zibun* or *zibun-zisin*. However, even though *zibun-zisin* and *kare-zisin* are local anaphors, they can both occupy the subject position and be bound across a CP boundary (just like the long distance anaphor *zibun*) (e.g., (34)):[28]

[28] Note again that since *kare-zisin* is not strictly subject-oriented, it can be anteceded either by *John* or *Bill* in (34b). Richards (1997) argues in this respect that *zibun-zisin* is strictly subject oriented because it is underspecified for φ-features, in contrast to *kare-zisin* (which is a complex anaphor containing the pronoun *kare* 'him'). See also Safir 2004 (Section 6.3.3), Richards (1997), and references therein, for a discussion of why *kare-zisin* is different from Scandinavian complex "pronoun-self' anaphors (like Norwegian *ham-selv*) in that it is not anti-subject oriented.

(33) a. John$_i$-ga [Bill$_j$-ga Mike$_k$-ni *zibun*$_{i/j/*k}$ –no koto-o hanasita to] itta.

John$_{NOM}$ Bill$_{NOM}$ Mike$_{DAT}$ self$_{GEN}$ matter$_{ACC}$ told that said

'John said that Bill told Mike about him.'

b. John$_i$-ga [Bill$_j$-ga Mike$_k$-ni *zibun-zisin*$_{?*i/j/*k}$ –no koto-o hanasita] to itta.

John$_{NOM}$ Bill$_{NOM}$ Mike$_{DAT}$ self$_{GEN}$ matter$_{ACC}$ told that said

'John said that Bill told Mike about him.'

c. John$_i$-ga [Bill$_j$-ga Mike$_k$-ni *kare-zisin*$_{?*i/j/k}$ –no koto-o hanasita] to itta.

John$_{NOM}$ Bill$_{NOM}$ Mike$_{DAT}$ self$_{GEN}$ matter$_{ACC}$ told that said

'John said that Bill told Mike about him.' (Katada 1991: 289)

(34) a. John$_i$-ga Bill$_j$-ni [*zibun-zisin*$_{i/*j}$-ga katta to] itta.

John$_{NOM}$ Bill$_{DAT}$ self$_{NOM}$ won that said

'John told Bill that he won.'

b. John$_i$-ga Bill$_j$-ni [*kare-zisin*$_{i/j}$-ga katta to] itta.

John$_{NOM}$ Bill$_{DAT}$ self$_{NOM}$ won that said

'John told Bill that he won.' (Katada 1991: 289)

Importantly, when these anaphors occupy the subject position their domain extends only one clause up, i.e., they cannot be bound across two CPs:

(35) John$_i$-ga Peter$_j$-ga kare-zisin$_{*i/j}$-ga Bill-o hihansita-to ommotteiru koto-o sitteiru.

John$_{NOM}$ Peter$_{NOM}$ self$_{NOM}$ Bill$_{ACC}$ criticized$_{COMP}$ think comp$_{ACC}$ knows

'John$_i$ knows that Peter$_j$ thinks that he$_{*i/j}$ criticized Bill.' (Progovac 1993: 761)

The fact that *zibun-zisin* and *kare-zisin* are grammatical in the sentential subject position and can be bound across one CP boundary is very interesting. On the present approach, the binding domain for *kare-zisin* in (35), for instance, is the *v*P phase *think*; since C without T is not a phase, the reflexive subject of the most embedded clause in (35) is bound by the external argument of the *v*P *think* (i.e., Peter). That is, although C without T is a not a phase, *v*P is a phase, and *kare-zisin* in (35) must be bound in the first phase that dominates it, namely the *v*P phase *think*. Consequently, it cannot be bound by the highest subject *John*.[29]

Now, there are number of independently motivated arguments in support of the view that Japanese lacks TP. For example, following the work of Fukui (1986, 1988) and Osawa (1999) among others, Bošković (to appear) suggests that a language like Japanese has temporal verbal morphology and that the tense in this language is interpreted on the verb. The proposal is that the tense feature of V can be interpretable in a language. In such a language there is no semantic

[29] The empirical interest of this section lies in local anaphors like *kare-zisin* which can occupy the subject position of a sentence and still be bound by an antecedent in the next clause up but not any further, which is essentially a type of local binding across the CP boundary. Anaphors like *o eaftos tu* in Greek, for instance, discussed by Anagnostopoulou and Everaert (1999) fall outside of scope of this paper since they represent a different phenomenon. As illustrated in (i) *o eaftos tu* can appear in the subject position under certain conditions, displaying the lack of usual configurational effects, but it is still bound sentence-internally, which is very different from subject reflexives examined in this section; i.e., whether or not CP is a phase is not relevant here (see also Amiridze 2006, for similar facts from Georgian):

(i) O eaftos tu_i tu aresi tu $Petru_i$.

[the self his](N) CL(D) likes the Petros(D)

'Himself pleases/appeals to Petros.' Anagnostopoulou and Everaert (1999:108)

need for T, as far as temporal interpretation is concerned, since temporal interpretation comes from the verb.[30] Also, the distribution of nominative case in Japanese is quite peculiar:

(36) a.*Civilized countries, male, the average life span is short

b. Bunmeikoku-ga dansei-ga heikinzyumyoo-ga mizikai (Kuno 1973)

Civilized countries$_{NOM}$ male$_{NOM}$ average lifespan$_{NOM}$ short

'It is civilized countries that men, their average lifespan is short in.'

Bošković hypothesizes that nominative case is not a structural case in non-TP languages, which allows him to maintain T as the sole source of structural nominative licensing cross-linguistically. Saito (1985) has argued that Japanese *–ga* is indeed not a structural case (i.e., licensed by tense), since in many respects it simply does not behave like regular nominative case. As illustrated in (36b), in addition to the subject, non-subjects can also receive *–ga*. Moreover, Fukui and Sakai (2003) observe that *–ga* can attach to non-constituents, and that PPs and some clauses such as those headed by *-ka* 'Q' can also get *–ga*. This clearly indicates that Japanese *-ga* has special properties, quite different from standard assumptions regarding structural nominative.[31] In other words, Japanese *–ga* clearly does not behave like regular structural nominative case. The more general point is that it can be argued with a reasonable force that Japanese lacks TP given its tense and nominative case characteristics.[32]

[30] See also Osawa (1999), Fukui (1986) and Whitman (1982) for similar type of analyses.

[31] Another illustration of the non-standard behavior of *–ga* is the well-known operation of *ga/no* conversion.

[32]See Tanaka (2002) and Nemoto (1993) for arguments that A-movement across CP is possible in Japanese.

Korean is in this respect very similar to Japanese. For instance, nominative case in Korean does not behave like regular TP-assigned structural case in DP languages; there are multiple nominative constructions in Korean where non-subjects also receive nominative case (e.g., (37) see Kang 2011). Most importantly, Korean also allows anaphors in the subject position. Like Japanese, Korean has both local and long distance reflexives (e.g., (38)).

(37) Ecey-pwuthe-ka nalssi-ka coaciessta

Yesterday-from-$_{NOM}$ weather-$_{NOM}$ good.become

'From yesterday the weather became good.'

(38) a. Chelswu$_i$-nun [Yenghi$_j$-ka casin$_{i/j}$-ul silheha-nun kes]-ul molunta.

Chelswu-TOP Yenghi-NOM self-ACC hate-ADN fact-ACC not-know

'Chelswu didn't believe that Yenghi hates himself/him.'

b. Chelswu$_i$-nun [Yengh$_i$-ka caki-casin$_{*i/j}$-ul silheha-nun kes]-ul molunta.

Chelswu-TOP Yenghi-NOM self-ACC hate-ADN fact-ACC not-know

'Chelswu didn't believe that Yenghi hates himself/*him.' (Cole and Sung 1994:358)

Although *caki casin* in (38b) is a local anaphor, it can be anteceded by an argument in the matrix clause when it occupies the subject position of the embedded clause. However, it can only be bound by an argument in the next clause up, just like the local anaphors in Japanese. Any binding beyond the next clause up is not possible (only *Mary* can bind it in (40)):

(39) John-un caki casin-i chencayla-ko mitnunta.

John-$_{TOP}$ self-$_{NOM}$ genious-be-comp believe

'John believes that he is a genious.'

(40) John$_i$-un [Mary$_j$-ka [caki-casin$_{*i/j}$-i ttokttokha-ta]-ko sayngkakha-n-ta]-ko malha-ess-ta.

John-TOP Mary-NOM self-NOM be-smart-DECL-COMP think-PRES-DECL-COMP tell-PAST-DECL

'John told that Mary thinks that he/she is smart.' (Sung 1990: 72)

Kang (2011) also argues on independent grounds that Korean lacks TP, and to the extent that this argument can be maintained the Korean facts presented above lend further support to the view that CPs without TPs are not phases (or at least that they are in some sense "weaker" than when they combine with TPs) (see also Shon *et al.* 1996 for a similar view of Korean).

Another relevant language in this respect is Chinese. It is a well-known fact that Mandarin Chinese has both long distance and local anaphors, as shown in (41)-(42), respectively.

(41) Zhangsan$_i$ renwei Lisi$_j$ zhidao Wangwu$_k$ xihuan ziji$_{i/j/k}$. (Cole and Sung 1994:355)

Zhangsan think Lisi know Wangwu like self

'Zhangsan thinks Lisi knows Wangwu likes him/himself.'

(42) Zhangsan$_i$ renwei Lisi$_j$ zhidao Wangwu$_k$ xihuan ta ziji$_{*i/*j/k}$. (Cole and Sung 1994:357)

Zhangsan think Lisi know Wangwu like him self

'Zhangsan thinks Lisi knows Wangwu likes himself.'

Even though *ta ziji* in (42) is a local anaphor, it may occupy the subject position of an embedded clause (e.g., ((43)). However, as pointed out by Sung (1990), *ta ziji* in such cases can only be

bound by an antecedent in the next clause up and "…any further binding beyond the next clause up is precluded" (Sung 1990, 72), which closely resembles the situation in Japanese and Korean.

(43) Xiaoming$_i$ xiangxin ta ziji$_i$ neng kaoguo. (Sung 1990: 71)

Xiaoming believe himself can pass the exam

'Xiaoming believes that he himself can pass the exam.'

It has been argued by a number of authors, at the same time, that Mandarin Chinese lacks TP (e.g., Lin 2002, 2003, Smith and Erbaugh 2005, Bošković to appear, among many others). As shown in Lin (2002, 2003), tense morphology in Mandarin Chinese is not grammaticalized; this language expresses its temporal reference either by temporal adverbs, aspectual markers, or the context in which a given sentence is uttered. Lin also argues that in sentences with no adverbials or aspectual markers temporal interpretation comes from aspect. In a nutshell, it is argued that in such cases sentences that describe perfective telic situations have a past interpretation, whereas sentences that denote imperfective atelic situations have a present interpretation (see Lin 2002, 2003 for details). Similarly, Smith and Erbaugh argue that aspectual, lexical, and adverbial information and pragmatic principles all contribute to the interpretation of temporal location in Mandarin Chinese. In particular, aspectual viewpoint and situation type give information in the absence of explicit temporal forms.

Woolford (1999) notes that Thai and Vietnamese also allow their reflexive pronouns to occupy the subject position (and be anteceded by an argument in the higher clause) ((44)-(45)):

(44) *Thai* (Woolford 1999: 263):

Sŏmmăay$_i$ khít wâa tuaʔeeŋ$_i$ ca dây pay.

Somai think that self FUT get go

'Somai$_i$ thinks that he(self)$_i$ will get to go.'

(45) *Vietnamese* (Woolford 1999: 262)

Anh-ấy$_i$ e răng mình$_i$ cũng không khỏi tội.

He fear that self also not avoid sin

'He$_i$ is afraid that he(self)$_i$ will not avoid punishment.'

(46) Chán tháaw too.

I foot big

'I have big feet.'

Similarly to Korean and Japanese, Thai has the so-called "double subject" construction (e.g., (46)). As discussed in Kumashiro and Langacer (2003), the expressions in question have the basic form [NP1 [NP2 PREDICATE]]. [NP2 PREDICATE] is a clause-like nucleus; NP1 has a topic-like function with respect to this nucleus; and both noun phrases have some claim to being subjects. Iwasaki and Ingkaphirom (2005) call these expressions "topic with a clausal comment" (Iwasaki and Ingkaphirom 2005: 360).

As for Vietnamese, Thompson (1987) argues that "the opposition of subject and object, so important in English, is simply not a part of Vietnamese system. This fact is clearly connected with the lack of grammatical "voice" connotations in the verb" (Thompson 1987: 226). He argues that "Vietnamese verbs are in themselves also timeless. They establish only the fact that a particular action, series of actions or state of affairs is in effect. They depend entirely on the linguistic and situational context for their reference to relative time." (Thompson 1987: 218).

Another potentially relevant set of facts in this context comes from Tamil, a Dravidian language with no definite articles (Schiffman 1999: 36). Tamil has a reflexive pronoun *taan*

whose oblique form *tan-* can function as a genitive/possessive form (Schiffman 1999: 121). As discussed in Woolford (1999), *taan* can appear in the subject position and be bound by an element across the sentential boundary (e.g., (47)). At the same time, Tamil has a very interesting distribution of nominative case. McFadden and Sundaresan (2008) observe that in Tamil, infinitival clauses can function as purposive or temporal adjuncts, and that such infinitives can appear either with an implicit subject which has to be coreferent with a matrix argument, as in (48a), or with an overt non-coreferential subject in the nominative case, as in (48b).

(47) Taan varrataa Murukeecan connaaru.

self come$_{(\text{PRES/NOMINALIZING SUFFIX/ADVERBIALIZING SUFFIX})}$ Murugesan say$_{(\text{PAST/3SG/HONORIFIC})}$

'Murugesan said he (himself) was coming.' (Woolford 1999: 269)

(48) a. [PRO poori porikka] raman maavu vaangi-n-aan

PRO poori fry$_{\text{INF}}$ raman$_{\text{NOM}}$ flour$_{\text{ACC}}$ buy-$_{\text{PST/3MSG}}$

'Raman bought flour to fry pooris'

b. [**vasu** poori porikka] raman maavu vaangi-n-aan

vasu$_{\text{NOM}}$ poori$_{\text{ACC}}$ fry$_{\text{INF}}$ raman$_{\text{NOM}}$ flour$_{\text{ACC}}$ buy-$_{\text{PST/3MSG}}$

'Raman bought flour for Vasu to fry poori.'

Also, Sarma (1999) observes that infinitival complements in Tamil may either be subject controlled or take an overt NP as the external argument. Tamil is therefore another example of a language which permits anaphors in subject positions and at the same time exhibits exceptional behavior with respect to the distribution of nominative case. It can therefore be argued, along the lines of Bošković (to appear), that nominative case in Tamil (just like in Japanese and Korean) is

not what is standardly assumed to be structural case assigned by T, and that this language lacks TP.[33] Given that on the present account CP without TP is not a phase, it is not surprising that Tamil admits subject anaphors (with an antecedent in the higher clause). [34,35]

To summarize, my goal in this section has been to draw a close parallel between C and D. I have explored the possibility that the phasehood of CP and DP is in part determined by the character of the phrase they immediately dominate. In particular, I have suggested that CPs and DPs work as phases only if they combine with TP and PossP, respectively. I have argued that such an analysis can explain the binding facts introduced in Section 2, and at the same time shed new light on the nature of subject anaphors. If phases are complete semantic entities, i.e. thematically complete predicative categories (*v*Ps and DPs with all θ-roles assigned) and fully

[33] As in Bošković (to appear), we can assume that this non-standard nominative is either a default case or assigned by some functional projection other than TP.

[34] This should be understood as a one way correlation; i.e., there might be TP-less languages without subject anaphors. I leave open here what factors other than the absence of TP may block the availability of subject anaphors in a language.

[35] A number of authors (Rizzi 1990, Woolford 1999,etc.) have observed that anaphors are cross-linguistically incompatible with syntactic positions that trigger agreement (both subject and object agreement). This has been known as the *Anaphor Agreement Effect* (AAE). One might therefore argue that languages discussed above allow subject anaphors not because they lack TP but rather because they lack agreement. This proposal would be problematic at least for two reasons. First, Tamil has agreement and subject anaphors in Tamil do trigger agreement as shown by Selvanathan and Kim (2008), contra Woolford (1999). And second, there are languages like Swedish (arguably a TP language), which do not allow subject anaphors, even though they completely lack subject-verb agreement. The facts of this sort are not problematic for the current analysis on which the crucial factor for the availability of subject anaphors is the absence of TP. Although I do not question its validity, I believe that the AAE by itself cannot explain why certain languages allow subject anaphors (see Despić 2011 for a more detailed discussion of this issue).

typed clauses (CPs marked for force, tense and mood), then it makes perfect sense to argue that DP without Poss is not a phase and that CP without TP is not a phase. In other words, if CP as a phase is the minimal construction that among other things includes tense, then it should not be implausible to assume that CP which doesn't include tense is not a phase. Tense morphology in Mandarin Chinese is not grammaticalized, just like definiteness in Latin (and Mandarin Chinese) is not grammaticalized. Thus, Mandarin Chinese expresses its temporal reference either by temporal adverbs, aspectual markers, or the context in which a given sentence is uttered, which is fundamentally different from the strategy that characterizes languages like English.

Since CP is not a phase and a binding domain without TP, the availability of subject anaphors in a given language on this approach crucially depends on whether or not that language has TP. I have presented evidence in this section which shows that languages that permit anaphors in the subject position can be (and often are) independently argued to lack TP. By giving up the commitment that functional categories like DP and TP are universal, I believe I offer a fresh, and possibly simpler, perspective on the issues of phases and binding domains.

4. Summary

The primary contribution of this paper, as I see it, has been to offer a refinement of the existing views on the nature of DP and reflexive binding in the realm of the current phase theory. I have argued that in order to explain the puzzling correlation between reflexive possessives and definiteness marking originally observed in Reuland (2007, 2011), and supported here by additional cross-linguistic evidence, in a manner consistent with other well-established generalizations concerning definite articles (i.e., LBE), one needs to develop an analysis which incorporates the following assumptions: (i) phases are local binding domains, (ii) in addition to

CP and *v*P, DPs are phases, and (iii) DP is not universal; more specifically, whether or not a language has DP crucially depends on whether or not it encodes definiteness overtly.

In section 3, I have explored a question that naturally follows from the hypotheses underlying the proposal laid out in section 2, namely, if D as a phase head constrains binding relations in a particular way, can similar patterns of behavior be found with C? I hope I have shown on the basis of a number of languages that such parallelism can be established and that this line of argumentation can provide new insights into the inner workings of subject reflexives. More specifically, I have proposed that CPs and DPs behave like bona fide phases only if they form a complex with TP and PossP, respectively, and that the lack of TP is the crucial reason why many languages allow reflexives in the subject position. The full force of this proposal remains to be exploited, but I believe that the observations made in this section are at this point certainly general enough to support the main claims of the paper.

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